

XpressConnect Simplifies WPA2 For Eastern Kentucky University

ABOUT EASTERN KENTUCKY UNIV

- Public University
- Located in Richmond, Kentucky, USA
- Enrollment: 12,880

CHALLENGES

- Needed to deploy wireless in dorms.
- Density of users made open wireless unthinkable.
- Manual client configuration made security unfeasible to support.
- Critical wireless project delayed due to “security vs supportability” debate.

“Once we ran it, we were blown away... You can do the ROI on this and it would make sense any way you shake it.”

- Steven Fulkerson
Director of Networking
Eastern Kentucky University



SECURITY VS SIMPLICITY DILEMMA.

The network team at Eastern Kentucky University knew that providing wireless access in the campus housing was an important business requirement for the university. However, they were stuck in a lingering debate: should they deploy a secure or insecure wireless network? The thought of deploying an insecure and unencrypted wireless network, especially in a densely populated student area, presented numerous security concerns such as data privacy for wireless communications among students.



On the other hand, the prospect of deploying a secure wireless network, using well known encryption schemes such as WPA/WPA2, into the diverse student population seemed overwhelming. With an ever-changing set of student computers, the overhead of manually resolving configuration and connectivity issues was daunting. As with any institution supporting a large group of users, EKU was concerned about the support costs involved in such a project. The network team was especially mindful of impacting students, knowing that a previous NAC-related client configuration change instituted four years earlier had led to a rash of student complaints.

“We wanted our wireless network to be user-friendly. You can argue that going through the twelve steps of configuring it manually is not a burden to students, but there are a lot of places for them to go wrong,” says Steven Fulkerson, Director of Networking at EKU. The network team knew these errors would turn into support desk issues and place a drag on the overall user experience of the wireless network.

Unable to resolve the debate, the network team delayed the wireless deployment as long as possible. Having researched alternatives, they were ready to move forward, reluctantly, with an open, unencrypted wireless network when they came across XpressConnect technology from Cloudpath Networks.

SECURE, WITH THE SIMPLICITY OF INSECURE.

Early results were resounding. “Once we ran XpressConnect, we were blown away. It is really a no-brainer. XpressConnect ended our debate between the simplicity of an open wireless network and the security of a WPA2 wireless network. When you can have someone automatically configure themselves in a couple minutes to use the secure wireless network, client support is no longer a barrier,” says Fulkerson.

With a solid plan for the initial rollout as well as the long-term support of the secure wireless network, the network team received buy-in from the CIO, housing staff, and student affairs office. The plan included a phased rollout to the dorms. The team was a bit nervous going into the fall when they brought five of the residence halls online, but XpressConnect performed well and provided a smooth transition. After this experience, the network team decided to perform a blitz over the holiday break, bringing an additional eight dorms online. Once again, the result was completely successful.

SETUP FOR SUCCESS.

Eastern Kentucky University uses the web-based deployment model for XpressConnect. In this model, XpressConnect is deployed to a web server within the EKU network. Students and faculty access XpressConnect via an open SSID called "ekuwifi". From this open SSID, XpressConnect configures the machine and migrates the user to the secure wireless network. This model provides students and faculty with automated, on-demand wireless assistance 24 hours a day without a trip to the support desk.

The functionality of EKU's open SSID is restricted by policies on the WLAN controller. From the open SSID, everyone is allowed to access the XpressConnect web server, but only registered guests are allowed to use the Internet. On the WLAN controller, the web login page has been modified to provide a link to launch XpressConnect.

Within the XpressConnect Administrative Console, the network team has configured XpressConnect to:

- Resolve third-party wireless utility conflicts.
- Install network-related Windows hotfixes if necessary.
- Install the RADIUS server's trusted root CA if necessary.
- Configure the SSID to use WPA2 and AES.
- Configure PEAP/MSCHAPv2 with server certificate validation.
- Prompt the user for credentials before migrating, with a link to EKU's password recovery web site.

In addition to the student configuration, EKU has deployed XpressConnect to solve other configuration hassles including faculty machines using single sign-on and machines in computer labs.

THE RESULT.

With XpressConnect, Eastern Kentucky University has successfully deployed and continues to support a WPA2 wireless network throughout their campus housing with minimal impact on their users and support desk. "XpressConnect was an instant success," according to Fulkerson. "It breaks down the barrier for campuses having secure wireless networks. You can do an ROI on this and it would make sense any way you shake it."

For more information on how XpressConnect can assist with your secure wireless network, contact us at info@cloudpath.net or +1 303.495.3374.

"When you can have someone automatically configure themselves in a couple minutes to use the secure wireless network, client support is no longer a barrier. That is what XpressConnect does for us."

- Steven Fulkerson
Director of Networking
Eastern Kentucky University



9975 Wadsworth Pkwy K2-234
Westminster, CO 80021 USA
+1 303.495.3374
info@cloudpath.net
<http://www.cloudpath.net>