

# 2023 Traceability Webinar Series

## GS1 GLN Management and DataHub Overview: How to Acquire and Maintain GLN Data

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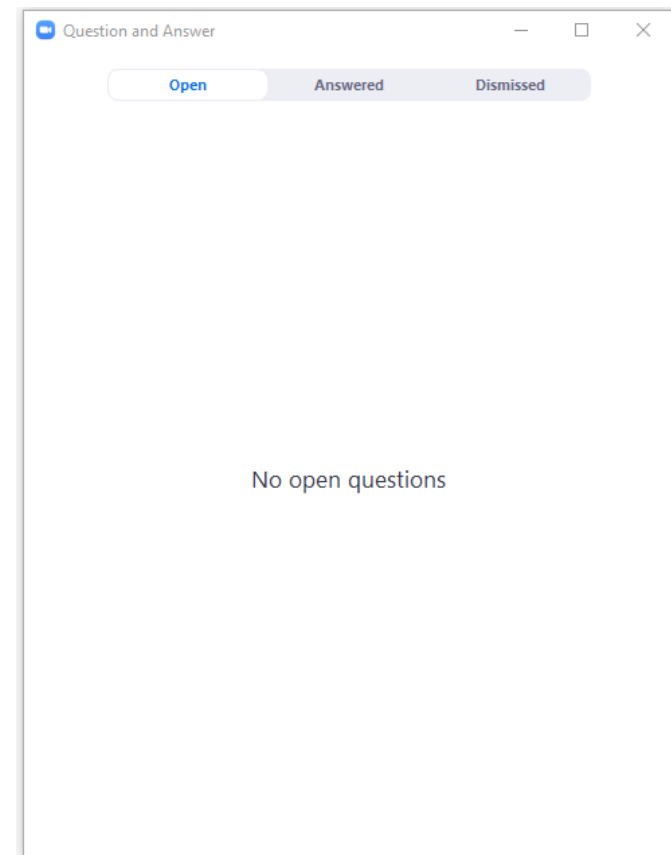
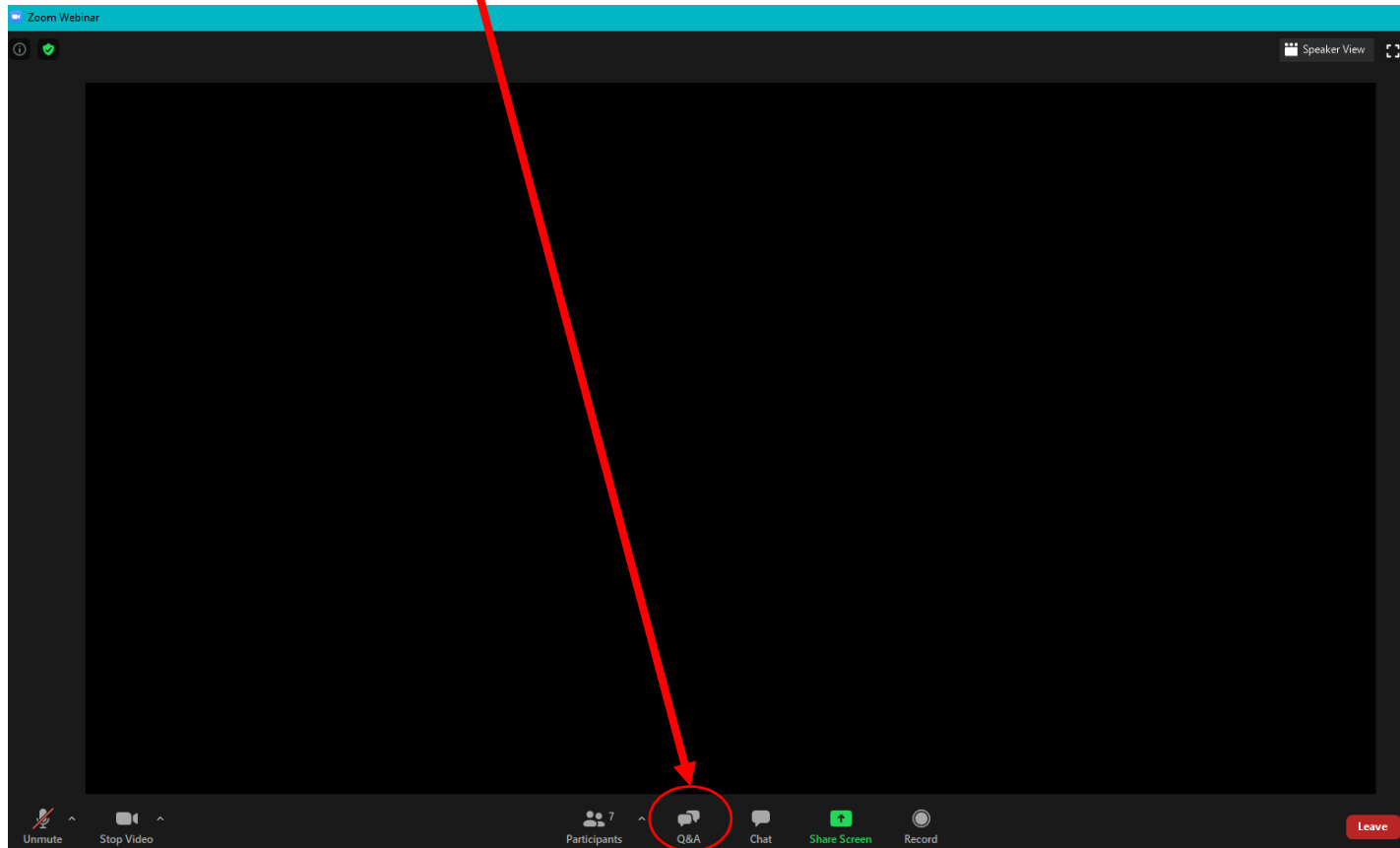
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# Speakers

Tracy Nasarenko, Sr. Director, Community  
Engagement, GS1 US

Tim Stearns, Senior Director, Industry Relations,  
Healthcare Distribution Alliance



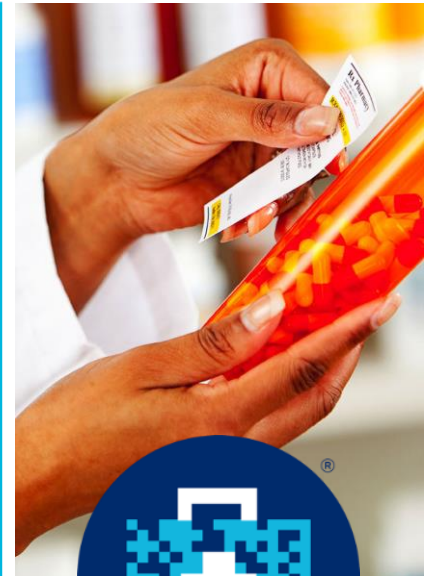
The Global Language of Business

Healthcare

# GS1 GLN Management and Data Hub Overview

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July 6, 2023





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# Agenda

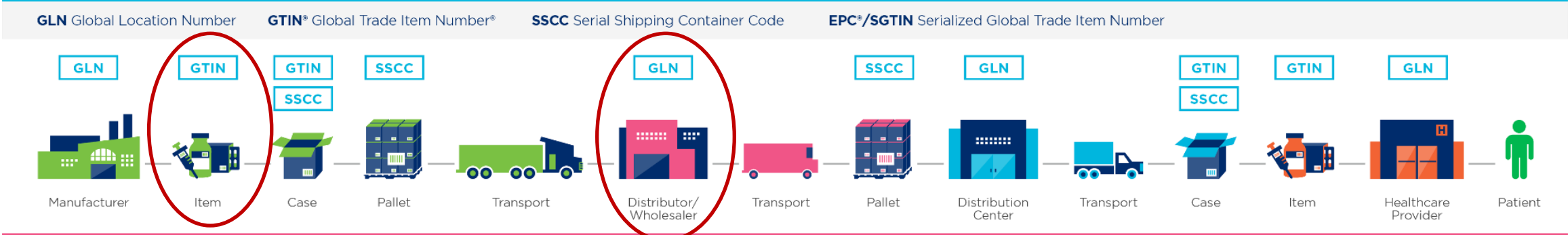


- GLN “101”
  - What, Why, and How
- How to check if you need one or if one exists already
- 340B
- SGLN Translation
- Data Hub Location
- Resources

