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About GS1®

GS1 is a neutral, not-for-profit organization dedicated to the design and implementation of global standards and solutions to improve the efficiency and visibility in supply chains. GS1 is driven by more than a million companies, who execute more than six billion transactions a day with the GS1 System of Standards. GS1 is truly global, with local Member Organizations in 111 countries, with the Global Office in Brussels, Belgium.

About GS1 US™

GS1 US is the Member Organization of GS1 that serves companies in the United States. As such, it is the national implementation organization of the GS1 System dedicated to the adoption and implementation of standards-based, global supply chain solutions in the United States. GS1 US currently serves over 200,000 U.S. member companies -- 16,000 of which are in healthcare.

About GS1 Healthcare

GS1 Healthcare is a global, voluntary healthcare user group developing global standards for the healthcare supply chain and advancing global harmonization. GS1 Healthcare consists of participants from all stakeholders of the healthcare supply chain: manufacturers, wholesalers & distributors, as well as hospitals and pharmacy retailers. GS1 Healthcare also maintains close contacts with regulatory agencies and trade organizations worldwide. GS1 Healthcare drives the development of GS1 Standards and solutions to meet the needs of the global healthcare industry, and promotes the effective utilization and implementation of global standards in the healthcare industry through local support initiatives like GS1 Healthcare US in the United States.

About GS1 Healthcare US®

GS1 Healthcare US is an industry group that focuses on driving the adoption and implementation of GS1 Standards in the healthcare industry in the United States to improve patient safety and supply chain efficiency. GS1 Healthcare US brings together members from all segments of the healthcare industry to address the supply chain issues that most impact healthcare in the United States. Facilitated by GS1 US, GS1 Healthcare US is one of sixty-six local GS1 Healthcare user groups around the world that supports the adoption and implementation of global standards developed by GS1.

Global Location Number (GLN)

The Global Location Number (GLN) is the globally unique GS1 Identification Number for locations and supply chain partners. The GLN can be used to identify a functional entity (like a hospital pharmacy or accounting department), a physical entity (like a warehouse or hospital wing or even a nursing station), or a legal entity (like a health system corporation). The attributes defined for each GLN (e.g., name, address, class of trade, etc.) help users to ensure that each GLN is specific to one, very precise location within the world.

GLN Registry for Healthcare®

The GLN Registry for Healthcare® is a subscription-based service that provides a comprehensive list of healthcare facilities in the United States with their corresponding GLNs and GLN information (e.g., name, address, class of trade, etc.). The Registry serves as a central resource of location and party information for all healthcare facilities and healthcare-related facilities in the U.S., providing accurate, up-to-date party and location information on demand.

Location Identification Workgroup

The GS1 Healthcare US Location Identification (GLN) Workgroup is comprised of voluntary industry members from all segments of the healthcare supply chain. The workgroup is focused on implementing the GS1 Global Location Number (GLN) in the U.S. healthcare system.

GS1 Healthcare US

GS1 Healthcare US was established in January 2008 at the request of the U.S. healthcare industry to provide a forum for industry members to drive the adoption and implementation of GS1 Standards to improve patient safety and supply chain efficiency.

There are currently four workgroups within the GS1 Healthcare US industry group, each focused on a specific GS1 Standards initiative. The four GS1 Healthcare US workgroups are:

- *the Location Identification Workgroup*
- *the Product Identification Workgroup*
- *the Hospital Implementation Workgroup*
- *the Traceability Adoption Workgroup*

Overview

In response to error-prone and inefficient location identification across U.S. healthcare, the industry has rallied around the adoption of standardized location identifiers, specifically GS1 Global Location Numbers (GLNs). In fact, the industry-led initiative to use GLNs in lieu of custom account/location numbers across U.S. healthcare is well underway. The goal of this initiative is industry-wide use of GLNs to promote accurate and reliable location identification across the U.S. healthcare supply chain. In order to accelerate wide-scale adoption and implementation, an industry-accepted “sunrise” date (known as the “GLN Sunrise”) was established. The GLN Sunrise called for the adoption and use of GLNs in lieu of custom account/location numbers by December 31, 2010. Although the GLN Sunrise date has passed, implementation continues.

