

## CASE STUDY | HIGHER EDUCATION



# Kingsborough Community College

Campus-wide Wi-Fi with easy access for guests and students makes business sense



### **Business Profile**

Every year 35,000 people take accredited and continuing education classes at Kingsborough Community College in Brooklyn, New York. Kingsborough is also a vital presence in the community, sponsoring conferences and events attended by 200,000 people a year.

#### Challenges

- Improving communications with students.
- Providing Wi-Fi coverage everywhere on a 77-acre campus.
- Upgrading Wi-Fi service for public venues that generate revenue.

### **Deployment Summary**

- 600 Meru AP320 access points installed with up to 300 more planned.
- Two Meru MC4200 controllers.
- Identity Manager implemented on a virtualized platform for convenient, secure guest and student access.
- E(z)RF<sup>®</sup> Network Manager for a trouble-free user experience.
- Spectrum Manager to watch over the RF space.

#### **Benefits**

- Direct, targeted communications to accelerate student success.
- Easy Wi-Fi access for registered guests and students.
- Investment protection and a roadmap for technology.
- Event venue value enhancement.

"Meru Networks' Identity Manager is a tool we use to improve the college experience for students and meet our goals for student retention and transfer to four-year universities."

– Asif Hussain, CIO



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## Mobility meets college objectives

Kingsborough Community College has the same objectives as other U.S. community colleges: graduate more students; accelerate the transfer of more students to four-year universities; and supplement shrinking public funding to support academic programs. A costeffective, high-performing, simple-to-manage wireless network is doing its part to help Kingsborough reach those objectives.

Kingsborough Community College wants uninterrupted wireless network coverage everywhere on the 77acre campus: in 197 smart classrooms as well as the common areas of 19 classroom buildings; in the old cinderblock military barracks that have been converted to classrooms; in every seat of the two theaters; on the marina and the private beach, the baseball diamonds, and the miles of walkways–everywhere and all the time for the 10,000 to 15,000 students, faculty, and visitors who come to the campus each day. "When people go from one building to another, they shouldn't have to lose their connection and have to reauthenticate," says Asif Hussain, CIO.

"The decision to invest in 100 percent Wi-Fi coverage was a business decision," says Hussain. It attracts many partnerships that are good for the academic standing of the college as well as events that bring in revenue and engage the public. It also improves the instructional environment and college experience for students.





This vision for a wireless network was a far cry from reality in 2008. While waiting for the wireless standards to sort themselves out, the college had installed some Wi-Fi hotspots around campus as a temporary measure. In 2009, Hussain began implementing a permanent and pervasive network solution from Meru Networks.

#### A trouble-free "self-service" network

The chief requirement for Kingsborough's wireless network is that it be virtually "self-service." To Hussain, that means two things: his four full-time and two parttime network staff members should spend very little time managing the network; and students and guests should be able to get on and stay on the network with no instruction or assistance needed.

Meru Identity Manager provides separate, secure, easy-to-use portals for guest registration and student authentication. Kingsborough is able to apply different security policies for guests and students, allowing guests Internet access while shielding the university intranet from intrusion. Once on the wireless network, users can move about the campus freely without having to reconnect. This "self-service" network is possible because all the access points (APs) are on one channel and the Meru WLAN manages the efficient handoff from one AP to another as users roam about the entire campus.

The college implemented the campus-wide network in phases. In Phase 1 all the existing hot-spot APs were replaced with Meru APs. In Phase 2, coverage was expanded in the public spaces, such as the theaters. In Phase 3, all classrooms were covered. In Phase 4, all outdoor areas were covered. "Even yachts passing our dock should be able to get wireless access," quips Hussain.

#### Zero helpdesk calls in two years

Since installing the Meru WLAN, the Kingsborough Community College helpdesk has received no trouble



calls related to getting on and staying on the wireless network. "Because of the reliability and the management tools that Meru has to offer, there have been no issues," says Hussain. Instead of

troubleshooting and fixing network problems, his staff concentrates on expanding the network and on projects that advance the objectives of the college.

#### A revenue generator for scholarships and programs

A reliable, high-performing Wi-Fi network is vital to the business of Kingsborough. It helps attract and maintain many partnerships with academic and research organizations, such as the National Oceanographic and Atmospheric Administration (NOAA), which use the college facilities. The college also brings in significant revenue from renting its two theaters and other facilities for conferences, seminars, lectures, plays, and concerts. This revenue funds scholarships and programs that expand educational opportunities for the residents of Brooklyn.

"Organizations that use the college facilities expect the best wireless service," says Hussain. For that reason, upgrading the network to accommodate a high density of users and devices was a top priority when the college recently renovated its theaters. "Our advanced Wi-Fi network helps attract world-class events and conferences to Kingsborough campus and raise money for our scholarship funds. With the Meru Identity Manager Guest Connect module, we can simply and easily give campus guests registered access to a really great Wi-Fi network and be sure that it is used in the way it is intended." "As we move forward, we want to work with a company that has the technology roadmap that will protect our investment and also help us support technologies and innovations coming in the future. That's why we are working with Meru Networks."

#### Improved services accelerate student success

Kingsborough has an objective to transfer students to four-year universities in three years. Meru Identity Manager is helping. Students receive direct, targeted communications, based on a variety of demographic parameters that help them stay on track, such as alerts about deadlines, reminders about requirements, and information about financial aid and scholarship opportunities. The communications are sent to the student's campus email, which students frequently access on their mobile devices. and show up when they log on to the Identity Manager student portal. In addition, Identity Manager gives students authorized access to their own VLAN and resources related to their courses of study, such as nursing or marine sciences. This is possible because it allows Kingsborough to establish and enforce different security policies for separate student, staff, and guest VLANs.



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#### Easier indoor navigation with Google Maps

The Kingsborough wireless network is making it easier for people to find where they are going. Continuous connectivity to Google Maps provided by Meru Wi-Fi will allow new students to get turn-by-turn directions to their classroom door inside buildings, where their smartphones are out of range of satellite GPS coverage. "We are working with Google for indoor maps. So far, we have four buildings mapped," says Hussain.

#### Protection for the network investment

Kingsborough Community College has made a large investment in its campus-wide wireless infrastructure. "As we move forward, we want to work with a company that has the technology roadmap that will protect our investment and also help us support technologies and innovations coming in the future," says CIO Hussain. "That's why we are working with Meru Networks."

#### **About Meru Networks**

Meru Networks (NASDAQ: MERU) supplies 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 Fortune 500 businesses, education, hospitality, healthcare, and retail supply chain. Meru is headquartered in Sunnyvale, Calif., with operations in North America, Europe, the Middle East, and Asia Pacific.



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