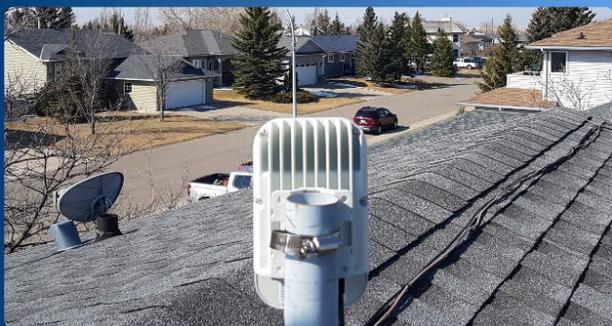




The Village of Standard Achieves Gig Speed in 21 Days



“The internet speeds our residents and businesses are receiving meet their current needs, and larger data plans are available if required. Our community is thrilled to have access to a network that will serve them for years.”

YVETTE APRIL
CAO
VILLAGE OF STANDARD



Overview

SMALL TOWNS AND VILLAGES CAN'T WAIT FOR FIBER. The Village of Standard in Alberta, Canada and Connect Mobility, Inc. (Connect) created a unique partnership to connect its 376 residents in 190 homes and businesses. This high-speed internet project using 60 GHz cnWave technology from Cambium Networks proves that fixed wireless can reliably and efficiently extend the fiber core to deliver gigabit speeds to business and residential locations.



The Challenge

OVER THE YEARS, the Village of Standard had received many promises regarding internet speeds. Each time, they ended up with subpar services. Some residents in the center of the village received great service while others on the outer edges of the Village received poor service. Previously, one provider offered 25 Mbps to Standard – on a good day. But when everyone was online, it lowered to 6 Mbps in the downlink and 3 Mbps in the uplink. Additionally, residents waited up to two weeks to get a provider out to repair their system.

The village, which has one full-time staff member at its village office and one staff member for village operations, was not equipped to manage a complex network. Standard needed to bring in an outside group to help operate and maintain the network. While a fiber-to-the-home network would certainly deliver the bandwidth needs of the village, the cost and time required to deploy fiber was simply not a viable solution.

The Solution

STANDARD CALLED ON CONNECT MOBILITY, an Internet Service Provider, to install, operate and maintain the network. The Village of Standard and Connect partnered to deploy Cambium Networks' 60 GHz cnWave distributed broadband mesh platform throughout the village. The mesh network provides fiber-like speed to residents throughout the village, and the network was deployed in a fraction of the time and a fraction of the cost compared to fiber. Through the Connect/Standard partnership, along with coordination with the local electric power utility company FortisAlberta, the team utilized select power poles for attaching cnWave V5000 distribution nodes (DN) throughout the village. The V5000 DNs utilize millimeter wave (mmWave) technology to interconnect each DN with neighboring DNs to create a resilient and redundant wireless mesh. The distributed mesh DNs also wirelessly connect to subscriber homes and businesses via compact cnWave V1000 client nodes (CN) mounted on rooftops and walls.

In addition to the gigabit wireless mesh network around the village's core, Standard wished to also provide internet service to approximately 20 farms and acreages farther away on the village outskirts. Connect deployed Cambium Networks' ePMP 3000 point-to-multipoint fixed wireless solution to a 60-foot tower near the center of the village to enable high-speed connectivity for the families outside of Standard.

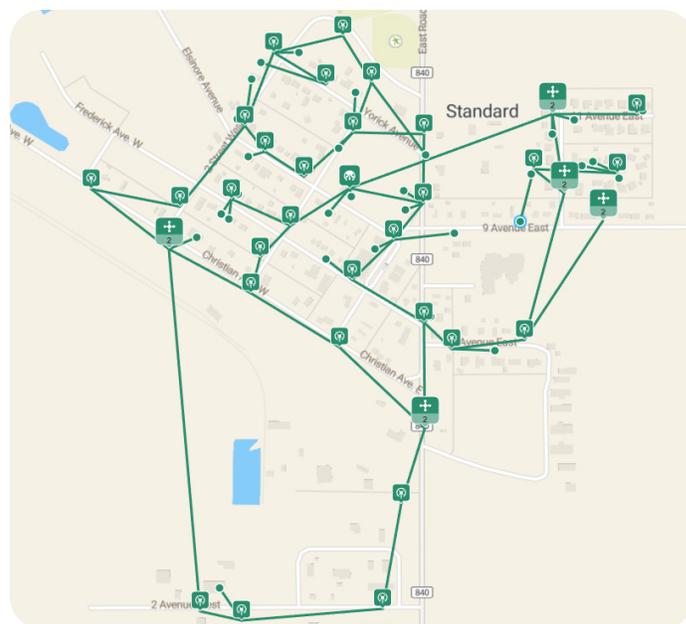
The Village of Standard's leadership team also wished to provide Wi-Fi service in the local campground. With the village's wireless mesh infrastructure already in place, it was a simple matter to deploy a Cambium Networks e700 outdoor Wi-Fi hotspot in the campground, with its internet connection also provided by the 60 GHz cnWave mesh network. Campers in Standard can now enjoy high-speed internet with various day-use billing packages.

