



GSMP:

General Specifications Change Notification (GSCN)

WR #	GSCN Name	Effective Date
18-270	GS1 2D on logistic label for healthcare applications	12-Dec-2018

Associated Work Request (WR) Number:

18-270

Background:

There is an expressed need to allow for the inclusion of GS1 DataMatrix barcodes on logistics labels used in healthcare distribution. Some logistic units can be quite small and it can be difficult to incorporate GS1-128 barcodes on their logistic labels. Additionally, trading partners that may not have access to master data would like to be able to capture pertinent label information quickly and accurately.

The option to use a GS1 2D barcode containing attributes along with the SSCC allows for efficient data capture and saves label space when encoding multiple AIs.

The proposed changes here are for the GS1 General Specifications only. To fulfil the requirements of this Work Request, collateral material may be needed to educate the healthcare community users on the implementation of this option.

GS1 General Specification Change:

The recommended changes are highlighted below, relative to GS1 General Specifications version 18.

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2.2 Logistic units

A logistic unit is an item of any composition established for transport and/or storage that needs to be managed through the supply chain.

Tracking and tracing logistic units in the supply chain is a major application of the GS1 system. Scanning the standard identification number, marked on each logistic unit, allows the physical movement of units to be individually tracked and traced by providing a link between the physical movement of items and the associated information flow. It also opens up the opportunity to implement a wide range of applications, such as cross docking, shipment routing, and automated receiving.

Logistic units are identified with a GS1 identification number called the SSCC (Serial Shipping Container Code). The SSCC is the only GS1 key that SHALL be used as the identifier of a logistic unit. The SSCC ensures that logistic units are identified with a number that is unique worldwide.

If, in addition to being a logistic unit, the item is regarded as a trade item by the brand owner, it may additionally be identified with a GTIN. The combination of a GTIN and a serial number must not replace the SSCC as the identifier of a logistic unit.

If, in addition to being a logistic unit, the item is part of a consignment and or a shipment, it may also be associated with the GINC and or the GSIN.

Attribute information, such as a Global Identification Number for Consignment, AI (401), may be optionally encoded using internationally agreed data structures and a barcode symbology that allow unambiguous interpretation.

2.2.1 Individual logistic units

Application description

A logistic unit is an item of any composition established for transport and/or storage that needs to be managed through the supply chain. The identification and symbol marking of logistic units enables a large number of user applications. In particular, the SSCC (Serial Shipping Container Code) provides a link between the physical logistic unit and information pertaining to the logistic unit that is communicated between trading partners using Electronic Data Interchange (EDI).

The SSCC element string AI (00) is used for the identification of logistic units (see section 3). Each individual logistic unit is allocated a unique number, which remains the same for the life of the logistic unit. When assigning an SSCC, the rule is that an individual SSCC number must not be reallocated within one year of the shipment date from the SSCC assignor to a trading partner. However, prevailing regulatory or industry organisation specific requirements may extend this period.

In principle, the SSCC provides a unique reference number that can be used as the key to access information regarding the logistic unit in computer files. However, attributes relating to the logistic unit (e.g., ship to information, logistic weights) are also available as standardised element strings.

GS1 key

Definition Required

~~The SSCC is the GS1 identification key used to identify logistics units. The key is comprised of an extension digit, the GS1 Company Prefix, serial reference, and check digit.~~

The GS1 Application Identifier for the SSCC is AI (00), see section 3.2, for details of the SSCC and associated data elements.

Rules

All SSCC rules described in section 4.2.2.

Attributes

Required

Not applicable

Fixed measure AI (02) or routing code AI (403) are used when:

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- A logistic unit is a grouping of trade items, it is sometimes useful to indicate the Global Trade Item Number (GTIN) of the contained items in association with the SSCC. See section 3.2, *Identification of trade items contained in a logistic unit – fixed measure, AI (02)*, and *Count of trade items contained in a logistic unit, AI (37)*.
- Use of AI (02) and AI (37) with SSCC AI (00) is not the preferred option for regulated healthcare trade items. For regulated healthcare trade items, AI (02) + AI (37) is limited to bilateral use between trading partners for exception handling during a migration period to EDI implementation or if the product is sold as a non-regulated trade item within a retail distribution channel for certain markets. SSCC is the approach selected by healthcare and provides the appropriate level of identification when associated with EDI messaging to provide traceability inclusive of count for trade items contained. SSCC when associated with EDI is required for identification purposes to reach our extended goals for traceability.
- The routing code, AI (403), is assigned by a parcel carrier. It is intended to provide a migration path to the adoption of a yet to be defined international, multi-modal solution. See section 3.2, *Routing code, AI (403)*.


