



2020
DECEMBER

*Bridging the Digital Divide
for Every New Yorker
with a
Universal Internet Guarantee*



BROOKLYN-USA.ORG

*Jointly by the
Office of the
Brooklyn Borough President
Eric Adams*

and

*New York City Council Member
Ben Kallos*



EXECUTIVE SUMMARY

The coronavirus pandemic has shown all of us the importance of a reliable high-speed home internet connection, whether for remote learning and working from home or for gathering virtually with loved ones. There is a common cliché that “the virus doesn’t discriminate,” but the reality is that coronavirus disproportionately harms low-income communities of color impacted by systemic racism in government and the private sector. With many households in these communities lacking high-speed Internet, the shift to social distancing has been particularly challenging. As we prepare for a second wave, or for the next virus, we must rebuild our society with the guarantee of Universal Broadband—finally treating the Internet as a utility like phone service or electricity. We must use all of New York City’s local regulatory power to deliver on the promise of Universal Broadband by establishing a Universal Internet Guarantee.

Mayor de Blasio recently took a step in the right direction when he [announced \\$157 million in funding](#) to expand broadband Internet access to [600,000 underserved New Yorkers, including 200,000 public housing residents](#). But New York City’s public housing authority (NYCHA) has 173,762 public housing units, home to 381,159 authorized residents, and this plan would still leave half without Internet. More than [1.5 million New Yorkers do not have broadband](#), and this plan would leave nearly one million of them on the wrong side of the Digital Divide.

To deliver truly Universal Broadband, we need several fixes at once. We could start with rezoning to require affordable Internet Mandatory Inclusionary Internet, just like we required affordable housing with Mandatory Inclusionary Housing. We could offer incentives for 5G providers to offer affordable access. We can require cable providers to expand affordable Internet offerings we already won to every single low-income New Yorker. And if the providers won't do it, we can take over their networks and do it ourselves by establishing a Municipal Broadband network. We can upgrade existing infrastructure by speeding along the conversion of old payphones into free Internet kiosks and add WiFi to bus stops. We can even open up the city government’s wireless network to the public. The pandemic has shown us the importance of giving every public school student who needs one a laptop with affordable broadband in the home to eliminate the homework gap and give a whole new generation a real chance at equity. Where all else fails, for those we still haven’t reached in low-income communities of color, we must invest the millions promised by the Mayor in businesses owned and operated by women and people of color to spur innovation and connect every last New Yorker.

In partnership together, with an eye toward each of our roles in the city’s franchising, with votes, as Borough President on the Franchise and Concession Review Committee (FCRC), and as Council Member, on Internet franchises in the New York City Council, respectively, we have authored a report that focuses on some of the most important aspects of this digital divide and proposed solutions to help close it, bridge it and bring us closer to the equitable New York City we need to move toward today. The full report follows.

Zoning Our Way to Universal Internet: Mandatory Inclusionary Internet

New York City set a precedent for requiring public benefits from as-of-right development in 2016, when Mayor Bill de Blasio passed a massive citywide rezoning called [Mandatory Inclusionary Housing and Zoning for Quality and Affordability](#) (MIH-ZQA), which required affordable housing in all new development in rezoned neighborhoods.

We can take a similar approach to Internet access. More than [half of Internet traffic is now over a mobile device](#). Federal law is clear that municipalities can't stand in the way of progress and the propagation of these antennae, though case law supports regulation through zoning. If we can push the limits of land use by rezoning for affordable housing, we can do the same for affordable Internet and rezone New York City for Mandatory Inclusionary Internet.

5G Can Be the First Generation of Affordable Mobile Broadband

With [three-quarters of households predicted to use mobile as their only source of Internet](#) by 2025, if we are going to achieve Universal Broadband, we must focus on 5G. While [4G's speeds of 10 Mbps–15 Mbps](#) barely meet the [FCC's definition of broadband](#) of 25 Mbps, [5G will deliver faster speeds](#) of 50 Mbps and up.

New York City missed its chance with the [4G rollout in 2013](#), and [6G isn't slated until 2030](#), so this is our last opportunity for the next decade. We must require 5G providers to offer a free or low-cost option to connect low-income New Yorkers with high-speed Internet now.

