

Localizing the U.S. Broadband Problem

Becca Vargo Daggett & Christopher Mitchell
Telecommunications As Commons Initiative
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A growing number of opinion leaders are rallying behind the argument that only federal leadership can stop the United States' slide into broadband oblivion. In a widely circulated document, attorneys Jim Baller and Casey Lide set out their plan for developing a National Broadband Strategy, the crux of which is a blue ribbon task force that would establish national goals, and develop recommendations on how to get there.¹ So far, the most substantial Congressional movement is West Virginia Senator John D. Rockefeller's resolution advocating legislation toward this end.

It's impossible to be *against* setting up a blue ribbon task force. Certainly, we need a national discussion about how to best use public assets, in particular the airwaves and rights of way, to rapidly expand broadband access. But we object to the way the discussion is being framed.

The U.S. does not have a national broadband problem in the sense that we lack the capacity to move information from one part of the country to another. Nationwide networks are fully built, and prices for long-haul bandwidth continue to fall. In the Minneapolis-St. Paul metro area, the prices large institutions pay for Internet bandwidth have dropped by 30 percent in the past two years.

The weak link is local access. An office worker in Manhattan can transfer a file to a colleague in Los Angeles faster than she can transfer the same file to a colleague working at home in Queens (where last year, Verizon stopped signing up new customers for DSL, citing lack of capacity). I routinely get a better voice-over-Internet connection when checking in with my Minneapolis office from San Francisco than from my home, which is less than two miles away and borders a major research university. Talking via Skype with our colleague who telecommutes from his farm in Wisconsin is out of the question.

Our problem is how few local networks can support truly high-speed connections for individual users. This local problem calls for local solutions.

Asking for federal help in solving the U.S. broadband problem is like asking Microsoft to take the lead on ensuring universal program interoperability: They don't see the situation clearly, they're predisposed to underestimate the problem because they created the circumstances that caused it, and any fixes they offer may well make the problem worse.

¹ Jim Baller and Casey Lide, "Eight Bold Steps To A National Broadband Strategy", FTTH Prism, January 2007.

The federal government lives in a fantasy world when it comes to high-speed networks. The FCC uses a notoriously low definition for high-speed (200 kbps), and their data on competition defies common sense. Almost anyone can walk out of their house and see that they have exactly two options for connecting to the Internet – a phone line and a cable line. Despite talk of competition from wireless and power line technologies, over 95 percent of households still get high-speed data services via phone or cable lines. Yet the FCC claims that most urban areas have ten or more competing service providers.²

The federal government created the U.S. broadband problem. It failed to enforce common carrier requirements for phone companies' high-speed networks, and exempted cable companies entirely from such requirements. When local governments tried to correct this differential regulation between companies offering the same service (high-speed Internet access), the federal government preempted their authority to do so through local franchises. Finally, common carrier requirements were abandoned altogether for both phone and cable networks.

In regulating the public airwaves, the federal government has both stifled innovation and entrenched incumbents by sticking with a technologically outdated notion of spectrum scarcity.

When the federal government has acted, it has used band-aids where surgery is needed. Both E-Rate and the Universal Service Fund (USF) address prohibitively high connectivity costs through ongoing operating subsidies to private companies. For a decade, schools have paid over and over again for the same T-1 lines, but companies expect further subsidies before they will make capital investments in higher capacity fiber connections. The same is true for the USF, which has subsidized rural incumbents' operating costs without adding competition to rural markets.

Some may envision a national broadband strategy on par with the federal highway programs. The unfortunate reality is that a blue ribbon task force, composed at least partly of industry representatives and acting under Congressional direction, is unlikely to break with past federal remedies. Much like the 2001 report of the National Research Council,³ the national broadband task force will recommend some combination of subsidies to encourage private enterprise to improve their networks, relaxed regulation on use of rights of way, and purchasing programs for the public sector. No doubt they will recommend that it all be carried out via "public-private partnerships," that amorphous term that has been used to describe everything from Anaheim's franchise to St. Louis Park's city-owned, privately managed network.

Identifying the committee, gathering information and writing a report will take us into late 2008, at the earliest. Meanwhile, the U.S. broadband standing will continue to decline.

There is another way. Some 300 U.S. communities are solving the U.S. broadband problem for themselves, without a national broadband strategy. They are building publicly owned networks, designed to serve the public interest in high-speed communication and information exchange. This movement toward publicly owned networks started in communities with municipal electric utilities that could naturally expand to offer telecommunications. In a growing number of communities, these networks are open infrastructure, like the roads.

By building public networks that serve as common carriers in the same way as public roadways do, communities get a voice in how the network is managed, maintained, and upgraded over time. This represents a complete break from the status quo, in which owners of private networks upgrade their networks based on what makes sense for their corporation, without regard for the needs of the community.

² The FCC's statistics on competition do not distinguish between service providers that sell only business plans and those that sell residential services. It also counts as competitive providers those service providers that simply resell the incumbent's DSL, even though the incumbent sets the price floor.

³ Computer Science and Telecommunications Board, National Research Council, "Broadband: Bringing Home the Bits," National Science Foundation, 2001.

The current showdown between Verizon and the state of Massachusetts is a characteristic example. Verizon told the Governor of Massachusetts that the company would halt its fiber to the premises deployments if the state closes a tax loophole that added some \$50 million to the company's bottom line in 2006. The loophole, a property tax exemption for telecommunications companies' use of poles and other equipment, was put in place ninety years ago to encourage the expansion of telephone service in the state. Utility companies, on the other hand, pay property taxes for use of the same poles. Even if Verizon does continue with its roll-out, most Massachusetts residents will not benefit, as the company is installing fiber only in relatively wealthy areas.⁴

If we are to have a national strategy it should adhere to a few basic principles.

