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HEARING ON STATE AND LOCAL ISSUES AND MUNICIPAL NETWORKS

BEFORE

THE SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

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Chairman Stevens, Co-Chairman Inouye, and Members of the Committee. I am pleased to appear before you today in my capacity as Chief Information Officer for the City of Philadelphia and as ex officio Board Member of Wireless Philadelphia, a 501(c)(3) nonprofit corporation established to revitalize our neighborhoods, provide opportunity to our residents, and strengthen our economy by enabling access to affordable, high-speed wireless Internet throughout the City.

A century ago, municipal leaders across the country knew that without electricity their communities would be left behind as our nation moved from an agrarian to an industrial country. Today, Philadelphia Mayor John Street and many others across the nation have recognized that without affordable high-speed broadband access our communities will be left behind as the world moves from an industrial to an information-driven economy. And we are painfully aware that without universal access to this new technology will leave people behind and cannot achieve our digital inclusion objectives as we seek to bring citizens at every economic and educational level into the Internet age.

Wireless Philadelphia's mission is to help citizens, businesses, schools, and community organizations connect to the world through the use of wireless technology. In doing so, we will help to overcome the digital divide for low-income and disadvantaged households, promote inclusive

economic development, and otherwise to improve the quality of life for all Philadelphians. Just through the deployment of pilot projects, we already have demonstrated that ability to help residents, generate new small businesses, and expand tourism opportunities. Within the next year or so, we will have deployed a wireless mesh network providing low-cost high-speed Internet access throughout the City's 135 square miles of businesses and homes. And we will have made a great leap forward in meeting our goals.

No doubt you have heard that the private sector could have met our needs and those of other communities, and thus that we as city leaders should have deferred to their expertise and given them just a little more time. But we simply could not afford to wait any longer, and we needed to motivate private sector action. In our low-income and disadvantaged neighborhoods in Philadelphia only 10 to 25% of our families have access to the Internet, with 72% of those households using dial-up access. In the most recent survey conducted by the Philadelphia School District, only 58% of all households with children had access to the Internet in the home and only 64% had computers. Not surprisingly, we saw that our low-income children were being left further and further behind as technology advanced. The lack of Internet access has hurt our children at every step of the education process where those of greater means are advantaged – from being able to conduct research in the home to applying for college. Moreover, with parents forced to take their children to a library to get access to the most basic technology, they often cannot do so as needed and then have to further sacrifice spending time with their families. To meet this challenge head on, Wireless Philadelphia's goal is to provide citywide low-cost access somewhere around $16 - $20 per month and to provide 10,000 free computers with training over five years.

Just as we have seen what harm the lack of broadband access can cause, we also have seen first-hand what good new technology can do for our City. As a result of Mayor Street's efforts to promote the availability of enhanced technology, foreign delegation investment tours now regularly

stop in Philadelphia. For example, delegations from both China and South Korea recently added Philadelphia to their schedules, noting the wireless initiative. In addition, we continue to attract more tourists because our wireless program has created worldwide attention. I personally have spoken to groups from 15 countries, articles about our wireless program have appeared in 25 countries, and National Geographic Traveler magazine selected Philadelphia as one of the "next great cities," in part because of our wireless program. Finally, we continue to see small businesses flourish in areas that we already have connected. In the Norris Square neighborhood, for example, an individual investor purchased a former ice warehouse, which he is now converting into a gallery and twelve artist studios. Because the building is in one of our pilot areas, he has been able to offer all twelve artists wireless broadband access, all of whom signed up for the service. In short, we are seeing the benefits of wireless broadband throughout our City.

Before describing in greater detail our plans to further connect our citizens to the world, I want to put our efforts in historical perspective. I also want to describe the rigorous, fully open, highly competitive process by which we invited the private sector to bid to provide the kinds of services that the existing incumbents had failed to offer. And I want to talk about what the Committee can do to help our residents and those in communities across the country to compete in the increasingly information-driven world in which we live.

Historical Context. A little over a century ago, electricity was available to only a small fraction of the U.S. population, principally businesses in major cities and individuals living in affluent urban communities. While private power companies gradually built out networks within city limits during the late 19th century and early 20th century, they generally ignored customers outside urban markets, especially in rural America, as well as in lower income and hard-to-wire urban locations. During the early 1900s, for example, nine out of ten rural homes had no electric service.

