



# Smart Sensing Wellness, HealthCare & Life Sciences.



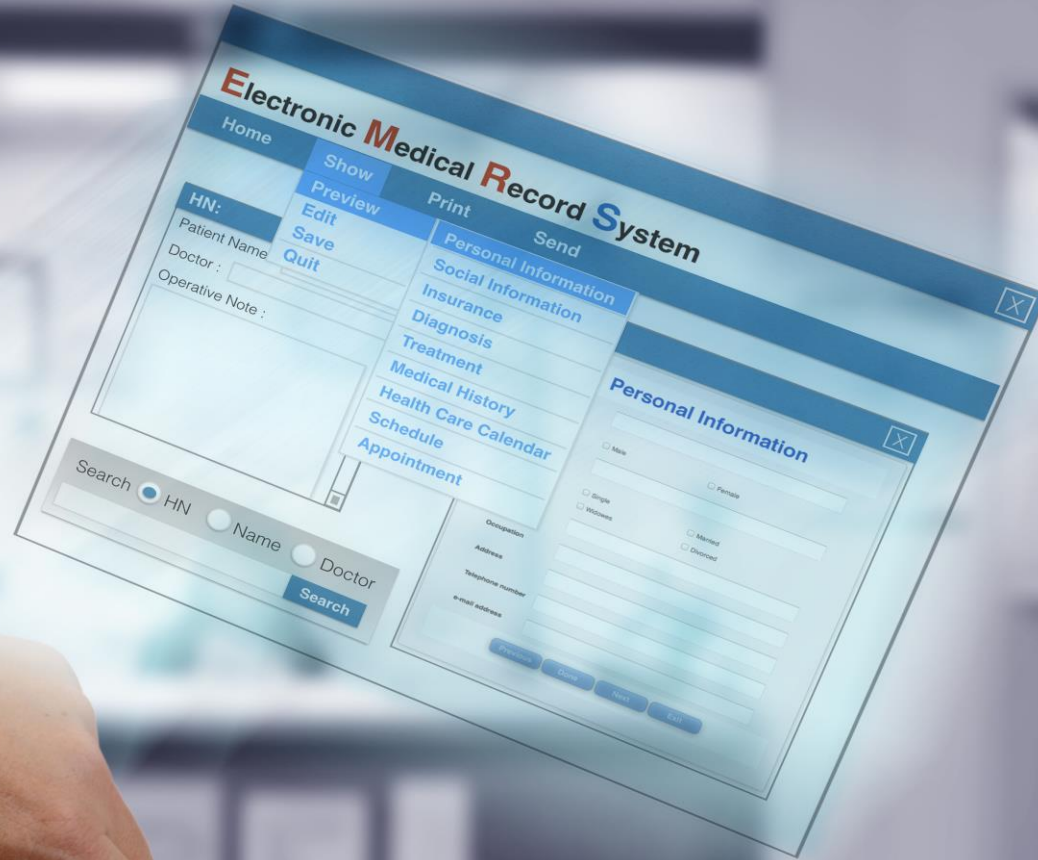
Bluetooth<sup>™</sup>  
4.0  
Low Energy



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CREATING SMARTER HOSPITALS.  
ENHANCING QUALITY OF  
HEALTHCARE. SAVING LIVES

Healthcare



Wellness & Life Sciences

Applying integrated Smart Sensing RFID Technology  
...where it matters the most



# Wellness & Life Sciences

Patient Information  
Patient Real Time location  
Safety & Security  
Patient's Relative Visibility  
Guest footfall & Statistics  
Medical Treatment Plan & Updates  
Medicine & Blood Bank Statistics  
Live Organ Status – RTLS  
Laboratory Specimens & Medical Archives  
Medical Team tracking  
Diagnostic Instruments tracking  
Assets & Stock - RTLS  
Lifesaving Drugs & Pharmaceuticals tracking  
Monitoring Adherence, Quality & Compliance  
Brand Integrity & Excellence  
Quality verification & validation  
Operations, Maintenance, Supply Chain & Distribution Management Tracking.



