

Fiber in Kent County

A partnership among a county government, a regional dark fiber network and a retail service provider is a win-win-win deal. The biggest winners are the county residents making a quantum leap from dial-up to FTTH.

By Masha Zager / *Broadband Communities*

Kent County, Maryland, has spectacular views of the Chesapeake Bay and (by many accounts) the best crab cakes in the state. However, like many rural areas, Kent County – and Maryland’s Eastern Shore in general – has suffered from poor broadband. Though some of the county’s 20,000 residents have access to cellular broadband, satellite, fixed wireless or even cable, none has proven adequate, especially for business needs.

Jamie Williams, the county’s economic development coordinator, cites a litany of business complaints she has heard over the years: “They had service but no backup service, or they had lots of downtime, or their service wasn’t fast enough, or they had cable right in front of them but it would cost \$10,000 to bring it 200 feet to the building.” By 2013, the economic development advisory board identified the lack of broadband as the No. 1 issue for economic development in Kent County.

That’s when Scott Boone, the county IT director, got involved and made it his mission to “get something done” about broadband. After taking a crash course in the technology and economics of fiber optic networks and documenting the need for broadband throughout the county, Boone made a presentation to the county commissioners in January 2015. He recommended that the county build a fiber backbone and lease it to internet service providers. The plan depended on a partnership with the Maryland Broadband

Cooperative, a nonprofit statewide dark fiber network that could be used for transport.

FISHING FOR WHALES

Impressed by the presentation, the commissioners agreed to set aside money for the network and instructed Boone to find the right model for service delivery. Rather than decide up front what the right model should look like, Boone gave potential partners the opportunity to propose various models. He explains, “We issued an RFP that opened the funnel wide and allowed all kinds of proposals.”

One respondent was a dark fiber provider called FTS Fiber, which was planning a fiber ring to connect Ashburn, Virginia (site of a major internet exchange point), with Virginia Beach (a new landing point for transoceanic cables). The eastern half of the ring was to go through the Delmarva Peninsula, which includes Maryland’s Eastern Shore. “We had a lot of international traffic, and some major anchor tenants – enterprises and ISPs – were interested in connecting Ashburn and Virginia Beach,” explains Blake Hargest, FTS Fiber’s marketing manager.

FTS originally planned for its fiber ring to cross the Chesapeake south of Kent County, but once the RFP came out, the company realized it could cross the bay to Kent County instead. “This was perfect timing for us,” Hargest says. “It happened just while we were putting the business strategy together.”

In its response to the RFP, FTS proposed to install 110 miles of fiber in Kent County,



Crew members from Bel Air Underground Services prepare fiber optic cable for installation along Washington Avenue in Chestertown, Maryland.

connect 54 county government facilities, schools and libraries with fiber and then build fiber to all the homes and businesses that requested connections. As a dark fiber company, it would manage the network but would not provide internet service. Instead, it proposed a retail partner, ThinkBig Networks, which would lease its fiber, install equipment at customer premises and deliver gigabit service. (The backbone network will be open access, so additional retail service providers will be able to lease last-mile connections to premises that ThinkBig hasn't connected.)

ThinkBig is a fairly new company founded by telecom veterans, whose mission is to deliver gigabit internet in underserved areas. It was working on another project with FTS Fiber when FTS brought the Kent County RFP to its attention. Like FTS, it quickly saw that the RFP offered a great opportunity because it allowed for creative solutions. Mark Wagner, ThinkBig's CEO, says that Kent County "went fishing and landed a whale."

The project was feasible for several reasons, Wagner says. First, construction

costs are relatively low on the Eastern Shore, which is flat and sandy. Second, the county was willing to pay to connect its own facilities, which would bring fiber to within 2.5 miles of just about any home or business. "It would be difficult to build the entire middle mile," Wagner says, "but this makes it an attractive investment vehicle."

WATER TO THE DESERT

Boone calls FTS Fiber's proposal an "unbelievable solution." The county had hoped to connect half its government offices with fiber, but FTS proposed to connect them all and build out to other premises as well. FTS Fiber will own the fiber, but the county's contribution of \$4.5 million will yield an ample return. The connections for county government facilities will be free for 10 years, long enough pay off the investment. In addition, the county will receive a portion of the fiber lease revenue that FTS Fiber receives from ThinkBig and any other retail service provider.

When Boone presented the proposal to the county commissioners,

they immediately scheduled a public workshop to discuss it. "It was filled to capacity," Boone says. "People were out in the hallway. It was like bringing water to people in the desert." In the end, the commissioners voted enthusiastically to accept FTS Fiber's proposal, which was backed by letters of support from the school system and the county's largest employers.

