

# Gigabit Fiber Boosts Business In Rural City

Henderson, a small city in rural western Tennessee, is discovering the benefits of ultra-high-speed broadband.

By Masha Zager / *Broadband Communities*

**R**oughly halfway between Memphis and Nashville is Henderson, Tenn., a city of about 6,500 people. Though far off the beaten path, it's a vibrant community. It has a downtown revitalization project and new businesses in the heart of town. It is home to a thriving arts community, an annual barbecue festival and beautiful parks. It has a low crime rate and good schools; educational institutions, including Freed-Hardeman University, line the city's Main Street. In the local public schools, students learn computer coding as part of a national pilot program for advanced manufacturing.

Now Henderson has yet another asset: gigabit Internet.

Until recently, Internet access in Henderson was mediocre at best. The local cable provider offered maximum speeds of 60 Mbps downstream and 6 Mbps upstream – neither fast enough nor reliable enough for most businesses.

In January 2015, Aeneas Internet and Telephone, a competitive provider based in nearby Jackson, announced that it would build out a fiber-to-the-premises network in Henderson and offer gigabit Internet speeds. Aeneas, which began as a dial-up service provider 20 years ago, already had significant experience with FTTP; it was the original Internet and telephone provider on the municipal fiber network that the Jackson Energy Authority built in 2004. (JEA now

provides the retail services on its network.) Aeneas also serves some businesses over fiber leased from utilities. However, it had never constructed a fiber-to-the-premises network, and most of its services are delivered over copper infrastructure leased from incumbent telcos.

By early 2015, says Jonathan Harlan, CEO of Aeneas, fiber optic technology had matured enough and equipment prices had dropped enough that he felt confident about investing in a network. In his view, Calix had emerged as the clear equipment leader, and he says, "We wanted to go with the industry leader when the price was feasible."

## CHOOSING A COMMUNITY

Henderson was a good choice for a first fiber build for several reasons, Harlan explains. First, it was a lively, growing community. Second was its proximity to Aeneas's home base (Henderson is about 20 miles from Jackson, and some businesses were already Aeneas customers) and, even more important, its proximity to available middle-mile fiber. (Aeneas uses a combination of leased and owned middle-mile fiber.)

The key reason was the community's receptiveness. "That will be important for future selections, too," Harlan says. "We want community advocates. We want the support of the mayor and others – not financial support, but support as advocates for business development inside their borders."

Harlan believes firmly in the ability of private enterprise to build good broadband; he doesn't think government needs to invest in or operate networks. He says, "All we needed in Henderson was for local leaders to be co-marketers for us, provide goodwill, help with on-the-ground logistics and help identify which businesses would be better candidates." Among Aeneas's logistical needs the city helped with were access to easements, rights-of-way and permits to locate cabinets in suitable places.

Access to poles from the local electric utility – an electric cooperative – was also important. "If you want broadband to be deployed ubiquitously, you need the electric company not to stand in the way with pole attachments and make-ready costs," Harlan says. "In this case, the company was fair and reasonable with us, and that played a big role."

## City leaders in Henderson championed the gigabit network that Aeneas proposed.

### BUILDING TO DEMAND

Like many fiber overbuilders, Aeneas is using the build-to-demand approach in Henderson. First it put in a solid backbone – 15 miles of fiber through the heart of the community – and began building to premises in the business corridors, where it already had customers and name recognition. Residences as well as businesses along those routes are already being connected to fiber. Aeneas also brought fiber to two industrial parks that needed both higher speeds and redundant connections.

