



Transforming
Healthcare
Together®

Lessons from Wave 2
Premier GLN Transaction Program


PREMIER

Global Location Number Implementation

“Sunrise Ready”



Lessons from Wave 2 Premier GLN Transaction Program

Introduction

Many large industries, including the retail, grocery and mass merchandise industries, have been using GS1 data standards for identifying locations and products in their transactions for several years, and, as a result, have realized significant operational efficiencies in their supply chains. The U.S. healthcare industry has declared standards from GS1 as its choice for describing basic information needed to improve patient safety, reduce costs and enable an efficient supply chain, and has thus established adoption dates of Dec. 31, 2010 for the GS1 Global Location Number® (GLN®) and Dec. 31, 2012 for the GS1 Global Trade Item Number® (GTIN®).

The Premier healthcare alliance's Purchasing Partners division has also endorsed the GS1 System of data standards, and has developed programs to help its members implement and transact using these standards in preparation for the industry-established adoption sunrise dates. With GLN first on the horizon, in mid-2009 Premier launched the **GLN Transaction Program** in an effort to outline the process for GLN implementation for its member hospitals. The GLN is a globally recognized identification number used in the GS1 System to identify legal entities, trading partners and customer locations in electronic commerce activities. In the program, early adopter provider organizations were paired with supplier partners to discover and document the steps necessary for successful GLN implementation. Participants then shared their experiences and lessons they learned with

others in order to accelerate GLN adoption by the healthcare industry as a whole. Participants determined that preparing to implement the GLN can be done right now and in short order, with immediate benefits – regardless of other implementation challenges that may exist.

2010 GLN Sunrise

The goal of the 2010 GLN Sunrise is to use standardized location identification (GLNs) by December 2010, which means:

- GLNs are assigned by location owners.
- GLNs are used in appropriate business transactions and processes between trading partners.
- GLN hierarchy is defined and maintained by location owners.
- GLN Registry for Healthcare® is used to facilitate correct location identification.

For more information about the industry sunrise dates for both the GLN and GTIN, go to www.gs1us.org/hcsunrise.

Background

Having reliable and consistent location information for the delivery of medical products is important for patient safety, and is also needed to enable smooth business processes between trading partners. The Global Location Number® (GLN®), a globally recognized identification number used to identify legal entities, trading partners and customer location

in electronic commerce activities, ensures the proper delivery of products to the right location, and allows trading partners to improve supply chain efficiencies.

Goals of the GLN Transaction Program include:

- To better understand the use of The GLN Registry for Healthcare®
- To identify the steps to GLN implementation
- To identify the challenges in implementation
- To share lessons learned to accelerate adoption and implementation

The Premier GLN Transaction Program features member organizations paired with supplier and technology partners mobilized to discover and document the steps necessary to successfully implement the GLN. In the Program's second wave (February through July 2010), participants advanced the growing industry GLN implementation knowledge bank by taking the necessary steps to ready their systems and documents to include GLN information. Provider experiences during Wave Two included deeper interactions with trading partners and technology vendors, and transactions of business documents with fax in addition to EDI. Among other experiences, Wave Two participants:

- Worked more closely with MMIS partners to understand system capabilities.
- Established GLN implementation processes internally and with trading partners.
- Worked with EDI exchange providers such as GHX.
- Successfully transmitted GLNs on both EDI and automated fax orders.

This Wave Two report provides a summary of participants' experiences and lessons learned, and serves as an extension to the Program's Wave One report: "Global Location Number Implementation: *On your way to better supply chain interactions.*" Premier published the Wave One report on April 21, 2010, which can be found at:

<http://www.premierinc.com/about/news/10-apr/gln-implementation.pdf>.

GLN Transaction Program – Wave Two

In Wave Two of the Premier GLN Transaction Program, member organizations and supplier partners were put together in 14 "pairings" to implement GLN and advance industry knowledge of the challenges and opportunities related to GLN adoption. Participants from all sides of the supply chain – group purchasing organization, provider, manufacturer, distributor, MMIS/ERP vendor and EDI exchange provider – expressed that they appreciated the opportunity to work toward mutual goals, problem-solve together and strengthen their business relationships.

Similar to Wave One experiences, there were successful GLN transactions but also limitations that prevented transactions from being completed. As in Wave One, participants felt that even in circumstances where transactions did not take place, they had become better prepared through the participation experience. Participants believe that as a result of Premier's Wave Two participation, they are now "GLN ready" either by already transacting with their ship-to GLNs, knowing what to expect in order to make implementation a reality, or having a process mapped out for implementing GLNs when their systems become GLN capable or other transaction limitations become resolved.

Another general observation out of Wave Two is the varying degree of knowledge across participants. As more than one participant noted, some trading partners needed more education than others on the value of the GLN and what efficiencies its widespread use could bring to the supply chain. The knowledge differential could be seen among providers, MMIS vendors and suppliers.

Participants agreed that GLN adoption is at an early stage, and there is no clear “GLN implementation template” that can currently be

leveraged completely across the board. Experiences like Premier’s GLN Transaction Program, according to participants, are helping in bringing the right parties to the table to drive industry momentum for GLN implementation.

