GS1 US

The Global Language of Business

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Case Study

CKE Restaurants

CKE Restaurants Trace Food

Challenge

CKE Restaurants Holdings, Inc., the parent company of the Carl's Jr. and Hardee's brands (CKE) saw the need early on for a robust traceability platform that would further bolster its food safety program and would also help meet current and anticipated federal regulatory requirements. With thousands of restaurants in all but six U.S. states, the structure and consistency of the program would be vital to its usefulness.

Solution

CKE based its end-to-end traceability initiative on GS1 Standards. Every trading partner in its widespread supply chain – suppliers, growers, wholesalers, distributors, as well as their restaurants – were well acquainted with GS1, with many using some or all GS1 Standards, including Global Trade Item Numbers™ (GTINs®), UPC barcodes, GS1-128 labels and Global Location Numbers (GLNs), among others. With the expertise of solution providers, and a dedicated internal team, CKE built a cloud-based network that would capture transactional data from the origin of the food it purchased to the restaurant counter where it is sold to consumers.

Benefits

- **Improved Recalls and Withdrawals.** Rather than casting the widest possible net to determine the locations of implicated products, CKE's traceability system allows for more targeted recalls and withdrawals, minimizing cost and waste.
- **Quality Assurance and Brand Protection.** Due to its excellent food safety track record, the CKE system is used most often for product withdrawals that don't meet its standards. CKE's traceability system can alert appropriate parties of potentially expired product or other quality concerns to help CKE act on that information, remove the product from the supply chain and maintain their reputation for freshness and high-quality food.
- **Broader System Application Options.** Having its robust and reliable database containing a wealth of information, other uses for business intelligence are at CKE's fingertips, including the potential for improved inventory management, and advanced product analytics.

CKE Embarks on Traceability

CKE in 2017 recognized the need to institute a resilient traceability program that would take its operations into the future and continue to efficiently ensure food safety as well as meet applicable federal requirements that already had been enacted or were on the horizon[1]. CKE knew the decision would also add speed to its operations by introducing greater automation.

Food safety is obviously mission-critical for any restaurant, but especially for a fast-food corporation of CKE's size – 3,800 restaurants worldwide – all needing to pinpoint the origins of its products. Fortunately, at the time of CKE's decision, innovations in supply chain technologies focused on food were gaining traction in the industry necessitated by federal requirements and led by GS1 US, the not-for-profit standards organization working to improve business processes in key industries.

"We built our traceability program using GS1 Standards to make it as easy as possible for our suppliers, since most of them were already using Global Trade Item Numbers."

Todd Huetinck
Senior Vice President of Supply Chain for CKE

Familiarity Breeds Traceability

Neither CKE or its hundreds of suppliers were strangers to GS1 Standards, having adopted GTINs® and UPCs – that were in common use since the 1980s. Today, CKE and its trading partners also make use of GLNs, Serial Shipping Container Codes (SSCCs), and Advance Ship Notices (ASNs). In fact, 100 percent of CKE restaurants, distribution centers (DCs) and CKE trading partners – suppliers, distributors, wholesalers, and growers – use GS1 Standards in one form or another, with all of them recognizing GTINs and using GS1 UPC barcodes.

"We built our traceability program using GS1 Standards to make it as easy as possible for our suppliers, since most of them were already using Global Trade Item Numbers," says Todd Huetinck, senior vice president of Supply Chain for CKE.

"Traceability was a significant strategic initiative for our organization to support our food safety commitment and get ahead of regulatory requirements."

Todd Huetinck
Senior Vice President of Supply Chain for CKE

Industry-Wide Effort

GS1 US established the Foodservice GS1 US Standards Initiative in 2009 to help foodservice companies implement traceability solutions based on their needs, to improve food safety and operational efficiencies. To do so, the GS1-128 barcode became the preferred case identifier in that it includes lot and expiration information, along with GTINs in the barcode. *[See box.]*

GS1-128 is a highly versatile one-dimensional barcode that enables items to be tracked through global supply chains. The GS1-128 barcode above carries a few GS1 identifiers: (01) GTIN, (17) expiration date, and (10) batch/lot code. Additional identifiers (100+) are available to brand owners; inclusion of identifiers is based on product and consumer needs.