# GS1 Standards: Identify, Capture, and Share



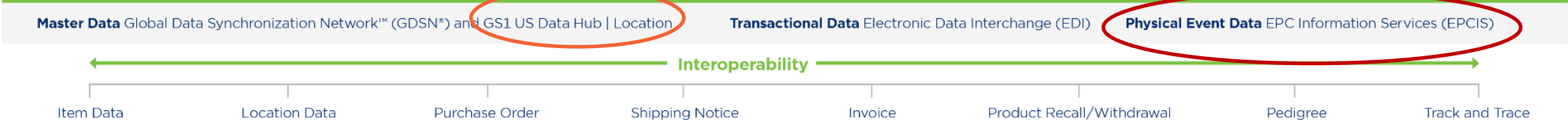
## Identify: GS1 Identification Numbers



## Capture: GS1 Data Carriers



## Share: GS1 Data Exchange



Standards used to support item-level traceability in an interoperable manner



# Location Identification: Global Location Number (GLN)



## The “WHO & WHERE”

A 13-digit number that provides businesses the ability to know who is involved in transactions and where things are located throughout the supply chain. By uniquely identifying parties and locations, GLN helps with tracking products, optimizing processes, and providing greater visibility to transactions taking place in the supply chain.





# What does a GLN identify?

GLN provides answers to “who” and “where” by identifying parties and locations.

## Who



**Legal entity**



**Function**

**Party**

## Where



**Fixed physical location**



**Mobile physical location**



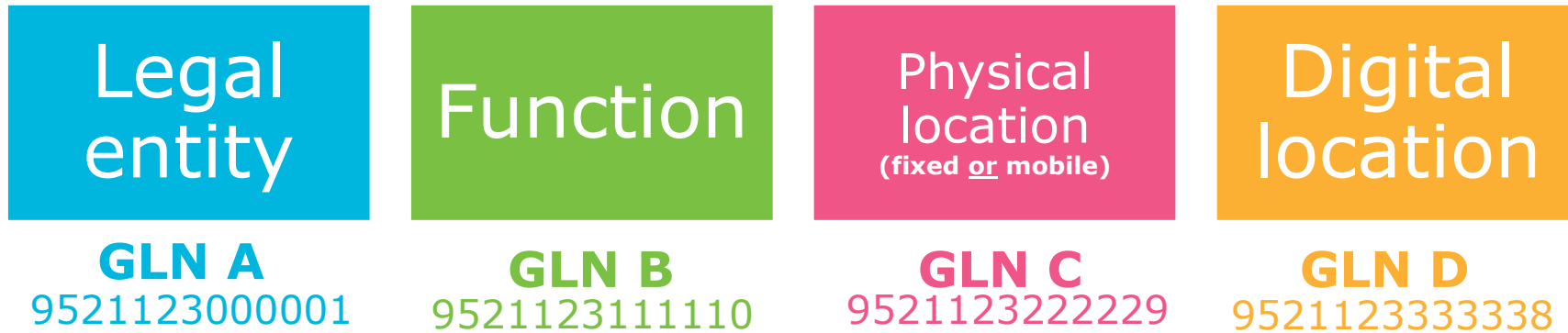
**Digital location**

**Location**



# Overarching GLN Type Options

A GLN can be used to identify a **single** legal entity, function, physical location, or digital location. These different options are known as **GLN types**.



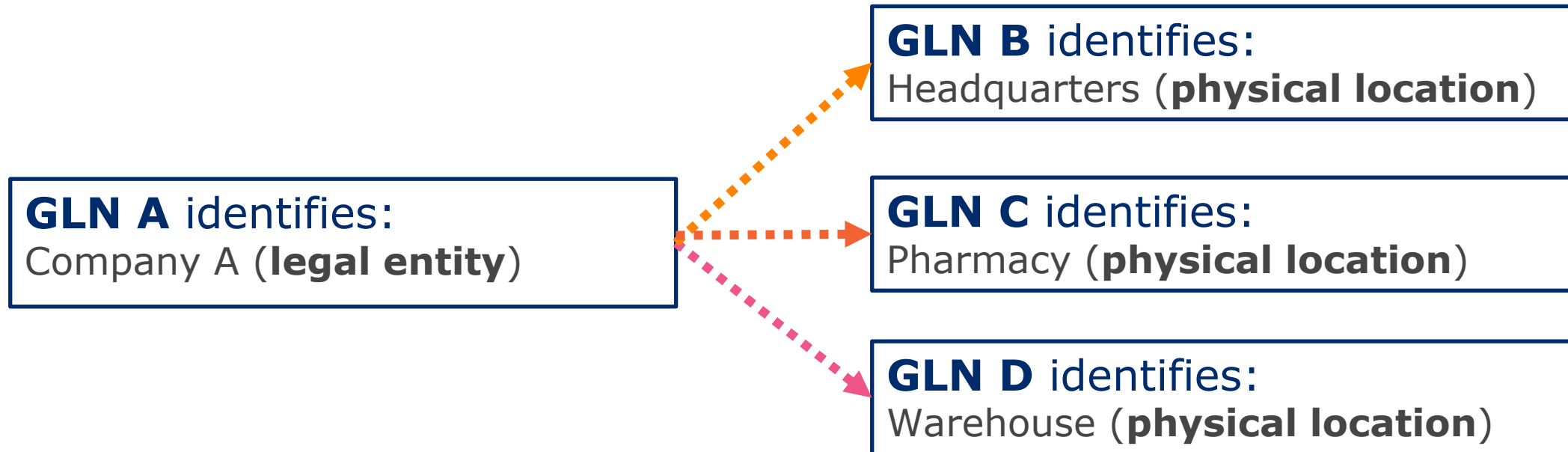
GLN may also be used to identify a **combination** of **GLN types**.



