

## IBM RFID for Supply Chain and Logistics: Reusable Asset Tracking solution

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### Highlights

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- *Transforms your supply chain by automating and error-proofing business processes*
- *Provides real-time visibility into asset movement and improves asset utilization*
- *Reduces asset shrinkage and downtime*
- *Tracks assets and their contents to deliver perfect orders and ensures proof-of-delivery*
- *Provides supply chain traceability by tracking properties such as lot code, expiration date, born on date, country or origin*
- *Streamlines logistics, shipping, receiving and procurement operations, and automates critical inventory management processes to help lower costs and improve revenue potential*
- *Creates a flexible environment, enabling your enterprise to respond to customers quickly while gaining added flexibility*



### The need for real-time visibility

In today's competitive environment, a real-time view of what assets are available, whether they are usable, where they are located and what they are carrying or used for, is increasingly important to most businesses and their supply chains. Many companies already use a manual, paper-based system for tracking their assets. While adequate for certain types of

assets, these systems tend to be more error prone in terms of misuse, misplacement or miss-shipment of assets. As a result, companies can experience lower asset utilization, asset shrinkage, high labor costs, plant floor downtime, shipping errors, incorrect orders, out of stock and dissatisfied customers.

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**Business Benefits**

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*Proven, out-of-the-box and configurable, the IBM Reusable Asset Tracking solution allows you to:*

- Deploy in less time with less risk and at a lower cost using built-in and proven uses cases
  - Adapt, maintain and adapt use cases to meet your specific needs with a high-level graphical tooling capability
  - Deploy more responsive applications with a lower total cost of ownership with a flexible architecture
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**IBM advantage—Automated real-time data capture**

To combat these issues, IBM has created a solution to leverage RFID and sensor technologies to bring a new level of visibility and control over the supply chain. This solution which enables you to tag, track, and instantly locate assets, content, and component parts across the enterprise—and beyond, to include third-party vendors and trading partners. For many, the IBM Reusable Asset Tracking solution represents a true transformation in the way they track reusable assets, manage inventory, and receive and distribute goods to consumers.

**Reduce perishable shrinkage by tracking perishables and their shelf-life**

Perishable goods represent one of the most challenging product categories for retailers, logistics companies and manufacturers to manage effectively. Perishables, by definition, have a limited shelf-life and the clock starts as soon as a perishable item is picked or manufactured. Poor handling of perishables, logistics errors and exposure to wrong environmental conditions reduce the effective shelf-life of perishables, which leads to excessive shrinkage.

Most of the perishable goods are transported using reusable containers, such as totes and cartons. The IBM Reusable Asset Tracking solution solves challenges associated with inefficiencies in a perishables supply chain by effectively associating the perishable items and their expiration date with the reusable asset. By tracking the asset, the solution effectively tracks the perishables across the supply chain, ensures first-expired-first-out logistics and error-proofs supply chain processes.

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## Key Components

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*IBM Reusable Asset Tracking  
solution Areas:*

- Reusable Container Tracking
  - Work-in-Process
  - Plant Floor Visibility
  - Yard Management
  - Fleet Management
  - Warranty Tracking
  - Order Management
- 

### **Reduce downtime with up-to-date asset tracking**

In any assembly management process, tracking tools and equipment are vital to a well-run production floor. Yet, because most companies are prone to misplacing assets—and often cannot locate these critical assets when they are needed—they are likely to experience an adverse impact on business performance in terms of delays, lost productivity and unnecessary replacement costs.

The IBM Reusable Asset Tracking solution with RFID virtually eliminates these issues. By automating the tracking process and giving you real-time visibility enterprise-wide, it enables you to precisely monitor inventory and asset movements. With RFID tags and readers set up in strategic positions, it becomes possible to automatically detect the location of tools and assets, without wasting time looking for them.

### **Safeguard against supply chain/line stoppages**

Using automated real-time data capture, you know exactly what assets you own, lease, or control, as well as how and where those assets are being used throughout their lifecycles, from acquisition all the

way through disposal. RFID sensors allow you to monitor component quality and replace defective assets before they break down. Early notification of quality issues can reduce defective production and safeguard against breakdowns in your supply chain as well as line stoppages.

### **Increase distribution center productivity**

In shipping products, RFID tagging allows you to know a product's exact location, serial number, color, and place of assembly or packing—and even eliminate instances when an item is out of stock. By automating data capture and verification, the IBM solution streamlines inventory management at the case and pallet level. Whether product shipments are inbound or outbound, RFID-tagged pallets and cases are automatically processed, tracked and managed as they move through the supply chain. This also helps identify fraudulent or counterfeit goods—without opening containers. And before wrong shipments are made, RFID tracking can quickly identify the error in time to correct it and prevent a costly shipping mistake. The overall result: increased distribution center productivity, savings and fewer disgruntled customers.

**Enhance operational efficiency**

Anyone operating a manual asset tracking system knows it is the weakest link in a supply chain, especially in today's on demand era. This reusable asset tracking solution allows you and your partners to make more informed decisions about production, inventory stock and delivery promise dates—and quickly adapt to fluctuating customer and market demands.

