

# Wireless Philadelphia - Earthlink Contract: Highlights

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Philadelphia and Earthlink have developed the first contract between a major city and a private network owner for citywide wireless. This paper presents the highlights of the Wireless Philadelphia Broadband Network Agreement between Earthlink and Wireless Philadelphia (the city government-chartered non-profit), *with my comments in italics*. At the end is a summary of the overall lessons cities might learn from Philadelphia's experience.

This is not a complete representation of the contract. Rather, I have emphasized those points that have not been included in news reports but are important to other cities considering privately owned citywide wireless networks.

This contract sets the terms of the relationship between Wireless Philadelphia and the network owner, Earthlink. It is the most important of the four agreements between Wireless Philadelphia (WP), Earthlink, the City of Philadelphia, and the Philadelphia Authority for Industrial Development. The Philadelphia City Council is expected to vote on all four contracts on April 26, 2006.

## Contract Highlights

### **Pole Attachment Fees**

Earthlink pays the Philadelphia Authority for Industrial Development (PAID):

- \$250,000 20 days after agreement is signed
- \$750,000 20 days after the feasibility of the project is verified through the successful completion of the pilot project
- \$1 million one year after the successful completion of the pilot
- Additional annual use fee of \$24 per year per street light (\$97,200 annually if 4050 street lights are used)

### **Subsidized Accounts**

Earthlink Assisted Wi-Fi will be sold at a net retail rate of no more than \$9.95 per month. Up to 25,000 households may receive the rate (*approximately 4 percent of Philadelphia's 590,000 households*).

- During first 3 years, Earthlink Assisted accounts shall receive Core ISP services as defined in the agreement. For the remainder of the contract, Earthlink Assisted accounts shall receive the same services as standard retail customers.
- Assisted accounts are initially set at the Base Service rate (802.11b/g devices with an average upload/download speed between .75 and 1.25 Mbps and a dynamic IP address). When Earthlink eliminates the base service in favor of a higher

bandwidth alternative service, it becomes the new base service for assisted accounts as well.

- If subsidized customers need customer premises equipment (CPE), WP will provide it.

*Hannah Sassaman of Prometheus Radio Project points out that this is not an insignificant financial responsibility for WP. If half of the 25,000 subsidized accounts require CPEs, at a cost of \$100 per CPE, it would cost WP \$1.25 million.*

- Earthlink may not require up front fees, term commitments, activation, reactivation, or cancellation fees for Earthlink Assisted accounts.

- “In the event that in any month the performance of any of the Three Important SLAs [see Service Level Agreements, below] in the Digital Inclusion Areas is less 80% of that SLA for the System measured as a whole, then Earthlink shall increase in the Revenue Share payment for all items in this Exhibit I by 25% for that month.” For example, a \$1 per month revenue share per wholesale account becomes \$1.25.

## Revenue Sharing

Beginning two years after proof of concept is accepted, Earthlink will share revenue with Wireless Philadelphia (WP).

WP receives:

- the greater of \$1 or 5% of net access revenue generated per month for Earthlink retail accounts
- no revenue from Earthlink Assisted Wi-Fi (subsidized accounts)
- \$1 per month per wholesale account
- 5% of wholesale daily rate
- 50% of Open Access Certification Fees
- 5% of occasional use net access revenue
- 5% of T1 Alternative Products (point-to-point wireless as a replacement for T1 lines)
- WP will pay PECO for the cost of electricity to Earthlink’s street light mounted equipment, starting at the same time revenue sharing begins. The amount WP is required to pay is limited to 50

percent of the monthly revenue share it receives from Earthlink.

*The Tropos 5210 nodes Earthlink will draw 18 Watts “typical”. With 4050 nodes, daily power consumed is in the range of 1750 kWh per day (18\*24\*4050/1000). At a rate of 10 cents per kWh, that is \$175 per day and \$5250 per month. Power to street lights is estimated rather than metered. Since the city is already responsible for the street lights, it may have a better chance of negotiating a similar agreement for the wireless nodes. Reportedly, PECO indicated it might treat each node as an individual account, which would increase both the start-up fees, particularly if meters were required, and ongoing monthly fees.*

- Earthlink will not break out or otherwise identify payments to WP on customers’ bills.

*Some cable companies have tried to build public opposition to franchise fees by listing the fee as a tax in the customer bill. Courts have repeatedly ruled that the franchise fee is a fee imposed on the provider, not a tax on the customer. The distinction is also important for cities that do not have authority to impose local sales taxes.*

- WP shall have the right to audit and verify the accurate payment of all fees due under the agreement.

## Wholesale Rate

The network is open to all qualified service providers. Potential service providers must submit an application with a \$5000 fee, and provide \$10,000 prepayment for access. WP and Earthlink jointly determine the certification process. Earthlink sets the wholesale rate at its discretion.

