



GLN Allocation Rules guidelines

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Introduction

The Global Location Number (GLN) is the GS1 Identification Key used to identify any location (physical, digital, functional, and or legal) that needs to be identified for use in the supply chain. The GLN supports organisations of varying degrees of complexity, ranging from a one-person enterprise to a multinational with hundreds of locations, several legal entities, supported by various IT systems.

The purpose of this guideline is to provide guidance on how organisations can use the GLN to effectively identify company and trading partner locations to improve supply chain, logistics, inventory management, and other business processes. This guidance is relevant when GLNs are first allocated and throughout an organisation's life cycle. This guideline complements GLN rules defined in the [GS1 General Specifications](#) and [GLN Allocation Rules](#).

In less complex organisations only one or a few GLNs will be applied, often identifying a combination of location types. The first section of this guideline provides information relevant to these types of organisations.

In more complex organisations, multiple GLNs will be applied to identify the various types of locations. The second section of this guideline provides a number of use case scenarios to illustrate best practices in more complex scenarios. Section 2 is organised by business process and industry sector illustrating scenarios unique to these domains.

GLN application basics

Who should allocate the GLN?

Organisations use GLNs to identify their organisational entities and point to master data about those entities. An important principle of GS1 standards is that such keys and associated data are best managed 'at the source' by the organisation itself.

In practice, it is not always easy to determine which organisation is the source of a location. Is it the owner of the building, the company renting the building, the supplier making deliveries in the building, the cleaning company responsible for cleaning a building?

GS1 General Specifications

GLNs are intended to support business processes and are used to identify physical locations, legal entities, functions and digital locations. GLNs must be allocated by the party that defined the location in support of his business operations, the operating party. [GENSPECS, Section 4.6 GLN rules]

How do you get a GLN?

Your local GS1 Member Organisation (MO) is available to help your organisation implement GS1 standards, such as the GLN. You should contact your local MO to determine the most appropriate method for assigning GLNs. Two methods are available:

Method 1 – Obtain a GS1 Company Prefix

Your organisation becomes a member of the GS1 community, and your GS1 MO assigns a GS1 Company Prefix to your company. The GS1 Company Prefix enables you to create and allocate GS1 Identification Keys, including GLNs. This approach enables your organisation to generate other keys, such as GTINs and SSCCs.

Method 2 – Individually assigned GLNs

Some MOs offer a second option, assigning individual GLNs. This option is attractive for companies that only need a limited number of GLNs and do not need to create other keys such as GTINs and SSCCs.

Contact your MO for more information on the available membership options: <http://www.gs1.org/contact>



How to identify your company?

One of the primary uses of the GLN is to identify your company as a legal entity. A GLN can be used to identify your company in business transactions such as orders, and also be used to instruct your trading partners on the location where goods need to be delivered.

GLN Allocation Rules

[1.1 Use of the GLN](#)

How to identify your physical location(s)?

When your company has multiple buildings at different addresses you may need to assign GLNs to each of them. This is especially important for pick-up and delivery locations such as factories, warehouses, distribution centres and stores.

GLN Allocation Rules

[1.1.3 Identifying a physical location](#)

What happens if my company moves to a new address?

When your company relocates to a different address usually new GLNs will need to be allocated. In this way trading partners will be alerted in a clear way and mistakes will be avoided. See chapter 4 for exceptions to this rule.

GLN Allocation Rules

[4.2.1 Change of the location access address](#)

Changes to locations identified by individually assigned GLNs

In the event of a change to an individually assigned GLN, the GLN Allocation Rules apply.

For example, if the individually assigned GLN relates to a physical location, and the address changes, a new GLN is needed.

GLN Allocation Rules

[2.2.3 Relocation of a legal entity](#)

[4.2.1 Change of the location access address](#)

The GLN extension component

More and more often, trading partners and regulators require detailed information on the movements and transformations of products. The GLN extension component enables companies to identify spaces within a site.

