

San Francisco's Wireless Broadband Internet Access (WiFi) Network

Process

San Francisco has undertaken a thorough, innovative, and transparent process to reach an audacious goal: free WiFi for our residents. By undertaking two competitive processes, we asked the citizens of San Francisco what they thought we should do and we asked the best and brightest technical minds what they thought we should do.

- **Call for Action:** In his 2004 State of the City Address, Mayor Gavin Newsom outlined a vision of the future – a future where no San Franciscan was to be without basic building blocks to personal economic freedom. Those building blocks include access to the internet and a computer.
- **RFI/C** – The City conducted a Request for Information/Comment, which solicited extensive public input including over 300 public comments and 26 proposals from the private and non-profit sectors for how best to provide affordable, universal WiFi. The City incorporated many of the ideas and practices that were presented in the RFI/C process into the RFP.
- **RFP** -A review panel of city employees and an internationally known outside consulting firm undertook a detailed analysis of the proposals, each ranking them according to a methodology outlined in the RFP. The scores were combined and a final rating created for each proposer. EarthLink was the highest scorer.
- **Negotiations** -For the past seven (7) months, a team of City employees and consultants have been negotiating an agreement between the City and EarthLink to provide at little or no cost to the City, affordable and ubiquitous wireless Internet Broadband service.

Public/Private Partnership

San Francisco is pursuing a cooperative model that leverages the collective strengths of the public and private sector as well as the community itself. This model is consistent with many other large cities.

- The City is providing access to certain rights of way and assets.
- Earthlink installs, manages, and operate wireless broadband Internet access networks in municipalities throughout the United States in order to provide wireless broadband products and services to governments, businesses and consumers.
- Google contributes to our model by being the provider of the free service tier, and bringing innovative new applications and services to the network.

Agreement

San Francisco has negotiated an agreement that reflects a balanced approach to the provision of wireless broadband Internet services, taking into account a broad range of input, often contradictory. San Francisco has been able to negotiate an agreement that delivers more community benefit than any other City in the United States.

- **Consumer Choice:** This agreement fundamentally reflects the resident's rights as a consumer – to choose to use or not use the system.
- **Cost to the City:** With no financial commitment, taxpayer burden or risk for the design, deployment, operation, maintenance or support of the network.
- **Term:** A short, 4-year initial term, providing flexibility should market and/or technology changes occur. This is the shortest initial term of any U.S. city. The initial term of the agreement is four (4) years, with three (3) optional 4 year extensions.

Fees paid to the City:

- \$600,000 in guaranteed payments for access to the City's right of way.
- An estimated \$40,000 per year for the use of City facilities (street light poles);
- A 5% share of all gross access revenues, estimated to generate \$300,000 per year, depending on paying subscriber uptake. These funds may be used to fund computer and other equipment, training and self-help programs and community-relevant content development.

Network Speed:

- **A 300 Kbps free tier of service for use by all residents,** businesses and visitors. This 300 Kbps tier is adequate for most basic Internet tasks such as web, email and even VoIP. Assuming 30% uptake of the free tier of service, this generates more than \$4 million in value per year for the community.
- **A 1 Mbps symmetric services at a price of \$21.95 per month** for all residents and businesses. With identical upload and download speeds, this service is faster than existing ADSL services, plus it brings the added benefit of nomadic and mobile use.
- **A 1 Mbps service at the discounted rate of \$12.95 per month for up to 3,200 qualifying low-income residents.** This service delivers an estimated \$350,000 one year in community value.

Privacy:

Recognizing the concerns expressed by electronic privacy advocates and community members, the City has negotiated an Agreement that addresses the privacy needs of our residents, negotiating terms stronger than any other City and incorporating protections that go far beyond what federal, state or local law requires.

- EarthLink and the provider of the free service will be required to fully disclose their privacy policy. This ensures that all users are aware of the privacy policies.
- The Agreement establishes minimal standards for the privacy policy of EarthLink's paid services and for the free Wi-Fi service. EarthLink and the Free service provider shall submit any proposed change to their Privacy policy related

to the privacy policy standard to the City in writing. EarthLink shall not implement or publish the proposed change until the earlier of the City approving it or 45 days has passed without response.