As awareness grows and threshold levels of customer interest are reached in other areas – possibly including

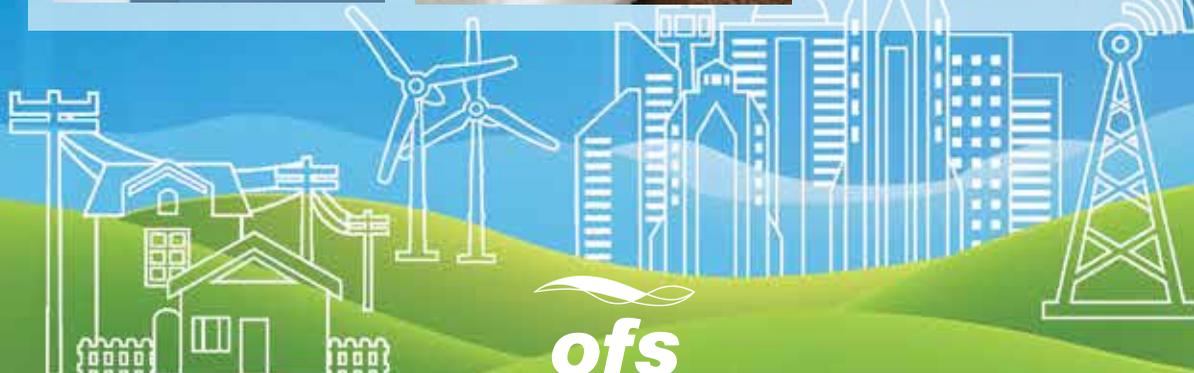
some unserved subdivisions outside city limits – Aeneas will build out in neighborhoods where it can recoup its expenses in a reasonable amount of time.

Though Aeneas doesn't use a formal preregistration process, as Google Fiber does with its "fiberhoods," it asks potential customers to enter their addresses on its website to help it gauge interest in fiber services. The company also meets with groups of residents – usually in the homes of the residents most eager for fiber connections – to explain the levels of demand that would make building fiber to their neighborhoods feasible.

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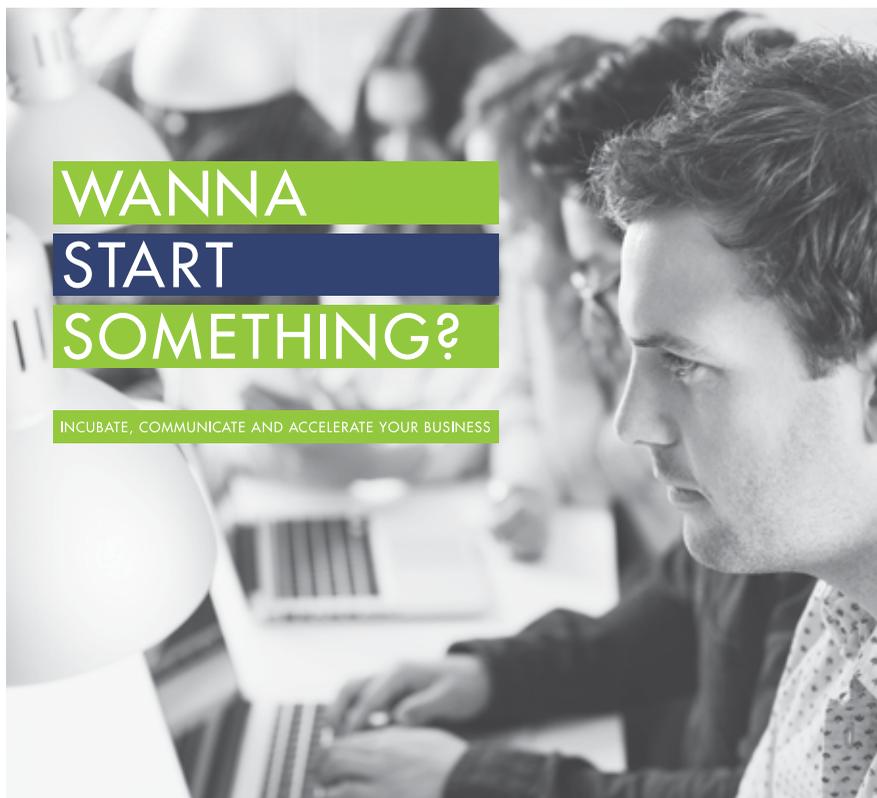
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Our community's education and workforce resources, regional and national networking opportunities, incentives and infrastructure, such as Gigabit fiber, are key to success. What is most important, though, is our community. The commitment our residents have to supporting our area and one another make this a great home for those who want to start something.