# Allocation option considerations



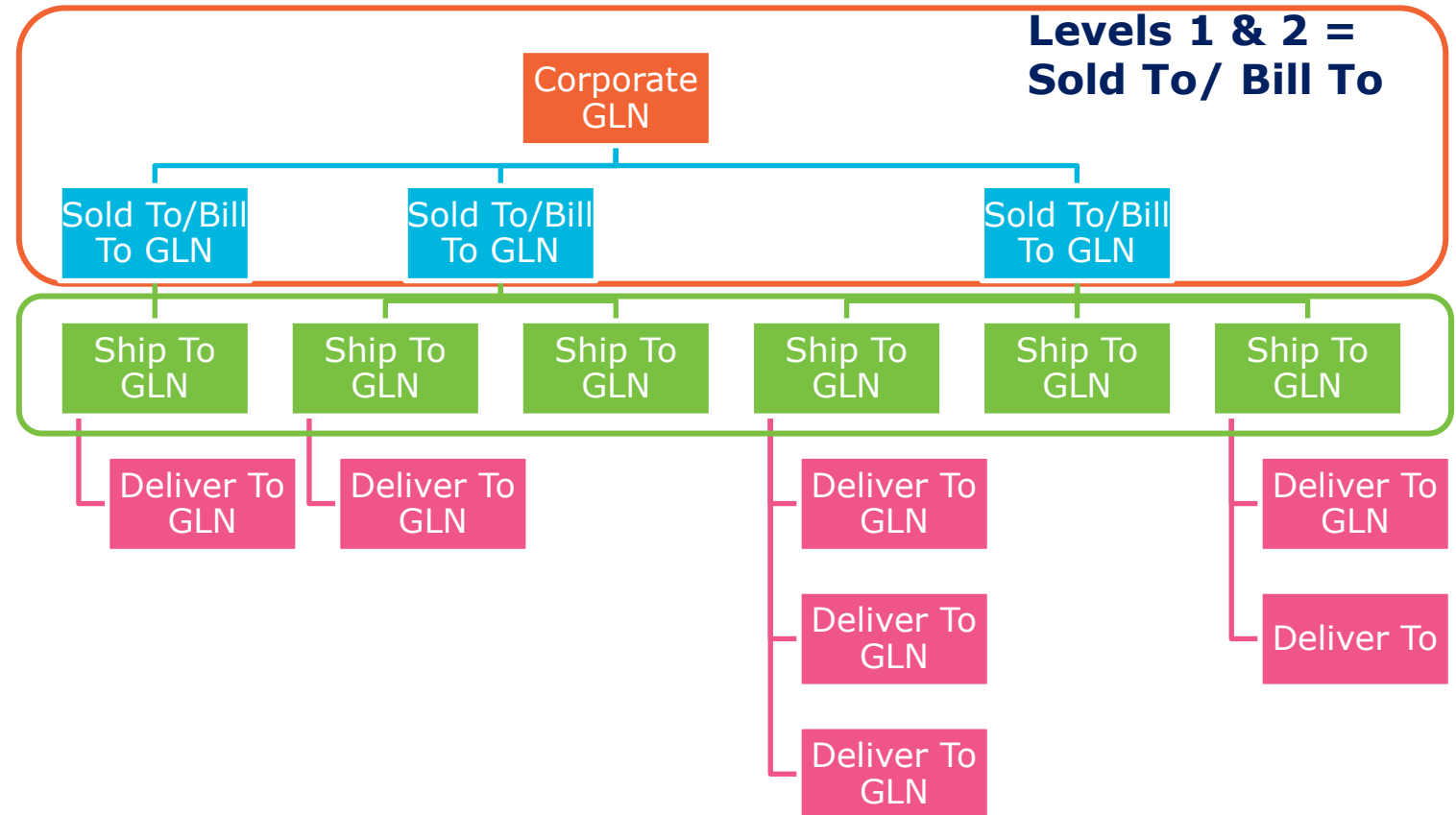
When a GLN identifies a **single** party or location, multiple GLNs can be used in any combination required by specific use cases without duplication.



# GLN Hierarchy



- A GLN hierarchy is a classification structure presenting organizational locations arranged in levels of detail from the broadest to the most detailed.
- **The purpose is to define a relational structure of supply chain locations that supports supply chain operations.**
- The **Bill-To** or also known as **Sold-To** is critical for DSCSA as it is a change of ownership law. As the **Ship-To** is important for the traceability of the product.



The hierarchy above is only be used for demonstrative purposes and is not representative of all allowable hierarchies.





# Allocation option considerations

Companies with **limited identification requirements** can successfully utilize a single GLN to identify a combination of party and location.

Companies using this allocation method may experience issues when scaling due to business needs or trying to meet more complex use case requirements.

**GLN A** identifies **both**:

1. Company A (**legal entity**)
2. Headquarters (**physical location**)

**GLN B** identifies:

HR department (**function**)

# Allocation option comparison



## 1 GLN = 1 GLN Type

- Always clear on what is being referred to
- Simplified application of management rules, attributes, validation rules
- Noted as being less confusing for users when creating/managing GLNs
- May support consistency and quality of data

## 1 GLN = >1 GLN Type

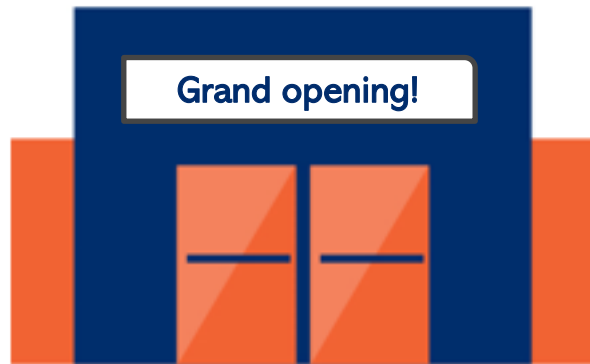
- All GS1 standards permit this
- Existing GLNs in use may already be used to identify more than one GLN type
- It may be deemed cost prohibitive to take this route
- Systems will require logic to consume GLNs with more than one GLN type

# Rule 1: New Party/Location Introduction



A new party or location is considered an addition to what already exists and has been allocated a GLN.

***When a new party and/or location is added that will engage in business transactions, it must be allocated a new GLN.***

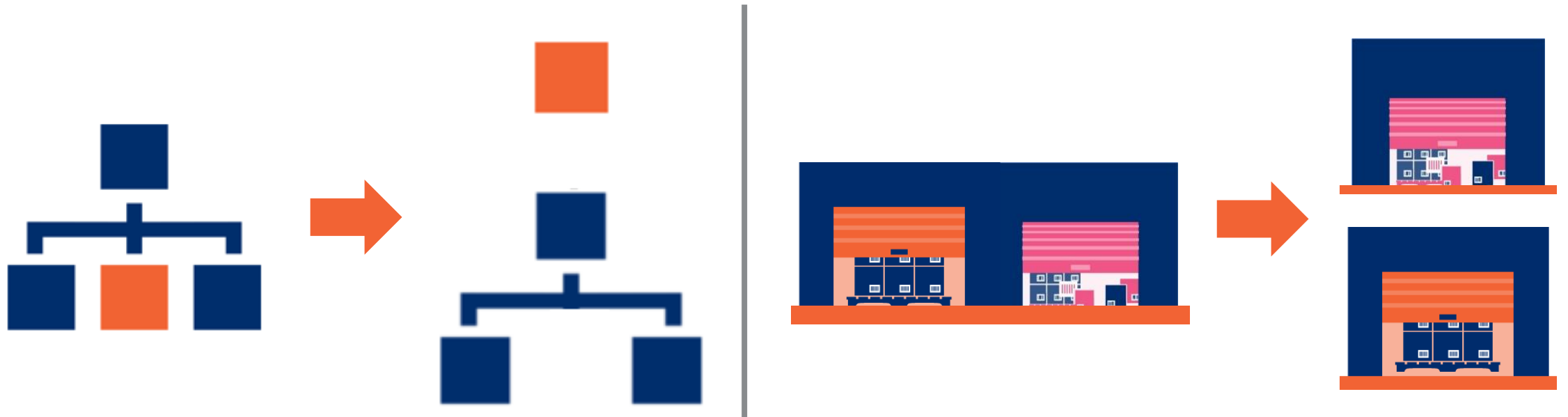




# Rule 2: Party/Location Split

A split occurs when the party/location being identified by a single GLN is divided into two or more parties/locations.

***When a party or location is divided into multiple parties/locations, one may keep the existing GLN, provided that the company keeps control over the GS1 Company Prefix or individually licensed GLN.***