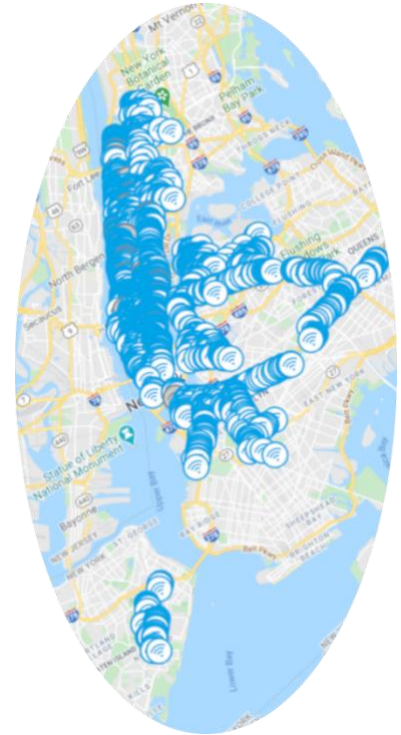
As New York City moves through the final approvals for a new 5G network, which mobile devices primarily will use to access the Internet, our zoning should provide incentives for providers who offer free or low-cost high-speed Internet to low-income residents. This can be achieved through a host of options, such as a reduced franchise fee, credits against a provider's franchise fee for what they provide in-kind, or increasing density of coverage. Whatever the option, the message is clear, if you want to provide 5G, make it affordable for those who would otherwise be left behind.

Free Municipal WiFi

New York City spent [half a billion dollars](#) in 2008 on its own municipal wireless network known as "NYCWiN", and we've spent \$37 million a year since to keep it running. Following NYCWiN's crash last year caused by a technical problem involving a known GPS rollover that did not get a patch, the city decided to abandon the network. Now taxpayers are spending \$50 million to decommission a municipal wireless network that we could just as easily open up to the public. The city government should flip the switch exposing wireless access points with an open network immediately or turn the network over to a non-profit to operate so that every New Yorker can immediately access free municipal WiFi.

Converting Payphone to Gigabit Wireless and Doing It Now

Few New Yorkers can remember the last time they used a payphone. That's why we've supported the transformation of these payphones since the [initial proposal in 2012](#). With a winner announced in late 2014, LinkNYC began installing kiosks [in 2015](#), with the promise of [4,550 kiosks by 2019 and 7,500 by 2024](#). Initially, many of the kiosks that were supposedly live weren't delivering Internet as promised, which is why Council Member Kallos worked with the franchisee to [set up real-time monitoring of every LinkNYC kiosk in New York City](#) so failures in the system could be identified and fixed immediately. We were disappointed to learn in 2018 that only [1,771 kiosks had been set up](#) with the city granting a two year extension to what will be a decade-long rollout if the new timeline is met. As of today, two years later, there are still only [1,790 active LinkNYC kiosks](#), largely concentrated in areas of the city that already had high Internet adoption rates. With a substantial failure to meet the objectives of the contract, we need to prioritize Internet access over revenue for the city and speed the rollout full steam ahead, not in five years, but today.



Public Transit Wireless

Subways remain the one place in the city without a connection, but not for long. Transit Wireless brought cellular antennae and free WiFi to [472 subway stations throughout the system at no cost to taxpayers](#), and Governor Cuomo has now issued a [challenge to bring service onto the trains themselves](#). Hundreds of new MTA buses are equipped with [USB chargers and WiFi](#), as is the [New York City Ferry](#).

Interestingly enough, bus shelters in New York City don't cost taxpayers a dime. In fact, JCDecaux pays the MTA for the right to advertise on [3,500 bus shelters](#). We've approached JCDecaux about expanding the number of shelters to cover more of the city's [16,350 bus stops](#) and replacing the current digital display of time and temperature with a display of real time passenger information (RTPI) for when the next bus is coming. This measure could reduce the costs for the city's [multimillion dollar rollout of dedicated freestanding bus countdown clocks](#).

The thing is, once you've got power and Internet at a bus shelter, there is no reason why we can't add USB charging and free Wi-Fi. With the slow speed of the LinkNYC kiosk rollout, there is no reason why we can't wire our 3,500 existing bus shelters and a larger portion of our total 16,350 bus stops. Being able to charging your phone with free WiFi might improve the experience of waiting for that bus that always seems to take forever (and we will use [BusTime](#) data to fix that too).

Franchise Our Way to Universal Broadband

We can franchise our way into Universal Broadband. New York City is unique: it is one of the largest media markets and one of the few major cities that grants not only exclusive but also non-exclusive franchise agreements, meaning the city decides whether one provider or multiple providers can serve the same geographic areas.

