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Free Neighborhood Wi-Fi? Easier Said Than Done.

On April 2 in Washington D.C., the North of Massachusetts Avenue neighborhood — branded NoMa — launched the city's first outdoor neighborhood-wide free Wi-Fi network. And the project was much more challenging than officials expected.

NoMa is the fastest growing neighborhood in the city, according to the NoMa Business Industrial District (BID), and it now offers this network as part of the district's campaign to attract talented, tech-oriented people to live and work in the area — alongside existing organizations like NPR, the General Services Administration and the U.S. Department of Justice.

And according to NoMa BID President Robin-Eve Jasper, this launch is what their residents expected from the neighborhood — and they've gotten only positive feedback so far.

"You look around and see the world as changing; people are using their devices everywhere, and they're integrated into all aspects of our lives," Jasper said. "We thought, 'We want to enable people in the neighborhood to have service inside and outside,'" Jasper said. "We have a lot of very tech-savvy people, so they're very excited this is the first neighborhood in Washington to have it."

The launch on April 2 was the first phase of the rollout and provides access to roughly six streets — streets considered the neighborhood's core. The current set up can easily support up to 1,000 concurrent users, with data speeds of 200 Mbps, according to the district. Users should be able to stream high definition video throughout the neighborhood while outside, unless they are in a fast-moving vehicle or the network is particularly congested, Jasper said.

Though the official cost of the network has not yet been tabulated, Jasper said that it was expensive, despite a lot of local support from government agencies and community members. The network was more than one year in development, with one staff member who dedicated almost all her working hours for that year on the project. The rollout was funded entirely by district member dues, as well as supported by commodity contributions from the community.

"All the land owners donated the use of their roofs, so we're not paying any fees for that, which ordinarily they would charge," she said. "And DDOT [the District Department of Transportation] donated the use of all the electric and all the light poles, so we've got a lot of good in-kind value."

The network features 17 enterprise access points that distribute the signal. So far, the only glitch has been that one area of the neighborhood is not getting as much bandwidth as officials had anticipated, Jasper added, so the district is now working on solving that.

BID contracted with New York-based Skypackets to complete the technology rollout because the city did not have experience with this kind of project, she said, and officials didn't want to delay the rollout while they went through a learning process. The main rollout costs consisted of the equipment, pulling cable to buildings that didn't have it, and ongoing system management, she said.

Further upgrades to the network are now underway, including coverage for the remainder of the

neighborhood. One [map](#) of the neighborhood's outdoor Wi-Fi coverage shows that eventually, almost every street will be included in the coverage area. But, Jasper said, the timeline for the continued rollout has not yet been established because the district realized during the first phase that this type of project is difficult to predict.

"We initially thought the whole thing would take six months, and we were way off," she said, adding that the rollout took 11 months — and even more than a year if counting from the time the concept was conceived. "So it's just made us more cautious about estimating, and we found in terms of building the infrastructure that there were more challenges than we thought. We had to get cable into enough points to get what we think was sufficient bandwidth. We had to get equipment on roofs of private buildings, and every building has a different perspective on license agreements or data they needed about the equipment that we were putting up."

Despite some hiccups, support from the community has continued after the launch. Now that the network is operational, other buildings in the neighborhood have offered to contribute their infrastructure to be used in the network, offers the district is now considering alongside its future plans for the network.

"This is an active project, and we are closely monitoring the system's performance," Jasper said. "We plan to address any issues that negatively impact users and make sure that it is a quality network."

The neighborhood is growing very quickly, she added, and it's crucial that if BID is going to deploy a large, expensive project like this, that it provide the type of high-quality service that its residents expect.

[By Colin Wood](#)

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