ALIEN®

AUTOMATED FULL-SERVICE VEHICLE TRACKING
STREAMLINES CAR WASH
OPERATIONS AND INCREASES CUSTOMER LOYALTY

ICS Innovative Control Systems

Company: Innovative Control Systems
www.washnet.com

Application: Vehicle tracking

Area of Use: Outdoor car wash

Status: Production

Tag Supplier: RCD Technology

Frequency: 915MHz

Range: 8 to 10 feet

Reader Supplier: Alien ALR-9800

System Integrator: RCD Technology *www.rcdtech nology.com* and ScanSource *www.scansource.com*

Challenge
- Use RFID for unattended full-service customer vehicle tracking for car wash operations
- Develop a new revenue stream for car wash operators while improving operating efficiency

Solution
- ICS worked with RCD Technology to develop custom tags that would withstand harsh car wash conditions
- Toolset includes:
  - Alien® ALR-9800 readers
 - Alien® Gen 2 Squiggle tags

Benefits
- Develop new business model for car wash industry
- Self-service options produce higher revenues with increased efficiency
- Increase customer loyalty by offering car wash clubs
- Reduce labor needed for wash operations

Car washes, typically operated by gas stations or car detailing shops, are under increasing pressure to increase their revenue streams and reduce their reliance on labor while facing competition from big-box retailers. To thrive in this competitive business, car wash operators must offer a speedy, affordable service that attracts a high volume of regular customers in all seasons of the year.

CHALLENGE

Innovative car wash operators are always on the lookout for new ways to streamline their businesses while improving service. Many have turned to automated payment systems and washes with drive-in bays or conveyor-based tunnels to increase profitability in a labor-intensive business. Many recycle water to reduce costs and be more environmentally sensitive.

One of the newest innovations is unattended full-service customer vehicle tracking. When used at automated self-service car washes or full-service car wash tunnels, automated vehicle tracking can streamline customers' visits to the car wash and improve customer satisfaction, while eliminating the need for an employee to staff the car wash. By eliminating that "greeter" position, the wash operator can cut labor costs and save money.
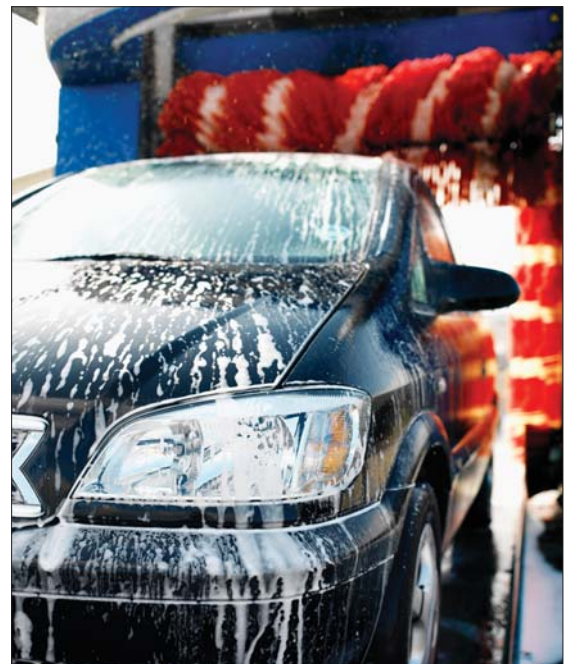
Innovative Control Systems (ICS), a maker of automotive wash and service solutions with customers across North America, is leading its industry with automated RFID-based vehicle tracking.

"Speed of service is critical in our business," says Mike Ruiz, CIO of Innovative Control Systems. "RFID tags are a convenience factor. The AutoSentry® eXP express pay system automatically reads a vehicle's tag, so customers don't have to worry about having credit cards or cash to pay. If they're getting a service, they sit there for a second while the vehicle is identified by its RFID tag, then the gate goes up, and the customer gets the wash."

SOLUTION

The ICS AutoSentry kiosk has an integrated RFID reader that recognizes the RFID tag mounted inside a vehicle's windshield. The system automatically knows the services to which the vehicle is entitled, programs the wash equipment with these services and allows the vehicle to proceed to the wash entrance.

With an automated full-service customer tracking system from ICS, car wash operators can increase their revenues by offering RFID tags to fleet vehicles and individual customers to automatically track and bill customers for wash services. Operators can offer club programs, or pre-paid packages of services at different price points, to ensure consistent revenues in a business that is fundamentally weather-dependent. By tracking usage by vehicle, operators can also offer incentives to loyal customers for repeat business. They can also up-sell club customers at the point of sale to generate additional revenues beyond the pre-paid club package.

ICS uses an application-specific windshield tag that is integrated into a wash-proof label. The RFID tag and final label were designed and manufactured by RCD Technology and use the Alien Technology Higgs chip. The tags are also coated for protection against the effects of sunlight and window washing cleaners. Tags have anti-theft protection via the RCDSecure tag design so they will stop working if removed.

"Anti-theft is very important for this implementation," says Peter Kuzma, vice president of sales and marketing at RCD Technology, a consulting firm specialized in RFID. "The RFID label represents a contract between the operator and the customer, so the contract is not transferable from vehicle to vehicle. If someone tries to remove the label, the chip antenna self-destructs." The Alien Higgs chip was a logical choice due its energy efficiency and resulting best of class read distance/tag size ratio vs. its small size and energy efficiency, notes Kuzma.

ICS also uses Alien Technology ALR-9800 readers, citing the strong price/performance and Gen 2 support. "The Alien Gen 2 reader was just coming out at that time, and we needed the new technology so we could read the tags on the windshield," says Ruiz. The ALR-9800 is suitable for enterprise deployments and offers the highest performance read capability and superior dense reader management.

RESULTS

Ruiz initially investigated RFID for automated vehicle tracking in 2005, but concerns about being an early adopter led him to OCR for license plate recognition. Not satisfied with the accuracy of OCR, Ruiz revisited RFID in 2006. "We were amazed at how much the technology had improved," he says.

ICS has deployed its RFID-based AutoSentry eXP system at five customer locations in North America. Each car wash has several hundred customers using the system. Operators have seen an uptick in revenue and customer reaction has been positive. "Once customers' vehicles have the tags, they come back more often," says Ruiz.

ICS provides customer support 24 hours a day, 365 days a year, and so a low cost of operations and maintenance is critical to profitability. ICS has developed an ideal site layout for mounting the readers and positioning the AutoSentry system at wash operators' sites. ICS technicians can further fine-tune the reader settings for the unique environments using a custom application that interfaces with the Alien readers. ICS also uses the Alien gateway software to position the antennas for maximum read efficiency.

NEXT STEPS

Ruiz has high praise for the Alien RFID Academy training program, which he says was instrumental to learn about RFID technology and the Alien reader. "The training class was excellent. It helped dispel the myths of RFID and solidify how it works," he says.

As the company gears up to roll out automated full-service customer tracking to more than 300 customers nationwide, Ruiz offers this advice to others considering a production rollout of RFID: "Do your homework and learn about the technology. Once you get a foothold, you can apply it to your specific industry. You'll know what should and shouldn't work."

"Car wash operators have a strong positive response to automated, full-service vehicle tracking because it allows them to speed the customer through the wash while improving their operational efficiency."

Mike Ruiz, CIO,
Innovative Control Systems

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