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Keeping in Touch

Wendy's implements **Wi-Fi networks** in its company-owned stores

BY ED MCKINLEY

Wireless networking is making life a lot more civilized for district and store managers at company-owned Wendy's restaurants.

Before Wi-Fi, Wendy's district managers had to commandeer the store manager's cramped office to go online and communicate with headquarters in Dublin, Ohio. Imagine the scene: The district manager sits in the tiny office's single chair, pointing out performance figures on a computer monitor to a store manager who has barely enough room to stand.

All of the sensitive information that passes over the network is encrypted, and the system won't allow the public to walk into a Wendy's and use a laptop to log onto the chain's Wi-Fi system.

Not any more. Now, with a Wi-Fi access point at each of the 1,800 or so company-owned stores in the 6,600-unit chain, district managers and store managers (called general managers) can grab a table anywhere in the dining room to sit down and pore over a shared screen. They can enjoy the comfort of hav-

ing all the room they need, and they're connected to headquarters without the need to plug in the laptop.

"When the district manager would come to the store, he might interfere with the day-to-day operations of the store if he was hanging out in the general manager's office and trying to connect with the network," says Phil Newlon, director of store technology for Wendy's International.

Wi-Fi helps in other ways, too. Instead of beginning the morning by dropping by a field office to connect to the Internet, district managers can sit down in a restaurant dining room and go online. "It's certainly a lot easier for them to head to the store in the morning," says Newlon. "The time savings for the district manager has just been huge for us."

Wendy's is realizing those savings after installing a single secure access point in each store. Sunnyvale, Calif.-based Juniper Networks provided the hardware, its NetScreen-5GT Wireless FW/Virtual Private Network. The chain monitors the Wi-Fi system from headquarters with software from AirWave Wireless of San Mateo, Calif.

Wendy's may soon gain additional Wi-Fi efficiencies by connecting point-of-sale systems to the network. Pilot POS programs have worked well, Newlon says, but other priorities have taken precedence in the competition for time, attention and funding.

POS rollout

When the time is right, wireless POS will benefit Wendy's stores in Manhattan, where extra cash registers are rolled out at mealtime to help employees cope with long lines of customers. The regis-

ters rest on carts that currently connect via cables. Wendy's also rolls out POS stations at lunchtime in hospitals and airports, but airwave restrictions may restrict the company from utilizing wireless in those locations, Newlon says.

Some Wi-Fi applications that make sense for other retailers just don't fit at Wendy's. When consumers think of wireless in restaurants, for example, images come to mind of coffee drinkers lingering over lattes and laptops. Tests in Columbus, Ohio, however, indicated that Wendy's customers simply don't do that, so the company has no plans for consumer hotspots.

Wendy's also has little need for the periodic redesign of restaurant floor plans, a practice that the introduction of Wi-Fi could facilitate. Greg Murphy, COO of AirWave, emphasizes that getting rid of the need to run miles of cables opens the door to freedom for the many retailers who like to shuffle their departments.

Although Wendy's doesn't need every Wi-Fi function available to retailers, the chain has been at the forefront in putting the technology to use: it began working on its wireless initiative nearly four years ago.

Wi-Fi linked to upgrades

About a third of the nation's larger retailers have deployed some kind of wireless application, says Adam Conway, a product line manager for Juniper Net-

works. Some might wait to go Wi-Fi until the conversion can be linked to another upgrade, like switching from dial-up Internet connections to DSL, for example. In the past two years, Conway says, fully half of the networks installed at retailing institutions have been wireless.

Retailers are choosing wireless now because vendors have improved security, while standards have allowed manufacturers to substitute reasonably priced commodity hardware for expensive proprietary equipment.

Another factor behind the migration to wireless has been the capacity to monitor and administer the systems from headquarters, rather than having to send technicians into the field to troubleshoot, Murphy says.

The Juniper hardware makes sense for Wendy's because the system provides a gateway to the Internet and also keeps the system secure. "When we started this process, there was considerable concern about the security of the communications," Newlon says. All of the sensitive information that passes over the network is encrypted, and the system won't allow the public to walk into a Wendy's and use a laptop to log onto the chain's Wi-Fi system, he says.

"It's difficult to reject someone until you allow some sort of connection to the network," Newlon says of potential interlopers. "You can go in and get an IP address but you can't go anywhere [else]

until you authenticate with the backend system."

Hackers-for-hire

Besides conducting in-house security audits, Wendy's hires third parties to perform penetration testing. Essentially, those vendors try to break into the system on a regular basis. "We won't tell you who, and won't tell you how often," Newlon says of the outside hackers-for-hire.

Installing the Juniper hardware took only a half hour or so, Newlon says, and was undertaken when several upgrades were being made. Wendy's has used the AirWave software with virtually no need for modifications. The starting price for the Wi-Fi box provided by Juniper is \$770, Conway says.

The Wendy's project brought AirWave and Juniper together for the first time. Subsequently, the suppliers have established a formal, ongoing working relationship, says Conway, who cites the advantages of AirWave's capacity for central management and scalability for large, dispersed retail chains. Murphy says the security that Juniper provides makes the system attractive to retailers.

For Wendy's, the system is already saving money and promises to save even more in the future.

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Ed McKinley is a Chicago-based writer and editor.



AirWave Wireless, Inc.
1700 South El Camino Real
Suite 500
San Mateo, CA 94402
+1.650.286.6100
info@airwave.com