Making RFID Yield Business Advantage

RFID initiatives from leading retailers (Wal-Mart, Albertsons, Target, Tesco and METRO Group, among others) have driven RFID development over the last two years. Many retailers and their suppliers have gained experience with “basic” RFID: tags, readers and data formats. The result has been more data – lots of it – but not necessarily actionable information that leads to business benefit. The true value potential of RFID – increasing business agility and competitiveness – depends on architectures and solutions that help companies manage and use RFID-generated data to increase supply chain and inventory visibility, better collaborate with partners and make better decisions.

Intel, Symbol Technologies and Oracle are working together to provide robust, deployable end-to-end solutions that not only deliver high-performance RFID technology, but manage the availability, analysis and use of RFID-generated data. Taking an integrated approach, the companies bring proven capabilities from the retail selling floor to the supply chain to the enterprise back office.

These global leaders bring pre-configured, best-of-breath components – Intel for platform infrastructure, Symbol for the physical RFID layer, and Oracle for information architecture – as well as deep experience in retail and supply chain RFID deployments. Together, their expertise can accelerate results, reduce your risk and build your business advantage – in short, help you fulfill the potential of RFID and maximize the return on your RFID investments.

The Transformative Potential of RFID in Retail

The use of RFID technology to track items as they move through the retail supply chain has immense potential. Operating costs can be significantly reduced, as inventory-taking is automated and, more significantly, inventory errors are reduced. $40 billion or 3.5 percent of total retail sales are lost annually due to supply chain data inefficiencies.1 By combining RFID capabilities with data synchronization and Electronic Product Code (EPC) technology, traditional supply chains are transformed into “sense-and-respond” digital supply chains that automatically keep the right products in the right place in the right quantities – increasing turns and customer satisfaction. Because inventory visibility is increased across the supply chain, fewer safety stocks are needed and inventories can be reduced. Collaboration between supply chain partners is enhanced and the availability of high-quality,
near-real-time data enables improved business processes and decision making. Robust end-to-end RFID solutions allow you to know sooner, act faster and decide smarter.

But realizing this potential involves significant challenges. An RFID strategy that can deliver value beyond simple compliance requires a systematic approach that considers technology, business process, ROI and risk mitigation. This is a complex process with a number of key steps:

- Identifying where and how RFID data can be used to improve processes and the flow of products in the supply chain.
- Modifying existing business processes and applications to take advantage of RFID data.
- Deploying a scalable, adaptable information architecture that can support new applications and grow incrementally as needs increase and as technologies evolve.
- Adopting global data standards such as EPC to facilitate collaboration across the supply chain.

Managing the RFID Lifecycle
Intel, Symbol and Oracle provide the tools and the services that help you with the activities critical to realizing true RFID value. Our end-to-end solutions enable retailers and vendors to cost-effectively:

- **Capture** appropriate, filtered information from readers and sensors.
- **Manage** the explosion of data and events in a single source of truth that is scalable, reliable and secure.
- **Analyze** data and events in real time to provide business intelligence and business activity monitoring for continuous process improvement.
- **Access** information as needed – any time, anywhere, and by all appropriate people, applications and business processes, across a variety of mobile devices, including Personal Digital Assistants (PDAs), tablets, notebooks and smart phones.
- **Respond** to events and information automatically, and empower employees and trading partners to manage by exception.

Intel: The Powerful, Flexible Foundation
RFID increases the need for scalable, flexible infrastructure to capture and manage RFID data, run new applications and provide mobile information access. Intel building block technologies offer a powerful, cost-effective foundation for end-to-end RFID solutions that enhances business agility and reduces deployment time. Servers based on the Intel® Xeon® processor family deliver flexible platforms to consolidate and filter data at the enterprise edge, as well as to run new applications that extract, analyze and present RFID data. Platforms incorporating the Intel® Itanium® 2 processor or 64-bit Intel Xeon processor MP offer a choice of 64-bit architectures to handle demanding 64-bit and 32-bit databases and applications.

Solutions from Intel, Symbol and Oracle meet retail supply chain needs throughout the RFID lifecycle.

Symbol: High-Performance RFID Technology
As a world leader in EPC UHF RFID technology, Symbol takes a systems approach in designing and delivering tools that capture, move and manage information in real time. This approach results in a remarkable set of products that are not only performance leaders, but integrate seamlessly to build — or extend — powerful end-to-end solutions.
Supply chains are connected to demand and respond much more quickly, resulting in fewer lost sales and lower inventories.