Below is a table of participants whose Wave Two experiences are outlined in this report:

Premier Member and Highest Level GLN	Provider Information System	Supplier Partners	Transaction Relationship
Allegiance Health www.allegiancehealth.org GLN: 1100005283251	MediClick www.mediclick.com	Owens & Minor www.owens-minor.com STERIS Corporation www.steris.com	Direct EDI and direct fax
Banner Health www.bannerhealth.com GLN: 1100005367838	Lawson v. 9.0.0.0 www.lawson.com	Ascent: A Stryker Sustainability Solution www.ascenths.com	GHX MetaTrade www.ghx.com
Boston Medical Center www.bmc.org GLN: 1100003839023	Lawson v. 9.0.0.4 www.lawson.com	St. Jude Medical Center www.sjm.com	GHX www.ghx.com
Geisinger Health System www.geisinger.org GLN: 1100002569136	Lawson v. 9.0.0.4 www.lawson.com	Ascent: A Stryker Sustainability Solution www.ascenths.com Cardinal Health www.cardinalhealth.com Owens & Minor www.owens-minor.com	Direct EDI and direct fax
Summa Health System www.summahealth.org GLN: 1100004195593	Oracle’s Peoplesoft 8.9 www.oracle.com	STERIS Corporation www.steris.com	GHX www.ghx.com

Steps to Implementation

The Premier GLN Transaction Program is reinforcing the need to ensure alignment of GLNs throughout the healthcare supply chain. It is essential that the GLNs enumerated and used by the healthcare provider are displayed accurately on the GPO roster and are the same ones utilized by the distributor and the supplier. To eliminate errors, all four parties (healthcare provider, GPO, distributor and manufacturer) must use the same GLN number and have a common understanding of the location it represents. Further, any exchange partner or third-party company that will handle the transaction data between the trading partners should be made aware of the change from using account numbers to using GLNs to ensure that the GLNs flow cleanly through their systems. Most importantly, it is essential that the trading partners agree on common process rules and timing when changing, adding or modifying locations using GLNs.

Wave Two participants concurred with the process steps identified and outlined in the results of the first wave of Premier's GLN Transaction Program (see Wave One report for details), with a few additional enhancements (below in **green**):

1. Reconcile with GPO Roster.
2. Take maintenance control of GLN Registry for Healthcare® information.
3. Establish proper GLN hierarchy strategy.
4. Communicate your GLN hierarchy with your GPO to make sure your information is aligned.
5. Cleanse and reconcile your "ship-to" locations with suppliers, **including distributors and manufacturers with which you have direct trading relationships and with exchange**

providers that facilitate EDI transactions.

6. Upload GLN to provider information system and make any necessary changes to enable EDI to transmit GLNs.

Understand your MMIS system capabilities, as well as process protocols established by trading exchanges (e.g. GHX).

7. Begin transacting using GLN.
8. Identify challenges and establish work around solutions when appropriate.
9. Stay involved and contribute to the growing healthcare GLN knowledge bank.

Overall Lessons Learned

As in the initial wave of the program, participants experienced benefits from the steps they took to prepare for GLN transactions, regardless of whether they were able to transact at this time.

The lessons learned in Wave Two added to or reinforced those from Wave One, and included:

- **Communicate**
 - Keep communications channels open and make sure you are working toward mutual goals with your trading partners.
 - Communicate progress and status as the project evolves.
 - Be flexible in resolving challenges that arise.
 - Publicize your achievements to industry.
- **Collaborate**
 - Work with your GPO to clean your GLN Registry records and hierarchy as early into the process as you can.
 - Investigate how account numbers are used in your business processes internally and externally, and be

prepared to modify those processes before or in conjunction with changes to IT systems and databases.

- Work within established exchange protocols for GLN transmission (if provider uses an exchange).
- Establish a strong partnership with your MMIS partner and also your internal Information Services department. Given that this initiative is software intense, there must be buy-in and shared goals among these parties to achieve a successful outcome.
- **Advocate**
 - Develop experts, both in areas of process changes as well as technical areas. These experts will serve as your champion and will help pave the path toward full GLN implementation.
 - Build organizational consensus internally for better management of the process.
 - Understand and agree upon the purpose of location standardization and what it means to each trading partner and to industry.
- **Get Started**
 - There are varying degrees of GLN adoption readiness among hospitals due to variations in their MMIS/ERP system capabilities and business processes. Whatever the scenario, there is immense value in beginning the GLN implementation process with your MMIS provider and supportive trading partners.

Advantages of the Global Location Numbers

Without a standardized approach, the use of proprietary location identification numbers results in a multitude of numbers to manage and maintain for a single location, creating inefficiencies and confusion in the supply chain. The use of GLNs avoids those problems and provides companies and healthcare organizations with a method of identifying locations that is:

- **Simple:** an easily defined data structure with integrity checking that facilitates processing and transmission of data.
- **Unique:** GLNs are globally unique.
- **Multi-sectoral:** the non-significant characteristic of the GLN allows any location to be identified for any company and organization regardless of its activity anywhere in the world.
- **Global:** implemented around the world and supported by GS1 US and the international network of other GS1 Member Organizations, covering more than 100 countries.

For more information and details on GLN, visit: www.gs1us.org/healthcare.

