

Municipal Broadband Legislation

This IPRO report examines state legislation that supports local governments in installing and maintaining broadband access. Broadband access provided by the local government, often called municipal broadband, is defined as Internet access funded, at least in part, by municipal government.¹

Municipal Broadband

The term *broadband* refers to high-speed Internet access through which text, images, and sound are digitally transferred.² The Internet connection may be provided through DSL, wireless, cable, or other means.

Typically, municipal broadband networks are offered throughout an entire city or county and can be accessed for free in government buildings, open space areas, schools, and community centers. Municipal broadband is also accessible to homes and businesses and can be provided either for free or with a paid subscription. Businesses and citizens have the option of choosing between the municipal broadband network or a network from a private Internet service provider, ideally creating more competition in the marketplace.³

Benefits of municipal broadband may include:

- Increased communication efficiency between governmental bodies (police stations, fire departments, emergency response teams, etc.) especially in times of natural disaster due to a common network and broad access.⁴
- Enhanced “portability, flexibility, and speed” of broadband service and an expected increase in computer and software sales, along with e-commerce business.⁵
- More access to rural areas where private providers have not previously extended service.⁶

Broadband in the United States

Proponents of municipal broadband efforts contend that the United States lags behind other countries in terms of fast, reliable, and affordable Internet. They argue that internet access is a necessity and point to comparisons of broadband access worldwide as a ground to support municipal broadband. For example:

¹ Tapia, Andrea, Carleen Maitland, and Matt Stone. "Making IT work for municipalities: Building municipal wireless networks." *Government Information Quarterly* 23.3-4 (2006). *ScienceDirect*. Web. 16 Nov. 2009.

² "Getting Broadband." *FCC Consumer Facts*. N.p., 18 Oct. 2008. Web. 13 Dec. 2009. <<http://www.fcc.gov/cgb/consumerfacts/highspeedinternet.html>>.

³ Dinan, Michael. "Santa Monica Seeks to Expand WiFi through Broadband Stimulus Funds." *Stimulus Online Community* 25 Nov. 2009: n. pag. Web. 13 Dec. 2009. <<http://4g-wirelessevolution.tmcnet.com/broadband-stimulus/topics/broadband-stimulus/content.aspx?article=/broadband-stimulus/topics/broadband-stimulus/articles/69765-santa-monica-seeks-expand-wifi-through-broadband-stimulus.htm>>.

⁴ Tapia, Andrea, Carleen Maitland, and Matt Stone. "Making IT work for municipalities: Building municipal wireless networks." *Government Information Quarterly* 23.3-4 (2006). *ScienceDirect*. Web. 16 Nov. 2009.

⁵ Leibowitz, Jon. "Municipal Broadband: Should Cities Have a Voice?" National Association of Telecommunications Officers and Advisors (NATOA). Washington, D.C. 22 Sept. 2005. *Federal Trade Commission*. Web. 13 Dec. 2009. <<http://www.ftc.gov/speeches/leibowitz/050922municipalbroadband.pdf>>.

⁶ IBID

- In Japan, broadband service—at 150 megabits per second (Mbps)—generally costs \$60 a month. In the US standard broadband service—at 50 Mbps—generally costs in between \$90 to \$150 per month.⁷
- In Iceland, 83 percent of households are connected to broadband. In the United States, the average is 59 percent.⁸
- Currently, the US ranks 15th worldwide for the amount of households with broadband.⁹ Only 38 percent of Americans who live in rural areas subscribe to broadband, compared to 57 percent in urban areas, and 60 percent in suburban areas.¹⁰

Municipal Wireless

When cities and counties began implementing municipal broadband networks in the late 1990s, many opted to install a specific wireless network, called *municipal wireless*. This is the most prevalent type of municipal broadband connection. Like municipal broadband, municipal wireless networks serve public spaces, government buildings, and public safety operations with wireless Internet technology. Many municipalities also offer low-cost wireless Internet subscriptions to private businesses and citizens as part of the municipal wireless program.

In recent years, major Internet service providers have broken contracts and withdrawn from municipal wireless programs, citing unexpected financial burdens. This can occur when service providers anticipate a large amount of interest in subscriptions to homes and private businesses, but the actual subscription rate is low. Problems also arise when wireless reception requires more routers than initially predicted, leaving wireless coverage spotty and hard to access.¹¹ With no corporate backing, many municipal wireless networks have not been completed. For this reason, IPRO researchers were unable to find a comprehensive and up-to-date list of the number of U.S. cities with functioning municipal wireless, or the amount of cities that stopped or put projects on hold.