GLN Allocation Rules

[1.2 Use of the GLN extension component](#)

GLN Allocation

GLN usage types

The Global Location Number (GLN) can be used for the identification of four types of organisational entities, and each of these has a different logic when it comes to allocating GLNs.



- **Legal entity** GLNs primarily identify the 'Who' in a business transaction. This means that the Legal Entity GLN is allowed to remain the same when a legal entity relocates to a different address.
- For **functions**, such as receiving, accounting, purchasing, or hospital ward, a similar approach is followed as for legal entities. Again, such GLNs primarily identify the "who" in a business transaction. A physical address change of a function is no reason to mandate a GLN change. In fact, the GLN in some cases must stay the same to ensure proper traceability.
- For **physical location** GLNs, the GLN allocation rules are based on the premise that significant address changes must be managed by allocating a new GLN. Important aspect here is that physical location changes are a somewhat difficult notion. For example when a distribution centre moves from one city to another, it is likely that the old location still will stay in use in some way, either by the same company or by a different company.
- For **digital locations**, such as IT system and network addresses, GLNs identify the "where". Unlike physical locations, the "where" in this case is not in the physical space but in the digital space. The allocation rules for digital locations mainly enforce an unambiguous distinction between systems, including their development status (testing environment versus live production environment). Changes to the network address as such are not a reason to change the associated GLN.

The distinction between the four types is used to properly understand the rules and best practices related to GLN allocation. In practice GLNs are often allocated to a combination of 2 or more types. One should be careful in assigning multiple usage types to a GLN, and consider the potential impact should one of those usage types change.

Example: GLN 8712345678906 is used to identify the legal entity and the warehouse of a company. The company decides to build a new warehouse down the street, and destroy its old one in order to extend the office. The new warehouse will need to get a new GLN, since its address has changed. If the combined use continues the legal entity GLN will also need to change. A more convenient solution may be to maintain the old GLN, and dedicate it to the identification of the company. Effectively this means that two GLNs will be used, and combined use is stopped.

GLN Allocation Rules

[1.1 Use of the GLN](#)

[1.3 Using the same GLN to identify multiple location types](#)

GLN change management

Looking from an organisation perspective three types of location changes can occur:

- Addition of a location, including the split of a location.
- Change to an existing location
- De-activation (removal) of a location, including the merge of locations.

The GLN allocation rules have been organised accordingly.

One of the most complex areas is a change to an existing location. A key consideration for maintaining the same GLN is whether or not the location can be considered the same from a trading partner perspective. Companies should notify impacted trading partners of any such changes in a timely manner, to avoid impacting new or in-process transactions.

GLN Allocation Rules

[About these rules](#)

Reuse of Global Location Numbers

The general rule is that GLNs must not be reused until at least 4 years after deactivation:



GS1 General Specifications

A Global Location Number (GLN) that has been previously used and has become obsolete must not be reused for another location until at least 48 months have elapsed. A longer period may be needed in accordance with government requirements, such as invoicing and taxation, or requirements related to the nature of the location (e.g., a bonded warehouse). This period provides time for all references of the old GLN to be removed from trading partner files. [GENSPECS, Section 4.6 GLN rules]

Mergers and acquisitions

In case of a merger or acquisition two main scenarios can be distinguished:

- GLNs are transferred to the acquiring company: In this case the acquiring company can maintain the existing GLNs.
- GLNs are not transferred to the acquiring company: In this case the acquiring company must assign new GLNs within one year for any locations they wish to continue to identify and discontinue use of the previously-assigned GLNs not transferred.

Companies should notify their GS1 Member Organisation and impacted trading partners of any such changes in a timely manner.

GS1 General Specifications

Please refer to the full text in [GENSPECS 1.5 Acquisitions and Mergers]

Retail scenarios

Locations in shopping centres

A company leasing space in a shopping centre must assign its own GLNs to that location for use in its business transactions. The company must not use the GLNs of the shopping mall owner since these will have different data associated and also will point to the wrong legal entity.