Community leaders quickly realized that electricity was not a luxury -- it represented a technological advancement that would be fundamental to the survival of their communities, a crucial component of their economic development, public safety, and quality of life. Rural and small town markets, for example, were missing out on the jobs dependent on electricity. Agricultural areas also were unable to benefit from the increased productivity associated with electricity, including electric barn machinery, grain crushers, water pumps, and crop processing. In addition, rural demands for the newest commodities in American life -- radios, refrigerators, washing machines, hot water heaters, and household appliances -- could not develop without access to affordable electricity.

Even though most for-profit companies were not interested in extending service to rural or low-income areas, they still resisted allowing municipalities to enter the market. In fact, they vigorously fought to prohibit entry by public entities. And they used many of the same arguments that municipal leaders hear today with regard to broadband Internet access.

Private utilities argued that municipalities lacked the expertise to offer something as complex as electricity. They posited that electricity was a "natural monopoly" and allowing municipalities into the market would create unwarranted competition. Some private entities went further, engaging in anticompetitive practices, such as denial of transmission access and predatory pricing, or worked actively to create hostile political environments at the local level.

Small and rural community leaders recognized that their economic survival and the health and welfare of their citizens depended on wiring their communities. They understood that it would take both private and public investment to bring electricity to all Americans. Fortunately, for our nation as a whole, those community leaders prevailed. By 1913, there were nearly 2,000 municipally owned systems nationwide. Over the next several decades, municipally-created utilities would expand their reach and provide millions of citizens with electricity, opening up manufacturing and services to these areas and giving rural residents the conveniences already taken for granted in

American cities for almost 50 years. Through municipally driven efforts to expand access to electricity, small towns and rural communities finally had the technology necessary to take advantage of the modern world.

Just as municipal electric systems proved critical to making access to electric service universal in the 20th century, municipal networks can make broadband access universal in the 21st Century for the economic and educational well being of all residents -- as long as they have the freedom and opportunity to do so. For too long, the residents of Philadelphia have waited for that access to arrive. We are not alone.

In just the past few years, the United States has fallen to 16th among industrialized nations in broadband penetration. In many urban and rural areas of the United States, small businesses and individuals with low incomes continue to have difficulty obtaining reasonably priced broadband services. Many countries outpacing us, including Canada, Japan, and South Korea, have successfully combined municipal systems with privately deployed networks. Despite this situation, a handful of incumbent providers have attempted to stop further local government deployment of community broadband services across the country.

As you no doubt are aware, we faced vigorous opposition from incumbent providers in Pennsylvania. They worked in the legislature to block municipal governments from providing the very services they had refused to provide. Mayor Street and other City leaders successfully worked to assure that Philadelphia retained the right to protect the interests of all our residents and determine our own future, but other rural, suburban, and urban communities in Pennsylvania cannot do the same.

Private-Public Partnership. In the spring of 2005, Wireless Philadelphia issued an RFP seeking proposals from qualified respondents for a "turnkey solution" for a citywide wireless network and communications system. Among other things, the proposals had to include network infrastructure

procurement, architecture and design services, installation services, telecommunications provisioning and services, network monitoring and management services, customer service and technical support services, software hosting services, and program and project management services. In July, after evaluating a dozen proposals, we selected AT&T, Hewlett-Packard, and EarthLink as potential providers, and we asked them to further develop their vision for helping us deploy this advanced network. In the end, we selected EarthLink, which will finance, build, and manage the wireless network without any city or taxpayer dollars. In addition, EarthLink will provide Wireless Philadelphia with revenue-sharing fees to support the Wireless Philadelphia Non-Profit Corporation.

Working with Motorola and Tropos Networks, which will provide the wireless mesh technology for the entire network, EarthLink will first build out a 15-square-mile proof-of-concept area. After an initial testing phase, the network will be expanded across the City. The network will be "open access" that allows competing service providers to use the infrastructure. Free Internet access will be provided in some parks and public spaces. The network also will provide T-1 connectivity for small business customers, and it will enable daily and weekly access for visitors.

In short, we have found a way to work with leading private-sector companies to bring affordable wireless Internet access to every business and into every home in our city.