Today, many healthcare companies are using GLNs and the GLN Registry for Healthcare to facilitate correct identification of their locations and to support numerous business transactions from purchase orders to rebates and chargebacks. The industry continues to drive GLN implementation in order to fully realize the benefits of standardized location identification in U.S. healthcare. To that end, the GS1 Healthcare US® Location Identification (GLN) Workgroup developed this document to describe the actions needed for each supply chain partner to meet the industry’s on-going implementation goals. The purpose of this document is to provide:

- a definition of GLN implementation goals,
- an implementation plan with specific actions for each supply chain partner, and
- a list of the GLN implementation resources available.

U.S. Healthcare Industry Call for Standards

Standards-based numbering systems are essential for efficient and effective communication of location information in supply chains. Without a standards-based approach, supply chain partners assign their own proprietary account/location numbers. This results in multiple proprietary numbers to manage and maintain for the same location, which is time-consuming, error-prone and inefficient. Despite all of the effort, this approach to location identification undermines patient safety and supply chain management.

In response, many industry associations, advocacy groups, organizations, and companies throughout U.S. healthcare have announced their support to adopt GS1 Standards for location and product identification in order to improve patient safety and supply chain efficiency. To accelerate wide-scale adoption and implementation, industry-accepted “sunrise” dates were established to standardize location and product identification throughout the U.S. healthcare supply chain. These industry sunrise dates include:

[2010 GLN Sunrise](#) which called for adoption of GS1 Global Location Numbers (GLNs) in lieu of custom account/location numbers to standardize location identification by December 31, 2010.

[2012 GTIN Sunrise](#) which calls for adoption of GS1 Global Trade Item Numbers (GTINs) in lieu of custom product numbers to standardize product identification by December 31, 2012. [Includes use of GS1 Global Data Synchronization Network (GDSN) to store and communicate product attributes associated with each GTIN.]

The industry-wide initiative to adopt GS1 Standards for location and product identification will help to ensure that the correct products are delivered to the correct locations at the correct time -- creating a safer, more efficient, and less expensive supply chain.

Industry Goals for GLN Implementation

Although the GLN Sunrise date has passed, implementation continues. Today, many healthcare companies are using GLNs and the GLN Registry for Healthcare to facilitate correct identification of their locations and to support numerous business transactions from purchase orders to rebates and chargebacks. The industry continues to drive GLN implementation in order to realize the benefits of standardized location identification in U.S. healthcare. The goal is industry-wide use of GLNs in lieu of custom account/location numbers, which means that:

- 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.

In order to achieve these goals, the Location Identification Workgroup worked together to identify specific actions to be taken by each supply chain partner. From these recommendations, the workgroup created the GLN Roadmap, a collaborative industry implementation plan for use by all U.S. healthcare stakeholders.

Benefits for Healthcare Providers:

- Simplifies location identification with a single identifier used across all supply chain partners
- Enables providers to define and manage their own account and location information to ensure accuracy
- Provides an accurate view of the organization as a customer to ensure correct contract pricing eligibility and to streamline rebate processing
- Reduces mis-shipments and time spent resolving order and invoice errors
- Provides the foundation for traceability to improve product recall processes

Benefits for Healthcare Suppliers:

- Improves customer data management processes
- Streamlines sales tracing, administration fee reporting, rebate and chargeback processes
- Reduces time spent resolving order, pricing and invoice errors
- Improves customer satisfaction by enabling a smooth purchasing experience
- Provides a competitive advantage in meeting customer contract requirements
- Provides the foundation for traceability to improve product recall processes

