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The Cellphone Imperative: If I Can't Text, I'm Moving

By MICHELLE HIGGINS OCT. 9, 2015

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What's more frustrating than being cut off in the middle of an important phone call or missing an urgent text because of a bad wireless connection? Having it happen while you're in your own living room.

As New York City apartment towers are built to new heights using cutting-edge design and technology, developers still often find themselves stymied by an important aspect of contemporary life: providing crystal-clear, never-quit cellphone service. It turns out that the thick concrete walls, reinforced steel floors and specially coated low-emissions windowpanes used in many new high-rises can weaken, if not block out, wireless signals.

And units perched in the clouds, at the level of or above cell tower antennas, may be in the path of competing wireless signals, causing interference.

To correct this issue, developers are installing elaborate in-house wireless networks to boost coverage within projects ranging from new rental towers in Williamsburg, Brooklyn, to condominium conversions in the 1913 Woolworth Building in Manhattan. Called distributed antenna systems, or D.A.S. for short, these use a fiber connection to bring wireless service from the various network providers directly into buildings.

Discrete antennas, each hidden inside a bowl-shape cover about the size of a smoke alarm, are then placed in strategic locations on each floor, distributing the signal throughout the building to eliminate dropped calls, enable faster downloads and ensure consistent coverage.

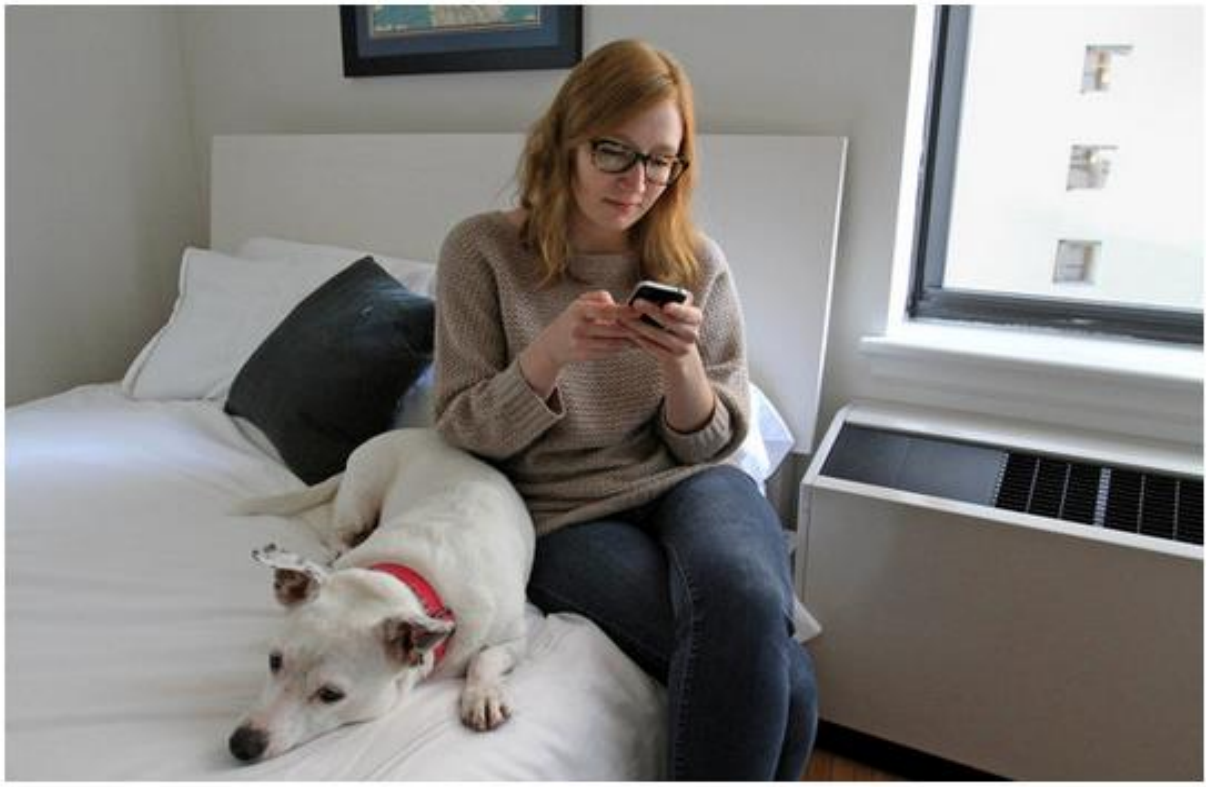
Without it, developers say, they risk losing residents.