FTS Fiber broke ground in June 2016, and about half the backbone network is already constructed and lit. ThinkBig opened a showroom in November 2016 and started attending community meetings to inform potential customers about the new service. It has already connected a number of anchor institutions and business customers, and the first residential customer was connected in early March 2017.

"Our goal is to provide service to 100 percent of those who want it," says Judith Morgan, ThinkBig's sales director. "It's not *if* but *when* we're going to build." The construction schedule for the last mile is based on the number and percentage of customers who sign

Some residents in Kent County are putting pressure on neighbors to sign up for service on the fiber network so their neighborhoods can get connected sooner.

up in each neighborhood – sort of an informal “fiberhood” approach. Some residents are putting pressure on neighbors to sign up for service so their neighborhoods can move ahead in the queue. In one neighborhood, Morgan says, several people came into the showroom saying, with evident embarrassment, “I was told I had to sign up because [the neighbors] want the internet so bad.”

A QUANTUM LEAP

Morgan adds that she’s enjoyed talking with residents and seeing their eyes brighten when they understand what gigabit service will be like. “We literally have folks in Kent County on dial-up. So we’re not only bringing technology to them; we’re bringing a quantum leap. This will be a cutting-edge county. Moms tell us their kids can’t do their homework – they run out of data. Or they have a routine of downloading a Netflix video in the morning to watch in the evening.

“People are excited not only about connectivity but about the fact that they can explore the world. And folks with seasonal homes had no ability at all to telecommute. Now they can come to this county, which is paradise itself, and their stay isn’t precluded by technology. They can stay longer, have dinner out, enjoy the entertainment. There’s so much going on as a result of having connectivity.”

Kent County government also sees benefits from the new network. Businesses in the county seat of Chestertown, which has a quarter of the county’s population, already have a choice of providers and the option of having a backup provider. When businesses express an interest in relocating to Kent County, Williams can tell them fiber is available now or

will be by the end of 2018. She has also called businesses that previously complained about inadequate broadband to let them know that gigabit service is available or will be soon. Several told her they planned to use the fiber network as their primary or secondary provider.

In the coming months, Williams plans to reach out to companies that might not previously have considered moving to Kent County and – even more challenging – to educate business owners about how best to use their newfound broadband wealth. “We’re just starting to scratch the surface,” she says.

Businesses that consider relocating to Kent County usually ask about the quality of the educational system, so education is regarded as an economic development tool. Even before the fiber network was built, Kent County allowed wireless providers free access to county-owned towers in exchange for discounted internet services to low-income students.

Williams says the fiber network will have an even greater impact on education. The new school superintendent is promoting the use of online resources and issuing a broadband-enabled device to each child. As many other districts have found, this “one-to-one” approach allows teachers to assign work and offer coaching on an individual basis – advanced students aren’t held back, and slower students don’t get hopelessly lost while the class marches ahead. Now, students will have better connectivity in school and will also be able to use their school-issued devices at home.

BEYOND KENT COUNTY

The other rural counties along the path of FTS Fiber’s Ashburn–Virginia Beach

ring – on both the Eastern and Western Shores – could enter into similar partnerships with FTS. Both FTS and ThinkBig are enthusiastic about this possibility, and FTS designed the contract with Kent County so that other counties could easily sign on to it.

Williams and Boone have reached out to the other counties – Williams even distributed information about the project at a statewide economic development meeting – and offered advice to county officials who wanted to learn more. “There’s definitely a need for it,” Williams says. “We have a lot of teachers and engineers who work in Kent County but can’t get internet access at home. We don’t live and work in silos, so we need to make sure it’s getting to everyone.” One issue is that Kent County is fiscally conservative and had enough cash reserves to pay for its share of the network; other counties may have to borrow money, which can be a political and financial challenge.

Queen Anne’s County, Maryland, which is directly south of Kent County, was the first after Kent County to issue an RFP. In response, FTS Fiber and ThinkBig proposed a network similar to Kent County’s. At the end of March, Queen Anne’s County commissioners passed a motion to hold a public hearing and move forward with contract negotiations with FTS. Other counties are in various stages of exploring broadband projects.

Brett Hill, CEO of FTS Fiber, actually lives on the Eastern Shore and has a personal interest in delivering better broadband to the area. Hargest explains, “We’re bringing the network through for our larger anchor tenants (FTS announced in January that it had signed a new anchor tenant on the eastern route), so it makes sense to spider off it and provide networks for the surrounding counties. We hope they see it that way, too.

“We don’t plan on putting fiber in and heading out – we own it. We have a personal stake in it.” ❖

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