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‘Wi-Fi’ght Them When You Can Join Them? How the Philadelphia Compromise May Have Saved Municipally-Owned Telecommunications Services

Adam Christensen*

I. INTRODUCTION

The advent of the Internet, like telecommunications media before it, has created a division between haves and have nots. And, as it was with the

I would like to thank the editorial board for all their help and tireless devotion to the Journal. I would also like to thank my family, friends, and most of all, my editor on-call, Meg.
Internet’s predecessors, private companies have been the primary suppliers of the services and equipment necessary to stretch the network across the country. However, the speed with which the world has become dependent on the Internet’s vast array of resources is unparalleled in the history of mass media, and private providers in the United States are failing to supply the high demands. Furthermore, while the rate of growth is difficult for private companies to keep up with, the speed at which information travels over the Internet has increased staggeringly. The result: poor urban and rural citizens have been left disconnected or only connected at a snail’s pace. Politicians and pundits have offered solutions to the problem, providing incentive plans for private telecommunications providers and public high-speed access points at schools and libraries, but for some cities, that is not enough. For these citizens, the digital divide grows wider.

Municipalities, most of them small in size and budget, have tried to bridge this divide by providing high-speed Internet themselves. However, most have been landline-based and unable to stay afloat after high startup and maintenance costs left them over budget and under expectations. The municipality market participant experiment has been, for the most part, a municipally sponsored mess. Smelling blood in the water, it was not long before big telecommunications companies saw an opportunity to keep municipalities out of the marketplace for good and began lobbying state legislatures to prevent cities from providing high-speed access as a public good. After a host of judicial interpretations sided with the powerful companies, the brief movement toward municipally provided high-speed Internet access was stopped in its tracks.

Then, in the summer of 2004, Philadelphia Mayor John Street unveiled a plan that would provide high-speed access to every Philadelphian without digging up a street or uncoiling a single foot of wire. By utilizing Wi-Fi—wireless technology made popular in coffeehouses and Internet cafes—the city could keep startup and maintenance costs low, while providing high-speed access to anyone with a wireless card: residents, businesses, and visitors alike. The plan was popular with citizens, politicians, and the media, all seeing this access as a previously undiscovered conduit across the digital divide. However, Verizon Communications, Inc., the incumbent telecommunications provider in Pennsylvania, cried foul. The company launched lobbyists into action in the state legislatures, hoping to block cities from providing telecommunications services. After the two sides clashed in the state capitol, a compromise was formed giving hope to municipal entrants in the broadband market. Hope, however, is not without costs. Pennsylvania municipalities were not banned from providing telecommunications services; they just have to ask Verizon’s permission to do so.
The compromise granting Verizon a right of first refusal over a municipality's ability to provide broadband services has resulted in growing uncertainty over the future of municipally sponsored high-speed access. However, as this Note will argue, proponents of municipally sponsored wireless should be optimistic because the Philadelphia plan is a promising piece of conscientious compromise. First, the plan remedies or avoids most of the shortcomings courts have emphasized while striking down similar municipally sponsored wireless projects. By sidestepping the question of federal preemption and by obtaining private funding to help cover overhead and operating costs, the statute satisfies Justice Souter's concerns in Nixon v. Missouri Municipal League.1 Secondly, despite its flaws, Mayor Street's plan represents the best attempt to date at reaching a compromise between the interests of municipalities and their constituents, and the interests of major telecommunication corporations. The simple fact that both sides were willing to give ground in this turf war is a sign that municipally sponsored wireless may not have breathed its last breath. To understand how these two sides have converged in the City of Brotherly Love and what the compromise means to the future of municipally provided broadband, this Note explains how the law has developed regarding municipally-owned telecommunications providers, how technology has evolved to logistically provide these services, how likely it is that Mayor Street's plans will succeed, and what such a victory means to both sides of the Philadelphia compromise.

A. Wi-Fi Technology

Wi-Fi2 was born out of the murky waves of radio spectrum affectionately called garbage bands.3 In 1985, the Federal Communications Commission ("FCC") made the decision to open for communication purposes several bands of wireless spectrum that had originally been used for noncommunication devices such as microwave ovens. Moreover, the FCC left the bands unlicensed, enabling communication entrepreneurs to develop technology utilizing the garbage band frequencies without need for intrusive governmental regulation.4 The FCC's only stipulation: that any device using the unlicensed bands—2.4GHz and 5.8GHz—must avoid interference with other, pre-existing equipment.5

2. Wi-Fi is also known as "Wireless Fidelity," a nonsensical phrase invented after its catchier abbreviation. A brief history of Wi-Fi, THE ECONOMIST, June 10, 2004, at 26, 27.
3. Id. at 26.
5. A brief history of Wi-Fi, supra note 2.
Enter spread spectrum technology. As its name indicates, spread spectrum technology "spreads a radio signal over a wide range of frequencies."\(^6\) By doing so, the signal is less susceptible to interference and interception than its more linear counterpart.\(^7\) Still, in order to be commercially practical, devices on 2.4 and 5.8GHz would have to be able to connect to other devices using the same bands regardless where they were manufactured. It was not until 1997 when the Institute of Electrical and Electronics Engineers ("IEEE") implemented a standard for each frequency, 802.11b for the 2.4GHz and 802.11a for 5.8GHz, that wireless technology started to attract the attention of major technology developers.\(^8\) Finally, in 1999, Apple introduced AirPort—Wi-Fi hardware available as an option to Apple’s iBook laptop computers. In the years since, the Wi-Fi boom has become "a rare bright spot in a bubble-battered market."\(^9\)

