IPI
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ISSUE BRIEF

We Told You So! Continue to Say "No" to Municipal Broadband Networks

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Synopsis: The history of municipal broadband projects, especially municipal wireless programs, is a history of hubris, mismanagement and failure. Such projects have been plagued by (among other things) underestimates of costs and overestimates of subscriber take up. As federal officials consider disbursing billions of taxpayer dollars to extend broadband coverage to unserved and underserved areas, they should be wary of funding municipal broadband programs.

In our December 2004 IPI Ideas entitled, "Just Say 'No' to Municipal Broadband Networks" we cautioned that city and county governments needed to be careful not to sponsor communications ventures like municipal broadband networks and, in particular, local Wi-Fi projects. We noted in particular that the expense to the cities and counties would likely make these government owned projects expensive failures. We said even back in 2004, "some states have already recognized . . . the dangerous economic ramifications of municipal networks."[1]

We also observed, "There is an inherent limit to just how much the public should be required to subsidize. Further let's remember that change in technology make existing systems obsolete almost at their point of introduction." Nonetheless, we watched several communities go ahead with their local Wi-Fi plans. Time and experience have proven us correct.

Municipal Wi-Fi has been plagued by failure since the heady days four or five years ago when it was "the next big thing." Most cities and vendors failed to gauge the proper number of wireless antennas that would be needed to properly run the systems. For example, in Tempe, Arizona there were three times as many antennas required at a cost of over $1 million or twice the original cost.[2]

And, of course, there are always limits to what can be accomplished The ability of Wi-Fi to penetrate walls and glass have limited what the customers had available to them, which customers accept and understand from the private sector, but which seems an affront when Wi-Fi access is a quasi- government entitlement.

Providers have now begun to admit that challenges in meeting customer expectations have been diffi-

cult. As on-line services become more sophisticated and the need for additional speed becomes more and more necessary, customers have become accustomed to regular upgrades, challenging the ability of governments to keep up with demand.

We also questioned the very basic need for municipal Wi-Fi expansion beyond some limited or concentrated applications. Taking into account underestimates of startup and operating costs and overestimates of the ability for municipal systems to attract and keep customers, it is easy to understand why many municipalities regret their leap into this arena.

And now that analog television broadcasting has been eliminated it is likely that portions of that spectrum may become available for expanded wireless competition. We suspect that several companies are poised to take advantage of that opportunity.

The increased likelihood of private competition in the development and deployment of new wireless products and services suggests that municipalities limit their entry into the broadband business. If there are existing needs in certain areas then we suggest that incentives to private sector development are a better option. Clearly the authority to provide those is already in state law and municipal code.

Lawmakers have recognized the problems with municipal broadband systems. Legislation in no less than 16 states would place significant limitations on municipal broadband authority. These efforts are a continuation of the strong communications deregulation efforts going on across the country.

Still, some communities' municipal wireless projects are, in fact, alive and well. And there still appears to be an appetite for such programs as evidenced by the estimated $900 million invested to this point. But softness in the existing economic models and the setbacks observed in example after example suggest that all is not well in the world of municipal broadband.

Specifically, a few examples of where municipal Wi-Fi projects were either aborted, have run into trouble, or have failed to meet original or customer expectations tell the tale.

Chicago – Enthralled with the prospect of instituting a city-wide Wi-Fi system in 2006, Chicago found soon after they started planning for their project that "technology (was) advancing and the cost of online access for consumers (was) declining so dramatically that Chicago (had) other avenues to promote more use of the Internet."[3]

Further problems erupted from a disagreement between the two companies that wanted to contract with the city. Both AT&T and Earthlink submitted proposals to the city but neither was able to come to an agreement. It was apparent that there was so much competition in broadband access that pursuing this project would no longer make sense.

Chicagoans recognized that the snags experienced by other cities in their Wi-Fi projects, in light of falling wired Internet prices and higher speed availability, might make the need for a municipal Wi-Fi system an unnecessary extravagance. Even now, as the Sprint/Nextel WiMAX[4] project in the Windy City area takes shape, the need for municipal Wi-Fi further deteriorates.

Philadelphia – With great fanfare in 2005 the City of Philadelphia embarked on a plan to transform much of its municipal infrastructure into a gigantic Internet hotspot. Hailed by consumer groups as the solution to the so called digital divide, city officials thought they could get existing companies to let them use refurbished gear and could build the entire project with "non-city" financial resources. City officials even went as far as suggesting that they would not be competing with existing private sector carriers and could actually sell back excess capacity to them.[5]

Originally constructed as the nation's largest municipal system covering 135 square miles, the project only offered low cost 1mbps service that, by today's standards, is relatively slow. At its peak the service that serves the sixth largest city in America had a paltry sign up of 5,034 residential customers and 908 business customers.[6]

What a difference three years can make. EarthLink, the provider that Philadelphia contracted with to offer the Wi-Fi service, has now, "pulled the plug" on its Philadelphia network. And the cost for the City of Philadelphia to continue to operate the system would be millions of dollars annually. As Earthlink CEO Rolla Huff told Associated Press

as reported by Time.com, "It was a great idea a few years ago . . . but it's an idea that simply didn't make it."[7] EarthLink officially closed down this project on June 12, 2008.

