

GTT and Otoe-Missouria Tribe Put Residents, Businesses on New Broadband Path

In rural north-central Oklahoma, the Otoe-Missouria Tribe is working to deliver quality broadband to families and businesses.

By Sean Buckley / *Broadband Communities*

The Otoe-Missouria Tribe, which celebrated 140 years of encampment in Oklahoma in 2021, has a historical lineage that predates the 16th century. Similar to other Native American communities, the remote geography of the tribe's reservation meant that providing broadband to its residents and businesses was a challenge. But the tribe's can-do spirit is changing its broadband situation.

A partnership between GTT Communications and Caliber Financial Services (Caliber FS), a tribally chartered corporation wholly owned by the Otoe-Missouria Tribe, will provide fixed wireless broadband to the reservation.

This high-speed connectivity solution will improve internet service quality for families and businesses in and around the reservation in rural north-central Oklahoma.

Bringing internet connectivity to the reservation will benefit several parts of the community – businesses, schools and health care services.

John Shotton, Otoe-Missouria tribal chairman, said in a release that the pandemic “reinforced the urgent need to close the digital divide that many Native American tribes face” and that the partnership between Caliber FS and GTT will enhance “the quality of life enjoyed by the Otoe-Missouria people and drive further economic development for years to come.”

THE RURAL/REMOTE CHALLENGE

Like other reservations, the home of the Otoe-Missouria is in a rural, remote part of Oklahoma, making installing new broadband infrastructure challenging.

Heather Payne, public affairs officer for the tribe, says its location made getting broadband less of a priority than getting necessities such as running water and electricity. “Most Indian reservations are in rural parts of the country, which means there's limited infrastructure,” she says. “We have an issue with roads, bridges and access to electricity, so Wi-Fi is way down on the list.”

Before the pandemic hit in 2020, the tribe realized there was an opportunity to build two wireless towers in its community to

Before the onset of the COVID-19 pandemic, the Otoe-Missouria Tribe prioritized necessities other than Wi-Fi, such as roads, bridges and electricity.



The tribe's After School Program collaboration with Oklahoma State University teaches students about virtual reality.

provide broadband services. “When COVID-19 hit, it forced everyone to go online,” Payne says. “Our students and employees had limited broadband access, so we had to push broadband to the top of the list of the community’s priorities to complete the build.”

She adds that many tribes have been working to improve their broadband situations over the last decade. “Our tribe worked hard to get Wi-Fi into the houses of tribal members so they can be on equal footing with the rest of America,” she says.

Kids especially are seeing the benefits of the new broadband service. “Thanks to the broadband upgrade, the tribe’s After School Program partnered with Oklahoma State University to teach virtual reality development to students,” Payne says.

NEW CONNECTIVITY

To implement its broadband deployment, the OTOE-Missouria work with local partners but maintain a hands-on approach. For instance, the tribe has begun installing free

fixed wireless internet access at its low-income housing and Blue River Meadows housing development, a rent-to-own community that includes an elder housing apartment complex.

This multiyear project includes building two new towers to help transmit the broadband wireless signal, one at each tribal housing community. Network installer and provider AtLink was contracted to construct the two towers. The tower signals cover the



Blue River Meadows is one of two housing developments where a tower was installed to improve residential broadband access.



Blue River Meadows Housing Tower is the second tower built to provide expanded broadband service to residents who live in tribal housing.

nearly 70 houses and elder apartments at the two housing developments. Caliber FS made funding for the building and installation of the towers possible.

RedWire Telecom, the provider owned by the Otoe-Missouria, is partnering with AtLink to perform the in-home equipment installation. AtLink will place a small dish and mounting bracket on the roof of each home. From there, it will run a



Nearly 22 miles of fiber were installed to improve broadband capacity for businesses and housing.

cable into the house adjacent to an electrical outlet to provide power to the broadband router.

Caliber FS chief technology officer Doug Oliveira managed the implementation of the project. He said in a release that the upload and download speeds are above standard broadband speeds to ensure that tribal citizens have the access they need in the two housing developments.

Enhancing the broadband prospects for the housing developments is compelling, but the tribe is keen to expand the reach even further. “Once everything was installed, the tribe switched from Caliber FS to RedWire

Telecom, so it can eventually expand to government agencies here and in the town of Red Rock,” Payne says.

She adds that the tribe has applied for National Telecommunications and Information Administration broadband grants to be able to expand broadband in the coming years but has not yet received any funding from the program.

A NEW EXPERIENCE

For tribal members who have never had broadband, broadband is transformative. Until the Wi-Fi service was installed, the only option for community residents was a spotty wireless hot spot service.