Since 2000, more than 2,500 Wi-Fi products have met industry interoperability standards and received certification.\(^10\) With the ability to radiate an Internet connection as fast as broadband to multiple computers within 300 feet of a hotspot without tangling cords, Wi-Fi products began appearing in coffeehouses, public libraries, airports, and universities across the world.\(^11\) Fast-food giant McDonald’s has begun offering wireless Internet service, for a nominal fee, in hundreds of restaurants across twenty countries.\(^12\) Even Tallinn, Estonia, a city that received its independence from the Soviet Union less than fifteen years ago, today boasts more than 300 pay-as-you-go Wi-Fi hotspots.\(^13\) Projections have estimated that the number of hotspots worldwide will grow from 43,850 locations in 2003 to nearly five times that in 2008.\(^14\) In the United States, major telecommunications companies like Verizon Communications, Inc. and AT&T are battling for their share of the wireless services market; a market estimated to grow by more than nine percent annually, reaching $212.5

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6. Id.
7. Id.
8. Id. at 27.
9. Id. at 26.
12. For a list of McDonald’s hotspots see http://www.mcdonalds.com/content/wireless.html.
billion by 2008.\textsuperscript{15} Assuming its role as a "key driver in the communications industry," the wireless market is sprinting ahead of its broadband competitors.\textsuperscript{16}

B. The Digital Divide and Legislative Responses

The rapid growth of the broadband and specifically Wi-Fi markets, however, has not spread high-speed Internet access in any form to some people quickly enough. Despite industry-leading growth and federal legislation to increase high-speed Internet access, broadband availability in the United States has fallen behind that of the rest of the industrialized world. Once the leader in national broadband penetration, the U.S. currently sits in sixteenth place and now lags behind countries such as South Korea, Finland, and Canada.\textsuperscript{17}

The reasons for the decline in the U.S. are numerous, but many have pointed to the exclusion of two groups from the wireless market—poor urban inhabitants and rural inhabitants—as reason for particular concern. According to an FCC report released in 2000, 41% of America's zip codes were without high-speed internet access as of the turn of the millennium.\textsuperscript{18} Those zip codes where population density was the sparsest showed significantly lower percentages of high-speed Internet access than did more densely populated areas.\textsuperscript{19} Similarly, less than half of the zip codes with a median household income of $30,000 or less had access to at least one high-speed Internet provider.\textsuperscript{20} Some say telecommunications giants have been slow to offer affordable access in lower-class urban areas and have been reluctant to provide connectivity in rural areas at all because the relative market for these services is small and the relative start-up costs are


\textsuperscript{16} U.S. Wireless Market to Reach $212.5 Billion, supra note 15.

\textsuperscript{17} International Telecommunications Union, \textit{ITU Broadband Statistics for 1 January 2005}, http://www.itu.int/osg/spu/newsonlog/ITUs+New+Broadband+Statistics+For+1+January+2005.aspx. According to the ITU study, 11.1\% of inhabitants in the United States have access to broadband Internet services. South Korea led all countries with 24.9\% penetration while China was second with 20.9\% penetration.


\textsuperscript{19} Id. at App. B, fig. D.

\textsuperscript{20} Id. at App. B, fig. E.
high. Critics say companies like Qwest, Comcast, and others are too busy fighting for profits and larger market shares to be bothered by the fissure forming between the haves and the have nots.\footnote{21} Regardless of the reason for the discrepancies, the hubbub surrounding the digital divide between the undeserved and the affluent has caught the ears of politicians in Washington and in state capitols across the country.

C. Telecommunications Act of 1996

The Telecommunications Act of 1996\footnote{22} ("1996 Act") marked the most comprehensive overhaul in American telecommunications regulation in over sixty years. Specifically, the 1996 Act was intended to accomplish two goals: (1) to catch up with the telecommunications convergences that have occurred since 1934 (the last time Congress attempted a similarly comprehensive legislative renovation of telecommunications legislation)\footnote{23} and (2) to "make available, so far as possible, to all the people of the United States ... a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges[.]."\footnote{24} In order to accomplish this latter objective, Section 253 of the 1996 Act stipulates that any state or local statute or regulation that "may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service" is in violation of federal law and is subject to preemption by the FCC.\footnote{25} If the FCC determines that such a violation has occurred, Section 253 gives it the authority to "preempt the enforcement of such statute, regulation, or legal requirement to the extent necessary to correct such violation or inconsistency."\footnote{26}

Under the Communications Act of 1934, the 1996 Act's predecessor, states and their municipalities retained a substantial amount of control over intrastate communications services.\footnote{27} Now, under the specific provisions of the 1996 Act, state and local authority is essentially limited to policies that can be justified under state police powers. Specifically, state and local governments have retained only the power to impose nondiscriminatory and competitively neutral policies that "protect public safety and welfare,

\begin{footnotes}
\footnote{22. 47 U.S.C. §§ 151 et seq. (as amended).}
\footnote{24. 47 U.S.C. § 151.}
\footnote{25. 47 U.S.C. § 253(a) (emphasis added).}
\footnote{26. Id. at § 253(d).}
\footnote{27. 74 AM. JUR. 2D Telecommunications § 19 (2004).}
\end{footnotes}
ensure the continued quality of telecommunications services, and safeguard the rights of consumers." Statutes that cannot be justified against this standard are subject to preemption.

