A **GHX** Case Study

# Siemens Healthcare Diagnostics

## Siemens Takes Holistic Approach to Global Data Standards

Like all companies with global operations, Siemens Healthcare Diagnostics manages data for thousands of products across multiple countries. To improve patient safety, streamline the healthcare supply chain and support compliance with industry and regulatory requirements, the company needed to standardize its product identification through the use of GS1 Global Trade Item Numbers (GTINs) and share product data with worldwide trading partners using the GS1 Global Data Synchronization Network® (GDSN®).

Instead of simply implementing standards to meet a specific regulatory or market requirement, Siemens took a holistic approach by examining how global data standards enablement could improve its internal business processes, as well as its interactions with global trading partners and customers.

### A Holistic Approach to Global Data Standards

As an organization that was formed through the acquisition and integration of three separate companies, Siemens inherited a disparate product identification system. It was using proprietary material numbers to identify products internally, but external transactions required multiple numbering systems. Even when products were assigned GTINs, there was no uniformity across product lines since legacy companies had used different versions of the GTIN, with various prefixes and lengths.

In 2009, as dialog around the use of GS1 data standards was heating up within the U.S. healthcare industry, Siemens' e-commerce team began exploring how it could enumerate with GTINs to comply with the December 31, 2012 sunrise date—the date by which a number of U.S. group purchasing organizations (GPOs) and major healthcare providers have designated that trading partners begin using GTINs in supply chain transactions.

Rather than simply assigning GTINs to products that were not previously identified, the team decided to take a holistic approach to global data standards adoption to determine how the use of GTINs could improve business processes for both the company and its customers.

"Global data standards adoption is part of our customer excellence strategy, as it enables us to deliver the right products to the right location at the right time," said Dietmar Hein, head of Global e-Commerce for Siemens Healthcare Diagnostics. "This not only improves patient safety, but also helps to drive down costs by streamlining supply chain processes and reducing errors."

## Siemens Overview

Siemens Healthcare Diagnostics is a part of the Siemens Healthcare Sector, one of the world's largest suppliers to the healthcare industry and a trendsetter in medical imaging, laboratory diagnostics, health information technology and hearing aids. Siemens offers its customers a single source for products and solutions that span the entire range of patient care—from prevention and early detection to diagnosis, treatment and aftercare.

## GHX Health ConneXion™

This case study includes the best practices that Siemens Healthcare Diagnostics employed to enumerate with GTINs and upload product data into the GDSN via the GHX Health ConneXion™ data pool. It also provides a glimpse into additional global data standards initiatives that Siemens has in progress, including efforts to transact using GS1 Global Location Numbers (GLNs) and GTINs across its trading partners.

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## A Single Point of Truth

"Standardizing product identification with GTINs touches every part of our company, so we had to carefully evaluate the impact it would have and the work that needed to be done to make it happen," said David Leedam, senior manager of e-Commerce for Siemens Healthcare Diagnostics.

The e-commerce group took an "investigative approach" to initiate its global data standards adoption project. This enabled the team to determine exactly what was needed and gain buy-in from management. The goal was to leverage global data standards to establish a single point of truth for its products, which would involve not only enumerating its products with GTINs, but also finding ways to share them with trading partners and use them in supply chain transactions.

## GTIN Allocation

The first step was for the team to determine which version of the GTIN it would use for product enumeration. The healthcare industry was trending toward the use of the 14-digit GTIN.

"Getting started can be difficult because there are so many standards for the same thing. A supplier must decide on which flavor of GTIN to use and then communicate that decision to its customers," said Leedam. "As a global manufacturer with tens of thousands of products, the 14-digit GTIN provided us with the flexibility to keep adding new GTINs to enumerate new products, but still retain the same root prefixes."

The next step for the team was to assess its current state for GTIN enumeration by reviewing the GTINs contained within the company's enterprise resource planning (ERP) system. This assessment would enable it to "clean up" product identification and address duplicates, including:
- Identifying products with the same GTIN
- Locating products with duplicate GTINs assigned to them
- Re-enumerating products to standardize on the 14-digit GTIN
- Assigning GTINs to products that had not yet been enumerated

Another challenge facing the team was amalgamating the processes for the allocation of GTINs inherited from its legacy companies.

"It is critical that a supplier define its GTIN allocation strategy upfront," said Leedam. "If you don't have a clear, global process for allocating GTINs, you can easily fall into the trap of allocating the same GTIN to multiple products or assigning more than one GTIN to the same product."

Eventually, Siemens plans to centralize the allocation of GTINs in its SAP® enterprise resource planning (ERP) system, which will automatically assign GTINs to saleable material when they are first entered into the ERP system—eliminating the risk of human error and preventing duplicate allocations.