RedWire recently hired a new technician to help customers with the service when they have issues. “People are still getting used to having a free service and internet access,” Payne says. “Having Wi-Fi in their homes or digital wireless hot spots is a new experience for some tribal members.”

ENHANCING BUSINESS BROADBAND

Because of the Otoe-Missouria Tribe’s partnership with GTT, businesses such as Caliber FS will now have access to more robust broadband services.

Caliber FS partnered with GTT to upgrade the broadband infrastructure on the Otoe-Missouria reservation by

AMERICAN INDIAN POLICY INSTITUTE CITES LACK OF TRIBAL BROADBAND OPTIONS

Internet options on U.S. tribal reservations continue to lag. According to a 2019 American Indian Policy Institute (AIPI) study, an estimated 18 percent of reservation residents can’t access the internet at all, and 33 percent must use smartphones to get online. Furthermore, the study revealed that the reliability of smartphone internet connections is “questionable.”

The organization says this disparity exists because most reservations were established in remote locations with limited network infrastructure. A lack of internet

options on Indian reservations and in rural areas is not new, but the COVID-19 pandemic highlighted the issue. The FCC said in 2019 that the digital divide on rural and tribal lands remains significant, with more than 26 percent of Americans in rural areas and 32 percent on tribal lands lacking at-home, high-speed internet access capable of handling data-intensive services.

According to AIPI, these findings emphasize the “need for increased in-home high-speed broadband access for residents of tribal lands.”

installing 22 miles of fiber from Ponca City, Oklahoma, to the reservation in Red Rock. “The reason [the tribe] partnered with GTT is to expand our broadband capabilities to serve our lending entities and our businesses, and Caliber is one of our umbrella companies,” Payne says.

Before GTT began this project, the legacy system that served Caliber FS included a single-fiber trunk in Ponca City, creating a single point of failure. “Caliber’s mission-critical platforms and services are hosted on Otoe-Missouria tribal land in Red Rock,” says Oliveira. “As is too common in many rural areas and on tribal lands, only one fiber provider served Caliber FS’s data center, and it lacked redundancy.

Working with GTT bolstered Caliber’s data center with fully redundant connectivity and unlocked enough excess bandwidth to provide the tribe’s residential complexes with no-cost, high-speed internet access.”

Oliveira adds that GTT’s service “fulfilled an essential business need and brought significant benefits to the community.”

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ENABLING DATA CENTER BACKHAUL

GTT’s latest development with Caliber is part of the companies’ ongoing working relationship for data center connectivity. GTT’s connectivity solution includes a 10G Ethernet point-to-point circuit, connecting Caliber’s data center facility in Red Rock with its Kansas City, Missouri, data center.

The solution also includes a 10G dedicated internet circuit connecting the Red Rock data center to GTT’s industry-leading, global, Tier-1 IP network, providing direct connections to major cloud service providers.

“When Caliber FS told us about the unique needs for this application, GTT worked to carve out connectivity to get it to the community,” says Todd Keihn, vice president of product management for GTT. “We’re happy to extend the relationship.”

GTT mainly conducted work for this deployment on the data center side and extended capacity into the community. “This is where GTT stops, and Caliber’s other partner takes over to provide the end-user services,” Keihn says.

Though GTT does sell fiber and IP transit services on a wholesale basis to other carriers, Keihn adds that the company’s agreement to help enable the tribe to offer residential broadband “was fairly new.” ❖

THE NTIA HEADS UP TRIBAL BROADBAND CONNECTIVITY PROGRAM

President Biden’s Internet for All initiative includes the Tribal Broadband Connectivity Program (TBCP), a \$980 million program directed to tribal governments to be used for broadband deployment on tribal lands as well as for telehealth, distance learning, broadband affordability and digital inclusion. The National Telecommunications and Information Administration (NTIA) reviewed 280 applications received during the application window, which closed September 1, 2021. The TBCP will announce additional awards on a rolling basis as they go through the NTIA review process.

In August, the NTIA and the Department of Interior’s Bureau of Indian Affairs (BIA) announced an agreement to coordinate responsibilities in ensuring compliance with environmental, historic preservation, and cultural resources requirements related to the TBCP. This collaboration allows high-speed internet service to be deployed quickly and ensures safeguards to protect Native lands and interests.

In addition, it streamlines the National Environmental Policy Act reviews for both the NTIA, as the lead federal agency for high-speed internet grant programs, and the BIA, as authorized to grant rights of way over and across land held in trust or restricted status by the U.S. under the Indian Right-of-Way Act.

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