

# SCANFO SYSTEMS

## RFID File Management SOLUTION



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## **Preface**

An organization which has public and financial dealings generates and obtains a large amount of valuable documents to be maintained for a very long time. Movement tracking and preservation of these documents is of prime concern because these should not be misplaced or lost. The organizations which belong to this category are, for example, Banks, Insurance Companies, Finance Companies and Government Departments. It is a difficult task to maintain and track these valuable documents manually or simply using computer software. The basic need is to capture the identity of a file / document electronically to avoid human errors.

## **Challenges in the present system**

- Inability to track documents within stipulated amount of time can have unfavourable impact on the business.
- Monetary and Legal implications in case legal documents are lost. It could also result in loss of goodwill, negative impact on brand equity and legal pursuits.
- Unproductive utilization of labor: Avoiding manual searching and sorting through cabinets save good amount of valuable employee time.
- Reduced customer satisfaction result when documents needed to service a customer, cannot be traced/ found. At times, the lost/misplaced document took days to locate.

## **Proposed Solution**

### **File Registration & Tagging**

Every File need to be registered in the RFID based vehicle tracking software. A RFID tag with a unique serial number will be programmed in the software and will be attached to each File.

### **Installing RFID Antenna at the Entrance/Exit Gate**

A long range RFID reader with TCP/IP interface will be installed at the Entrance/Exit door of the room or cabin. This reader will be connected to the server PC using the TCP/IP cable.

### **Identification during Entry/Exit**

When a file fixed with RFID tag moves through the door, it will be shown to the reader fixed on the gate. Reader will read the serial number of the tag. This number will be send to the server by the reader and the software running in the

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server will verify the serial number and the entrance/exit time will be recorded in the database.

## Physical Verification using Portable data Terminal

A hand held portable RFID reader will be used to read all files in a particular location. RFID file numbers collected by the portable reader will be transferred to the server using WiFi or USB interface. Software will make a comparison report showing any mismatches.

## Finding a particular file using Portable data Terminal

ID of the file to be find will be inputted to a hand held portable RFID reader. User will move near the files with the portable reader. Reader will read the file ids and when the reader reads the initially inputted file id, it will make an audible alarm.

Necessary reports can be taken from the File tracking software.



## Advantages

- ✓ Reduction in manpower deployment.
- ✓ Time saving process.
- ✓ Efficient management of traffic and automated generation of slip without having to issue a token to each vehicle, eliminating the token giving process.
- ✓ Reduction in manual entry work eases maintenance, finding of records and payment distribution.
- ✓ Automated reports are instantly available providing correct vehicle and trailer information.
- ✓ Automated system greatly reduces the scope for human error.
- ✓ Accurate and automatic generation of receipts for each vehicle.



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## Suggested Items

Item	Image	Description	Application
Alien Technology ALN-9640 Squiggle tag		EPC Gen 2(v1.2.0) compliant - ISO/IEC 18000-6C compliant - Worldwide RFID UHF operation(840-960MHZ) - Higgs TM IC with 800-bits Nonvolatile Memory -32 bit TID -64-bit unique TID -96-bit EPC Memory, extensible to 480-bits -512-bit user Memory -32-bit Access password -32-bit Kill password - Pre-programmed with a unique, unalterable 62-bit serial number(idea for authentication) - User Memory can be block Perma-Locked - User Memory can be Read Password protected in 64-bit blocks, prohibiting unintended Reads without an access password -	For fixing on each file
STA IR0507E Integrated Reader		UHF middle-distance integrated reader Processor :ARM CORTEX M3 100M Memory :RAM 16Kbits + FRAM 32Kbits. Frequency : 860MHz-868MHz(CE) Protocol : ISO18000-6B, EPC G2 Interface : RS232, RS485, TCP/IP GPIO : 1 Relay output, 2 TTL outputs, 2 TTL inputs Reading Range : 5 - 8 m Power Consumed : DC+9V/12V	For fixing on entry exit gate
File tracking software		File management RFID file tag management Location management Record file movements File movement reports	Application software

