



Intel and Tyco Fire & Security/ADT— RFID, ROI and a roadmap for getting started today

Take the first step with Intel's Starter Kit and ADT's Sensormatic® Launch Package

The expanding reach of Radio Frequency Identification (RFID) technology

RFID technology is expanding its reach with new, innovative, cross-industry applications in retail, government, manufacturing, healthcare and other arenas.

Today, more and more technology-driven organizations—from Wal-Mart* to the U.S. Department of Defense—are moving beyond bar codes and mandating that suppliers begin tagging pallets, cases and other items with RFID tags. The potential cost benefits of RFID are staggering: in the retail space alone, it's estimated that Wal-Mart could save five to seven percent a year on supply chain expenses, which equates to approximately \$1 billion a year.

If history is any indication, others are sure to follow these organizations' leads. Companies around the world are already seeking RFID technology solutions to quickly meet their needs.

The key to RFID adoption: an open standard

Until recently, RFID solutions were typically proprietary, closed-loop systems that could often only accommodate a single organization's unique data standards. As with VCRs, computers and cell phones, compatibility was a key technology hurdle for solution providers to overcome.

Today, Tyco Fire & Security has capitalized on Intel's breadth of technology and services to develop products that support an open, industry-wide standard for global, EPC-based RFID compatibility and connectivity—a truly "frictionless" commerce environment. From a big-picture vantage point, the two technology companies are a natural fit to demonstrate thought leadership in the development of global solutions in the rapidly emerging RFID space. To make RFID adoption easier for companies of all kinds, Intel and Tyco Fire & Security/ADT are working together to provide complimentary services and product offerings—the Intel RFID Starter Kit and the ADT Sensormatic® Launch Package.

Intel—leaders in standards-based "building block" processing solutions and services

As a leader known globally for helping companies solve business problems, Intel emphasizes standards and easily scaled "building blocks" that free customers from the shackles of more expensive, closed-loop, proprietary systems. Intel works to enable standards-based RFID through alliances that advance RFID technologies. Intel's computing and communications processors facilitate the end-to-end RFID infrastructure, while its architecture and solution design services speed implementation and time-to-market.

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Intel microprocessors power the readers, servers, desktops, mobile devices and networks that gather and manage EPC-RFID data. In addition to the back-end infrastructure that supports RFID technologies, Intel also offers RFID services through its professional services organization, Intel® Solution Services. In fact, at the annual IDC Directions 2004 Conference, Intel was hailed as a leader in RFID services.¹ Intel Solution Services can help companies evaluate the latest RFID technologies and architect an RFID solution that will provide optimum business impact, all while reducing risk and time-to-market. For example, when a Sensormatic RFID reader notes a transaction, it must efficiently deliver transaction data to the enterprise system to achieve the best possible return on investment (ROI). The consultants at Intel Solution Services can help integrate readers and various components of the software stack to accelerate posting of this transaction data.

As different tag manufacturers launch new products to the market, Sensormatic RFID readers will be able to handle them.

Tyco Fire & Security—developing and deploying the physical RFID layer through its ADT Security Services business unit

Tyco Fire & Security/ADT via its Sensormatic RFID products brings worldwide RFID reach, and over 20 years of experience in RFID applications, to its relationship with Intel. The Sensormatic RFID readers, tags, labels, software and services provide a total RFID solution for automatic tracking of inventory and new levels of supply chain management. The Sensormatic RFID products are scalable and interoperable, providing maximum flexibility for end users.

To add to its RFID expertise, Tyco Fire & Security/ADT has proven experience in the retail supply chain as a preeminent manufacturer and supplier of electronic label and tag products through its Electronic Article Surveillance (EAS) source tagging program. Nearly six billion low-cost Sensormatic anti-theft labels are applied to items each year. Multiple EAS tag certification centers have provided tagging services to over 3,400 product manufacturers.

Together, Intel and Tyco Fire & Security/ADT have the size, scale and experience to bring a standards-based approach to the emerging tidal wave of RFID implementation. As different tag manufacturers launch new products to the market, Sensormatic RFID readers will be able to handle them.

At the core of the ADT Sensormatic “smart” RFID reader is an Intel® IXP420 network processor with Intel XScale® technology. The Sensormatic Agile 2 Reader interacts directly with the increasingly complex levels of data management required for new, advanced RFID tracking applications powered by Intel processor-based servers.

Notably, because these new readers run on a software-based architecture, they can be updated instantly and remotely. While other RFID readers may require hardware changes to read new or different tags, Sensormatic RFID readers based on Intel technology provide flexibility, interoperability and legacy investment protection.

RFID benefits from theory to practice

The benefits of RFID are wide-ranging for a full spectrum of vertical industries:

- **Better cash utilization.** First and foremost, properly implemented RFID solutions lead to better utilization of cash. By being able to know where inventory is—and being able to read that inventory through RFID at points that are currently too expensive—companies of all kinds will be able to save money and boost margins by reducing “safety stocks” and improving product velocity through the supply chain. It’s a two-way boulevard of benefits: there are one-time cash benefits as stocking inventories are reduced, but also, as product availability increases, cash cycles continue to improve over time.



