

Ezee Fiber Bolsters Montgomery County Hospital District's Emergency Response Capabilities

Upgrading network connections to 10 Gbps provides network redundancy for network backup and a path to accommodate future growth.

By Sean Buckley / *Broadband Communities*

When the Montgomery County Hospital District (MCHD) in Texas needed to upgrade its network facilities to provide better network diversity and redundancy, it turned to Ezee Fiber. Through its ICTX WaveMedia subsidiary, Ezee recently completed a network expansion project for the organization.

Ezee operates 2,000 route miles of dense fiber, serving governments, educational institutions, hospital systems, businesses and homes in the greater Houston metroplex, including a service area between Galveston, Huntsville and College Station. The provider's ICTX WaveMedia unit is no stranger to the area and has served MCHD for more than 18 years.

Ezee sees its role as part of an ongoing legacy of connecting communities with fiber-based networks to support first responders, businesses and residents.

MCHD is responsible for the county's Emergency Medical Services (EMS). It covers an area of about 1,100 miles and serves multiple primary and secondary public safety answering points (PSAPs), call centers that answer 911 emergency calls from mobile or landline callers. In addition to offering indigent care through its Health Care Assistance Program, MCHD operates the county's 911 ambulance service,

manages the county's public health district and offers a variety of community and professional education programs.

Ezee Fiber updated its MCHD network connection to 10 Gbps.

"With [MCHD's] computer-aided dispatch center, we have alternative locations for critical systems and the 10G connection was critical to us to be able to transmit back and forth between these locations in real time," says Justin Evans, critical facilities and radio systems manager at MCHD. "These are massive systems with a lot of data, so we needed that 10 Gbps pipe."

In addition, the new network connection allows MCHD to provide backup for off-site locations. Previously, the hospital district had to wait until after hours to conduct backups. With the 10 Gbps connection, it can conduct them anytime.

"The connection is also relevant for real-time backup in other databases where we have off-site data at other locations," Evans says. "With a 10 Gbps pipe, we can do that."

Before the migration to 10 Gbps, MCHD had a mix of connections across its locations, which was challenging because the organization covers so many miles with a wide array of population densities. Some locations had 100 Mbps, and others had 1 Gbps. "The transition



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to 10 Gbps changed how we operate,” Evans says. “In some locations, we couldn’t do backups previously because we were limited in bandwidth.”

CONSOLIDATING FIBER SOURCES

Similar to other emergency organizations, MCHD gets fiber from several providers. “It would be bad to just go with one provider, which would mean we would have all our eggs in one basket,” Evans says. “As our CEO says, we like to have belts and suspenders.”

Because MCHD operates a critical emergency network, Evans and his team work with all MCHD fiber providers to understand where the fiber is located and any points of failure.

Ezee is one of MCHD’s primary partners. What sets Ezee apart from the other providers is that it’s one of the first to offer 10 Gbps. But offering a high-speed connection is only one reason the partnership is strong. “Ezee is a local company and easy to deal with,” Evans says. “If it offered a 10G connection but was unreliable, it wouldn’t do us any good. We need both.”

To that end, Evans adds that he

and his team strive to have a strong understanding of the Ezee network and to make sure that Ezee keeps it well maintained. “These things are critical to us,” he notes.

DESIRE FOR DIVERSITY

Transitioning the circuit to 10 Gbps was easy because Ezee already had connections to other MCHD locations

and fiber deployed in the areas MCHD covers. Ezee already had a lot of fiber in the ground, so it mainly had to upgrade its core optical and routing equipment to support the 10 Gbps connection.

“We had one location where fiber wasn’t already in the ground, and one was about getting a diverse route,” Evans says.

GEM OPPORTUNITIES RISING

For Ezee Fiber, the government education and medical (GEM) market segment are ripe for growth. Today, Ezee’s 2,000-mile fiber-to-the-premises network serves the greater Houston metroplex.

Having purchased a company, ICTX WaveMedia, with eight wholesale customers, Ezee says it will have 20 customers by next year. During this process, it will continue to establish network-to-network interconnection (NNI) agreements with other providers to extend its reach.