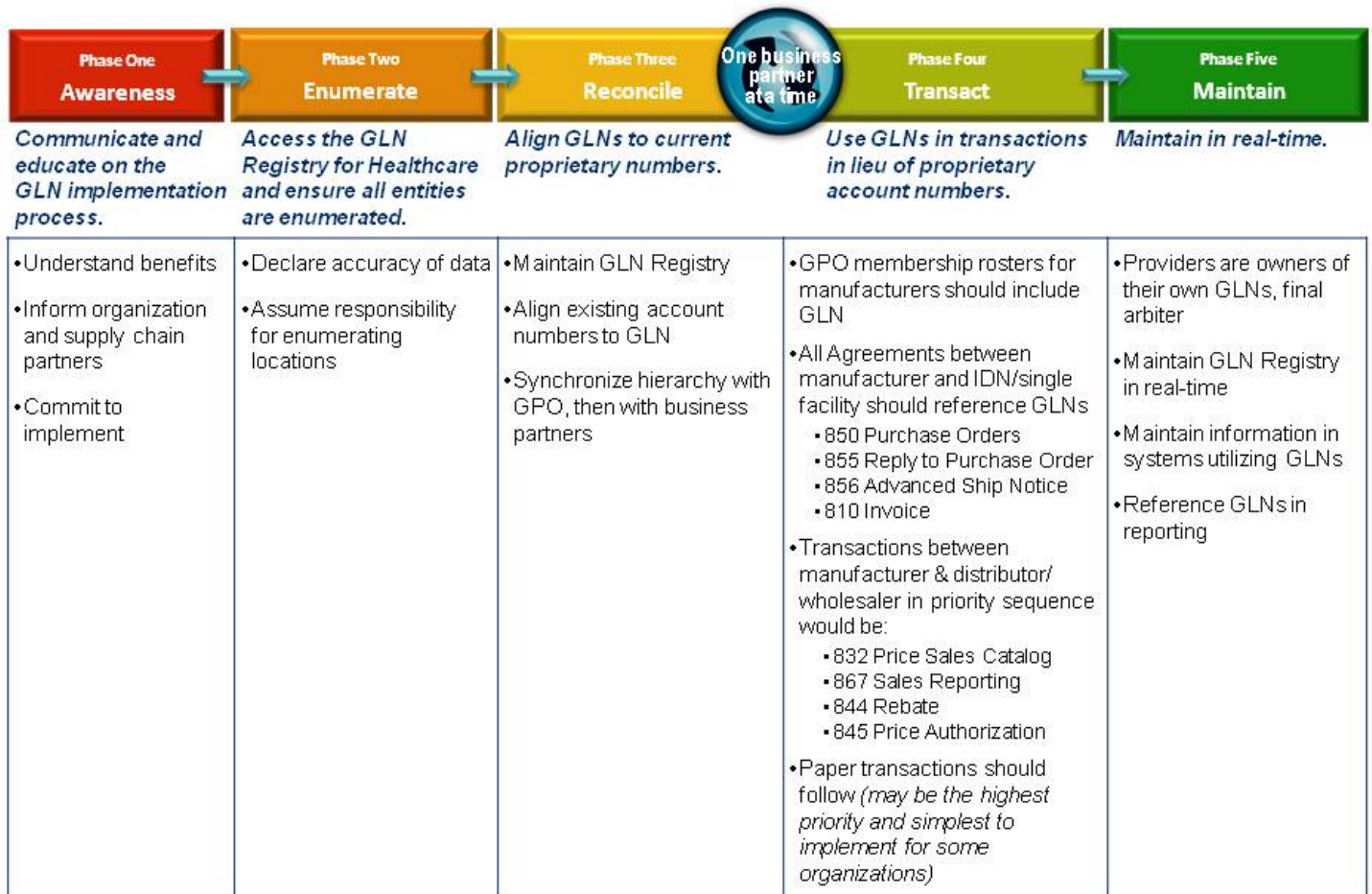
Executive Summary of the GLN Roadmap

The Location Identification Workgroup developed a collaborative industry implementation plan to help healthcare providers and suppliers transition to GLNs. Known as the GLN Roadmap, this plan provides a phased approach to implementation that identifies specific actions to be taken by each supply chain partner and major milestones to measure progress. (An executive summary of the GLN Roadmap is provided in Diagram 1 below.) There are five phases in the GLN Roadmap: Awareness, Enumerate, Reconcile, Transact, and Maintain. The remainder of this document describes each phase and the specific actions to be taken by each supply chain partner. A full graphical presentation of the GLN Roadmap is provided in the Appendix.

① *The workgroup utilized the GS1 Healthcare US Provider and Supplier GLN Tool Kits as the foundation for the implementation plan. It is recommended that you read these materials first in order to learn the basics of GLN, the benefits, and the resources available for a successful implementation in your organization.*

Diagram 1: Executive Summary of the GLN Roadmap – a phased approach to adoption

EXECUTIVE SUMMARY: Roadmap for the Implementation of GLNs Across U.S. Healthcare



All Actions Apply to Providers, Distributors, Manufacturers, and GPOs.

Phase One: Awareness

Communicate and educate on the GLN implementation process.

Providers / Distributors / Manufacturers / GPOs

An organization's supply chain leaders and staff know about GLNs and their benefits, as well as standards in general, and commit to implement.

