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Why Wi-Fi Networks Are Floundering

Faced with weak user demand, AT&T and other telecoms are stepping up pressure on cities to foot more of the bill for muni Wi-Fi projects

by [Olga Kharif](#)

The static crackling around municipal wireless networks is getting worse.

San Francisco Wi-Fi, perhaps the highest-profile project among the hundreds announced over the past few years, is in limbo. Milwaukee is delaying its plan to offer citywide wireless Internet access. The network build-out in Philadelphia, the trailblazer among major cities embracing wireless as a vital new form of municipal infrastructure, is progressing slower than expected.

These potholes in the nation's wireless rollout of civic ambition—criticized by many as an improper use of tax dollars—are hardly the exception. For the road is getting bumpier for cities and the companies they have partnered with in a bid to blanket their streets with high-speed Internet access at little or no cost to users.

TELECOMS GET COLD FEET

While 415 U.S. cities and counties are now building or planning to build municipal Wi-Fi networks, "deployments are slowing down slightly," says Esme Vos, founder of consultancy MuniWireless.com. Vos's tally still marks a nearly 70% jump from mid-2006, when there were 247 muni Wi-Fi projects on tap, but that's down from the torrid pace of a year earlier, when deployment plans doubled.

Perhaps the clearest hint of trouble ahead is that some of the companies partnering with cities on these projects, including EarthLink ([ELNK](#)) and AT&T ([T](#)), are having second thoughts about remaining in the municipal Wi-Fi business.

In San Francisco, recent developments have left many observers scratching their heads over whether that city's Wi-Fi project, announced more than a year ago, will ever get off the ground. In July, the president of the city's Board of Supervisors revealed that he was seeking to change the terms of the preliminary contracts awarded to EarthLink and Google ([GOOG](#)).

EARTHLINK HALTS BUILD-OUTS

While it's unclear whether he was referring to San Francisco in particular, EarthLink's new chief executive officer, [Rolla Huff](#), promised in his company's July 26 earnings call to "delay any further build-outs and scale back operating expenses" on existing muni Wi-Fi projects. Though EarthLink doesn't disclose specific operating results for that business, there's little

hope it will turn profitable soon. "The Wi-Fi business as currently constructed will not provide a return," Huff said during the conference call. EarthLink did not respond to requests for additional comment, while Google directed all questions about the San Francisco project to EarthLink.

AT&T, which made a splash as the only major telecom player to embrace the muni Wi-Fi market, is also showing some doubt. The company is "evaluating" whether to pursue any new deployments or even whether to continue working on its four existing projects, says Ebrahim "Eb" Keshavarz, vice-president for business development at AT&T. One opened just over a month ago, on July 9, when AT&T announced a three-square mile muni Wi-Fi deployment in Riverside, Calif.

Such comments contrast sharply with the optimistic terms that network operators have agreed to in many of these Wi-Fi deals.

DEVELOPERS SEEK REVISED CONTRACTS

When EarthLink and [MetroFi](#) first bid for Wi-Fi contracts several years ago, they often agreed to foot the bill for network build-out, operations, maintenance, and upgrades. They also frequently agreed to pay cities to lease public facilities, such as light poles, to hold Wi-Fi transmitters. If that wasn't enough, the companies also promised some cities a chunk of their subscription and advertising revenues, as well as free usage of the Wi-Fi networks by city workers. EarthLink's troubled San Francisco contract, for example, contains many of these terms.

One major flaw in these arrangements has been that initial forecasts for Wi-Fi subscriptions used to justify the investment in these networks have proven to be overly optimistic by a wide margin. In many cases, 15% to 30% of an area's population was expected to sign up for muni Wi-Fi. But only 1% to 2% have signed up so far figures Glenn Fleishman, editor of an industry blog called Wifinetnews.com.

While rising demand for advertising on municipal Wi-Fi networks is helping offset the shortfall in subscription revenue, there's a catch-22 at play here: Higher user numbers might generate more ad revenue, but network operators might need to cut fees to attract more users.

SUBSCRIBERS ARE LURED BY RIVALS

For now, a tiny user base can't even begin to cover an operator's costs. Take Lompoc, Calif., population 42,000. The city deployed its 11.3-square-mile Wi-Fi network last September, at a cost of more than \$2 million so far. Today the network brags of just 442 users. Though Mayor Dick DeWees hopes to reach 1,000 users by year-end, the network needs 4,000 paying customers just to cover its annual operating costs. In Lompoc's case, the city is wealthy enough to absorb the expense for several years to fund a project it deems a public good. But companies are bound to be less patient.

Complicating the drive to boost subscription is competition: Wherever muni Wi-Fi networks are announced, phone and cable companies tend to lower their prices for broadband Internet access, says Fleishman. In Lompoc, where muni Wi-Fi access costs \$16 per month for a family of three, Comcast ([CMCSA](#)) offers high-speed Internet access to new customers for \$33 a month. In Beaverton, Ore., where there's no muni Wi-Fi service, the same product sells for \$52.95. In addition, though Wi-Fi enables a user to gain access to the Internet as they roam a city's streets, the wireless signal can be weak indoors as compared to DSL service from a phone company or cable broadband.

To make the business more profitable, Wi-Fi service providers are trying to pass more of the cost to the cities. "There's no one that I am aware of right now who'd build a network without the city as a paying customer," says Lou Pelosi, vice-president for marketing at MetroFi, which six months ago stopped bidding for projects unless the city agreed to become the network's anchor tenant.

CITIES NEED TO COUGH UP

Cities unwilling to pay up may find their Wi-Fi projects with no takers. Gwinnette County, Ga., had to revise its approach

when its first request for proposals in October, 2006, offering no payments from the county, brought no qualified bidders. The second time around, when the county offered a \$750,000 grant to help build the network and develop applications for municipal use, only two small companies replied. "Wi-Fi doesn't have a solid enough business model for companies to be interested in this," says Barry Puckett, information technology services manager for the county.

Similarly, cities that have deals that don't currently require a government investment are being asked to renegotiate existing muni Wi-Fi contracts. In Portland, Ore., MetroFi says it is pushing the city for a formal commitment to buy network services. Thus far the network is about 20% complete, and serves the downtown area.

The payments cities face are sizable: The city of Corpus Christi, Tex., pays EarthLink about \$200,000 a year to operate its Wi-Fi network, which covers 146 square miles, says City Manager George "Skip" Noe. Corpus Christi also effectively subsidized some of the network's construction: The city built out its initial network for between \$6 million and \$7 million, then sold it to EarthLink earlier this year for \$5.5 million. The city uses the wireless network to collect data on gas and water usage, saving on labor costs.

Municipal uses like these—as well as exploiting a Wi-Fi network for video surveillance and emergency communications—can help justify a government investment. "We did an analysis, and over 20 years, there are multimillions in savings to the city," says Noe.

Either way, "The days of a service provider coming in without a city commitment are over," asserts Pelosi of MetroFi. "It's to help us out, but also to help them out."

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