Wave 2 Experience Summaries

Experience Summary One

Participating Organizations:

Allegiance Health

Owens & Minor

STERIS Corporation

Descriptions:

Community-owned health system serving south central Michigan
www.allegiancehealth.com

Leading distributor of med/surg supplies to the acute care market. Leading provider of supply chain management solutions with annual revenue of over \$7.2 billion
www.owens-minor.com

With a unique combination of infection protection and contamination control products and services, STERIS Corporation offers customized solutions for a variety of environments.
www.steris.com

Transaction Relationship:

Direct EDI and fax

Relevant Systems Information:

Mediclick, version 4.50SP025
www.mediclick.com

Custom ERP

Oracle v. 11.5.10.2

Don Boss
Vice President, Supply Chain Strategy

Program Participants:

Dan Bissot
Supply Chain Process Manager

Sang Chong
Enterprise Architect

Draga Matic
Project Manager

Brook Ladd
Director, Materials Management

Brian Thomas
Director of Corporate Accounts

Carol Froedert
Purchasing Manager

Ranee Janiak
Purchasing Agent

Mary Fairley
Manager, Accounting/AP

By joining the Premier GLN Transaction Program, Allegiance Health expected to establish a process for utilizing GLNs as well as to gain accuracy and efficiencies in supply chain interactions. Dan Bissot, Allegiance’s supply chain process manager, was pleased to have his expectations met.

“We hoped to be able to move forward with becoming GS1 compliant, meaning that all trading partners would be communicating using the GLN without the use of the vendor-assigned account numbers. The Premier program got us

closer to that goal,” Bissot says. “We now have our GLNs identified and synchronized with Premier and our supplier partners in the program, STERIS and Owens & Minor. We are able to replicate the process established in this pilot to perform purchase order transactions via EDI and fax using the GLN.”

Bissot’s first step in GLN implementation was to validate Allegiance Health’s GLNs based on the Premier member roster. After internal discussions, Allegiance agreed on the correct GLNs based on the hospital’s primary ship-to

location, made the necessary edits in the GLN Registry for Healthcare®, and then synchronized their GLNs with Premier and both test partners, STERIS and Owens & Minor.

Once reconciliation was complete, the next step was to begin the transaction portion of the implementation. This step involved developing a process and system architecture that would accommodate GLN use in order transactions. In this step, Allegiance’s first goal was to prove out the use of GLNs in fax transactions. For fax transactions, a print-formatted copy of the PO is electronically transmitted to the supplier.

“For fax transactions, we needed to develop a solution that would populate the GLN on the PO,” Bissot recalls. “This step was simple since we currently list the vendor-assigned account number on all POs, and our MMIS provider

MediClick offered a solution whereby we simply locate the vendor account number field within the software and replace this number with the GLN.” This transaction was performed with STERIS, who received the test PO via fax and confirmed seeing the GLN noted on the PO.

“Overall, this process can be replicated for any supplier who receives POs via fax and can validate our GLN in lieu of the account number,” Bissot adds. The ability for GLNs to be included in fax-based transactions is significant in driving GLN implementation across the industry, as a large percentage of hospital-based ordering – as much as 60 percent as reported by some participants – is still completed using fax rather than EDI.

Allegiance’s next goal was to prove out the use of GLNs in direct EDI transactions. In the case of STERIS, they were not boarded with Allegiance Health for EDI transactions. This required MediClick to work closely with the STERIS EDI team to create EDI maps, which is a standard set-up process. In the case of Owens & Minor, EDI transactions were already occurring and did not require this process.

“This experience underscored that implementing GLNs is not as simple as flipping the switch, yet it is not difficult to work through the challenges either.”

The MediClick team began forming software development ideas for how to house the GLN and integrate it into PO communications. During this process, MediClick created a presentation for use in communicating potential system changes to internal MediClick programmers and to their provider customers. MediClick encouraged feedback from its internal team and customers throughout this process to ensure customer

requirements were considered.

“We determined that our system would need to accommodate whatever account identifier the customer needs us to use, so our software is flexible enough to allow a GLN or a vendor’s hospital account number if they are not yet using GLN,” says Don Boss, vice president of supply chain strategy, MediClick. As such, MediClick created two open fields identified as *Bill To GLN Code* and *Ship-to GLN Code*. In addition, MediClick provided a checkbox located in the Vendor Buy/From Location file named *Use GLN for PO Communication*.

These added fields allow providers to keep the current vendor hospital account number intact while also having the ability to utilize the GLN in communications by simply clicking the GLN

checkbox. Upon checking this box, the EDI map would then subsequently change for newly created and authorized POs. For this PO communication, when the GLN box is checked, the PO would then utilize the EDI map containing the UL identifier/GLN for the N1-ST (Ship-to Information) and N1-BT (Bill To Information) segments.

Alliance Health conducted direct EDI (EDI 850/PO and 855/PO Acknowledgement) transactions with both STERIS and Owens & Minor using this process. The test with STERIS was performed as a “data” test where both technical teams validated the accuracy of the data. The test with Owens & Minor was a full communication test.

“We owe our success in the program to our relationships and to organizational flexibility,” Bissot says of the Premier program. “The strong partnerships of those involved in testing— provider, MMIS provider and our two supplier partners – were conducive to being successful. All trading partners pulled in the required resources to solve any particular challenge when needed.”