GS1 General Specifications

GLNs must be allocated by the party that defined the location in support of their business operations. [GENSPECS, Section 4.6 GLN rules]

Franchise locations

A retail chain may identify the physical locations (stores). If there is a need to identify the franchisee as an independent corporate entity, in case the franchisee also purchases goods independently, a separate GLN assigned by the franchisee must be used.

GS1 General Specifications

GLNs must be allocated by the party that defined the location in support of their business operations.

- *Only the organisation that is the licensee of a GLN may use that GLN to represent itself in business transactions. For example, if a franchisee engages as buyer in business transactions with parties other than the franchising company it must use its own assigned GLN, it cannot use a GLN assigned by the franchising company.*
- *A company may assign a GLN to a physical location of which it is not the owner or primary user. This can be useful in cases where the same location is used for multiple purposes, e.g. a store is also used as receiving location for a mobile clinic.*

[GENSPECS, Section 4.6 GLN rules]

Shop-in-shop locations

It is recommended that the party managing the shop in the shop assigns its own GLN to that location, to be used in instructions to suppliers and to properly manage inventory.

Shop-in-shop scenarios occur in many variations:

- Sales floors owned by supplier
- Sales floors owned by store (e. g. department store)
- Sales areas for special marketing activities
- Shop windows
- Fulfilment stations for online orders

GS1 General Specifications

GLNs must be allocated by the party that defined the location in support of their business operations. [GENSPECS, Section 4.6 GLN rules]

Dealing with relocations of stores

A store is more than a location, it is also an organisational entity with characteristics such as the retail format and chain / brand. To ensure robust GLN allocation, it may be effective to use separate GLNs for the store as an organisational entity (function) and as a physical location. In that way, when a store relocates the function GLN can remain the same, preserving important historical information such as sales statistics.

GLN Allocation Rules:

[4.2.1 Change of the location access address](#)

[3.2.3 Changing operating location\(s\) of a function](#)

Omni-channel sales statistics

Businesses are operating their online-shops in various ways. Some retailers allocate separate GLNs to their online-shops and manage them as independent locations (e. g. separate stock, separate logistic handling). Other retailers fulfil online orders by taking the products from the stock of stationary retail.

In the first scenario, separate GLNs enable differentiation of sales statistics per channel, but in the second scenario GLNs cannot be used for this purpose. In the latter case it is recommended to manage the channel as characteristic of the picking-order, and to avoid assigning multiple GLNs to the same location.

GLN Allocation Rules:

[1.1.3 Identifying a physical location](#)

[4.1.1 Identification of a new physical location](#)

Omni-channel – inventory management

Distribution Centres (DC) that service online and physical store fulfilment may need to keep inventory separated for tax purposes.

If the supplier needs to treat the order separately, for example because it needs to be labelled or shipped separately, multiple GLNs may be applied to differentiate the locations, even when they are located at the same physical address.

GLN Allocation Rules

[1.1.3 Identifying a physical location](#)

[4.1.1 Identification of a new physical location](#)

Omni-channel - secondary store locations

A store may have inventory at several secondary locations at different addresses close to the main store. Examples are pick-up locations, self-service lockers.

Locations at different addresses that are managed by the same store should get different GLNs if they are used in instructions to trading partners. If the locations are only used for inventory visibility purposes assigning GLN Extensions may be considered.

For the main store a single GLN can be assigned in order to identify it as organisational entity (function).

GLN Allocation Rules

[1.1.2 Identifying a function](#)

[1.1.3 Identifying a physical location](#)

Healthcare scenarios

Hospitals - Identifying the who and where

The physical arrangements of hospitals change frequently. For example, a ward may move from one physical location to another to allow for cleaning, two rooms may be converted into one room or vice versa, or the function of a room may change from being part of physiotherapy to being an office or a storage location. GLNs can be used to both provide a history of what took place in that location, e.g. in which ward was Mr. Smith in and what was the physical location of his bed.

