New York City Tries to Even Out Access to Wireless Networks

INTI PACHECO FEBRUARY 26, 2019

The rush is on for wireless carriers to build up their networks so that they can handle next-generation 5G technology. So, how soon will they be installing new network equipment in your neighborhood? That may depend on where you live.

Consider this: Companies hunting for space in recent years to place wireless equipment in New York City snapped up the rights to street lamps and traffic lights dotting Fifth Avenue in the heart of Manhattan in 2013. They didn't stake claims to large clusters of sites in less affluent areas until three years later, a Wall Street Journal analysis of census records and data from the city's telecommunications department shows.

City officials are now trying to change that trend, pushing companies that lease public space for telecom-equipment installations to move more aggressively beyond the city's core, to improve wireless services more quickly for a broader swath of residents. The city limited the number of poles those companies could claim within the core area of Manhattan in its most recent round of leasing, in an effort to get the companies to allocate money that they would have spent there to poles that were available elsewhere.

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New York's efforts underscore questions of digital access and economic inequality that municipalities across the country are grappling with as they determine how to lease public space to facilitate the buildout of 5G networks. "There's absolutely a high correlation between affluence and buildout," particularly in urban areas across the country, says Ken Schmidt, president of Steel in the Air Inc., based in Syracuse, N.Y. The company advises property owners on lease negotiations.

These next-generation networks—which will provide much faster service than the existing 4G networks and enable a range of new services—make the leasing issues acute. That's because 5G equipment transmits signals over smaller areas than 4G equipment, so carriers will require far more sites for their equipment to provide the same geographic coverage.

Some 192,000 clusters of wireless antennas and radios are expected to be in place across the U.S. by the end of this year, according to S&P Global Market Intelligence, up from a total of about 24,900 three years ago.

New York City periodically makes public streetlight and traffic-light poles available for equipment installations by telecom companies. The city has long offered cheaper leases on public poletops outside of Manhattan's core business district as a way of sparking more interest in those areas, but progress in pushing companies farther afield was slow as they rolled out equipment for 4G wireless networks.

In its most recent round of poletop reservations, the city for the first time made more lampposts and traffic lights available outside the central Manhattan zone than within it. That period ran from November 2017 to

January 2018 and included about 2,400 poles. The city says it determines how many poles to make available in each round of leasing based on factors including its ability to monitor the installation process and the companies' needs.

"We're using every tool we have to ensure that this technology hits our streets in the most rapid, widespread and equitable way possible," says Samir Saini, commissioner of the city's Department of Information Technology and Telecommunications. The next round of leases hasn't been scheduled.

Telecom and tower companies looking to build clusters of the small, local cell sites needed for 5G and other wireless networks negotiate with municipal governments for space on public street poles because it's often cheaper and easier to secure multiple sites in a given area from governments than it is from private real-estate owners. Across their networks those companies lease space on public property, private buildings and on poles owned by utility companies and other service providers.

Jim Hyde, chief executive of ExteNet Systems Inc., one of the tower companies that leases poletop space from New York City, says ExteNet's customers typically have directed where they want to install equipment. The bottom line is that there is a need for service across all demographics, he says in commenting on the carriers' preferences for pole space.

Tower-leasing consultants say population density, household income and five-year population growth are among the factors tower companies and wireless carriers typically consider in deciding where to install new equipment. The age of potential customers in the area—particularly the

number age 15 to 35 who are likely to add new connections—data usage and occupations of people in the area are also important, consultants say.

Wireless service providers "conduct extensive planning, including projecting usage growth, to provide capacity, address coverage gaps and deploy network infrastructure for a good-quality consumer experience," says Tom Sawanobori, chief technology officer at telecommunications-industry trade body CTIA. More than 98% of Americans have access to three or more 4G wireless service providers, he says.

The FCC recently announced a plan to encourage a blazing fast wireless service called 5G. But what is 5G? And how far is the U.S. from rolling it out? Photo: Reuters

Of course, making poles available in less affluent areas doesn't mean they will all be claimed immediately. But cities believe that controlling which public infrastructure is available and at what price as networks are built out is one way for them to try to influence companies' installation patterns.

The Journal's analysis of leasing patterns in New York City found that between 2013 and 2016, tower companies claimed more poletops in areas where the median household income was $100,000 to $149,999 than in any other income bracket.

Of the 2,197 poletops leased in 2016, the year before the city's recent change in the distribution of leasing opportunities, 47% were located in areas in which the median income was $75,000 or more, while 32% were in areas with a median income of less than $50,000.

The data mostly count leases of city-owned streetlight and traffic-related poles where wireless equipment can be installed, but also include poles owned by utility companies such as Consolidated Edison Inc., telecoms like Verizon Communications Inc. and broadband providers like Charter Communications Inc. that also rent out their poletop space for cellular equipment.

New York City's poletop-leasing program generated $12.6 million in revenue in fiscal year 2018, up from $4.2 million three years earlier. Its future, however, is in limbo. The Federal Communications Commission, in an effort to speed the deployment of 5G, voted last year to override some local rules on permitting and fees. New York is one of several municipalities that opposed the measures, which have since faced a legal challenge in California.

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