

<https://www.dallasnews.com/business/technology/2019/12/22/fed-up-with-slow-and-spotty-internet-a-small-texas-town-decided-to-build-its-own-high-speed-network/>

The Dallas Morning News

Fed up with slow and spotty internet, a small Texas town built its own high-speed network

'No one wanted to run up and punch the giant,' says Dwight Thomas, who runs Mont Belvieu's municipal broadband network.

By Melissa Repko

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MONT BELVIEU — Becky McManus signed up for internet at her home, and it worked until spring, when leaves bloomed on the trees and blocked her signal.

Across town, Richard LeJeune moved into a new subdivision. His family's only internet option was a local company with speeds so slow his wife had trouble running her online handmade jewelry store and his daughter sometimes couldn't do her homework.

For years, residents of this fast-growing town on the outer ring of Houston complained to local leaders about slow and spotty internet. They put satellite dishes on their rooftops. They endured intermittent service and frequent outages.

“I believe squirrels run on a wheel for my internet,” one half-joked on a city survey.

The problem facing Mont Belvieu is one familiar to many towns and rural areas in Texas and around the country. Major internet service providers don’t see a strong enough business case to expand their footprint, upgrade internet speeds or offer any internet service at all.

So Mont Belvieu took matters into its own hands: It decided to build and operate its own high-speed internet service.

The town of 7,500 joined a growing number of cities pouring millions of dollars into municipal broadband networks after feeling overlooked by big, publicly traded companies.

From Oregon to Tennessee, residents of cities plagued by slow speeds, high prices and few options waited to attract the attention and investment of major internet service providers. But as they watched the digital economy speed up and used the faster internet at their friends’ and families’ homes, they took action to ensure they wouldn’t be left behind.

In Texas, where free enterprise is a prized tenet, the government of Mont Belvieu stepped in where big-name companies wouldn’t.

Starting in June 2018, every household in Mont Belvieu could sign up for the city’s homegrown internet service, MB Link. It costs \$75 a month for speeds of up to 1 gigabit per second.

Comcast charged \$75 a month and Verizon FiOS — now Frontier Communications — \$60 a month for 75 megabits per second, according to a 2016 study by the city. If residents wanted faster speeds closer to what MB Link ultimately delivered, they were paying up to \$280 a month.

MB Link sold internet to nearly a third of households before even flipping the switch.

About half of the town’s households are now signed up — and MB Link recently began selling the service to local businesses. About 30 businesses, including the chamber of commerce, have subscribed.

This fall, the city began offering free WiFi at the high school football stadium.

City Manager Nathan Watkins saw the football stadium — packed with residents on Fridays in the fall — as a prime marketing opportunity.

“We were even nice enough to put it on the visitors’ side,” he said with a laugh.



Demi Trammell, 16, shows Emalee Maze 15, both of Baytown, a photo on her phone during a football game at Barbers Hill High School on Oct. 25, 2019, in Mont Belvieu. The city added free WiFi to the football stadium as a way to market its internet service, MB Link.(Shaban Athuman / Staff Photographer)

Spreading across the land

City-built broadband networks now serve more than 100 communities across the U.S., according to the Institute for Local Self-Reliance, a Minneapolis-based nonprofit that advocates for grass-roots solutions to community problems such as supporting locally-owned businesses or expanding neighborhood-led recycling.

About 400 additional cities have some kind of broadband network or one underway, according to the nonprofit.

Chattanooga, Tenn., is one of municipal broadband's best-known success stories. Since the region's municipal electric utility began offering internet in 2009, it's grown to more than 106,000 subscribers and bested other internet providers — including dominant national players — in ratings by Consumer Reports.

Christopher Mitchell, director of the Institute for Local Self-Reliance's community broadband network initiative, said cities began building broadband networks in the 1990s when they had no internet. Now, he said, they're motivated because they feel stuck with internet that's inferior or overpriced.

“Ten years ago, you might be able to say hopefully over time, you will see more expansion and more competition,” he said. “But over time, very few people expect to see more competition with these companies.”

