SATO Global Solutions and Intel Bring Advanced Analytics to In-Store Retail

Transforming the retail experience with the Intel® Retail Sensor Platform

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Michael Beedles
President
SATO Global Solutions

SATO Global Solutions (SGS) is drawing on its collaboration with Intel to bring the retail industry a data-driven in-store solution for accurate inventory management and enhanced customer engagement. The key to its innovations is the integration of retail technologies, such as RFID tags, with new hardware innovations, user-friendly mobile applications, and holistic analytics. Data can be shared with existing retail systems, including merchandise inventory, point-of-sale (PoS) software, and digital signage that displays messaging tailored to each store (vs. generic corporate messaging). The resulting insight is helping retailers to decrease costs, increase revenue, optimize processes, and improve customer satisfaction.

Together, SGS and Intel are connecting the dots to make big data analytics a reality for brick-and-mortar retailers. Says Michael Beedles, president of SATO Global Solutions, “In light of the fast growth of Internet of Things (IoT) technologies and increasing usage of data analytics, the software development and integration capabilities of SATO Global Solutions add to SATO’s expertise in filling in that essential ‘last inch,’ connecting the virtual and physical, and enhancing the value we deliver to our customers.”

Achieving inventory accuracy is just the start as SGS and Intel innovate to bring analytics insight to the wider retail experience. Typically, inventory management and customer engagement are addressed by different software applications that don’t “talk” to each other. Integrating near-real-time inventory data and customer data opens up new possibilities—allowing retailers to provide highly personalized and effective services to customers. This may include everything from offering extra discounts to loyal customers on overstocked items to using digital signage to promote sales based on trending data from social media. Explains Beedles, “We are excited to pioneer new products and services with Intel. As an ‘Innovation Integrator,’ SGS develops future-proof expandable platforms to leverage state-of-the-art technologies to solve clients’ challenges.”
Collaborating for Retail Innovation

SATO Global Solutions develops software and integrates it with hardware into a comprehensive solution—the Intel® Retail Sensor Platform—which seamlessly connects item RFID tags, sensors, gateways, and cameras to deliver actionable insight on all aspects of inventory management. This allows SGS to bring innovation to market faster than if it had to connect disparate solutions from multiple vendors—and gives retailers the advantage of Intel reliability to help protect their technology investments. Critical to simplifying deployment is the Intel®-based gateway. Says Jeff Fudge, vice president of technology for SATO Global Solutions, “Intel has simplified the integration, implementation, and administration typically related to IoT deployments for retailers. SGS is architecting both inventory-based and customer engagement solutions that turn sensor data into actionable and insightful data.”

The combined SGS and Intel solution offers:

- Best-of-breed RFID readers providing the next level of inventory visibility, delivering near-real-time insights that drive better operational efficiency and exceptional customer experiences.
- The Intel Retail Sensor Platform architecture to help “future proof” investments, scaling for new sensors and technologies as they become relevant to achieving retail goals.

Simplifying Data Access

SGS’s software works like any other smartphone or tablet app. The app keeps store associates informed on near-real-time inventory—from understock to items that are misplaced or left in fitting rooms to stock replenishing. Relevant information is displayed in a user-friendly interface for store and headquarters staff, and can be easily managed and prioritized.

Access to this dynamic “real-world” data also supports the strategic planning that can help increase sales. It allows retail organizations to understand the impact of decisions, such as changing store layout and customer paths, marking down inventory, or displaying digital signage with store-specific or general corporate messaging.
The Intel® Retail Sensor Platform
The Intel® Retail Sensor Platform includes core integrated technologies that work together seamlessly to provide actionable insight. The solution anonymously tracks items through RFID tags, preserving customer privacy, while keeping sales staff informed on inventory, stocking, customer traffic, and local demand. RFID data can also be combined with other data and quickly analyzed to provide a cohesive, near-real-time portrait of store activity and customer preferences. The open source Trusted Analytics Platform (TAP) enables big data analytics in the cloud for deep insight.

