Retail Industry Briefing Series

IoT and GS1 - Revolutionising Retail

Today's consumers expect to interact with retailers, brands and products—digitally and seamlessly. Their shopping journey needs to be relevant, timely and personal. Increasingly, interactions with smart, connected devices are a part of the experience.

You can help enable closer connections with your consumers by leveraging globally-recognised GS1 identification for barcodes, EPC/RFID tags, watermarks and sensors of all kinds. Exchanging rich product data using sensors that are built on standardised GS1 data structures—combined with the power of data analytics—can drive increased sales and help to enrich experiences around the world.

Knowledge Sharing

Bringing a product "to life" and enabling unique customer experiences is possible through item-level product identification.

Whether your goal is to communicate the "history" of your product to provide transparency into your sourcing strategy or environmental impact, the GS1 system can help.
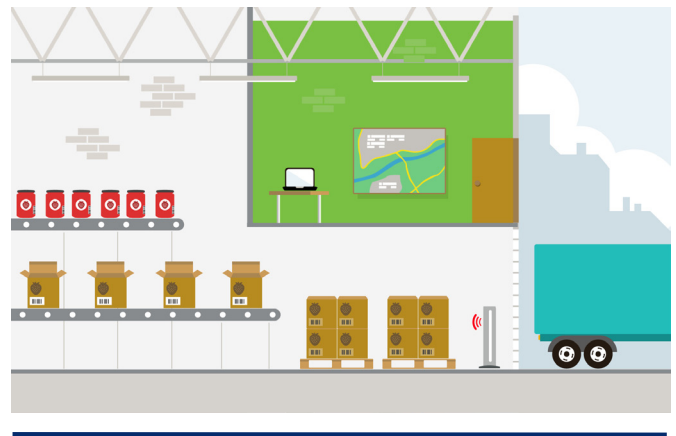
Marketing Engagement

Knowing when consumers are interacting with your products opens up new opportunities to engage with them. From loyalty cards to beacon-driven proximity marketing, GS1 standards for unique identification can help marketers ensure that their customer insight strategy will work across borders.

Social Media

Tracking the number of times your customers reference your product across social media can be a daunting task. Consistent and unique product identification—enabled by GS1 standards—will ensure that all of your sites function seamlessly across physical and digital shelves, allowing you to better understand those products that are "trending up".

There are opportunities to develop IoT solutions that improve warehouse logistics, product ordering, in-store marketing, dynamic shelf pricing, after-sale engagement, social media connection and product lifecycle management. Building your solutions around GS1-compliant identification will help you expand your reach and your speed-to-market.

GS1 standards are fully compliant with ISO Standard 29161: "Unique identification for the Internet of Things".

Analytics

Industry has already matured to a point where access to technology and the gathering of data are not the biggest challenges of a successful customer analytics strategy.

The issue is how to use this data to find insights—and to convert those insights into actions that increase sales and win market share. This becomes increasingly possible when GS1 standards are used across your enterprise to consistently identify locations, products and other things.

GS1 standards, when deployed across business and supply networks, are the "bridge" along the IoT highway, enabling analytics and insights from source to consumer.

Inventory Visibility

Out-of-stocks pose one of the greatest risks to consumer loyalty. There are numerous case studies showing the value of supply chain inventory visibility. Many identify the key enabler of such visibility to be barcoding or item-level tagging at the point of manufacture using EPC-enabled RFID.

IoT devices with unique GS1 identification enable better inventory visibility, including proximity sensors near store shelves and loss-prevention solutions that track item locations within stores.

Standard Identification and Data

No matter what platform you are using, your IoT implementation can benefit from the use of simple, standard-based identification from GS1. Ensuring interoperability across your systems, those used by your trading partners,

and consumer systems is critical, and many of these are built on a solid foundation, using GS1 standards.

The use of the GS1 Data Dictionary, a repository of data elements defined across all GS1 Standards, will simplify the exchange of critical product and sensor data, and will simplify integration with other back-end systems.

Consumer Privacy

GS1 is committed to addressing consumers' privacy concerns and regulatory interest throughout the various business solutions that our standards enable. GS1 standards are open and voluntary, and none contain personally-identifiable information.

Our members have participated in countless privacy forums in the United States, Europe and Asia, including the Internet of Things (IOT) Experts Group.

GS1 has privacy guidelines that provide a trusted foundation for the responsible use of the technology behind its standards. These guidelines are based on global privacy fundamentals of providing consumer notice and choice.

GS1's engagement in industry initiatives like the Privacy Impact Assessment framework, combined with our privacy guidelines for the use of EPC/RFID on consumer products, is paving the way for the future IoT by providing best practices for risk assessment and data protection.

Take Action

If you're actively involved in the development of solutions that require products, sensors or "things" to be uniquely identified and/or data to be exchanged, contact GS1.

Ensure that your solutions are built on a foundation of standardised identification and data exchange that is truly interoperable and global.

The term "Internet of Things" was coined by Kevin Ashton of the Auto-ID Center at the Massachusetts Institute of Technology (MIT) during the early days of its RFID development. In 1998, the vision was to connect things to object-specific data on the internet, which could then be accessed using a unique tag attached to the object. The result was EPCglobal® and a growing system of standards that has been committed to unique identification for more than 40 years.

Get involved

Unleash the full power of your IoT solutions with GS1 standards! To get started, contact your local GS1 office or our Global Office:

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