“We had the internal support and resources to implement software changes that are needed to support GLN implementation,” Boss says. “This experience underscored that implementing GLNs is not as simple as flipping the switch, yet it is not difficult to work through the challenges either.”

Both Bissot and Boss offer key takeaways to anyone just starting on the GLN implementation process:

Key experience takeaways:

- Establish a team structure for implementation, with an overall team leader acting as the project manager. Having a point person for all stakeholders will allow for accountability and organization in communications.
- Communicate regularly with all stakeholders.
- Establish a strong partnership with your MMIS partner and also your internal Information Services department. Given that this initiative is software intense, there must be buy-in and shared goals among these parties to achieve a successful outcome.
- Utilize a test system or test POs to avoid confusion or errors.
- Generate support from Executive Sponsors, Information Services, Purchasing and Accounts Payable
- Identify all of the expected deliverables/outcomes from the project.
- Be flexible and anticipate adjusting your plans as you progress, because there *will* be changes.
- Take advantage of the GLN Registry training provided by your GPO to understand how to modify your GLN information and the different ways to classify your organization locations.
- Celebrate your success no matter how big or small.

Experience Summary Two

Participating Organizations:

Banner Health

Ascent: A Stryker Sustainability Solution

Descriptions:

Based in Phoenix, Ariz., Banner Health is one of the largest nonprofit health care systems in the country. www.bannerhealth.com

Ascent, a division of Stryker Corporation, is the leading provider of reprocessing (cleaning, testing/verifying, packaging and sterilizing) and remanufacturing (disassembling, repairing and manufacturing) services for medical devices as well as comprehensive recycling and redistribution initiatives. www.ascenths.com

Transaction Relationship:

Electronic via GHX MetaTrade
www.ghx.com

Relevant Systems Information:

Lawson v. 9.0 (at time of transactions) currently v. 9.0.1
www.lawson.com

Oracle J.D. Edwards EnterpriseOne
www.oracle.com

Program Participants:

Paul Ophaug
Senior Director of Supply Chain Information Systems

Will Probst
Senior Director, Supply Chain

Make Halmrast
Director of Purchasing

Ben Romanski
Project Manager

Darcy Aafedt
Contract Administrator

Manny Ornelas
Senior Systems Coordinator

Paul Ophaug, Banner Health's senior director of materials information systems, was pleasantly surprised that it only took three weeks, with about three hours spent per week, to prepare his hospital for GLN implementation, including the successful transmission of the GLN in place of custom account numbers in order transactions with a key supplier partner, Ascent: A Stryker Sustainability Solution.

"Like anyone getting started, our first stop was the GLN Registry for Healthcare. We made some changes to our hierarchy to better reflect how we view our own organization, and then we reconciled our GLNs with Premier's member roster," Ophaug recalls. "Working with Ascent, we replaced our existing account numbers with

the corresponding GLNs. The whole process ensures that supplier and provider are speaking the same language, which is key to getting the product to the right location."

Because Ascent is a reprocessor of medical equipment, it does not "sell" products in the traditional sense. Rather than the provider issuing a purchase order to the supplier when supplies need replenishing, Ascent sends a PO request to the provider once it collects the equipment ready to be sterilized and reprocessed. In that model, oftentimes it is the supplier that is first to issue a transaction document that would include the provider's GLN.

“The GLN initiative is helping us to validate that the address information we have for providers is accurate,” says Ben Romanski, project manager for Ascent. “Out of this, we have been able to establish a process that we are leveraging to enumerate each customer’s GLNs. We are currently transacting only using GLNs for many providers, and we are ready to meet GLN Sunrise requirements.”

While Banner’s current version of its MMIS does not contain a GLN field, Banner used the Lawson account number field to hold the GLN until the hospital is ready to upgrade. Using the GHX application MetaTrade, the GLN was electronically passed to Ascent when Banner submitted its PO in response to the PO request. Banner and Ascent continue to process documents using the GLN, including on purchase order requests, purchase orders, shipping notices, packing slips and invoices.

“Premier’s program has been very beneficial to Ascent because we have learned what the steps are to enumerate our own organization, along with support from other organizations within the Premier pilot program. We have successfully integrated the GLN into our own ERP system and have those GLNs being transacted with our customers,” Romanski says.

In order to ensure proper implementation of the GLN for its own organization and in place of its customer account numbers, Ascent went through the following steps:

1. Looked at Ascent’s organizational structure and how GLNs would be used within Ascent.

2. Applied for GS1 Company Prefix.
3. Reviewed current ERP system to identify a placeholder for the GLN.
4. Programmed all necessary documents where the GLN should be present.
5. Worked with the two partners (Banner and Geisinger Health System) and started cleansing the address information within their system.
6. Worked with GHX on enabling the MetaTrade application to display GLN from the provider.
7. Enumerated the GLN within its ERP system.
8. Tested transactions from end to end.
9. Built a roadmap for obtaining the rest of its customers’ providers’ GLNs and enumerating those GLNs within its system.
10. Submitted the GLN Declaration of Readiness Document to GS1 Healthcare US.
11. Communicated commitment to GLN adoption via a press release.