First, local authority should be paramount. No one is more aware of the shortcomings of local access networks than local governments. Yet the argument put forward at the national level is that local governments are a barrier to widespread broadband deployment. Too often, the federal response is to preempt local authority in the name of creating regulatory uniformity. Most recently, we see this in the push for federal video franchising.

Second, the strategy should not rely on public subsidies for private, for-profit entities. This includes tax incentives, low-interest loans, and operating subsidies like eRate and the Universal Service Fund. These breed dependency. Where schools and communities have instead made capital investments, they have reaped

significant benefits. In Dakota County, Minnesota, schools that have invested fiber optic connections to a larger county and state network have found their monthly costs reduced substantially below even the E-Rate subsidized price they were paying.

In a small Minnesota town, the local phone company got \$300 in USF money per household in 2006, without which the company believes they would have to double the price of phone service to around \$44 per month. For much less money, the community itself could carry 20 year bonds on a fiber optic network that the local phone company, and any other interested service providers, could use to reach customers.⁵

Third, corporations should not expect the privilege of participating in the process without giving something in return. As Baller and Lide point out, one of the major problems faced in the U.S. today is the lack of available information about existing and planned infrastructure and usage patterns. The cause of this problem is that companies treat the data as proprietary. It seems unlikely that this will change simply because they are appointed to a blue ribbon task force. Releasing this data could be a precondition of appointment.

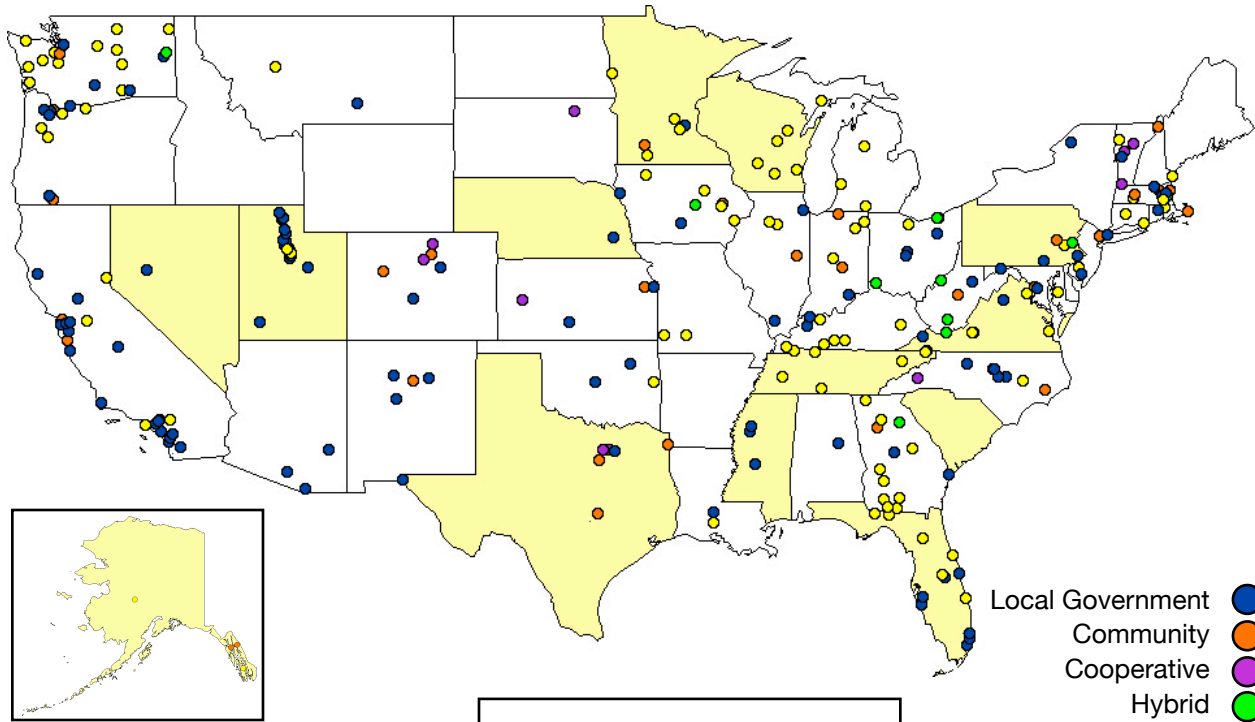
We do not doubt that calls to bring together stakeholders and write a report are well intentioned. But at this time it seems like nothing more than another step toward justifying the continuation of a national policy that stifles local initiative and subsidizes private ownership of our high-speed information highways.

⁴ According to Broadband Everywhere, as of April 2006, Verizon's plans for Massachusetts include 39 neighborhoods targeted for fiber to the premises deployment. Of these 39, 38 are above the state median income, and they are clustered in the Boston metro area. "A Picture is Worth a Thousand Words: How the Bell Business Model Leaves Much of America Behind," Broadband Everywhere, April 4, 2006.

⁵ A common objection to open (or wholesale only) networks for small towns is that the market size cannot support more than one service provider. This may be true, but an open, publicly owned open network still offers advantages. First, the publicly set wholesale rate ensures that the retail provider is making profits based on the value of service provided. Second, small communities can band together, as they have done in the Utah Telecommunications Open Infrastructure Agency, to create a larger market by simply adding an inter-city fiber optic line.

Really **Public** Broadband in the U.S.

High-speed information networks (fiber and/or wireless) owned by local governments, community organizations, and cooperatives



- Local Government (blue dot)
- Community (orange dot)
- Cooperative (purple dot)
- Hybrid (green dot)
- Municipal Utility (yellow dot)

States that restrict municipal entry (light yellow box)