- 1: Understand benefits.
- 2: Inform organization and supply chain partners.
- 3: Commit to implement.

Phase Two: Enumerate

Access the GLN Registry for Healthcare and ensure all entities are enumerated.

An organization accesses the GLN Registry for Healthcare, establishes users/approvers, and reviews their hierarchy.

ⓘ Data quality is critical. Demographics such as name, address, and location type need to be continually maintained in the GLN Registry. Before creating a new GLN, be certain that no GLN already exists for that location.

Providers

- 1: Declare the accuracy of data and maintain in real-time as business partners rely exclusively on the accuracy of this data.
- 2: Assume responsibility for enumeration of locations for *Order-by/Sold-to*, *Ship-to*, *Bill-to*, and *Paid-by* levels with GLNs.

Distributors / Manufacturers

- 1: Declare the accuracy of data and maintain in real-time.
- 2: Enumerate the *Order-from* and *Pay-to/Remit-to* locations with GLNs.

GPOs

- 1: Initially enumerate locations at *Ship-to* level until the provider assumes responsibility.
- 2: Assist provider members with education, hierarchy design and general enumeration strategy.
- 3: Display *Ship-to* locations with GLNs within the roster.
- 4: Assist with member adjudication, understanding that the final decision is made by the provider.



BEST PRACTICES: Enumeration

- For All**
- Initial hierarchy within the GLN Registry should follow the GPO roster.
 - To speed adoption, limit your effort to the *Ship-to* and *Bill-to* level initially.
 - P.O. Boxes must not be used for *Ship-to* locations.
 - Make eligibility determinations via the GPO roster, not the GLN Registry.
 - “Class of Trade” (COT) in the GLN Registry is based on provider and GPO criteria. Eligibility criteria for membership are still subject to trading partner interpretation.
 - Consult Best Practice guidance published on www.GS1US.org/healthcare.
- Providers**
- Manage your own GLNs.
 - Only manage owned facilities.
 - Modify the initial hierarchy as necessary.
 - Declare your readiness to trade GLNs.
- GPOs**
- Manage GLNs for affiliates until you can transfer responsibility to the affiliates themselves.
 - Maintain unique identifiers *and* GLNs for a transitional period of time to speed adoption. GLNs appear on GPO rosters.

Phase Three: Reconcile

Align GLNs to current proprietary numbers.

Organizations commit to utilize the GLN Registry for rosters/membership maintenance.

Providers

- 1: Maintain data in the GLN Registry in real-time.
- 2: Begin to utilize GLNs to identify business partners in internal systems.
- 3: Work with business partners to align existing account numbers to GLNs.



Initially, the actions in Phase 3 and Phase 4 should be taken with one business partner at a time. Transacting with GLNs will require a provider / distributor / manufacturer / GPO to plan and implement with each of their business partners one at a time.

Distributors / Manufacturers

- 1: Begin to utilize GLNs to identify business partners in internal systems.
- 2: Work with business partners to align existing account numbers to GLNs.
- 3: Align existing account numbers and GPO proprietary IDs to GLNs, where applicable.

GPOs

- 1: Work with business partners to align existing internal account numbers to GLNs.



BEST PRACTICES: Reconciliation

GLNs in GPO rosters refer to *Ship-to* locations. When replacing custom account numbers with GLNs in business documents, supply chain partners should match the GPO *Ship-to* GLNs as follows:

- GPO: match to provider
- Distributor: match to internal account numbers
- Manufacturer: match to internal account numbers

Phase Four: Transact

Use GLNs in transactions in lieu of proprietary account numbers.

Organizations use GLNs in transactions to identify themselves and their business partners, replacing the use of proprietary account numbers. *(Recommendations for how to prioritize EDI transactions for GLN implementation are provided on the next page.)*

Providers / Distributors / Manufacturers / GPOs

- 1: Agreements between the manufacturer/distributor and GPO should specify that membership rosters should be submitted with the GLN as the identifier, and that payments back to the GPO should also include the GLN.
- 2: Agreements between the manufacturer and IDN/Single Facility should reference the customers covered using the customer's GLN.
- 3: Agreements between the manufacturer and distributor/wholesaler should detail electronic transactions. The use of 832 (Price Sales Catalog), 867 (Sales Reporting), 845 (Price Authorization), and 844 (Rebate) should reference GLNs.
- 4: Agreements between the distributor/wholesaler and IDN/Single Facility should use GLNs. Provider agreements with their trading partners should include location (address) listing as appropriate.
- 5: Recommend GLNs replace custom identifiers in the following processes for both electronic and EDI transactions. *This should be your first priority as it is scalable and repeatable.*
 - 850 [Purchase Order (PO)]
 - 855 (Reply to PO)
 - 810 (Invoice) later in process
 - 856 [Advanced Ship Notice (ASN)]
- 6: Replacement of GLNs in paper transactions should follow as business partners are technically capable.