The long-term investment can be a tough sell. For example, Mitchell said, local politicians may be hesitant, if they must run for re-election before the network breaks even or shows signs of traction.

Some municipal networks have flopped where cities struggled to market the service to customers and defaulted on their loans. Others have run into political challenges as state lawmakers tightened rules around the networks or prevented them from expanding beyond city boundaries.

Success can be hard to measure, Mitchell said. Sometimes, it’s a network attracting thousands of customers. Other times, he said, it entices providers to enter the market, invest in upgrades and cut prices.

“The simple fact is without good government policy to create competition, I do not think it will emerge,” he said. “We have done 20 years of thinking that reducing barriers would be enough to increase competition, but at this point we need local governments to step up to create the competition.”

In Texas, two cities — Greenville and Mont Belvieu — have citywide broadband networks. Greenville, a city of 28,000 about 50 miles northeast of Dallas, built a cable and internet network in 2001 by adding the services to its existing municipal electricity utility. It decided to take on the project after its then-mayor wrote to the phone and cable company and discovered her city wasn’t on its road map.

Mont Belvieu’s undertaking is even more extensive and offers a road map for other Texas towns wanting to do the same. Without an electric utility of its own, Mont Belvieu created a high-speed network by running fiber-optic lines to every subscriber’s home.

It also created a paper trail. At the request of the Texas attorney general’s office, the city sought a legal opinion about whether it could issue municipal bonds to finance its entry into the internet business. It used case law to draw parallels between electricity and internet.

A Chambers County judge approved the use of municipal bonds, ushering in the potential for similar projects.

In Mont Belvieu, internet is treated as another utility. When developers break ground on a new neighborhood, city code requires them to place conduits where the city can put fiber. Customers get a monthly bill from the city. Internet is listed along with water, sewer and trash.

A growing community

Mont Belvieu has many ingredients that make it an appealing place for businesses. It’s about 30 miles east of Houston. It has a well-ranked school district, high home values and a population that’s expected to quadruple to 30,000 by 2035. Its economy is powered by petrochemical plants that store and process natural gas and an Exxon Mobil plant that produces raw plastic.

But the city has rural roots. On Friday nights in the fall, the city shuts down and the high school football stadium fills up with fans to cheer on the Barbers Hill Eagles.

Next to the high school, the school district has donkeys, goats, sheep and cows where students participate in Future Farmers of America.

The city's slogan is inspired by its biggest industry: "Mont Belvieu: Where Energy Fuels Families."

The city is one of the fastest-growing in the Houston area. Its population nearly doubled between 2000 and 2010, and it nearly doubled again in the next eight years. In 2010, it had a population of 3,835. By 2018, that grew to about 7,500.

Even with its fast growth and home values topping \$300,000, the city couldn't persuade major internet providers to invest further. When city officials reached out to Frontier and Comcast, both said Mont Belvieu had too few rooftops.

AT A GLANCE

- Population: 7,479
- Median household income: \$94,375
- Median home value: \$247,310
- Top employers: Barbers Hill ISD, Enterprise Products, Targa Resources, Exxon Mobil
- Residential subscribers: 1,462 — or roughly half of the city's households
- Commercial subscribers: 28



SOURCES: U.S. Census Bureau, Mont Belvieu

Staff Graphic

Frontier's vice president of corporate communications and external affairs, Javier Mendoza, said in a statement that the company "is proud of the service we provide Mont Belvieu" and said customers in the town can get up to 1 gig of speed.

But those speeds, city officials noted, didn't come until after MB Link.

"The reality is that higher speeds of internet are much more difficult and costly to provide in less densely populated areas," Mendoza said. "Frontier's capital expenditures are reviewed on a project by project basis to ensure that those limited dollars are being spent where the greatest opportunity for a return on the investment."

Comcast didn't respond to questions about Mont Belvieu, but said the company "has strong partnerships with the communities we serve in Houston."

"We know people have choices when it comes to internet providers, and we continue to focus on innovations to improve our communities and our customers' lives," the company statement said.

