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GLN Data Model Solution Standard

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1 Introduction

Today's global business partners require a consistent, reliable experience in exchanging and using party and location information, no matter where they operate. Business, governments, and consumers all expect accurate and more detailed information on where products come from, are now, and will be; along with who they are interacting with.

Establishing industry standards based on real-world party and location-based use cases will enable more timely, accurate, and consistent exchange of foundational master data across the stakeholder groups. Having globally aligned, interoperable attribution will create an ecosystem in which party and location data can be readily shared in a scalable, interoperable way across different sectors and markets.

1.1 Purpose

A set of core and global attributes for the Global Location Number (GLN) whether mandatory or non-mandatory are a requirement to ensure the data being shared between stakeholders is complete, interoperable, and aligned whilst being able to be scaled to meet all business needs, supporting the deployment of future GLN solutions and services.

2 References

| Reference Name | Description |
|--|--|
| <i>GS1 General Specifications</i> - https://www.gs1.org/standards/barcodes-epcrfid-id-keys/gs1-general-specifications - release 21.0 [GEN SPECS] | The foundational GS1 standard that defines how identification keys, data attributes and barcodes must be used in business applications. |
| <i>GS1 GLN Allocation Rules Standard</i> - https://www.gs1.org/1/glnrules/en/ | Normative reference for GLN allocation and management principles |
| <i>GS1 Web Vocabulary</i> - https://www.gs1.org/voc | The GS1 Web Vocabulary collects terms defined in various GS1 standards and data systems and made available for general use following Linked Data principles. It is designed as an extension to schema.org and, where relevant, mappings and relationships arising from that vocabulary are made explicit. The structured data about can then be used by search engines, smartphone apps, etc. to deliver a richer experience to the consumer. |
| <i>GS1 Global Data Dictionary</i> - http://apps.gs1.org/GDD/SitePages/Home.aspx | The GS1 Global Data Dictionary (GDD) is a repository of the data elements defined across all GS1 Standards |

3 Scope

3.1 Overall business context

| Context category | Value(s) |
|------------------|--|
| Industry | All industries will be able to reference the same, globally aligned standard for Global Location Number attribution to enable sharing constant and interoperable party and location information throughout with their trading partners |
| Geopolitical | The need for consistent and interoperable party/location identification will better meet government mandated regulation compliance. |

| Context category | Value(s) |
|----------------------|--|
| Product | Being able to reliably tie party/location information through the use of GLN will enhance business opportunities as it relates to the "who" and "where" connected to the sharing of product/trade item related information |
| Process | Enhanced, consistent, and scalable attributes will facilitate party/location information sharing |
| System capabilities | Global systems will be able to incorporate consistent experiences through clear attribution options as it relates to applicable use cases |
| Official constraints | None |

3.2 In Scope

3.2.1 Immediate Phase

- The creation of attributes for party and location GLNs, including legal entities, functional entities, physical locations, and digital locations.
 - This includes:
 - Business-friendly names, definitions, examples, and usage statements
 - Technical definitions
- Mapping of existing attributes for GLN from other GS1 standards.
- Assessment of GLN-related attributes currently in use by industry stakeholders.
- Distinguishing required attributes central to identifying party/location GLNs across all use cases/sectors and those specific to a particular use case and/or may be optional.
- Normalisation of similar attributes that seek to serve the same purpose and overall function.

3.3 Out of scope

- Creation of attributes for use only within specific markets.
- Attributes tied to GS1 identification keys other than GLN.
- Changes to the allocation, reuse, and management of GLN.
- Attributes not tied to a party and/or location use case.
- Attributes that are tied to party/location use cases that are not within scope for the GLN and/or the GS1 system of standards to address.

4 Global Location Number (GLN)

A GLN identifies a party, legal entity, a physical location, a function, or a digital location. GLNs are used to identify the Who and Where in various applications:

- Who: party, legal entity, function.
- Where: physical location, digital location.

No matter how GLNs are used, trading partners and other parties such as authorities will always need to know the organisation 'behind the GLN'. For example, when an accounting department, a warehouse or an ERP application are being referenced via their GLN, their information needs to be communicated to other parties, either by exchanging this information in advance or by providing online look-up facilities.