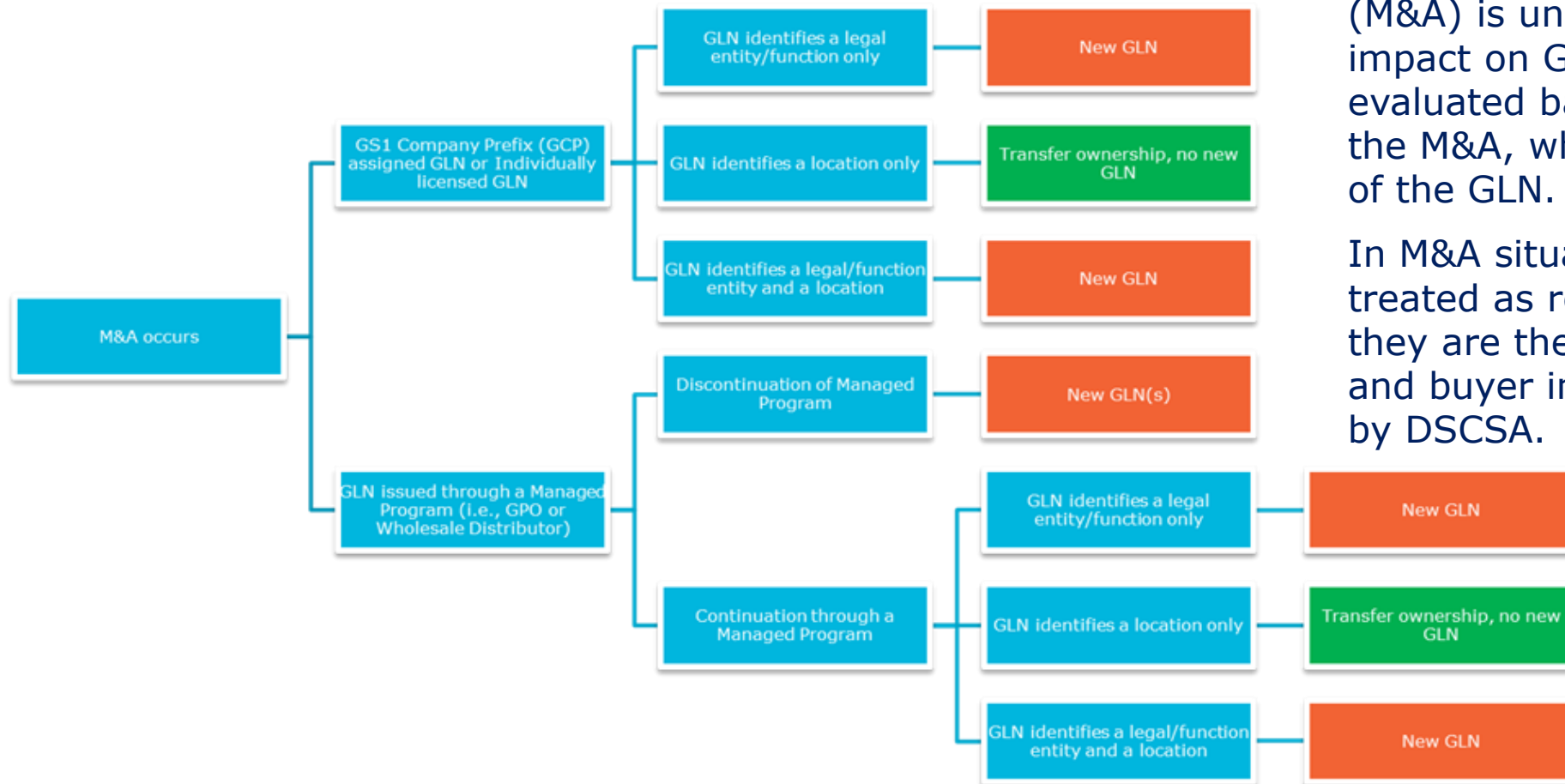
# Rule 3: Party/Location Merger

A merger occurs when a two or more parties/locations are combined into a single party/location.

***When a party or location is merged with another so that they will no longer function independently, one of the existing GLNs may remain in use. All other GLNs merged SHALL be removed from active use once their transition is completed.***



# Mergers and Acquisitions (M&A) Impact on GLNs



As each merger and acquisition (M&A) is unique and different, the impact on GLN(s) needs to be evaluated based on the end state of the M&A, who is the definitive owner of the GLN.

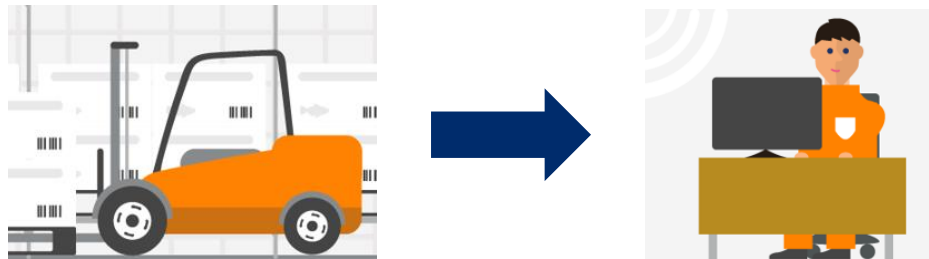
In M&A situations, GLNs should be treated as regulatory information as they are the identifiers of the seller and buyer in transactions governed by DSCSA.

# Rule 4: Change of Party/Location Use or Purpose



A change of use or purpose occurs when the activities, purpose, or functionality of a party/location is modified resulting in persistent differences in how that party/location can be interacted with.

***Changes to the activities or purpose of a party or location which impact the guiding principles require a GLN change***



Example likely to require a new GLN:  
A distribution center is converted into office space.



Example **not** likely to require a new GLN:  
Equipment upgrades made

# Rule 5: Change to Party/Location Address



## Physical and Digital Location Address Change

***Changes to the access point, coordinates, or other representation of location which impact the guiding principles **require** the allocation of a new GLN.***

- This includes the following changes:
  - Change of the physical location
  - Change to digital location



# Rule 5: Change to Party/Location Address



## Legal Entity and Function Relocation

***Changes to the location(s) associated to a legal entity or function do **not** require the allocation of a new GLN.***

This includes:

- Relocation of a legal entity
- Changing operating location(s) of a function



# Rules 6, 7, and 8




## Changes to the..

6



name of a party or location

7



financial information associated to a party or location

8



contact information associated to a party or location

**..do not require the allocation of a new GLN.**

# Why are GLNs necessary for DSCSA?



## It is used to identify locations, legal entities, and functions in electronic business transactions in:

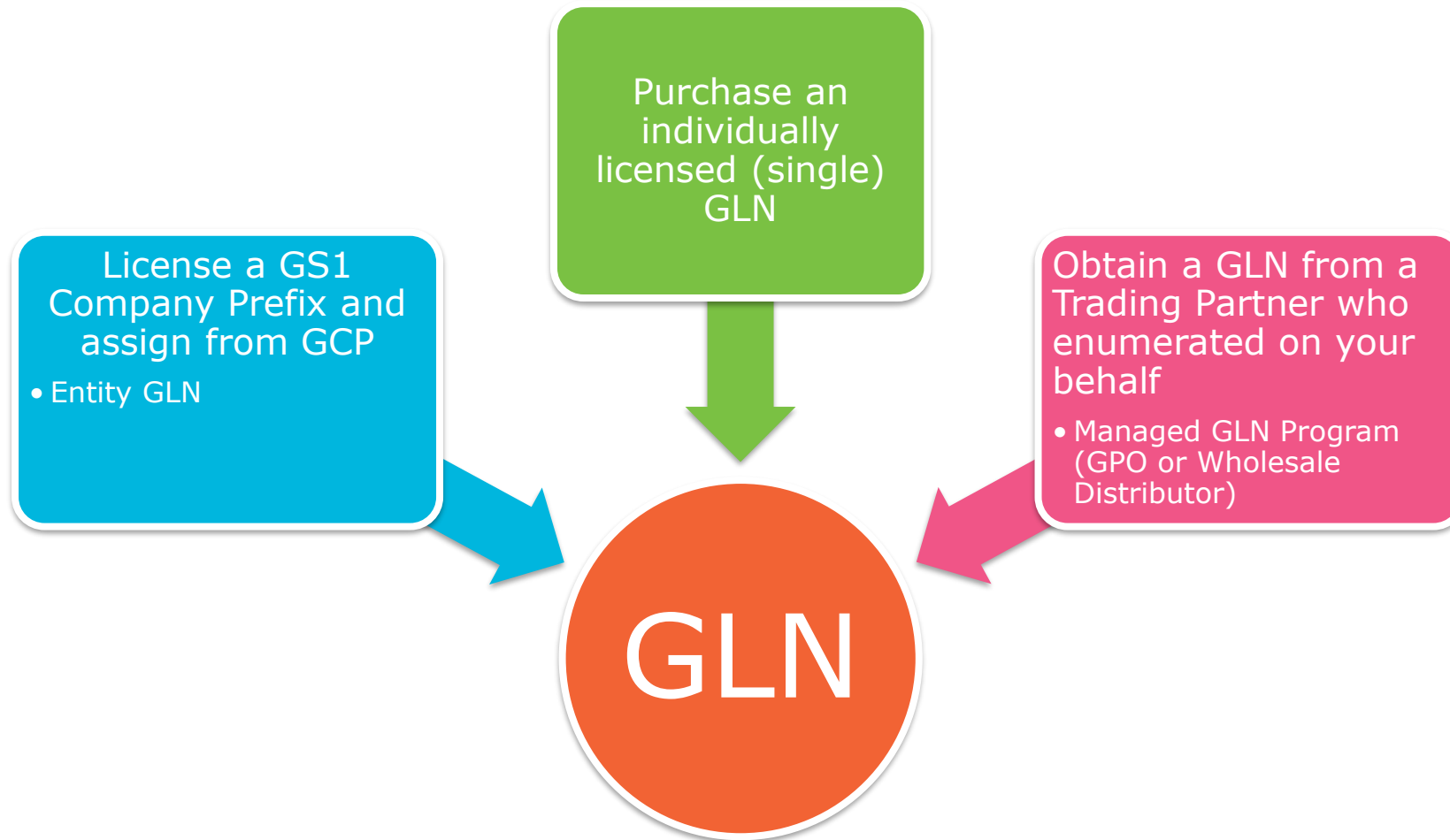
- Electronic Product Code Information Service (EPCIS) – In FDA’s [DSCSA Standards for the Interoperable Exchange of Information for Tracing of Certain Human, Finished, Prescription Drugs, Revised Draft Guidance](#), it recommends that trading partners use GS1’s Electronic Product Code Information Services (EPCIS) standard to provide and maintain the electronic data associated with transaction information and transaction statements.
  - **GLNs are required for transactions as it identifies the ship from/to and sold from/to.**
- Verification Router Service (VRS) solutions – verification router service refers to using a third-party routing system to send product information back and forth between Trading Partners.

