Guideline for Reconciling Accounts for Use with GS1 Global Location Numbers (GLNs)
FOR PROVIDERS AND SUPPLIERS
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1 INTRODUCTION

1.1 OVERVIEW

The reconciliation process is a crucial step for any organization looking to transact with GS1 Global Location Numbers (GLNs). Reconciliation is the process in which GLNs are synchronized between trading partners. It is a comprehensive process that involves understanding who you are as an organization, and conveying that organizational view to your trading partners to synchronize location information. This document was prepared by the GS1 Healthcare US® Location Identification Workgroup to guide U.S. healthcare trading partners through this process in order to reconcile their accounts for use with GLN.

The recommendation is to start with Ship-to GLNs. Thereafter, trading partners can move to GLNs to support other business processes when they are ready.

1.2 OBJECTIVE

The objective of this document is to define a process that U.S. healthcare trading partners can use to reconcile their accounts for use with GLNs. To that end, this document seeks to advise trading partners about how to identify and enumerate their locations with GLNs, and how to ensure that those GLNs are consistent among trading partners.

1.3 SCOPE

This document guides trading partners through a comprehensive reconciliation process that involves two phases. During Phase I, each trading partner works individually to prepare the location information by:

- defining their organizational view,
- identifying and/or assigning the GLNs needed to do business with their trading partners,
- preparing their systems for GLNs, and
- updating the GLN Registry.

In Phase II, the trading partners exchange their cleansed location information and work to reconcile account information with GLN information. The goal is one GLN to one location, in order to improve the accuracy of the information trading partners see and use about locations.

1.4 AUDIENCE

This document is written for both providers and suppliers in the U.S. healthcare supply chain.
2 PHASE I: ADVANCE PREPARATION BY EACH TRADING PARTNER

The first phase of the reconciliation process entails each trading partner examining and preparing their own location information. During this phase, each trading partner will work to understand their organizational structure and to identify which locations should be assigned GLNs. In addition, each trading partner will verify and prepare their own location information so that they have accurate, up-to-date information when they work together to align location information. This section provides detailed information on the steps that suppliers and providers have to take during Phase I.

2.1 PROVIDER

2.1.1 DEFINE YOUR ORGANIZATIONAL VIEW & WHICH LOCATIONS SHOULD BE ASSIGNED GLNs

The first step for providers is to define their organizational view (or hierarchy as it is known in the GLN Registry), and identify which locations should be assigned GLNs. (For more information about hierarchies and/or what locations should be enumerated, please refer to the Hierarchies Best Practice Guide on the GS1 US Healthcare website.)

2.1.2 UPDATE YOUR MMIS SYSTEM

Once the provider has created the list of locations that should be assigned GLNs, the next step is to update and prepare their Materials Management Information System (MMIS). Begin by verifying the accuracy of the information associated with each location. Next, check if there is a data field for GLNs in the MMIS. If there is no GLN data field in the MMIS, the provider needs to either create that field, or identify another field in which GLN numbers can be recorded.

2.1.3 OBTAIN THE GPO ROSTER(S) FOR YOUR ORGANIZATION

The next step is for providers to contact their Group Purchasing Organization (GPO) to obtain a download of the GPO Roster for the provider. In response, the GPO will either download the provider’s roster from their own systems, or download the provider’s roster from the GLN Registry. In either case, the provider will receive a copy of what currently exists in the GPO Roster for them. The information that the provider receives will reflect how the provider organizational structure is currently seen by both their GPO as well as industry members who access the GLN Registry. In addition, this information will serve as a starting point for what the provider will need to do next.

While the information the provider receives is reflective of the primary GPO, there may also be instances where other GPO’s have uploaded location data about the provider into the GLN Registry. Before moving forward, the provider should search the GLN Registry to check if there are any other locations currently existing in the Registry related to them. If other locations exist, the provider should review them to determine if they are valid locations, and then decide whether keep or de-activate them.

2.1.4 ALIGN THE GPO ROSTER WITH YOUR NEWLY-DEFINED ORGANIZATIONAL VIEW

At this point, the provider will compare the organizational view it defined for itself with what currently exists in the GPO Roster. Although this is a simple effort, it is also very beneficial because it enables the provider to identify all of the unnecessary accounts that may exist for them in the current GPO Roster. Synchronizing these locations with the GPO is the first step in harmonizing the GPO Roster with the hierarchy that the
provider defined for itself. At the completion of this step, the location list from the GPO Roster should match the location list from the provider’s MMIS system.

