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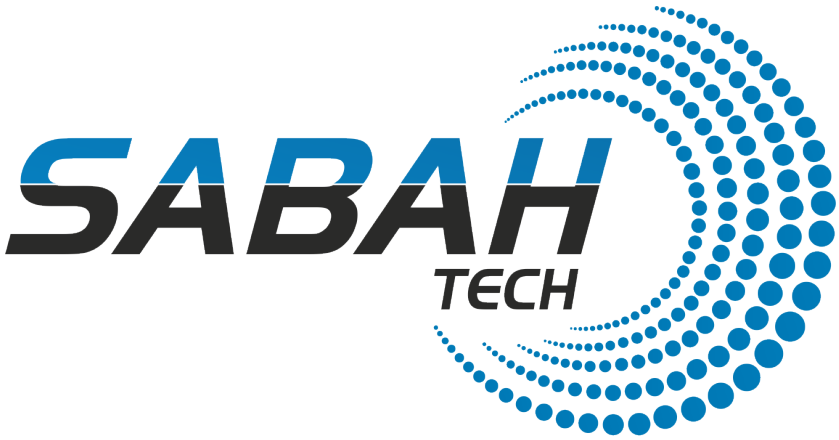


RFID & Point Tracking System

Sabah Technologies Inc

RFID description and overview of Point Tracking System project.

RFID

Overview

Radio-frequency identification (RFID) is the wireless non-contact use of radio-frequency electromagnetic fields to transfer data, for the purposes of automatically identifying and tracking tags attached to objects.
The tags contain electronically stored information. Some tags are powered by and read at short ranges (a few meters) via magnetic fields (electromagnetic induction), and then act as a passive transponder to emit microwaves or UHF radio waves (i.e., electromagnetic radiation at high frequencies). Others use a local power source such as a battery, and may operate at hundreds of meters. Unlike a bar code, the tag does not necessarily need to be within line of sight of the reader, and may be embedded in the tracked object.

Design

- Tags
- Readers
- Frequencies
- Signaling
- Miniaturization

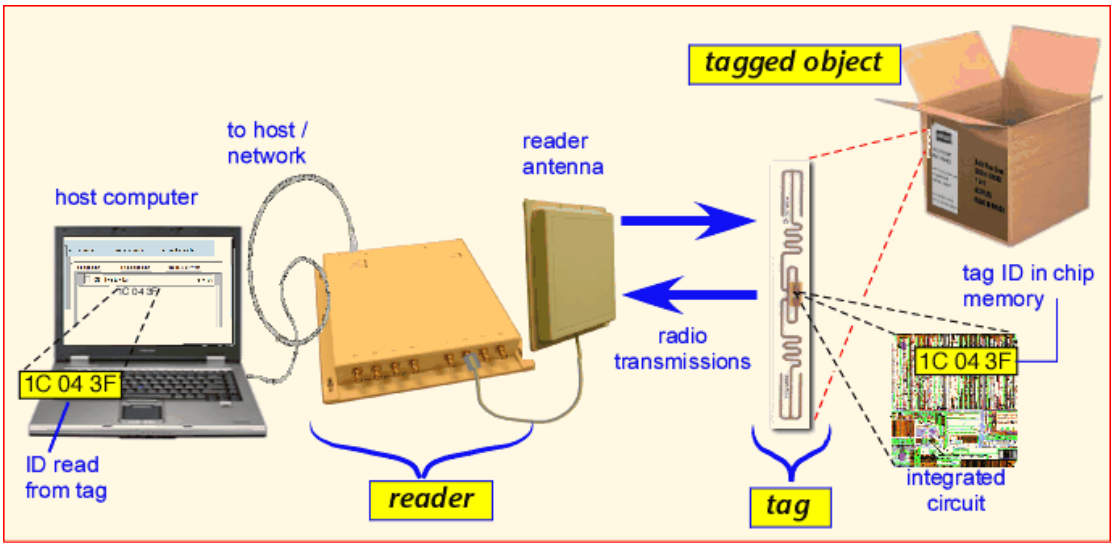
Uses & Domains

- Commerce
    1. Payment by mobile phones
    2. Asset management
    3. Inventory systems
    4. Product tracking
    5. Access control
    6. Social media
    7. Promotion tracking
- Transportation and logistics
    1. Hose stations and Conveyance of fluids
- Public transport
- Infrastructure management and protection
- Passports
- Transportation payments
- Animal identification
- Human identification
- Institutions
    1. Hospitals and healthcare
    2. Libraries
    3. Museums
    4. Schools and universities
- Sports
- Complement to barcode
- Telemetry

Regulation and standardization

In principle, every country can set its own rules for frequency allocation for RFID tags, and not all radio bands are available in all countries. These frequencies are known as the ISM bands (Industrial Scientific and Medical bands). The return signal of the tag may still cause interference for other radio users.

- Low-frequency (LF: 125–134.2 kHz and 140–148.5 kHz) (LowFID) tags
- High-frequency (HF: 13.56 MHz) (HighFID) tags can be used globally without a license.
- Ultra-high-frequency (UHF: 868–928 MHz) (Ultra-HighFID or UHFID) tags cannot be used globally as there is no single global standard.