Successes and Failures of Municipal Wireless

The success of municipal wireless efforts may depend on whether or not “municipal wireless networks fulfill specific community needs.”¹² The community of Corpus Christi, Texas successfully funded a municipal wireless network by using their network for electronic-meter reading, a cost-effective alternative to hiring meter readers. In Greene County, North Carolina the Beyond Tobacco program was used to fund municipal wireless access, subsidize computer hardware for education, and offer technology training for its residents.¹³

Failure to implement municipal wireless generally falls into three categories: financial obstacles, insufficient technology or wireless coverage, and citizen rejection. Chicago, Illinois attempted to

⁷ Hansell, Saul. "The Broadband Gap: Why is Their's Faster?" *The New York Times*. 10 Mar. 2009. Web. 5 Dec. 2009. <<http://bits.blogs.nytimes.com/2009/03/10/the-broadband-gap-why-is-theirs-faster/>>.

⁸ IBID

⁹ The Alliance for Public Technology, and Communications Workers of America. "State Broadband Initiatives." *Alliance for Public Technology*. N.p., June 2009. Web. 13 Dec. 2009. <http://www.appt.org/publications/reports-studies/state_broadband_initiatives.pdf>.

¹⁰ IBID

¹¹ Aaron, Criag. "The Promise of Municipal Broadband." *SaschaMeinrath.com*. N.p., 18 Aug. 2008. Web. 13 Dec. 2009. <http://www.saschameinrath.com/blog_tags/municipal_wireless>.

¹² Opsahl, Andy. "Municipal Broadband Efforts Succeed Despite Wi-Fi Meltdown." *Government Technology* 27 Apr. 2009: n. pag. Web. 13 Dec. 2009. <<http://www.govtech.com/gt/articles/631009>>.

¹³ IBID

implement municipal wireless in 2006, but failed when the provider Earthlink broke their contract and suspended the program. It would take an estimated \$50 million to fund wireless installation and \$150 million over six years to maintain the Chicago network.¹⁴ Portland, Oregon stopped their municipal wireless program when they determined that achieving their goal of 90 percent coverage had odds of only “one in a billion.”¹⁵ Lompoc, California dropped its municipal wireless network after investing almost \$3 million on development and attracting only 281 customers after seven months of operation (projections estimated that the city needed 4,000 customers to break even on the project).¹⁶

Recent Federal Action

The 2009 American Recovery and Reinvestment Act (ARRA) requires the Federal Communications Commission to create a “national broadband plan” to increase access to broadband and help provide funding through grants.¹⁷ The national plan is due February 2010. The ARRA also provides \$7.2 billion for broadband Internet access nationwide. This includes grants for rural broadband access, expanding computer center capacity, and sustainable broadband adoption initiatives.¹⁸ President Obama has stated that this legislation is designed to meet goals of “getting true broadband to every community in America.”¹⁹

State Action

Twenty-eight states have legislation pertaining specifically to the implementation of municipal broadband. Iowa has not passed legislation relating to municipal broadband. State action can be placed in several categories including: taskforce creation, regulatory agencies, public-private partnerships, direct funding, and financial incentives.

Taskforce Creation: Thirteen states have created taskforces to: evaluate and assess broadband deployment, evaluate potential broadband policy changes, and oversee broadband projects in the state. These taskforces exist to inform legislators on the current condition of broadband access in their state. The taskforces are usually comprised of representatives from local governments, state government, public utilities commissions, and Internet service providers.²⁰

¹⁴ Russin, Krystle. "Chicago Wants Feds to Fund Failed Broadband Effort." *Info Tech and Telecom News*. The Heartland Institute, 2 Dec. 2009. Web. 13 Dec. 2009. <http://www.heartland.org/infotech-news.org/article/26470/Chicago_Wants_Feds_to_Fund_Failed_Broadband_Effort.html>.

¹⁵ Valvo, James. "Government intrusion into broadband hasn't worked." *The Orange County Register* 31 Mar. 2009: n. pag. Web. 13 Dec. 2009. <<http://www.ocregister.com/opinion/broadband-18544-projects-municipal.html>>.

¹⁶ Valvo, James. "Municipal Broadband's Record of Failure." *Americans for Prosperity*. N.p., Mar. 2009. Web. 13 Dec. 2009. <http://www.americansforprosperity.org/files/Municipal_Broadband_Policy_Paper.pdf>.