Based on input from all segments of the healthcare supply chain, the Location ID Workgroup recommends the following prioritization of EDI transactions for GLN implementation.

EDI Business Transaction Priority

First Priority

850	Purchase Order	Purchase order submission from buyer to seller; also accommodates stand-alone, consignment and blanket order business scenarios
855	Purchase Order Acknowledgment	Response from seller to buyer on processing of the purchase order

Second Priority

856	Advance Ship Notice/Manifest	Identification of product in a pending shipment from the seller to the buyer
810	Invoice	Request for payment from seller to buyer
867	Sales Reporting/Product Transfer/Resale Report	The transaction set can be used to: (1) report information about product that has been transferred from one location to another; (2) report sales of product from one or more locations to an end customer; or (3) report sales of a product from one or more locations to an end customer, and demand beyond actual sales (lost orders). Report may be issued by either buyer or seller

Third Priority

832	Price/Sales Catalog	Exchange of product and product price information from the seller to the buyer; may also be used to load a product catalog
844	Product Transfer/Account Adjustment	An exchange of data in the form of a debit, credit, or request for credit relating to pre-authorized product transfer actions
845	Price Authorization Acknowledgment/Status	A vendor or manufacturer transmits data relative to the status of or changes to outstanding price authorizations



BEST PRACTICES: Rebates/Chargebacks

Recommend that GLNs replace custom identification numbers in all rebate/charge back processes, electronic transactions and documents:

- 867 Sales Reporting, Product Transfer, Resale Report
- 844 Product Transfer, Account Adjustment

Phase Five: Maintain

Maintain in real-time.

Data is maintained in the GLN Registry in real-time to facilitate ongoing data quality and transactional efficiency.

Providers

- 1: Maintain your GLN hierarchy in the GLN Registry in real-time, resulting in database of record for business partner communication.
- 2: Become final arbiter of GLN (i.e., all disputes are adjudicated via the provider).

Distributors / Manufacturers

- 1: Maintain information in systems utilizing GLN (i.e., ship/order; sales tracing; contracts).
- 2: Access the GLN Registry to maintain location information.
- 3: Accept final judgment of provider on accuracy of GLN.

GPOs

- 1: Maintain roster membership lists using only GLN, and have reporting/fees done by GLN.*
- 2: Assist with member adjudication, understanding that the final decision is made by the provider.

* The GPO proprietary identifier and the GLN will be maintained on the GPO roster for a transitional period of time.

GLN Resources

GLN Implementation Resources:

www.gs1us.org/hcglnresources

Links to all of the GLN resources listed below and more are available on this web page.

Tools & Resources

- GLN Healthcare Provider Tool Kit
- GLN Healthcare Supplier Tool Kit
- Healthcare Provider GLN Quick Start Guide
- Healthcare Supplier GLN Quick Start Guide
- GLN Registry for Healthcare Website (*click on "Sign Up" to subscribe*)
- Best Practice Guide: Building a GLN Hierarchy
- GLN Industry Readiness Scorecards

Case Studies

- *Success Story: How Intermountain Healthcare Successfully Took Ownership of its GLNs and is Embracing GS1 Standards*
- *Case Study: BD and Mercy/ROi: Perfect Order and Beyond*
- *Success Story: Healthcare supplier Steris implemented GLNs in record time to stay in the forefront of GS1 Standards adoption*
- *Case Study: BJC Healthcare GS1 Standards Implementation*
- *Mayo Clinic / Cardinal Health GLN Implementation White Paper*
- *Success Story: Print Media, Inc. Leveling the Playing Field*

