

Wireless world

Wireless is all around us. PDAs, GPS and wireless mice are just a few applications we use daily.

Wireless technology enables business services that were impossible or impractical with wired communications.

In this issue we look at innovative applications of wireless technology - in a variety of business settings - and the benefits derived.



802.11n wireless in education

Harrisburg University offers academic programs in 21st century fields of science and technology. Likewise, their magnificent new \$73-million Academic Center offers 21st century learning amenities. The University engaged Morefield Communications to deploy an 802.11n wireless network at the University's new Academic Center.

All Harrisburg University students have laptop computers and the University provides free wireless Internet access on campus. The wireless network installed by Morefield Communications is designed to provide students with freedom and mobility. Students and faculty connect wirelessly to network resources in the media-rich classrooms, collaborative environments, multi-purpose spaces, the Learning Commons and laboratories, as well as a courtyard designed for studying and mingling.



Morefield's robust and reliable network infrastructure included two core Cisco 6509 switches and 40 closet switches. Fifty-two wireless access points are programmed and run by two wireless controllers (one is for redundancy.) 802.11n, the latest amendment to the IEEE 802.11 wireless networking standard, provides higher transmission speeds.

To allow students unbridled access to internet resources while ensuring security, Harrisburg University implemented a network management package which regulates the manner in which students connect to the wireless network.

Morefield's work also included installation of two Cisco ASA 5510 firewalls and a new voice gateway. Morefield moved the University's Cisco Call Manager and Unity to their new building and installed new Call Manager and Unity servers. Morefield also integrated the network at the school's old

Also in this issue:

Wireless surveillance

Economical wireless video surveillance at **Stauffer's Biscuit Company**

Multi-site WLAN

Employee mobility indoors and out at **Glatfelter Insurance Group**

Keep in touch with customers

Conduct business anywhere, anytime, from any device

FREE webinar

Learn how next-gen wireless improves business performance

New Cisco whitepaper

Five steps to a secure WLAN infrastructure

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location with the new facility's network.

Harrisburg University is an independent educational institution offering academic and research programs in mathematics, science and technology, designed to meet the needs of the region's youth, workforce and businesses, and to expand, attract and create economic opportunities in the region.

There's a wireless networking solution for organizations of all types. Contact Morefield Communications to learn more.

Wireless surveillance



Stauffer's Biscuit Company desired to bolster employee security with video surveillance monitoring of their parking lot. But railroad tracks separated the lot from their building. The solution? Wireless video surveillance.

Wireless video surveillance is the answer wherever external cameras are needed but no cable path to the head end is available. Morefield deployed Trango wireless transmission equipment and Bosch video cameras mounted on existing light poles to transmit video wirelessly to the head end.

Cost Savings

Another advantage of wireless video surveillance is the cost avoidance of running fiber or co-ax cable. "Even where a cable path exists, it may be more economical to deploy wireless video surveillance," says Jay Dissinger, Director of Multimedia Systems for Morefield Communications. "And wireless delivers the same high-resolution, real-time, full-motion video for remote viewing as is provided by traditional wired solutions."

Video over IP

Wireless surveillance is a fast growing trend in physical security. Another growing trend is the movement away from traditional analog-based video technology to video-over-IP for networked video surveillance and digital recording. IP-based video cameras deliver a compressed video image (typically MPEG4, MPEG2 or MJPEG) over a standard IP ethernet interface.

Best recognized for animal crackers, Stauffer's produces a variety of crackers and cookies in three U.S. bakeries. Stauffer's roots are in York, Pennsylvania where the first animal crackers were produced in 1871.

Do you want to increase your building security?

Contact Morefield Communications to learn about cost-effective options available.



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Multi-site wireless WAN

Based in York, **Glatfelter Insurance Group** is one of the largest brokerages in the U.S. They engaged Morefield Communications to deploy a multi-site wireless network to provide staff mobility, indoors and out.

As a shared medium, where wireless devices in close proximity compete for access, it's important to have a clear understanding of the demands of specific applications -- voice, data or both—and the number of wireless

Wireless seems simple because it's all around us; but a successful, secure wireless network requires skillful engineering.

devices. Wireless designs that do not purposefully consider these factors, along with security requirements, rarely meet with approval and can require expensive redesign efforts.

Glatfelter's poorly performing wireless network was replaced with a Cisco unified wireless WAN. Morefield's thorough application inventory and intensive site survey ensured the success of the QOS-

enabled wireless WAN. The number, type and placement of access points were determined through the site survey.

The wireless WAN connects Glatfelter's York, PA and California offices and supports their Cisco Call Manager. Because the California office also has access points on the network (which are managed centrally from the York office) when Pennsylvania staff travel to California, they simply turn on their IP phone upon arrival and connect wirelessly to the phone network.

Glatfelter promises their customers consistency, time-urgency and responsiveness. The wireless WAN helps the Glatfelter team meet these promises. Employees using wireless devices such as IP phones and laptops can communicate and collaborate anywhere on the premises, even outdoors. Meetings with vendors and other visitors become more productive with guest access. Remote access to the corporate network and applications gives employees the flexibility they want and need to work effectively.

Morefield's design ensured reliable, widespread coverage so employees don't become out of range or disconnected. And the deployment of industry-standard security features means data is always protected.

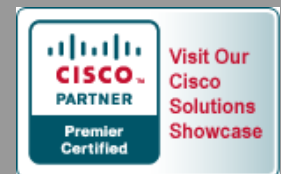
How productive would your employees be if they could work efficiently anywhere on your premises? Contact us for a free consultation.

Keep mobile employees in touch with customers

The challenge: Satisfying the customer

Your employees are away from the office more than ever, working from hotels, home offices and other locations. Yet your customers still demand fast response times and immediate results.

Barbara is an Account Rep for a software company. She needs to be constantly available to her customers, who expect personalized service. While out of the office and 300 miles away, Barbara learns one of her customers has a serious software problem. Barbara immediately leaves an



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urgent voicemail for Bob, the subject-matter-expert back at the office.

The solution: Secure mobile access

Mobile applications like IM, texting, voice services and network access on the road are changing the way people work together. With a secure, mobile network solution, your employees have immediate access to the info and tools they need—anytime, from anywhere.



Personalized service from 300 miles away

Bob calls Barbara back at her office number and the call is automatically routed to her laptop computer. Barbara answers the call on her laptop, using a soft phone application. Bob and Barbara collaborate in real-time, accessing the network resources they need, and find a way to solve the problem.

They launch a web-based phone conference and invite Barbara's customer to join them to discuss the solution. The customer is satisfied and never knows Barbara is 300 miles away.

A Morefield unified communication solution helps you bring together voice, video, data and wireless communications. Easy-to-use conferencing tools let you collaborate with customers and colleagues. Because unified communications provides support for smart phones, blackberries and other wireless devices, your staff stay connected and productive, in the office or on-the-road.

Morefield Communications is a Cisco Premier Partner with advanced specialization in wireless, unified communications and security. Contact us to learn more.



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