



BY MAURY WRIGHT, EDITORIAL DIRECTOR

Is municipal Wi-Fi a technical failure or a business failure?

I was a bit surprised recently to find the tech-centric article “Cities turning off plans for Wi-Fi” on the front page of a *USA Today* (www.usatoday.com/tech/wireless/2007-09-19-wifi_N.htm). That article echoed a number of other reports in the tech media about problems with municipal Wi-Fi projects. For instance, communication analyst Andrew Seybold has covered the topic in numerous blog posts and recently devoted an issue of his *Commentary* e-newsletter

to the topic (www.andrewseybold.com/commentary.asp?ID=109). The consensus seems to be that deploying Wi-Fi in a mesh network that covers a significant amount of urban area is just too complex. But read between the lines, and you’ll find that the message is that no one will pay for the service.

Wi-Fi certainly has technical limitations in a mesh deployment. The 2.4-GHz flavors have only three non-overlapping channels. And as I’ve written repeatedly, Wi-Fi implementations don’t come close to their specified range. But those technical issues aren’t really behind the failure of municipal-Wi-Fi deployments. What is the problem? The cities and service providers behind the deployments completely misunderstand the potential user base.

Service providers targeting municipal Wi-Fi clearly expected to compete for customers with DSL (digital-subscriber-line) and cable-Internet service. And there is no way to deploy a wireless network that can compete costwise with the wired services when the wired infrastructure is already in place and paid for. Certainly, the urban areas targeted for municipal Wi-Fi are well-wired.

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The potential user base for municipal Wi-Fi ranges from students to professionals that are on the move between meetings, classes, and other events. These users don’t need municipal Wi-Fi as a primary Internet service but rather as a secondary, supplemental service.

The problem is that a number of Internet alternatives exist to buying a municipal-Wi-Fi subscription. Both the GSM (global-system-for-mobile)-communication and CDMA (code-division/multiple-access) camps are touting their cellular-based offerings. But Wi-Fi is also prevalent. In McDonalds and Starbucks, Wi-Fi is almost universally available.

EDN’s IT organization has struck a

deal with a coalition of Internet-service providers, and I can access service from most of the Wi-Fi service providers that operate in restaurants, bookstores, airports, and hotels. The service industry has now matured so that a user can buy a single subscription and get service in almost any urban area. If a municipal service were to succeed, it would require the operator to join such a coalition of service providers. The only exception that I see would be a city that simply wanted to serve citizens and businesses by footing the service bill. And, as the earlier-referenced articles mention, cities are unwilling to do so.

In the future, WiMax may be a better technical choice for high-speed urban wireless access than either Wi-Fi or the data-centric cellular offerings. But wide availability of truly usable WiMax-equipped notebook PCs is fairly far in the future if for no other reasons than power-consumption issues and lack off battery life. Last year, I tried the CDMA-centric EV-DO (evolution-data-optimized) service but wasn’t enthralled with the performance. For now, I’ll stick with the broadly available Wi-Fi services at restaurants and other businesses. The number of businesses offering such services grows daily.

Alas, the few municipal-Wi-Fi deployments that are operating reveal usability issues, as well. In a blog post in March, *EDN* Senior Technical Editor Brian Dipert wrote of some benchmark tests he ran with cellular connections and with the Google municipal deployment in the San Francisco Bay area (www.edn.com/071011b1). I don’t know whether the Google Wi-Fi has improved of late, but, for any municipal Wi-Fi service to succeed, it had better match the experience that the almost-ubiquitous wired coffee house offers.**EDN**

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