



San Francisco TechConnect

Response to the Request for Information and Comment (RFI/C) on
the San Francisco Community Wireless Broadband Initiative

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RFI/C INTRODUCTION

The Pacific Research Institute (PRI), a think tank based in San Francisco, hereby submits its response for the Request for Information and Comment (RFI/C) to the San Francisco TechConnect Community Wireless Broadband Initiative.

About the Pacific Research Institute

Founded in 1979, PRI promotes the principles of individual freedom and personal responsibility in the public policy process. The Institute believes these principles are best encouraged through policies that emphasize a free economy, private initiative, and limited government. By focusing on issues such as education, the environment, health care, entrepreneurship, and technology, the Institute strives to foster a better understanding of the principles of a free society among leaders in government, the media, and the business community.

PRI's Technology Studies Department, led by director Sonia Arrison, serves as an educational resource for the tech community, and a policy force at the local, state, and national level. Through policy papers, public testimony, and published opinions, Ms. Arrison and her policy staff communicate the importance of facilitating high-tech investment and innovation in our society.

OVERALL RESPONSE

PRI believes that proposals for government-controlled wireless broadband networks are based on flawed concepts that would harm communities if implemented. Such systems are expensive, difficult to maintain, risky to build, and cause legitimate concern for free speech. Furthermore, we take issue with many of the premises behind the RFI/C questions, as our research indicates broadband in San Francisco is already affordable and universal. Rather than create an expensive enterprise on the backs of local taxpayers, public officials should explore existing routes to foster increased private-sector broadband deployment.

The TechConnect RFI/C outlined ten business model and policy questions to be answered by respondents with no commercial interest in the project. Based on our research, we believe public officials are asking the wrong questions, and are proceeding with this initiative with unsound information. PRI recommends six areas of questioning that should be the focus of San Francisco TechConnect. They are: 1) Small Business Impact, 2) Security, 3) Content/Free Speech, 4) Budgeting, 5) Tech Support, and 6) Social Issues. These questions are detailed below.

Small Business Impact

- Many small businesses currently provide free Wi-Fi as an inducement for visiting their premises. How does the city plan to respond when these businesses lose an important competitive tool?
- Will the city reimburse businesses who must install special equipment to maintain the integrity of their existing systems in the case of interference caused by the city-owned system?

Security

- What steps is the city taking to ensure that the government-controlled Wi-Fi network does not interfere with existing private, personal, and small business Wi-Fi systems?
- How will the city monitor for illegal uses of the Wi-Fi system, and what safeguards is the city putting into place to prevent hackers from compromising the network?
- Is this to be an open network, closed or support both modes? That is, will the city consider charging people twice – once through their tax dollars and once through a fee? If so, is that appropriate?
- What security mechanisms are to be implemented? Will the city be providing intrusion detection, DoS mitigation, etc.?
- Will the city provide security software (anti-virus, personal firewall, etc.) or application software for users?

Content/Free Speech

- How will the city ensure parental controls on its public Wi-Fi network?
- Is the city intending to comply with the Children's Internet Protection Act if necessary?
- How will the city prevent illegal downloading and piracy of copyrighted material?
- Has any planning taken place or funding set aside for complying with subpoenas from the RIAA?

Budgeting

- How will capital costs be funded at the beginning of construction? Will current government services be cut to cover the costs or will the city incur a greater deficit?

- If costs run over budget, will taxpayers be liable for paying excess costs? Is there any limit to taxpayer liability for these costs?
- If operation of the system is outsourced to a non-profit entity, what percentage of that entity's revenues will be spent on operations?
- If the city will provide security software for network users, how will that be financed?

Tech Support

- How will the city deal with system breakdowns? Is the government capable of responding to maintenance and customer service requests as fast as the private sector? Is there any precedent for this?
- How will the city or its contractor ensure the reliability of the Wi-Fi system in the case of a disaster? Will back-up power be available? What specific plans exist to strengthen the system?
- How will the city deliver its Wi-Fi signal with sufficient strength to serve tall buildings and users further than 300 feet from antennas on city rights-of-way? What RF planning tools and techniques are used to plan the system for coverage and capacity?
- Will all city Wi-Fi antennas be located on city-owned property and structures? If on private property, will the city compensate property owners or use its power of eminent domain?
- Will customer support be carried out by city employees or outsourced? If outsourced, will support personnel be unionized and will offshore outsourcing be utilized? Does the city require that any level of benefits or healthcare be provided for support personnel?