1. Party identification

A party is defined as an entity that needs to be represented in a business-related transaction. A party GLN answers the question of “who” is involved in the use case. This may be a legal entity or function that defines who is transacting in a business scenario.

A legal entity is any business, government body, department, charity, individual, or institution that has standing in the eyes of the law and has the capacity to enter into agreements or contracts.

A function is an organisational subdivision or department that is most commonly segmented based on the specific tasks they perform as defined by the organisation.

Examples of a party

- i. Corporation
- ii. Subsidiary or a holding company
- iii. Government body
- iv. An individual acting as a business entity
- v. Accounting department
- vi. Human resources department

2. Location identification

Location GLNs are used to answer the question of “where” something has been, is, or will be. A location can be either digital or physical in nature.

A digital location is an electronic (non-physical) address that is used for communication between computer systems.

A physical location is a tangible place that may be represented by an address, coordinates, or other means

Examples of a location

- i. API entry point
- ii. Corporate headquarters
- iii. Warehouse or distribution centre
- iv. Grocery store
- v. Dock door
- vi. Mobile blood donation van
- vii. Cold storage area within a warehouse

4.1 Global Location Number - examples

The Global Location Number can be used by companies to identify their locations, giving them complete flexibility to identify any type or level of location required.

- The GLN can identify a company’s physical locations, for example a store, a warehouse, or a berth in a port.
- The GLN can be used to identify an organisation as a corporate entity.
- The GLN can also identify a company’s legal and functional entities engaging as parties in a particular business transaction, for example as buyer, seller, or carrier.
- The GLN is encoded in either a barcode or EPC/RFID tag to automatically identify locations like storage places in a warehouse, the destination of a pallet, or the origin of a product.

- The GLN can be used in electronic messages and registries to inform trading partners about companies and their corresponding GLNs and associated GLN information.
- The GLN can be used in Electronic Product Code Information Service (EPCIS). The Where dimension of an EPCIS event captures where the event physically took place and/or where things are following the event. EPCIS events allow for two location types, readPoint and businessLocation. The readPoint is the location where the event took place. The businessLocation is the location where the object(s) is now considered to reside until a subsequent event takes place.
- Locations may be identified using a GS1 Global Location Number (GLN), a GLN plus an extension, an industry identifier other than GLN or using geo-coordinates.

4.2 Global Location Number – where used

A GLN may be used to represent:

- A location whether physical and/or digital
- A party whether a legal entity and/or functional entity

4.2.1 Location identification

A physical location is a site (an area, a structure or group of structures) or an area within a site where something was, is or will be located. Examples of physical locations include a store, a warehouse, or a berth in a port.

4.2.1.1 GS1 Logistic Label

The GS1 Logistic Label allows users to identify logistic units uniquely so that they can be tracked and traced throughout the supply chain. The only mandatory requirement is that each logistic unit must be identified with a unique serial number, the Serial Shipping Container Code (SSCC) - <https://www.gs1.org/standards/gs1-logistic-label-guideline/1-3>

4.2.1.2 Scan4Transport

Scan4Transport is a global standard for encoding transport data on a Logistics Label. The standard supports the encoding of ship-to and return-to information (e.g., company name, addresses, handling instructions, etc as well as GLNs. This is to support the needs of companies across the transport process to have access to the data they need in both on-line and off-line environments, especially when it is not possible to look-up reference keys such as a GLN in a system to enable first mile, sortation, and last mile activities. The B2C transport process often does not have a GLN for a residential address, subsequently the GS1 standards developed by the Scan4Transport) work group, enables the transport industry to keep pace with the growing needs of their customers. - <https://www.gs1.org/industries/transport-and-logistics/scan4transport>

4.2.2 Identification of parties

A party is an organisation or a function thereof, which may or may not be associated with a physical location. The organisations and functions involved with supply chain transactions are known as parties, these include commercial parties to a transaction, third parties such as logistics service providers and regulatory and other public sector agencies.