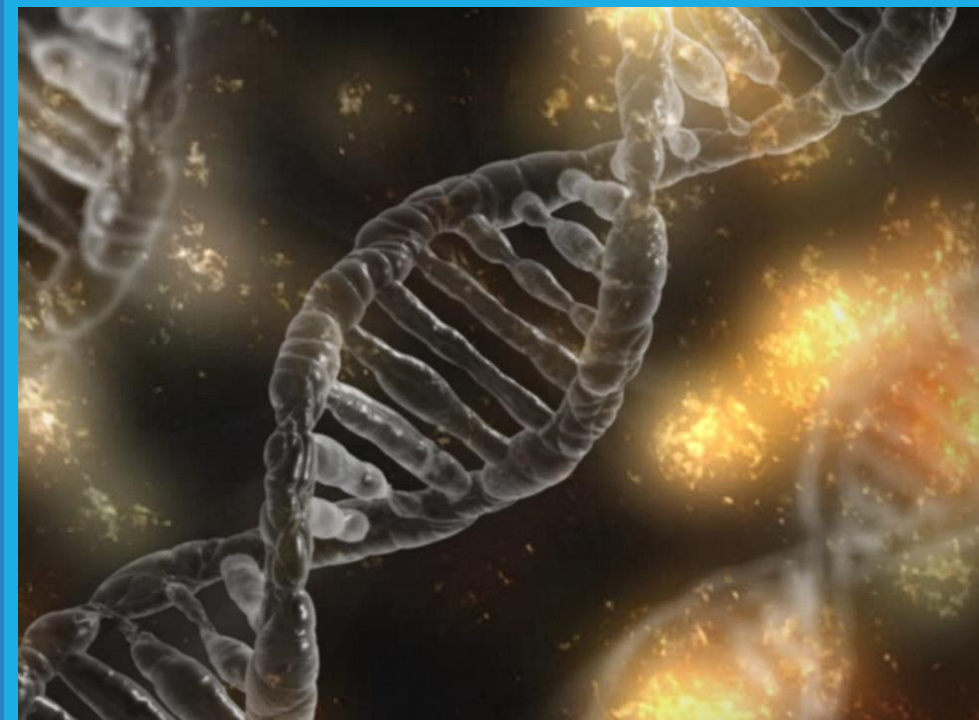
Applying integrated Smart Sensing RFID Technology  
where it matters the most – **Wellness, HealthCare & Life Sciences**

# Wellness & Life Sciences

Healthcare is a dynamic industry undergoing continuous development and changes, improving patient safety, nursing efficiency and effective quality of treatments brings enhanced productivity to separate healthcare processes.

To achieve this, healthcare has turned towards advanced technology sciences and its applications, this brings efficiency and provide stress free environment for healthcare professionals which ultimately boosts patient's satisfaction.

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## Applying integrated Smart Sensing RFID Technology

where it matters the most – **Wellness, HealthCare & Life Sciences**

We have the professional knowledge and subject matter experts in our team who conceptualize and comprehends the operational functioning of hospitals, clinics, pharmacies and pharmaceutical distribution centers. We take on a comprehensive and holistic approach of quality assurance leaving zero opportunity for errors thus overall improvement in risk management and risk reduction that creates a culture of patient safety.

Swift and coordinated approach to improve business operations. Set strategies to establish improved quality of care in a healthcare setting alongside monitoring mechanisms which is in line with continuously revised international quality accreditation guidelines thereby strengthens community confidence in quality and safety of care, treatment and services, for instance, in JCI accreditation whose main focus relates to patient care.

Our customers in the Health Care and pharmaceutical industry rely on robust solutions that ensure the quality and integrity of temperature-sensitive products across their global supply chains. Quite often, these products are of high-value with sophisticated formulations, and are therefore highly sensitive.



