

AGENDA: November 15, 2005

CATEGORY: New Business

DEPT.: Community Development

TITLE: Agreement with Google, Inc. and PG&E
for the Use of Streetlight Poles for a City-
Wide Wireless Internet Access System

RECOMMENDATION

1. Authorize the City Manager to enter into a five-year nonexclusive agreement with Google, Inc. regarding the use of City-owned streetlight poles for placement of wireless Internet-access transmitters and the provision of Internet access services.
2. Authorize the City Manager to enter into an agreement with PG&E relating to the connection of wireless transmitters on City-owned streetlight poles.

FISCAL IMPACT

The City potentially could receive an annual payment of approximately \$12,600 [adjusted annually for increases in the Consumer Price Index (CPI)] for the placement of Google equipment on City-owned light poles. All installation and maintenance costs will be borne by Google, and utility costs will be paid by the City and fully reimbursed by Google, which is estimated to be \$3,000 to \$4,000 per year.

BACKGROUND AND ANALYSIS

Google, Inc., a Mountain View-based company, approached the City (see Attachment 1) to discuss the establishment of a no-cost City-wide wireless Internet network (WiFi) in Mountain View. Google is currently operating a variety of demonstration sites, both locally (Kapp's Pizza and Airborne Gymnastics) and nationally (Union Square, San Francisco and Rockefeller Center, New York). This would be one of the first City-wide networks of its kind in the country.

Deployment in Mountain View is considered a test network for Google to learn more about the cost and the ease of building and supporting a wireless network for future possible deployment to other cities and in other countries. Google selected Mountain View for this demonstration because the company is headquartered in the City, and they have a major concentration of employees (over 1,000) who are residents of Mountain View. This test network allows Google to easily test new services and products and gain a better understanding of how this emerging technology is being used. Google also believes that offering a no-cost WiFi service is key to closing the digital divide in communities, and they are willing to commit its resources to that end result.

In exchange for access to the City streetlight poles, Google will build a wireless network throughout the City. This WiFi network will initially cover approximately 80 percent to 90 percent of the City. A portion of the City will not be initially covered due to the absence of City-owned streetlight poles in some pockets of the City. These areas have utility/streetlight poles owned by PG&E, and permission from PG&E is required for deployment. Google plans to work with PG&E to gain access to these poles or possibly develop equipment that would allow these areas WiFi coverage. The WiFi network will provide no-cost service to homes and businesses by extending service to the exterior of their buildings. However, in order for WiFi users to get a stronger signal on the interior of their homes or businesses, they will have to purchase Consumer Premise Equipment (CPE). These units are available through local retailers or on the Internet and retail in the range of \$50 to \$100. As part of this demonstration, Google will be working with vendors to develop equipment that could further enhance the capability for network users.

To provide wireless Internet access throughout the City, Google will place radio transmitters on designated City streetlight poles. Photographs of the transmitters are included as Attachment 2. Each transmitter covers approximately three blocks, depending on obstacles such as buildings and trees. Approximately 300 to 400 transmitters will be needed to provide service throughout the City.

Google has requested the City enter into an agreement with PG&E for unmetered service that would allow it to connect its transmitters to a PG&E power source on the streetlight poles. The advantage to the City of entering into this agreement is that it reduces the amount of time it takes PG&E to process the agreement that will allow quicker City-wide deployment. It also gives the City more flexibility should it acquire the wireless system in the future, or if other providers are interested in similar deployment, they would be able to enter into an agreement with the City for PG&E services. The City's payment responsibilities and audit and indemnification obligations under the PG&E agreement will be passed through to Google to minimize risk and cost to the City.

To establish a test wireless network in Mountain View, a nonexclusive streetlight pole use agreement will be necessary to dictate the terms and conditions of transmitter placement. The network will function as an additional utility on our existing network of poles. The conditions of this agreement include:

- Term—The agreement will have a five-year term with two optional five-year extensions.
- Usage Fees—The base usage fee is \$36 per pole, per year, adjusted annually per the CPI, resulting in approximately \$12,600 or more in revenue to the City per year. The \$36 per pole is the rate that was established when the City entered into an agreement with MetroFi in November 2004 for wireless services.