"We became laser-focused on food safety and traceability requirements," says Huetinck. "Scope creep can be a major issue when you're undertaking a project of this magnitude, so from the very beginning, we concentrated on food safety initiatives associated with the GS1-128 barcode."

The first step was to educate themselves, with the help of GS1 US and its community of foodservice members. The initial stage also included an evaluation of the data accuracy of suppliers and the products they provide to CKE. "It was a pretty laborious process," Huetinck says. "GS1-128 barcodes: it's easy to say, but everything behind the scenes to make them work took the first six months to a year."

Partnering with Experts

Once CKE prioritized the foundational layers through its master data cleanup of products used and their origins, the next step was to research and select strategic partners that would supply both the software and hardware components that would help it manage transactional data. One provider helped CKE set-up its GS1-128 barcode conventions for suppliers to use when labeling cases. Others provided recommendations for hardware and label media as well as equipment that verifies the grade of the ISO barcode.

A key partner supplied a master cloud-based database to facilitate food safety compliance and recall management; the database ultimately supplies insights into whole chain traceability, a vital link in CKE's program.

1 The Food Safety Modernization Act (FSMA) was signed into law on January 4, 2011. The FSMA has given the Food and Drug Administration (FDA) authority to regulate the way foods are grown, harvested, and processed. Section 204 of the FDA FSMA requires the FDA to designate foods for which additional recordkeeping requirements are appropriate and necessary to protect public health, and to establish those recordkeeping requirements, Section 204 goes into effect in January 2023, 60 days after the final rule is published in November 2022. The FDA will give companies three years to comply – until the year 2026 – to become fully compliant.

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Sharing Data

CKE and its trading partners use The Global Data Synchronization Network™ (GDSN ®). GDSN is the world's largest product data network and makes it possible for any company, in any market, to share high-quality product information seamlessly. Companies of all sizes need the same thing—timely and reliable product information—to ultimately benefit consumers and patients.

One bottleneck involved the selection of the labels onto which the GS1-128 barcode would be printed. Initially it was hoped the barcode could be directly printed onto the corrugated cases, because of obvious time and expense avoidance. But the readability for scanning was compromised by handling during shipping, weather and storage conditions, and other uncontrollable factors. When selecting print-and-apply labels, lower grades of labels proved maintenance-intensive, because of the wear-and-tear they placed on the printers. CKE settled on an ISO Grade C label as the minimum requirement.

Suppliers are encouraged to use ISO Grade A and B labels, when feasible, but the quality of the label can never fall below an ISO Grade C standard.

Onboarding Suppliers

At last, CKE was ready to reach out to its nearly 150 food suppliers to request their participation in shipping cases to the 15 CKE distribution centers labeled with GS1-128 barcodes with an ISO Grade C label or better. A quality assurance (QA) traceability team within CKE works closely with suppliers – particularly those with less experience with GS1 standards – to bring them into compliance with the requirements the company has set.

"Prior to having batch and lot data, we would have to cast a wide net to ensure that we caught all the product potentially implicated in withdrawal or recall situation. Now, with the (traceability) data being available, we can, with a higher degree of confidence, know that we have wrapped our arms around, isolated, and removed the implicated product from the supply chain. We put fewer resources against [the withdrawal] and get higher level of results."

Todd Huetinck
Senior Vice President of Supply Chain for CKE

"This was a significant strategic initiative for our organization, so we had resources from the top down to work with, coordinate, and educate our supplier base," Huetinck says. "Our dedicated traceability staff for many years now has educated and worked with suppliers, connecting them with consultants or other industry experts that can help them become more sophisticated in the use of the standards and the realm of traceability."

