In Dunwoody, Ga., Police Use 1st Choice RFID to Open Gated Community Gates

More than 110 gated properties in the city are installing technology to ensure that police vehicles that arrive at locked gates can obtain fast and silent automatic entrance.

Security and Access Control

Aug 19, 2015— When officers of the Dunwoody Police Department, in Georgia, respond to calls in their city, there is a good chance that the individual in need of help will live in one of the area's 40-plus gated communities. Until now, an officer needed to refer to a list of access codes, find the numerical code for a specific locked gate, and enter that code manually into the gate's keypad. Often they found that the gate's access code had been changed but the list had not been updated accordingly. Therefore, while a victim of a medical emergency, domestic violence or a robbery may be awaiting assistance, officers have needed to get creative to gain entrance through the gate, says Timothy Fecht, the Dunwoody police department's public information officer.

The solution to the problem is being installed in all gated properties in Dunwoody, in observance of the city's new Emergency Vehicles Access to Gated Communities ordinance, which requires the installation of an active RFID system known as SOS Silent. The technology, provided by two companies (Siren Operated Sensor and 1st Choice RFID), ensures officers can gain entrance automatically via a Long Range RFID tag in their vehicle, and a receiver integrated into the gate locking system.

Dunwoody Police
Timothy Fecht

Fecht says the problem came to the attention of the city council when Dunwoody Councilmember Terry Nall spent a day accompanying officers on their rounds. Nall noticed that the community gates were in some cases causing delays in emergency response while officers searched for the proper access code. Often, Fecht says, the communities will change access codes, for instance when they hire a new gate management company, and they don't always let police know when those access codes change. To gain entrance, officers waiting at a closed gate have needed to flag down assistance from a nearby resident, or even randomly dial phone numbers of residents inside, asking them to unlock the security gates through their phone entry system.

In March, 2015 the city council passed an ordinance requiring the adoption of an RFID and sound-based sensor system, and the police department met with gated community members to strike a deal: The department would purchase the Tags and and each community would be responsible for installing the Receivers. Thus far, two gated communities have installed the receivers at their gates in the past few weeks, while others are in the process of doing the same.

McKay Lundgren
SOS President

SOS was launched in the 1960s as a sound-based sensor solution to access locked gates, says the company's president and owner, McKay Lundgren. The founder of the company, Lundgren's father-in-law, Wayne Skeem, was an Idaho farmer who designed a system that would release the locking mechanism of a gate to an agricultural area, such as a field, in response to a car horn. The product was known as Horn Gate. In the 1980s Skeem's company introduced a version designed to open a gate when it detects an emergency vehicle's siren at 100 decibels for at least 2.8 seconds. In that way, when an emergency vehicle arrives at the gate with its siren blaring, the gate will open for that vehicle.

Lundgren says the company has sold about 30,000 siren devices in the USA and abroad. However, he says, in some cases, police want a solution that accommodates a quiet approach. They may not want to arrive at a gate with their sirens switched on, and instead might want to do routine patrols or responding to a 911 call without sirens. Therefore Dunwoody opted for the newly released SOS Silent product, which detects not only sirens but also RFID tags, making the city the first customer to use the hybrid system, according to Lundgren. The RFID technology consists of customized versions of 1st Choice RFID R-2000 readers and T-8000 tags.

The SOS Silent system's Long Range 433MHz Tag is attached behind a vehicle's front grill or in the light bar on top of the vehicle. Every few seconds, it uses a proprietary air-interface protocol to beacon a unique ID that can be captured at a distance up to 300 feet. To prevent erroneous readings when a police vehicle might merely be

passing the gate but not trying to gain entrance, the read range can be dialed down to just a few feet. The RFID Tag's battery lasts for approximately five+ years of operation, after which the tag is just replaced.

The Dunwoody Police Department has tags installed in its 50 patrol cars, and is now exploring whether the city can also provide tags to about six fire vehicles that cover the same area, Fecht explains. The receiver, which contains a sound sensor and an RFID Reader with an omni or uni-directional antenna, is typically placed in an enclosure on the gate and wired to a gate's opening mechanism.

The SOS Silent receiver includes a Long Range RFID reader from 1st Choice Security Solutions.

At least two Dunwoody communities have contacted SOS about purchasing more tags to be provided to its residents, says Lundgren. In that scenario, the tag could be hung behind the rear-view mirror or even hidden behind the vehicle grill under the hood, and its beacon would be captured by the reader when the car approached a gate. However, Lundgren says, this function will require a modified RFID receiver. The system would need the receiver to be able to detect transmissions from both emergency and resident vehicles, but respond uniquely to them: An emergency vehicle's tag could be used to open any gate to any community within the city, while a resident's tag would be permitted to open only the gates to his own community.

The gated properties in Dunwoody are purchasing the RFID Receiver Kits from their Dealer Installers who will install the RFID Receiver/Antenna Kits. "The RFID Reader Kit's price varies according to the volume purchased," says Lundgren, "but typically one Reader Kit could be purchased for less than $1,000, while tags would cost about $25 apiece.

The Dunwoody ordinance allows communities until March 2016 to comply. Fecht says he lives in one of the two communities that have already gone live with the technology, and it works well when he drives through the gate with a police vehicle. "It's all about reducing the amount of time it takes us to respond to a call," he says.

The Dunwoody Police have expanded the SOS Silent Program to include gated commercial businesses as well as gated communities in the city.

The SOS Silent system can be modified at any time for county and state police vehicles to access the gates in these facilities.