

## About Us

We are **Atra Technologies**, an Embedded Experts having own production of embedded hardware and software with assured quality. We cater to Telecom, Mobile Applications & Embedded domains. Through our expertise in .NET & Open Source technologies we provide Application Development services.

We are involved in designing, programming and developing embedded software components and systems. Hence we position ourselves as a Techno-Commercial Company at Coimbatore [South India's Manchester] in India..

## Our Products and Services

**Atra Technologies** engineering team possesses considerable experience in solution development for all modern operating systems, both Windows and UNIX.

### ➤ Point Of Sale Terminal

This is an easy-to-use application for retailing businesses to track sales, inventory and customer information. The software can be easily customized for any business needs.

### ➤ Hand Held Devices

A hand-held automatic token/ticket vending machine, designed for the users in the era of mobile business by providing on the spot solutions using latest GPRS and GPS technologies.

### ➤ Spinning Production Monitoring System

Atra Online Spinning Production Monitoring System facilitates continuous monitoring of Production and Power at each machine individually and collectively. The data is processed to generate reports that help in seamless running of all operations and identify weak areas, help mills continuously to improve productivity, save costs, translating into higher profits.

➤ Weaving Production Monitoring System

Atra Weaving Production Monitoring System collects data from the every single Loom automatically in the mill. The data is processed to generate reports that help in seamless running of all operations and identify weak areas, help mills continuously to improve productivity, save costs, translating into higher profits.

➤ Global Positioning System Tracker

ATG01 is a specially designed vehicle locator with creative design and high quality configuration. With latest GPS SIRF-Star III chipset, it works by GPS/CDMA/GSM/GPRS. Even in most remote mountain areas, users can get accurate location details.

➤ RFID Products

Atra RFID Products is the use of an object (typically referred to as an RFID tag) applied to or incorporated into a product, animal, or person for the purpose of identification and tracking using radio waves. Some tags can be read from several meters away and beyond the line of sight of the reader.

## What is RFID ?

The **Radio-frequency identification (RFID)** technology uses radio waves to identify, trace & track and authenticate individual objects as they move between physical locations. There are different methods for identifying objects with RFID, the most common is by storing a unique number that identifies a product and related information. RFID devices and software must be supported by an architecture that enables the collection and distribution of location-based information in real time.

The RFID system consists of tags and readers. A tag contains a chip and an antenna that stores the information for object identification. RFID tags can be attached to pallets, cases, or individual items. The tag transmits information to the reader, and the reader converts the incoming radio waves into a form that can be read by a computer system.

There are generally three types of RFID tags: active RFID tags, which contain a battery and can transmit signals autonomously, passive RFID tags, which have no battery and require an external source to provoke signal transmission, and battery assisted passive (BAP) RFID tags, which require an external source to wake up but have significant higher forward link capability providing greater range. RFID has become indispensable for a wide range of automated data collection and identification applications.

The most common application of RFID technology today is for tracking goods in the supply chain and product authentication. Another common application is for security - RFID is used to control building access and network security, and also for payment systems that let customers pay for items without using cash.

As technological progress in RFID lead to an even higher level of data transmission in addition to predicted lower cost - RFID technology will become ubiquitous within the supply chain industry and other industries, increasing overall efficiencies and dramatically improving the return on investment (ROI).

## Use Domains

- Computer vision for IT systems
- Warehousing
- Access control
- Identifying capital goods
- Case lots of low value consumer items
- Fleet Maintenance
- Containers labeling
- Courier parcels and documents
- Parcels and mail bags
- Airline baggage
- Compact discs and video retailing and rental
- Laundry for hospitals and hotels
- Files and documents
- Passport, driver license
- Manufacture
- Library books
- Loyalty cards for retailing
- Pharmaceutical/ pathology
- Farm animals
- Hospitals, Retails and many More....

## Product Proposal

### Atra's R Track Solution for Gated Communities

#### **Atra's RFID in Access / Parking**

The primary requirement in most gated communities today is security. Yet, more often than not, this security simply comprises of a security guard at the entrance who asks some very rudimentary questions, if at all. It is easy for an outsider to enter the community without being questioned or stopped at the gate. On top of this, many legitimate residents are often held up before they are allowed to enter their own community, simply because the security guard doesn't recognize them.

