

Neutrality and municipalities

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Inflamed by countless bloggers and sizzling beneath the spotlight of congressional hearings, debate over network neutrality reached a boiling point this month as no less an authority than Vinton Cerf — one of the Internet's founding fathers and a current employee of net neutrality advocate Google — warned the Senate's Commerce Committee that incumbent carrier control of broadband networks could “fundamentally undermine” the Internet as we know it.

With this dramatic stride upstage, the net neutrality debate — and its attendant fears about censorship, prices and consumer choice — could fuel interest in municipally owned broadband networks as an alternative to privately owned pipes. However, net neutrality proponents may find public networks to be fraught with plenty of their own problems as well.

Debate over network neutrality was ignited by a Supreme Court ruling last year deregulating broadband, but it has exploded in the wake of comments made by AT&T Chief Executive Ed Whitacre to Business Week magazine a few months back that it was “bull” for content providers to expect not to have to pay to send traffic over his network. In the opinion pages of the New York Times, Silicon Valley historian Randall Stross inveighed, “Woe to us all if the Internet's content is limited by the companies who also handle the plumbing.”

“The network neutrality debate feeds into the fears and sense of concern people have about localism and the loss of ability to control their own destinies,” said Jim Baller, a Washington attorney who frequently represents municipalities with telecom initiatives. “We've gotten to this point in part because we painted ourselves into a corner and gave the incumbent [carriers] the opportunity to shut off their networks to others and to become increasingly powerful and ungovernable. It's almost as though net neutrality is the last line of defense.”

Though the controversy surrounding net neutrality has been around for years, the high profile granted to it in recent weeks could be sufficient to open more people's minds to new broadband models. “In the past, net neutrality was an intellectual exercise,” Baller said. “It was [called] a solution without a problem. Now, thanks in part to the statements of incumbent [carrier CEOs], people are beginning to realize it's not just an academic debate; it's a very important one.”

Most experts agree it's too early to see any hard evidence of the debate's effect on municipal broadband activity. The muni movement has been proceeding with its own momentum for years. In January, Grand Rapids, Mich., issued a request for proposals (RFP) for a privately owned and operated wireless network that would be used to offer citywide broadband. Included in the RFP was a neutrality clause that read, "The network shall be open to multiple service providers and content providers on a fair and equal basis." That passage wasn't inspired by the flurry over Whitacre's quotes in *Business Week*, the city's wireless project manager, Sally Wesorick, said; it was based on 18 months of research.

"We wanted to be inclusive," she said of the motivation behind the neutrality clause. "Part of the reason we're doing this is for economic development. We don't want to exclude vendors from a business opportunity."

However, as the net neutrality debate escalates, existing wholesale muni networks showcase alternatives to an Internet run through private pipes. For example, thousands of Utah residents now get broadband service over the Utopia network, a multi-city municipal fiber network that is publicly owned and offered on a wholesale basis to competing service providers. Unshackled to an incumbent carrier's local loop, customers can choose from four service providers currently marketing broadband over the network: AT&T, M-Star, Veracity Communications and X-Mission.

Though the project is only in its first year of operations, the model is, not surprisingly, a big hit with service providers such as X-Mission, a 43-employee Salt Lake City firm that now has access to the same fiber that AT&T has. In the war for hearts and minds, it will be easy for X-Mission to portray itself as the remedy for fears over large, powerful corporations based somewhere else with no concern for the local community. Since launching service over Utopia last summer, X-Mission has won a few hundred customers in the network's six operational cities, offering 15 Mb/s symmetrical service for \$44 per month, with plans to eventually add video. Sharing a market with five or so competitors is a good deal when the upfront infrastructure costs are greatly reduced, said Grant Sperry, X-Mission's vice president of operations. "It's wonderful because it's an absolutely fair, level playing field. It's good for everyone. It really is the future."

But the Utopia model isn't for every town. One of the rare qualities that accounts for its success, Baller said, is the scale it achieved by harnessing the collective scale of 11 cities. As the network promises to ultimately reach more than 450,000 customers, service providers are confident they'll make a profit, even if they have to split the market several ways. Some other cities that tried to replicate the wholesale network model haven't been able to pull it off because their modest populations don't hold the same enticement for service providers. For example, even with a population of more than 100,000, Lafayette, La., couldn't make wholesale economics work, Baller said, nor could Bristol, Va. Both were forced to adopt retail models for their muni networks. In Grant County, Wash., where the law prohibits municipalities from offering retail service, a wholesale municipal network took on 35 service providers, which fractured the market too much to make it lucrative for them.

Small towns could band together and form a consortium to achieve Utopia's scale, but the bureaucracy of municipal government makes that an uphill battle. "It took [the Utopia cities] years to band together," Baller said. "It's not a choice available to most communities."

Still, some towns have been successful playing both wholesale and retail roles. If fears over net neutrality drive citizens to push for publicly owned networks, each city will have to find the particular model that works best for its own residents. In fact, in the search for the right mix of public and private partnership, the network neutrality debate might even get in the way.

"[The] network neutrality [debate] is not a fuel for the municipal broadband movement in the U.S.," said Pam Baker, and analyst for visiongain. "It's a ... stumbling block. Cities and communities need technology companies' expertise, experience and money to build, operate and maintain [municipal broadband networks], but they cannot afford to give those companies total, or even majority, control. To do so would be perceived as governmental favoritism, which is seen as equally destructive as government competition with private companies. Yet cities repeatedly fail when they attempt to provide [muni broadband networks] themselves."

In addition, even wholesale municipal network models don't necessitate net neutrality. It's conceivable, at least in theory, that municipalities could seek to defray part of the cost of their broadband networks by following AT&T's lead, charging content providers for premium use of networks. Baller acknowledged this strategy was possible but said he hadn't heard of any municipalities discussing or considering it.

It's unknown how Congress will ultimately handle the net neutrality issue as it embarks on a rewrite of the 1996 Telecom Act. Whatever actions legislators take are unlikely to completely resolve the issue. In the meantime, muni broadband may be motivated to act now before the rules change again.

"Municipalities feel threatened by the possibility of a federal legislative lockout," Baker said. "The race is on to build fast, before any federal legislation passes. Private interests will have to ... either build their own networks or partner with municipalities in order to reap first-mover advantages."

Of nearly 400 cities in the U.S. with customers receiving fiber-to-the-home service as of May 2005, 23 were driven by municipalities. Growth in wireless muni networks is growing much faster. Fifty-six U.S. cities and counties now have operational muni wireless networks, and 59 have active deployments or RFPs. In July 2005, only 34 had deployments or RFPs. In a recent study, visiongain predicted that most U.S. cities will have a muni wireless network in place by 2010. Users who still fear censorship from incumbents by then will at least be better acquainted with the alternatives.