II. JUDICIAL INTERPRETATION OF SECTION 253

The teeth have been filed away from Section 253. Courts have been willing to broadly interpret these state and local powers and narrowly, if not counterintuitively, interpret Section 253. This was particularly apparent when states like Texas and Missouri passed legislation barring municipalities from offering telecommunications services.

A. Abilene, Texas: The Meaning of "Any Entity"

The City of Abilene, situated near the geographic center of the state of Texas, enjoys a proud history of cowboy heritage. It may be no surprise, then, that the city took a cowboy role in testing the statutory limits of the 1996 Act. An Abilene task force, chosen to evaluate the city's technological needs, concluded that the city's citizens and businesses were in need of "two-way audio, video and data transmission capabilities." However, the local exchange carrier ("LEC") did not want to upgrade its system to accommodate the city's proposed plans. In response, the city wanted to look into providing the needed services itself. Texas state law, however, stipulated otherwise. In 1995, the Texas state legislature passed the Texas Utility Act. The Act requires any person, including corporations, that desires to provide local telecommunications service to obtain a certificate of authority from the state. More pertinent to Abilene's situation are the Act's Sections 54.201 and 54.202 (as codified), which leave municipalities ineligible for certification and prohibit them from offering for sale, "directly and indirectly," any telecommunications service to the public.

Abilene challenged the Texas statute under Section 253 of the 1996 Act and petitioned the FCC to exercise its statutory preemption authority

31. Id.
32. Id.
34. Id.
under Section 253(a). The FCC denied the city’s petition on two grounds: (1) that municipalities are merely “instrumentalities of the state” and it would be fruitless to find that states could not prevent their political subdivisions from providing telecommunications services when they have the authority to limit the powers of those subdivisions in “all other respects”; and (2) that Congress, in using the phrase “any entity” in Section 253, was not explicit enough to “warrant federal interference with a State’s regulation” of one of its municipalities.

After the FCC’s decision was handed down, the City of Abilene sought judicial review. The Court of Appeals, however, concurred with the FCC in both reasoning and result. As for the first ground, the court found that, despite the federal government’s power to supersede state law under the Supremacy Clause, a state’s relationship with its political subdivisions “strikes near the heart of State sovereignty.” A state enjoys “absolute discretion” in managing the authority of its municipalities. From this, the court held that Section 253(a) must be read within the scope set forth in the U.S. Supreme Court opinion in Gregory v. Ashcroft. Under Gregory, the “substantial sovereign powers” of the several states may only be impinged upon when Congress makes its intention to do so “unmistakably clear in the language of the statute.” The phrase “any entity” in Section 253(a) was not defined by Congress to include or exclude municipalities. Thus, because “it is not plain to the Commission, and it is not plain to [the court], that § 253(a) was meant to include municipalities in the category ‘any entity,’” the court held that Abilene’s argument failed the Gregory test and that the FCC acted properly in denying preemption.

The concurring FCC and Appellate Court opinions in Abilene have since served as a legal Rosetta Stone for interpreting Section 253, though their holdings have both been criticized and supported by courts around the country. In City of Bristol v. Earley, the Virginia District Court refused to

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36. Abilene, 164 F.3d at 50–51.
38. Abilene, 164 F.3d at 50–51.
39. Id. at 52.
40. Id. (quoting Sailors v. Board of Educ., 387 U.S. 105, 107–08 (1967)).
42. Id. at 460 (quoting Atascadero State Hospital v. Scanlon, 473 U.S. 234, 242 (1985)).
43. Abilene, 164 F.3d at 53.
44. Id. at 54.
follow the *Abilene* interpretation of the 1996 Act and instead interpreted the 1996 Act as preempting a Virginia law that would have prohibited local municipalities from offering telecommunications equipment or services.\(^{46}\) The court offered a scathing criticism of the D.C. Circuit's failure in *Abilene* to properly interpret the term "entity" when modified by the term "any." The Court stated:

> The D.C. Circuit rationalized its narrow reading of the term “any” by explaining that it could not “hear” Congress’s “tone of voice” with regard to the word. Courts have always been called upon to interpret the written rather than the spoken words of the legislature. That judges are unable to hear certain tonal emphases of a legislature has never been an obstacle to statutory interpretation. On the contrary, the Supreme Court has held that where Congress uses the modifier “any,” it intends to impose a broad construction.\(^{47}\)

The court went on to disagree with *Abilene*’s interpretation of *Gregory*, denying that a statute that may have more than one interpretation is per se ambiguous.\(^{48}\) "The key is the plain meaning of the statutory language... as such, I cannot read the term ‘any entity’ in § 253(a) to mean ‘any entity except for municipalities or other political subdivisions of states.’"\(^{49}\) In the end, the court held that the state statute was preempted by the 1996 Act and was "unenforceable under the Supremacy Clause of the Constitution."\(^{50}\)

In contrast, state laws prohibiting or limiting municipalities from offering telecommunications services to the public have been upheld in Iowa,\(^{51}\) Georgia,\(^{52}\) and, most notably, Missouri.\(^{53}\)

**B. Missouri Municipal League**

In 2001, more than 600 Missouri municipalities and 63 utility companies filed a petition to the FCC seeking the Commission's preemption of Section 392.410(7) of the Revised Statutes of Missouri (H.B. 620).\(^{54}\) H.B. 620 states in pertinent part:

> No political subdivision of this state shall provide or offer for sale,

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47. *Id.* at 749 (citations omitted).

