



Precision Connectivity: Crowsnest Broadband's cnHeat Success

Customer Overview

Crowsnest Broadband, headquartered in Central Pennsylvania, serves the rural and mountainous regions east of the Laurel Highlands. This region's natural beauty comes with significant challenges, including dense forests and rugged terrain, which complicate the delivery of reliable broadband services. Led by Dwayne Zimmerman, Crowsnest Broadband has grown rapidly, expanding its network to 3,000 customers with around 55,000 reachable BSLs and with around 70 macro sites and 180 repeater sites.



Business Challenge

Prior to implementing Cambium Networks' cnHeat, Crowsnest Broadband faced substantial obstacles in prequalifying customers for service. The dense tree cover and challenging terrain meant that approximately 30-40% of scheduled installations were unsuccessful. Technicians frequently discovered obstacles like trees blocking line-of-sight connections, resulting in wasted time and resources. This inefficiency not only reduced the number of successful installations but



also led to customer dissatisfaction and increased operational costs.

Additionally, Crowsnest Broadband struggled with accurately mapping and reporting broadband coverage to meet FCC requirements. The lack of precise data hindered their ability to apply for grants and expand their services effectively.



Once we got cnHeat, the number of no-goes went down to maybe one or two percent. Almost none.”

- Dwayne Zimmerman, Crowsnest Broadband

Technology Solution

Crowsnest Broadband adopted Cambium Networks’ cnHeat, an advanced RF planning tool that provides highly accurate coverage predictions using LiDAR data. The key features and benefits of cnHeat include:

- **1-Meter Precision Data:** Utilizing precise LiDAR data to create accurate RF predictions.
- **LOS/NLOS Propagation Model:** Capable of predicting coverage behind trees and buildings.
- **Ease of Use:** Simplifying the prequalification process with quick, accurate site assessments.
- **Operational Savings:** Reducing the number of failed installations and improving overall efficiency.
- **BDC Compliance:** Meeting stringent FCC Broadband Data Collection (BDC) requirements with accurate coverage maps.



You drop a pin on the map and see all the towers in the vicinity. It has made the prequalification process much more reliable.”

- Dwayne Zimmerman, Crowsnest Broadband

Field Results

Since integrating cnHeat, Crowsnest Broadband has seen remarkable improvements:

- **Reduction in Failed Installations:** The percentage of unsuccessful installations dropped from 30-40% to nearly 1-2%. This significant reduction in “no-go” situations has streamlined operations and increased the number of successful installations per month.
- **Enhanced Prequalification Accuracy:** cnHeat’s precise coverage predictions have allowed the dispatch team to weed out non-viable service requests before scheduling site visits, greatly improving efficiency.
- **Improved Customer Service and Marketing:** The ability to accurately identify serviceable addresses has enabled targeted marketing and better grant applications, leading to expanded service coverage and increased customer satisfaction.
- **Grant and BDC Reporting:** cnHeat has facilitated accurate and comprehensive reporting for FCC BDC requirements, opening up new opportunities for grants and funding.



Business Value

The implementation of cnHeat has transformed Crowsnest Broadband's operations, delivering substantial business value:

- **Increased Installations:** With a higher success rate for installations, Crowsnest Broadband can serve more customers efficiently, boosting revenue.
- **Cost Savings:** Reduced failed installations and improved prequalification processes have cut operational costs.
- **Enhanced Customer Satisfaction:** Reliable service and accurate prequalification have led to higher customer satisfaction and retention.
- **Expanded Service Coverage:** Accurate mapping and reporting have enabled strategic expansion and successful grant applications, allowing Crowsnest to extend its reach and enhance service offerings.

Cambium Networks' ONE Network platform has been instrumental in this success, simplifying network management and allowing Crowsnest Broadband to focus on delivering exceptional digital experiences.

[For more information on cnHeat, visit Cambium Networks.](#)



About Cambium Networks

Cambium Networks enables service providers, enterprises, industrial organizations, and governments to deliver exceptional digital experiences, and device connectivity, with compelling economics. Our ONE Network platform simplifies management of Cambium Networks' wired and wireless broadband and network edge technologies. Our customers can focus more resources on managing their business rather than the network. We make connectivity that just works.