Key experience takeaways:

- Test the transaction process thoroughly from end to end to make sure the GLN is in all expected files and documents.
- Make sure when you synchronize with the vendor you are in agreement on all the ship-to locations for your hospital and what the new GLN is for those ship-to locations.
- Participate in opportunities to learn about the GLN.
- Get started!

“The whole process ensures that supplier and provider are speaking the same language, which is key to getting the product to the right location.”

Experience Summary Three

Participating Organizations:

Boston Medical Center

St. Jude Medical

Descriptions:

Located in Boston's historic South End neighborhood, BMC is a private, not-for-profit, 639-licensed bed, academic medical center and the primary teaching affiliate for Boston University School of Medicine.

www.bmc.org

Headquartered in St. Paul, MN, St. Jude is a medical technology and services company with four major focus areas: cardiac rhythm management, atrial fibrillation, cardiovascular and neuromodulation products.

www.sjm.com

Transaction Relationship:

EDI via GHX

www.ghx.com

Relevant Systems Information:

Lawson v. 9.0.0.4

www.lawson.com

SAP CRM 5.0; SAP ECC 5.0

www.sap.com

Program Participants:

Annie Choquette

Associate Director of Financial Information Systems

Gail Walsh

Procurement System Analyst of Financial Information Systems

Melissa Plicque

Senior e-Commerce Administrator

Elizabeth Johnston

GPO Administrative Analyst

Like most participants, Annie Choquette, associate director of financial information systems at Boston Medical Center (BMC), entered the Premier GLN Transaction Program to gain a better understanding of what actions her organization would need to take to successfully go live using the GLN number.

"It's one thing to hear about what is involved in implementation, quite another to actually do it. Having gone through the Premier program, we are so much better positioned to start using GLNs, and feel quite confident that we are Sunrise ready," says Choquette. "To those who feel apprehensive about getting started, I know now that implementation is manageable, and I found the experience extremely valuable."

To get started, Choquette went to the GLN Registry for Healthcare, which she found surprisingly easy to use. Choquette encourages hospitals to own the information stored in the GLN Registry in order to make sure it reflects

how hospitals view their own organizations. "Appoint a person responsible for establishing the GLN hierarchy for your organization, and maintaining the GLN Registry to keep information associated with your organization current," Choquette advises. "When clinics open, close or move to different locations, the GLNs will need to be updated, for example. No one knows your organization better than you do, so it is important that providers take ownership of GLN management."

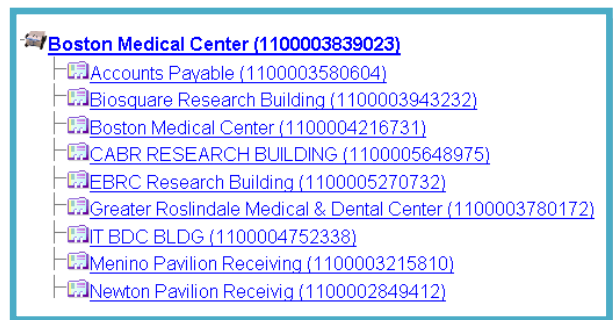


Fig. 1. – GS1 GLN Hierarchy for Boston Medical Center

Once BMC had established its GLN hierarchy, it then worked with Premier to reconcile the GLNs for the organization's ship-to locations against the locations loaded in Premier's member roster.

Once ship-to locations were assigned their corresponding GLNs, Choquette identified the appropriate field in the hospital's Lawson MMIS in which to store the GLN. Because BMC uses GHX to transmit EDI orders, Choquette reviewed GHX's guidelines for GLN transmission during this process as well, and worked closely with GHX to have the hospital's GLN set up for a purchase order for their St. Jude account.

The first test PO file for EDI transmission was not able to successfully transact because BMC's MMIS version did not include a GLN field recognized by its exchange provider. Boston re-transmitted the PO, this time as a "translation only" process requiring the hospital to manually edit the N1 ST segment on the translated file to equal the recommended change outlined by GHX.

"The good news is that St. Jude did confirm receipt of the PO in EDI and was able to recognize the GLN. However, in the long term, manually manipulating EDI data lines to successfully enable GLN transmission is not realistic," Choquette says. "This is an issue that will be resolved once we upgrade our Lawson ERP in the spring of 2011. Lawson also offered the EDI upgrade version to meet the GLN Sunrise date of December 2010. We will be upgrading our current EDI version this fall."

As a result of participation in the Premier GLN Transaction Program, St. Jude Medical has

gained a better understanding of how GLN adoption will affect their customers, which aids in planning and implementing technical infrastructure changes at St. Jude to support full GLN usage. The program helped identify the

technical steps that need to be taken to enable successful submissions of product orders containing the GLN today and what changes must occur for complete production-ready GLN adoption.

"We are learning a lot about how we can expect to use GLNs – both internally and in transactions with our customers – as a primary identifier and in conjunction

with other account identification data," says Melissa Plicque, senior e-commerce administrator, St. Jude. "Some hospitals may assign GLNs at the physical address level while others may assign them at the department or mailstop level, or may assign them at a functional team level that does not directly correlate to a physical location. Whatever the case, we will likely need to use additional account identifiers internally for reporting purposes."