48. *Id.*

49. *Id.*

50. *Id.* at 750.


either to the public or to a telecommunications provider, a telecommunications service or telecommunications facility used to provide a telecommunications service for which a certificate of service authority is required pursuant to this section.\(^5\)

Like Texas, Missouri requires a certificate of service authority for any provider to offer intrastate telecommunications services.\(^6\) But the Missouri Municipal League ("MML") learned a thing or two from its predecessors' failures. The MML conceded that Congress did not clearly intend to include municipalities that did not own and operate electric utilities within the term "any entity" in Section 253.\(^7\) However, "Congress did clearly intend the term 'any entity' to apply to power companies owned by municipalities."\(^8\) On this argument, the FCC was willing to distinguish the decisions in Abilene. The FCC agreed that "if a municipally-owned utility has an independent corporate identity that is separate from the state and seeks to provide telecommunications services and facilities in this context, then it can be considered an entity for which [S]ection 253 preemption is available."\(^9\)

In the end, however, this distinction did not carry the day. According to the FCC, it was unclear under Missouri law whether or not a utility could ever sufficiently sever itself from state authority so that it would stand as an independent corporate identity and thus qualify for preemption.\(^{10}\) Since Missouri law requires that "the actions of its cities be consistent with state law," a municipality's "proprietary and governmental functions" are not separate but intertwined in state action.\(^{11}\) "The municipal entity [the municipally-owned utility] would therefore have to have an identity that is fully separate from the state in order for the Commission to consider whether section 253(a) is applicable."\(^{12}\)

When read on its face, the language from Abilene and Missouri Municipal League seems to close the door to any potential municipality or municipally-owned utility company from providing telecommunications services if its state legislates accordingly. But dicta in the FCC's opinion, as well as comments from then FCC Chairman William E. Kennard, let a glimmer of hopeful light shine through the doorjamb. In its decision, the FCC admitted that municipally-owned utilities "have the potential to

\(^{57}\) MML Memorandum Opinion and Order, supra note 54, para. 8.
\(^{58}\) Id. (emphasis added).
\(^{59}\) Id. para. 9.
\(^{60}\) Id. para. 18.
\(^{61}\) Id. para. 21.
\(^{62}\) MML Memorandum Opinion and Order, supra note 54, para. 8.
become major competitors in the telecommunications industry” and that such entities can “further the goal of the 1996 Act to bring benefits of competition to all Americans, particularly those who live in small or rural communities.” In particular, the FCC acknowledged that municipally-owned utilities are better situated to provide advanced services to these remote areas because they have preexisting facilities equipped to support necessary video, voice, and data services. Even more direct was Chairman Kennard’s concurring opinion. Chairman Kennard not only offered steadfast support for municipally-owned utilities that want to provide telecommunications services, he urged Congress to promptly settle the ambiguity in Section 253 and further called on the states to reconsider legislation that limits competition by statutorily excluding municipally related market newcomers.

We vote reluctantly to deny the preemption petition of the Missouri Municipals because we believe that HB 620 effectively eliminates municipally-owned utilities as a promising class of local telecommunications competitors in Missouri. Such a result, while legally required, is not the right result for consumers in Missouri . . . .

The record in this proceeding contains many letters from Members of Congress that state unequivocally that it was the intent of Congress when it enacted section 253 to enable any entity . . . to enter the telecommunications market and that it intended to give the Commission authority to reject any state and local action that prohibits such entry . . . . We urge the states . . . to use safeguards other than an outright ban on entry to address any unfair competitive advantage that they believe a municipally-owned utility may have. The right policy for consumers is to have as many providers of telecommunications from which to choose — barring entry by municipally-owned utilities does not give consumers that choice.

With this modicum of optimism, the MML sought judicial review of the FCC’s decision. The Eighth Circuit aligned with the Fourth Circuit’s decision in the City of Bristol and ruled in favor of preempting the state law. In a unanimous decision, the court reversed the FCC’s decision by relying, almost exclusively, on the “plain-vanilla” meaning of the phrase “any entity” in Section 253 to prove that Congress “manifested sufficiently clear congressional attention to governmental entities” to meet the Gregory standard for specificity in federal preemption. With two district court opinions in direct conflict, the Supreme Court granted certiorari.
C. *Nixon v. Missouri Municipal League*

But as the MML soon found, the Supreme Court would not be as favorable as the Eighth Circuit or as gentle as the D.C. Circuit. Delivering the opinion of the Court, Justice Souter denied what he called the MML’s “generous conception of preemption under § 253,” affirmed the decision in *Abilene* including the D.C. Circuit’s application of the *Gregory* standard, and added a final nail to MML’s telecommunications coffin. The Court explained that even if “any entity” were construed to allow FCC preemption of H.B. 620, “it does not follow that preempting state or local barriers to governmental entry into the market would be an effective way to draw municipalities into the business.” The crux of this argument lies in the differences between private telecommunications providers and government providers. It is a government’s “entrepreneurial limitations,” said Souter, that make it an ineffective market participant. These limitations include a municipality’s inability to find the necessary capital to provide telecommunications services and a government entity’s helplessness, once it entered such a market, to back out again. “The government’s decision to get out would be preempted.” To explain, municipalities’ capital flows are necessarily tied to that of the states in which they are situated. According to Souter, there is “no contention that the [1996 Act] by its own force entails a state agency’s entitlement to unappropriated funds from the state treasury.” Thus, since the state controls funding, it could limit a municipality’s ability to provide telecommunications services regardless of preemption. Furthermore, whereas a private provider has the ability to come and go from the market as it so chooses, a state that authorized municipal participation creates a federal “one-way ratchet”: the authorization could not be preempted, but any later statute that would limit this authorization would be preempted under Section 253, and the municipality could get stuck subsidizing a lemon. Opponents of municipally provided telecommunications services claim that exposing taxpayers to the risk of indefinitely funding a black hole utility is a form of taxpayer victimization.