Optional

The use of attribute information on logistic units is optional. However, when used, attribute information SHOULD be processed with the SSCC that identifies the logistic unit.

- The element string *Ship to – Deliver to Global Location Number, AI (410)* has been designed to allow the automatic sortation of logistic units using the Global Location Number (GLN).
- The element string *Ship for – Deliver for – Forward to Global Location Number, AI (413)*, has been designed to allow the cross-docking of logistic units using the Global Location Number (GLN). It is used in conjunction with the element string AI (410) to indicate the cross-docking station and the final destination of the logistic unit.
- The element string *Ship to – Deliver to Postal Code within a Single Postal Authority, AI (420)* has been designed to allow the automatic sortation of logistic units using the postal code in a single postal area.
- The element string *Ship to – Deliver to Postal Code with Three-Digit ISO Country Code, AI (421)* has been designed to allow the automatic sortation of logistic units using the postal code. As the postal code is prefixed by the ISO country code, it may be used internationally.

[For all the GS1 Application Identifiers that may be used with an SSCC, see section 3.2 for more details and the list of all GS1 Application Identifiers.](#)

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 **Note:** Although the use of AI (02), Identification of trade items contained, and AI (37), Count of trade items contained, is common in some sectors to describe the content of a logistic unit, the healthcare sector prefers the use of the SSCC alone. The SSCC is used with EDI communications to enable identification and traceability.

Rules

Refer to section 4.14 for the mandatory associations: Not applicable.

Data carrier specification

Carrier choices

The mandatory data carrier used to represent GS1-system individual logistic units is the GS1-128 barcode symbology.

[A GS1 DataMatrix or GS1 QR Code symbol MAY be included in addition to the GS1-128 symbol. When used, the GS1 2D symbol SHALL include all element strings included in the GS1-128 symbol\(s\), and MAY include additional element strings.](#)

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[If a logistic unit does not have at least one surface area greater than an A6 or 4" x 6" logistic label \(see section 6.6.4.5\), a GS1 DataMatrix or GS1 QR Code MAY be used by itself on a logistic label, though a GS1-128 containing a SSCC is still recommended. If a logistic label is used with only a GS1 DataMatrix or GS1 QR Code, care must be taken to ensure trading partners are able to scan this barcode.](#)

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For healthcare, see the recommendations at the end of section [2.1.52.1.52.1.6](#) in figure [2.1.52.1.52.1.6-2](#) Carrier choices.

Symbol X-dimensions, minimum symbol height, and minimum symbol quality

See section [5.9.3.5](#), GS1 symbol specification table 5.

Symbol placement

All the symbol placement guidelines defined in section [6](#).

Unique application processing requirements

For a description of processing requirements, see section [7](#).

2.2.2 Multiple logistic units – Global Identification Number for Consignment

Application description

- Consignments can comprise one or many logistic units. If the consignment comprises more than one physical object there is no requirement that they are attached together. A consignment number identifies a logical grouping. When a consignment number is read the message is that this physical unit should be associated with any other physical units carrying the same consignment number. Individual physical units carry the SSCC as described in the previous section.
- The Global Identification Number for Consignment is assigned by the freight forwarder or carrier of the transport units and is referenced in the relevant transport messages and documents (e.g., waybill). It may be used as a communication reference by all parties in the transport chain, such as in Electronic Data Interchange (EDI) messages where it can be used as a consignment reference and/or freight forwarders or carriers loading list. See section [3.2](#), Global Identification Number for Consignment (GINC): AI (401).



Note: Shipment and consignment are terms, which may be used interchangeably within the transport and logistics sector however for the purposes of clarity, when referring to multiple logistic unit identification for trade, GS1 uses the term shipment and when referring to multiple logistic unit identification for transport, GS1 uses the term consignment

GS1 key

Definition Required

- ~~The Global Identification Number for Consignment GINC, AI (401), identifies a logical grouping of goods (one or more physical entities) that has been consigned to a freight forwarder or carrier and is intended to be transported as a whole. Refer to section [3.2](#) for the list of GS1 Application Identifiers with detailed information.~~

The GS1 Application Identifier for the GINC is AI (401), see section [3.2](#)

Rules

The data transmitted means that the element string denoting a Global Identification Number for Consignment has been captured. The Global Identification Number for Consignment may be processed as stand-alone information where applicable or with other identification data appearing on the same unit. [See section 2.2.1 for use of the GINC in combination with the SSCC.](#)

~~See section [4.9](#).~~

Attributes

Required

Not applicable

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