As more wireless operators roll out 5G, fiber to the tower is a key opportunity for Ezee’s business service segment. Scott Widham, CEO of Ezee Fiber, says, “The three largest wireless operators need fiber services.”



Scott Widham

Depending on future needs, MCHD could migrate to higher bandwidth connections, such as 50 and 100 Gbps.

An essential requirement for the hospital district was network diversity. The 10 Gbps connection on the Ezee Fiber network provides MCHD with diverse paths that have a large throughput. A diverse connection involves two or more network connections entering facilities through completely different access points.

“Diversity is critical to MCHD’s 911 operation, allowing us to seamlessly transfer information between multiple PSAPs on emergency calls and

maintain active offsite databases,” Evans says. “[We need to] have diversity and separate rings to get us from Point A to Point B. Reliability, diversity and capacity were boxes that had to be checked for us to be able to use Ezee for the 10G migration.”

MCHD could migrate to even higher bandwidth connections, such as 50 and 100 Gbps, depending on future needs. “At some point, the connection speeds will grow to 100 Gbps depending on what we’re doing,” Evans

says. “In most cases, smaller locations require a minimum of 1 Gbps.”

SUPPORTING SERVICE CALLS

The call volume in MCHD dispatch centers continues to rise. MCHD has processed 124,000 calls for service in its dispatch centers, including 911 and 10-digit calls. A 10-digit call is when a person doesn’t have an emergency, but still needs to contact law enforcement. Local police departments also answer these calls, which don’t tie up the line for emergency 911 calls.

“Many 10-digit calls are important because if an elderly person falls and needs help, the alarm company will call the dispatch center,” Evans says.

What makes 911 calls challenging these days is that more people use VoIP provider applications, such as Vonage. “If you buy a Vonage or other VoIP service, you have to register that line at the location where you reside,” Evans says. “If I lived in Las Vegas and bought a service from Best Buy, then moved to Texas but forgot to change the location when I call 911 from my Vonage phone, the call would have to get transferred via a 10-digit line.”

Though there’s a perception that 10-digit lines are no longer important, the MCHD dispatch center gets a lot of them, typically from local alarm companies. For example, if a fire breaks out in a local hardware store, the alarm company will call the dispatch center on a 10-digit line to report that the fire department needs to be called.

“Out of the 124,000 calls for service we took, we sent ambulances and fire trucks to the locations of 81,591,” Evans says. ❖

FEEDING FTTH EXPANSION

Though Ezee Fiber has a growing base of business and government customers, the service provider is keen on expanding its emerging fiber-to-the-home (FTTH) footprint across Texas. Over the next few months, Ezee plans to extend FTTH services to Magnolia residents living in Durango Creek, Westwood, Windcrest Estates and Woodland Oaks, bringing customers’ symmetrical speeds up to 10G. Upon completion, Ezee’s growing portfolio will include 2,000 homes passed.

Overall, Ezee plans to build out FTTH to 12,000 homes in 2022. “Assuming it goes well and we get to 50 percent penetration, we’ll ramp that number up,” says Scott Widham, Ezee Fiber CEO. Eligible customers will be able to choose among several FTTH tiers: 500 Mbps for \$59 a month, 1 Gbps for \$79 a month, 2 Gbps for \$109 a month, and 10 Gbps for \$249 a month.

Widham says residential FTTH will be a crucial growth engine for the company. “The real opportunity for us is more organic, and we’re big believers in the fiber-to-the-home space,” he says. “[Ezee’s] FTTH business is fairly nascent today, but we think it will be the largest part of our business over time.”

As Ezee builds out its FTTH business, Widham emphasizes, it needs a local touch. “FTTH business is a local business, and [providers] need to be on the ground,” Widham says. “[Providers] have to be local and understand the market.”

In addition, an FTTH provider must have the right profile, density and area friendly to new providers. “Putting together the machine for FTTH is a tricky process,” Widham says, adding that providers “need to have people who have done it before, need a back office, and need to make it easy for customers to sign up and contact customer service if they have issues.”

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