St. Jude identified steps it took to implement full production support for GLN, including:

- Identifying the appropriate field within its ERP system for storing the GLN.
- Receiving GLN data from Wave Two participant customers BMC and Banner Health.
- Storing GLN data with account data in their ERP.
- Validating GLN numbers to account addresses; correcting as necessary.

"No one knows your organization better than you do, so it is important that providers take ownership of GLN management."

- For large customers, validating account information to reduce or eliminate instances where multiple account numbers may be assigned to a single GLN location.
- For EDI orders being sent through an exchange, registering GLN numbers for each account so orders can be submitted via the exchange.
- Modifying interfaces with exchange providers so the GLN number can be received in the incoming PO, as well as in the return order acknowledgments, shipping notices and invoices.
- Modifying order processing transactions to use the GLN.
- Modifying customer service, account management and contracting processing documents and templates to include use of GLNs.

Through its efforts to date, St. Jude has simplified its customer account structure for selected customers, which reduces the potential for shipping and invoicing errors. “The full benefits of GLN will be realized as processes are simplified and data duplication is reduced,” Plicque adds.

“GLN implementation is fast becoming a business reality. While we go through the learning pains, we must not lose sight of the bigger goal of what we are trying to do with the technology – and for us that means to improve supply chain efficiency, enhance reporting capabilities and streamline customer data management processes,” Plicque says.

Key experience takeaways:

- Get started with GLN implementation; the task will be manageable
- Customer data clean-up is the most important task; establish the maintenance process up front
- Participate in educational opportunities from GS1 Healthcare US, your GPO and other organizations
- Involve your EDI exchange provider early in the process
- Understand your system capabilities and limitations
- Build a strong, supportive internal team including individuals from systems and IT
- For suppliers—maintain record of specific customer requests for GLN

There’s value in getting started with GLN implementation

Baxter Healthcare, the first manufacturer to have declared “GLN Readiness” via the GS1 Healthcare US® initiative and Wave One participant, continued its participation in the Premier GLN Transaction Program and was paired with a provider customer. Ultimately that customer put its participation in Wave Two on hold pending upgrades to its MMIS/ERP to enable GLN transmission. “Some customers are struggling with how much to take on this early in the process,” says Barb Zenner, senior project manager at Baxter. “I believe the whole process is made simpler by keeping sight of the big picture – the immense value having consistent location identification can bring to the supply chain. Understanding the context makes the implementation details easier to digest.”

Baxter is working with multiple providers on GLN implementation as well as implementing GLNs internally. Zenner and her team met with each Baxter business unit to review internal processes where account numbers are used. They determined the impact of using the GLN vs. their proprietary customer account number, and wrote a process for reconciling the accounts of provider partners. By July 2011, Baxter plans to have GLNs used in place of account number for GLN-ready provider customers.

Experience Summary Four

Participating Organizations:

Geisinger Health System	Ascent: A Stryker Sustainability Solution	Cardinal Health	Owens & Minor
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Descriptions:

Based in northeastern, PA, Geisinger is an integrated health services organization widely recognized for its innovative use of the electronic health record and the development and implementation of innovative care models. www.geisinger.org	Ascent, a division of Stryker Corporation, is the leading provider of reprocessing (cleaning, testing/verifying, packaging and sterilizing) and remanufacturing (disassembling, repairing and manufacturing) services for medical devices as well as comprehensive recycling and redistribution initiatives. www.ascenths.com	Headquartered in Dublin, OH, Ohio, Cardinal Health, Inc. is a \$99 billion health care services company that improves the cost-effectiveness of health care. www.cardinalhealth.com	Leading distributor of med/surg supplies to the acute care market. Leading provider of supply chain management solutions with annual revenue of over \$7.2 billion. www.owens-minor.com
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Transaction Relationship:

Direct EDI or via fax automation

Relevant Systems Information:

Lawson v. 9.0.0.4 www.lawson.com	Oracle J.D. Edwards EnterpriseOne www.oracle.com	[not provided]	Custom ERP
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Program Participants:

Deb Templeton Vice President of Supply Chain Services	Will Probst Senior Director, Supply Chain	Bill Zimmerman Director of Enterprise Maintenance Governance	Sang Chong Enterprise Architect
Darrel Dudeck Supply Chain Systems Analyst	Ben Romanski Project Manager	Karen Lewis Business Analyst, Master Data Management	

A national leader in healthcare supply chain standards adoption, Geisinger continued the progress made in Wave One of the Premier GLN Transaction Program by expanding its use of GLN in EDI processing, testing it in fax processing and continuing to add vendor partners to their portfolio of suppliers using GLN.

In order to gain true efficiencies in the overall healthcare supply chain, Geisinger and other participants believe a critical mass of GLN conversions must be reached. "However, as we go from vendor partner to vendor partner, the GLN conversion process gets easier and easier," says Deb Templeton, vice president of supply

chain services for Geisinger. Templeton also generally noted that some of the promised benefits of standardized location identification are starting to trickle in, even at this early stage.

"A more accurate flow of data enables greater confidence in ship-to locations, a seamless transaction process and real-time account availability," Templeton adds. She observed reductions in:

- Time spent creating and maintaining cross reference tables;
- Mis-ships;
- Pricing errors;
- Invoice errors;

- Time spent resolving administration fee issues; and.
- Time spent resolving contract/rebate issues.