# The ways a GLN is used in EPCIS data for DSCSA:



- Read Point of an EPCIS event - identifies the **physical location where a business process step** took place
- Business location of an EPCIS event - identifies the **physical location where physical objects are**
- Source and destination lists of an EPCIS shipping or receiving event - identify the **“sold by”** and **“sold to”** parties to the transaction and the identify the **“ship from”** and **“ship to”** parties to the transaction
- Business transaction lists of an EPCIS event - uniquely qualify a **business transaction identifier** such as a purchase order number or invoice number
- Master data contained within the EPCIS header of an EPCIS document - **link party and location master data** to the GLNs contained within the EPCIS events
- Standard business document header (SBDH) in the EPCIS header of an EPCIS document - identify the **party sending the message and the receiving party**

# GLN Assignment Options



# How Do I get a GLN?



## License a GS1 Company Prefix and assign from GCP

- Common for Manufacturers and Wholesale Distributors as the same GCP can be used to enumerate GTINs and SSCCs
- Create/Manage access to DHL
- Capacity is based on GCP length
- SGLN is derived from the GCP length

## Individually license a GLN

- This is ideal if no other identification keys are necessary and only a few GLNs are necessary
- Create/Manage access to DHL
  - Need to make GLN active
- SGLN is derived as the full GLN minus the check digit as the *CompanyPrefix* component

## Obtain a GLN from a Trading Partner who enumerated on your behalf

- Specific parameters and Trading Partners
  - Certain Group Purchasing Organizations
  - Select Wholesale Distributors
- SGLN is derived the same way as an individually licensed GLN

# GS1 Company Prefix Fun Facts



## GTIN for Pharmaceutical Products – 7 Digit GCP is used

- 7 Digit GCP which embeds the Labeler Code = 100,000 Capacity
- NDC can be embedded into the GTIN

## Can license a combination

- GCP + Single GLN
- The entity GLN is based on the first license

## Can license multiple GCPs

GS1 COMPANY PREFIX LENGTH	GLN CAPACITY	GTIN CAPACITY	SSCC CAPACITY
7	100,000	100,000	10,000,000,000
8	10,000	10,000	1,000,000,000
9	1,000	1,000	100,000,000
10	100	100	10,000,000
11	10	10	1,000,000
12	1	1	100,000

# Managed GLN Program



## Reserved for the Healthcare Industry – supporting a regulatory requirement

- Healthcare Stakeholder:
  - Healthcare Wholesale Distributors
- Current Participants:
  - AmerisourceBergen
  - McKesson
  - Smith Drug Company
  - Cardinal Health

- Healthcare Stakeholder:
  - Group Purchasing Organizations
- Current Participants:
  - HealthTrust
  - Premier
  - Vizient
  - The Resource Group (New)



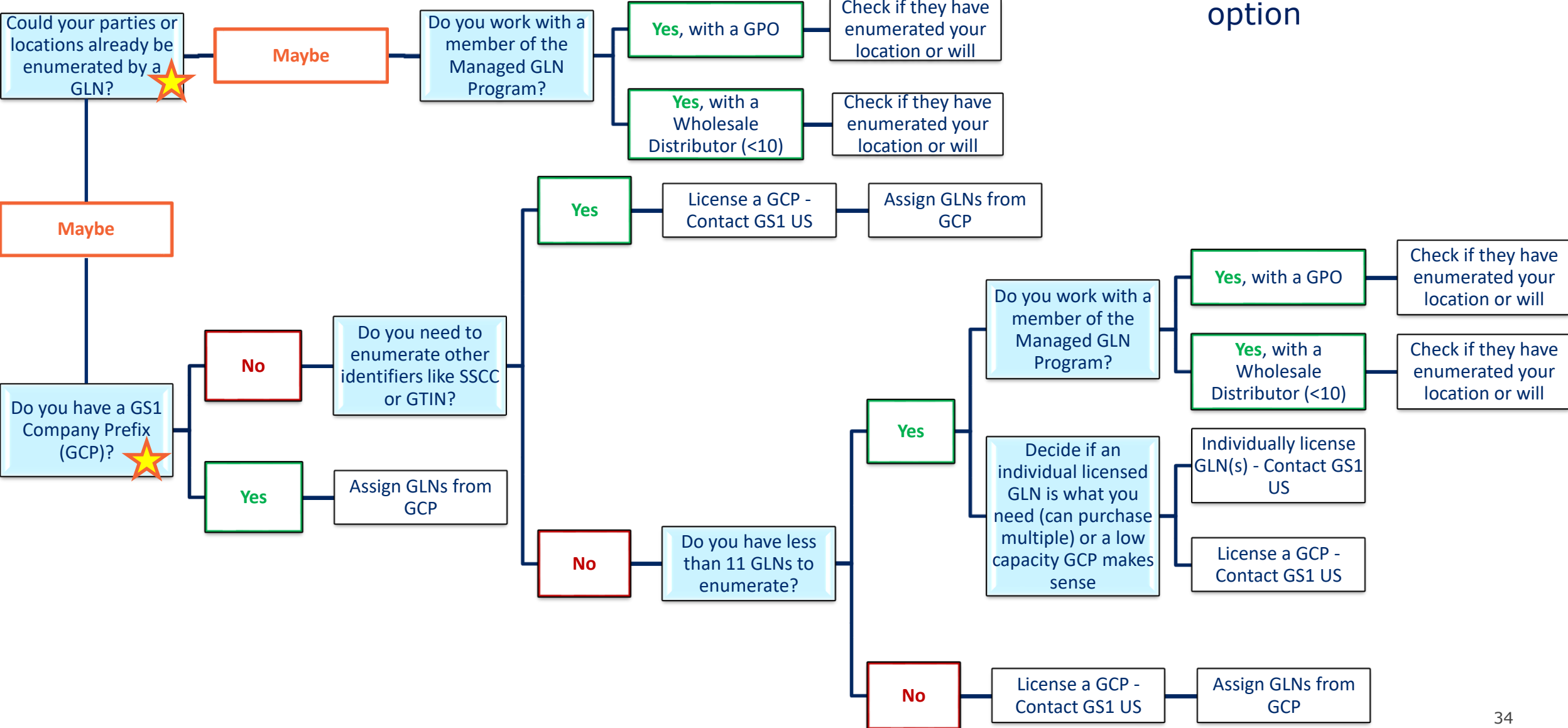
# Managed GLN Program



- Who can join and whom can they enumerate?
  - Wholesalers can enumerate:
    - Independent dispensers, individual practitioners, and other businesses (with less than 10 locations) subject to the Drug Supply Chain Security Act (DSCSA).
  - GPOs, in providing purchasing opportunities to individuals or groups of entities (the “GPO Members”) designated by the GPO to purchase under its contracts
- Impact to GLNs if change GPO or Wholesale Distributor
  - Can transfer GLNs between GPOs that are participating in the program
  - GLNs enumerated by Wholesale Distributors are not exclusive to the Wholesale Distributor and therefore do not need to be transferred, will remain active