**Atra's R Track** offers the answer to this problem is an automated system that eliminates human errors and delays. The most viable and efficient automated system is one based on Radio Frequency technology (RFID). It involves fixing a tiny radio tag onto the windscreen of cars belonging to the community. As they approach the gate of the community, an antenna senses the tag and automatically opens the gate to let them in. Thus, the guard never needs to stop legitimate residents of the community. However, when a non resident car approaches the community, the gate will not slide open, and the guard will be able to ascertain whether they have a legitimate reason for entering the community, or whether they should be denied access.

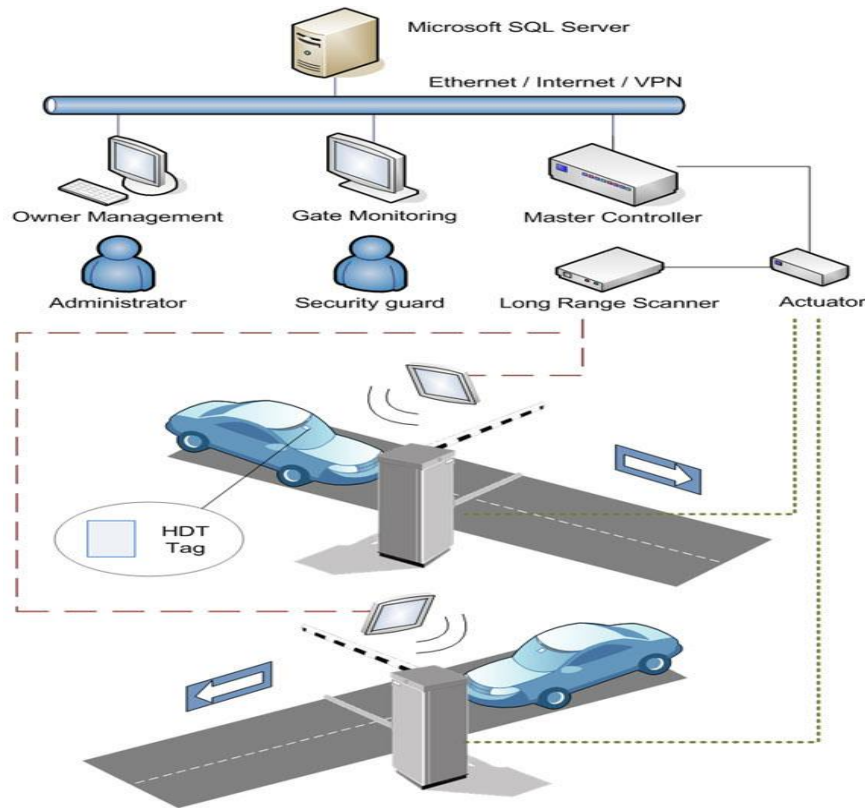
The following table shows the difference between living gated communities and **Atra's Rfid Gated communities** in the Access / Parking management:

S.No	Living Gated Communities	Atra RFID Gated Communities
1.	Worried About securities like absents and labour shortages	Enhanced level of security
2.	Manual record keeping errors	Picking up signals from every tagged car and relaying this information to a database
3.	Frustrated with the delays that the regular process of security takes	Never needs to stop legitimate residents cars of the community
4	Chances of fraud entries	Full proof entries
5	Invest huge amount for gate guard monthly salary	One time investment very economical
6	Un-Streamlined visitor entry	Streamline visitor entry
7	Lot of redundant security questions	Eliminates redundant security questions
8	Lacking of security	Improved security
9	Revenue expenses	Revenue generation
10	Manned operation	Unmanned operation

**Atra's RFID gated communities' security system applications will contain three main RFID components:**

- RFID Tags
- RFID Readers and that antenna's,
- RFID Data convertor
- Automated barriers
- and software to collect and manage the RFID data

and the following diagram shows the working structure.



Working Structure of RFID Based Automatic Access of security gates

**ATRA for automated gate(barrier) Access** delivers RFID readers, RFID tags, as well as, turnkey RFID solutions that consist of highly integrated hardware and software and professional services. These professional services include 'proof-of-concept', systems integration and 'prototyping' services. Our team of experienced technology professionals has a mandate to recognize and understand your business's RFID needs. With this knowledge, we are able to help you deploy RFID technology that will maximize your ROI right from the start and ensure its expandability as the applications grow through the evolution of the technology (future-proofing).

We look forward and are excited at the possibility of working with your organization and synergizing our solutions with your requirements.