The Global Language of Business

How to Translate a GLN into a SGLN

The Global Location Number (GLN) is the globally unique GS1 identification key for parties and locations. The GLN can be used to identify a function (like a hospital pharmacy department or accounting department), a physical location (like a warehouse or hospital wing or even a nursing station), a legal entity (like a health system corporation), or a digital location (like an EDI gateway). The attributes defined for each GLN (e.g., name, address, location type) help users to ensure that each GLN is specific to one unique party or location throughout the world.

GLN Data Structure:

The term SGLN refers to an EPC URI syntax for GLNs that is used in EPCIS. The SGLN syntax is capable of representing a plain GLN (without extension) or a GLN plus extension. Therefore, the same SGLN syntax can be used for any location identifier based on the GLN.

✅ **Note**: Unlike in the acronym SGTIN, the "S" in "SGLN" does not stand for "serialized," as the GLN all by itself refers to a specific entity or location and so in that sense is already serialized. The "S" does not stand for anything.

How the segments of a GLN (with or without extension) are represented in the SGLN EPC URI format:

urn:epc:id:sgln:

| GS1 Company Prefix | • | Location Reference | • | Extension |

"0" if no extension

How do you translate a GLN into a SGLN if it is enumerated from a GCP?

To translate a GLN that was assigned from a GS1 Company Prefix, you will need to follow this specific data structure: urn:epc:id:sgln:CompanyPrefix.LocationReference.Extension

➢ An example of GLN assigned from a GCP with a value of 1234567 for the GCP and the GLN value of 1234567890128, the corresponding EPC URN without GLN extension is as follows: urn:epc:id:sgln:1234567.89012.0
  o **In this example the last digit of 8 is the check digit**
  o **When translating the 13-digit GLN into SGLN format, the check digit is dropped**
➢ An example of GLN assigned from a GCP with a value of 123456789 for the GCP and the GLN value of 1234567890111, the corresponding EPC URN without GLN extension is as follows: urn:epc:id:sgln:123456789.011.0
  o **In this example the last digit of 1 is the check digit**
  o **When translating the 13-digit GLN into SGLN format, the check digit is dropped**

🛑 **Important:** The length of the GCP is based on the required capacity of enumeration. A seven-digit GCP enables 100K GTINs <u>AND</u> 100K GLNs to be enumerated <u>in addition to</u> ten million SSCCs. The six or seven-digit GCP is used when a U.S. FDA issued Labeler Code is embedded into the GCP to allow for the GTIN to include the necessary National Drug Code (see example below). If you do not need that level of enumeration, then a smaller capacity can be chosen and the length of the GCP will increase while the capacity lessens.

Example of embedded Labeler Code in GS1 Company Prefix

GS1 Prefix	**03**
FDA-assigned Labeler Code	**61414**
GS1 Company Prefix (with Labeler Code embedded)	**0361414**

How do you translate a GLN into a SGLN if it is an individually licensed GLN (single GLN) or from the Managed GLN Program (assigned by either your GPO or Wholesale Distributor)?

To translate the GLN, you will need to follow this specific data structure:
urn:epc:id:sgln:CompanyPrefixComponent..Extension

- ➢ An example of single GLN with no GCP and the GLN value of 1200123456787, the corresponding EPC URN without GLN extension is as follows: urn:epc:id:sgln: 120012345678..0
    - o **In this example the last digit of 7 is the check digit**
    - o **When translating the 13-digit GLN into SGLN format, the check digit is dropped**

⚠ **Important**: If your 13-digit GLN starts with an **1100** or **1200** then it is either an individually licensed (single) GLN or a GLN enumerated through the Managed GLN Program from the US. Additional series can be added in the future to support demand by industry.

Glossary

Term	Acronym	Definition
GS1 Company Prefix	GCP	A GS1 Company Prefix is a unique string of 6–11 digits issued to your company by your local GS1 Member Organization.
Global Trade Item Number®	GTIN®	The Global Trade Item Number (GTIN) is the globally unique GS1 identification number used to identify "trade items" (i.e., products and services that may be priced, ordered, or invoiced at any point in the supply chain).
Serialized GTIN	SGTIN	An SGTIN is the combination of a GTIN and a unique serial number of up to 20 alphanumeric characters.
S Global Location Number	SGLN	The term SGLN refers to an EPC URI syntax for GLNs that is used in EPCIS. The SGLN syntax is capable of representing a plain GLN (without extension) or a GLN plus extension.
Electronic Product Code	EPC®	The Electronic Product Code™ (EPC) is syntax for unique identifiers assigned to physical objects, unit loads, locations, or other identifiable entity playing a role in business operations.
Electronic Product Code Information Services	EPCIS	The EPC Information Services (EPCIS) standard defines a data model and a data-sharing interface that enables supply chain partners to capture and communicate data about the movement and status of objects in the supply chain.

⚠ **The use of GLN extension components in DSCSA events to be exchanged with trading partners:**

- The Rx Secure Supply Chain Workgroup does not view the GLN extension component as suitable for EPCIS events to support DSCSA requirements for serialized item-level information. **Consequently, an SGLN EPC appearing within EPCIS events supporting DSCSA requirements shall have a single digit zero ("0") in the GLN Extension portion of the URI syntax.** U.S. pharmaceutical industry companies wishing to identify internal physical locations that will or potentially can be shared with external trading partners within an EPCIS event should assign new GLNs instead of using a non-zero in the GLN extension portion of the URI syntax for those internal physical locations. This is due to the nature of the U.S. pharmaceutical industry as it is comprised of a continually shifting landscape of trading partners and as the GLN extension component is optional, there may be varying capabilities of consuming and capturing the extension component especially as the data is exchanged downstream.
- When downstream partners receive events from upstream partners **for DSCSA data exchange**, the representation of a GLN with or without a GLN extension will remain consistent with the event author. For example, if the event author uses a GLN extension, the downstream partners will not alter the event author's GLN representation by replacing it with "0" in the GLN extension portion of the SGLN.