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From passive or active ingredients for pharmaceutical production and innovative medicine in a clinical trial phase to life-saving drugs, stem cells and diagnostic products, our range of RFeye Solutions ensures all your product suite reach healthcare professionals and patients in perfect time and condition.

- High Value Stem Cells & Bio Cultures
- Pharmaceutical & Vaccines
- CAT Scanners, Magnetic Resonance Imaging (MRI), Robot Surgical Machines, 3-D Mammography Machines
- life-saving drugs and diagnostic products.
- Anesthetic equipment, Anti-stuttering devices, Dental equipment, Drug delivery devices, Medical robots *Surgical instruments*, Particle Accelerators, Suture material and Emergency medical equipment.

It is unfortunate to hear or read about a surgical procedure that has gone wrong? How many times have you read or heard of incorrect medicine (unintentionally) being administered to the patient?

While we sympathize with such cases, it is a matter of lives and adoption of Smart Sensing technology is the only way to ensure that such cases become virtually non-existent with the support of technology delivering excellence.



# Wellness & Life Sciences

A smart, futuristic hospital, clinic or a pharma facility is one wherein information and data is collated at all important points, managed, stored meticulously and retrieved whenever essential. This adoption raises the service excellence and the attention for medical equipment and devices management to patient care and sterile standards. Providing the care with excellence and enhances the efficiency and the brand of the hospital.

One of the key areas where Smart Sensing RFID plays a critical role in hospitals is during surgical procedures. It is of paramount importance that surgeons and the staff in operation theatres have everything required for the procedure ready with them. By tagging medical devices, it enables hospitals to track all important instruments, apparatus, devices used during surgical procedures in a matter of seconds which has a direct impact and wellbeing on patient safety.

The advantages of Smart Sensing RFID in having real time information thus saving lives and enhancing efficiency and have led to adoption of regulatory practices such as unique device Identification in the HealthCare Industry to identify medical devices through their distribution and use.





# Health Care

## The Benefits of an End-to-end Smart Sensing RFID Infrastructure in future hospitals

A comprehensive Smart Sensing RFID infrastructure set-up in hospitals can enable management of patients, doctors and staff as well as all assets and inventory. The records of each patient can be viewed on real time with validation and hence patient care can be taken to a whole new level.

### Smart Sensing Asset Management:

Implementing Smart Sensing RFID, you have immediate visibility of equipment and enhance their utilization to the very end of their lives. Maintenance schedules can also be focused towards checking and repairing the equipment as against finding it. This would lead to saving of investment and also help hospitals to deliver better healthcare services.

### Smart Sensing Inventory Management:

To safeguard against the risk of running short in an emergency, hospitals stock up spares in their inventory for each equipment. By over-stocking to the tune of approximately 40%, hospitals spend their capital in absolutely insignificant places. Implementation of Smart Sensing RFID can free up this crucial capital, space and enable hospitals to put them to better use.



## Applying integrated Smart Sensing RFID Technology

where it matters the most – Wellness, HealthCare & Life Sciences

### Smart Sensing Patient Tracking and Management

The incidents of patients going missing or identity issues, babies being swapped, incorrect medicine and dosage being administered are all not uncommon. Despite being as meticulous as possible, human errors do creep in and lead to consequences which are, at times, catastrophic.