Nearly 70% of Mont Belvieu residents and 80% of businesses surveyed said their internet provider was not fulfilling their needs, according to a 2016 survey by consulting firm Magellan Advisors. And the vast majority — about 90% — of residents said internet should be considered an essential service like water and electricity.

As a hometown provider, the consultants said Mont Belvieu could better deliver the service customers wanted. The city could offer lower prices since it would aim to break even rather than turn a profit. And local technicians could quickly respond to service calls.

Potential upsides to a faster and more reliable internet network? More jobs and better productivity. Higher home values. Business friendliness. And a better quality of life for residents.

By building municipal broadband, city officials could "level the playing field for their residents and businesses, allowing their communities to compete in the digital economy," consultants said.

At a meeting in early 2017, City Council unanimously approved issuing debt for the project.

"When we voted for it, we had a cheer from the audience," said Arnold Peters, a council member who's served for about 11 years. "We've never had that — ever."

It cost about \$9 million to build the MB Link infrastructure, said Dwight Thomas, director of Mont Belvieu's broadband and information technology services. He estimates maintenance and staffing will cost roughly \$1 million annually.

The city projects it will break even and start making money from MB Link in 2025. But that timetable may change, depending on how the network grows. Thomas said he'd like to expand MB Link to all of western Chambers County.

Nearly all who have signed up for MB Link are still customers. It has a 1.5% churn rate — and all but 0.3 of that comes from subscribers who move outside city limits, Thomas said.



The city service has come with a personal touch.

City officials heard about a young boy who wished for high-speed internet for his birthday. They sent the crew to his neighborhood to get the project done in time.

For MB Link's first anniversary, the city smoked briskets and threw a party in the park. And along with internet service, all customers get a high-quality router that can last for hours on battery power, if the electricity goes out.

Belief in a vision

Mont Belvieu turned its former senior center into MB Link's headquarters.

Inside, a room of humming servers makes up a data center that supports the network. A team of customer support representatives answers calls and helps residents troubleshoot internet connections or set up smart devices, such as a Nest thermostat or an Apple TV.

It recruited Thomas to run it all. Each weekday, the former IT and telecom consultant makes a more than hourlong commute from his home in Tomball.

The new job came with a pay cut, but Thomas said he believed in the city's vision.

He started the role in early 2018 and quickly became MB Link's evangelist. He shook hands, knocked on doors and had coffee with residents. Some told him the government shouldn't get

into the internet business or said they didn't need faster speeds. Others were skeptical the city could pull off the ambitious idea.

One of MB Link's biggest challenges was building around the town's many miles of pipelines. Mont Belvieu installed all of its fiber-optic network underground because it's close to the hurricane-prone Gulf Coast.

The city's communications director, Brian Ligon, blanketed the town with marketing materials. He handed out travel coffee mugs and computer cleaning cloths and dropped off handwritten notes.

Mont Belvieu's plan got the attention of internet service providers, too.

A few months into the job, an employee from one of the internet service providers showed up at Thomas' office to tell him the city was putting money into a losing proposition. Thomas declined to identify the company.

"I wish I could talk to him now," he said.

Thomas has met with other Texas cities who watched what Mont Belvieu did and now feel more emboldened to do the same. "No one wanted to run up and punch the giant," he said.

Richard LeJeune, who couldn't get a major provider at his home before MB Link, is a satisfied customer. He canceled satellite TV and switched to streaming. He said he no longer has to wait when he downloads a video. All three family members can simultaneously stream different shows.

The only time he had a problem with MB Link, he said, a technician immediately came to his house.

"I tell them, 'Y'all enhanced my quality of life,'" he said. "You truly changed the way we view internet."

Melissa Repko, Staff Writer. Melissa covers technology, innovation and other business news for The Dallas Morning News. She reports on companies from venture-backed startups to Fortune 500s. Her reporting has been featured on NPR and PBS NewsHour. Before joining The Dallas Morning News in 2010, she worked for The Buffalo News, The Oregonian and ABC News.