Green lights without the hassle: Hutto gets priority control as a service

Fire trucks in Hutto, Texas – a quiet but growing community 30 miles north of Austin – flipped on their emergency lights and sirens and rolled quickly out of the fire station on the way to an emergency. As they traveled down Exchange Boulevard, they approached what could have been the first delay in responding to the rescue call – a red traffic light at corner of Exchange Blvd. and the busy State Hwy. 79.

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> Hutto Fire Rescue

The red light would have normally forced the firefighters to slow down or stop in order to safely navigate the intersection. But Hutto Fire Rescue is one of thousands of public safety agencies using the life-saving Opticom Emergency Vehicle Preemption (EVP) system. The Opticom system gives first responders the ability to preempt a traffic signal, giving the vehicle safe passage through the intersection with a green light.

As far as technology goes, the Opticom system isn't "new" – GPS-enabled, radio-based communications have been used in public safety and transit priority control systems for nearly two decades. Prior to that, light-based infrared communications helped to control traffic lights for these agencies for over 50 years.

What sets Hutto apart is the fact no one in Hutto must worry about any of the details related to the preemption system. Hutto Fire Rescue is one of the first communities in the United States to use Opticom Priority Control as a Service (PCaaS). Opticom PCaaS is a comprehensive EVP solution where all the details of the system including installation, maintenance and upgrades, are provided as an ongoing service from the makers of Opticom -- Global Traffic Technologies (GTT).

Hutto Fire Rescue Chief Scott Kerwood said the subscription service makes sense in a world where technology changes outpace municipal budget cycles.

"I don't have to own anything," Kerwood said. "If the technology changes tomorrow the equipment's going to change tomorrow. And that's at no cost to me. That's taken care of under the contract."

Selecting 'as a service'

Kerwood had been trying to get an Opticom system in the Hutto community for several years. He had previously added the traditional Opticom system as capital expense in the budget, but it'd eventually get taken out later in the budget cycle. He also had tried to secure grant

Solution Overview

PROBLEM
Life-saving preemption technology was a priority for the department, but lean municipal budgets delayed the installation of a traditional, capital-expense system.

SOLUTION
Opticom Priority Control as a Service doesn't require capital dollars -- it's paid for as an operating expense.
Opticom PCaaS shifts the burden of procuring, installing and maintaining the system from the client to the manufacturer.
First responders show up at the intersection and get the green light without having to worry about how it happened or if the system is working.
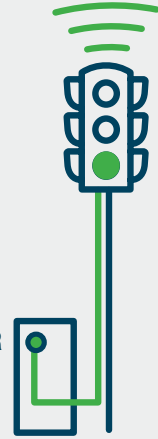
GLOBAL TRAFFIC TECHNOLOGIES

OPTICOM EVP HARDWARE

TRAFFIC CONTROLLER

HOW IT WORKS: Using it's GPS location, Opticom hardware on the vehicle sends a radio signal to the intersection. Hardware at the intersection sends a signal to the traffic controller requesting the green light for the emergency vehicle. When the emergency vehicle passes through the intersection, the traffic signal returns to normal operation. With Opticom Priority Control as a Service, the hardware installation and maintenance are taken care of by GTT as an ongoing service.

funding to install the traditional system, but hadn't been awarded any funding for the project.

In late 2017, Kerwood contacted GTT regional manager Glen Kilmek and told him that the Emergency Services District (ESD) – a taxing entity for the community -- had committed to funding the Opticom system. Around that same time, GTT had just introduced Opticom PCaaS to the public safety market. Klimek asked if Hutto would be interested in the service and Kerwood agreed to see if it made sense for Hutto.

"Once I got that information in then, to me after reading it what all it provided versus the traditional system, it made perfect sense to go to the subscription service," Kerwood said.

Kerwood took that information and persuaded the ESD board to approve the funding and move forward with the installation. The board agreed to a 10-year contract with GTT in December 2017. Technical services engineers from GTT then installed the system on 10 vehicles and at 28 signalized intersections in early 2018.

Same benefits and then some

Like many fire chiefs around the country, Kerwood was familiar with Opticom from previous positions he had held in the fire service.

