Super speed Gigabit networks: Connecticut’s powerful new economic weapon

BY ELIN KATZ AND STATE SEN. BETH BYE
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It's 11 p.m. and you have a brilliant idea. If you're an engineer in precision manufacturing, you'll have to drive to the office to access the data needed to test your design. Your home Internet is just too slow.

If you're a software developer, you will need to download your work onto a disk and ship it to your colleague overseas. There is no viable high-speed line between your facility and Hong Kong.

If you're a researcher at a bioscience start-up working on individualized medicine, you may be completely out of luck. Genetic coding requires access to huge volumes of data to process, and today in Connecticut this access costs thousands of dollars per month. Your company can't afford this ultra-high-speed connection.

Connecticut's economy has long relied on innovation grounded in brilliant ideas. So in 2014, roadblocks to high-speed Internet pose a threat to our ability to compete in an economy increasingly reliant on fast communication and big data.

Fortunately, Connecticut is in a position to remove many of these broadband barriers and is poised to join the "Gig revolution" where a growing number of regions across the country — and around the world — have developed low-cost options for Gigabit Internet. This quantum leap in Internet speed and technology is a critical economic tool that can break through roadblocks to innovation and send our economy speeding along the digital superhighway.

In Connecticut, the current speeds on our digital highway are a major impediment to growth, as the average Internet connection in the state is about nine megabits per second (Mbps). A Gig network runs at 1,000 Mbps — 100 times faster. If you live in Austin, Kansas City or Chattanooga, you can get a Gig to your home for about $70 a month. Gig networks are also rolling out in Albuquerque, Omaha and Jefferson City, bringing them to the leading edge of the Gig revolution. More and more we see communities actively pursuing access to Gig networks, just as they sought access to railroads in the 1800s during the Industrial Revolution.

Back in the 1800s, the Connecticut economy was fueled by manufacturing and selling goods transported across rail. Today, our economy is fueled by industries that rely on research and big data transported across fiber networks. Connecticut is populated with thousands of entrepreneurs who are drawn to Connecticut's robust higher education environment and who settle here for the quality of life. We need to put a Gig in their toolbox to drive and support their innovative efforts. For businesses, manufacturing facilities and research institutions, the difference between the typical nine Mbps connection and an ultra-fast 1,000 Mbps Gig connection can mean the difference between sending their digital goods to market via a country dirt road or by high-speed rail — that's an easy choice for Connecticut's thousands of high-tech businesses competing in global markets.

This choice was voiced very clearly last month when the Consumer Counsel and the Connecticut Technology Council hosted three business focus groups to assess interest in Gig networks.

Business leaders shared stories of the challenges they faced obtaining critical Gig service. One person spoke of
"negotiating down" the price for a Gig from Comcast — to $3,000 per month! Another spoke of his international company's struggle to obtain a Gig from AT&T. They were initially promised one within six weeks, but it took almost 10 months — even though they were prepared to pay whatever the cost. The manager had trouble explaining this delay to his French headquarters, where they easily accessed Gigabit service. The only other place his company could not get a Gig was in a rural village in Mexico. These meetings gave the Consumer Counsel even more urgency in her work with cities and towns to remake the Internet landscape in Connecticut.

Fortunately, many of the puzzle pieces to create vastly improved Gig networks are in place. Connecticut has made smart, sustained investments at the state level. Since 2008, Connecticut has invested $149 million to develop the "Nutmeg Network," a fiber-optic cable web that provides speeds of up to 10 Gigs to each of our 169 towns through their schools, libraries and police stations.

This strong backbone of high-speed fiber can be a jumping-off point for Gig networks in cities and towns. In 2013, the state legislature enhanced Gig opportunities for cities and towns through a key revision to the state's laws regulating municipal access to utility poles to string fiber. By taking advantage of this supportive regulatory environment, and partnering with Internet service providers, municipalities can — either individually or in groups — leverage their connections to the Nutmeg Network to bring affordable Gig service to their constituents. Public-private partnerships have the capacity to drive Gig networks throughout the Nutmeg State.

If municipalities in Connecticut step up and make these connections, in the not-too-distant future that brilliant idea of the engineer, the software developer or the researcher will have the necessary, high-speed Gig connections at 8 a.m., 11 p.m. or any other time of day to quickly turn that next big idea into a reality, benefitting Connecticut businesses and residents.

Let's live up to our brand as "Still Revolutionary" and be the first Gigabit state in America.

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