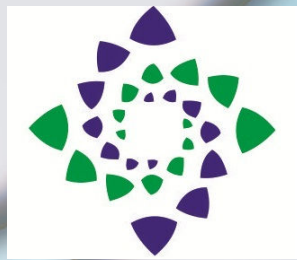


# **RFID SOLUTIONS IN SUPPLY CHAIN**



**PROFUSION INDIA  
CONSULTING**

# ABOUT RFID TECHNOLOGY

**Radio-frequency identification (RFID) is a technology that electronically records the presence of an object using radio signals. A combination of RFID tags & Readers allow objects to be tracked within a closed loop operation.**

**RFID tags can be 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.**

**RFID technology is a proven and robust platform for many business solutions like asset tracking, transportation, vendor management, anti theft, inventory management etc. In a supply chain, RFID based solutions can improve efficiencies and reduce losses considerably as it is:**

- **Resistant to harsh environment**
- **Can be read as well as 'written to' many times**
- **Allows reading on moving objects**
- **Can read many tags at one time**
- **Ability to read when not in 'line-of-sight'.**



# BUSINESS AREAS

Where substantial benefits can be reaped by implementing RFID

## **Asset Tracking**

- RFID tagging assets is the best way to ensure that they are not lost
- Track their usage, performance, efficiency & maintenance cycles

## **Manufacturing**

- Use RFID based track & trace of Work-in-Progress inventory to reduce defects
- Increase throughput
- Manage the production of different versions of the same product.

## **Supply Chain Management**

Logistics, Warehousing Inventory Management,- all areas benefit substantially from use of RFID - ensuring complete end-to-end visibility in the Supply Chain.

## **Retailing**

- Helps retailers focus on improving supply chain efficiency and making sure product is on the shelf when customers want to buy it.
- Automating checkout process using RFID is the best way to eliminate queues

## **Security and Access Control**

RFID Based Secure Access Control - using globally unique ID's ensures that there is no compromise on safety, security and integrity of a facility.



# BENEFITS

## **Reduce Costs**

**Reduce Pilferage. Automate and Reduce Labor Costs and Overall Inventory Costs**

## **Enhance Visibility**

**Complete, Real Time Information – Across all Operations...**

## **Increase Efficiency**

**Capture Information Faster & Effectively**

**Automated Billing, Hands Free Operations and much more...**

## **Improve Accuracy**

**Eliminates Manual Errors**

## **Build Advantage**

**Tag once & use Many Times – across multiple Utility points**

**Scale up business operations without hassle**

## **Integrate**

**Integrate warehouse data into ERP system to get timely and accurate information about warehouse status.**

## **Get Timely & Accurate Information**

**Useful for invoicing, purchase order payments and inventory tracking.**



# Warehouse Management using RFID

Imagine a world where there is...

- **No Stock Outs**
- **Real Time Inventory Status - at all times**
- **Increased Operational Scale, with little or no increased costs**

- Inventory tracking
- Real time system updating
- Procurement processing
- System based indents processing
- Order fulfillment verification
- Pilferage prevention
- Reduce order fulfillment turn around time
- Reduced Indent processing cycle time
- Visibility across supply Chain
- Easy scalability across locations
- Reduce leakages
- Improved top line & bottom line

Process



People



Business



# Warehouse Management Made Easy

**RFID based framework for 3PL warehousing business. It lets you create an efficient warehouse by gaining control at all operational levels**

## Inbound & Outbound Processes

The RFID access points can trace and confirm the arrival of goods from supplier or uploading of goods for dispatch to customer



## Manage Inventory More Effectively

The RFID interrogators at warehouse / forklifts can track the flow of goods within the warehouse.

Using zoning techniques and bin-rack tagging using RFID tags – the exact location or co-ordinates of any package is available 'in real time'.

This information can be integrated with existing ERP systems.



## Picking & Dispatch

The ERP system generated picklist can be made available on PDA's. This ensures that the picking & dispatch is accurate – at all times.



# BENEFIT IN VALUE CHAIN

## Complete visibility & control

Warehouse processes are monitored right from arrival at warehouse to dispatch – helping all stakeholders share knowledge and resources across the supply chain.

## Improvement in Warehouse Efficiency

Complete automation – through RFID and barcode enabled solution  
Improves overall warehouse efficiency and response time.

## Control of warehouse processes

Screens out inefficiencies in warehouse operations through well structured and defined workflow.

