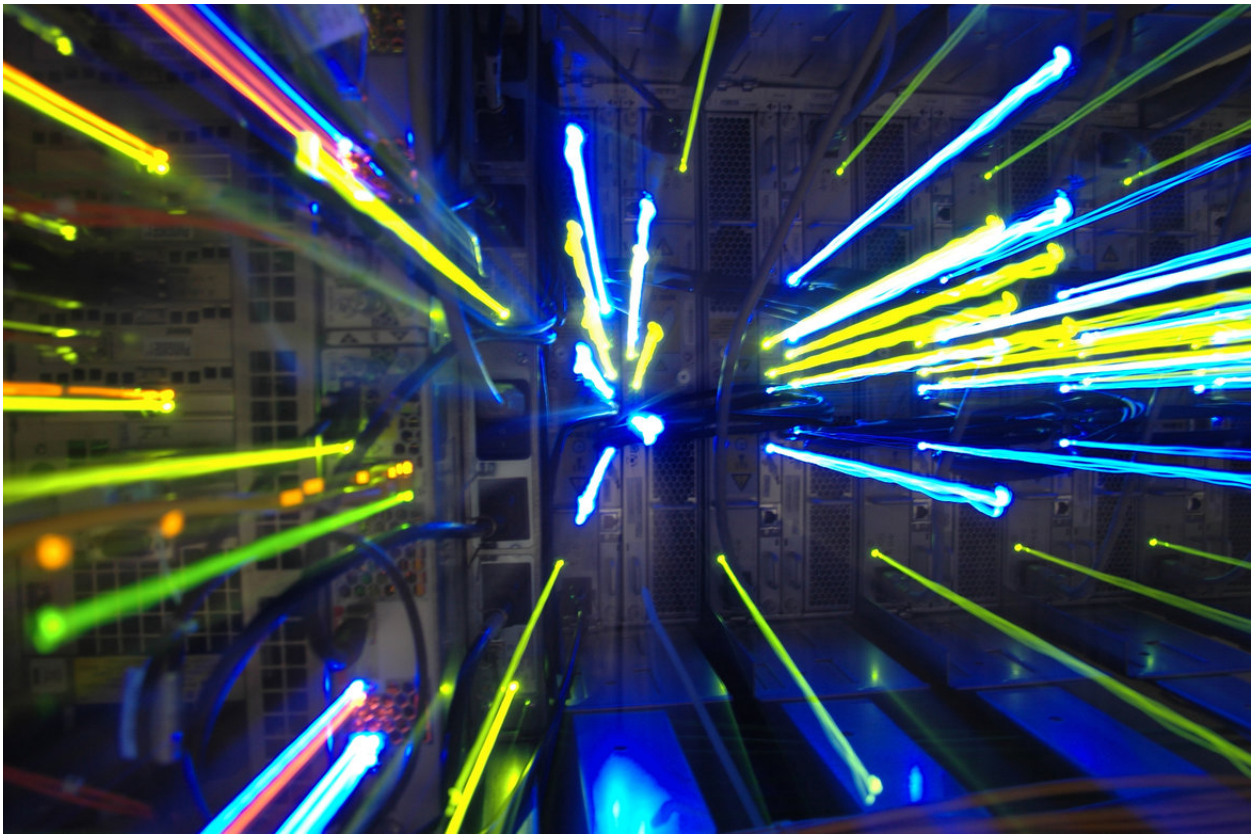
San Francisco's Gigabit Master Plan: A Sign of the Times

Colin Wood | March 15, 2016



San Francisco is taking broadband seriously.

Following the announcement of a city partnership with Google Fiber last month, the office of Supervisor Mark Farrell announced on March 15 the appointment of two officials to a Municipal Fiber Advisory Panel, and released a report that recommends the city pursue a public-private partnership to build an open-access fiber network that serves everyone in San Francisco.

“When you turn on the faucet, clean water comes out. When you turn on the light switch, the lights come on. And when you open your laptop, everyone should have access to a fast Internet connection – whether you live in Pacific Heights or the Bayview,” Farrell said in a press release. “Low-cost, high-speed Internet is the utility of the 21st century, and as the innovation capital of the world, San Francisco’s leadership on this issue should be a no-brainer.”

The 103-page report compares two competing broadband philosophies: the demand-based model used by private-sector Internet service providers (ISPs), and the more expensive utility approach that ensures everyone will have access. Because the report concluded that everyone has the right to Internet access, it ruled out the demand-based approach.

San Francisco's Gigabit Decision

The muni-fiber report for San Francisco shows that the cost of the network to the city would vary depending on partnerships chosen. A publicly funded broadband utility network would cost the city an estimated $867.3 million in construction costs plus an additional $231.7 million annually in maintenance costs. Accounting for subscriber revenue, the city could expect an annual deficit of $145 million. For this reason — and also to promote market competition — the report instead recommended a public-private partnership model wherein all homes and businesses would be charged a utility fee averaging $26 per month for baseline Internet access. Tiered pricing models based on service type or bandwidth use could offset operational costs and potentially lower the baseline fee.

