



The Global Language of Business



## Case Study

# Teleflex

Harnesses strong partnerships to build a sustainable PIM system for regulatory compliance, patient safety, and customer engagement

## Challenge

Teleflex, a global provider of specialty medical devices, faced various options about how to approach and implement a data management solution to comply with the U.S. Food and Drug Administration's (FDA) Unique Device Identification (UDI) regulation. The company also wanted to ensure its solution would help address other worldwide regulatory requirements in the future as well as the needs of its customers for sharing trusted product data.

## Solution

Following a thorough analysis, Teleflex chose to partner with GS1 Solution Partners: 1WorldSync, a GS1-certified data pool provider, and LANSA, a provider of business process integration and data synchronization software. The Teleflex cross-functional team launched a multi-phased project that identified and integrated device data from diverse systems across the company as well as processes to assign and validate each device's Global Trade Item Number® (GTIN®) and attributes on their way to the FDA's Global UDI Database (GUDID). Teleflex also achieved full Global Data Synchronization Network™ (GDSN®) operability for trusted data-sharing with trading partners.

## Benefits

By implementing a GS1 Standards-based approach for UDI compliance, Teleflex can provide "a single version of truth" associated with accurate, complete, and validated product data to regulatory bodies and trading partners alike, including healthcare providers. Teleflex has utilized GS1 Standards-based identification for improvements in its operations and supply chain that ultimately enable greater patient safety.

"Our commitment to patient safety and the importance of UDI in achieving this goal is something we hold in the highest regard. When we deliver our products to customers, we are also delivering patient safety in the form of UDI, enabling accuracy, efficiency, and traceability. That's not just a regulatory box to check or a supply chain process to complete—it's a real and positive impact for real people."

**Mark Hoyle**  
Technical Director, UDI  
Teleflex

**Teleflex®**

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## Understanding What it Takes

Teleflex is a global provider of medical technologies designed to improve the health and quality of life for patients. The company’s diverse portfolio of medical devices spans the fields of vascular and interventional access, surgical, anesthesia, cardiac care, urology, emergency medicine, and respiratory care.

When the U.S. FDA finalized its ruling for a unique device identification system, Teleflex commenced working to comply with all designated deadlines.

“Even before the UDI regulation, Teleflex had primarily used GS1 Standards,” says Mark Hoyle, technical director of UDI, Commercial Regulatory Affairs at Teleflex. “We were expanding the use of GS1 Standards within our product lines exclusively. Given the UDI ruling, we accelerated our plans.”

Originally Hoyle joined Teleflex to oversee international packaging, drawing on his background in qualification, validation, and automation. Transitioning to UDI compliance for Teleflex was a natural undertaking in view of his prior experience in this arena.

“There’s close alignment between packaging and product identification,” Hoyle says. “The automated processes of device assembly married with packaging and labelling for primary, secondary, or tertiary packaging levels involves all aspects of electronic data management and physical application in a validated manner.”

Hoyle also had prior experience with GS1 as the co-chair of its GS1 Healthcare initiative.

“Working with GS1 and other members of the healthcare sector, we collaborated with the FDA and helped shape GS1 *Healthcare GTIN Allocation Rules*, leading to the eventual UDI regulation,” says Hoyle. “So I came to Teleflex with a solid understanding of ‘what it would take’ to successfully implement a UDI strategy, with an additional goal of meeting customer expectations in data publication.”

## According to Hoyle

Hoyle wanted to adopt a forward-looking strategy that would go beyond the immediate UDI requirements.

“I felt strongly that Teleflex should be positioned to fulfill future regulatory needs around the globe,” advises Hoyle. “At the same time, I wanted to plan for the key requirements of our customers that were using or planning to use the GDSN to exchange information with us throughout the supply chain.”

Following a rigorous analysis and comparison of options, Teleflex chose to work with 1WorldSync as its GS1-certified data pool provider, and LANSA’s Product Management Information (PIM) system for business process integration and data synchronization software.

