

Wireless World: WiFi now in rural areas

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Just two years ago, wireless fidelity technology was an utterly urban phenomenon. Urbane computer users in the cities frequented coffee houses and Kinko's shops, whenever they were about town, to check their e-mail messages at WiFi hot spots.

WiFi fostered a new kind of digital divide.

But today, technology advances, and public policy moves, have begun to stimulate the appearance of WiFi in rural areas, and far-flung suburban areas, too, sources tell United Press International's Wireless World.

"Both public policy and consumer demand are pushing the implementation of wireless networking," a spokeswoman for Cisco Systems, told Wireless World.

Down in Austin, Texas, a program emerged in recent weeks to demonstrate what always-on broadband can do in rural areas and small towns, led by the Public Utility Commission of Texas, and the University of Texas, at Austin. In suburban Dallas, officials have launched a free WiFi network using 802.11 connectivity. The network, when completed, is going to offer voice over WiFi services, as well as location and guest networking.

Working with MobilePro Corp., the city of Farmers Branch, Texas is utilizing a Cisco 4400 series wireless local area network and wireless control system, as well as access points which rely on Cisco Aironet 1500 series network access points, mounted on street lights and utility

poles.

Nevada's Clark County -- which includes Las Vegas -- is using networking, wireless and security technologies to unify communications for the county's regional justice center. The goal is to build the "court system of the 21st Century," said Chuck Short, the chief executive officer of the Regional Justice Center in Nevada.

The fast-growing county had 700,000 residents just over six years ago, and today has 1.8 million. Wireless IT is essential to sustain government services during such a hectic growth phase, and this is changing the way that insiders there think of their own region. "When people think of Las Vegas, they think of casinos, the Strip, and the glitz, but Clark County and our Las Vegas metropolitan communities are very tech-savvy," said Rod Massey, chief information officer of Clark County, Nevada. The region's government services "rely on optimizing and securing communications over a highly manageable, scalable network."

Using technologies from IBM, Cisco, and other firms, the government there built a network security infrastructure that protects wireless, as well as wired, Internet Protocol (IP), systems. The network grants access to users based on their particular needs, and department, including the Clark County Clerk's office, the Clark County District Attorney's Office, the 8th District Judicial Court and other facilities.

Experts say the "simplicity" of accessing WiFi is leading to its proliferation. Most new wireless devices, like PDAs and laptop computers, include wireless capabilities as a standard, rather than as an add-on, feature. What is more, standards for more advanced local area networking (LAN) technologies have come to the fore in recent years, showing corporate and government executives that they can, indeed, secure their wireless connections.

That in turn is said to be boosting employee productivity, as the employees take advantage of wireless "hot spots" to work when they are out and about, on sales calls, or even personal errands.

Researchers say that economic gains from WiFi are only now beginning to be realized in rural and suburban areas across the U.S., as the technology moves beyond being "cool" to something that is a serious tool, one which can foster tourism, the arts, medicine, as well as agriculture.

One firm, Texas-based MetroNational worked with computer equipment reseller CDW, starting in 2003, to upgrade its aged network, and add a high speed infrastructure. That enabled the real-estate firm to foster wireless connectivity between its disparate offices. Costs have been reduced by \$6,000, per month, by using free WiFi networks, rather than paying for a land-line, a spokesman said.

Last week, Intel announced plans that could foster even faster WiFi for these users, and others. The new Rosedale 2 chip promises to make it easier to access WiFi from mobile computers, and even foster the next generation of WiFi, so-called WiMax technologies. That will lead to an anytime, anywhere wireless Internet -- something even futurists, and prominent, public technophiles, like former Vice President Al Gore, didn't dream of 10 years ago.

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