RFID Smart Reader Embedded Software

GAO Research Inc., a recognized international leading provider of embedded communication software, offers a wide range of RFID software solutions tailored for different industry sectors. GAO Research enjoys an excellent market reputation for its high quality software. Many telecom giants have chosen GAO Research as their preferred software vendor. GAO Research's engineering team will apply its industry proven technical, scientific and business expertise to help design, re-engineer and implement the systems and processes necessary to efficiently and effectively deploy an RFID system within your organization.

GAO Research offers world-class expert resources for RFID hardware and software systems engineering and integration services. Our embedded systems expertise assists clients in overcoming custom RFID software development and systems engineering challenges. GAO software and engineering services will provide the necessary expertise to make your products work better and faster, saving you time and money in the process. Our broad embedded software experience enables us to deliver customized RFID software-based solutions that will maximize the ROI from your RFID systems. GAO's customized RFID software is cost effective, allows quick time-to-market and provides scalability and adaptability as your business requirements grow or change.

GAO Research's competitive edge lies in its Smart Reader RFID Software (SRRS). The uniqueness of the SRRS makes GAO stand out from other RFID solution providers. Most RFID readers on the market come out-of-the-box as "dumb" readers since they do not have the capability to make intelligent decisions. They simply read tags and pass data along, usually relying on network availability, leaving data processing to separate back-end systems.

"Smart" readers have built-in computing intelligence, allowing them to not only read tags, but also make decisions based on the tag data that were read, process the tag data, and perform custom tasks to the data directly on the reader platform. Smart readers are capable of operating as a stand-alone computing platform, eliminating the need and reliance on a robust network and back-end systems.

Some examples requiring the use of a smart reader are:

- Process control applications requiring transaction processing at read points
- Applications requiring data storage on readers for convenience, added performance, and an extra layer of reliability
- System deployments where a network is unavailable, unreliable, or impractical

Although most RFID readers do come out-of-the-box as "dumb", many of which actually possess the necessary hardware and computing power to function as a full-fledged smart reader. Many dumb readers have hidden processing potential that is often found on a microprocessor outside of basic RFID electronics that is not being used to its full capacity. This processing power can be tapped into and utilized by writing custom software that runs on the specific reader's hardware.

Even with smart readers that have purpose-built hardware, the manufacturer provides only the most basic operations for tag data processing. This set of basic functionality is often insufficient for a customized RFID system deployment, nor does it allow the customer to maximize their ROI on the smart reader. No two customer's needs and requirements are the same, and it is up to the system integrator to maximize the potential of their smart readers.

GAO Research can help you smarten up your dumb reader, or smart reader deployments that are lacking in custom software. GAO develops customized software that runs embedded on the RFID reader, enabling it to function as a standalone intelligent reader performing specific tasks, tailored exactly to what your application requires.

GAO Research's engineering team will analyze your needs and your objectives to identify the appropriate application solutions for your business. We will provide a case summary at the end for your review, which will include the following aspects: your business strategies and long term plan, key factors to a successful RFID deployment, practical business case for the RFID solution. It also includes whether they are scalable, upgradeable and are cost effective. It will be served as the design reference document.

The software solutions listed below span a variety of domains where the primary requirement is to track and monitor assets and personnel in indoor or outdoor environments; and readers must function as a standalone unit without access to any external network. GAO achieves this by writing software to perform customized, unique tasks that run directly on the RFID reader allowing processing at the read point.

Access Control	Industrial Painting
Asset Tracking	Library Management
Bar Code	Livestock
Building Management	Manufacturing
Construction	Marinas
Data Centers	Oil & Gas Industry
Event Management	Parking Control
Field Service	Railway
Fleet Maintenance	Returnable Transit Items
Healthcare	Supply Chain
Industrial Laundry	Waste Management

Leadership in Embedded Communications Software

With over a decade of experience, GAO leads the embedded communications software market by providing comprehensive modem, fax, speech, and telephony technologies; broad technical expertise; and unsurpassed support to our world-class customers including electronics, communications, and semiconductor companies across the globe. GAO's software integrates easily with MP3, MPEG, TCP/IP, and most popular real-time operating systems.

Rigorous Testing

GAO's testing facilities are equipped with state-of-the-art test equipment. Our software is rigorously tested on TAS, Consultronics, Rochelle, Advent and Telegra equipment under various channel models according to the relevant ITU or TIA standards. All GAO's speech software has passed the test vectors specified by the ITU. Our telephony software meets all appropriate TIA, EIA, BellCore, and Mitel standards.

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