Justice Stevens, the lone dissenter in the *Nixon* decision, stuck to the plain-vanilla reading of Section 253 as adopted by the Eighth Circuit. He

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70. *Id.* at 132.
71. *Id.* at 133.
72. *Id.* at 137.
73. *Id.* at 136.
74. *Id.*
75. See DAVID P. MCCLURE, NEW MILLENNIUM RESEARCH COUNCIL, NOT IN THE PUBLIC INTEREST—THE MYTH OF MUNICIPAL WI-FI NETWORKS 3 (2005).
denied that such an interpretation of Section 253 would prohibit states from "scaling back municipalities’ authority [to provide services] in a general way." Stevens called the pejorative one-way ratchet hypotheticals presented by the majority “absurd” because “the pre-emptive effect of § 253 is not automatic, but requires FCC’s intervention.” Stevens also reiterated Chairman Kennard and the FCC’s admission that municipal utilities can serve as effective providers of telecommunications services, especially to citizens on the geographic or economic fringes.

Still, regardless of Justice Stevens’ opinion, it was becoming clear: states could, regardless of the plain language of the 1996 Act, prevent municipalities from providing telecommunications services even when private providers could not or would not provide services to “all Americans.” As of 2005 twelve states have enacted laws placing some restrictions on municipalities, and since then lobbies for big telecommunications companies have been working to ensure more.

III. BUILDING A WIRELESS PHILADELPHIA

Five months after the Nixon decision, however, a ring shot across the country as if it came from the Liberty Bell itself. Philadelphia Mayor John Street announced the most ambitious municipal Wi-Fi plan to date: blanket the entire City of Brotherly Love, all 135 square miles, in a municipally sponsored Wi-Fi net by 2006 offering every neighborhood access at below-market prices for the paltry startup price of $10 million. According to Mayor Street, “Just like roads and transportation were keys to our past, a digital infrastructure and wireless technology are keys to our future.”

In the summer of 2004, Mayor Street appointed the Wireless Philadelphia Executive Committee (“Committee”) to make the proposed Wi-Fi experiment work. By February 2005, the Committee developed the plans for “Wireless Philadelphia,” a hybrid business model mixing aspects of a nonprofit and a city-owned cooperative wholesale model charged with providing “low-cost, high-speed, reliable wireless access throughout the

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76. Mo. Mun. League, 524 U.S. at 146 (Stevens, J., dissenting).
77. Id. at 147.
78. Id. at 142.
The model is city-owned and managed by an independent, mayor-appointed board charged with monitoring finances, installation, upkeep, and future policy setting. However, speaking technically, a 135 square mile fully integrated Wi-Fi web is more than just an exercise in committee number crunching. The Committee has initially gathered information from pilot studies in two Philadelphia neighborhoods, Love Park and West Powelton, to investigate the feasibility of the plan. In Love Park, nine Wi-Fi nodes (a node is a single transmitter that broadcasts and receives wireless information) connect to a main T-1 line. During the study, an estimated 2,600 people were able to successfully connect to the network within the area, a number that increased by 20% each month. In West Powelton, five nodes, each covering approximately two city blocks, connected to a central base station were able to successfully support up to 100 subscribers simultaneously.

Although connecting was feasible in these areas, the pilot meshes were not without their problems. For one, a radio frequency study conducted in the pilot areas determined that in dense metro areas—areas with tightly clustered buildings and many simultaneous subscribers—laptop users may need to continually move their laptop around to keep a strong signal, especially when users are more than one block from a node (i.e., instead of cellular phone users holding their phones high to get a signal, envision users doing the same with their laptops). Furthermore, a spectrum scan conducted throughout the Philadelphia metro area found “meaningful interference” from signal noise from other wireless products in about 12% of the areas. Such interference can cause breaks in connectivity and, in some cases, an inability to connect at all.

Yet, regardless of these technical shortcomings, the Committee is confident it can accomplish its primary goal: bridging the digital divide.

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83. "THE WIRELESS PHILADELPHIA EXECUTIVE COMMITTEE, WIRELESS PHILADELPHIA BUSINESS PLAN: WIRELESS BROADBAND AS THE FOUNDATION FOR A DIGITAL CITY 32–35 (2004), http://www.phila.gov/wireless/pdfs/Wireless-Phila-Business-Plan-040305-1245pm.pdf [hereinafter BUSINESS PLAN]. According to the BUSINESS PLAN, Wireless Philadelphia’s nonprofit character would enable it to provide low capital-cost-per-home broadband service by receiving startup funding from grants, loans, and other nonpublic sources, by offering wholesale access fees to local ISPs and by utilizing city-owned assets such as light poles and electricity to install and run the network. Id. at 32–33.

84. Id. at 35.

85. Id. at 55.

86. Id. at 56.

87. Id.

88. BUSINESS PLAN, supra note 83, at 57.

89. Id. at 59–60. Signal noise can be caused by cordless phones, security alarms, keyless entry devices, and even radio-controlled toys. Id. at 57.

