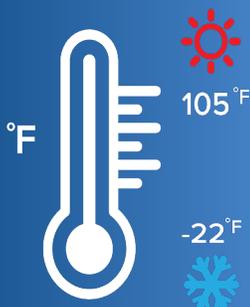




# The City of Chicago Increases Situational Awareness with Fixed Wireless Broadband From Cambium Networks

Since 2012, the network has performed consistently under harsh Chicago temperatures. In that time period, Chicago's highest temperature was 105 degrees Fahrenheit, and the lowest temperature was -22 degrees Fahrenheit.



## Overview

**CITIZENS RELY ON PUBLIC SAFETY LEADERS** to keep their communities safe, protect eventgoers and provide mission-critical response when needed. The City of Chicago understood that in order to support a proactive response to critical situations they had to invest in a dependable wireless communications infrastructure. To wirelessly bridge their public safety initiatives, they rely on Cambium Networks.



## The Challenge

**IN THE EARLY 2000s**, officers from the City of Chicago began to implement video cameras to augment the police department in an effort to increase Tactical Intelligence. Part of this solution included a network of surveillance cameras and sensors installed on traffic poles and rooftops. The unified video network includes thousands of cameras throughout the city, managed by the Office of Public Safety Administration (OPSA) in coordination with city sister agencies.

Though the city has hundreds of miles of fiber, not all cameras were able to be reached via wired connections. In addition, cellular monthly charges were costly and throughputs not reliable in some parts of the city where high bandwidth was required. The Cambium Networks wireless fabric provided the high throughput, low latency and rugged performance needed to provide consistently high-



quality video while enabling the city to install cameras at the exact locations needed.

## The Solution

**TODAY, CAMBIUM NETWORKS' WIRELESS SOLUTION** supports over 4,000 video cameras for the PSA. Traditionally, public safety cameras operate on the 4.9 GHz frequency; however, the frequency only offers a narrow 50 MHz of spectrum which needs to be shared with local nongovernment organizations such as public transportation. The flexibility of Cambium Networks' hardware allows the city to use not only 4.9 GHz but also 5 GHz via a simple software configuration change without costly hardware upgrades. With industry-leading interference tolerance, multiple layers of security and high spectral efficiency, Cambium Networks is able to provide consistently reliable connectivity in the most challenging RF environments.

## The Results

**USING CAMBIUM NETWORKS FIXED WIRELESS SOLUTIONS** allows the City of Chicago OPSA team to deliver quality video that is relied upon for investigations, planning, and overall public safety. Using Operational Intelligence gathered from the video network, Chicago leaders are able to proactively supply connectivity for cameras where it's needed most because of the flexibility of the Cambium Networks solution. The wireless network has been installed for over 10 years and continues to grow. Through harsh winters and hot summers, the reliable hardware has truly been a long-term investment for the city.



### BEST PRACTICES

When making decisions about technique, communications, infrastructure and technology, cities need to plan for the following:

- **High-quality video** – Will the system be able to consistently provide evidentiary quality video?
- **Easy scalability** – Can the solution scale to provide complete coverage in a district or city-wide deployment?
- **Low total cost of ownership** – Does the initial cost and continuing cost of the solution provide the results required while staying within the budget?

### 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.

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