Huff concluded his comments by calling continuation of the system that operates on an old model ". . . simply unworkable."

Philadelphia's experience was considered the flagship of government projects covering huge amounts of area with a system that was considered in 2005 to be the cutting edge. But technology continues to expand and the city did not leave itself any room for modernization or updating. Conceived without regard to warnings at the time, the Philadelphia system proved to be unworkable.

Portland – And then there is Portland, Oregon, a system that crashed and burned from the start. The city hired a start up company to construct and install its municipal Wi-Fi system. But Portland Deputy City Attorney Kalei Taylor told contractor MetroFi in a May 6th 2008 letter that they were, "in default of contract," for a plethora of offenses including failure to submit maintenance reports, failure of their maintenance schedule to guarantee equipment condition, not completing the system in the required 24 months and other charges.[8]

So MetroFi is in default and millions of dollars are yet to be spent to finish a system that is at best 20 to 30 percent completed. The probability is that the project will not be completed at all. The contractor apparently can't afford to complete it and the city is not likely to step in with the additional public funds given the city's previous financial commitment.

So what in Portland went wrong? MetroFi found that municipal government ultimately was unwilling to provide the subsidy that would be necessary to support the system. Venture capitalists were also not going to intervene given the competitive environment of existing private providers—they had thought that they could undercut the pricing of the traditional network providers.

In other places the situation actually ended up much worse. In Toledo, Ohio, for example, MetroFi asked the city to infuse over $2 million into the project to enable completion. But when the city balked Metro-Fi was forced to sell to Cincinnati Bell.

Further, the technological impediments that they ran into were impossible to overcome.

Portland has now moved into a new system of self-organized and self-funded projects that share existing broadband services. These so called Viral Networks may signal the commencement of a new economic model in municipal broadband projects.

Ashland, Oregon – Not to go unmentioned are the problems in the 8-year-old Ashland, Oregon Ashland Fiber Network (AFN). Begun in 2000, it was originally financed with $5.8 million in bank loans and buttressed by an additional $6.5 million in municipal loans. After only one year, loses stood at $6.6 million projected over a five-year period. And after an attempted $15.5 million bond issue that would have raised property, utility and other taxes failed, the city began to lease out its network.

Lompoc, California – Underestimating take-up rate and new competition led this municipal endeavor down the primrose path. When Lompoc started their system several years ago they were the only game in town. But private sector competition using better and more up-to-date equipment got into the act before the Lompoc system was complete.[9]

The network that the city constructed covered almost 95 percent of the community making it available to virtually all of the 44,000 residents. But three years into the project there were only 281 subscribers. Lompoc officials claim that there was no competition when they commenced their municipal project but almost instantly after construction started competitive construction began. But that really shouldn't surprise anyone. When the private sector saw an emerging market they figured they could provide a better alternative. Now Lompoc citizens have several options for a variety of services.

Yes, the Lompoc system is still up and running. They have a variety of plans for ongoing and temporary connections but one has to ask whether the investment and expense (both start-up and maintenance) to the city was worth the de minimis take-up given the highly competitive nature of the industry and the technological advances being made. By their

own admission the LompocNET website says that when it comes to improvements in their system, "the majority of the major changes have been completed. We are continuing to monitor the network and are making adjustments as necessary." Not exactly a ringing endorsement for technological advancement.

Orlando – One of the first experiments into the Wi-Fi arena was also one of the first to be discontinued. As reported in Forbes.com on June 23, 2005, Orlando, ". . . cancelled a pilot program that offered free wireless internet access to visitors at a downtown park, saying that the service wasn't popular enough to justify the cost."[10] The project was begun in January 2004 and was designed as a pilot program to offer free Internet service to people in the downtown area. The program was originally supposed to be able to handle as many as 200 users simultaneously but usage rarely exceeded a couple dozen.

Although originally intended as a six-month trial, Orlando kept the project going for a full 17 months. But they determined with low usage they could not justify the $1,800 per month that it cost to keep it going. To many it seems, that taxpayer-funded system, that had limited use, wasn't an investment that was necessary, especially when private Wi-Fi was already becoming available.

Fast forward a couple of years and a plethora of private Wi-Fi hotspots throughout Orlando and neighboring communities abounded. The website Florida Creatives[11] listed literally dozens of private locations at a variety of restaurants and coffee shops. Americantowns website[12] listed 114 free Wi-Fi locations in Orlando by late 2008. And that does not include the pay-for-service sites and the availability of wireless PC cards that sell for less than $100.

It seems that as time went on the need for a taxpayer-funded system was made irrelevant in Orlando as private hot spots proliferated. And as more people in need of on-the-go access grew, the availability of wireless broadband grew with it. Oh, and one more thing—the price of wireless broadband came down as the quality improved.

Just as we suggested four years ago, and now with additional experience in hand to prove our thesis, "just say 'no' to municipal broadband networks!"

ENDNOTES

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2. Fox News.com "*Municipal Wi-Fi Networks Run Into Financial Technical Trouble*", May 23, 2007
3. CED Magazine.com August 28, 2007
4. WiMAX covers significantly larger areas of territory with a wireless Internet signal that is delivered over radio spectrum.
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