The Premier program also helped Geisinger identify supplier partners that were interested in implementing the GLN, and with which the

hospital already had a transactional relationship. “We are now in the fortunate position of having a waiting list of vendors cued up for GLN implementation,” she says.

Geisinger and Ascent were able to complete a fax-based order transaction with the GLN through the Lawson system (using the account number field)

and a fax communicator. The GLN appeared on the PO request, order acknowledgement and invoice, and Geisinger and Ascent continue to use GLNs in their day-to-day order interactions.

“There is not really a best practice on enumerating the GLN, as the industry is in the beginning of this major shift towards the implementation of standards. That is why programs like Premier’s can really help lay the foundation for how it can be done,” says Ben Romanski, project manager for Ascent. “GPOs need to continue to help providers get started, as the knowledge level around the GLN varies from one account to the next.”

Cardinal Health joined the Premier GLN Transaction Program to help promote the adoption of GS1 Standards across the supply chain and partner with interested providers and/or suppliers in use of GLN in electronic transactions. As a result, Cardinal Health has expanded its network of both providers and suppliers that are interested in using GLN and eventually GTIN.

“...our relationships with customers are even stronger, because we are problem solving together toward mutual goals.”

“I have learned so much more about standards, the processes and the supply chain in general—as well as the various materials systems being used and what it might take to be able to implement use of GLN on them,” says Bill Zimmerman, director of enterprise information

governance at Cardinal Health.

Cardinal Health declared support for GS1 Standards to be used for location and product identification in a March 2010 press release, and is enumerating its own organization with GLNs.

In the Premier program, Cardinal Health worked with three provider organizations

to reconcile GLNs with location information stored in the Cardinal Health system, though all three providers experienced limitations within their current versions of MMIS and ultimately could not transact with GLN. Those providers will re-enter the Premier GLN Transaction Program once upgrades to their MMIS are available. In the meantime, Cardinal Health continues to work with many other hospital customers on to implement GLNs. Zimmerman uses a three-step process when working with providers to implement GLNs, which entails:

Step 1 – Assessment

- Cardinal Health resources: business analyst
- Provider resources: materials mgr and IT

Step 2 – Reconciliation

- Cardinal Health resources: business analyst, sales consultant
- Provider resources: materials manager

Step 3 – Configuration and Testing

- Cardinal Health resources: IT EDI team
- Provider resources: provider EDI team
- GHX resources (if using GHX)

Cardinal Health is also working with Geisinger on implementing GLNs for its pharmaceutical distribution relationship, though that initiative is outside the scope of the Premier GLN Transaction Program.

“It’s an exciting time to be in the healthcare supply chain,” says Zimmerman. “Programs like Premier’s encourage participants, with their trading partners, to address specific pain points in the supply chain – particularly around the ability for GLN to be a single, acceptable identifier for all links in the supply chain. In addition, our relationships with customers are even stronger, because we are problem solving together toward mutual goals.”

During Wave Two, Owens & Minor was in the middle of a major upgrade of its custom-built ERP system. They participated in the Premier program to continue to interface with additional partners and share information on implementation approaches and GLN readiness. According to Sang Chong, enterprise architect for O&M, the distributor is following the standard EDI format for using GLNs at the ship-to level.

O&M and Geisinger were able to successfully transmit GLNs in a pilot environment. The Premier program enabled O&M to gain further details on EDI system mapping changes required for transacting with GLNs, catch any implementation details that were not obvious from the conceptual design, and find ways to standardize GLN implementation among trading partners. The conversion to GLN process for O&M requires that O&M cross reference GLNs internally to ship-to codes. As a result, Chong and his team are working closely with trading partners to ensure the GLNs are correctly cross-referenced to locations that O&M has stored in the database. O&M has been able to undertake this effort successfully in the Premier program with both Geisinger and Allegiance Health, and

with other customers outside of the Premier program.

“Our internal upgrade should be complete by the end of the year,” Chong says. “At that time, we will be able to move customers with whom we have tested the GLN to full production. Through Premier’s GLN Transaction Program and other efforts, we feel we are GLN Sunrise ready.”

During the Premier program, O&M took the following steps to enable GLN transmission for its customers:

- Prepare and set up pilot environment with temporary translation table (GLN to Ship-to Account code).
- Identify the partners and the EDI exchange process already set up for the partner.
- Cross Reference GLNs to Ship-To codes using spreadsheet. Validate the cross reference between all parties.
- Update the translation table with the cross reference data.
- Confirm EDI formats with the piloting partner.
- Implement the EDI mapping changes.
- Test transactions.

Key experience takeaways:

- Work with your GPO to clean your GLN Registry information early in the process.
- Make sure that the appropriate people or teams participate with the reconciliation effort. These people need to have a good understanding of their accounts and organizational structure.
- Find out what systems limitations, if any, will impact an implementation. If a limitation is discovered, research what options and/or workarounds can be explored.
- Communicate with partners on readiness and current status as well as future goals regarding your GLN adoption plans.
- Start simple – start with ship-to locations to limit complexity.

