

## ARTICLE

# INTERNET SERVICE MASTER PLANS

## **Alternative Concepts for Providing Internet Service.**

Internet Service Master Plans are being developed, or at least explored, by communities across America. The two system configuration options are: internet service as a utility; or, internet service as a commercial service.

In Florida, the state legislature has deemed it appropriate that internet service is a commercial activity controlled by private companies that provide service in areas that make financial sense. Poor areas may not meet this criteria and it is the option of the commercial providers to serve these areas, or not. Even though the cities will not be regulating or providing comprehensive service, a plan for how to best guide the private companies is necessary. The Lakeland example below starts to address this approach.

Some states permit local governments and agencies [only cities are specifically discussed in the cases below] to provide internet service as a public utility. In those cases, a master plan for internet service makes sense and examples of nascent efforts in this direction are provided below.

## **A Resource: *CommunityNetworks.***

“Discover how communities are investing in their own Internet infrastructure to promote economic prosperity and improve quality of life.

“At MuniNetworks.org, we provide resources for those joining the movement to build broadband networks that are directly accountable to the communities they serve. Case studies, fact sheets, and video are some of the media we offer to help leaders make decisions about community owned networks.

### **ILSR's Mission:**

“The Institute’s mission is to provide innovative strategies, working models and timely information to support environmentally sound and equitable community development. To this end, ILSR works with citizens, activists, policymakers and entrepreneurs to design systems, policies and enterprises that meet local or regional needs; to maximize human, material, natural and financial resources; and to ensure that the benefits of these systems and resources accrue to all local citizens.



“Democracy Fund, Ford Foundation, and the Open Society Foundations. It was created and is maintained by the Community Broadband Networks Initiative of the [Institute for Local Self-Reliance.](#)”

Link: <https://muninetworks.org/content/about-us>

**Examples: internet master planning in selected cities.**

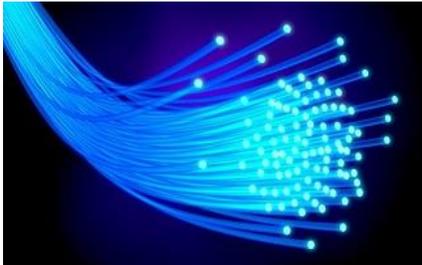
Ten communities have been selected as examples of cities interested in providing their communities with high speed broadband internet service, as a utility, or citywide resource for all residents and businesses. While comprehensive service is a goal, economic development is a motivation. The business community interested in competing in the New Innovation Economy, the global economy, needs high speed broadband internet service to access the world's economic and financial markets.

In many cases, the current commercial internet providers are opposing the efforts of these cities to provide comprehensive internet service within their jurisdictions as a public service. Elections, campaign contributions and political controversies are determining the method for providing service. At some point, internet service will be provided as a public utility, even if it is provided by private companies. In the meantime, despite the controversies and setbacks, the plans and policies proposed by the selected cities are instructive and inspirational:

- **Grand Junction, CO**
- **Vallejo, CA**
- **San Francisco, CA**
- **Chattanooga, TN**
- **Holland, MI**
- **Seattle, WA**
- **South Bay Workforce Investment Board,  
Hawthorne CA**
- **Fort Collins, CO**
- **Lakeland, FL**



## Broadband Master Plan



In April 2015, by an overwhelming majority of 77%, Grand Junction voters approved an override of Colorado Senate Bill 05-152. That override allows the City of Grand Junction to take steps to improve the Internet services for our community. As cities and towns across America compete for new business by offering high speed Internet (frequently referred to as broadband) services, it's imperative for the City of Grand Junction to keep up in order to foster economic growth and development for our citizens and businesses.

Broadband refers to high quality Internet services enabling faster and more reliable data transmission. It is an evolving term which is currently defined as Internet service at download speeds of at least 25 megabits per second. Broadband can provide access to a wide range of resources including education, entertainment, tele-health, commerce, and improved public safety services.

The master planning process is underway and will provide information and recommendations that will allow the City to make informed decisions regarding investments in broadband infrastructure and actions the City can take to expand its use in the community. The plan will solicit input from all of the various stakeholders – businesses, citizens, providers, carriers, legislative representatives and City staff – to ensure a coordinated approach that accelerates broadband development, increases cost savings, and takes advantage of funding opportunities that are available. It is expected that the plan will also provide direction related to code enhancements that will promote cost-effective broadband infrastructure construction in conjunction with City capital projects, as well as private utility and development efforts. If you have questions, please

**Broadband Master Plan**

Link: <http://www.gjcity.org/business-and-economic-development/broadband-master-plan/>

# Fiber Optic Master Plan

Prepared for the **City of Vallejo, California**  
February 2016

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## 1 Executive Summary

The City of Vallejo hired CTC Technology & Energy (CTC) to develop a Fiber Optic Master Plan that would guide the feasibility, long-term planning, budgeting and implementation of a municipal broadband network.