### 2.1.5 Align the GLN Registry with Your Newly-Defined Organizational View

Once the list in the GPO Roster matches the list from the provider’s MMIS, the provider is ready to update the GLN Registry to mirror what the provider has in its system. As described below, there are three basic parts to this effort.

**i) Begin by taking ownership of your locations within the GLN Registry.**

At this point in the process, the provider should take ownership of their locations within the GLN Registry. This involves getting their own Registry password, and receiving training on the rules and processes for updating locations. By taking ownership, the provider will responsible for maintaining the accuracy of their own locations within the Registry going forward, and the GPO will simply be a recipient of any future changes and updates.

**ii) Update your location information in the Registry.**

Because the GLN Registry is a central resource of location information for the healthcare industry, providers will want to ensure that the locations in the GLN Registry are identical with their MMIS system. Providers should also identify which Ship-to’s align with which Bill-to’s as identifying which locations will be used for transactions is key to ensuring a smooth reconciliation process during Phase II when trading partners work together.

 hệ If under the same procurement system, GLNs for 340B should be also considered part of this process and reconciled accordingly. Please refer to the Hierarchy Best Practice Guide in order to get a better understanding of how to manage 340B accounts.

When populating the GLN Registry with new or updated locations, bear in mind that:

- All GLNs will be unique numbers with unique attributes assigned to them.
- The Registry utilizes the United States Postal System (USPS) Standards for addresses.
- Names in the GLN Registry ought to align with the names in your MMIS System. To facilitate this, the GLN Registry has a list of approved abbreviations that it can accept. (See the GLN Registry User Guide for information about the approved abbreviations.)

**iii) Check the validation box.**

When finished updating or adding a location, the Registry requires users to validate their locations by clicking on the “Validated” box (see screen shot below).
Checking the validated box for each location is important because it indicates that:

- the provider’s information has been reviewed and is accurate,
- the hierarchy associated with these locations has been reviewed and is accurate, and
- the provider has addressed and resolved all duplicate locations from the initial data set as it was first given to them by their GPO.

This is essential to the suppliers and distributors who are going to use this data. It means that the GLN information can be viewed as up-to-date, accurate data which can be used to update their system and can be relied on for business transactions.

When the validation box is first checked, the date of that validation is recorded by the Registry system. On an annual basis thereafter, the system will notify the provider to re-validate all facilities within their hierarchy so that the date of validation remains current.
2.1.6 Final Check

The provider should now have completed the following steps:

- All locations are enumerated with GLNs in their MMIS system.
- The provider MMIS system and GPO Roster match.
- The provider’s hierarchy is accurate in the GLN Registry.

Even though GPOs may not capture every location in a provider’s hierarchy, providers are encouraged to keep all locations in the GLN Registry. Likewise, during the initial synchronization effort, the provider should send the GPO all enumerated locations and then the GPO can simply match-up the locations that they need.

Once these steps have been completed and the validated box is checked for all locations, the provider has finished Phase I and ready for Phase II.

2.2 Supplier/Distributor

2.2.1 Define Your Organizational View & Which Locations Should Be Assigned GLNs

The first step for manufacturers and distributors is to examine and define their organizational view (or hierarchy as it is known in the GLN Registry), and identify which locations should be assigned GLNs. This is important because once the organizational structure has been defined, the supplier will then assign GLNs to the locations in the structure. Having the right organizational structure defined at the outset will make that process much easier. (For more information about hierarchies and/or what locations should be enumerated, please refer to the Hierarchies Best Practice Guide on the GS1 US Healthcare website.)

2.2.2 Update Your System

Once the supplier has created the list of locations that should be assigned GLNs, the next step is to update and prepare their system. Begin by verifying the accuracy of the information associated with each location. Next, check if there is a data field in the system for GLNs. If there is no GLN data field in the system, the supplier needs to either create that field, or identify another field in which GLN numbers can be recorded.

