



Penn State Welcomes Visitors with User-Friendly Wi-Fi Network

About Penn State University

Penn State is a multi-campus public research university that educates undergraduate, graduate and professional students and improves the well being and health of individuals and communities through integrated programs of teaching, research and service. With its administrative and research hub at the University Park campus, Penn State has 22 additional campuses across Pennsylvania. The university engages in collaborative activities with industrial, educational and agricultural partners in the U.S. and abroad to generate, disseminate, integrate and apply knowledge that is valuable to society.

Situation

Penn State provided wireless network access to students, faculty and other authorized users, but found it difficult to offer connectivity to the thousands who visit university campuses for professional and personal reasons. The university welcomes prospective students and their parents, alumni, researchers and others on a daily basis; on football weekends more than 100,000 fans flock to Happy Valley (as the University Park campus area is fondly known) to see Penn State's Nittany Lions in action. The university wanted to accommodate these visitors by giving them the ability to stay connected when they're on any Penn State campus, without making additional work for its IT staff.

Solution

Penn State visitors can connect to the Internet with their mobile phones or laptops thanks to a guest wireless plan provided with AT&T Wi-Fi coverage. Guests have unlimited access if they are among the 25 million AT&T customers with a service plan that includes Wi-Fi; if not they can purchase all-day access for \$5.99. AT&T's agreement with Penn State gives the university three years of AT&T Wi-Fi coverage across its 23 campuses. The plan includes AT&T technical and business support, which lets Penn State IT officials carry out their duties without added the responsibilities of maintaining a visitors' Wi-Fi environment.

A Business Need for Wireless Connectivity

Penn State has built a robust infrastructure to support its mission of improving the well being and health of the individuals and communities it serves. Faculty, staff and students with authenticated credentials have access to the network, as do visiting professors and others who come to campus to work or study for extended periods of time.

Casual visitors, however, were unable to use Penn State's network to connect to the Internet. This included potential students and their parents, alumni, vendors and faculty from other institutions with whom Penn State faculty often collaborated. "If we knew that a certain researcher was coming for a month, we could set up credentials for network access," said Jeff Reel, Penn State's director of Network Planning and Integration. "It was really cumbersome to set up short-term accounts for visitors who were going to be here for only a few days."

Penn State University Facts

- **Business Needs**
Low cost, easy to use Internet access for hundreds of thousands of annual visitors
- **Networking Solution**
Wireless local area network backed by strong support and business models
- **Business Value**
A friendly atmosphere for alumni and other visitors
- **Industry Focus**
Higher education
- **Size**
94,301 students on 23 campuses



Football games posed another challenge. When more than 100,000 Nittany Lions fans descend on Penn State's University Park campus for home games, Happy Valley becomes the third largest city in Pennsylvania. University officials wanted to do everything they could to accommodate these visitors – and these days, that means making it easy for them to get to the Internet. "As a land grant university, a big part of our mission is making a welcoming place where people can do work," Reel said. "We have a great network to support research and teaching, and we had some models in place for people visiting the university, but we needed a friendlier way to offer Internet access to visitors."

Penn State recognized a business need to make wireless connectivity easily available, and authorized its IT organization to make it happen. This involved reaching out to large numbers of stakeholders, because each academic building at Penn State is responsible for managing its own network. "We had to get buy-in from a lot of people who had to come to the table to figure out how to do it," Reel said.

A team surveyed the campus user base as part of a needs assessment. "Of course, everybody wants everything free all the time," Reel said. "We had to balance the need to make the solution low cost with ease of use and the technical proficiency of users." Penn State issued an RFP to make Wi-Fi access available on every campus.

Support Makes the Difference

After conducting trials with local and national providers, Penn State chose AT&T to expand wireless broadband access to visitors on all of its campuses. Customers who already have an AT&T Wi-Fi service plan enjoy unlimited access, while those who do not can supply a credit card or a pre-paid coupon, available from the Penn State Computer Store for those with an Access Account, for \$5.99 per day.

University IT officials carefully considered a number of different vendors, but AT&T's support was the deciding factor, Reel said. "We did a trial with a couple of technically possible solutions and chose AT&T because of its support model." The solution limits Penn State's interaction with managing a public network, thanks to AT&T call center support.

"Under the partnership arrangement, AT&T's network operations center works with the Information Technology Services network operation center in a preferred relationship on the backend to do initial troubleshooting," Reel said. "We had to establish a relationship between the AT&T and Penn State technical staff that was transparent to the user. That support has been critical to the success of the project because local buildings have the autonomy to do whatever they need to do within the building. They had to understand that they were not going to be held responsible for the support of that AT&T service, even though it's being transported through Penn State infrastructure."

The business model was equally important. "We had to establish shared responsibility," Reel said. "Penn State was making its infrastructure available and AT&T was asked to do the bandwidth and network management, so we both had a stake in it." The organizations worked out an authentication plan that lets users enter a credit card or use coupons. The model gives administrative units at University Park and other Penn State campuses the opportunity to opt in to the service. "The university has entered into an agreement with AT&T to make the service available to the local admin academic unit," Reel said. "It's not a mandate – the other 22 campuses can choose to take advantage of this."

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– Jeff Reel, Penn State Director of Network Planning and Integration

A Consistent Look and Feel

Response from the campuses has been very positive, in part because of the flexibility Penn State has to adapt the Wi-Fi service to meet many needs. "From the user perspective the service looks the same everywhere, but on the back-end the technology and the business model were tailored to manage applications in our hotels and medical center," Reel said. The hotels and the medical center have the same user experience and the same support model, but have different back-end financing, so they handle the business model separately under the same master agreement with AT&T.

"That has been crucial to the success of this project. When all is said and done, we are trying to meet the customer's expectations," he said. "So wherever you are within the university, our objective is to provide the same look and feel for visitor wireless with AT&T."

People who visit a top-flight university like Penn State expect to be able to connect with the Internet, Reel said. "Working with AT&T, we came up with a way to meet the users' expectations of Internet connectivity. We appreciate AT&T's market presence and that was a big discriminator in our choosing to use AT&T for our wireless. The relationship has been excellent – easy to work with, responsive, flexible. I'm very happy to be working with AT&T."

A Richer Wireless Environment

Once AT&T landed the Penn State contract, the Wi-Fi services were deployed rapidly. This was accomplished in part because of AT&T's acquisition of Wayport Communications, a leading provider of managed Wi-Fi services. "We started this process with AT&T but it wasn't until the Wayport acquisition was finalized that things really began to move positively and quickly," Reel said.

AT&T's ability to devise new ways to meet Penn State's needs made a difference to the university. "Their willingness to work with us, to be flexible in our needs, was unique from my survey of the higher education market," he said. "I interact with a lot of higher education

institutions across the country, and at the time we started this project I didn't see what we needed being implemented anywhere. We came up with a novel idea and AT&T was willing to work in a partnership with us to meet our needs."

Penn State is looking to offer a broader, deeper deployment of wireless applications on its campuses. "I would like to make the visitor wireless more prevalent. Wireless and mobility will become ever more essential in tomorrow's networking environment, so to that end I look for a richer wireless environment of which visitor wireless is a component," he said. "As long as the business relationship exists as it has with AT&T I look forward to a continuing relationship."

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