"It could kill a deal," said David J. Maundrell III, the founder of aptsandlofts.com, which was acquired a few days ago by Citi Habitats. Being fully connected has become "a part of our daily routine," said Mr. Maundrell, noting how prospective residents constantly check their phones during showings. "People are addicted to it."

Aptsandlofts is handling sales for 247 North Seventh, a two-tower concrete rental complex in Williamsburg where the developer, Adam America, is adding an in-house wireless system to boost coverage.

Real estate brokers say that wireless coverage is becoming more important to apartment-hunters as more people ditch their landlines and rely on their cellphones for everything from checking email to buying groceries.

"A strong cell reception is a prerequisite," said Michael Graves, an associate broker at Douglas Elliman who at private showings has noticed more clients commenting about the number of bars on their phones, indicating the strength of service.



Good cellphone reception was a must-have for Audrey Huffman when she was looking for a home for herself and Lucy in New York. Tina Fineberg for The New York Times

"If you're living in Manhattan," he said, "you shouldn't be getting the cell reception that you would in the woods, especially when you're buying a multimillion-dollar apartment."

One anecdote circulating among high-end real estate brokers has Jay Z, the hip-hop artist and entrepreneur, walking away several years ago from a long-term lease on a luxury apartment in a Midtown East high-rise after just a few nights because his cellphone service was nothing to rap about. A publicist for Jay Z did not respond to a request for comment.

Of course, it's not just billionaires who expect their cellphones to work in their apartments. Renters on a budget are equally obsessed with their phones, particularly millennials, many of whom grew up with mobile devices in hand.

Audrey Huffman, 26, who in August moved to Manhattan from Houston to start a job working in tax advising, checked the cellphone reception at every place she toured during an apartment-hunting visit this summer. Making sure she could connect to the Internet and send and receive texts was at the top of her mind, she said, because "at my parents' house I have terrible cellphone reception."

At each prospective apartment, Ms. Huffman immediately took a photograph, sent it to her three older sisters via text and awaited their feedback. While she was able to send and receive texts at each place she visited, the prewar studio she ended up renting for $2,800 a month had "the most bars," she said. "It definitely played a part in my decision," added Ms. Huffman, who found her home with the help of Holly Harnsongkram, a saleswoman with Town Residential. "If one of them did not have cellphone service, that would have been a no for me."

That's the scenario developers are trying to avoid.

"Cellphones are just fundamental to how everyone lives," said Michael Gordon, the director of construction at World Wide Group, which is investing $1.8 million for a distributed antenna system at 252 East 57th Street, a new 65-story condominium tower with a curved glass facade. Costs for distributed antenna systems are typically based on square footage and range from $1 to $3 a square foot.

The building will house some 470 antennas and more than 20,000 linear feet of coaxial cable to ensure residents paying $4.3 million and up for apartments will have uninterrupted wireless service. "For this level of building that's top-end in every way, a D.A.S. is just part of the scope of the work," Mr. Gordon said.

Even in buildings that receive wireless signals, residents may experience problems if too many people in the area use the same wireless network at the same time. An in-house wireless network would reduce such capacity issues when call volume is high.

The antenna technology is fairly common in stadiums, hotels and more recently, office towers, said Laura Keyes, a senior account executive at Axispoint Technology Solutions Group, which designs and installs distributed antenna systems. "Residential buildings were later to the game," she said, "but now almost all new construction includes a specification for D.A.S."

