

# Success Story



## Bringing Broadband to Campgrounds

Siklu and M2X keeping Families Connected While Communing with Nature



### Introduction

Two campgrounds in Northwestern Ohio has been a popular destination for families for years. Many reserve a campsite for the entire season, while others may rent for a weekend or more. But what they all have in common is the desire to stay connected and for that they need a broadband connection. “Getting away from it all” is not a message kids have ever heard or appreciate and parents are not far behind. After receiving numerous calls from campground renters to solve this issue, the owner of one such campground decided this was a problem that needed to be resolved.

### Challenge

The challenge of course is how to deliver these services to what can be thought of as rural beyond rural. The initial thought was to run a fiber connection to each trailer/camp site. This was quickly deemed untenable just from a cost perspective. No one runs fiber inside a campground, there are no DSLAMs nearby to tap into. Using a cellular plan over a weekend, a week or more will almost certainly put you on the throttling list of most mobile providers. Let alone consider the limited speeds of a few Mbps from a typical mobile network.

In the East Campground there are 200 campsites, while in the West campground there are 60 sites for use. Given the locations and limited amount of wireline infrastructure not only nearby the campgrounds but especially within the campgrounds themselves made a wireless solution an easy decision. There are several wireless systems available that can perform this function, however the 5GHz solutions that were considered just did not have the capacity to serve so many sites without extensive deployments of multiple base stations with all that entails –power and backhaul for every AP or Base Station unit deployed. In addition, if they were going to deploy a wireless network, it should be future proof for increasing end user demands as well as new applications.



## Solution

Both campgrounds contacted M2X Communications, the local Internet Service Provider in the area to solve the problem. Siklu worked together with M2X Communications and ADTRAN to design the wireless network and T3 Broadband to provide full turnkey installation and turn-up services. The concept adopted was to deploy WiFi Hotspots throughout the campsites allowing campers to use their phones, tablets, PCs just as they would at home. These Access Points based on 802.11ac were capable of delivering 1 Gbps to the end users. But this meant they also needed a high-bandwidth backhaul connection to support those speeds.

ADTRAN and T3 worked together to immediately recommended mmWave systems from Siklu as the answer. With a variety of mmWave products in both point-to-point and point-to-multipoint and supporting from 1 to 10Gbps Full Duplex, ADTRAN and T3 knew they could find the right backhaul connection for each AP deployed in Siklu's broad product solution set. As is typical with many campgrounds, heavy foliage is present. However, with the narrow beams that are an inherent part of mmWave, the design and installation was able to meet the line of sight requirements.

After careful consideration of both cost and performance determined that the Siklu point-to-multipoint system the MultiHaul (MH), was the right answer. Detailed site planning identified where the WiFi APs needed to be deployed to provide complete coverage for the entire campground it was determined that 5 MultiHaul Base Units and 6 MultiHaul Terminal Units were required. Poles for the WiFi and MultiHaul radios were installed and the service went live on June 1, 2019. Installing and commissioning the network was a matter of days.



## Result

Today campers arrive at their nature retreat, set up the trailer or campsite, and go online just as they would at home. M2X provides a mix of packages, from a 3-day pass, a month long, or an entire season subscription. The network has been designed to give each end user 50Mbps under load, a speed that often surpasses what they have at home. The response has been phenomenal and M2X predicts that the entire investment will be paid off in just over 1 ½ summer seasons.

“ At first we were not sure how to bring the speeds people wanted at a cost that made sense. After we reviewed the proposal from T3 we saw how we could not only do this at a cost that worked for us from a business perspective, but at a cost people could afford. ”

Lance Miller, President of M2X

With ample capacity measured in Gbps, the network that was installed is not only good for today but has enough capacity to be future proof for increasing end user demands, but for additional applications as well. For example, M2X Communications has been asked to consider adding video security cameras to the network, an application that can require as much as 50Mbps per camera. This can easily be supported with the mmWave wireless network that has been installed.

Based on the success of these first two projects, M2X Communications has identified an additional 5 campgrounds in the area, both commercial and state run, that have similar needs. Families on vacation that want to stay connected. This is camping in the 21st century – brought to you in collaboration by Siklu, T3 Broadband and M2X Communications.