Education

- GS1 Healthcare US Webinars

GLN-related Meetings

GS1 Healthcare US Location ID Workgroup

- Weekly
- GS1 Healthcare US members

GLN Registry Steering Committee

- Monthly
- GLN Registry subscribers
- Membership by Charter

GLN Registry Technical User Subcommittee

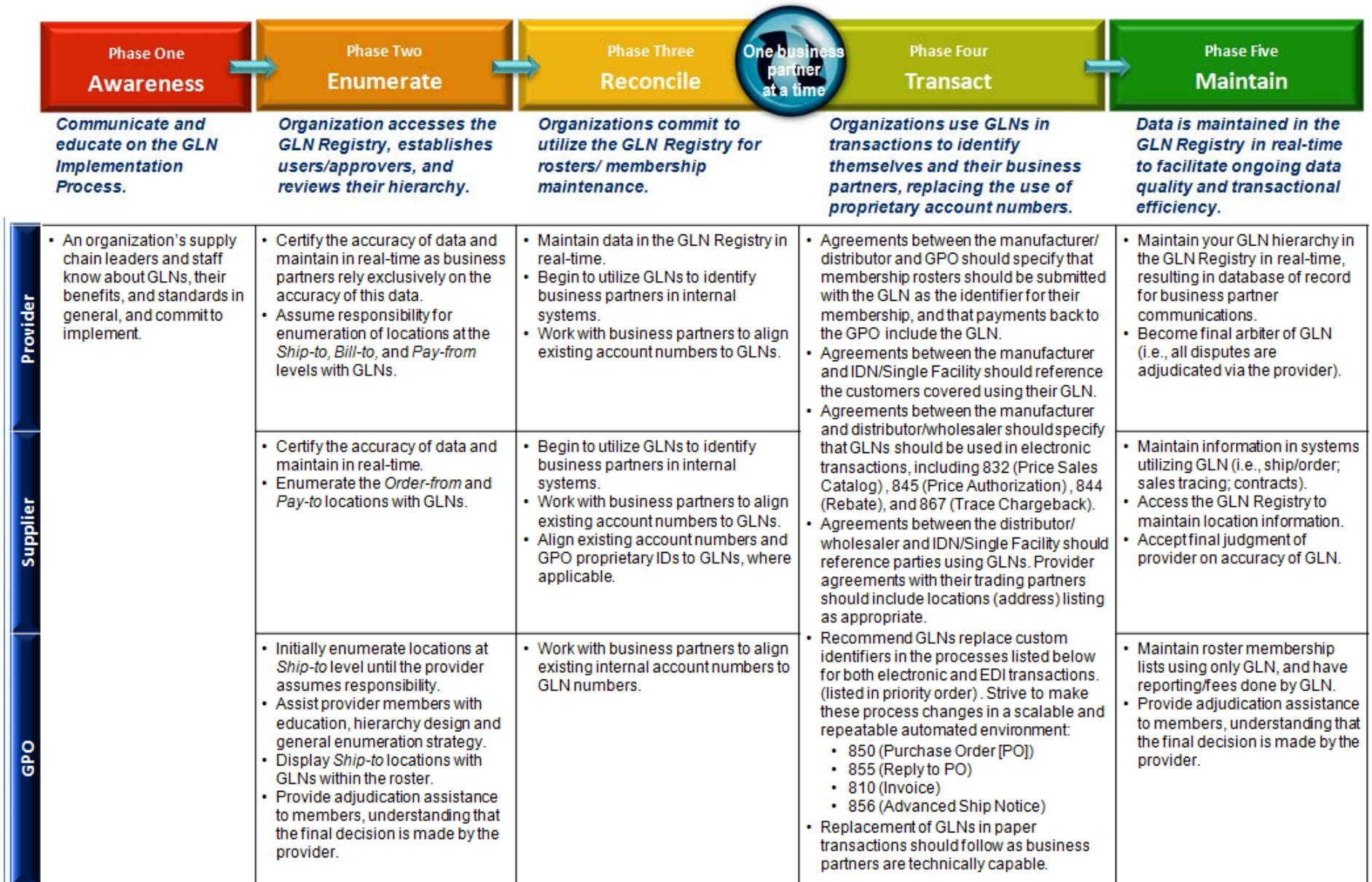
- Monthly
- GLN Registry subscribers
- Membership by Charter

GLN Registry User Group

- Monthly, 2nd Tuesday, 11AM ET
- open to all

To learn more about any of the GLN meetings listed here, contact GS1 US at GS1HealthcareUS@gs1us.org

Appendix: GLN Roadmap – a collaborative industry implementation plan for U.S. healthcare



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