POINT TRACKING SYSTEM

Overview

- Point tracking system is a system that tracks any type of points or items for any company.
- The points can be inside or outside buildings.
- Controlling warehouse assets, quantity and movements.
- Controlling asset inspections and maintenance.
- Monitoring the outside points via Map.

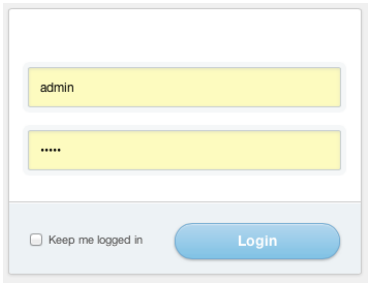
System Requirements

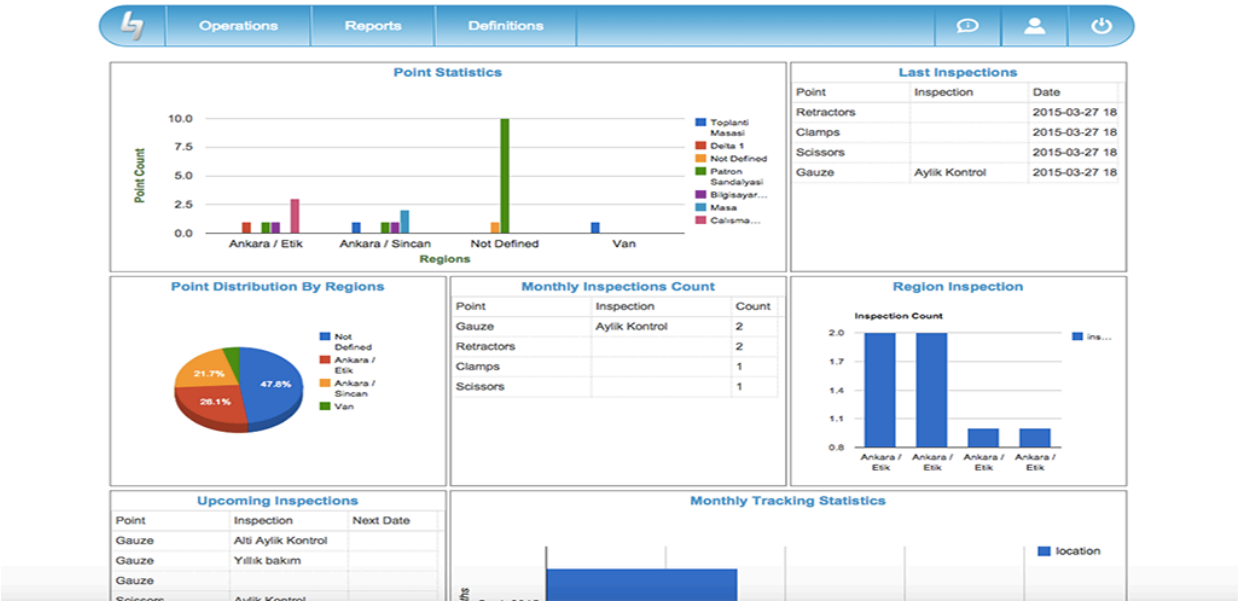
- Web Server (apache, MySQL).
- Client PC's.
- Fixed RFID Readers (Optional).
- Mobile Devices (RFID/NFC enabled).
- RFID & NFC Tags.
- Barcode Labels (Optional).