¹⁷ Hansell, Saul. "The Broadband Gap: Why is Their's Faster?" *The New York Times*. 10 Mar. 2009. Web. 5 Dec. 2009. <<http://bits.blogs.nytimes.com/2009/03/10/the-broadband-gap-why-is-theirs-faster/>>.

¹⁸ The White House. "Technology." *White House*. N.p., 2009. Web. 13 Dec. 2009. <<http://www.whitehouse.gov/issues/technology/>>.

¹⁹ "Science, Technology and Innovation for a New Generation." *Organizing for America*. N.p., 2009. Web. 13 Dec. 2009. <http://www.barackobama.com/issues/technology/index_campaign.php#modern-communications>.

²⁰ United States. National Governor's Association. *NGA Center for Best Practices*. Cong. Rept. 20 May 2008. Web. 05 Dec. 2009. <<http://www.nga.org/Files/pdf/0805BROADBANDACCESS.PDF>>.

Regulatory Agencies: Nine states require an existing governmental body—such as a telecommunications committee—to regulate and track broadband initiatives. Regulatory agencies are similar to taskforces but have decision-making authority regarding broadband initiatives, whereas taskforces offer recommendations. Their duties include providing requirements for future projects in the state, evaluating broadband deployment, and reviewing current broadband projects.

Public-Private Partnerships: Three states allow partnerships between local governments and private companies. These partnerships are formed to reduce cost burdens on both local governments and private Internet service providers. Within these partnerships the city provides “buildings, poles and other assets to mount wireless equipment,” eliminating construction costs for broadband providers. A private company funds, builds and operates the wholesale and retail wireless network.

Direct Funding:²¹ Four states have set aside specific amounts of funding for broadband creation. States allocate funding in order to encourage broadband initiatives, and can provide direct state funding for projects or research grants for service providers. Though states allocate some funding, the main source of outside funding for municipal broadband programs is through grants and loans from rural-development programs and Department of Agriculture’s National Telecommunications and Information Administration, and Rural Utilities Service.²² Non-profit organizations and private Internet service providers have also helped to supply funding, and many acquire funding through advertisements.

Financial Incentives:²³ Five states have implemented tax credits or sales tax exemptions to private service networks, municipalities, and consumers. These credits are designed to relieve the burden of broadband equipment costs incurred while opening or relocating a business facility²⁴ and to encourage the use of broadband and broadband technologies. Tax credits and sales tax exemptions vary by state. Tax credits often range from 5 percent to 15 percent of the cost of materials used for broadband deployment. Some states may also instill a cap on broadband tax credits, such as the \$1,200 cap in Missouri. And other states, such as Mississippi, exempt up to 100 percent of the sales tax on broadband equipment.

Table 1 summarizes state action regarding municipal networks.

²¹ United States. National Governor's Association. *NGA Center for Best Practices*. Cong. Rept. 20 May 2008. Web. 05 Dec. 2009. <<http://www.nga.org/Files/pdf/0805BROADBANDACCESS.PDF>>.

²² Lederer, Gerard. "Stimulus Broadband Funding: Why You Need to Act Now." 18 Feb. 2009. *AWC Net*. Web. 13 Dec. 2009. <<http://www.awcnet.org/documents/BroadbandStimulusFunding.pdf>>.

²³ United States. National Governor's Association. *NGA Center for Best Practices*. Cong. Rept. 20 May 2008. Web. 05 Dec. 2009. <<http://www.nga.org/Files/pdf/0805BROADBANDACCESS.PDF>>.

²⁴ IBID

TABLE 1

State	Taskforce Creation	Regulatory Agencies	Public-Private Partnership	Direct Funding	Financial Incentives
Alaska				X	
Arkansas	X			X	
California		X			
Colorado		X			
Georgia	X				X
Hawaii	X				
Illinois	X				
Indiana				X	
Kansas		X			
Kentucky			X		
Louisiana	X				
Maine	X				
Michigan		X			
Mississippi					X
Missouri					X
Minnesota	X				
Nebraska					
New Hampshire	X	X			
New Jersey			X		
New Mexico			X		
Ohio				X	
South Carolina	X				
Tennessee		X			
Utah					X
Vermont	X	X			
Virginia	X	X			X
Washington	X	X			
West Virginia	X				
Total	13	9	3	4	5