Over the last year, the firm has designed 14 distributed antenna systems for new residential and commercial towers, double the number of the previous year. Clients range from the Modern, a 450-unit rental near the entrance to the George Washington Bridge in Fort Lee, N.J., to 432 Park Avenue in Manhattan, which topped out last year at 1,396 feet and holds the title for the tallest residential tower in the Western Hemisphere.

Adding the systems to older apartment buildings is rare, Ms. Keyes said. Once residents are in place, she said, management "doesn't have an incentive to spend the money." The exception is apartment complexes that are undergoing a major renovation. Retrofits are more common in commercial buildings like offices and hospitals, she noted, because of the demand for wireless in such environments.

Ms. Huffman texted test messages to her sisters from 90 West St. before deciding to settle there. Tina Fineberg for The New York Times

Several years ago, Time Equities acquired the top 10 floors of 633 Third Avenue, a 40-story tower where Gov. Andrew M. Cuomo has an office. Spotty cellphone coverage had been a problem at the building, and when the governor's lease was up, souping up reception "became a negotiation point in the renewal," said Robert Singer, the director of development for Time Equities. "As you might imagine, we had to quickly get in the game and figure out how to solve it."

Installing a D.A.S. at 633 Third Avenue "gave us a close understanding of this issue as we approached 50 West," said Mr. Singer, referring to the developer's latest project, a 64-story building with a curved curtain wall in the financial district.

Even though Time Equities would not know until it went up if 50 West was going to require an in-house wireless network, pathways for one were included in the design, including space for mechanical equipment and risers on each floor to house cables. Once the building was topped out, a technology consultant surveyed every floor and determined that yes, it should have seven antennas per floor, or about 450 total.

Related Companies began installing such systems in its new residential high-rises beginning with Superior Ink, a luxury condominium in the West Village that opened in 2009. Since then, it has added distributed antenna systems to MiMA, Abington House, One Madison Park and 1214 Fifth Avenue.

"It's a significant investment, but connectivity and cellphone coverage are important to our residents," said Bruce A. Beal Jr., the president of Related. "We continue to look for the best ways to optimize and enhance this experience as we plan all of our new developments."

Likewise, the Marketing Directors, a development, leasing and marketing company, has begun recommending the technology as a standard component of new high-rises. "The conversation used to be along the lines of, 'Listen, you might be able to increase values by doing this,' " said Angela Ferrara, the executive vice president of sales and leasing for the firm. "Now, it's 'You need to do this in order to be competitive.' "

Not every new building requires a D.A.S. Plenty of buildings have perfectly decent coverage without any cellphone-boosting technology.

But some developers, especially those at the high end, aren't willing to risk the possibility of iffy service. "Imagine if you're taking a prospective buyer though a space," said Alex J. Saltzman, a partner at Alchemy Properties, which is converting the top 30 floors of the Woolworth Building into luxury condominiums. At some point on the tour, he said, "they are going to look at their phone or send someone a picture. If they can't send it, it is kind of a red flag."

The developer recognized something would need to be done three years ago when it purchased, with partners, the landmark building's upper stories. "On the curb you have decent reception," said Mr. Saltzman, who is overseeing the conversion to condos. "Then once you're upstairs, it's miserable."

The developer plans to install a D.A.S. In the meantime, with renovations ongoing and sales underway at a nearby showroom, the team has had to find some creative workarounds when members want to talk to one another on their mobile phones.

"If I'm way upstairs, text usually works," said Lucia Finn, a project manager at Alchemy Properties. "An actual voice call is very unlikely." There's a landline in a construction office on the 34th floor, but if, say, Mr. Saltzman is off site and Ms. Finn is on an upper floor and they need to speak, they end up texting each other to schedule a call. Text messages generally require less capacity, so they often go through even when a voice call cannot.

"Alex will text to say, 'Can you call me?' I'll say, 'Give me 10 minutes and I'll come downstairs,' " Ms. Finn said.

A few weeks ago, she found herself wandering around a 43rd-floor terrace in an effort to get a signal. "You almost feel like, I can't believe I'm standing on my tippy toes, arching my back trying to get reception. It's comical."