Social

- Realistically, how many people do you think will benefit from this system? To what extent is it redundant?
- How will the city provide Wi-Fi capable devices to those who cannot afford them?
- How will the city ensure that devices provided to economically underprivileged people are not stolen or sold to others?

PRI's alternate questions underscore the weakness in San Francisco's RFI/C. As city officials now indulge themselves with seemingly lucrative business proposals and "thumbs up" public comments, there is little self-examination into whether the city should even create a government-controlled wireless network in the first place. The lack of open debate on this topic, and the speed of program development leave one to wonder whether San Francisco TechConnect fits the interests of local politicians better than the interests of the public.

QUESTIONS TO RESPONDENTS

To address the goals and policy standards of San Francisco TechConnect, PRI finds four inherent problems with the structure of the initiative. They are: 1) misconceptions about broadband affordability, 2) misinformation about broadband ubiquity, 3) glaring oversights in the capability of public stewardship, and 4) the belief that muni Wi-Fi is the only answer to government goals. We expand on each point below.

Service Affordability

Due to preceding public agreements and private investment, local broadband is already affordable, and in some cases, free of charge. Major broadband providers SBC and Comcast offer promotional pricing of less than \$30 a month for high-speed Internet access, and charge normal rates that are comparable to the cost of a monthly MUNI bus pass.¹ T-Mobile has already wired over 80 locations in San Francisco for Wi-Fi service, and offers a promotional \$29.99/mo for a one year commitment for unlimited nationwide use, or \$39.99 month-to-month.²

Local public libraries are also wired for free broadband access, as are many small businesses that depend on their complimentary Wi-Fi “hot spots” to draw clientele. Last year, federal administrators for the universal service program committed more than \$3 million for subsidized Internet access to the San Francisco Unified School District.³ Additionally, through their local cable franchise agreement, San Francisco has already made Comcast agree to wire and serve city libraries for broadband access, free of charge.⁴

Broadband Ubiquity

The San Francisco Bay Area Metropolitan Statistical Area (MSA) is the No. 1 market for wireless Internet accessibility in the United States, bringing into question the need for a municipal wireless network.⁵ Some have suggested that local low-income neighborhoods don’t have equal access to broadband, and that the only way to provide it is through municipal means. However, FCC data shows otherwise. Based on information from federal broadband reports, when all San Franciscan zip codes are taken together, the average number of high-speed Internet providers (DSL, cable modem, wireless, satellite, fiber) offering broadband service to at least one customer is around 12.⁶ When one

1 “SBC – Offers and Promotions – CA.” 2005. SBC Communications. September 27, 2005. <<http://www.sbc.com/gen/general?pid=6463>>.“Select a Package.” 2005. Comcast Corporation. September 27, 2005. <<http://www.comcast.com/Buyflow/default.aspx?PromoID=20200>>.

2 “Wireless Internet Access – T-Mobile HotSpots.” 2005. T-Mobile USA. September 27, 2005. <http://www.t-mobile.com/hotspot/services_plans.htm>.

3 “FCC Filings First Quarter 2005 – Universal Service Administrative Company (USAC).” 2005. Universal Service Administrative Company. September 27, 2005. <<http://www.universalservice.org/overview/filings/2005/Q1/SL15%20-%20Funding%20Year%202004%20Commitments%20-%203Q2004.xls>>.

4 “Comcast Cable Franchise Renewal: Documents.” 2005. City and County of San Francisco. September 27, 2005. http://www.sfgov.org/site/franchise_index.asp?id=30875.

5 “San Francisco Bay Area Sails Into Top Spot In Intel’s ‘Most Unwired Cities’ Survey.” April 6, 2004. Intel Corporation. September 27, 2005. <<http://www.intel.com/pressroom/archive/releases/20040406corp.htm>>.

6 Federal Communications Commission; Zip Codes by Number of High-Speed Service Providers. Washington, D.C., July 2005.

examines the zip codes of poorer neighborhoods, like the Bayview District, Hunters Point, and Western Addition, the data show they are serviced by the same number as the city average.

Government provision of broadband has been on legislator's minds for years, but it has been abandoned on the statewide level for good reasons. A few years ago, legislators in Sacramento commissioned research to ascertain its feasibility within the state's universal service system, but as they found in the later published study, universal broadband is a costly, difficult, and unnecessary enterprise.⁷ Subsidizing broadband access for low-income and rural residents statewide would have drastic effects on the consumer market, resulting in an additional 4% government surcharge for non-subsidized broadband subscribers, quadrupling low-cost basic telephone, and raising costs for the state's own low-income program by \$1 billion per year. While it was found that high-speed Internet access is available to 73% of Californians, only 13-17% actually subscribed for service – undercutting arguments that broadband was an “essential” communications service that warranted government intervention for some segments of society. Albeit on a smaller scale, San Francisco TechConnect is proceeding with the same faulty reasoning that threatened to cost Californians \$1 billion annually. Hopefully, this should give local lawmakers and program proponents pause before proceeding.