### 1.3 Recommendations

**1.3.1 Let Market Demand and Prudent Financial Analysis Guide City Investment in Infrastructure Expansion.** The 48-count fiber in the backbone and the City site connections provide some capacity for institutional and enterprise use, but may require enhancement for large-scale use. We recommend waiting until demand is clearly needed and upgrading capacity only on routes that need it.

*May 26, 2017*

## City of Vallejo and INYO Networks Launch High-Speed, Affordable Internet Through Public-Private Partnership

VALLEJO, CA – The City of Vallejo and Inyo Networks, Inc. will launch internet services in Summer 2017 using the City-owned fiber network, establishing Vallejo as an economic hub for the tech economy and providing improvements in health, education, and public safety.

### Link:

[https://www.google.com/search?q=Fiber+Optic+Master+Plan+Prepared+for+the+City+of+Vallejo%2C+California+February+2016&rlz=1C1ARAA\\_enUS431US436&oq=Fiber+Optic+Master+Plan+Prepared+for+the+City+of+Vallejo%2C+California+February+2016&aqs=chrome..69i57.1052j0j8&sourceid=chrome&ie=UTF-8](https://www.google.com/search?q=Fiber+Optic+Master+Plan+Prepared+for+the+City+of+Vallejo%2C+California+February+2016&rlz=1C1ARAA_enUS431US436&oq=Fiber+Optic+Master+Plan+Prepared+for+the+City+of+Vallejo%2C+California+February+2016&aqs=chrome..69i57.1052j0j8&sourceid=chrome&ie=UTF-8)

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

BY [COLIN WOOD](#) / MARCH 15, 2016

*The diversity in recent municipal broadband projects history indicate a trend of innovation. No longer content to wait for private industry, cities large and small are building the kinds of networks and partnerships that serve the persistent demand for connectivity.*

## **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.

Link: <http://www.govtech.com/network/san-franciscos-gigabit-master-plan-a-sign-of-the-times.html>

[Future Society](#) Oct 27, 2017

## **San Francisco Has Approved a Plan For City-Wide Fiber Internet**

*Creative Commons*

San Francisco has signed off on a plan to supply all homes and businesses in the city with a fiber optic internet connection. This could set a precedent for works around the world.

## “Gig City” Chattanooga Broadband Boosted to 10 Gigs

*Chattanooga will offer 10 gigabit broadband speed to over 170,000 customers in an attempt to capture emerging tech entrepreneurs.*

BY DAVE FLESSNER, CHATTANOOGA TIMES/FREE PRESS, TENN. / OCTOBER 16, 2015



SHUTTERSTOCK

(TNS) -- Chattanooga's EPB, which created America's first "Gig city" five years ago with its citywide gigabit (1,000 Mbps) Internet service, is taking ultra-fast broadband connections to an even higher level with the addition of 10 Gig service throughout Chattanooga.

The city-owned utility announced today that it is now offering 10 gigabit broadband to any of EPB's 170,000 customers. The 10 Gig service will be offered to any residential customer for \$299 per month, compared with the \$69.99 for EPB's current single gig service.

Chattanooga appears to be the third city to offer such a service, but it is by far the largest. Vermont Telephone offered 10-gig service to its 18,000 customers in Springfield, Vermont in June 2015, and Salisbury, North Carolina offered to service to its 33,000 customers in North Carolina in September.

Link: <http://www.govtech.com/internet/Gig-City-Chattanooga-Broadband-Boosted-to-10-Gigs.html>

LBMC

December 5, 2017

# To Bridge the Digital Divide, Some Cities Have Taken the Matter Into Their Own Hands

by Jason Ruiz in News

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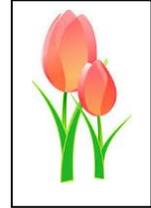
*Chattanooga, Tennessee's publicly-owned internet service hasn't just helped to bridge the digital divide and give its residents the fastest internet in the country at an affordable price, it's also paid dividends for a formerly struggling postindustrial city. File photo.*

Link: <https://lbpost.com/news/chattanooga/>

# Fiber optic internet is expanding in downtown Holland

By Sydney.Smith / @hollandsentinel.com / 616-546-4219

Posted Aug 4, 2017 at 9:02 AM



The expansion will begin in September.

