New York City: The Case for a Carrier-Neutral Infrastructure

New York City's legacy conduit system could provide a blueprint for the benefits of carrier-neutral infrastructure.

By Shrihari Pandit / *Stealth Communications*

After months of infrastructure negotiations, Congress has agreed to throw a colossal $65 billion toward broadband funding. Of that, $42 billion has been allocated to government-owned networks, allowing states to build infrastructure that incumbent internet service providers (ISPs) have long been reluctant to invest in.

Various models are being touted. However, there is growing momentum for open-access infrastructure, which allows multiple providers to compete for customers. At the recent **BROADBAND COMMUNITIES** Summit, Kimberly McKinley, vice president of marketing at UTOPIA Fiber, framed open-access as analogous to the competition among commercial airlines to serve passengers between airports built, owned and operated by local government entities. UTOPIA operates a successful open-access model in Utah.

In public-private partnerships, the public entity builds the capital-intensive infrastructure, which sometimes includes fiber and sometimes just poles or conduits. New York City has a legacy conduit system. Although it's not fully open, it might still provide an instructive example of the benefits of carrier-neutral infrastructure.

NYC'S COMMERCIAL FIBER HISTORY

Dating back to 1891, Empire City Subway has been responsible for maintaining the conduits of Manhattan and the Bronx and the maintenance holes by which they are accessed. The infrastructure is a shared, non-discriminatory system for commercial fiber providers to serve the broadband market. Consequently, there is robust competition; upward of a dozen ISPs offer fiber to businesses in these parts of New York, thus increasing the incentive to deliver high-quality service and better pricing.

History diverges in Brooklyn and Queens, which weren't considered part of New York City then. Even today, their conduits are administered differently, neither rational nor neutral, resulting in gaps in fiber optic infrastructure in those boroughs.

BREAKING THE CABLE/TELCO DUOPOLY

Though the commercial market in New York City is flourishing, Spectrum and Verizon have primarily operated as a duopoly in the NYC residential broadband market. For years, incumbent ISPs have built conduit points of entry in a way that severely limits the access of other providers. Because of structural barriers such as this, many apartment buildings in the city cannot offer any variety of services to their residents.

Beyond the infrastructure challenges, there's a decades-long history of exclusivity deals between building owners and service providers. With very little competition in this

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market, providers have little incentive to improve services. As the COVID-19 pandemic drove more people to work from home, it became clear that many residents have substandard service, with very constricted upstream bandwidth for two-way applications such as Zoom.

Universal connectivity has long been a goal of the New York City government. In January 2020, Mayor Bill de Blasio released the NYC Master Plan, introducing an ambitious framework centered around an open infrastructure model, envisioned with frequent interconnection points. The approach involves laying fiber that touches every street intersection and is accessible to multiple ISPs. This will increase competition, ultimately lowering the cost of internet access and making it more available to the disconnected. A mere two months later, New York City was battered by the COVID-19 pandemic. Fittingly, the lockdown magnified the very issues the Master Plan sought to address. Unfortunately, it also delayed the implementation process.

EXPLORING OPEN ACCESS

As Manhattan's and the Bronx's non-discriminatory infrastructure has

shown, public funds should be spent on publicly owned infrastructure. Referred to by many in the industry as "Layer Zero," an open-access system allows access to utility poles, conduits, points of entry, rights of way and more. States (or counties or municipalities) can build open-access conduit systems akin to interstate highways or local airports. The government can do its best by eliminating capital-intensive roadblocks for extending fiber. Governments see their long-term civic interests and close the gaps incumbent ISPs driven purely by economic incentives leave.

By embracing a public infrastructure/private service model, government bodies and the ISPs involved can share responsibilities. This option is great for communities that do not want the burden of operating a communications network or performing customer service tasks but are more comfortable in control of things such as infrastructure, financing and rights of way.

LOOKING FORWARD

Historically, the government has thrown billions of dollars at big telecom companies to connect to rural parts of the U.S. This has failed

repeatedly. By opening the door for smaller ISPs, consumers will have more provider choices, and their service will undoubtedly improve because of marketplace competition.

More important, competition might provide the most resilient system for long-term sustainability. With a neutral framework, commercial broadband in Manhattan and the Bronx has seen tremendous success. This can be taken to the next level through an open-access system. This design approach has already popped up across the country, for example in Ammon, Idaho, garnering support from businesses and residents alike. The U.S. is in serious need of a broadband overhaul. Government funding finally gives states power to create the infrastructure that's in their best interest. With a neutral approach to infrastructure, this can be achieved. ❖

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