4.2.2.1 GS1 EDI (Electronic Data Interchange)

GS1 EDI (Electronic Data Interchange) provides global standards for electronic business messaging that allow automation of business transactions commonly occurring across the entire supply chain. In EDI transactions organizations and functions involved in supply chain are identified. EDI covers master data alignment, order and delivery and financial settlement management, as well as transport and warehouse management. <https://www.gs1.org/standards/edi>

4.2.2.2 Global Data Synchronisation Network (GDSN)

The Global Data Synchronisation Network (GDSN) is the world's largest product data network. GDSN makes it possible for any company, in any market, to share high-quality product information seamlessly. GLN is used in GDSN to identify the companies sharing (providing and receiving) product information. Because companies of all sizes need the same thing—timely and reliable product information—to ultimately benefit consumers and patients.

<https://www.gs1.org/services/gdsn>

4.2.2.3 Electronic Product Code Information Services (EPCIS)

EPCIS is a GS1 standard that enables trading partners to share information about the physical movement and status of products as they travel throughout the supply chain – from business to business and ultimately to consumers. The GLN can be used in Electronic Product Code Information Service (EPCIS). The Where dimension of an EPCIS event captures where the event physically took place and/or where things are following the event.

4.2.3 GS1 Web vocabulary

The GS1 Web Vocabulary is designed to extend the work done by schema.org and makes use of similar concepts (Product, Offer, Organization), extending them with many more detailed properties. The initial focus of the GS1 Web Vocabulary is consumer-facing properties for clothing, shoes, food beverage/tobacco and properties common to all trade items. - <https://www.gs1.org/gs1-web-vocabulary>

4.2.4 GS1 Digital Link

The GS1 Digital Link standard extends the power and flexibility of GS1 identifiers by making them part of the web. That means that GS1 identifiers, such as the Global Trade Item Number (GTIN), are now a gateway to consumer information that strengthens brand loyalty, improved supply chain traceability information, business partner APIs, patient safety information and more. -

<https://www.gs1.org/standards/gs1-digital-link>

4.2.5 GS1 Registry Platform (GRP)

The GS1 Registry Platform is a registry of GS1 keys, starting with the GS1 Company Prefix (GCP), Global Trade Item Number (GTIN), and Global Location Number (GLN). It also includes the rules about data associated with the GS1 keys via the Global Data Dictionary (GDD). It is built on an infrastructure that supports API interfaces, analytics, and security. It provides a single mechanism for storage ("data in") and query ("data out") of basic key attributes for GS1 keys (those needed for verification of a key).

4.2.6 GLN related registry services and solutions

GS1 Member Organisations administer national GLN databases, known as GLN registries, which provide a common list of GLNs registered within that country. However, the company issuing these GLNs is responsible for keeping business partners informed of all GLNs related to the trading relationship.

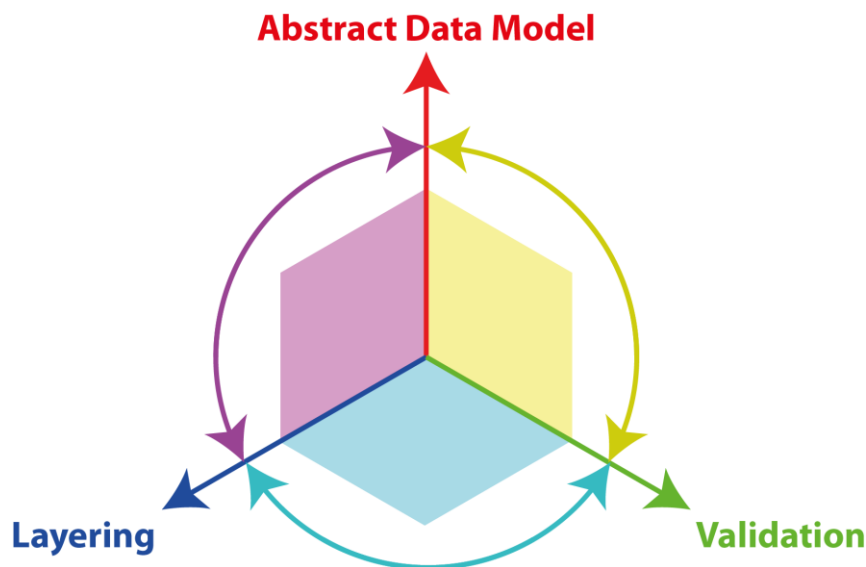
5 Global Location Number Data Model

There are at least three independent dimensions to the Global Location Number Data Model, detailed in the following sections.