Experience Summary Five

Participating Organizations:

Summa Health System

STERIS Corporation

Descriptions:

Summa Health System is one of the largest organized Delivery systems in Ohio.

www.summahealth.org

With a unique combination of infection protection and Contamination control products and services, STERIS Corporation offers customized solutions for a variety of Environments.

www.steris.com

Transaction Relationship:

Electronic via GHX

www.ghx.com

Relevant Systems Information:

Oracle's Peoplesoft 8.9

www.oracle.com

Oracle v. 11.5.10.2

www.oracle.com

Program Participants:

Scott Hazen

Senior Application Analyst

Draga Matic

Project Manager

Brian Thomas

Director of Corporate Accounts

When Scot Hazen, senior application analyst at Summa Health, started in Premier's GLN Transaction Program, he thought GLN implementation could be a simple addition of a single number into one field on his PeopleSoft MMIS. Though the experience turned out to be much more complex, Hazen says that he learned from his participation in the program that using GLNs will have a "better long-term benefit that I initially anticipated."

"Having better, cleaner ship-to location information using the GLN will provide reliable and consistent location information, which is important for patient safety," Hazen says. "By using a consistent location identifier across all trading relationships, we can ensure the proper delivery of products to the right location. Benefits may not come in hard dollars, but the error avoidance alone will be enough to make a significant impact."

Once Summa Health determined its GLN hierarchy, it reconciled its GLNs with Premier as well as with its supplier partner, STERIS. Summa Health ran into technical challenges while trying to transmit a PO using GLN.

"Our supplier partner was fantastic, but we are moving faster than our technology will allow," Hazen says. "Due to technology limitations, which Summa is aggressively addressing, we are not able to move forward as quickly as we'd like on the project. In addition, our ERP system does not have the capability to include GS1 Standards, making it difficult for us to plan long term on how we want to communicate using the GLN, and then, later, the Global Trade Item Number (GTIN)." The industry has established a sunrise date for GTIN as December 31, 2012.

In order to test the transmission of GLN in a fax order to STERIS, Hazen and his team hard-coded changes into his MMIS, using a GLN cross-

reference table for the ship-to field. STERIS was able to confirm that the GLN showed up on the fax order when they received it electronically. In the coming months, Hazen will be evaluating his options for enabling GLN capability within its ERP.

“Although we had valuable discussions throughout the pilot process, we could not test a true flow of the data as there were barriers to transmission of the GLN,” says Draga Matic, project manager at STERIS. “The pilot itself was meaningful to a point in that we identified flaws in processes and additional systems requirements, therefore allowing resolution prior to actual go-live. We are ready when our customer is ready.”

STERIS took the following steps to implement GLN:

- Established corporate sponsorship and assigned a Project Manager.
- Educated project team on GS1 Standards and GPO requirements.
- Defined project objective and approach.
- Developed a detailed project plan with task owners and targeted completion dates.
- Conducted monthly project team meetings to ensure timely task completion.
- Subscribed to the GLN Registry for Healthcare and registered the STERIS Entity GLN.
- Created fields in the Customer Master to store Customer GLN data.
- Enumerated STERIS GLNs and uploaded into Oracle ERP System.

“Benefits may not come in hard dollars, but the error avoidance alone will be enough to make a significant impact.”

- Updated EDI maps to receive/send Customer & STERIS GLNs.
- Updated Customer-facing documents to include Customer and STERIS GLNs.
- Updated GPO Sales Tracing Reports to include Customer GLNs.
- Participated in GPO pilot testing.
- Developed Standard Operating Procedures (SOPs).
- Develop and execute communication plan to both internal and external stakeholders.
- Assign a person responsible for GLN implementation across all customers.

Key experience takeaways:

- Make sure your ERP meets the standards and make sure you can work with your EDI provider.
- Leverage the educational programs provided by your GPO and GS1 to accelerate understanding of GLN and its benefits.

Conclusion: Work together for a smooth implementation experience

Having reliable and consistent location information is important for patient safety. The GLN ensures the proper delivery of products to the right location, and allows trading partners to improve supply chain efficiencies. With the industry deadline for the adoption of healthcare data standards upon us, participants in Premier's ongoing GLN Transaction Program agree that there is benefit in beginning the process of GLN implementation as soon as possible, regardless of implementation challenges that may exist.

Collaborating with trading partners and technology vendors from the start will ensure that all parties are working in sync toward mutual goals. All trading partners must use the same GLN and have a common understanding of the location it represents in order to reduce errors and improve efficiencies. In addition, software vendors or exchange organizations that handle supply chain information or process EDI need to be involved with GLN implementation to ensure that GLNs flow cleanly through their systems. Most importantly for a successful implementation, trading partners must agree on common process changes and rules, as well as timing, when changing, adding or modifying locations using GLNs.

Lessons from the Premier GLN Transaction Program point to a philosophy that contributes to a smooth implementation experience – regardless of whether a transaction was successfully completed. The philosophy can be distilled to the following tenets: Communicate, Collaborate, Advocate and Get Started.

Premier member hospitals involved in the Premier GLN Transaction Program will continue to build upon the experiences and lessons learned. Premier is expanding its GLN Transaction Program to include additional member and supplier partner pairings.

Contact Premier

For questions related to Premier's industry standards initiatives, please email datastandards@premierinc.com to reach the following contacts:

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