Public Management

A host of challenges hamstringing the feasibility of the mayor's initiative from the beginning. The City's unique topography, large buildings, and foggy weather would make a municipal wireless network costly and difficult to operate, as the technology has limited range and depends on interference-free environments to make connections. Furthermore, City Hall is in no financial position to take on additional government projects. The Board of Supervisors faced a projected \$59 million budget shortfall this year, which it dodged by raising parking fines and fees for local services.⁸ But the price tag for a San Francisco Wi-Fi network starts at \$10 to \$18 million, and could spiral out of control, as it did in Philadelphia.⁹

Over a year ago, city officials in Philadelphia proudly announced that their city-run Wi-Fi network, Wireless Philadelphia, would only cost \$10 million to build and would be freely accessible for city residents, with construction beginning in February of 2005. Now, Wireless Philadelphia is expected to cost in the neighborhood of \$15 to \$18 million, with many residents required to pay \$10 to \$20 a month for access, and construction finally beginning next month. As Philly officials now take a sobering second look at their project, their experience underscores a dangerous problem with supporting municipal broadband networks – governments are not held accountable by marketplace rules.

When private companies provide poor service, unwanted goods, or charge exorbitant rates, they lose revenue and customers, forcing them to provide more effective,

⁷ California Public Utilities Commission; SB 1712 Study of High-Speed Internet Subsidies. San Francisco: Summer 2002.

⁸ Gordon, Rachel. “Newsom signs \$5.3 billion budget.” San Francisco Chronicle 5 August 2005. B4.

⁹ Langberg, Mike. “Philadelphia experiment a cautionary tale on WiFi.” San Jose Mercury News 14 September 2005.

friendlier service to stay financially afloat. But when taxpayer dollars are on the line, and government bureaucrats fail to properly plan for the future, the public is stuck with the consequences – shoddy service, rising costs, and unwieldy programs. Clearly, there is a legitimate fairness question that must be acknowledged by proponents of muni Wi-Fi. Like Philadelphians, San Franciscans need to be informed about the real costs they would likely incur, and all the risks that are involved.

Tacoma, Wash., Marietta, Ga., Kutztown, Penn., Ashland, Or., Bristol, Virg., Paragould, Ark., Trion, Ga., Cedar Falls, Iowa, and Grant County, Wash. are all additional examples of failures in government-controlled information systems. The public officials involved either raised taxes to cover rising costs or cut services in other areas, a precarious proposition when emergency services like police and fire are on the line. In Tacoma, for example, the city's utility ran a \$23-million operational deficit in 2001-2002 on top of \$16 million in operating deficits that accumulated over past years.¹⁰ Such a dire situation would lead a private corporation into bankruptcy, but Tacoma avoided this scenario by simply charging residents for this mismanagement. While failure of city-run networks is unfortunate, it is not surprising.

The communications industry is a high-risk area of investment with constantly changing technology and expensive labor and material costs. It is difficult enough for private industry to keep up with the latest developments, let alone lethargic government bureaucracies. This weakness puts millions of taxpayer dollars at risk and diverts money away from important public causes. City-run networks also make it less likely the U.S. will shake itself out of its competitive disadvantage in broadband anytime soon.

Furthermore, the income levels of San Francisco's consumer base is cause enough to refrain from moving forward with muni Wi-Fi. Based on the latest Census figures, the median family income in San Francisco is \$67,809, the third highest rate in the United States, and nearly \$15,000 more than the national average.¹¹ With over 700,000 residents, the size of the local market helps keep broadband prices lower for low-income individuals, and helps broadband providers upgrade equipment and expand consumer choice. Market intervention by City Hall could alter prices and harm all consumers, for the benefit of the few.

Solutions

Rather than cut a giant check and run another city service into the ground, The City and County of San Francisco should work with Mayor Gavin Newsom to facilitate more private investment in broadband deployment. PRI proposes two major ways to do this – reforming local laws for Right-of-Way management and cable franchise agreements.

1) Right-of-Way (ROW) Reform

¹⁰ Barret, John and David G. Tuerck. "Municipal Broadband in Concord: An In-Depth Analysis." Beacon Hill Institute, March 2004.