5.1 Global Location Number Data Model – Dimensions

- Abstract Data Model
- Validation
- Layering

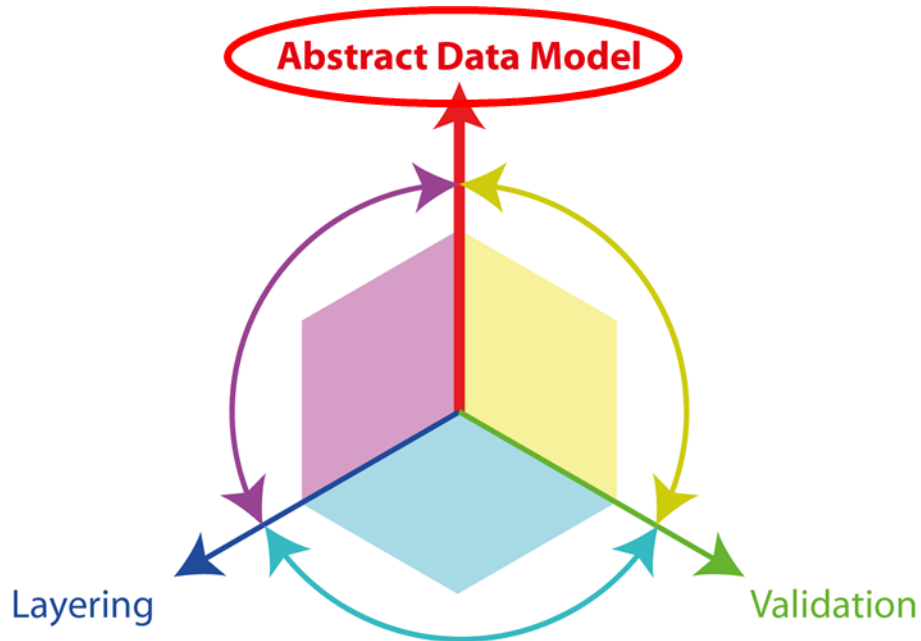
Figure 5.1-1



5.1.1 Abstract Data Model

A Uniform Modelling Language (UML) class diagram expresses the GLN data model at an abstract level, defining it in a way that is independent of the data format/syntax (e.g., XML vs JSON vs JSON-LD), relevant classes, properties/attributes and code lists and can be used to describe organisations/parties and physical locations. The UML class diagram just defines the available terms but does not attempt to specify which are mandatory / conditional / optional or any cardinality constraints

Figure 5.1.1-1



Abstract Data Model defines data classes, attributes/properties, code lists / enumerations.

- includes definitions (and examples of usage)
- specifies expected data types for values.
- supports hierarchical data structures and hierarchies of locations / parties.
- supports re-use of the data model at any level in the location/party hierarchy.
- concerned with unambiguous semantic interpretation, not validation.
- often documented in UML class diagrams