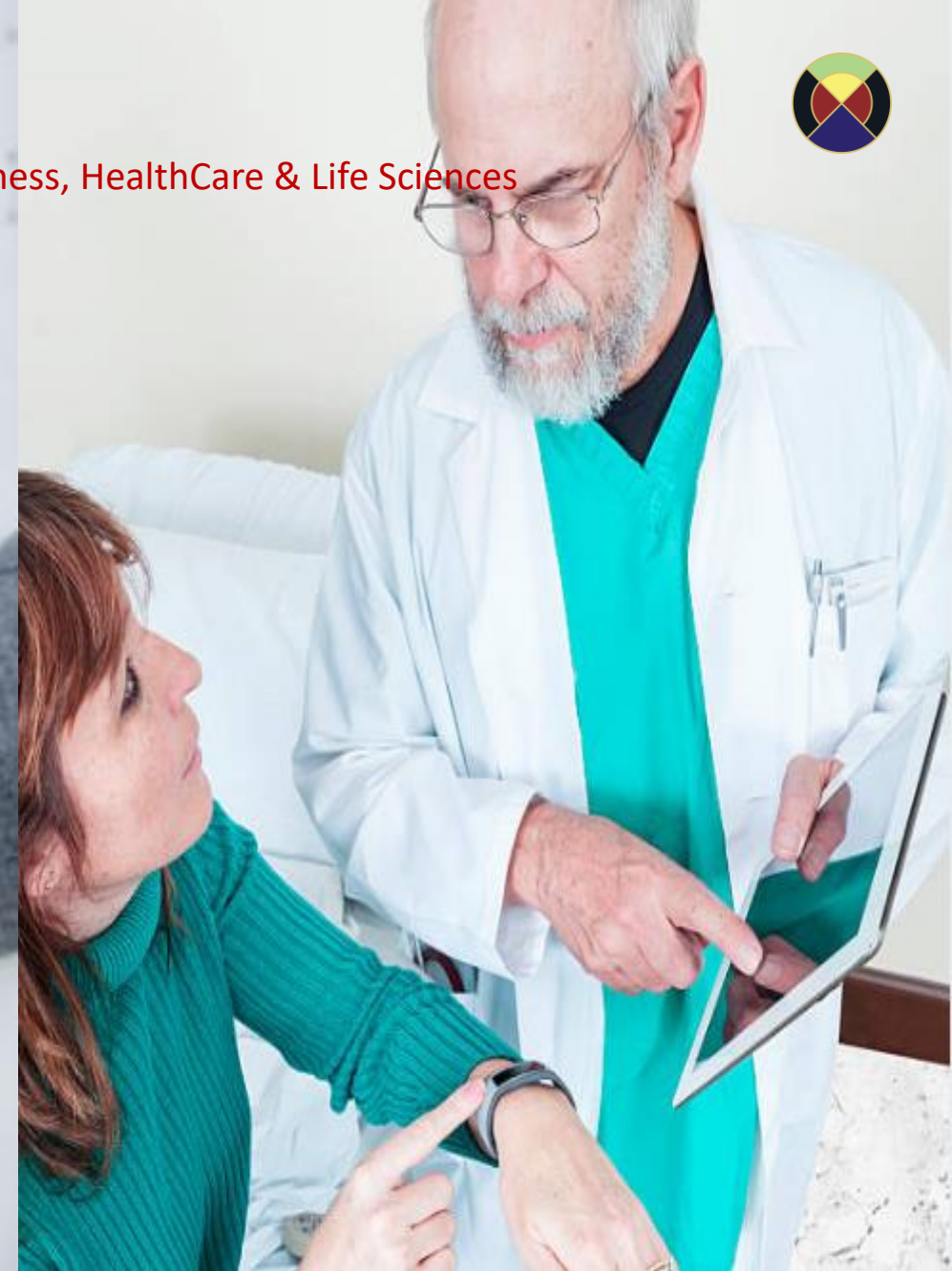
The patient's history, details of the ailment, course of administering, medical Team information, medicines and time can all be accessed with an Smart Sensing RFID reader by reading the information stored in the tags which on the smart software solution linked to the ERP system. This can virtually eliminate human error and ensure the best healthcare services to the patients.

### Smart Sensing Document and Data File Tracking

The medical records of patients are confidential, critical and the information is essential for better treatment. Many documents and data files, including charts, physician and pharmacy orders, and laboratory reports must circulate to key people and departments to ensure that best collaborative on time care is administered. This is extremely critical for efficiency, trust as well as to build a great brand value for the hospitals.