It is recommended to use separate GLNs for functions (such as the X-ray department or Ward 10 -Geriatrics) and physical locations (such as a bed bay with co-ordinates (x,y) on floor A in building B). When recording events it may be necessary to register both the functional entity and the physical location.

For example, a patient was treated in Ward 10 – Geriatrics (functional entity which could define which nurses were likely to have been involved) and in a specific bed bay (physical location on specific floor and x,y co-ordinate which might be required for infection control).

GLN Allocation Rules

[1.1.2 Identifying a function](#)

[1.1.3 Identifying a physical location](#)

Mobile clinic

Mobile clinics provide patient care in different (changing) physical locations. A mobile clinic may operate from a different physical location each day.

It is recommended to assign a GLN to the mobile clinic as legal entity or function. The mobile clinic GLN can be used in the ordering process and to identify the clinic responsible for a treatment.

It is not possible to use this GLN to specify the delivery location. Recommendation is:

- When restocking at an ad hoc location such as a drop zone, the address should be communicated as data, not using a GLN.
- When restocking at recurring base station(s) a GLN can be applied to represent the physical address for each base station.

The mobile clinic GLN may not be sufficient to identify the point-of-care. Treatments by mobile clinics may take place at a pop-up location, at a patient home, in the mobile clinic. In all scenarios, additional information may need to be recorded about the exact geographical location where the treatment took place.

GLN Allocation Rules

[1.1.1 Identifying a legal entity](#)

[1.1.2 Identifying a function](#)

[1.1.3 Identifying a physical location](#)

Agriculture scenarios

Fishing vessels

A Fishing Vessel processes products suitable for sale to the consumer. Therefore, they are legally considered to be Food Business Operators (FBO). This is the same as a food processing plant on-shore which handles products of animal origin and must operate under hygiene conditions which are defined in regulations, such as in Europe (EC) No 853/2004.

GLNs enable the unique identification of vessels for traceability purposes. The use of a GLN enables you to issue a new GLN whenever the vessel owner changes, and to track all subsequent 'transactions' or 'events' using the new GLN, thereby distinguishing them from the old owner. This is a fundamental part of any traceability system – the ability to record the Food Business Operator, i.e. the legal entity responsible for the foodstuffs, not merely the vessel or factory in which it was produced.

GLN Allocation Rules

[1.1.1 Identifying a legal entity](#)

Export and trade of produce

Safety requirements often require detailed origin information. Such origin information enables the importing country to validate the phytosanitary export certificate, grower quality certification (e.g. GLOBALG.A.P. certification) and packing station certification (e.g. BRC certification).

For example, the Protocol of Phytosanitary Requirements between Netherlands and China requires for the export of pear fruit from the Netherlands to China that each exported case is labelled with: Producing Areas (province, city or country), PFPA registration number (ground / parcel), packing house and its registration number, cold storage and its registration number.

It is recommended to assign GLNs to all locations (ground / parcel, packing house, cold storage) and to the responsible party (legal entity). Through the 1-to-1 link of the physical location GLN to the GLN of the responsible legal entity, the responsibilities are clear in cases of quality issues.

GLN Allocation Rules

[1.1.1 Identifying a legal entity](#)

[1.1.3 Identifying a physical location](#)

Flower auction

A flower auction is both an enabler of trade between growers and traders, as well as a distribution centre where flowers and plants are received, inspected, packaged and shipped. Various service providers also operate on the auction's premises.

As an example, all registered traders, growers and other relationships of the Dutch flower auctions get a unique company code by assigning GLNs to all commercial and legal entities. All loading and unloading locations on auction sites are coded and marked with a barcode that includes the GLN. Also, the sites of all traders and nurseries of all growers in the Netherlands are coded and marked with a location sign with barcode.