In addition, to assure that the greatest possible public benefits are derived by our low-income residents, we are working on a comprehensive "digital inclusion" program with Civitium, Intel, and One Economy Corporation, a national nonprofit sponsored by various technology companies, telecommunications providers, and private foundations. This program will include affordable hardware, self-help content, and training and use programs to maximize the potential of technology to help low-income people improve their lives and enter the economic mainstream.

Congressional Action Needed. We won our battle in Pennsylvania, but other communities need your help to offer something comparable. Therefore, as you rewrite the Telecommunications Act of

1996, we believe it is vital that you include S. 1294, the proposed Community Broadband Act sponsored by Senators Lautenberg and McCain and cosponsored by Senators Coleman, Feingold, Graham, and Kerry. The bill is important for three reasons. First, it will discourage other States from enacting the kinds of barriers to entry that now will keep cities and towns across Pennsylvania from offering the kinds of services we will be offering in Philadelphia. Second, it will encourage the dozen or so States that created roadblocks to progress to reconsider their earlier decisions to impose limits on what local governments may offer. And, finally, your action will signal to community leaders across the country that you understand what needs to be done to help them compete globally and serve the fundamental needs of their communities.

As you can appreciate, municipal governments face a host of challenges today, from improving educational opportunities to enhancing economic development, delivering essential government services more effectively to providing first responder assistance in response to a natural disaster or a terrorist attack. Let me put in perspective what we face and how we can meet the challenges ahead if we are given the freedom to explore new ways of delivering services for our constituents.

I already mentioned the powerful impact that our pilot initiatives had in growing small businesses in Philadelphia, and attracting the attention of international investors and media. Let me make it more personal by telling you a little bit about the Cox family in Philadelphia and the power of the Internet to improve their lives. Their story was featured last year in *The Washington Post.* Through a wireless Internet pilot project partnership with People's Emergency Center, the United Way of Southeastern Pennsylvania, and One Economy Corporation, this family of three generations of women sharing a single row house now gets high-speed Internet access for $10 per month. It has changed their lives forever.

The youngest, Taah, was an unfocused third-grader whose father was in jail. Her mother, Maya, who gave birth to her at age 13, was told at the time that she probably needed a kidney transplant, but she had no means of weighing her options. And her mother, Theodora Cox, at 64, faced the added uncertainty of retirement.

Through the People's Emergency Center (PEC), a nonprofit community development and service agency, Theodora was given the chance to purchase a computer for $120, take an eight-week training course, and get wireless broadband access for $10 per month. How did something so basic, which most of us take for granted, change their lives?

Maya and her mother were able to research kidney diseases and correspond with patients and doctors in the United States and the United Kingdom. Theodora now uses the Internet to help sell a line of candles to people in Philadelphia and across the country. And little Taah, who participated in an associated youth "digital connector" program, emerged as "the technical director" in her third grade class, and is now energized and thriving in school. In the words of Gloria Guard, President of PEC, which provides wireless broadband access to the Cox family and over 100 homes in their neighborhood, "making technology available is like a pebble in a pond". We want to create many more such ripples, and we want them to grow to waves over time.

But we cannot get there without the Wireless Philadelphia program we have put in place. Too many of our families cannot afford what the incumbent providers offer, and they should not be left behind because our City lacks true competitive alternatives. For example, I recently saw a Verizon advertisement, offering DSL Internet service, for $21.95 per month and increasing to $29.95 per month starting in the fourth month, for a comparable speed of service to what will be offered through Earthlink in Wireless Philadelphia for as little as $10 per month. And then of course there is an added cancellation fee for subscribers who terminate their service within a twelve-month period.

By contrast, Wireless Philadelphia service will include outdoor wireless as well as indoor service. And we will provide it for much less cost. And for those needy citizens without access to computers, we have programs in place to get them started. Like earlier generations of citizens, they are not going to be denied access to the electricity of their day.

In closing, let me end where I began. We know that without affordable high-speed broadband access, communities across the country will be left behind as the world moves from an industrial to an information-driven economy. We know that without new technology we cannot achieve our digital inclusion objectives, as we seek to bring all of our citizens at every economic and educational level into the Internet age. We know that local government leadership can work creatively with the private sector to make universal access happen. And we know that Congress can help to assure our ability to achieve these vital goals. Please let us work together to achieve them.

Thank you for your consideration of our views.