

# Show Up, Get It Done, Leave: Connecting the Unconnected with cnHeat Heat Maps



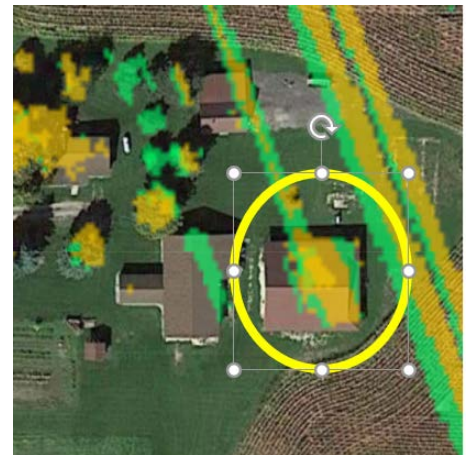
"Show up, get it done, leave."

- ADAM PLETT, OWNER & MANAGER, IONIA UNLIMITED  
- KEITH MERRYFIELD, CO-OWNER & NETWORK ENGINEER, IONIA UNLIMITED

## The Challenge

**FOR THE COMMUNITY SURROUNDING IONIA, MICHIGAN**, the density of trees made it difficult for wireless internet service providers (WISPs) to reach customers. One Ionia-based startup facing this challenge, Ionia Unlimited, made it their mission to provide high speed broadband to rural communities overlooked by other providers.

When contacted by potential customers, Ionia Unlimited could not know in advance if service was possible unless they dispatched a technician to each customer location. Visits to locations caused them to lose time for other installs and affected their ability to do business efficiently.



As indicated by the orange color, cnHeat allowed installation with maximum signal strength on the northeast corner of this customer's house.

Ionia Unlimited decided to search for an RF planning solution, as they faced another hurdle – inaccurate RF planning tools. Ionia Unlimited would go to a location where coverage was indicated by existing RF planning tools and when they arrived, there would be trees directly in line of sight – between the Subscriber Module (SM) and Access Point (AP). The WISP startup set a goal to find an improved, inexpensive and easy-to-use RF planning solution.

## The Solution

**WITH THE INPUT OF A CONSULTANT AND RF EXPERTS IN THEIR AREA**, Ionia Unlimited saw the value in Cambium Networks' ePMP™ radio solutions and chose the ePMP™ 2000 as their AP of choice. ePMP 2000 radios keep costs lower and optimize total network performance.

Ionia Unlimited chose Cambium Networks' cnHeat™ to plan their ePMP 2000 network. cnHeat is a web-based radio frequency (RF) planning system that makes it easy to see a customer's location immediately and accurately predict where service can be obtained – so easy that it can even be accessed on a smartphone. cnHeat allows Ionia Unlimited to understand where a mounting mast can be used in order to get service.



Installation was possible under the eave on the northeast corner, avoiding an invasive installation on the roof of the customer's house and allowing for a short installation time.

## BEST PRACTICES

“Start right and use a tool like cnHeat for RF planning. Get the service or free two-week demo and figure out what your equipment will provide regarding performance in advance of deployment.”

- Keith Merryfield, Co-Owner and Network Engineer, Ionia Unlimited

## The Results

**BY USING CNHEAT**, Ionia Unlimited was able to accurately and quickly determine, upon request, if an install would be possible. Customers experienced a higher quality of signal on their installations. This has resulted in faster internet speeds for customers as installations occur in optimal locations.

Now, instead of having to hunt for a signal, Ionia Unlimited can go right to the best location to perform an installation. “Show up, get it done, leave,” say both Keith Merryfield and Adam Plett, Owner and Manager of Ionia Unlimited.

As their installation tool of choice on new towers, cnHeat has saved time and minimized costs so more customers can be added to their network. “With the price of cnHeat, one additional customer more than pays for cnHeat,” says Adam Plett.



Higher signal quality



Fewer truck rolls



Reduced installation time

## Next Steps

**IONIA UNLIMITED CURRENTLY PERFORMS TWO TO THREE INSTALLATIONS PER DAY.** Due to faster installations, they are now expecting to double that and perform four to six installations per day. As customer density and demand for their services increase, Ionia Unlimited plans to upgrade to ePMP 3000 radios to add the power of multi-user, multiple-input, multiple-output (MU-MIMO) technologies, doubling throughput.

Ionia Unlimited is also looking forward to the release of 2.4 GHz cnHeat. cnHeat will be a valuable tool as Ionia Unlimited continues to expand in their community and provide internet for everyone.