To date, Siemens has enumerated a significant proportion of its products worldwide with GTINs and plans to be fully enumerated well ahead of the December 2012 sunrise date. The company is currently using GTINs in e-commerce transactions with customers in Spain and Turkey to comply with regional health authority regulations.

## GTIN Synchronization

By 2010, Siemens was ready to begin sharing its standardized product data with customers and trading partners. To do so, it joined GS1's Global Data Synchronization Network (GDSN), which enables trading partners to synchronize standardized organization and product data so that all parties are transacting with up-to-date and accurate information.

"By sharing product data through the GDSN, we are providing our customers with a single point of truth that they can use to support order accuracy from the very beginning of the order-to-cash process," said Hein. "This is what our customers have been asking for and it is in everyone's best interest to improve the accuracy and efficiency of the healthcare supply chain."

In a parallel, company-wide master data management initiative, Siemens also cleansed its worldwide product data—including product GTINs—and stored it in a centralized ERP system that feeds peripheral ERP systems for its sales operations in the United States and Europe. This ensured that all systems were functioning with cleansed data and provided a single source from which to draw its product information for the GDSN.

Siemens chose the GHX Health ConneXion™ data pool as its point of entry into the GDSN and worked closely with the GHX team to meet all attribute requirements for both GDSN and various government authorities. GHX provided the Siemens e-commerce team with a spreadsheet containing fields for the required product information, which enabled the team to draw the data to populate these fields directly from the ERP system. The data-cleansing effort on the front end of the project paid off as the initial upload to the GHX Health ConneXion data pool was simple and straightforward.

"The attributes can be a major stumbling block for manufacturers because there is so much data to collect," said Leedam. "Initially, we were going to load GTINs for only a few products, but after consulting with GHX, we extracted information for every product that had a GTIN. Within a half hour, the data was in hand and being prepared by GHX for upload."

As of May 2011, Siemens had published GDSN product data for its entire U.S. product line via the GHX Health ConneXion data pool. Siemens is also working with GHX to publish GTINs for additional product lines in Australia and Europe and is designing a process whereby its updates will be automatically loaded to the GDSN.

## Global Location Numbers

Siemens has also been addressing issues related to organization and location identification through the use of GS1 Global Location Numbers (GLNs). The company has enumerated itself with GLNs and is in the process of registering them in the GS1 GLN Registry for Healthcare® to prepare for GLN transactions with trading partners in the United States. In addition, Siemens is using customer GLNs in its group purchasing organization (GPO) administrative fee reporting to support compliance with the sunrise date.

"Initially, some GPOs had enumerated their customers so that when hospitals belonged to more than one GPO, they may have multiple GLNs for the same location. This, however, is improving thanks to the work that hospitals are doing with their GPOs to address the issue," said Leedam. "Moving forward, there should be a seamless process whereby there is a single GLN used by all parties to identify an organization or location throughout the entire purchase-to-payment and administrative fee processes, which will be a huge benefit in terms of accuracy and efficiency."

For Siemens Healthcare Diagnostics, the next step is the use of GLNs in electronic transactions with customers, and it is currently working with GHX on a bridging solution that will enable the company to accept electronic orders that contain GLNs through the GHX exchange.

## Global Data Standards at Siemens Healthcare Diagnostics Today

According to Hein, while adopting global data standards at Siemens started as a low-visibility operation, the project has gained importance and recognition over the last 18 months thanks to the e-commerce team and the increased media coverage on the topic.

"In late 2009, when we were still defining the scope, it was difficult to convince people that this is a really important issue. Now global data standards are attracting a lot of interest from all levels of the organization," he explained. "Because the project is now high-profile and there is increased visibility within the company, it is easier to gain people's attention."

By defining the business purpose of global data standards and using GTINs and GLNs to address specific organizational needs, Siemens is confident that supply chain processes will improve for all parties with which it transacts. In addition, the company's GTIN enumeration and data synchronization through the GDSN supports participation in the Global Harmonization Task Force and U.S. Food and Drug Administration's emerging Unique Device Identifier initiative, a proposed identification system for medical devices.

"Siemens has demonstrated—both in the healthcare sector and other businesses—the benefits that come from managing product data in a professional and standardized manner," said Hein. "It requires more time, resources and planning, but we believe that taking a holistic view of global data standards adoption will pay off in the end."

For Leedam, however, the important role that global data standards will play in e-commerce is only getting warmed up.

"In five years' time, customers who pick up the phone to place an order will be in the minority in healthcare," said Leedam. "The move toward e-commerce is accelerating rapidly and the pressure for trading partners to adopt e-commerce will force the standardization issue. Global data standards will become the cost of entry into e-commerce. If you aren't standardized, you won't easily play with those parties that are."