### Savings due to Smart Sensing RFID implementations

Hospitals, especially in the HealthCare industry have leveraged the power of Smart Sensing RFID to save millions of dollars per year and effectively use it to impart better healthcare. For instance, the Hospital have tagged everything that moves including high-value assets, buttons, wristbands on patients and the badges of all staff members. By tagging all rental equipment, the hospital saves nearly tens of thousands of dollars a month on rental fee.



# Entrack Applications

- Supports hybrid technologies (Barcode, Passive & Active RFID, BLE, NFC, GPS)
- Support on multiple mobile devices OS including Windows Mobile 5+, Android, iOS
- Architecture allows for easy extensibility and integration
- Strong data presentation and reporting tool
- Granular security for greater control

COMPANY\* african-eastern (ne) (bv) Ltd

DATE FROM\* 18/10/14

DATE TO\* 18/10/14

SHOW

1 of 2 75%

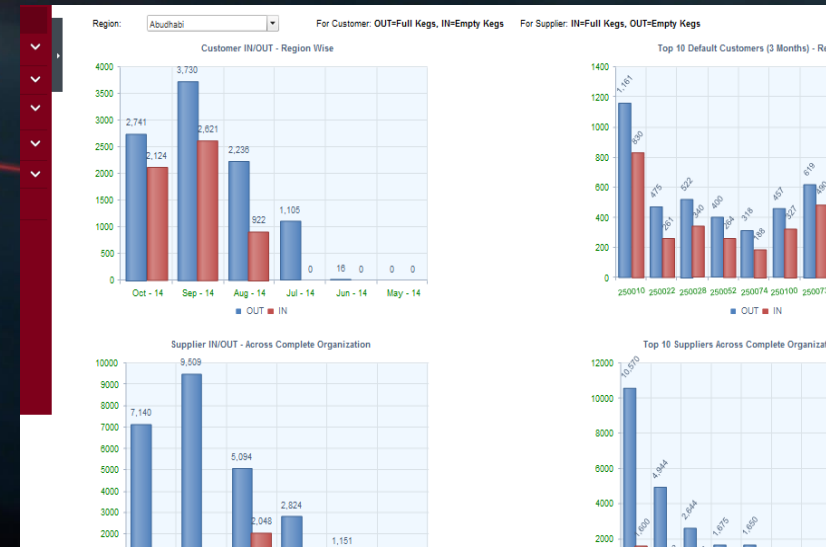
### Customer Summary Report

Date/Time : 18/10/14 4:03 pm

Company Name : african-eastern (ne) (bv) Ltd

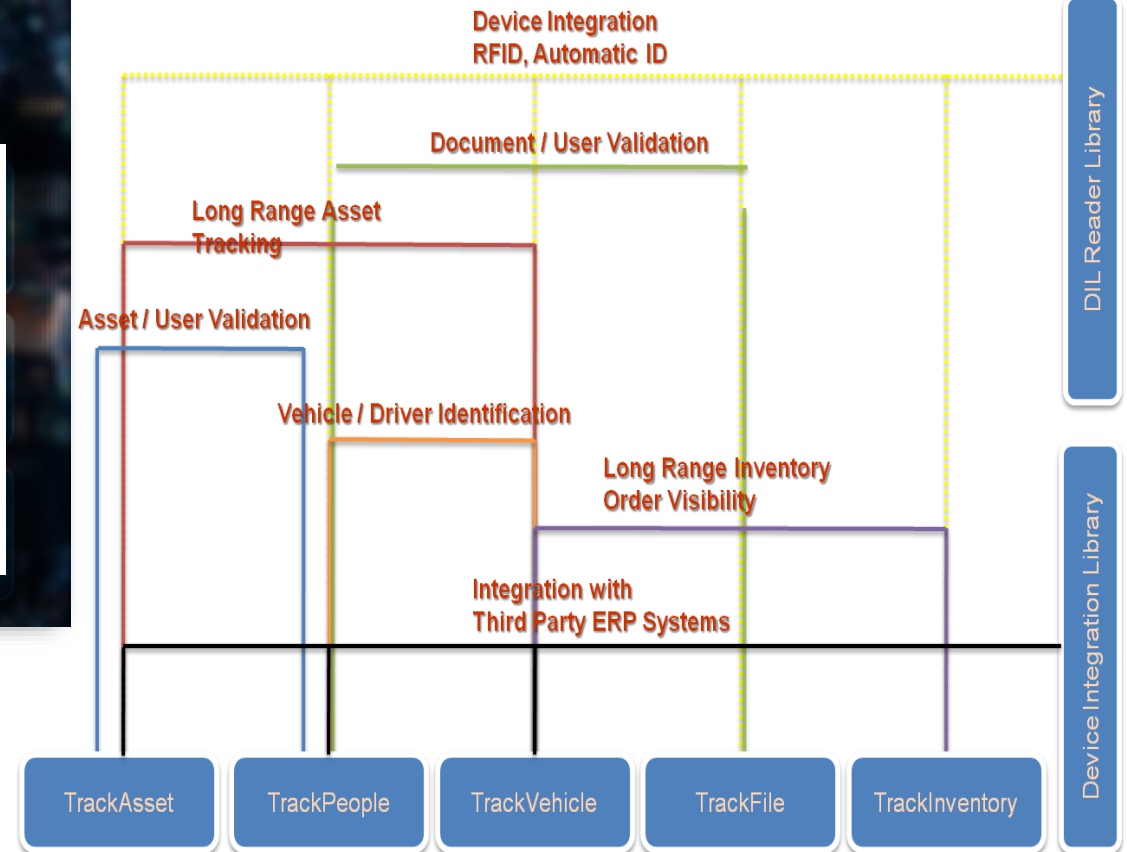
From Date : 18/10/14 To Date : 18/10/14

Customer Code	Customer Name	Opening Balance	Total Dispatch	Total Collected	Outstanding
200131	AMBASSADOR HOTEL	108	0	7	101
200141	BARRACUDA BEACH RESORT - UAQ	43	12	0	55
200169	JUMEIRA ROTANA HOTEL	(27)	0	7	(34)
200170	GOLDEN TULIP HOTEL	27	0	8	19
200178	DIAMOND SPORTS CLUB (FIBBERS)	275	14	0	289