- Mobile Library Services Vehicle —Google has agreed to equip the City's new mobile Library services vehicle (Googlemobile) with mobile wireless equipment to allow customers to use the Internet.
- Permits and Fees—Google must obtain all necessary local, State and Federal permits to install the equipment. No permits or fees will be waived by the City of Mountain View.
- Installation and Maintenance—All costs associated with installation and maintenance of the equipment will be provided by Google.
- Agreement with PG&E—As part of the agreement, the City has agreed to make its best effort to enter into an agreement with PG&E for unmetered services. Google has agreed they will be responsible for all terms and conditions of the agreement between the City and PG&E.
- System Ownership—Google will deploy and own the system. However, in the event Google/the City terminates the agreement/services, the City has reserved the right to purchase the wireless Internet (WiFi) system to either operate directly or contract with a third party to operate the system in the future.
- V-LAN/Public Safety Network—Google has agreed to negotiate with the City to provide a secure City-wide network for future City services that will enhance services for public safety and public services.
- Security Deposits and/or Letter of Credit—Google will provide to the City security deposits and/or letter of credit for the costs associated with the removal of any transmitters and for the anticipated costs or energy associated with the PG&E agreement.
- Open System—The wireless system being proposed is an open system that will allow users to log into any Internet service provider they currently access (i.e., Yahoo, MSN, etc.).
- Deployment—It is proposed that deployment will begin almost immediately if the agreements are approved by the City Council and will be in two phases. The first phase will be a test phase to allow Google to test equipment and links in the field and will take one to two months. The second phase will be deployment to the remainder of the City. Per the terms and conditions of the agreement, Google is expected to deploy to the entire City by the end of June 2006. Under the agreement, the City Manager may authorize the installation of additional transmitters up to a maximum of 25 percent of the number of poles used in the initial deployment.

- Franchise Fees—The agreement contains a provision requiring Google to pay franchise fees in the event it provides any services that are subject to franchise fees.
- Future Fees—The agreement does allow Google in the future to charge a fee for enhanced services.
- Mutual Indemnification—Typically, in agreements where the City is the property owner/landlord, the City requires the tenant to indemnify the City. This agreement not only requires Google to indemnify the City, but Google has also asked the City to indemnify it for the gross negligence and willful misconduct of City employees.
- Limitation of Liability for Contract Disputes—Google proposes that the liability for any dispute related to this agreement, other than those items it will indemnify the City for (third-party liability claims, such as property damage and personal injury, and claims relating to the PG&E agreement), be limited to \$1 million.

Google will also establish an enhanced Internet access zone ("hot zone") in the Mountain View Library. This service will increase the number of high-speed Internet access connections currently in place in the Library. Provisions for wireless Internet access in the Library was one of the goals of the technology and space Capital Improvement Project approved by the City Council three years ago.

CONCLUSION

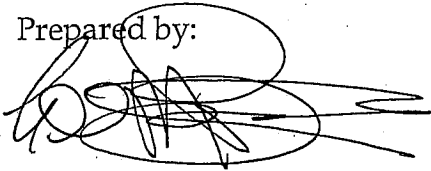
Staff believes these conditions being proposed by Google for a free City-wide wireless service to be fair and equitable to the City and Google and recommends the City Council authorize the City Manager to execute the streetlight pole use agreement with Google and the accompanying agreement with PG&E. By authorizing the City Manager to execute this agreement, an additional Internet-access option can be provided to Mountain View residents and businesses with little risk and no cost to the City.

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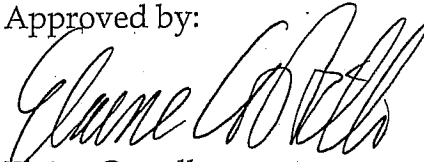
PUBLIC NOTICING—Agenda posting.

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EMB/9/CAM

15-11-15-05M^

- Attachment: 1. Letter from Google, Inc.
2. Photographs of Transmitters

cc: DCM, SACA—Quinn, AFASD, USM, RPM, PSS—Kiner, SAA—Skinner, RM,
EDM, IO—Achterberg



1600 Amphitheatre Parkway
Mountain View, CA 94043

Honorable Mayor Matt Neely and City Council members
City of Mountain View
500 Castro St.
Mountain View, CA 94403

November 10th, 2005

Dear Honorable Mayor and City Council members,

Google is looking forward to meeting with you on November 15th, 2005 to discuss our plan to offer free wireless Internet access to the Mountain View community. This town has been a gracious host of our company for the past 6 years, and we look forward to this opportunity to give back by leveraging our technology expertise.