Intel Retail Sensor Platform components are easy to integrate with existing store systems and applications, and the resulting analytics can be viewed on computers and devices located in stores and at company headquarters.

Key Components
- **Intel®-Based Retail Sensors**: Low-cost, low-power integrated sensors with RFID capability and an expandable sensor suite that allows for the inclusion of additional sensors in a seamless and future-proof way
- **Intel®-Based Gateway**: Gathers and filters sensor data, providing intelligent, trusted connectivity at the edge
- **Cloud Platform**: Open source analytics platform-as-a-service (PaaS) for cloud applications
- **Trusted Analytics Platform (TAP)**: Provides big data analytics on open source Hadoop® and open source OpenStack® for orchestration with private cloud or major public cloud providers

INTEL® RETAIL SENSOR PLATFORM
Enabling simple, affordable, effective inventory tracking and insight for brick-and-mortar retail environments.
intel.com/retail

Addressing Inventory Challenges
- Path Mapping
- Item Consideration
- Item Location
- Item Movement
- Pick-Path Optimization
- Misplaced Item
- Inventory Reconciliation
- Item Replenishment
Creating Retail Opportunity
The SGS and Intel solution can deliver significant benefits to retailers. SGS also gives retailers a viable OPEX model: they can choose the configuration that works with legacy investments, and purchase or lease hardware, devices, and software for a monthly fee.

The Retail Advantage

| Improve operational efficiency and reduce costs | • Integrate inventory management across your supply chain from manufacturing through point of sale.  
• Eliminate manual cycle counting with near-real-time inventory visibility.  
• Reduce staff training and improve productivity with a simple and intuitive user interface.  
• Reduce costs associated with inventory distortion, such as out-of-stock and overstock.  
• Minimize future investment with a comprehensive IoT platform that supports multiple sensor types. |
| Increase sales | • Help sales associates or customers locate a specific item (such as desired size or color), even when merchandise is misplaced.  
• Optimize product display by identifying misplaced items and notifying store associates when and where to replenish products.  
• Integrate digital signage with local store inventory to promote slow-moving inventory, and thus, avoiding unnecessary mark-downs, and seasonal merchandise.  
• Provide in-depth intelligence on customer behavior patterns and preferences, trafficked routes, backroom stock, misplaced items, and potential shrink.  
• Provide real-time activity monitoring throughout the store to analyze foot traffic, improve store layout, and refine planograms. |
| Improve the customer experience | • Provide upsell and cross-sell opportunities through digital solutions that make recommendations based on items the customer is holding, what’s currently in stock, past buying behaviors, and expressed preferences.  
• Offer customers concierge-style service via real-time alerts to sales associates on the floor, who then deliver the requested items to the customer.  
• Enable “brick and click” integration of your stores and websites involving shipping from stores and in-store pick-ups.  
• Promote relationship retailing through improved omni-channel knowledge of customer shopping history and visit frequency.  
• Provide more accurate segmentation, better inventory management, and targeted promotional pricing. |

About SATO Global Solutions
satoglobalsolutions.com

SATO Global Solutions (SGS), a subsidiary of SATO Holdings, develops comprehensive IoT solutions that address clients’ unique needs by unleashing the power of data. As an “innovation integrator,” SGS combines technologies, hardware, and applications that turn data into meaningful and actionable insight that enable clients to make data-driven decisions and maximize value across their business.

Contact SATO Global Solutions at info@satoglobalsolutions.com or online at satoglobalsolutions.com/contact.php.

Shaping the Future of Retail
SATO Global Solutions and Intel are creating new possibilities for brick-and-mortar retailers. SGS’s applications are currently enabling inventory replenishment and inventory-driven smart fitting rooms. Soon they will support new solutions for store receiving, clienteling, personalized shopping experiences, and advanced analytics. As SGS and Intel collaborate on retail innovation, retailers can take advantage of business intelligence targeted to the specific challenges of their industry—based on a robust foundation of scalable, secure Intel® technologies.

For more information, visit intel.com/retail.