Two unanimous votes have given fiber optic internet the go-ahead in downtown Holland.

Holland City Council on Wednesday, Aug. 2, voted on an ordinance that will expand a fiber optic internet pilot to all of downtown Holland.

“We need it to be a smarter society,” said Councilman Brian Burch, who has been the most vocal proponent of fiber in Holland. “We need this to bring information into our community.”

The adopted ordinance establishes the Holland Board of Public Works as an internet provider, as well as the rates and fees for customers of the service.

Residential customers will pay \$85 a month, or “enhanced internet” is offered at \$220. That service is mainly for businesses, though residential customers can buy it too.

Construction to expand the BPW’s already-existing fiber network will cost about \$600,000, depending on how many downtown customers there are. The BPW board will vote on a construction contract at its meeting on Aug. 7. Construction is scheduled to begin in September, with the first customers online in November.

Fiber and internet is being offered by BPW as a fourth utility, like electricity.

BPW will continue studying the service and how many people are using it to possibly expanding further in Holland in the future.

“I’m looking forward to the next step of the pilot and the even broader broadband rollout in the city,” Burch said.

Link: <http://www.hollandsentinel.com/news/20170804/fiber-optic-internet-is-expanding-in-downtown-holland>

## Seattle City Council expected to add municipal broadband to long-term master plan

BY **MONICA NICKELSBURG** on September 14, 2016 at 9:41 am  
(Photo via Shutterstock).

Advocates of municipal broadband in Seattle are expected to win a small victory at Thursday's City Council meeting.



Councilmember Rob Johnson (Photo via [Seattle.gov](http://Seattle.gov)) is planning to add an amendment to the Mayor's Comprehensive Master Plan that puts municipal broadband — public internet regulated like a utility — into the city's long-term growth plans.

If it passes, the city will “add an affirmative commitment to study and potentially implement a municipal broadband system,” but the amendment does not include a concrete date or funding plan to implement the service. That's significant because financing has been the biggest obstacle preventing Seattle from adopting municipal broadband.

Last summer, a study commissioned by the city of Seattle [determined that building a municipal gigabit fiber network would cost \\$480 million to \\$665 million](#), a project too costly for the city to take on without outside financing or a major partnership. Plans for public internet in Seattle have stagnated since the results of the study came out but the amendment to the Mayor's plan would reopen the conversation. Devin Glaser, policy and political director of the public broadband advocacy group Upgrade Seattle, expects the council to approve the amendment.

“I don't foresee it as being a controversial issue, just because there is no price tag associated with it, but you never know,” he said. “There's definitely internet service providers who don't want this to go through. They'd like to keep it out of the plan, so if they have any ability to stop it, I'm sure they'd like to. But I'm sure with enough public support, no one is going to vote it away. The city wants this. The constituents want this.”

Link: <https://www.geekwire.com/2016/seattle-city-council-expected-add-municipal->

[broadband-long-term-master-plan/](#)

## [South Bay Workforce Investment Board Accepting Master Plan RFP Submissions](#)

Posted May 31, 2016 by [lgonzalez](#)



The [South Bay Workforce Investment Board](#) (SBWIB) is now accepting submissions from firms interested in developing a Fiber Optic Master Plan for the organization. Interested organizations need to act quickly, however, as the submission deadline is tomorrow, **June 1st, 2016, 5:00 p.m. (PST)**.

For details on the project budget, the scope of the work, timeline, and other important information, check out the [Request for Proposals](#) (RFP) from the SBWIB.

You can also contact Chris Cagle, Regional Affairs Manager, via email at [ccagle\(at\)sbwib.org](mailto:ccagle@sbwib.org) with questions.

The SBWIB is a non-profit organization working to provide employment and training programs through its four business and career centers. The organization serves the California communities of Carson, El Segundo, Gardena, Hawthorne, Hermosa Beach, Inglewood, Manhattan Beach, Redondo Beach, Lomita and Torrance.

Link: <https://muninetworks.org/content/south-bay-workforce-investment-board-accepting-master-plan-rfp-submissions>

## [Feasibility Study Offers Food For Thought In Fort Collins, CO](#)

Posted September 6, 2016 by [lgonzalez](#)



Fort Collins has the numbers, now it must weigh its options as it steps forward. This month the City Council received the results of a feasibility study it commissioned late in 2015 to help fill in its Broadband Strategic Plan. The results, along with city staff analysis, [are now available for review](#) (item no. 3 from the Aug. 23rd meeting).