Cambium Networks' Canada regional distributor MBSI WAV also played an important role in the project. Along with engineers from Cambium Networks, MBSI WAV provided guidance, training and design assistance to help get the project rolling. Connect started installation work the day after the onsite training. The project team utilized Cambium Networks' wireless network planning tool, LINKPlanner, to create the initial network design.

FortisAlberta was very supportive of the project and assisted the Village and Connect through every project step. Connect worked closely with the utility provider to create the design, walk through the village to select the poles and develop the network design.

"Fast deployment of 60 GHz cnWave has extended the village's fiber core to connect every business and resident. Adding the ePMP 3000 Wide Area Network was an excellent choice to support local families living on acreages and farms. Its proven architecture made it a great choice for Standard, Alberta."

Merle Isaacson
Owner/Operator
Connect Mobility Inc



"At FortisAlberta, we are always looking for new ways to support innovation. By using our existing pole infrastructure, we can help third-party Internet Service Providers like Connect Mobility to deliver connectivity to rural Alberta. We are pleased to be a part of this essential service solution and in turn, a part of economic growth in the province."

Jennifer Walsh
Director, Emerging Customer Solutions
FortisAlberta



Connect Mobility has installed 35 60 GHz cnWave V5000 DNs and three 60 GHz cnWave V3000 CNs at a fraction of the time and cost compared to fiber-to-the-home technology. Subsequently, Connect added three V3000s to build redundancy in the village’s network.

While the deployment was quick, there were a few challenges to overcome. For example, the layout of the poles was not ideal in all locations, and in some cases, the DNs were mounted to metal standoffs to overcome some line-of-sight obstructions, as well as to optimize the 60 GHz channel plan.

The Village purchased the V1000 antennas for subscriber homes and generously paid for the antenna installation to make the transition easy for their businesses and residents.

Connect Mobility owns, operates and maintains the network for the Village of Standard. The Village will monitor tree growth and keep them trimmed so that the line-of-sight connections between poles remain unobstructed.

A unique aspect of this public/private partnership is that local residents are also involved, and this has created technical growth opportunity for a few residents. The village recommended two people locally that wanted to learn how to install the subscriber antennas. These two installers have completed training and are installing the equipment for subscribers as needed, both within the village as well as in the outlying farms and acreages

The Results

CONNECT MOBILITY COMPLETED THE INSTALLATION and turn-up of 38 sites in just 21 days, including the 60 GHz cnWave and ePMP 3000 devices.

Connect can provide residents up to 1 Gbps of download speed, a dramatic improvement compared to the village’s previous service speeds, and comparable to the capabilities of fiber. Cambium Networks is continuing to enhance the cnWave platform through software enhancements as well as new CN models. The Village of Standard will benefit from Cambium Networks’ innovation, enabling additional capacity and expansion of the network as needed.

ABOUT CAMBIUM NETWORKS

Cambium Networks delivers wireless communications that work for businesses, communities, and cities worldwide. Millions of our radios are deployed to connect people, places and things with a unified wireless fabric that spans multiple standards and frequencies of fixed wireless and Wi-Fi, all managed centrally via the cloud. Our multi-gigabit wireless fabric offers a compelling value proposition over traditional fiber and alternative wireless solutions. We work with our Cambium certified ConnectedPartners to deliver purpose-built networks for service provider, enterprise, industrial, and government connectivity solutions in urban, suburban, and rural environments, with wireless that just works.

“For the first time, we’re thrilled to be getting 150 Mbps speeds in our business – multiple people can be online at once without reducing the internet speeds.”

Diane Knibb
Knibb Developments Ltd
Village of Standard



BEST PRACTICES

- Work closely with communities and their utility providers so installation goes smoothly.
- Leverage Cambium Networks’ technical support team for help with network design, procurement and staging.