The Labeling Process

A knowledgeable supplier labels its cases with GS1-128 barcodes containing the product GTIN, lot or batch, and the preferred product date. In addition, the label also has human readable data like the product name and product storage conditions. The supplier sends the transactional data to the cloud-based database as the shipment is dispatched to the CKE distribution center (DC). At the DC the case labels are scanned before being shipped on to Carl's Jr. or Hardee's restaurants. The DC becomes the axis: case data stored in the cloud is scanned when the cases are picked and then paired with intended restaurant destinations. CKE QA team can retrieve transactional information – from origination to destination – from the same cloud system.

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Today, if a recall occurs – or more likely a product withdrawal for a reason such as quality – CKE can isolate exactly where those products originated and where they were sent within its system, precluding the need for the entire network of restaurants to check their inventories. *[See box.]*

Recall by Degree

The FDA splits its product recalls into three classes:

Class I: Recalls for products which could cause serious injury or death.

Class II: Recalls for products which might cause serious injury or temporary illness.

Class III: Recalls for products which are unlikely to cause injury or illness, but that violate FDA regulations.

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Continuous Improvement

The continuous improvement CKE has seen from its food suppliers has not yet plateaued. The company is considering traceability expansion, from just food to other products, such as paper goods and packaging, for instance. "We now have data available that can help with other business functions. We're having initial conversations in terms of how we'll utilize the GS1 information for restaurant inventory."

Regardless of future plans, CKE is on track to achieve its traceability objectives and is well-positioned to meet its compliance goals when the new FDA Food Safety Modernization Act 204 rule goes into effect. And many of its suppliers have CKE to thank for their own readiness.

Having gone through a five-year process, CKE is able to provide advice to others embarking on a similar traceability path and is quick to point out that it is well worth the effort. "The question is not, 'Will you have a recall?' The question is, 'When?' Be prepared."

Be prepared. It's not 'will you' have a recall, it's **when.**

Key takeaways CKE Restaurants Holdings (CKE) shares from its path to traceability

Obtain **leadership support**

Prioritize common goals and **communicate cross-functionality** regarding the objectives within the organization

Designate subject matter experts and create a traceability team

Form strategic alliances with solution providers who are experts in your industry

Work with your supply chain partners and be ready to **educate them** along the process

About the Organizations

About CKE

CKE Restaurants Holdings, Inc. (“CKE”), a privately held company based in Franklin, Tennessee operates Carl’s Jr. and Hardee’s, two regional brands known for one-of-a-kind premium and innovative menu items such as 100 percent Black Angus Thickburgers®, Freshly Baked Biscuits and Hand-Breaded Chicken Tenders™. With both a U.S. and international footprint, Carl’s Jr. Restaurants LLC and Hardee’s Restaurants LLC have nearly 4,000 franchised or company-operated restaurants in 44 U.S. states and over 35 international markets and U.S. overseas territories. For more information about CKE, please visit https://ckefranchise.com/ or its brand sites at www.carlsjr.com and www.hardees.com.

About the Foodservice GS1 US Standards Initiative

The Foodservice GS1 US Standards Initiative represents a broad cross section of industry trading partners. Today, 132 manufacturers, distributors, brokers, operators, industry associations, government agencies, logistics, and technology providers are participating members in initiative activities focused on improving transparency, operational efficiencies, traceability, and food safety with GS1 Standards. www.gs1us.org/foodservice/initiative

About GS1 US

GS1 US®, a member of GS1® global, is a not-for-profit information standards organization that facilitates industry collaboration to help improve supply chain visibility and efficiency through the use of GS1 Standards, the most widely used supply chain standards system in the world. Nearly 300,000 businesses in 25 industries rely on GS1 US for trading-partner collaboration that optimizes their supply chains, drives cost performance and revenue growth while also enabling regulatory compliance. They achieve these benefits through solutions based on GS1 global unique numbering and identification systems, barcodes, Electronic Product Code-based RFID, data synchronization, and electronic information exchange. GS1 US also manages the United Nations Standard Products and Services Code® (UNSPSC®). www.gs1us.org

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IAPMO

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*If applicable

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