

Wireless Takes Wing



With infrastructure improvements, users will be able to send data faster from more places than ever before.

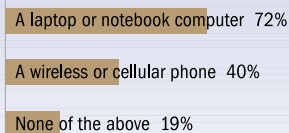
What applications will the new technologies mean for business users? “Computing will become more personalized,” says Robert Syputa, a senior analyst at wireless research firm Maravedis. Key applications for wireless will relate to either delivering information based on the user’s location or delivering more information faster. “If you can save a sales or service technician who’s looking up information 20 minutes, that equates to money,” Syputa says.

Corporations will get wireless connectivity one of two ways. They can order it from the telecom carriers, the way they currently get long distance. Jim Straight, vice president for data services at Verizon Wireless, says the company’s EV-DO applications and services will work with other 3G and 4G networks because they all use common open standards. Alternatively, corporations can deploy broadband wireless themselves for campuswide connectivity. The ideal: Users could roam anywhere on a corporate campus without losing their connection to the network.

If corporations do deploy broadband wireless themselves, it’s important to remember that, as with a wired network, infrastructure reliability is key. “Speed is no longer the issue,” says APC’s Senesac. “Costs are coming down, and security is fairly stable. The bottleneck is network availability.” He recommends that if you’re deploying wireless routers and wireless access points in a building or a campus, think about equipping them with battery backup to ensure uptime.

Devices Used for Wireless Data

(multiple answers allowed)



Source: In-Stat, October 2005

You may have missed this intriguing milestone of the computer industry: Just over a year ago—in August 2005—for the first time, retail sales of laptops exceeded desktop sales. If those new laptop users are looking for wireless access, the United States currently has 120,107 Wi-Fi hotspots. The number of cell phones, as of last year: almost 200 million.

The trend is clear for business: “Companies are using wireless technology to improve productivity, so that users can work wherever and whenever,” says Russell Senesac, InfraStruXure Systems Manager at American Power Conversion (<http://www.apcc.com/>), a manufacturer of devices for infrastructure reliability.

New technologies are only going to make it easier—though as with most technology, there will be a period of confusion. Vendors will scatter new wireless technologies in the marketplace and customers will have to figure out which works best for them. This confusion stems from the simple fact that, up until now, there have been essentially two kinds of networks: one for voice and one for data.

Voice networks are optimized for transmitting voice. They can transmit data, using equipment from network vendors, but not as well as data networks. Conversely, data networks using IP—the Internet’s data-oriented communications protocol—can now transmit voice conversations; but again, not as well as they transmit data. Not surprising, according to research firm In-Stat, the device of choice for wireless data access is laptop and notebook computers (see chart).

THE CHANGING WIRELESS INFRASTRUCTURE

Among the new technologies, falling under the rubric of broadband wireless, two are most important for business users: WiMax, theoretically standing for maximum wireless, and EV-DO, which stands for evolution of data optimization. The big brother of Wi-Fi, WiMax enables data transmission within a range of 30 miles, as opposed to 300 feet in a wireless local-area network. WiMax is also the big brother when it comes to speed: 70 megabits per second (Mbps), compared with 54 Mbps for the latest version of the Wi-Fi standard and 3.1 Mbps for the latest version of EV-DO.

ONE NETWORK FOR ALL?

Will there ever be just one network handling voice and data? Most experts agree that it’s not coming in the near future. Why? Because of the potential cost of upgrading to an infrastructure that will transmit both, not to mention the inherent challenge of creating a communications protocol that handles data and voice equally well—and as clearly as voice networks do now.

“The goal is to have a converged network that will handle wireless and wireline seamlessly,” says Jagdish Rebello, director and principal analyst for wireless communications at research firm iSuppli. To do that, however, you’d need all communications to transition to a “grand” IP-based network—something that Rebello doesn’t see happening for at least three to four years.

The possibility can’t be denied from a technological standpoint. We’ve come a long way from the lack of clarity on early cellular networks. From an economic standpoint, though, it’s a different story.

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