“Healthcare as a sector is on a steep learning curve when it comes to automating its UDI processes in a standards-based way,” explains Hoyle. “We needed to build a team with the necessary skillsets to help us develop a strong foundation. LANSA brought a wealth of experience in creating data management solutions and a willingness to partner with us.”

“Our goal was to build a single point of truth for the FDA’s GUDID that could consume information from our enterprise resource planning (ERP) and product lifecycle management (PLM) tools,” continues Hoyle. “1WorldSync offered a singular solution that we can leverage with all future regulatory demands, in addition to the FDA. With one global solution, there’s less opportunity for misinterpretation. Harmonization is more easily controlled, and divergence based on the target market is better managed. It’s a clean solution.”

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## United Team for United Effort

The Teleflex team was comprised of a central core UDI team with expertise in project management, regulatory issues and IT. The team was supported by the labelling group to manage the intricacies of artwork design that would allow packaging real estate to accommodate the GS1 Standards-based barcode symbologies.

“1WorldSync supported project management efforts that furthered interactions between LANSA’s technical development and the overall processes being delivered,” says Hoyle. “LANSA was a critical member of our team in helping to design and implement the process requirements for product data input and validation, as well as making needed modifications as they arose.”

An extended team of Teleflex professionals—including IT data analysis and data management support—joined with business unit team members, research and development, engineering, regulatory, demand planners, global operations, and quality assurance managers to coordinate a successful implementation.

“I was extremely keen to ensure that we didn’t see this merely as a customer/supplier relationship, nor as a hard start/stop initiative,” says Hoyle. “We established a strong partnership between LANSA, 1WorldSync, and Teleflex because we were developing an embryonic technology, and we needed to be mindful of the platform expansions and the exponential growth that is already emerging.”

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### Assess, Assign, Validate

As the first major step in the implementation process, the team conducted an assessment of the current situation—identifying where data resided in the various Teleflex organizations. While this may seem straightforward, Hoyle explains the challenging nature of the activity. “For more than 70 years, Teleflex has grown tremendously through acquisitions, which equates to the existence of many different business systems and integration points throughout the company.”



For every level of packaging, Teleflex leverages GS1 Standards-based information encoded in GS1 DataMatrix barcodes.



Teleflex considers the company's investment in time, resources and money to implement GS1 Standards well worth the return in patient safety.

The second major work effort centered on creating the product data—the GTIN and attributes for each device—along with interfaces for input. “Our task centered on integrating all of the different systems in a centralized way to assign GTINs based on the different global company prefixes that we manage,” says Hoyle. “The goal was to provide a complete, accurate, and consistent way of presenting data attributes that would conform to UDI regulatory requirements and GDSN requirements.”

LANSA became the single point of GTIN assignment, building the structure and hierarchies that followed GS1 Healthcare Allocation Rules.

“At the same time, LANSA built customized rules that would uniformly manage the provision of correct information for new product creation and build,” says Hoyle. “This would ensure accurate and automated GTIN assignment in our systems.”

The third step in the implementation process was to systematically validate data. Device GTINs and attributes were staged and automatically checked through loading and registration via the 1WorldSync data pool with publication to the GUDID, confirming the data at each step based on validations applied by LANSA, 1WorldSync, and the FDA. “Based on these stages of validation, we achieve high confidence surrounding the format of data compliance on submission to the GUDID,” explains Hoyle.

“We have an excellent technical team at LANSA and a great project management function with 1WorldSync. Within Teleflex people showed an understanding not just about the needs of the industry but the needs within the partnership, resulting in excellent collaboration.”

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### **People, Partners, Processes**

Hoyle attributes the success of the UDI project at Teleflex to people in the organizations that worked side-by-side to develop an industry-changing solution. “We have an excellent technical team at LANSA and a great project management function with 1WorldSync. Within Teleflex people showed an understanding not just about the needs of the industry but the needs within the partnership, resulting in excellent collaboration.”

With the UDI solution now in place, Teleflex has started the next phase of its journey, expanding its use of the LANSA

team members as they are always looking for better ways and opportunities to automate business processes and improve the data that is being delivered.