As a Borough President and Council Member we will use our votes on the Franchise and Concession Review Committee (FCRC) and Council to force every franchise agreement with providers offering Internet to include the mandate of affordability.

Franchise Cable to Provide Free or Low-Cost Broadband for All Low-Income New Yorkers

New York City has a rare opportunity, as Internet franchises with Charter's Spectrum, Optimum's Altice, and Verizon [have all expired as of July 2020](#). These agreements provide a model for how we can achieve Universal Broadband if we as a city are finally willing to make it a priority. When Charter sought to purchase Time Warner Cable, Council Member Kallos joined then-Public Advocate Letitia James to [demand free or low-cost high-speed Internet for public housing](#) along with hundreds of thousands of free hotspots throughout our parks, libraries, and public spaces. In 2017, Kallos joined James and Charter to [launch Spectrum Internet Assist](#), which offered high-speed Internet for only \$14.99 to any household with a student qualifying for free or reduced lunch or with a person collecting Supplemental Social Security income. This became the model adopted by Optimum as [Altice Advantage Internet](#). By our estimates, this program offered connectivity for \$14.99 to 175,867 seniors and 828,893 students, taken together, more than one million low-income New Yorkers.

Household Internet - U.S. Census - ACS 1-Year Estimates

S2801-Geography-United States: PERCENTAGE OF HOUSEHOLDS WITH BROADBAND INTERNET SUBSCRIPTION- United States – County by State; and Puerto Rico- Universe: Households

Legend: Households (HH); Broadband (BB)

County	2015						2018					
	Pop.	HH	# HH w/ BB	% HH w/ BB	# HH w/o Internet	% HH w/o Internet	Pop.	HH	# HH w/ BB	% HH w/ BB	# HH w/o Internet	% HH w/o Internet
Kings	2,636,735	940,176	699,556	74.41%	238,054	25.32%	2,582,830	950,856	738,124	77.63%	183,231	19.27%
Queens	2,339,150	774,752	617,233	79.67%	154,649	19.96%	2,278,906	779,234	638,554	81.95%	121,489	15.59%
New York	1,644,518	751,244	606,478	80.73%	142,682	18.99%	1,628,701	758,133	631,391	83.28%	99,835	13.17%
Bronx	1,455,444	495,513	334,635	67.53%	159,448	32.18%	1,432,132	499,728	362,407	72.52%	111,527	22.32%
Richmond	474,558	167,462	135,547	80.94%	31,683	18.92%	476,179	166,152	134,735	81.09%	26,178	15.76%
NYC	8,550,405	3,129,147	2,393,449	76.49%	726,516	23.22%	8,398,748	3,154,103	2,505,211	79.43%	542,260	17.19%

In 2015, the digital divide was widest in boroughs with the most low-income communities of color. One-in-four households in Brooklyn and a staggering one-in-three households in the Bronx did not have Internet. Following the implementation of low-cost broadband, in 2018 both boroughs shot up to exceed the previous citywide average, with a gap of about 19 to 22 percent. This change may also be in part caused by a 2017 change in the U.S. Census’ [American Community Survey](#) which went from counting homes with broadband subscriptions to homes with Internet through any of cable, fiber, satellite, or cellular, or even notably for anyone using their neighbor’s WiFi “Internet access without a subscription.”

New York City must expand free and low-cost broadband options for low-income New Yorkers as part of any new franchise that is renewed or granted. Some examples of what we could require:

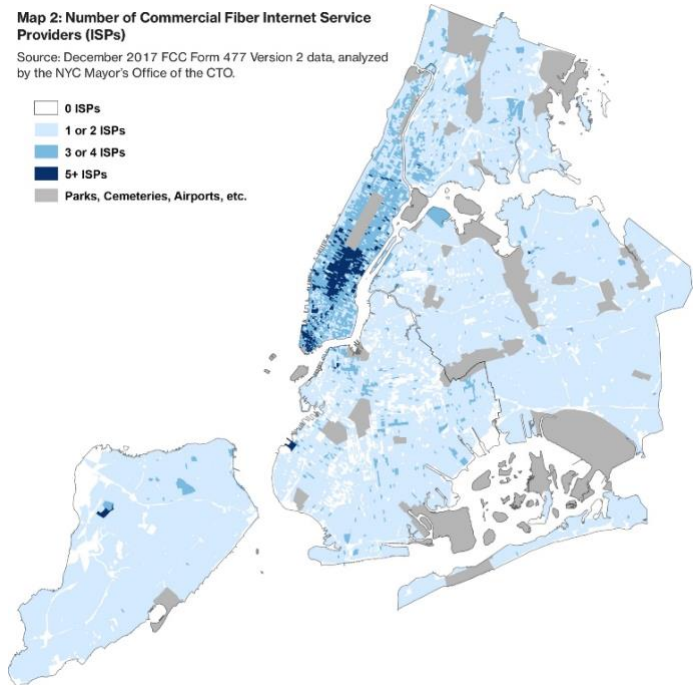
- **Universal Low-Cost High-Speed Internet for Low-Income New Yorkers** – We must expand qualification for low-cost Internet programs from recipients of free and reduced school lunch and Supplemental Social Security Income to covering anyone receiving government assistance including Medicaid, SNAP, HEAP, and housing assistance such as Section 8, SCRIE or DRIE.
- **Public Housing Online** – Our city’s biggest landlords have historically negotiated bulk rate discounts for their tenants, and New York City Housing Authority (NYCHA) public housing should be no different. Whether it is a free connection or a reduced \$14.99 a month rate for residents, the coaxial cable wire is already in the walls, and the most efficient, quickest way to get broadband in NYCHA would be to just attach a cable modem. Cable franchises could recoup funds from giving away Internet service from profits derived by households that added unsubsidized phone or television channels.

- **Wire Our Community and Create a “Tech Jobs Pipeline from Poverty”** – Removing barriers to getting online is essential, but without literacy, the access is meaningless. We must offer computer labs in community centers serving youth, seniors, public housing residents, and those experiencing homelessness. These labs would be staffed by their constituencies who would receive training, salary, and on the job experience for up to two years before getting jobs doing the same work for employers who are more reliant on the Internet than ever before.
- **Wired Schools, Wired Libraries, and Wireless Parks** – Existing franchise agreements and federal regulations mandate a reduced fee structure for public schools and libraries, and existing agreements mandate free hotspots for the public in our parks. These offerings should be monitored and expanded to cover every public school, library, and park.
- **Net Neutrality and No Data Caps** – Video uses up the most bandwidth, from streaming Netflix to working and learning online through Zoom and other platforms. We can’t afford to see an Internet “fast lane” policy or data caps that limit our ability to work, learn, or relax. Without protection from the FCC, New York is on its own to guarantee these protections, which we have won before and cannot afford to lose in future franchise renewals.

Anyone familiar with federal regulations restricting the power of municipalities to affect the price of service might find these ideas far-fetched but we have already won low-cost high-speed Internet for low-income New Yorkers as part of the transfer of a franchise, so there is no reason we cannot do it again. For those still unpersuaded, the city could trade its hundred-million-dollar franchise fees for these services in kind. After all, as most businesses would tell you, giving away a product or service at cost is always better than having someone take a share of your revenue off the top.

Franchise Fiber to Increase Competition and Deliver Affordable Fiber for All Low-Income New Yorkers

New York City's franchise for fiber has expired, and the Mayor submitted a resolution to the City Council in October 2020 for its renewal. According to the Mayor's Internet Master Plan, current fiber providers are largely focused on [serving central and financial business districts in Manhattan](#), leaving most residential neighborhoods in New York City with only one or two fiber providers to choose from. City government can increase competition to drive down costs by incentivizing fiber franchisees to lay fiber in underserved residential neighborhoods. The city could even incentivize or provide a bounty for connecting neighborhoods and individuals who are on the wrong side of the digital divide with affordable fiber.



New York City also has a rare opportunity to use this fiber franchise as the backbone for Municipal Broadband. Fiber optic cable costs only pennies on the foot, with the majority of costs for laying new fiber associated with the labor of getting it in the ground or stringing it along utility poles. As part of our new franchise agreement, the city can either require a strand set aside for affordable Internet through a Mandatory Inclusionary Internet model, or just pay the pennies to cover the cost of our strand so we can provide our own service.

Whether through increased competition, incentives for affordability, Mandatory Inclusionary Internet, or Municipal Broadband, fiber optic cable can light the way to Universal Broadband to finally bridge the digital divide.

Municipal Broadband

In our quest for Universal Broadband, our nation, state, and city has sought to get it done through the private sector. Should 5G, cable, or fiber providers fail to come to the table with real solutions to bridge the digital divide, relying on protections from the current FCC that limit how much a municipality can demand, the federal law does offer an option for a municipality to just buy out a franchisee's equipment and take it over to launch our own Municipal Broadband.