## Warehouse Automation

With seamless connectivity, it can enable efficiencies in 3 areas:

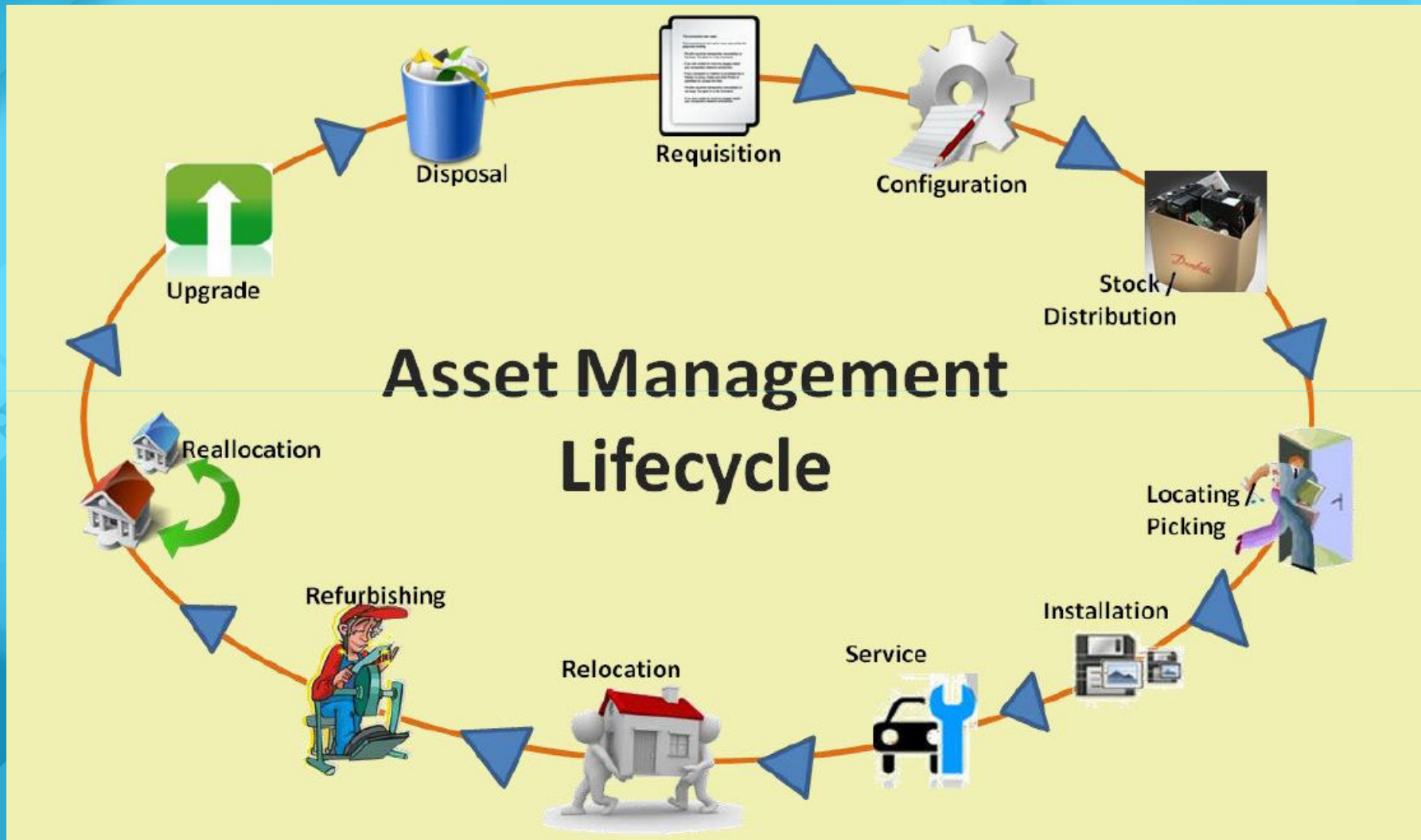
- Customer Management
- General Operations & Logistics
- Warehouse Operations

## Increase in profitability of overall business

- Shorter turnaround time
- Increased people efficiency
- Decreased shipment errors
- Complete 'business cycle' visibility



# ASSET MANAGEMENT





# ASSET MANAGEMENT



Assets are tagged using a variety of RFID tags



Each tag is associated with asset by encoding



Tagged assets can be scanned using PDA



Asset details are readable on PDA



PDA's synchronise with web application for complete visibility

## Advantages of RFID Based Track and Trace:

- Complete Asset Visibility
- Ownership in Business at each level
- Control on Asset Life Management, Maintenance Schedules & Inventory Management in Process
- Monitoring of Asset





# Hardware RFID



**FIXED WALL MOUNT & POLE MOUNT RFID READERS FOR OUTDOOR & INDOOR APPLICATION**

**DESKTOP RFID READERS AND HANDHELD RFID READERS FOR VARIOUS APPLICATION**



**For more Solutions Please Contact**



**PROFUSION INDIA CONSULTING**

Electronic Security Solutions | Fire Protection | H.T. Power | Consulting & Services

**Address: Plot No: 561, First Floor, Kesho Ram  
Complex, Sector 45 C, Chandigarh**

**Phone: 0172-5035480**

**Mobile: +91-9988884580, +91-9888810687**