¹¹ "San Francisco city, California – Selected Economic Characteristics: 2004." 2005. U.S. Census Bureau. September 27, 2005.

<http://factfinder.census.gov/servlet/ACSSAFFacts?_event=&geo_id=05000US06075&_geoContext=01000US%7C04000US06%7C05000US06075&_street=&_county=san+francisco&_cityTown=san+francisco&_state=&_zip=&_lang=en&_sse=on&ActiveGeoDiv=&_useEV=&petxt=fph&pgsl=050>.

In order to build broadband infrastructure in California, right-of-way permits are often required by various agencies including federal, state, local and even tribal governments. Obtaining the permits can take as little as a few weeks but sometimes months or even years.

Officials in Orange, Riverside and San Bernardino counties recently took two years to approve permits for SBC.¹² The next time someone complains that providers are taking too long to get broadband service to a particular area, they should consider the enormous barriers government has created to high-speed rollout. To the credit of the California Public Utilities Commission (CPUC), it has recognized these serious problems. In a report released earlier this year, the CPUC noted “uncertainty caused by the Right of Way application process is a barrier to [broadband] deployment. Financing of projects is often based on estimated completion dates that are impossible to predict under the current process.” But the problem involves more than uncertainty. The rules are not technology-neutral, and some cities use the fees as a way to try to fix general budget problems.

To prevent similar problems in San Francisco, local officials should expedite a review of ROW rules and determine if there are ways to improve them, so as to reduce red tape and streamline broadband investment in the city.

2) Cable Franchise Law Reform

The cable industry is one of the major investors in broadband technology; as of December 2004, there are 21 million coaxial cable high-speed lines in the United States, cornering more than half of the national high-speed Internet market.¹³ This trend underscores the importance of local cable franchise laws, which play a strong role in local broadband ubiquity and competition.

Over the past three decades, federal attempts to foster competition and provide consumer protection in the video programming market have been stymied by some local governments that hold a vested interest in maintaining an uncompetitive system. The unspoken premise behind the cable franchise system is that cities are regulating a monopoly service for local residents. In exchange for charging high franchise fees and receiving significant financial and service concessions from cable companies, cities tacitly agree to insulate franchisees from market competition. This practice still thrives today, despite the fact that Congress has passed a series of laws to curb the market distortion and political favoritism caused by monopolist municipalities.

As a result, less than five percent of incumbent cable providers now face effective competition.¹⁴ Furthermore, without alternative cable service providers, service options and customer service have noticeably suffered in single-franchise cities. FCC data shows

¹² California Public Utilities Commission. Broadband Deployment in California, Final Edition. San Francisco: May 5, 2005.

¹³ Federal Communications Commission. High Speed Services for Internet Access. Washington, D.C. : July 7, 2005.

¹⁴ Federal Communications Commission. Annual Assessment Of The Status Of Competition In The Market For The Delivery Of Video Programming. 11th Edition. Washington: FCC, 2005.

that when cable service providers are allowed to compete in a city, consumers are offered lower cable rates, more channels, and have a better price-per-channel ratio than consumers in non-competitive municipalities.¹⁵ These rules and restrictions prevent both video programming and broadband deployment from reaching communities that have few choices.

San Francisco has already signed a local franchise agreement with Comcast Cable, and is in the process of renewing that agreement. During this process, the City and County should evaluate the business costs and service demands made through its local franchise agreement, and determine how they could be made to facilitate more market competition. RCN Telecom Services, a cable company and broadband provider, had earlier attempted to be a franchised cable provider in San Francisco, but had difficulty treading regulatory water here. San Francisco should allow for cable providers to use a mix of methods and cost-effective technologies in meeting traditional “build out” regulations, and commit itself to recruiting more alternative cable providers through an Open Video System (OVS) designation.

SUPPORTING INFORMATION

We hope our response to the San Francisco TechConnect RFI/C will help raise awareness of important issues, and further sound policy in local broadband deployment. For reference, PRI has attached a copy of a recent policy statement on municipal broadband networks, signed by 20 policy researchers and academics from across the country. We believe this document will help crystallize PRI’s analysis of San Francisco TechConnect, and our growing concerns with government-controlled wireless Internet.

Dated September 30th, 2005 at San Francisco, California.

15 Federal Communications Commission. Annual Assessment Of The Status Of Competition In The Market For The Delivery Of Video Programming. 11th Edition. Washington: FCC, 2005.

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