# Decision Tree for GLN Enumeration

- Identifies the questions to ask in selecting the right option



# Do I have a GLN or does my trading partner?



## Ways to check for a GCP or GLN(s) for location(s):

1. [GS1 US GEPIR](#) or [GS1 GEPIR](#) allows you to have 30 searches per day for free. You can search by Company, GTIN, GLN, or other identifiers. This will show your GCP and the address of the license information.
2. For dispensers, we advise first to consult with their Group Purchasing Organization (GPO) and/or Wholesale Distributor (if part of the [Managed GLN Program](#)) to verify if locations are already enumerated with a GLN as part of the Managed GLN Program.
3. Data Hub Location – GLNs are searchable including ones enumerated through the Managed GLN Program and included in export and API. (Can request access if not shared).

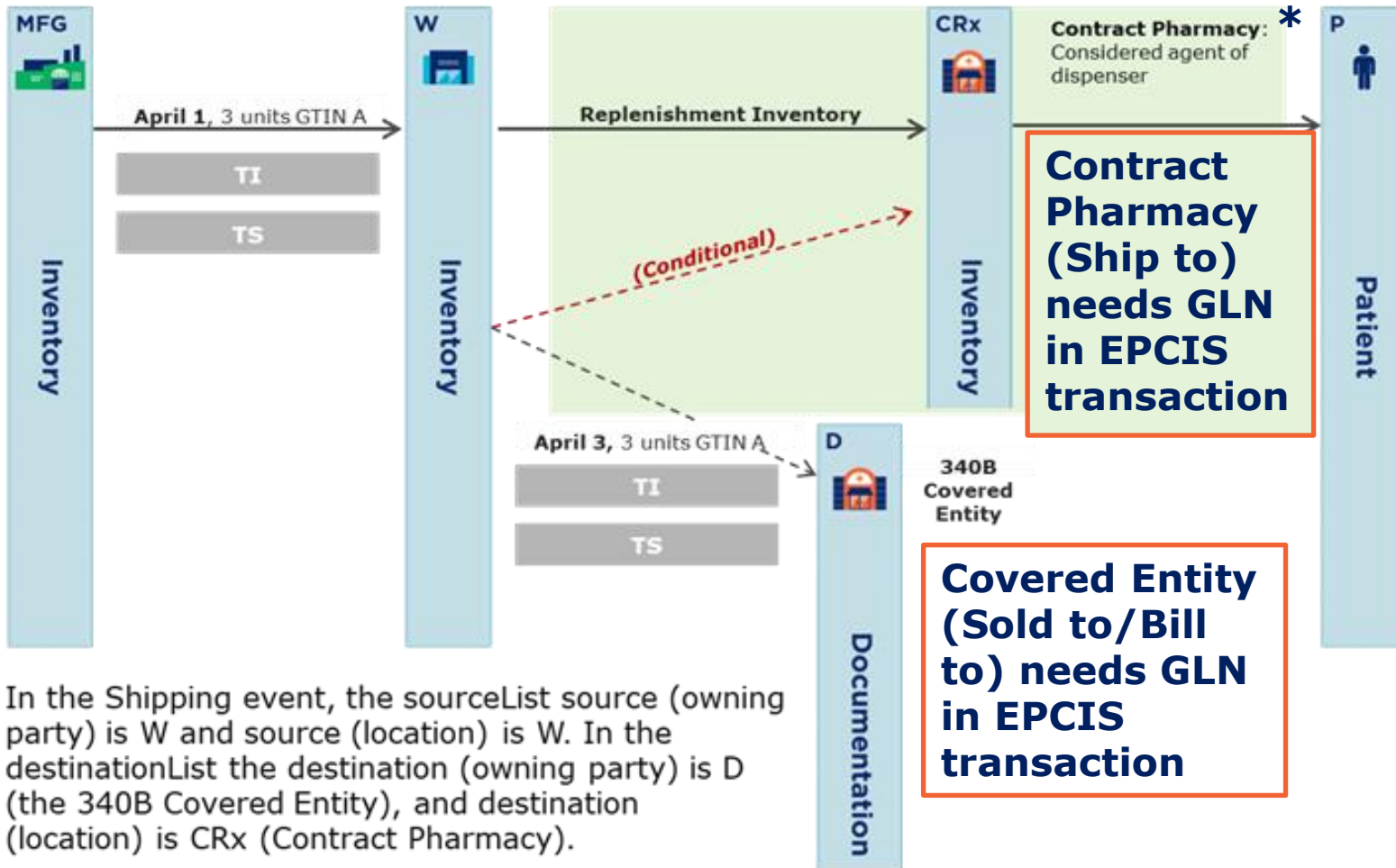


- Who "owns" the GLN maintenance?
  - Whether you were enumerated directly or through the Managed GLN Program, the location/party owner will know if the data is correct or needs to be updated.
  - The maintenance is really needed by the "owner of the data" as it is the best way to ensure the data is correct. This can be done directly into the Data Hub tool or through the administrator of the Managed GLN Program if you are not a part of the Self-Managed model.
- How do GLNs get "validated" by Data Hub?
  - Data Hub checks 2 things – if there is a duplicate address and does the address adhere to the U.S. Postal system.
  - You can enumerate your GLN in Data Hub by using your licensing which is automatically populated when licensed.



- Have GLNs that are being created on behalf, but also have a GCP. What to do?
  - If the decision is to use the GCP to enumerate independently. Let your GPO or Wholesaler know that decision and share your GLN information. The GLNs that have been enumerated on your behalf can be inactivated to eliminate duplications.
- How many GLNs do I need?
  - At a minimum, a separate GLN is needed for each physical street address that a Trading Partner ships product to. Within the EPCIS message, both a “Ship-to” GLN and a “Sold-to” GLN must be identified. These GLNs can be the same or different numbers. Many companies set up one GLN to identify the corporate entity as the “Sold-to” and then set up additional “Ship-to” GLNs to identify multiple shipping locations. There is also the option to identify location information in EPCIS with greater granularity (i.e., Floor or Suite #), but this is not required.

# 340B Program Scenario



In the Shipping event, the sourceList source (owning party) is W and source (location) is W. In the destinationList the destination (owning party) is D (the 340B Covered Entity), and destination (location) is CRx (Contract Pharmacy).

**\*Caution:** From a DSCSA transaction perspective, having duplicate Ship-to locations can hinder the ability to transact a combined shipment of 340B products and non-340B products in an aggregated SSCC and therefore would require separate shipments.

