Apple Growth Challenges Campus Wi-Fi

Managing BYOD to strive for Uninterrupted Learning

"Students expect to be able to work, learn, and study whenever and wherever they want to." Whether provided by their institutions, or due to the bring your own device (BYOD) phenomenon, today's campus IT professionals are overseeing an explosion in Apple devices such as MacBook®, iPad®, iPod®, and iPhone® – both for collaboration in classrooms and for recreation in residence halls. Users expect to be connected immediately, and stay connected – but long login times, bandwidth-hogging older devices, roaming issues, a chatty Bonjour® protocol, and the capacity crunch of hundreds of students with thousands of iDevices in a lecture can all lead to unmet expectations and "interrupted learning."
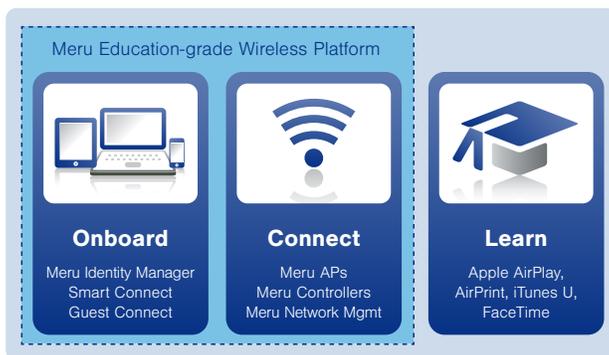
> **Interrupted Learning occurs when technology gets in the way of, or fails to support, your innovative goals for technology integration.**

Meru Education-grade Wireless Platform

Meru's virtualized wireless network and identity management solutions have helped many institutions worldwide overcome their wireless BYOD challenges by offering every IT professional the freedom of choice, flexibility of deployment, and confidence of control – despite constant change and accelerating wireless growth. To help you strive for Uninterrupted Learning, we offer the Meru Education-grade (MEG™) wireless platform.

> **MEG Wireless is a unique platform from Meru Networks designed to solve many of your BYOD issues and launch your learning-essential applications based on Apple iDevices.**

It starts with three simple steps: Onboard, Connect, and Learn.

Meru Education-grade Wireless Platform

Onboard
Meru Identity Manager
Smart Connect
Guest Connect

Connect
Meru APs
Meru Controllers
Meru Network Mgmt

Learn
Apple AirPlay,
AirPrint, iTunes U,
FaceTime

[1] Gartner Research, Mark Hung, Market Trends: Future Platforms for Wi-Fi Growth, 2011-2015, June 29, 2011

Solution Benefits

Onboard
Meru's Identity Manager software suite automates provisioning of iDevices for 802.1X to get students and faculty onto your network quickly and securely.

Connect
Meru's unique virtualized WLAN portfolio of 802.11n access points, controllers, and network management software keeps students connected to their data, and to each other.

Learn
Deploy flipped classrooms and hybrid learning using iDevices over the MEG wireless platform, including AirPlay® and AirPrint™.

"*We started issuing iPads to freshmen two years ago, and will now include nearly all full-time students as of this year... Using AppleTV and AirPlay in the classroom for both faculty and students is a perfect adjunct to the use of the iPad as a mobile teaching tool in higher education.*"

Peter Harvin, CIO, Anderson University

ANDERSON UNIVERSITY

Apple-centric Wi-Fi in 3 Steps

Onboard

- Connecting Apple devices to your campus network is a breeze. Smart Connect is a module in Meru's Identity Manager (IDM) software suite that automates device onboarding, even with 802.1X authentication.

- Meru IDM supports OSX and iOS, automatically presenting optimized captive portal screens based on device form factor, such as MacBook, iPad, or iPhone.

- Extend IT policies by placing students, faculty, administration, and guests on the correct access point, SSID, VLAN, or—uniquely from Meru—the desired channel layer.

Connect

- Apple Bonjour services such as AirPlay and AirPrint are supported on your Meru network for your faculty and students to collaborate on work in the classroom, or for music and video streaming in the residence halls.

- Meru provides a comprehensive portfolio of access points and wireless controllers so you can provide ubiquitous coverage in classrooms, lecture halls, libraries, stadiums, outdoors, and even teacher and staff homes for pandemic preparedness. Like other vendors, Meru supports traditional planning-intensive deployment modes, but Meru's unique single-channel architecture simplifies deployment by eliminating extensive channel planning. Our Virtual Cell technology is designed to provide seamless mobility and predictable voice and video performance, and our channel layering delivers nearly twice the capacity of competing solutions in dense environments such as lecture halls, libraries, and computer labs. This architecture is enabled by unique RF virtualization technology that puts the control back in the network.

- With Meru's E(z)RF® Network Management Suite, you can quickly troubleshoot iDevice issues with a "DVR" for your WLAN, proactively report problems before students notice them, and find interference sources that are impacting service.

Figure 1. A sea of MacBook computers facing a lecturer.

Learn

- **_Education._** Instructors are using Apple devices and services to engage students and add interactivity and flexibility to their teaching. They record lectures and upload to iTunes U, and use AirPlay and Apple TV with iPads to screen share, turning traditional one-way lectures into rich, collaborative sessions where students and instructors build content together. Many depend on student devices like iPhones and iPads to deliver online assessments and conduct on-the-fly polls to measure student understanding of a topic – a popular trend in large lecture classes where instantly measuring student understanding is close to impossible.

- **_Recreation._** For students living on campus, residence halls are their "home away from home," so they expect their wireless to work the way it does at home, with AirPlay for streaming iTunes movies and music and television shows over AppleTV, downloading video games on their iPads and iPhones, updating their Facebook pages on their Macs, and using Apple Facetime® to stay in touch with friends and family.

About Meru Networks

Meru Networks (NASDAQ: MERU) designs, develops, and distributes virtualized 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, virtualized 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 or call (408) 215-5300 for more information.

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