First developed by 3M in the late 1960s, Opticom traffic signal preemption and priority control systems are installed in more than 3,100 communities around the world. More than 180,000 devices – vehicles and intersections – are connected with some iteration of Opticom. In the 50 years since it was first commercially available, Opticom has undergone many innovations and transformations. As a result, the Opticom of today is more advanced and versatile than previous generations.

"The Opticom of today is not like the Opticom of … five years ago, ten years ago, 15 years ago," Kerwood remarked. "A lot has been learned by the Opticom folks."

Opticom PCaaS offers the same benefits as a traditional Opticom system: it lets public safety crews respond quickly and safely to emergencies by removing some of the conflict at intersections. The result is that there are fewer crashes and faster response times. Opticom PCaaS has the added value of removing the hassle of procuring, installing and maintaining and owning the equipment associated with the preemption system. The emergency vehicles get a green light in exchange for a flat fee. GTT handles all the other details.

Easy install

Although Hutto was one of the first Opticom PCaaS installation in the United States, Kerwood said he was pleased with how the deployment process went.

GTT's Client Services department has tripled in size in the past two years with the addition of more project managers, service technicians and customer service staff. That growth gave GTT the ability to transfer all the technological risk from a city or department to GTT, GTT Client Service director Jessica Myran said.

"GTT has the staffing and resources to install, maintain, managed and update these Opticom PCaaS systems," Myran said. "We'll continue to grow as more and more communities see the value of these services."

In Hutto, the client services team worked with the ESD staff and Texas Department of Transportation staff to identify which vehicles and intersections would need Opticom equipment, how to install it and when it would be up and running. During this process, the stakeholders discovered several county-owned intersections, so GTT worked with Williamson County staff to get those intersections installed.

Throughout the process, Kerwood and his staff were kept abreast with regular conference calls and project updates.

"One of the things that was very helpful was we had weekly meetings with all the parties that were involved," Kerwood said. "And just kind of knowing what was going to go on when it was going to occur."

The equipment installation went smoothly, too. GTT staff came to Hutto, installed the intersection equipment and then the vehicle systems. Opticom Central Management Software was added to give GTT staff the ability to monitor and maintain the system remotely.

"We've had a couple issues where intersections have gone down for one reason or another and that's just been an email or a phone call and they're out within a short period of time to get those up working again," Kerwood said.

Up and running

In Hutto, Chief Kerwood said his crews started to see the benefits right away.

"The first day it was turned on and the first engine went out, the crews came back and said, hey, everyone was out of our way. We had green lights the whole way which is what the system was supposed to do.

"I actually had an opportunity to be captured by

one of the lights one day," Kerwood continued. "I knew the crew was coming out and I was coming from a different direction and it was impressive to see how fast the intersection actually cleared out. They were turning the whole intersection was cleared out as they got there. So they had a nice steady travel as they went to the emergency.

Kerwood leads a department of 28 full-time firefighters, along with a handful of volunteers. Hutto Fire Rescue covers approximately 60 square miles with nearly 60,000 residents. Going forward, Hutto Fire Rescue and the community they serve will continue to see benefits from the system, especially as the community grows.

"I'm pleased with the level of service that we've gotten and just look forward to the system as we add fleet," Kerwood said. "We'll just have to give (GTT) that information. That's all we do is we just add it to the subscription and whatever the price is for intersections and cost of vehicles. They put that on there."

Continuing to grow

Opticom is a tool that will help serve the Hutto community for years to come, Kerwood said.

The Hutto community will almost certainly need to add more public safety services in the coming years given the area's rapid growth. From 2010 through 2017, Hutto nearly doubled its population.

That's a challenge and opportunity that Chief Kerwood is looking forward to.

"The Hutto community and the growth that we have gone through here over the last several years and is expected to come really makes it fun and exciting to work here," Kerwood said. "Number one. Our goal is to serve the public. That's what we're here for. No other reason and it's exciting and humbling to be able to do that."

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Global Traffic Technologies, LLC
7800 Third Street North
St. Paul, Minnesota 55128-5441
1-800-258-4610
651-789-7333
www.gtt.com

GLOBAL TRAFFIC TECHNOLOGIES