**Note:** The Covered Entity and Contract Pharmacy could be the same physical address

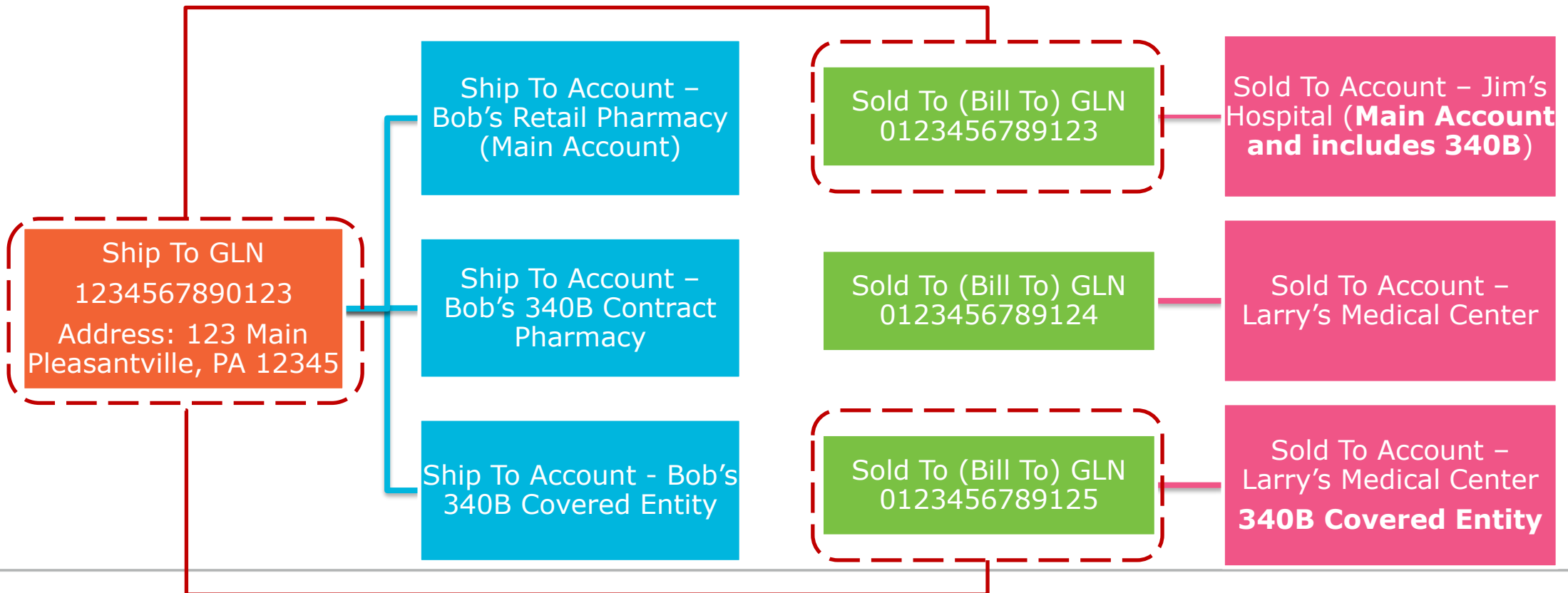
# 340B Program Scenario



## Contract Pharmacy is a Separate Location from the Covered Entity

**Contract Pharmacy = Ship To**

**Covered Entity = Sold To (Bill To)**



# Examples of Translation per GCP length, per Scenario



GS1 COMPANY PREFIX LENGTH	GLN CAPACITY	COMMENT
7	100,000	Typical for GCP with Labeler Code embedded (usually used for GTINs and SSCCs as well)
8	10,000	
9	1,000	
10	100	Lower capacity needed – may just be for GLNs
11	10	Lower capacity needed – may just be for GLNs
12*	1	Single GLN or enumerated through Managed GLN Program

## SGLN Translation examples:

- SGLN is derived from the GCP with a length of 7 (Labeler Code is embedded)**
  - Example: GCP=1234567, GLN = 1234567890128
  - Translated into an SGLN = urn:epc:id:sgln:1234567.89012.0
- SGLN is derived from the GCP with a length of 10 (licensed only to enumerate GLNs)**
  - Example: GCP=1234567890, GLN = 1234567890128
  - Translated into an SGLN = urn:epc:id:sgln:1234567890.12.0
- \*Single GLN, or GLN enumerated through the Managed GLN Program: SGLN is derived from the first 12-digits (the GLN minus the check digit)**
  - Example: GLN = 1234567890128, GCP = N/A
  - Translated into an SGLN urn:epc:id:sgln:123456789012..0



# GLN Comparison and SGLN Translation



## License a GS1 Company Prefix and assign from GCP

- Capacity is based on GCP length
  - Capacity for an embedded GCP with Labeler Code = 100,000 GLNs

- sGLN is derived from the GCP length
  - Example: GCP=1234567

GLN = 1234567890128

Translated into an SGLN

**urn:epc:id:sgln:1234567.89012.0**

## Individually licensed (single) GLN or GLN enumerated through the Managed GLN Program

- In both cases, 1 GLN issued represents 1 Location identified

- SGLN is derived from the first 12-digits (the GLN minus the check digit) as the *CompanyPrefix* component

- Example: GLN = 1234567890128

GCP = None

Translated into an SGLN

**urn:epc:id:sgln:123456789012.0**

The term SGLN refers to an EPC URI syntax for GLNs that is used in EPCIS.

# GS1 US Data Hub®



Whether you are a manufacturer, healthcare provider, distributor, or dispenser, you can use **GS1 US Data Hub | Location** to view and use accurate location information that is created and maintained by your trading partners in addition to creating and managing your own GLNs.

## Subscription Types:

- Create/Manage
- View/Use
- Export
- API

**Learn more:** <https://www.gs1us.org/tools/gs1-us-data-hub/location>



## GS1 US Data Hub | Product

Taking the guesswork out of creating barcodes and managing and sharing product information



## GS1 US Data Hub | Location

Driving reliable location identification and information to improve business efficiencies



## GS1 US Data Hub | Company

Accessing validated U.P.C. and company information for better business processes

# GS1 US Data Hub Subscriptions




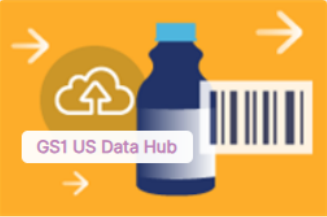




## GS1 US Data Hub

We offer multiple subscriptions to our online tool GS1 US Data Hub.

Our “Create/Manage” subscriptions allow you to create product and barcodes, or party and location data to share with trading partners. Our “View/Use” subscriptions offer access to validated Product or Location data for trusted data sharing. “Company” provides access to our database of companies tied to identification numbers

Please note, a free “Create/Manage” subscription comes with your license of a GS1 Company Prefix, GS1 US GTIN, or Global Location Number. Sign in to see your active subscriptions.

Sort: Best Match 

 <p>GS1 US Data Hub</p>	 <p>GS1 US Data Hub</p>	 <p>GS1 US Data Hub</p>	 <p>GS1 US Data Hub</p>	 <p>GS1 US Data Hub</p>
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Create UPC barcodes for your products. Manage & share your product information. ..	Create Global Location Numbers (GLNs). Manage & share your locations.	Access our databases with over 42 million US & 300 million global products. ...	View other companies' party & location information, including GLNs.	Validate the relationship between companies & their products or locations. ...
<a href="#">View Details</a>	<a href="#">View Details</a>	<a href="#">View Details</a>	<a href="#">View Details</a>	<a href="#">View Details</a>

# GS1 US Data Hub | Location

## - Subscription Details



Subscription Type	Tiers	Cost (as of July 2023)	Functionality	Edit/Add GLNs	View Others GLNs
<a href="#">Create/Manage</a>	Single User	\$500* Free with licensing	Use to create and manage GLNs and organizational relationships for your locations. Choose to share your location information with trading partners.	Yes	No
	1-5 Users	\$1,000		Yes	No
	1-10 Users	\$1,500		Yes	No
	Unlimited	\$2,500		Yes	No
<a href="#">View/Use</a>	Single User	\$500	View other companies' location information, including GLNs (Global Location Numbers) and location organizational structure provided by location owners.	No	Yes
	1-5 Users	\$1,000		No	Yes
	1-10 Users	\$1,500		No	Yes
	Unlimited	\$2,500		No	Yes
Export Add-On		\$4,500	These add-on subscriptions only need to be purchased once per company.	N/A	N/A
API Add-On		\$6,500		N/A	N/A