Our mission is to organize the world's information and make it universally accessible and useful. Currently, there are barriers to this universal accessibility, including things like cost and availability. We believe that free (or very cheap) Internet access is a key to bridging the digital divide and providing access to underprivileged and less served communities, schools and libraries. In our self interest, we believe that giving more people the ability to access the Internet will drive more traffic to Google and hence more revenue to Google and its partner websites.

We believe that Wi-Fi technology is an enabler of inexpensive- or free- access to the Internet across wide areas, and Google would like to learn more about this technology by deploying a wireless network in Mountain View. Our first deployment is meant as an R&D effort to learn more about the ease of building and supporting a wireless service offering. We are committed to showing the world that this technology works and we would like to learn more about the costs of operations so that we can build a well-informed business model.

Google is in a unique position to offer free access to the Internet, since we have the ability to subsidize and earn revenue indirectly when these Wi-Fi users get on the Internet and access our and our partner sites. In addition, we also believe that this offering enables us to be a good corporate citizen and play a pioneering role in a public-private partnership to bridge the digital divide. We would like to work with a city that is close to our headquarters and supportive of this intent. In these regards, Mountain View is the perfect spot.

Technology

The Wi-Fi technology is developed based on the 802.11 standards and works in the unlicensed 2.4 GHz spectrum. (This is the same frequency that cordless phones and household microwaves work at). The municipal Wi-Fi or mesh involves radios (access points) that are installed on light poles or traffic lights; usually 20-30 per square mile. These radios communicate with each other to transmit the data back to a backhaul network, which in Mountain View will consist of 3 locations that aggregate the traffic. The aggregation points have fiber connecting them to the Internet.

User Experience

Throughout the city, users will log in to Google Wi-Fi with a free Google Account username and password. The user's laptop will detect the Google network, the user will then open their web browser and be prompted to enter a username and password or create a new account. Many Mountain View residents already have such accounts and will be able to use them to log into the network as soon as it's live. Creating a new account is straightforward and free of charge. To learn more about Google Accounts, please see <https://www.google.com/accounts/ManageAccount>.

After successfully logging in, the user will be presented with a Google landing page. In the initial Mountain View deployment, this page will be Google's personalized homepage, pre-populated with Mountain View weather and news. Users will have the option to customize their personalized homepage to their liking. After logging in and viewing the landing page, the user experience will be no different than any other Internet connection.

In order to ensure that the people of Mountain View feel comfortable with how to access the network, we plan to hold two citywide training sessions that would be open to everyone in the community. We'll use these sessions to explain how the wireless network works, walk through general troubleshooting, and answer any questions. We'll use this as an opportunity to gather feedback from people about the service, and transfer this feedback into improvements in the service.

City Benefits

The following are the benefits to the citizens and the city of Mountain View:

- Citizens of Mountain View will be able to enjoy free high speed Internet access in the library, at the bookmobile, parks and all other outdoor locations. Indoor access would be available to residents and businesses with the purchase of some additional hardware that cost between \$50- \$100.
- Mountain View will be a city in the technology spotlight, attracting a host of companies eager to test location-based solutions. This in turn has the potential to bring more jobs and opportunity to your community.
- Underprivileged citizens will have the opportunity to access the Internet free of charge- and the digital divide within the Mountain View community will narrow.
- Citizens in Mountain View will be among the first to leverage new advancements in Google's location-based services and applications, including real-time traffic data, up-to-date community information, and local commerce innovations.
- We are also exploring other ways to ensure value and utility with this network, including enabling access within Mountain View public schools and offering a separate, secure VLAN for police, fire and emergency services

We believe that this will be a pioneering and fruitful partnership that will bring great benefits to both the citizens of Mountain View and Google.

Best regards,

Minnie Ingersoll, Product Manager
Google Inc.

