

Problems and Challenges

- Inefficiencies in container shipping, receiving
- Maintaining consistent maintenance and cleaning schedules
- Shrinkage costs

Solution Components

- Passive/semi-passive/active UHF RFID tags
- UHF RFID antennas/controllers
- InSync Edgware™ RFID-Driven Software
- Handheld (mobile) RFID device (optional)

Solution Deliverables

- Reduce average time to deliver parts from warehouse to assembly
- Reduce variability in part delivery times
- Improve part tracking to measure current state processes
- Improve parts delivery process
- Minimize data entry errors and improved data integrity

Returnable Asset Tracking

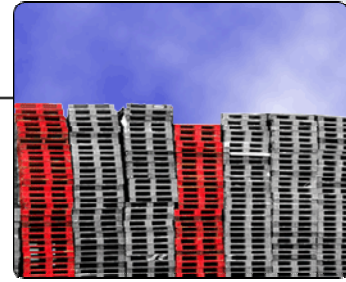
The use and management of returnable containers has become a mission-critical issue for modern manufacturers due to greater adoption of kanban and JIT-based supply chains and modern trends of environmental conservation and good environmental practices.

Tracking reusable containers such as racks and totes is not a new concept. Millions of dollars are lost each year due to shrinkage, damage, and an inability to hold business partners accountable. In the automotive industry alone it is estimated that these inefficiencies combined with errors in the shipping and receiving processes of these containers cost companies over \$600 million dollars per year. Identification and tracking technologies have been used in container tracking applications for many years. Barcodes, for example, have a proven ability to track containers, yet also have inherently limited capabilities such as limited lifetime, environmental tolerance, read/write ability, and line-of-site requirements.

Robust RFID solutions do not have these limitations. For this reason, RFID has emerged as an ideal technology for track-and-trace applications involving reusable containers. RFID tag and technology standards being developed by EPC, AIAG and other standards committees have helped to drive adoption. Additionally, RFID tags are capable of storing large amounts of contextual information including manufacturing, logistics, maintenance schedules, and other relevant data.

By deploying networks of RFID antennas and tags, and utilizing an intelligent software system that syncs devices and business partners together, companies are able to bring real-world awareness to their reusable containers throughout the supply chain. This awareness an enhanced visibility that helps manage and automate kanban processes and SLAs associated with in-transit materials.

InSync's Edgware™ RFID software platform allows customers to rapidly develop and deploy RFID-driven returnable asset applications. Edgware™ manages hardware devices such as RFID portal antennas, as well as provides dashboard views of processes and events, filtering real-time data across customer-defined business logic and rules. InSync's Edgware is compatible with all major brands of RFID hardware, including Motorola, Intellex, Impinj, and others.



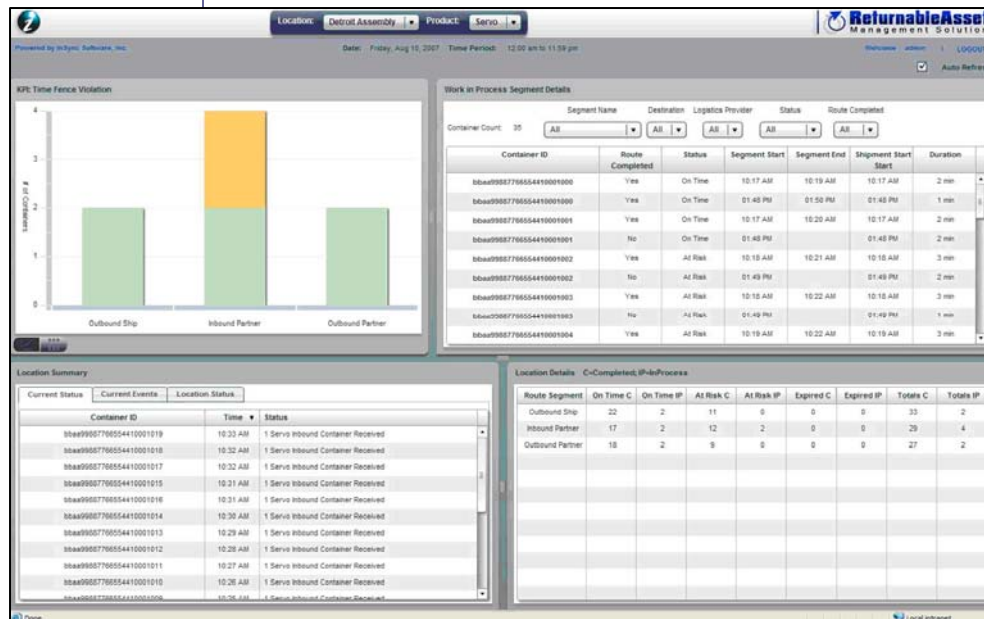
Solution Description

The application begins with RFID tags (passive, semi-passive, or active depending on application requirements and environmental conditions) being attached to each container, pallet, etc, and written to with industry-standard information.

Contextual information such as contents, manufacturer, and cleaning and maintenance schedules can be written to the tag at this initial point as well. Dock-door RFID antennas are installed at the entrance/exit points of the customer's facility to record entry and exit of returnable assets. Additional antennas can be set up at partner locations to further extend the solution and increase visibility throughout the chain of custody.

InSync Edgware™ provides real-time dashboard views of the returnable assets as they traverse expected routes as well. If a container deviates from an expected route or schedule, alerts are sent to process owners, and corrections can be made proactively. When containers are returned, they are scanned upon arrival by the dock-door antennas. InSync's Edgware™ determines whether the containers are due for maintenance, are past due, or if damaged what party is liable.

Learn more by contacting InSync Software, Inc. at contact@insyncinfo.com or by calling 1 800 INSYNCS



Typical Dashboard View for Returnable Asset Management Solution