### **A Growing Interest**

Last fall, voters [chose to reclaim local authority](#) by opting out of Colorado's SB 152, which in 2005 took away local telecommunications infrastructure decisions from municipalities. A resounding 83 percent of voters voiced their desire to have the option to develop a municipal utility. [Local media](#) and [businesses had expressed](#) their support for better connectivity through public ownership. Residents [wrote to local papers](#) describing how Fort Collins needed better Internet access to spur [economic development](#). Clearly, the momentum was running strong.

### **Examining Several Options**

The study examined several possible models, including retail, wholesale, and public private partnership models. The staff summary of the report suggests that staff consider a retail model, while more expensive to deploy, the least risky of those examined. From the staff summary:

Total funding requirement for a retail model is \$125M with the project becoming net cash positive in 15 years.

Link: <https://muninetworks.org/content/feasibility-study-offers-food-thought-fort-collins-co>

# Lakeland, Florida, Takes Small Steps

Tue, October 11, 2016 | Posted by [lgonzalez](#)



This spring, Lakeland city officials [began contemplating the future](#) of the city's dark fiber network with an eye toward making a firm decision on whether or not to expand how they use it. Rather than pursue a municipal Internet network, Commissioners recently decided to seek out private sector partners to improve local connectivity.

## Too Much For Lakeland?

Kudos to Christopher Guinn of the Ledger for [very thorough reporting](#) on the issue. According to his article, the city will release a Request for Proposals (RFP) for a solution that provides Gigabit (1,000 Megabits per second) connectivity to replace the current speeds in Lakeland. Cable serves the community now with maximum speeds of 150 Megabits per second (Mbps) download and about 10 Mbps upload.

In addition to the difficulty of establishing an Internet access utility, City Commissioners appeared intimidated by incumbents:

"I look at us trying to develop and design a fiber-to-the-home (network), the marketing, the technical support and all that, and going up against current providers, and I don't see it," Commissioner Don Selvage said.

## Pilot Won't Fly

One of the options the Commission considered was a pilot project in a limited area, but that idea didn't catch on either. Commissioner Justin Troller advocated for the pilot project:

"I think we should have a test area. If that's something that costs we can say we tried it, we invested in it, it didn't work and we're moving on and finding a private partner," Troller said. He added: "I'm not against going out and seeing what the private sector will offer us. I'm saying how do we know we can't do it if we don't do it?"

While a number of Commissioners agreed that high-quality Internet access is critical for both economic development and the residents' quality of life, fear of facing off against incumbent Charter overcame any vision of how a municipal network could benefit Lakeland:

"For most of us there is not a philosophical problem with expanding utilities. This is a utility; we can pretty well justify it ... (and) when you look at the revenue possibility down the road to replace the hospital it makes good governmental sense," [Mayor Howard] Wiggs said.

But incumbent providers are not obligated to play nice with new competition, Wiggs said, and he worried an operation like Charter Communications could severely drop prices and erode the city's market edge.

### **Not A Total Loss**

While Commissioners chose not to pursue the municipal network plan, they did support a number of items intended to encourage better connectivity in Lakeland:

- It will submit a bid for supplying internet access to Polk County schools when its current contract expires with the goal of making money from existing assets while reducing the cost of the School District's services.
- To address the "digital divide" between rich and poor, Lakeland will consider expanding its free wireless service, SurfLakeland, into neighborhoods. The service is currently available in municipal buildings and in Munn Park.
- Wiggs recently made a pitch to other municipal leaders in Polk County to join forces in encouraging broadband expansion throughout the county.
- The city will continue its "dig once" policy for all infrastructure work — that when roads are closed and crews dispatched for underground utility work, conduit that could be used for fiber optics is put in place.
- The city's "dark fiber" network, which provides intra-city connections for companies and organizations with multiple facilities, will be more actively marketed. Currently the program generates about \$4 million each year.
- The city will also look at fees and licensing costs to determine if they are discouraging private investment.

The Lakeland Regional Airport will deploy its own fiber infrastructure and will offer Internet access to tenants. The project had been considered as a business pilot and, according to the article, costs are now going to be covered in part with federal and state grants specifically earmarked for airports.

### **Citizens Want Action**

[Gigabit Lakeland](#), the grassroots organization advocating for a municipal network, expressed their dissatisfaction with the decision. Shane Mahoney, one of the group's leaders, talked to the Ledger: A partnership with a private provider has not been his favored outcome, Mahoney said, but his group intends to continue pressuring the city toward better internet infrastructure in the city, particularly for residents who do not have quality access because of price or location.

Link: <https://muninetworks.org/content/lakeland-florida-takes-small-steps>