- **Reduced manual tracking.** Historically, the tracking of assets for inventory management has required human input when it arrives at the loading dock. With RFID, companies can provide automated tracking—if pallets, cases or even individual items have an RFID tag, they can be automatically scanned by the RFID reader as they enter the building. Industries from retail to manufacturing to health care can benefit from the transparency of the supply chain. Additionally, the adoption of RFID technology is a boon for database and data storage firms since so much more data can be collected through implementation of these tracking devices.
- **Improved inventory visibility.** The lack of visibility causes a number of problems today, including employee theft, administrative error and vendor fraud. Administrative error costs retailers in the U.S. over \$5 billion in lost revenue or 15 percent of total losses, while vendor fraud is responsible for an additional \$2 million or 6 percent of lost revenue.² RFID provides an accurate means of tracking and tracing items from the manufacturer to the retailer. If goods are missing at any time, RFID may help to determine where and when this occurred. Aside from deterring these losses, RFID also reduces the time and effort spent resolving discrepancies between customers and their suppliers.

Take the next step—with the Intel RFID Starter Kit and ADT Sensormatic Launch Package

Learning more about the benefits of RFID technology for your organization is an easy process with the RFID Starter Kit from Intel Solution Services and the Sensormatic Launch Package from ADT. Intel's RFID Starter Kit includes a complimentary, half-day RFID Value Assessment Workshop, which includes RFID technology training, a deep dive into Intel Solution Services' engagement experience, a discovery session focused on your unique business environment and a business driver discussion. The Sensormatic RFID Launch Package provides the next step of integrating a compilation of labels, hardware, software and services to provide a comprehensive solution to meet testing, compliance and ROI initiatives.

Beyond the Intel RFID Starter Kit and the ADT Sensormatic Launch Package, Intel Solution Services and ADT offer additional RFID services, including:

- **RFID value assessment.** Intel Solution Services can compile supply chain process data, identify business opportunities where RFID will benefit your company and produce a high-level solution design and recommendation for your company.
- **Technology validation.** Both Intel Solution Services and ADT can work together to identify and implement an RFID proof-of-concept solution in your business environment.
- **RFID launch.** ADT can assist your company with stand-alone software installation, on-site support and tag, reader and antenna installation.
- **Custom offerings.** Other custom offerings include total cost of ownership (TCO) and ROI studies for productive implementation, solution lab development and set-up, strategic planning and analysis, and large-scale RFID project management and implementation.

Learn more about how a new RFID solution can impact the future and profitability of your business. Intel Solution Services and ADT will support you every step of the way—from assessment to complete solution implementation.

The Intel RFID Starter Kit and the ADT Sensormatic Launch Package are fast, easy and amazingly thorough ways to take your first steps toward the powerful benefits of this emerging technology. Request our assistance today and you'll be on your way.

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To learn more, contact us today:

Intel® Solution Services

Intel® Solution Services is Intel Corporation's worldwide professional services organization, helping enterprise companies capitalize on the full value of Intel architecture through consulting focused on architecture transitions. Our expert consultants work closely with enterprise businesses, system integrators and software developers to architect cost-effective solutions that help solve complex business challenges. With its world-class resources, state-of-the-art facilities and key industry alliances, Intel Solution Services can design and deploy scalable, manageable, reliable and available solutions based on the latest Intel technologies.

For more information, visit:

www.intel.com/go/intelsolutionservices

www.intel.com/business/bss/technologies/rfid

About Tyco Fire & Security

Through its Sensormatic solutions, Tyco Fire & Security, a major business segment of Tyco International Ltd., develops innovative solutions using Radio Frequency Identification (RFID) for the retail and manufacturing supply chains. Tyco Fire & Security also designs, manufactures, installs and services electronic security systems, fire protection, detection and suppression systems, sprinklers and fire extinguishers. With \$11 billion in annual sales and more than 90,000 employees, Tyco Fire & Security includes more than 60 brands, which are represented in over 100 countries. Its products are used to safeguard firefighters, prevent fires, deter thieves and protect people and property. The Sensormatic Web site address is www.sensormatic.com

About ADT Security Services

Celebrating its 129th anniversary, ADT Security Services, Inc., a unit of Tyco Fire & Security, is the largest single provider of electronic security services to more than six million commercial, government and residential customers throughout the United States. ADT's total security solutions include intrusion, fire protection, closed circuit television, access control, critical condition monitoring, electronic article surveillance and integrated systems.

For more information, visit:

www.tycofireandsecurity.com

www.adt.com

www.sensormatic.com/RFID/default.asp

or call us at: 1-877-258-6424

¹ Boone, Christopher. "What's the Frequency? The Future of RFID for the Retail Supply Chain." IDC Directions 2004 Conference. March 31, 2004.

² 2003 University of Florida National Retail Security Survey

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