Using The City's Lampposts For Cell Phones and Wireless Computers

by Laura Forlano
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New York City's Department of Information Technology and Telecommunications (DoITT) announced a deal that could improve cell phone coverage and bring in over $20 million a year in municipal revnue. The agreement gives six wireless companies, including telecommunications providers T-Mobile and Nextel, the rights to install cell phone antennas and Internet transmitters on 18,000 of the city's 300,000 lampposts. The plan is scheduled to be put into effect by January.

Most New Yorkers would probably agree that mobile phone coverage in the city is in need of serious improvement. To be sure, the city's plan could minimize problems with mobile phone reception, particularly in midtown where the number of service complaints was reported to be highest in a citywide survey .

However, to date, there has been little public discussion of how this agreement might impact New Yorkers economically, technologically and politically, and only a few concerns expressed over potential negative health effects. "We have no idea what dangers are posed by the concentration of these devices," Councilmember Peter F. Vallone Jr. of Queens told the New York Times.

Will this deal be in the public interest?

The city says that the deployment of wireless antennas on lampposts will reduce the need for additional large, high-power cellular base stations on rooftops. Instead, the plan uses low-power universal antennas that can be used by all cell phone providers. As a result, fewer antennas are required overall to improve mobile phone coverage.

"There's no better way to figure out what is fair or unfair about a plan until you go ahead and launch it," commented Douglas Rushkoff, a tech author who teaches at New York University's Interactive Telecommunications Program.

However, the current plan allows for contracts up to 15 years, which doesn't seem to make sense given the rapid pace of technological change. Shorter contract terms may be necessary in order to insure that the city is not stuck with out-of-date technology, thus losing its competitiveness.

One of the six companies planning to sign contracts with the city, IDT Business Services, is planning to provide low-income communities with cheap Internet and telephone services and equipment. But, this service will only be offered in neighborhoods where more than five percent of residents do not have telephone service. Three other companies (ClearLinx Network, Crown Castle Solutions, Dianet Communications) plan to lease the lampposts to other carriers.

While some give the city credit for attempting to get private companies to offer service to underserved parts of the city, others say the effort is not ambitious enough. NYCwireless board member Dana Spiegel wonders whether the income to the city will be adequate and

whether it will be used appropriately: "For example, some of the rental fees could be for earmarked public use such as providing low cost Internet access for the city, especially in underserved areas."

Spiegel also voiced concerns over which city agency would have jurisdiction in the event of technical interference or unfair competition with other wireless providers. While the Department of Transportation has official jurisdiction over lampposts, service providers are normally responsible for inspecting and guaranteeing the safety of their equipment. As the tragic accidents involving electrified wires protruding from lampposts earlier this year have shown, it is important to clarify any jurisdictional issues and private sector responsibilities with respect to the installation of antennas on public property.

With respect to technical interference, another NYCwireless board member Dustin Goodwin commented that, "By renting out lampposts, the city has put a commercial carrier right outside everyone's window. So, in essence, your unlicensed spectrum is no longer yours or your neighbor's but whomever can rent space on the side walk." This is because, under this deal, a private service provider could, theoretically, use all of the unlicensed spectrum inside a commercial or residential property, thereby slowing or shutting down a home or business wireless network.

Currently, the city's Department of Design and Construction, along with the Department of Transportation, is holding a competition to redesign its lampposts. One wonders how the current wireless lamppost plan will be coordinated with this redesign effort. The wireless antennas, the designs of which have been reviewed by the New York City art commission, are low-profile according to DoITT Commissioner Gino Menchini. In fact, they may be virtually unnoticeable from the street.

Following New York's announcement of the deal, other cities (including Philadelphia, Boston, Madison, Wisconsin and Culver City, California) made proclamations that they would turn their downtown areas into free Internet hotspots using wireless technology.

Philadelphia officials claim that they can turn their city into the world's largest wireless Internet hot spot for $10 million by placing hundreds of transmitters on lampposts. The service would either be free, or much cheaper than commercial providers.

New York City's technological competitiveness is of interest to all New Yorkers, and there should be more public discussion of this latest plan before antennas crop up on thousands of lampposts citywide.

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