GLN Allocation Rules

[1.1.1 Identifying a legal entity](#)

[1.1.3 Identifying a physical location](#)

Supply chain and logistics scenarios

Shared receiving location

A business located within another business (coffee shop within a gas / petrol station) may share the same receiving dock. Both entities require the identification of receiving locations.

Both companies are allowed to assign their own GLN to the location.

GS1 General Specifications

GLNs must be allocated by the party that defined the location in support of their business operations. [GENSPECS, Section 4.6 GLN rules]

Order-to-cash

To facilitate the automation process and the automated order process, the manufacturer must be able to anticipate the workflow. GLNs are often used to trigger such workflows, e.g. the buyer GLN & ship-to GLN may trigger a specific process with the supplier. If an unknown GLN appears in the workflow, human processing may be needed, slowing the process.

It is best to base the workflows associated to GLNs in interoperation agreements between the involved trading partners. Such agreements should be updated well in advance when new GLNs are being added or existing GLNs are changed, or when master data changes are made that will impact the order-to-cash process.

GS1 General Specifications

The GLN allocated to a location SHOULD be communicated throughout the supply chain by the company that allocated the GLN in advance of a transaction/delivery so that all systems can be prepared for this interaction. [GENSPECS, Section 4.6 GLN rules]

GLN changes during order-to-cash cycle

When a change occurs part-way through an order-to-cash transaction cycle, parties should accept the GLN(s) that were in effect at the start of the transaction. The new GLN(s) should be used for all new transactions. Credit notes, claims etc. referring to previous transactions should be treated as new transactions, and the new GLN(s) should be referenced and accepted.

Example where GLN A changes to GLN B during the order-to-cash cycle. The following issues may occur during various steps of the process:

- *The order is sent with GLN A (as invoicee), merchandise is shipped to and invoiced to GLN A. The warehouse refuses to accept the shipment as they expect a delivery to the new GLN B.*
- *The order is sent on GLN A (as invoicee), the merchandise is shipped and accepted at the entrance of the warehouse, but the invoice is rejected. The retailer manages the physical receipt workflows on GLN A and the invoice processing workflows on GLN B.*
- *The supplier needs to issue an invoice correction: This can only be done by referring to the initial GLN (GLN A).*
- *Supplier needs to issue a separate credit invoice (e.g. for broken merchandise). Technically it is not possible for the supplier to use to the old (deactivated) GLN A, however a retailer may require the supplier to do so.*

Overflow locations

Seasonal peaks may cause products to be shipped to a 3rd party DC instead of to the regular (own) DC. Since such alternate locations have a different access address they need to be identified with a separate GLN.

GLN Allocation Rules

[1.1.3 Identifying a physical location](#)

IT systems scenarios

Internal interfaces

GLNs can be used to identify IT systems to enable internal interfacing. The GLN is used in the Enterprise Application Integration software to configure the routing of messages between systems.

The GLN will be changed when a major software update is made, e.g. different vendor or major upgrade. GLNs will not change when minor updates are made to an existing system. GLN master data for digital locations may include an electronic address and the name of the system.

Example: Company is using GLNs, allocated from their own available (internal) range, to identify IT systems such as ERP systems, warehouse management systems, etc.

GLN Allocation Rules

[1.1.4 Identifying a digital location](#)

[5.2.3 Change of hardware or software at a digital location](#)

[5.2.4 Change of system status \(test to production/live\)](#)

External interfaces

GLNs can be used for identification of external IT systems, enabling direct communication with other parties.

GLNs are used to differentiate the external interfaces: types of service (e.g. EDI gateway, service end point ...) as well as the development status of the interface (development, test, production).

Example: Company is using GLNs to identify systems for their EDI gateway. To distinguish between production, test and development environments, separate GLNs are used.

GLN Allocation Rules

[1.1.4 Identifying a digital location](#)

[5.2.2 Change to network address \(retrieved via the GLN\)](#)

[5.2.4 Change of system status \(test to production/live\)](#)