200187	Chelsea Plaza Hotel	4	0	6	(2)
200201	LE MERIDIEN MINA SEYAH	(1036)	100	22	(958)
200207	NEW PENNINSULLA HOTEL	(11)	0	17	(28)
200223	KEMPINSKI HOTEL	(17)	0	4	(21)
200238	PRESIDENT HOTEL	6	0	4	2
200239	MARCO POLO HOTEL	181	0	33	148





# Application Suite



Hybrid, Bi-Lingual, Modular Architecture

# Why EnTrack Asset?

- EnTrackAsset offers a strong asset tracking platform to build and maintain accurate **Master Asset Registry**.
- EnTrackAsset enables organizations **gain visibility and control** over their assets, for effective physical asset management.

## Benefits recognized across multiple departments:

- Accounting & Finance: Enable true cost control and **audit-proof inventory**. Improve asset accounting with customized and ad-hoc reports of asset locations, physical verification, status, and history.
- IT: Support **life cycle management and scale** more efficiently.
- Facilities & Security: Protect critical information on devices. Improve **physical security** by preventing assets from leaving premises and keeping designated assets out of unauthorized areas
- Operations: **Quickly locate** critical equipment and achieve **real-time physical asset inventory**.





# Barcode Infrastructure

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# Barcode Labels & Readers



## Tags

- Multiple label
- Multiple polymer materials for long lasting labels
- Metal mount tags – different form factors
- For Metallic assets/Laptops etc.

