## Cities, Partners Press for Municipal Wireless Networks
*Large Phone Companies Oppose Efforts, Push Federal & State Wi-Fi Bans*

**JULY 01, 2005**

By **Martin Weiss**, special to *Cable Digital News*, E-mail at marty@kineticstrategies.com

Municipally run WiFi networks are generating plenty of buzz, as seen at the WiFi/VoWiFi Planet Conference in Baltimore last month. Beyond the technical discussions about applications, voice over IP (VoIP) support and mesh network topologies, a key question hovered in the background: Do U.S. municipalities have the right to "encroach" on the traditional turf of phone companies and cable operators by building open access wireless networks?

Despite Telco-backed bills now pending or passed in the U.S. Congress and at least 14 state legislatures to limit the power of local governments to build public broadband networks, city officials insist that they do have that right. They argue that they need to install citywide WiFi networks to spur economic development, address coverage gaps from cable modem and DSL providers and make affordable broadband services available to all their citizens. So, assisted by a growing array of vendors and other business partners, local officials are pushing ahead with plans to put up the networks while conducting their own lobbying campaign to protect their authority.

"In many cases, cities are taking a very active role in becoming a service provider," said Greg Richardson, founder and president of Civitium, a consulting firm that helps municipalities plan wireless networks. "In other cases, cities are simply acting as a catalyst to stimulate interest in investment from the private sector."

Take the city of Philadelphia as an example. Its Wireless Philadelphia project aims to create a citywide, 135-square-mile digital wireless network to help citizens, businesses, schools and community organizations make effective use of broadband technology. Network deployment is slated to start this summer and is scheduled to be completed next summer.

Speaking at the WiFi/VoWiFi conference, Philadelphia officials said they plan to use their planned WiFi network for government field operations, public safety, smart parking and automated meter reading. They also aim to tap into the network for sanitation truck routing, distance learning and telemedicine. In addition, they hope to use the network to boost the city's already thriving tourism industry.

"The vision is to have high-speed broadband affordable and accessible to all," said Dianah Neff, chief information officer for the city of Philadelphia and the leader of the Wireless Philadelphia initiative. "Economic development in our underserved neighborhoods will be achieved by bringing our connectivity up from 58% to 80%. To be a first-class city of the 21st century, you have to have advanced telecommunications. We want the telcos to continue to do fiber, but we can't wait till 2015 in Pennsylvania to do that."

Or consider the much smaller municipality of Chaska, MN. A town of just 24,000 people, Chaska built its own wireless broadband network last year because of city leaders' concerns that existing broadband services were priced too high, and, as a result, were not being heavily used. Since last November, the city has been offering residential high-speed Internet access over its new

network for just $15.95 a month. In the first six months, the city has already signed up 2,400 subscribers, or 10% of the population.

"The economics of wireless allow independent providers and cities to offer those kind of prices and still be able to run the business profitably," said Bert Williams, vice president of marketing for Tropos, the lead network vendor for the project and current market leader in municipal networks. "Now we're seeing some of the cable and DSL providers react to that by having $15 intro specials."

Or look at Corpus Christi, TX. The mid-sized city of 300,000 has started a trial broadband program as part of its broader effort to build a citywide Wi-Fi network.

"We have installed a pilot program with 24 square miles out of a total of 147 square miles in the city," said Leonard Scott, business unit manager for the Corpus Christi municipal information department. "We are running several proof-of-concept operations as well as free public Internet access. We're working with school districts to bridge the digital divide for parents, teachers and students, giving access to teacher grade books, lesson plans and study material."

The large regional phone companies, particularly SBC Communications and Verizon Communications, some of the larger ISPs and such MSOs as Comcast have been pushing for tight restrictions or outright bans on municipalities setting up broadband networks. Opponents of municipal broadband argue that cities should not be allowed to subsidize high-speed connections when a healthy private market exists.

"Municipalities and local governments don't create competition, they only create monopolies," said David McClure, president & CEO of the U.S. Internet Industry Association. "And when they create a monopoly, every private provider is driven out of business. When that happens, innovation ceases, consumer choice ceases and private companies get driven out of business."

Municipal broadband critics also contend that it's too risky to build the new public networks when the market is so difficult to predict. They assert that the cities may just end up throwing good money after bad.

"Wi-Fi is a great technology in the confines of a limited space," McClure said. "We're somehow dreaming that we can extend it in a wide mesh to cover 138 square miles, in the case of Philadelphia. What happens when the city has invested millions of dollars of taxpayer money to build a network and then all of those private Wi-Fi networks that everyone put in their homes and businesses just trash the network?"

Some broadband providers don't agree with this view, however. One such provider is Cynthia de Lorenzi, CEO of Patriot Net, an ISP based in northern Virginia.

"A gang war has been going on between the Bells and the cable companies," she said. "And the small independents like us are getting killed in the crossfire. Five companies in this country are going to determine choices Americans have about how they are connected to the Internet. I believe in full competition. My hope is that as we begin to see municipalities building out these networks, they will partner with ISPs in their communities that will provide those great extra services."

City officials say they also hope to form such public-private partnerships with ISPs, smaller cable operators and wireless providers. In Philadelphia, for instance, city officials plan to make network access available at low wholesale rates to any private provider that desires to sell or bundle access for its subscribers. Wireless Philadelphia will not sell access to the network directly to

residents or businesses. Additionally, the city will outsource the design, deployment and management of the network to private companies.

"We are partnering with the private sector," Neff said. "Alternate carriers that have been locked out of the market are excited about this. It's about competition. It's about having an open access infrastructure that companies can deliver services over. I have four to seven ISPs using the infrastructure so that competition can keep the price low, so we think there are opportunities. We're not looking to take clients away from DSL or cable."

On the vendor side, such companies as **Pronto Networks** are already working with small cities to deploy turnkey OSS/BSS systems for their WiFi networks. Pronto, for instance, is now providing assistance to Chaska.

"We provide the software which enables the city to manage users on the system, monitor access points, QoS, track revenues, daily or hourly billing, roaming settlements, and manage new services like VoIP, video," said Carol Singh, business development account manager for Pronto Networks. "Chaska started out as a provider of electric utility services, so it was a natural for them to become a wireless provider. They actually provide wireless service billing on their utility bill."

Equipment vendors and industry consultants said much depends on the size of the city. They said it often makes more sense for larger municipalities to hire private contractors to manage their wireless networks rather than operate the networks themselves.

"Owning your own versus outsourcing would favor a small town due to the complexity of doing it," said Phil Belanger, vice president of marketing for BelAir Networks. "For a smaller town with fewer users, and reasonable size coverage, it's possible for them to provide comprehensive coverage with WiFi." But, he noted, "When we shift to a larger city, the network is going to be more complicated, so larger cities are much more likely to go to a service provider. They have backhaul resources, wired connection to Internet, customer care, white vans and bucket trucks. So why should the city replicate that?"

*Martin Weiss is a veteran of both cable and wireless broadband industries. He is now vice president at Holmes & Associates, a cable and broadband consulting boutique located in Rockville, MD. He can be reached via email.*