90. Id. at 49.
Wireless Philadelphia will equip the estimated 60% of Philadelphians not connected to broadband with fast, reliable Wi-Fi service for under $25 per month (half of what many private telecommunications companies charge for similar service), as well as the computers and wireless cards to make it all worthwhile.\textsuperscript{91} According to Committee Chairperson Diane Neff, to ensure low income families will be able to benefit from Wi-Fi availability, computer makers are willing to provide subsidies to offer $200 desktop and $500 notebook computers to those who can afford them and the City will offer those who cannot leasing options for around $10 per month.\textsuperscript{92} Within two years, Neff said the program could subsidize up to 25,000 computer installations.\textsuperscript{93} That may be optimistic since the City's business plan estimates yearly operating costs, including service, repairs, technical support, facility management, and system monitoring to cost about $8 million.\textsuperscript{94} But not only is Philadelphia confident that it will be enough in the black to fund projects like computer subsidies and computer training programs, the Committee expects a full return on the initial $10 million estimate by year four with $4 million of capital reserves for upgrades and $5 million of cash flow to "support economic development and digital divide programs."\textsuperscript{95} By that time, the Committee projects more than 150,000 subscribers will have been caught in the municipal net.\textsuperscript{96} With Wireless Philadelphia shelling out only peanuts in initial startup costs—thanks to generous private sponsorship and city-provided installation equipment—and promising below market subscription rates, the Committee projects a 27% market penetration rate thanks to price sensitive subscribers, subscribers that would presumably switch from the incumbent provider, Verizon.\textsuperscript{97}

The plan's emergence as a potential success and market competitor, however, awakened the telecommunications giant. And, as guardedly optimistic as the Philadelphia plan sounds, Verizon has always presented the largest lingering problem with the plan's implementation. Verizon, Pennsylvania's dominant incumbent telecommunications services provider, had been there first; and, if anyone was to reap the financial benefits of


\textsuperscript{92} Philly Set to Unveil City-Wide Wi-Fi, COMM. DAILY, Jan. 14, 2005.

\textsuperscript{93} Id.

\textsuperscript{94} BUSINESS PLAN, supra note 83, at 40–41. (This figure is an average estimated ignoring Year 1 expenditures when the network's subscription base has not reached its expected level.).

\textsuperscript{95} Id. at 14.

\textsuperscript{96} Id. at 39.

\textsuperscript{97} Id. at 40.
connecting more than 150,000 users, the telecomm force would have its voice heard.98

A. Pennsylvania House Bill 30

As policy debates continued to rage in states that had not enacted laws prohibiting municipalities and municipally-owned utilities from entering the telecommunications market, Verizon—and large telecommunications providers like it—headed to the capitols. These companies began lobbying state legislatures to adopt provisions like those that have already enjoyed court approval in Abilene and Nixon.99 Still, the phrase “bridging the digital divide” could be found ringing in state legislatures and etched on newsprint across the country.100 It was a rallying cry for proponents who saw Wi-Fi as the nation’s best chance to provide high-speed Internet access to poor urban and rural neighborhoods, especially after similar wireline efforts in Tacoma, Washington; Ashland, Oregon; and Lebanon, Ohio promptly went bankrupt.101

According to municipal Wi-Fi advocates, city-funded wireless services can lower the price of Internet access enabling more people to connect. This increases the cities’ attractiveness to businesses, business travelers, and tourists, and enables governments to more effectively deliver public services such as police car-to-police car communication.102 Supporters claim that big telecommunications businesses are aggressively lobbying their conservative political counterparts to protect their interests without regard for low-income and rural inhabitants. Critics link big telecommunications money to biased reports from Washington-based conservative think-tanks that deny the effectiveness of municipal Wi-Fi projects.103 Some have accused think tanks like the Cato Institute and the New Millennium Research Council (“NMRC”) of producing inaccurate research that pleases their corporate sponsors, but does not tell the true story about municipal-sponsored Wi-Fi. Coincidentally, these sponsors include some of the largest telecommunications providers in the country:

98. Dao, supra note 80.
99. See id. As of the date of publication, twelve states have adopted legislation restricting municipalities’ ability to provide telecommunications services. Id.
100. BUSINESS PLAN, supra note 83, at 49.
101. DAVID G. TUECK & JOHN BARRETT, BEACON HILL INSTITUTE, MUNICIPAL BROADBAND IN CONCORD: AN IN-DEPTH ANALYSIS 12-16 (2004). In all three examples, actual costs exceeded projected expenses and each program, at the time of the study, was operating at a deficit. Id.
103. Karr, supra note 21.
Wi-Fi opponents deny these allegations and counter that municipalities are low-balling their estimated costs to make wireless seem more attractive so politicians can ride the wave of popular support for cheap, easy, everywhere access. Private telecommunications providers say government entry into the market puts them at an economic disadvantage. According to a 2005 report for the NMRC by Braden Cox, companies like Verizon "incur costs that governments do not in the form of income taxes, franchise fees, sales taxes and taxes on real estate and personal property." Furthermore, argues Cox, Wi-Fi is not a public good and is not an economically efficient or publicly desired product. The reason, he says, Wi-Fi services have not yet reached every corner of the country is because stand-alone providers simply have not been able to turn a profit. "Consumers have come to expect Wi-Fi service to be bundled with other goods -- hotel rooms and cafes, for example." The digital divide, says David McClure, President and CEO of the U.S. Internet Industry Association, is not caused by big telecommunications discrimination but by "economic, physical (e.g., disabled access to technology), age-centric or even cultural" factors. In another NMRC study, Tom Giovanetti, President of the Institute for Policy Innovation, went as far as to classify municipal networks as "the hallmark of communism."

