



Southwest Management Services specialises in the field of Community Association Management.



Headquartered in Austin, Texas, Radiant RFID was founded in 2004. RFID solutions have been deployed since the 1970s, with the technology expanding, Radiant RFID is one of the driving forces behind this advancement. At our R&D facility, we're developing cutting edge solutions for a wide variety of applications.

#### Fact

Residential gated communities are growing in popularity. About 6% of Americans live in a gated community and construction of such communities comprises 10% of the new home market with as much as 50% in larger metropolitan areas in southern states.

*Bonnie Carlisle*, president of Southwest Management Services a community association management company serving large gated communities

#### Project Summary

##### Company

Southwest Management Services

##### Market

Real Estate (Gated Community)

##### Location

Texas



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# RFID in a Texas gated community

Radio Frequency Identification (RFID) technology helps gated communities control access

## Opportunity: Increase security by controlling vehicle access

The overwhelming reason people are purchasing homes in gated communities is the sense of security – limiting the volume of traffic and controlling who has access to the neighbourhood streets.

Managing access to these communities presents many challenges as entry to a gated community is typically a manual process and subject to errors ranging from forgotten pass codes and lost "remotes" to the outright transfer of access credentials often cursing the main entrances to choke with traffic during peak travel times.

"Remotes were permitting problems at our gates," said Bonnie Carlisle, president of Southwest Management Services as we couldn't track vehicle exits, which hindered forensics after a theft or other incident. People were also programming other cars' garage door openers to send the remote signal." Management of traffic is cumbersome to control deciding who among the contractors, domestic help and other visitors is authorised to enter.

Avoiding errors and controlling cost while truly enforcing who can access the community without incurring heavy staff and infrastructure expenses is important to fulfilling the promise of residential gated community life

It was this value proposition that brought Austin, Texas based Radiant RFID and GateSource Corporation together to develop a modern, passive solution for Southwest Management and other companies serving the growing market for gated communities.

## Solution: RFID windscreen tags were the missing link

GateSource offers a web based application that provides immediate and precise data exchange between security guards, property owners and administrators with "self-service" software for all users throughout the community. It eliminated the security staff's administrative burden of logging and updating resident information and the relationships between properties, occupants, guests, vehicles and gate credentials.

GateSource was still relying on the old 'remote' technology for gate authentication which still presented access control challenges, RFID technology was the missing link. Radiant RFID brought their expertise in RFID integration to bear, connecting the data on the backend of the GateSource software to an RFID controlled system for points of community entry. Radiant RFID's system communicates via Web services to validate tags and assign rules to readers and gates.

The RFID system uses an interrogator antenna at the gate to read the passive vehicle windscreen mounted RFID tag and match the tag number against a database of permissible entrants. Valid tag numbers lift the gate automatically.

While the system is a relatively simple design, getting a windscreen RFID tag that will perform in the wide range of vehicles and weather conditions was a challenge. *"The RFID windscreen tags have to hold up to the Texas heat,"* said Kenny Ratton. *"Temperatures inside vehicles parked outside are outrageous in the summer."*

Radiant RFID turned to **METALcraft** for help with engineering a windscreen RFID tag that would fit the requirements for gated communities. **METALcraft**, are experts in the design and manufacturing of custom, durable ID products. They sandwiched the Gen2 inlays between thin layers of polyester, adding human readable printing to one side and a windscreen compatible adhesive to the other.

*"A lot of testing was done to make sure the windscreen RFID tag could read through the windscreen at the required distance,"* said Steve Doerfler president of **METALcraft**. *"Our in house engineers tested many different inlay samples and substrates to come up with just the right combination."*

*"METALcraft's windscreen RFID tag design has worked very well in its deployments at gated communities in Texas,"* said Ratton.

## Result: RFID controlled access has many benefits

The system delivers precise tracking and control of community access. Each tag issued is specific to a vehicle, and the data captured at the gate creates a detailed access log, updated on the web based application every 10 minutes, enabling virtually real time, validated information.

RFID technology provides increased security and there is no ambiguity about who is accessing these communities. The access log is useful for forensics, too, especially when tied to video.

A big cost for a gated community is damage to the gates but this system allows managers and law enforcement to use the access log information as evidence in the event of a crime like vandalism.

The online administration saves time for managers and residents. Even issuing and activating the RFID tags is done through the GateSource online software allowing the guards to affix the RFID tag at a gate or it can be mailed to the approved user.

Residents of these gated communities take satisfaction in knowing access is controlled with a system that is easy to use. *"Our residents really appreciate the new RFID tag system,"* said Carlisle. *"I can't tell by how many emails I've received telling me it's great."*

On top of these benefits, the work of GateSource, Radiant RFID and **METALcraft** has produced a solution that is roughly half the cost of the previous "remote" access systems, speeding the way to a healthy return on the investment for gated communities.

*"We've developed something that cost less and is much easier to use,"* said Ratton. *"More importantly, we're helping gated communities realise their promise to limit the volume of traffic in a neighbourhood and controlling who has access to the streets."*

Contact Peter Laws for more information on idtracon's barcode and RFID custom solutions.