## Handheld Readers

- **Integrated Mobile Barcode Reader**
  - Barcode reading or Imaging
  - 4G HSPA+, 802.11a/b/g/n, Bluetooth
  - IP65 and IP67 per IEC specification
- **Features**
  - Windows Embedded Handheld 6.5 Professional
  - Compact Handheld and Easy to handle
  - High Performance, Multi-Modal hand held
  - DRM Support
  - 8 ft./2.4 m drops per MILSTD 810G





# Passive RFID Infrastructure

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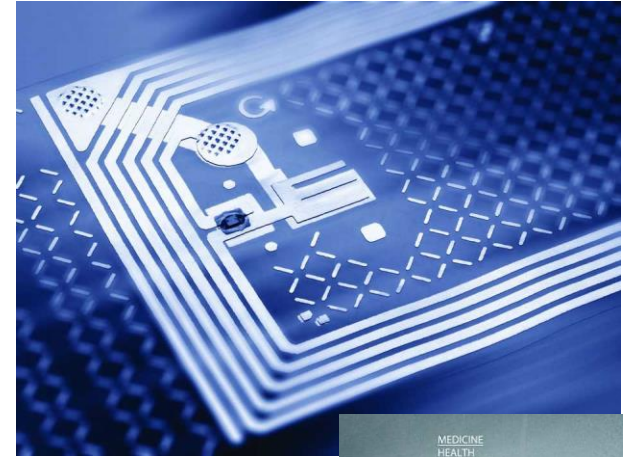
where it matters the most – Wellness, HealthCare & Life Sciences

# Passive Tags/Labels & Readers



## Tags

- Multiple label sizes (2x1, 2x2 inch, etc.)
- Multiple label/ Tag types based on Asset surface and other factors



## Handheld Readers

### RFID PERFORMANCE

- Standards Supported: EPC Class 1 Gen 2; EPC Gen2 V2
- RFID Engine: Zebra Proprietary Radio Technology
- Fastest Read Rate 600+ tags/sec
- Batch Mode Memory: Store 40,000+ RFID Tags, 500 barcode
- Operating Temp. -10°C to 40°C / 14°F to 104°F
- Storage Temp. -40°C to 70°C / -40°F to 158°F



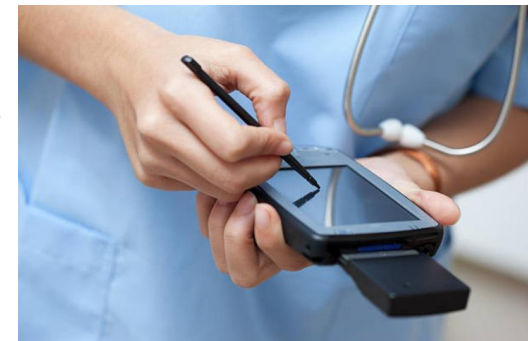




# Passive Tags/Labels & Readers

## Fixed Antenna & Readers

- **Fixed UHF RFID Readers & Antennas**
  - Selectable: 4 Bi-static or 4 mono-static antenna ports on one platform
  - Enhanced security features (SSH/SSL) for data transmission
  - Protocol Support - LLRP, Bytestream
  - Tag Protocol – EPC Gen2, ISO18000-6C
  - Extended Gen 2 memory support
  - EN 302-208 v1.2, RoHS compliant
  - External Interfaces – 10/100 Base T Ethernet, RS232 (console), USB Host – Type A, USB Client – Type B, Digital 12 GPI/O
  - OS – Windows CE 5.0
- **Features**
  - *Enterprise-Class*
  - Performance - Delivers high-performance RFID data capture and communication in dense reader environments
  - Construction – Aluminum Die Cast
  - Manageability – SNMP, Air-beam
  - *Application Hosting*





# Real-time Tracking with BLE

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# Solution Components

## BLE Readers

- For Real-time zone based visibility
- Deployment of BLE fixed readers at Entry/ Exit points
- Critical zones identified



## Mobile Reader Application

- Check in/out
- Stock taking & location



## Tags





# THANK YOU



Smart Sensing RFID Technology & Management Consulting  
(Marketing & Supply Chain)

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