

Highland locks up grant for faster, safer emergency response



Municipality: Highland Police Department and Highland Fire Department

Challenge: After a police vehicle was involved in a collision at an intersection, the Highland Police Commander sought a reliable traffic signal priority control system to expedite emergency response, improve safety and promote mutual aid.

Solution: The town was awarded a grant for Opticom™ Multimode priority control technology. About 35 intersections and 50 vehicles — including police cars, fire department vehicles and ambulances — are connected to the system.

Performance: The versatile system helps first responders reach emergency scenes more quickly and safely at Opticom™ GPS-equipped intersections in the city, and in several neighboring communities that use Infrared priority control technology.

Shedding light on serious safety risks

Located on the outskirts of the Chicago metropolitan area in Lake County, Indiana, the town of Highland is perfectly situated to take advantage of the area's cultural and recreational offerings — while giving its citizens a respite from the ever-bustling big city life.

As in any town with nearly 24,000 people, emergencies can happen at any time, anywhere. Until recently, first responders would navigate the town's 35 traffic light-controlled intersections tentatively. Without priority control, emergency response times suffered, which delayed aid to the public.

First responders were at risk every time they drove through an intersection. After a detective was involved in an intersection collision while responding to a bank robbery, Highland Police Commander, George Georgeff, knew that the collision could have been much worse. He realized that priority control could save more than response times — it could potentially save lives.

Police Commander Georgeff worked with Highland Fire Chief, Bill Timmer, to assess the town's chances for earning a federal grant for priority control implementation. The fire department had previously applied for a grant, unsuccessfully. The commander thought that the police could develop a compelling application for federal priority control funding — and he was intent on making certain that they were awarded the grant.

He met with officials in neighboring communities who had implemented priority control systems within the past few years. Each community had installed infrared technology to request green signals at priority control-equipped intersections with varying degrees of success. Georgeff read studies indicating that the technology can decrease intersection crash rates by up to 70 percent and reduce response times by about 20 percent. The statistics were impressive. But it wasn't long before the commander knew there was an even better solution for Highland.

Multiple advantages with Multimode

Commander Georgeff also met with GTT representatives who shared the advantages of global positioning system (GPS) priority control technology. It uses highly secure radio communications to request green signals in a wide range of adverse environments — even around corners and other restricted line-of-sight environments.

Several intersections in Highland are located near bridges or in close proximity to each other, which would reduce the activation range for infrared priority control equipment. GPS technology allows responders to request green lights from up to 2,500 feet prior to the intersection. GPS priority control would work in Highland, but Georgeff was challenged to find a solution that could work equally well beyond the town's borders.

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- George Georgeff,

Highland Police Commander



*Building critical
traffic connectionssm*

EMERGING APPLICATIONS



Building critical traffic connectionssm

“We needed a system that could improve operations in town, as well as other towns — even those with infrared technology.”

- Police Commander Georgeff

“Lake County is a large area and has few emergency resources so we rely heavily on mutual aid between communities,” said Commander Georgeff.

The Opticom™ Multimode System offers complete interoperability between legacy infrared and newer GPS systems. It enables authorized vehicles to request green lights and expedite service using either technology for seamless mutual aid operations.

Granting emergency responders every advantage

Commander Georgeff knew Multimode technology was the right choice for Highland. Now, he had to figure out how to fund it. Because he had written successful grants in the past, he understood that grant writing could be an exhaustive, comprehensive process. He also knew it would be worth the effort.

Commander Georgeff worked closely with the Community Oriented Policing Services (COPS) organization. COPS is the office of the U.S. Department of Justice that shares information and awards grants to police departments around the United States. The organization provided technical support.

Commander Georgeff also obtained a copy of a successful grant application from Detroit that helped him identify key outcome objectives. In addition, the commander worked closely with Fire Chief Timmer and with GTT representatives to ensure grant accuracy. The partnerships were rewarding — Highland was awarded a grant for nearly \$500,000 to implement Opticom™ Multimode priority control technology.

“Grant writing was truly a team experience,” said Commander Georgeff. “We shared ideas and information with a lot of people and organizations and that helped us write a more effective grant application. Now, we have a priority control system in place to improve emergency response services for everybody.”

Exceptional response

Opticom™ Multimode technology was installed at all but one intersection in Highland. Now, 35 intersections feature multimode phase selectors that recognize both

infrared and GPS radio technology. Plus, about 50 vehicles — comprising a mix of police, fire and EMS vehicles — include both infrared and GPS radio emitter technology.

The dual modes enable the vehicles to activate priority control in neighboring communities with infrared technology. Highland has improved its mutual aid services throughout the county significantly, reaching more people quickly with emergency services.

Additional Opticom™ benefits

First responders can trigger green lights to expedite driving time through intersections while improving safety for other vehicles. Commander Georgeff is confident that the new technology will prevent accidents like the one involving the detective in his police vehicle. He envisions other advantages for the community, too.

“As with any investment, it’s important to compare costs versus benefits for the community,” he said. “That’s why we’re actively pursuing other ways to leverage this technology, including for snow removal.”

Commander Georgeff is working with Highland Public Works to install emitters on snow removal trucks. Most snow removal is performed early in the morning when traffic is minimal, so trucks spend time needlessly waiting for the signal to cycle to green. With Opticom™ Multimode, snow removal would require fewer trucks and less time. Plus, it would reduce carbon emissions.

The commander noted that first responders are ecstatic with the priority control system. Many estimate that response times have been cut nearly in half in emergency situations. Plus, they feel more in control. Several said that they don’t have to drive as fast as they had before system implementation. Responders have a green light consistently so they can maintain safe speeds and minimize risks.

Multimode technology has impressed people outside of Highland, too. Commander Georgeff has worked with multiple neighboring communities in an effort to help them earn grant funding for priority control technology.

Global Traffic Technologies, LLC

7800 Third Street North
St. Paul, Minnesota 55128-5441
1-800-258-4610
651-789-7333
www.gtt.com
79-1000-0857-0-(A)