[hendersonth.org](http://hendersonth.org) | [chestercountychamber.com](http://chestercountychamber.com)



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The city government and the Chamber of Commerce are advertising the availability of gigabit fiber in Henderson.

“Some people have to have it, and others say it’s not worth the money,” Harlan says. The most avid residential customers are usually those who have home-based businesses or possibilities for telecommuting. Those for whom Internet access means “entertainment for the kids” tend to be less interested in higher-priced services.

Aeneas offers Internet and telephone (VoIP) service, along with a variety of hosted business services such as data storage and business continuity. A typical business customer takes

100 Mbps Internet access at \$99 per month. One service Aeneas does *not* expect to offer is pay TV. Harlan says, “I expect over-the-top video to be the norm shortly. In the next few years, as content gets moved to the OTT medium, [content availability] won’t be a hindrance anymore. It’s just a copyright licensing matter.”

### CITY SERVICES

Having welcomed and paved the way for Aeneas to build its fiber network, city leaders are now making good

use of the fiber. The city government subscribes to fiber Internet services for its fire department, water plant and municipal offices, which Mayor Bobby King says “makes a big difference.”

One of the fiber-connected offices is the maintenance shop in a downtown park; the fiber connection there supports both free Wi-Fi and security cameras in the park. People download movies while they’re eating lunch in the park and take them home to watch in the evening. King says, “That Wi-Fi gets used a lot.”

City Hall has two Wi-Fi networks, one for city business and one for the public. The public Wi-Fi network supports a meeting room and classroom on the second floor. “There’s a lot of training going on here,” King explains.

During a 2015 special election, Henderson, which is the county seat for Chester County, became a test site for a new election system. The Election Commission was testing the use of iPads to expedite the sign-in process for registered voters. The mobile devices will replace traditional poll books. King notes, “We were the test county because of the Internet system.”

### SUPPORTING BUSINESSES

King emphasizes that gigabit fiber makes Henderson a great place to do business. “Entrepreneurs can start a business here and do whatever they can do in a big city,” he says. The city promotes the infrastructure on a new sign that references “West Tennessee’s first Gig City,” in press releases, in ads that appear in local magazines and publications, in talking points for speeches and in other outreach efforts.

The city and the Henderson/Chester County Chamber of Commerce collaborated on new advertisements that promote the city as a place to do business, specifically mentioning the gigabit fiber infrastructure. Katy Holmsley, the chamber’s executive director, says, “We’ve definitely had an increase in the number of people looking for relocation packages.”

A large part of economic development is helping existing businesses grow and thrive, and the



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Some Henderson businesses pay more for fiber service than they paid for cable, but they say the extra revenues that fiber enables justify the additional expense.

new fiber network is key to that as well. Holmsley offers several examples: Neo Products, which makes appliance parts, added 20 new jobs and opened a new facility. Eighth Day Software, a software development shop, can be more competitive by being able to turn around projects more quickly. Jones Lumber can stay better connected with employees in its satellite offices and keep its records up to date.

Holmsley notes that businesses pay more for the fiber-based Internet access than they paid for cable both because

there is a fee to install the fiber and because monthly charges are higher than cable. "But they're not having a problem with that because they're making a lot more money," she says.

The greater reliability of fiber is attractive to businesses, too. Jason and Dawn Bramblett, owners of the Bramblett Group, a public relations firm in Henderson, say, "We know from past experience that [cable] was less reliable." Larry Bloomingburg, a Henderson optometrist, concurs, saying, "We used to have Internet down

time a couple of times a month. If we ever have any issues or questions, now we contact Aeneas directly and not a call center."

Occasionally, employees have to educate business owners about the advantages of fiber. King cites a local lawyer who decided against spending the extra dollars to upgrade from cable to fiber. A few days later, he called Aeneas to place an order, saying his clerical staff "explained to me that we needed it."

King is confident that the fiber infrastructure will put Henderson on the fast track for business growth and enhance the city's quality of life. "I'm really happy Aeneas decided to roll out the gig starting here," he says. ❖

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