The Municipal Fiber Advisory Panel, which will advise policymakers on how the network should expand, is co-chaired by CIO Miguel Gamiño and Chief Innovation Officer Jay Nath.

San Francisco's examination of a citywide fiber network is founded on the digital divide, the disparity in access to technology between societal classes, and also a general lack of access to high-speed Internet. Less than 3 percent of people in San Francisco have access to gigabit connectivity, while more than 100,000 residents, or 12 percent of the population, do not have any Internet access at home. An additional 50,000 residents, or 6 percent of the population, only have access to dial-up speed Internet.

"Past efforts to bring low-cost Internet access to the entire city have failed, and we have learned from those efforts," Farrell said in the release. "After this analysis, we are more committed than ever to bringing low-cost, Gigabit-speed Internet to everybody in San Francisco."

The report, which recommended a public-private partnership model wherein all homes and businesses would be charged a utility fee averaging $26 per month for baseline Internet access, outlines San Francisco's examination of three success stories in municipal broadband: the famed gigabit network run by EPB in Chattanooga, Tenn.; the Google Fiber and Kansas City partnership; and the Westminster, Md., partnership with broadband up-and-comer Ting that was announced late last year.

Each of these case studies represent a municipality with a unique population size, goal set and political environment. The diversity in municipal broadband projects that are represented in recent history indicate a trend of innovation. No longer content to wait for private industry, cities like San Francisco and smaller are building the kinds of networks and partnerships that serve the persistent demand for connectivity.

And innovative partnerships like these are a boon to cities, said Christopher Mitchell of the Institute for Local Self-Reliance, because they provide an opportunity for government to focus on its area of expertise. Governments, he said, can manage physical things like digging holes, and leave the rapid progression of technology and

challenges of building new customer-centric businesses to experienced private-sector partners. Though new, this trend is the realization of an old aspiration.

“I think for a long time, cities have wanted to build fiber networks where they would not have to offer services directly,” Mitchell said. “So the cities would basically create the fiber network, but lease it or make it open to one or more providers that would use it to compete."

And that, he added, has been a challenge on multiple fronts, but largely because there weren’t always ISPs willing to use the municipal fiber network to compete.

"Certainly the large cable and telephone companies have refused," Mitchell said. "Now to have Google say that they’re doing that in Huntsville, Ala., and if they do it elsewhere, which I suspect they will, then it legitimizes the model where cities can build fiber networks just like they build roads and let other people use them as basic infrastructure.”

If the major incumbent broadband providers weren’t worried about a diminished market share a few years ago when fiber was first launching, then they are definitely paying attention now. Google Fiber started slow, but its name now reaches into 22 cities with projects at varying degrees of maturity.

And the company’s willingness to enter lease partnerships with cities like Huntsville, Atlanta and San Francisco demonstrates a willingness to adapt to local needs and new dynamics in the market. Google’s bold entrepreneurism also makes a new market appear more approachable to smaller companies, so companies like Ting, which began as a cellular service provider leasing tower bandwidth from major providers, are testing the market in Charlottesville, Va., and Westminster, Md., while keeping an eye on Greater Sandpoint, Idaho, and Holly Springs, N.C.

When the Federal Communication Commission classified broadband as a utility under Title II last year, the main headline pertained to issues of net neutrality, but the policy change, along with this administration’s egalitarian leaning, had the side effect of subtly re-framing how people think Internet access should be considered. New models of municipal broadband emerged in parallel with the attitude that Internet is a service that everyone should be able to take for granted. That idea was more controversial five years ago than it is today.

Google Fiber’s changing model is a good sign, Mitchell said, because it allows them to expand faster, but it’s also a little scary if cities don’t open their networks to foster competition.

“I would like to live in a world where there’s a lot of companies like Google that are doing this, not just one or two,” Mitchell said. “I don’t want to see Google having 50 million subscribers. The fear in my mind is any company getting to large in this regard gives them too much power."

When one company has that much market share, he said, it gives them outside power to influence legislation.

"We see this both in D.C. and state capitols," Mitchell added. "Google hasn't been one to abuse that to my knowledge yet, but you certainly see it from the cable companies and the telephone companies. So my worry would be that as Google becomes the only game in town for super-fast internet in a number of places, they would have more power. And that's a criticism I would have of any one entity having that kind of power."

In Santa Cruz, Calif., an ISP called Cruzio is opening up the market through partnerships with the University of California, Santa Cruz; city and county government; and businesses and advocacy groups. Arrangements like these are precursors to Google Fiber's work in Huntsville, Mitchell said, because they both follow to pattern where the city owns and manages the physical assets, but leases the fiber to other companies looking to upset the market and serve new customers.

"This isn't coming out of the blue," Mitchell said. "It's an exclamation point of several other examples that give me reason to think we're going to see more of this."

http://www.govtech.com/network/San-Franciscos-Gigabit-Master-Plan-A-Sign-of-the-Times.html