2.2.3 Assign GLNs to the Locations in Your Hierarchy

The next step for suppliers is to assign GLNs to the locations in their hierarchy. A GLN is a 13-digit number comprising three segments:

- a GS1 Company Prefix (obtained from GS1 US),
- a Reference Number (assigned by the manufacturer or distributor), and
- a Check Digit (a calculated number based the preceding digits).

If using GLNs in transactions, the number is intended to be used as a complete 13-digit number. If the number is parsed in your system for any reason, it would need to be put back together before transmitting.

(For more information about assigning GLNs, please refer to the GS1 General Specifications available in the Resources section of the GS1 US website at www.gs1us.org/resources/standards/standards-library.)
2.2.4 LOAD GLNs INTO THE GLN REGISTRY

With the hierarchy defined and GLNs assigned, the next step for suppliers is to load their GLN information into the GLN Registry. For suppliers, the locations that need to be loaded at the minimum are the Organizational Entity, Customer Service, and Remit-to locations. More locations can be added, but it is not a requirement to start. When populating the GLN Registry with new or updated locations, bear in mind that:

- All GLNs will be unique numbers with unique attributes assigned to them.
- The Registry utilizes the United States Postal System (USPS) Standards for addresses.
- Names in the GLN Registry ought to align with the names in your MMIS System. To facilitate this, the GLN Registry has a list of approved abbreviations that it can accept. (See the GLN Registry User Guide for information about the approved abbreviations.)

When finished updating or adding a location, the Registry requires users to validate their locations by clicking on the “Validated” box. Checking the validated box for each location is important because it indicates that:

- the supplier's information has been reviewed and is accurate, and
- the hierarchy associated with these locations has been reviewed and is accurate.

This is essential to the trading partners who are going to use this data. It means that the GLN information can be viewed as a trusted source of data which can be used to update their system and can be relied on for business transactions.

- When the validation box is first checked, the date of that validation is recorded by the Registry system. On an annual basis thereafter, the system will notify the supplier to re-validate all facilities within their hierarchy so that the date of validation remains current.

- When loading the locations into the GLN Registry, a supplier should also establish a process for keeping the GLN Registry as current as possible. Reconciliation relies heavily on establishing a one-to-one relationship for location information between trading partners. In order for this process to be successful, on-going data accuracy is essential. While organizations will put a lot of work into creating their hierarchies and defining their organizational structure initially, it is equally important that they define processes for maintaining and updating that data as the organizational structure and/or the hierarchy changes.
3 PHASE II: RECONCILIATION THROUGH COLLABORATION

At this point, both the suppliers and providers have their locations identified with GLNs and their hierarchies validated in the GLN Registry. Once those steps are completed, then the collaborative reconciliation process in which GLNs get synchronized between trading partners can begin. In Phase I, the focus was on ensuring that each trading partner had its own locations identified and enumerated with GLNs. In Phase II, the focus is on ensuring that those GLNs are now consistent between trading partners.

Phase II reconciliation is broken down into 4 steps:

1. Identify trading partners
2. Exchange location files
3. Initial file matching
4. Resolve discrepancies

Each stage is discussed in this section.

3.1 IDENTIFY TRADING PARTNERS

The first step in the reconciliation process is to identify trading partners with whom you want to reconcile GLNs. Identification of trading partners can be done in many ways, but it is recommended that the first trading partners with whom to work are those that have asked for GLNs in transactions or made contact directly. If this situation does not apply, then the supplier or provider could look at industry scorecards or contact GS1 US for a list of suppliers or providers who are ready to transact with GLNs.

Providers should first start with their primary distributor(s) and then focus on the direct accounts once the work with that distributor is complete.

3.2 EXCHANGE LOCATION FILES

Once a trading partner has been identified, the next step is to connect with that trading partner and obtain a current file of their locations. There is not one right way to go about this, but the important point is that one trading partner should send the other trading partner a file of their active locations. If both parties have gone through Phase I in this guide, then both parties should have this information readily available or easily accessible. For example:

- Providers should have their hierarchy validated in the GLN Registry. The provider could either download the hierarchy themselves and send it to the supplier, or have the supplier download it themselves from the GLN Registry to begin the process.