More accurate, up-to-date information can also help you create a more collaborative data-sharing environment across the enterprise and with trading partners—to analyze trends, for example. At the same time, you can pull real-time data off the warehouse or factory floor and into backend databases and enterprise resource planning (ERP) systems, providing you with yet another way to streamline operations.

**Realize financial advantages early**

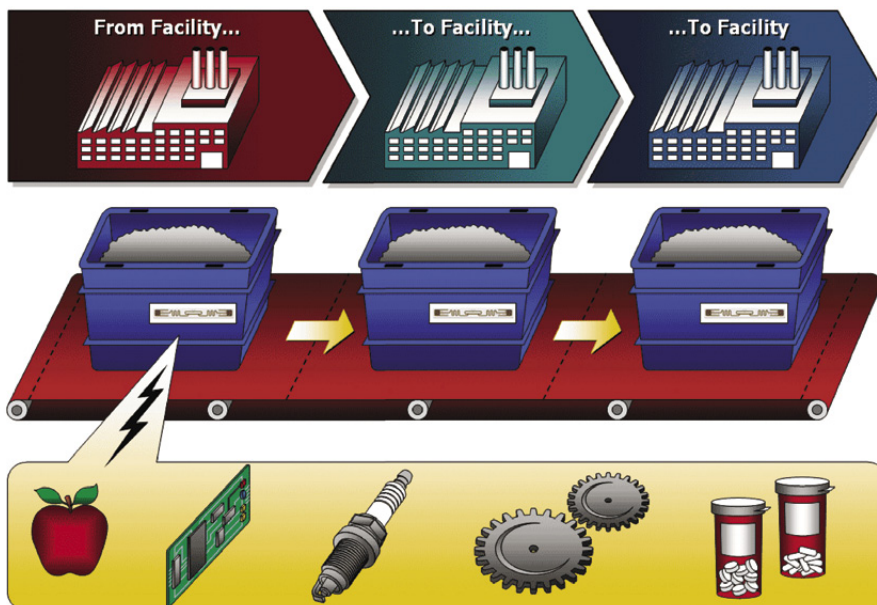
A common misconception with RFID solutions is that large investments in infrastructure are required to realize business benefits. While it is true, the IBM Reusable Asset Tracking solution is a comprehensive enterprise system, the implementation can be achieved in stages. During that process, companies can decrease downtime and increase productivity with product and process-specific solutions. At the same time, you can immediately begin to reduce shrinkage and reconciliation costs through improved planning, rotation and allocation capabilities—one facility at a time.

**IBM strategy and solution framework**

The IBM RFID Reusable Asset Tracking solution framework delivers the full equation from hardware, software and middleware to implementation services, supported by business transformation consulting

services to help maximize the benefits to your organization. Today IBM is executing an end-to-end RFID solution strategy, from business case and strategy work to test center services, key technology and RF (radio frequency) environment assessments, as well as process-focused pilots and implementations.

At the core of this strategy is a comprehensive, flexible solution framework that brings together proven, standards-based component. The IBM Reusable Asset Tracking solution is based on industry standards—such as Service-Oriented Architecture (SOA) and EPCglobal standards—to deliver a rapid return on investment while providing a roadmap to the future, using a scalable RFID infrastructure. This framework can be easily adapted to all-size retail operations, production floors and warehouse complexes.



*IBM Reusable Asset Tracking gives you the visibility needed to automate and error-proof the management of assets, contents and component parts across your supply chain.*

The IBM Reusable Asset Tracking solution is based on the IBM WebSphere® software platform—a Service Oriented Architecture that enables you to reuse existing assets and build new tools and applications more quickly and at a lower cost. IBM WebSphere Sensor Events is one of the key components of this platform.

The IBM WebSphere Sensor Events supports data collection from all forms of passive RFID and/or 2D bar codes in order to serialize each item, case, tote and pallet. IBM provides pre-packaged use cases which embody common workflows that have been enabled across multiple engagements—such as packaging, distribution center and operations. These pre-packaged workflows simplify deployment, reduce implementation costs, and let us focus on what's unique about your business—rather than re-creating the wheel.

### **Why IBM?**

IBM's experience in RFID dates back more than a dozen years and spreads across a wide range of technology disciplines, including the integration of asset tracking and inventory management solutions into many industries—automotive, electronics, consumer products, retail, pharmaceutical, and aerospace and defense. Our dedicated RFID professionals and strong partnership ecosystem is broad and spans research and development, consulting, software and hardware—giving IBM the multifunctional expertise necessary for complex RFID implementations.

IBM has partnered with the premier leaders in hardware technology to construct a robust solution for reusable asset tracking. IBM supports major industry standards for sensor data exchange and sensor hardware components, such as RFID tags and readers. Together with our Business Partners, IBM can provide the needed hardware,

software and services to deliver a competitive, industry-leading sensor-based solution.

IBM has moved aggressively to support RFID solutions to many industries through early research and involvement in industry standards organizations. Based on this early experience and the depth of the solution components we offer, IBM is uniquely positioned to help you transform your organization—and supply chain—and benefit from the latest applications in RFID technology.

To learn more about the IBM Reusable Asset Tracking solution, please contact your local representative, or visit:

[ibm.com/solutions/rfid](http://ibm.com/solutions/rfid)



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