In a budget crisis, some might ask where the money would come from. In establishing the costs, we would argue that given a corporation's ability to use depreciation of assets for tax savings, the city would only be on the hook for the value of the assets after depreciation. Depending on whether depreciation was taken upfront or over time, the value for much of the equipment would be zero, with the city paying only a fraction of the cost for everything else. Whether the city owned and operated the equipment ourselves or covered costs with a non-profit franchise partner, we should implement Municipal Broadband now.

One Laptop Per Child with Broadband

Public school students in New York City have been on the front lines of the digital divide. Students without computers or broadband at home are part of an increasing [homework gap](#), which has in turn led to an achievement gap between low-income students of color and their wealthier peers. The dream of giving every student a laptop had been long out of reach. However, with the pandemic shutting down in-person learning, this dream became a reality within a matter of months as the city rushed to purchase [300,000 iPads with LTE for a whopping \\$269 million](#). Months into this school year, [77,000 students still do not have devices with Internet](#).

As we continue through the pandemic with a hybrid learning model and prepare for a next wave or the next pandemic, we must create a sustainable solution to offer students devices with keyboards and actual broadband speeds. Alongside Public Advocate Jumaane Williams, Manhattan Borough President Gale Brewer, and Council Member Farah Louis, we introduced legislation to [guarantee every public school student a laptop with Internet](#).

We must also guarantee broadband for our students in public schools and public higher education. Former Public Advocate Letitia James and Council Member Kallos have already secured [high-speed Internet for a low-cost of \\$14.99 for public school students on free and reduced school lunch](#). Public schools should work with Spectrum and Altice to ensure eligible families are getting this discounted rate. For some families, the reduced rate can still present a hardship, and our school system should cover the cost for them or ask the providers to do so. When the pandemic began, Silicon Harlem and Council Member Kallos [asked Spectrum to offer free service to public school students](#). In March, Spectrum began offering [free Internet for all students for 60 days](#), adding nearly [half a million new households](#). [Altice made the same offer](#). Both offers have been [extended for this school year](#). Following the free period, eligible families are able to continue their service for \$14.99 a month. We can and must work with our Internet providers to guarantee our public school students broadband in their homes that they can rely on throughout their education.

The Longest Mile Is Always the Last

As we've sought to wire our nations for electricity, then phones, then cable, and now Internet, the [last mile has always been the hardest](#). The Internet should be treated as a utility just like the rest and work just like your light switch or faucet.

We've outlined concrete and specific powers that our city can use to bridge the digital divide and deliver on the promise of universal broadband without incurring significant costs. With Mayor de Blasio's announcement of a \$157 million investment, it would be a waste to see much of that money go towards the litany of opportunities we've outlined instead of investing in new creative solutions.

For example, [Wireless Mesh Internet](#) providers have found a means to compete against major franchisees. [NYC Mesh](#) has built a network using WiFi and [Starry](#) uses millimeter wave technology to beam high speed Internet into homes without needing to lay fiber optic cable. These are intriguing options, but there are likely ideas out there that we haven't even thought of yet.

The Mayor's investment should be directed at spurring innovation from local inventors and entrepreneurs right here in New York City who have a new approach that can create a long term and sustainable change. These millions should be used to target our efforts where nothing else has worked. We can use the Census American Community Survey (ACS) data to target individual underserved blocks. With so many of these households in low-income communities of color, we should use our city's existing Minority and Women-owned Business Enterprise (MWBE) framework to invest in companies owned and operated by women and people of color who can connect the communities in which they live.

Conclusion

There is nowhere like New York City. We have so much to offer and a veritable Swiss Army knife of tools we can use to bridge the digital divide and finally deliver on the promise of Universal Broadband. As we reimagine our cable, fiber, and 5G networks, as well as how we connect public transit and retrofit payphones, few cities have so many opportunities, let alone the land use and franchise powers along with market size that allow us to demand the affordability we need for those still left behind by the digital divide. We must use every lever of power until we meet our goal. In the worst case, we would achieve Universal Broadband only to find overlapping service and redundancy, though that could easily be scaled back, if necessary. With so many franchises expired or set to expire, now is the time to be bold and demand nothing less than a high-speed Internet connection for every New Yorker. We as a city must give our residents a Universal Internet Guarantee.

As a current Borough President and Council Member, we will use our current powers to deliver affordable Internet to every New Yorker. We want to wake up in a city where every New Yorker can connect.