“The second part of our success is the standards-based process itself,” adds Hoyle. “We have a fully customizable PIM system in which we have information control, and the ability to configure it in such a way that allows it to fit other needs of our organization and business practices.”

In addition to picking the right partners to work with, Hoyle would advise others to take time to develop the right strategy. “Making considered decisions upfront by understanding the present and future vision is critical; you will reap many benefits downstream. These benefits will be realized through accuracy and efficiency along the supply chain, ultimately leading to improved patient care.”

### Win-Win for Patient Safety and Operations

Hoyle considers the company’s investment in time, resources and money well worth the return in patient safety and other benefits.

“One of the difficulties for healthcare—or for any industry for that matter—is how to measure the return-on-investment when implementing standards and new processes,” Hoyle says. “Yet, once you start moving down the implementation path, you can quickly identify the improvements to your internal operations: distribution control, speed, and efficiency, through to order fulfillment. You start to recognize all of the operational benefits. Couple this with delivering patient safety objectives and it’s a win-win. The benefits are all there.”

Hoyle concludes, “Our commitment to patient safety and the importance of UDI in achieving this goal is something we hold in the highest regard. When we deliver our products to our customers, we are also delivering patient safety in the form of UDI, enabling accuracy, efficiency, and traceability. That’s not just a regulatory box to check or a supply chain process to complete—it’s a real and positive impact for real people.”

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### Learn More

For more information about using GS1 Standards in healthcare, visit [www.gs1us.org/healthcare](http://www.gs1us.org/healthcare).



Using GS1-128 barcodes, Teleflex encodes valuable product information on each product package.



UDI regulatory compliance helps Teleflex deliver even greater levels of patient safety.

## About the Companies

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### About Teleflex

Teleflex is a global provider of medical technologies designed to improve the health and quality of people's lives. Teleflex applies purpose driven innovation to identify unmet clinical needs to benefit patients and healthcare providers. The company's portfolio is diverse, with solutions in the fields of vascular and interventional access, surgical, anesthesia, cardiac care, urology, emergency medicine and respiratory care. [www.teleflex.com](http://www.teleflex.com)

### About GS1 US

GS1 US®, a member of GS1® global, is an information standards organization that brings industry communities together to solve supply-chain problems through the adoption and implementation of GS1 Standards. More than 300,000 businesses in 25 industries rely on GS1 US for trading-partner collaboration and for maximizing the cost effectiveness, speed, visibility, security and sustainability of their business processes. They achieve these benefits through solutions based on GS1 global unique numbering and identification systems, barcodes, Electronic Product Code (EPC®)-enabled Radio Frequency Identification (RFID), data synchronization, and electronic information exchange. GS1 US also manages the United Nations Standard Products and Services Code® (UNSPSC®). [www.GS1US.org](http://www.GS1US.org)

**LANSA**



### About LANSA

LANSA is a leading provider of business process integration and data synchronization software. LANSA's product suite spans the entire supply chain process with solutions for GDSN participation, Product Information Management and data quality. LANSA is a solution provider for many GS1 Member Organizations worldwide and a leading 1WorldSync solution provider. LANSA is working with market category leaders include COTY, Del Monte Foods, Godiva, Hain Celestial, Hunter Fan and Pernod Ricard. Established in 1987, LANSA supports thousands of companies around the world with its products and services. [www.lansa.com/pim](http://www.lansa.com/pim)



### About 1WorldSync

1WorldSync is the leading multi-enterprise product information network, helping more than 23,000 global brands and their trading partners in 60 countries to share authentic, trusted content with customers and consumers, empowering them to make intelligent choices and decisions concerning purchases, lifestyle and well-being. 1WorldSync's Product Information Cloud platform was designed for businesses to exchange enriched product data and digital content, creating a mission-critical foundation for connected commerce. 1WorldSync is jointly owned by the member organizations of GS1 Germany and GS1 US. GS1 is the preeminent global organization for the development of global standards, for identifying, capturing and sharing product information. [www.1worldsync.com](http://www.1worldsync.com)

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