- The City may propose changes to the EarthLink and Free service provider's privacy policy. The parties shall work in good faith to resolve any differences.
- EarthLink will not share protected personal information (such as name, address, phone number, financial and medical profiles, and credit card information) without the consent of the user, except in the following cases:
 - To third party suppliers, provided that users may opt out of receiving marketing communications.
 - To law enforcement with court-ordered documentation for a criminal or national security investigation
 - In response to a civil legal demand, but only after reasonable prior notice to the user.
- EarthLink shall provide Subscribers an opportunity to opt out of EarthLink's use of location information (i.e., information about the location of the user's computer or other device that is accessing the network) EarthLink shall retain Location Information no longer than 60 days.
- Sign-in to the free service will require only minimal information, mainly for the purpose of protecting the network from abuse by "robot software" and other malicious programs.

Open Access

Enhanced competition and consumer choice due to open access commitments;

Fixed, nomadic, and portable:

San Franciscans can access the network at a fixed location, can move to another location, or can access the network moving through the City.

Plan for preventing obsolescence:

The initial term of the agreement is four (4) years, with three (3) optional 4 year extensions. This short initial term protects the City's right to terminate or renegotiate provisions of the agreement if EarthLink is failing to perform or if market or technology conditions change.

Network neutrality. The City has required that EarthLink adhere to the Federal Communications Commission's (FCC) principles of internet freedom to address any potential for abuse of consumers or retail service providers.

Security:

The security of the information in the network will be based on the most up-to-date security protocols available. Users will have the option to use a secure login and to enhance the encryption of data through the use of their own Virtual Private Network (VPN.) EarthLink's approach to securing municipal Wi-Fi networks has been referred to as "the Gold Standard" by at least one industry expert.

Non exclusivity:

The agreement provides access to the City's right of way and facilities on a competitively

neutral and non discriminatory basis. Nothing will prevent additional Wi-Fi providers from deploying similar networks should they desire to do so.

Robustness and fault tolerance:

Mesh networks (like the one EarthLink will build) inherently provide a level of fault tolerance, due to their ability to “route around” failed nodes, be they from earthquakes or other disasters.

Open Access:

The agreement ensures that all internet service providers, including our local businesses, nonprofits and other organizations, will be able to provide commercial services without fear of a local monopoly. The City is not granting an exclusive franchise; rather, the City has negotiated an Agreement that provides the foundation for competition.

Proof of Concept:

The agreement requires that EarthLink first prove that their architecture, technology and deployment model is viable in a test area before proceeding to a citywide deployment. EarthLink will begin building a proof of concept phase 30 days from the date the Board of Supervisors approves the ordinance. The entire network will take less than a year to complete.

Service Level Agreements:

Are contemplated by the Agreement to be developed by the City and EarthLink during the proof of concept build-out.

Unlicensed spectrum:

The Wi-Fi tier of the network will make use of unlicensed spectrum, meaning that it may be prone to some interference. The City recognized that this tradeoff is one of the critical elements that will allow Wi-Fi to deliver new and innovative services, more universally and affordably. Some have suggested the City is allowing EarthLink to “monopolize” this spectrum. This is untrue, since the City has no authority to grant or deny the use of unlicensed spectrum. This is the sole authority of the FCC..

Technology Access

According to publicly available data, approximately 30% of San Francisco residents currently lack internet and computer access at home. This agreement especially recognizes the needs of those San Franciscans who cannot afford access to the internet due to the cost or the bundled nature of services of the incumbent telephone and cable providers.

- Approximately 50% of the nonwhite population lack internet access and 40% lack computer access at home.
- Approximately 70% of low income households lack internet access and 60% lack computer access at home.
- Approximately 55% of seniors (55+) lack internet access and 62% lack computer access and at home.
- Nationally, 62% of the disabled lack internet access at home.

Next Steps

- The agreement now goes to the Board of Supervisors for approval.
- The PUC and its commission will be considering and approving a separate Pole Use Agreement in order to allow EarthLink the rights to use the poles.