By late 2004, as the two sides solidified their platforms and political support, it became clear that they would pit their respective representatives against each other in the Pennsylvania legislature. As Philadelphia began rolling out its wireless initiative, an amendment to Pennsylvania's Public Utility Code gained political momentum. The proposed amendment, much like those in Texas and Missouri, would ban local governments from offering for sale advanced or broadband services. Philadelphia objected and swung its influences into action. When the smoke cleared, buried deep in Pennsylvania House Bill 30, there appeared a compromise:

104. Id.
107. Id.
108. Id.
109. Id.
112. Lawson, supra note 91.
(h) Prohibition Against Political Subdivision Advanced and Broadband Services Deployment.

(1) [A] political subdivision or any entity established by a political subdivision may not provide to the public for compensation any telecommunications services . . . within the service territory of a local exchange telecommunications company operating under a network modernization plan.

(2) A political subdivision may offer advanced or broadband services if the political subdivision has submitted a written request for the deployment of such service to the local exchange telecommunications company serving the area and, within two months of receipt of the request, the local exchange telecommunications company has not agreed to provide the data speeds requested. If the local exchange telecommunications company or one of its affiliates agrees to provide the data speeds requested, then it must do so within 14 months of the receipt of the request.

(3) The prohibition in paragraph (1) shall not be construed to preclude the continued provision or offering of telecommunications services by a political subdivision of the same type and scope as were being provided on the effective date of this section.\(^\text{113}\)

In practical terms, the statute means that

- Verizon, or any other incumbent, gets a right of first refusal before any Pennsylvania municipality can provide telecommunications services;
- if Verizon wants to act on this right, it has fourteen months to do so, meeting the same specifications as proposed by the municipality;
- if Verizon refuses to act on this right, the municipality may, hypothetically, proceed with its plan; and,
- Subsection (3) does not require the City of Philadelphia to meet the procedural mandates of this law.\(^\text{114}\)

Though not as restrictive as its predecessors in Texas and Missouri, the Pennsylvania statute has incited pessimism about the future of municipally provided Wi-Fi services. "The signal is clear," said one journalist, "In the tug of war between Big Telecom and little governments, the powerful telecommunications lobby is winning."\(^\text{115}\) Critics of the Philadelphia compromise say the deal "leaves all the rest of the municipalities in the state pretty much on their own," subject to the dictated

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\(^{115}\) Id.
terms of the local incumbent provider. Indeed, according to a spokesperson for the company, Verizon fully intends to address “other Pennsylvania towns’ broadband aspirations case by case.” Ron Sege, chief executive officer of Tropos Networks, Inc., a major player in the Wi-Fi hotspots market, was pessimistic about the fourteen-month time frame Verizon has to play judge with a city’s plans. He called the period “quite leisurely.” He explained that since Wi-Fi technology exists today to provide broadband access to cities, such a limbo period will only slow down its deployment. Verizon spokesperson Eric Rabe disagreed. He said the fourteen-month deadline could force Verizon to expedite their wireless penetration or lose customers to municipalities. Both sides wait to see if municipally sponsored Wi-Fi in Pennsylvania will fizzle or flourish under the compromise.

IV. THE FUTURE OF MUNICIPAL BROADBAND

As of the date of publication no Pennsylvania municipality has tested the waters of the new law and questions remain unanswered. Can Verizon feasibly provide a similar service to remote Pennsylvania cities within fourteen months? Will the new law induce a rash of municipally-sponsored utilities clamoring for a piece of the broadband pie? According to David Myers, deputy chief of staff to Pennsylvania Governor Edward Rendell, litigation over the compromise’s language is sure to ensue when municipalities begin taking action. For example, under new law, Verizon must provide a “similar service” within fourteen months. Does that mean Verizon must use the same technology as preferred by the municipality (wireless, for example), or would its obligation be satisfied if it offered wireline broadband access of any sort?

Still, despite its uncertainty, the Philadelphia compromise is a sound plan for myriad reasons. Most directly, Pennsylvania House Bill 30 seems to satisfy the hesitations that led the Supreme Court to rule against the Missouri Municipal League. If judged against the arguments put forth by Justice Souter in Nixon, the compromise remedies or avoids the Court’s two most distressing issues regarding municipally sponsored wireless: (1)

116. Lawson, supra note 91.
118. Id.
121. Id.
that the municipality suffers from "entrepreneurial limitations" that private providers do not, and (2) that federal preemption would create a one-way ratchet, leaving taxpayers subsidizing a sinking ship in the event the program does not break even.

First, a municipality's market limitations (e.g., its inability to find necessary capital for startup costs) are mitigated by the Philadelphia compromise. Since the program expects to receive most of its start-up funding from loans, grants, and other private sources and the rest for subscription dollars, it seems to pacify the Court's concern about the project's financial independence from the state treasury. Second, the Court's concern that a municipally owned utility would be preempted from pulling out of the market once it entered is not relevant under Pennsylvania's new law. Presumably, no municipality will need to petition for FCC preemption, therefore, a state's future decision to shut down a failing program would not be preempted by the FCC.

The law is less restrictive than those in Texas and Missouri in that it does not ban municipalities from providing telecommunications services nor does it assume that a state will not be able to pass future legislation with regard to those services. Instead, it merely gives Verizon a right of first refusal. If Verizon chooses not to offer similar service as the municipality envisions, the municipality is presumably unrestrained in providing the service itself, and the state is unrestrained from further legislation if it so chooses. It follows, then, that since preemption is not necessary, the Gregory test would not be implicated, and Abilene, which relied heavily on the Gregory test in upholding the FCC's decision to deny preemption and on which the Supreme Court relied in deciding Nixon, would not apply.