- Suppliers should have their hierarchy validated in the GLN Registry. The supplier could either download the hierarchy themselves and send it to the provider, or have the provider download it themselves from the GLN Registry to begin the process.

In addition, a provider or supplier could send a file containing all of the locations identified in their current system pertaining to the trading partner. This file could be sent to the trading partner for review as well. Regardless of method used, the goal of this process is to ensure that there is an exchange of location files between trading partners.
Once contact has been made and information exchanged, it is important to agree upon a consistent schedule for communication. Establishing a set date and time to talk is crucial for keeping the reconciliation process moving along and ensuring that any roadblocks that may arise are addressed immediately.

3.3 INITIAL FILE MATCHING

Once the location files have been exchanged, each trading partner should start to match their trading partner’s location file with what is currently in their system. During this initial match, there are three possible scenarios that could happen for each GLN:

- The GLN and account Information is a direct match with the receiving trading partner’s system. (This is known as a Direct Match.)
- The GLN & account information do not match information in the receiving trading partner’s system. (This is known as Non-Matching.)
- The GLN & account Information result in duplicate matches in the receiving trading partners system. (e.g., multiple matching account numbers) (This is known as a Duplicate Match.)

Each of these scenarios are discussed in the next section.

3.4 RESOLVE DISCREPANCIES

3.4.1 DIRECT MATCHES

When the GLN and account information are a direct match to what is currently shown in the receiving trading partner’s system, then that GLN can be added to the receiving trading partner’s system without any further work.

3.4.2 NON-MATCHING

For non-matching records, it may be that either the GLN and account information do not match any data element in the trading partner’s system, or that there is a partial match where some common data elements are present. In both situations, trading partners should discuss these specific account numbers because either the GLN should exist as an account number and does not, or an account number that exists should be tied to a GLN and is not.

Note on Partial Matches: If the GLN has some data elements that match up with an account number (but not all), then additional research should be done to determine if the location actually is the GLN specified or if it should be inactivated.

The first step is to look at which GLNs do not have account numbers tied to them. If the supplier chooses to only use a GLN number and not an account number, then the GLN can be added to the system. If on the other hand, the supplier wants to use GLNs and account numbers for internal purposes, then new account numbers should be created and the GLNs linked to them. (Keep in mind that the account number will be used for internal purposes only.)
Next, look to instances where there are multiple account numbers that do not tie into a GLN. In such cases, additional research should be conducted to determine if the non-matching account numbers should have GLNs or not. For example, examine the sales history against the account, or look to see when the account itself was created. If the account is determined to be inactive, then it should be deleted. However, if the account is determined to be an active account, then additional research should be conducted to identify the GLN to which that specific account number should be linked.

3.4.3 DUPLICATE MATCHING

When synchronizing locations, there can also be instances where one GLN will align with many account numbers in the trading partner’s system. This is what is referred to as a duplicate, and these types of locations should immediately trigger conversations between trading partners to get them resolved. By resolving duplicates quickly, trading partners can establish a one-to-one relationship between the GLN and the correct location to enable smoother business transactions.

With duplicates, trading partners should conduct initial research to identify which locations are active and valid, and which are not. To assist in this process, it is recommended that the receiving trading partner should:

- pull all corresponding accounts associated with the trading partner
- examine previous sales history to help determine which locations are valid
- check if anything has booked against the account numbers

These recommendation serve as a starting point. Individual trading partners may have additional methods available to help determine which account numbers are active versus inactive. Regardless of the method used, the goal is to end the process with all duplicates identified as active or inactive.

With this information in hand, some accounts may be removed and/or some new accounts may be added, depending on the trading partner. Nonetheless, in all instances, the end result will be one GLN to one location.

Once all discrepancies have been resolved and all GLNs have been matched, the next step is to start using your GLNs in transactions. The best course of action to take here is to first identify the transactions in which you would like to use GLNs (i.e., electronic or non-electronic) and then work with your trading and solution partners to see how GLNs best fit into the process. It is also important to use a phased approach to start transacting with GLNs as you want to take the time to ensure that the process is correct and any challenges are resolved immediately.
GUIDELINE FOR RECONCILING ACCOUNTS FOR USE WITH GS1 GLOBAL LOCATION NUMBERS (GLNs)

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