Adaptive processes adjust to changing market conditions and competitive threats.

Better visibility into sales and inventory trends leads to improved product availability and higher customer satisfaction.

Enterprise-wide business intelligence enables increased collaboration between business units.

Improved quality of supply chain information leads to significant cost savings through fewer mis-ordered items, fewer erroneous shipments and fewer returns and charge-backs.

Flexible, standards-based solutions allow you to gradually expand existing solutions as conditions change, protecting your investment.

With unmatched retail and supply chain expertise, Symbol delivers RFID system elements that work in complex, real-world environments and help you reap the benefits of RFID. And as a technology leader, Symbol is at the forefront of new capabilities and is committed to delivering innovative new solutions.

Oracle: Converting Data into Business Insight

True business insight is achieved by combining the intelligence residing within IT systems with operational insight such as the status of physical assets, products, devices, people and processes. Oracle provides a complete business insight solution – a consolidated infrastructure that unlocks the true value of operational and information assets – all delivered through a common interface that puts information in context and allows users to collaborate. This enables organizations to adapt quickly to changing market dynamics and seize the initiative – creating sustainable competitive advantage.

Oracle Fusion Architecture is a SOA that facilitates the development of enterprise applications as modular business services that can be easily integrated and reused, creating a truly flexible, adaptable IT infrastructure. It is an open, standards-based foundation that enables next-generation applications by providing the linkage between enterprise applications, middleware and RFID infrastructure technologies. This capability allows you to protect, extend and evolve your retail and supply chain applications and create full business value from RFID data:

- Protect existing applications and processes to maximize the value of existing IT investments.
- Extend your capabilities by integrating silo-ed data into a single consolidated source of accurate data and linking disparate business processes into new integrated applications that can fully leverage RFID data from across the enterprise.
- Evolve your capabilities by enabling new applications and processes with real-time visibility between trading partners using global information sharing and coordinated business processes.
Oracle Fusion Architecture enables an SOA which facilitates the development of enterprise applications as modular business services that can be easily integrated and reused, creating a truly flexible, adaptable IT infrastructure.

Based on Oracle Fusion Architecture, Oracle Fusion Middleware is a portfolio of leading, standards-based and customer-proven software products, including Oracle Application Server 10g®, Oracle Business Intelligence 10g®, Oracle Portal® and Oracle Web Services Manager® and Sensor Edge Server®, that streamline and optimize business and IT operations while increasing the accuracy and timeliness of business decisions.

Oracle Retail solutions help you drive better planning and execution, more-accurate demand forecasting, faster inventory turns, and lower supply chain costs. Using this robust set of tools tailored to retail challenges, you can power collaboration between supply chain partners to ensure the right merchandise is in stock; execute compelling pricing and promotions; and integrate data across multiple sales channels. By connecting all your business processes and enabling you to share information across the enterprise and with your supply chain partners, Oracle Retail solutions help you improve the efficiency of corporate operations, adapt rapidly to changes in your supply chain and service customers more effectively. More than 1,900 companies rely on Oracle Retail solutions to create insight-driven enterprises that stay competitive by basing their decisions on accurate, timely information. Whether you implement one module at a time or an entire solution suite, Oracle can help you run a smarter, more profitable retail or supplier business.

Shorten Your Path to RFID Success

Intel, Symbol and Oracle are working together to provide end-to-end RFID solutions that help you accelerate your time-to-solution and maximize your return on investment. Leaders within the retail and consumer package goods industry realize that there is significant value potential in RFID, and forward-thinking firms are taking steps to capture that value.

Work with Intel, Symbol and Oracle as you create your RFID strategy and plan your deployments. Our RFID experts and leading technologies can help you navigate the challenges and reap the rewards. We invite you to contact a member of our RFID teams directly:

Intel: David Greenberg, david.greenberg@intel.com
Oracle: Kevin Wilson, kevin.wilson@oracle.com
Symbol: Kristine Kuhn, kristine.kuhn@symbol.com

Learn More

- For information on Intel and Retail/Consumer Package Goods, see [www.intel.com/go/retail](http://www.intel.com/go/retail)
- For information on Intel and RFID, see [www.intel.com/go/rfid](http://www.intel.com/go/rfid)
- For information on Oracle and RFID, see [www.oracle.com](http://www.oracle.com)
- For information on Symbol and RFID, see [www.symbol.com/rfid](http://www.symbol.com/rfid)

Solution provided by:

- Intel
- Oracle
- Symbol