Thus, the Philadelphia compromise would serve as a reliable model for other municipalities seeking to provide their constituents with wireless broadband access without being denied by strained readings of words like "any" judicial interpretations. Furthermore, the statute could serve as a building block for municipalities seeking to offer wireless service as a public good. Despite criticism from corporate-sponsored think tanks like the NMRC, the proliferation and continued support for municipally-sponsored wireless broadband access implies not only that this service is desired as a public good, but that plans like Wireless Philadelphia make it feasible for municipalities to offer service at an affordable rate and subsidize computer purchasing programs without sinking into bankruptcy.

Admittedly, the Wireless Philadelphia plan enjoys private financial support the likes of which may not be able to be collected by smaller towns or counties in rural areas. However, the fact that the compromise was able to take place proves that the dream of municipally-sponsored wireless is
not as dead as it was thought to be after the *Nixon* decision. For example, proponents of municipally-sponsored wireless services in Denver are already lobbying for a bill that would enable municipalities to avoid being banned as long as they hold a citywide election to approve or disprove the plan.\(^1\)\(^2\)\(^4\) Though the proposal is in its earliest stages, it is a spark that may yet be kindled so as to spread the message that municipally-sponsored wireless service is a desired public good all the way to Washington.

In fact, the question as to whether or not municipalities should provide telecommunications services could soon be answered in the halls of Congress. In 2005, two bills were proposed, one in the House and one in the Senate, each calling for clarification of the 1996 Act, and each calling for polar opposite results: one barring municipalities from providing services and one barring states from restricting municipality provided services. In the House, Representative Pete Sessions of Texas proposed the Preserving Innovation in Telecom Act of 2005.\(^1\)\(^2\)\(^3\)

If passed, the bill would ban “any State or local government, [or] any entity affiliated with such a government” from providing telecommunications services when “a corporation or other private entity that is not affiliated with the State... is offering substantially similar service.”\(^1\)\(^2\)\(^4\) This bill is less restrictive than the Texas Utility Act, which does not leave room for publicly provided services in the absence of similar privately provided ones. It is unclear, however, if the bill is more or less restrictive than the Pennsylvania Act, which places a fourteen-month deadline on privately provided services when none are being offered. The proposed bill details nothing as to what the outcome would be if a private provider began service after a municipality was doing so. If a private provider is allowed to enter the market after a municipality is already providing service, the potential for an unfair competition claim arises that does not exist with the Pennsylvania law.

According to Pennsylvania House Bill 30, Verizon must be offered the market and must choose not to proceed in order for a municipality to begin providing service.\(^1\)\(^2\)\(^5\) It follows that Verizon waives its right to raise such an unfair competition claim. It is unclear how such a bill would be interpreted by a judiciary. Similarly, like the Pennsylvania Act, the House bill suffers the same vagueness in defining “substantially similar service,” an interpretation that would surely come under judicial review if the bill were passed.

\(^1\)\(^2\)\(^2\) Shanley, *supra* note 102.
\(^1\)\(^2\)\(^3\) H.R. 2726, 109th Cong. § 1 (2005).
\(^1\)\(^2\)\(^4\) Id. at § 2.
\(^1\)\(^2\)\(^5\) Pa. H.B. 30.
In the Senate, Senators John McCain of Arizona and Frank Lautenberg of New Jersey have proposed the Community Broadband Act of 2005.\textsuperscript{126} The language of the bill consists of little more than a restatement of Section 253 but changes the term "any entity" to "any person or any public or private entity,"\textsuperscript{127} thus opening the door to municipally-provided telecommunications services. While this bill would dispel any guesswork as to whether or not a municipality is capable of providing wireless access, it remains uncertain how a court would interpret an unfair competition claim raised by a previously operating private provider. Though the ever-raging battle between competing private and public providers would continue in the passing of this bill, its existence makes clear that wireless broadband service is a desired public good.

V. CONCLUSION

It remains a matter of conjecture to predict which path, if any, Congress will choose to lead America back to its spot as the most internet-accessible country in the world. Still, these two bill proposals make clear Congress’ interest in finding some way to bridge the digital divide and stay on pace with other countries’ wireless penetration. Citing the United States’ lagging pace in high-speed Internet service penetration,\textsuperscript{128} Sen. McCain said, “[W]e cannot afford to cut off any successful strategy if we want to remain internationally competitive[,]” including enabling municipalities to help the United States catch up.\textsuperscript{129}

Little buzz, however, has been made as to which bill would be more likely to become law. Without a federal statute dictating otherwise, the Philadelphia compromise remains the most promising option for municipalities that want to provide free or subsidized wireless broadband access. Wireless Philadelphia is scheduled for complete implementation by the summer of 2006. It may well be years before Congress implements a plan for fulfilling the goal it set out for itself in the 1996 Act to make reasonably priced communications services available to all the people of the United States. Until then, Philadelphia once again finds itself with a revolution taking shape in its legislative halls, and the country waits to see what will become of the Philadelphia compromise.

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  \item \textsuperscript{126} S. 1294, 109\textsuperscript{th} Cong. §1 (2005).
  \item \textsuperscript{127} Id. § 2(c)(1).
  \item \textsuperscript{128} See supra Part.I.B.
  \item \textsuperscript{129} Roy Mark, McCain Bill Would Help Municipal Wi-Fi, INTERNETNEWS.COM, http://www.internetnews.com/infra/article.php/3515206.
\end{itemize}