Software

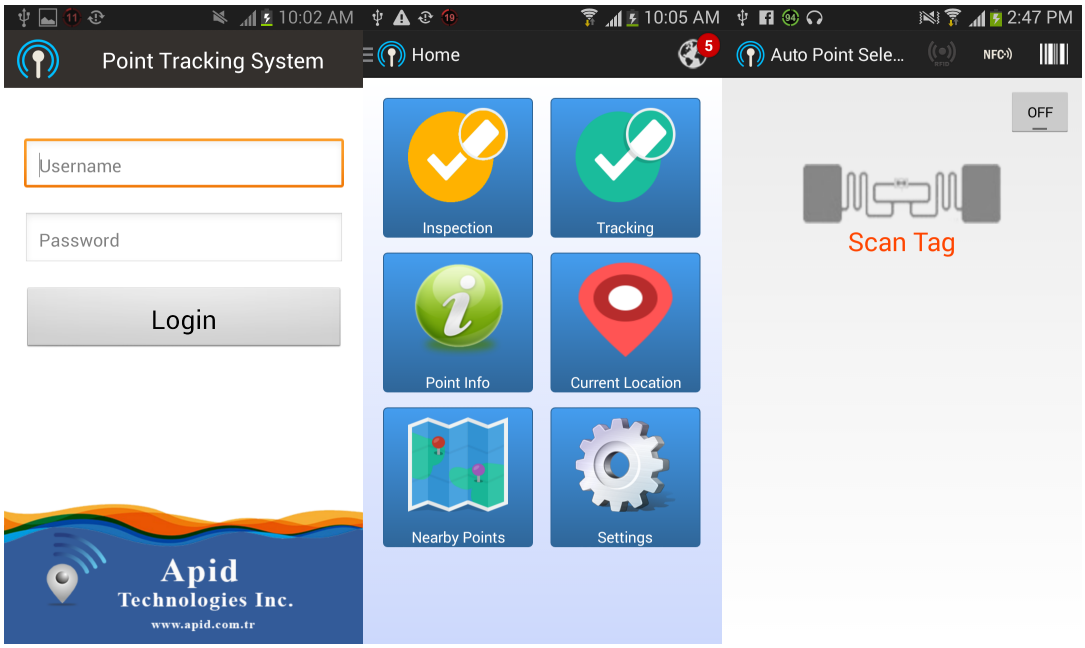
- Web Application

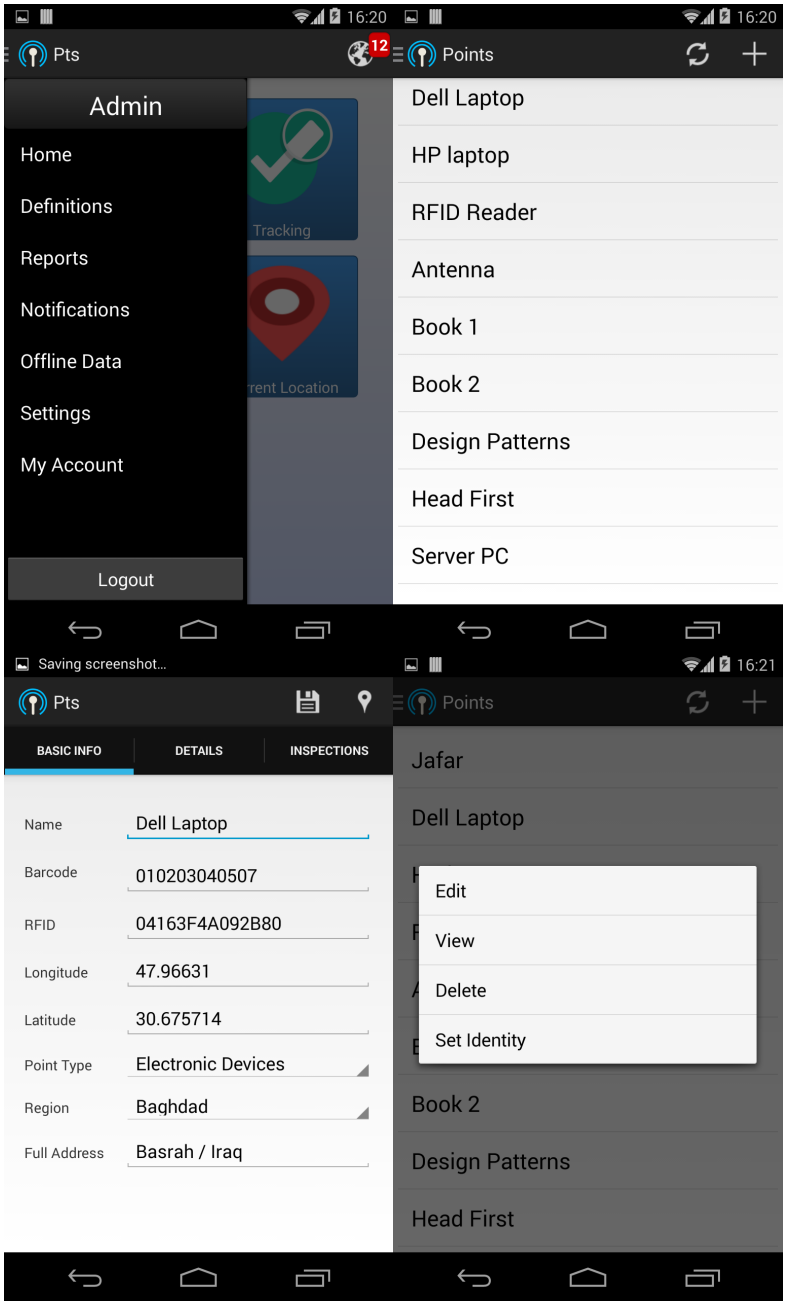
. Login
. Home
. Definitions
. Operations
. Reports
. Notifications
. Account





- Mobile Application




16:20
Pts
12
Admin
Home
Definitions
Reports
Notifications
Offline Data
Settings
My Account
Logout
Tracking
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16:20
Points
Dell Laptop
HP laptop
RFID Reader
Antenna
Book 1
Book 2
Design Patterns
Head First
Server PC
Saving screenshot...
Pts
BASIC INFO
DETAILS
INSPECTIONS
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RFID
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Longitude
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Latitude
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Point Type
Electronic Devices
Region
Baghdad
Full Address
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16:21
Points
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Dell Laptop
Edit
View
Delete
Set Identity
Book 2
Design Patterns
Head First