*Control of the wholesale rate allows Earthlink to effectively set the level of competition in the market. For example, if it generally costs between \$6 and \$8 per month to support each customer, then Earthlink’s planned \$12 per month wholesale rate ensures a minimum retail rate for basic service of around \$20.*

*A similar situation exists right now with DSL. Incumbent phone companies have used their network ownership to all but eliminate competition in the residential market. For example, in Minneapolis, Qwest charges \$22 for*

1.5 Mbps DSL with Qwest/MSN as the internet service provider (ISP), but a significantly higher rate of \$28 for a 1.5 Mbps DSL connection if the customer wants to use a different ISP.

•WP has the right to purchase base service accounts at the following rates, which depend on the total number of system subscribers:

<10,001 total users = \$11 per month

>10,000 total users = \$10 per month

>25,000 total users = \$9 per month

>50,000 total users = \$8 per month

WP may resell wholesale accounts through only one service provider. The product may be marketed only under WP's trademark, not that of the service provider.

*There are two ways this provision could be used. One is for WP to use the lower-wholesale rate accounts to establish an ISP that is locally or woman or minority owned.*

*The other is for WP to use the lower wholesale rate accounts to set a lower benchmark for the retail rate. If Earthlink's wholesale rate is \$12 per month, per account, and the going retail rate is \$20 per month, WP's discounted wholesale rate could allow one ISP to retail accounts for between \$16 and \$19 without generating less net revenue than other non-Earthlink affiliates. Assuming Earthlink's wholesale rate remains the same, however, WP could not effectively lower the market price of subscriptions without undermining service providers other than Earthlink. For example, with more than 25,000 total users, WP could buy wholesale accounts for \$9, and contract with an ISP to resell them for \$16. Earthlink can also drop its retail to that level, because its cost per account is no more than the \$9 it charges WP, and possibly less. If Earthlink's regular wholesale rate remains at \$12, however, other ISPs cannot drop their prices to \$16 without losing money or substantially cutting their customer services relative to Earthlink and WP.*

*Thus this provision is useful if there are no competing ISPs, or if WP would like to help develop a particular ISP. It is not useful as a way of*

*limiting Earthlink's control of the level of competition through the wholesale rate.*

## Exclusivity

WP shall not market or promote an internet service that competes with Earthlink or allow anyone else to use the WP logo to market services (except on the wholesale accounts it is allowed to purchase at discounted rates).

*This clause demonstrates the value of the image of Wireless Philadelphia as a project that is providing not just a retail product but a valuable public service. Legally, the city probably cannot grant Earthlink exclusive access to the street lights.*

*What's more, a competing wireless network could cover the city with leased access to poles belonging to the local power company, PECO. By obtaining exclusive use of the WP stamp of approval, however, Earthlink limits the likelihood that a competing network would be established. Not only would a second network have to compete with Earthlink, it would have to compete with the contributions that Wireless Philadelphia makes to the community.*

•If WP desires to install a new IP data network in the city, it must negotiate with Earthlink for 90 days before WP enters into an agreement for such a network.

•Earthlink retains ownership of all intellectual property rights and all documents, data, studies, surveys, maps, models, photographs, etc.

*This clause is not surprising, since Earthlink will finance all this work. Should WP terminate its agreement with Earthlink, however, this clause sets a high barrier to entry for any new wireless network, which would have to duplicate all preparatory work. A Minneapolis request for proposals issued in April 2005 calls for the City to have ownership of all intellectual property and documents related to the project. Whether that provision will be part of the final contract remains to be seen.*

## Service Level Agreements (SLAs)

Earthlink is required to meet the "Three Important SLAs": Network Coverage (95% outdoor, 90%

indoor perimeter room coverage), Network Availability (allow successful connections by users 99.9% of the time), and Network Throughput (an average of 1 Mbps in each direction).

- The contract cannot be terminated for failure to meet SLAs. Provisions are made, however, for a mutually agreed-upon independent expert to evaluate the reasons for failure to meet an SLA, and provide recommendations that Earthlink will act upon.
- If Earthlink does not meet the same one SLA for three months, WP can terminate Earthlink's right to use the WP trademark, and the exclusivity provision that prohibits WP from marketing a service that competes with Earthlink.
- The City, PAID and WP can seek injunctive relief as long as that relief does not include terminating Earthlink's right to mount its equipment on street lights. The contract stipulates: "EarthLink agrees that WP, PAIC, and the City would be irreparable harmed and that money damages would not be sufficient if EarthLink failed to implement the above-described recommendations of the technical expert for a material failure to comply" with the SLAs.

### Contract Termination

If less than 20% of nodes in the system are capable of connecting subscribers to the Internet for an entire calendar day (and it is not because of actions by WP, PAID, the City, or force majeure), that will be considered a dark day. If the system is continuously dark for 30 days, WP may send a notice of termination. Earthlink has 90 days to cure the default by operating without any dark days for 30 days. If Earthlink is unable to cure the default within 90 days, contract terminates 12 months after 90-day cure period, and during those 12 months Earthlink will be entitled to continue operating the system.