# GLN Metrics – 200K GLN increase in 3 months



Stakeholder	Number of GLNs in Data Hub (as of July 3, 2023)
Manufacturer	1,625
Wholesale Distributor	490
Repackager/3PL	23
Hospital Provider	633,427
Dispenser	282,042*
Undefined (HPs predominantly)	13,611
<b>Total</b>	<b>931,218</b>

**637 Unique GCPs**

\*Enumeration has been increasing on average 5-10K GLNs per week

# Data Hub Location Updates



- **Current State:**

- GCP available via Export–Healthcare Download report (no customization)
- GCP has a null value in the API
- SGLN provided to all View/Use subscribers through SharePoint site in the interim

- **July 14<sup>th</sup> Release:**

- API overhaul, new version, v4
- GCP is available via API

- **October (mid) Release:**

- Calculated SGLN available
- GCP in User Interface
  - GCP, Single GLN, or Managed GLN
- GCP as a searchable field
- Healthcare export file with customization

# Resources



- [GS1 US DSCSA \(Drug Supply Chain Security Act\) Overview](#)
- [How to Identify your Location for DSCSA Requirements](#)
  - Overview
    - [Quick start guides for how to identify your locations for DSCSA](#)
  - [30-minute webinar on how dispensers can prepare for an interoperable pharmaceutical supply chain](#)
- [GS1 US DSCSA Implementation Guideline R1.3](#)
  - Sections 5.10-5.18 (GLNs related)
- [GS1 US DSCSA FAQs](#)
  - Section 2.4 Questions about the Global Location Number (GLN)



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# Contact Information



## Tracy Nasarenko

Senior Director Community Engagement

### **GS1 US Corporate Headquarters**

Princeton South Corporate Center

300 Charles Ewing Boulevard

Ewing, NJ 08628 USA

**T** +1 302 339 0460

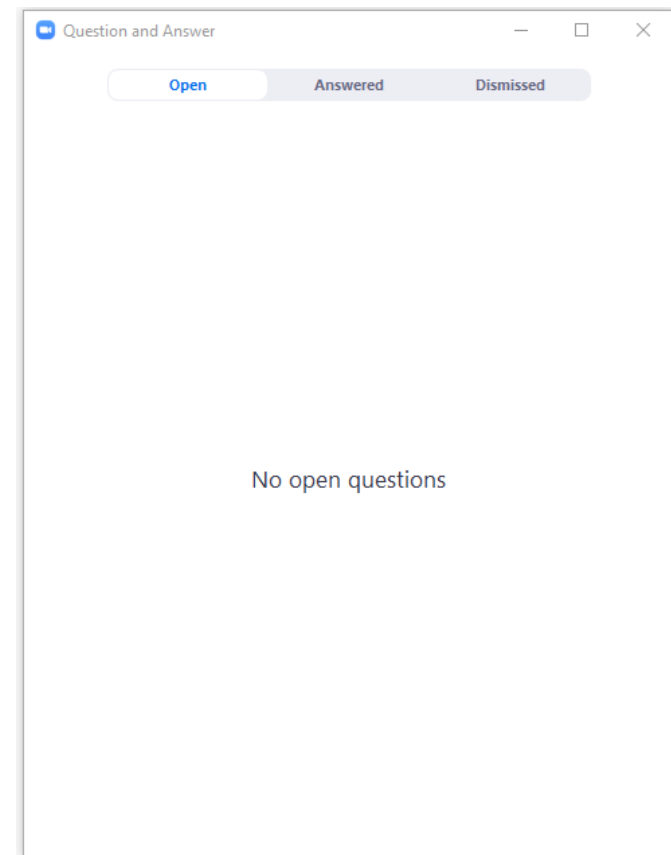
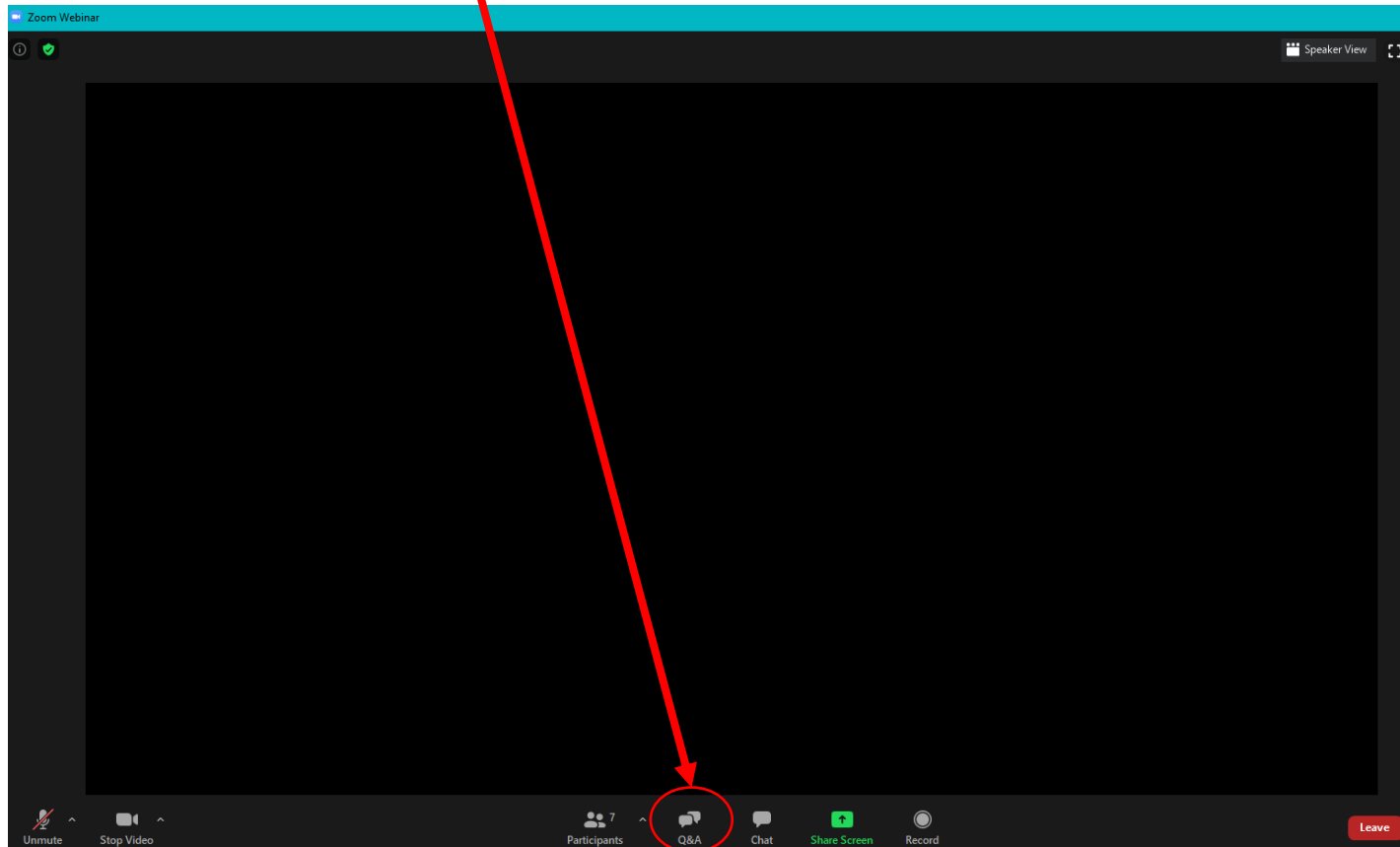
**E** [tnasarenko@gs1us.org](mailto:tnasarenko@gs1us.org)

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# Questions & Answers

Click the Q&A bottom Zoom menu to open



# Upcoming Events

Traceability Webinar Series | Thursday, July 27, 2023, 1:00 PM - 2:00 PM ET | DSCSA Implementation: A Phased Approach and Other Industry Recommendations

Traceability Webinar Series | Thursday, August 17, 2023, 1:00 PM - 2:15 PM ET | DSCSA Solutions Panel: Innovative Systems for Solving Compliance Requirements

2023 Traceability Seminar | August 29—31, 2023 | Marriott Marquis, Washington, D.C.

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