### Wireless Philadelphia Governance

WP will have a steering committee and technology advisory board equally divided between WP and Earthlink

### Future Products

Earthlink shall have the right to charge service providers additional fees for services, other than those included in open access, requested by service providers. Including but not limited to: "alternative speed tiers, quality of service guarantees, System enhancements and service level guarantees, enhanced system connection security, home networking services, static and multiple IP services, and other services enabled by the System." These additional services are subject to revenue sharing, unless otherwise determined by the steering committee.

*The explicit allowance of "alternative speed tiers" could just apply to subscribers (i.e. 1 Mbps service for \$20 and 5 Mbps service for \$X per month), but it clearly does not rule out the kind of "fast lane" proposed by Verizon and AT&T. Other cities may want to include a network neutrality provision in their contract if they do not want the network owner to discriminate among content and application providers.*

- Earthlink may not offer cable or online video service.

*A clear bow to cable incumbent Comcast, and perhaps Verizon. Comcast reportedly has plans to offer service bundles including Wireless Philadelphia accounts. Could this be interpreted in the future to limit video downloads through Earthlink's network?*

- For each future product, Earthlink shall arrange for at least three other unrelated viable service providers to offer the same product through the system within six months. If not, Earthlink must cease providing service to new subscribers, unless steering committee waives requirement.

### Miscellaneous

- "Sufficient capacity throughout the system to support all provisioned commercial and municipal users." *Earthlink has testified that the system is designed to have a capacity of 250,000 users.*
- A network maintenance and upgrade plan is required, to prevent obsolescence.

- Latency shall not exceed 100 milliseconds. *Latency is lag, for example, between when you say something on a VOIP call and when it reaches the person you're talking to. This is a fairly high tolerance for latency. Likely, Earthlink will offer an internet telephony service with a greater quality of service guarantee.*

- WP shall be entitled to determine up to 6 links on the capture portal and welcome pages. *Other cities might try approaching this as a percentage of total links, or set a maximum number of allowed links. Placement is also important to clarify if WP does not want its links to be 6 of 60 and located at the bottom of the page.*

### Commentary

The Wireless Philadelphia Executive Committee first proposed a non-profit owned citywide wireless network. In the end, the City chose a privately owned network with Wireless Philadelphia having an oversight and fiduciary role.

The contract gives Wireless Philadelphia, a non-profit corporation established by the city, some influence in key matters. For example, through the option to buy wholesale accounts at pre-defined rates, Wireless Philadelphia can ensure that customers have the option of using a locally owned ISP. The requirement that the Earthlink Assisted accounts be equivalent to standard retail packages targets the coming, speed-based digital divide. And the revenue sharing clauses ensure Wireless Philadelphia a portion of all network revenues, barring an outright state or federal preemption of such agreements.

The city made significant sacrifices in return for not having to invest its capital in building and maintaining the network. The most important is that had Wireless Philadelphia owned the network, all surplus revenue generated by the sale of wholesale access to the network would have been available to lower subscriber costs, upgrade the network, or satisfy other community needs. This could have been in addition per-subscriber fees collected from service providers. Instead, all profits generated through wholesale access to the network, and most of the profits from retail sales, will go to Earthlink and its shareholders.

Prices will be set to maximize revenue rather than to simply cover costs and contingencies. Network upgrades will be implemented only if the investment meets the private company's target for return on investment.

For example, the contract requires that when Earthlink substitutes a higher bandwidth base rate for the current .75 to 1.25 Mbps rate, the company must also provide this higher bandwidth for the subsidized accounts. The contract also specifically allows Earthlink to sell multiple speed tiers at different prices, however, and there is no timeline for upgrading to a new base rate. Earthlink could keep the current base rate indefinitely, while adding faster, more expensive packages for households with greater ability to pay. Five years from now, subsidized accounts could still be at 1 Mbps while everyone else is using ten times that speed, a circumstance much like the current divide between dial-up and broadband.

A publicly owned network could be a common carrier, like our road system. All service providers could compete with the same costs of entry. The Philadelphia network will be open access, but the contract allows Earthlink sole discretion over the wholesale rate. Earthlink, as both owner of the network and the primary service provider, can effectively control the market by charging higher wholesale rates to competitors than it does to itself.

Beyond introducing low-cost access to some places where DSL was previously unavailable, Wireless Philadelphia will do little to create competition in the short term. At \$20 per month for 1 Mbps, the unsubsidized accounts are comparable to what is already available in most of the city (with the notable exception that the Earthlink network will offer faster upload speeds than are currently available at that price).

Other cities around the country are choosing to build publicly owned information networks as an alternative to the existing duopoly. Philadelphia chose to facilitate another private, proprietary network. In the long run, Philadelphia's decision will be measured not just by what they do or do not receive, but also by what they gave up.