Figure 5.1.1-2 – UML Class Diagram – Small size and Full Size



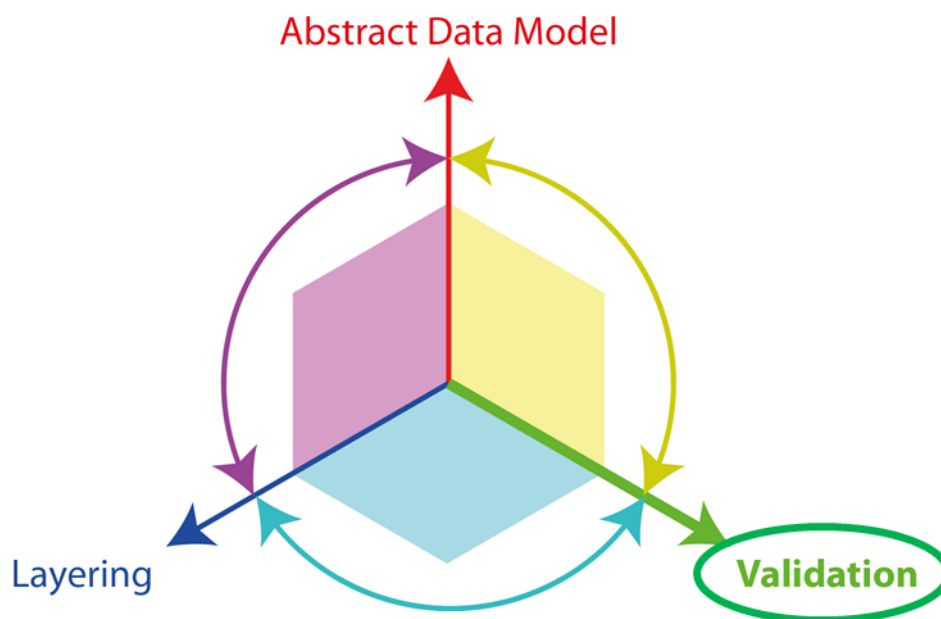


5.1.2 Validation

One or more validation layers that are used to express constraints on the data model about which properties/attributes are mandatory/conditional, which are repeatable, cardinality constraints etc. Note that there might be multiple validation layers - e.g., a core global multi-sector validation layer and additional regional or sector-specific validation layers. Depending on the chosen data format, validation rules can be expressed using XSD, JSON Schema or Shape Constraint Language (SHACL).

It is worth noting that there will be different validation constraints where there are different regulatory requirements, country of use, different sector use and the different application use.

Figure 5.1.2-1



Validation Schema checks that:

- mandatory data is present.

An example can be seen in Figure 5.1.2-1 where the “*locality (city)*” field is a mandatory field and cannot be left blank, if this is used in webform the submission of the date would take place until all mandatory fields have been completed.

- data is correctly formatted.

An example can be seen in Figure 5.1.2-1 where a “*country code*” is required and this field definition must comply to an agreed format, in this instance ISO 3166.

Validation schema checks need to comply with the four types of “cardinality constraints”.

- Mandatory one
- Mandatory many
- Optional one
- Optional many

Figure 5.1.2-1 – An example of a conceptual validation

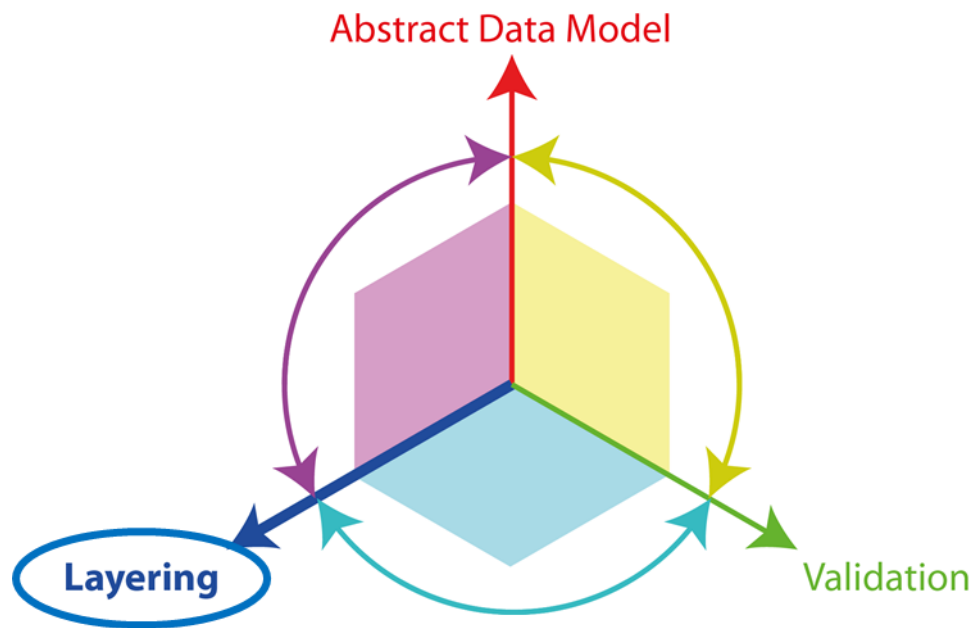
Postal Address

Locality (City) ! Mandatory field
Must not be blank

Country Code ! Invalid format
Expected ISO 3166
alpha-2 code e.g. DE

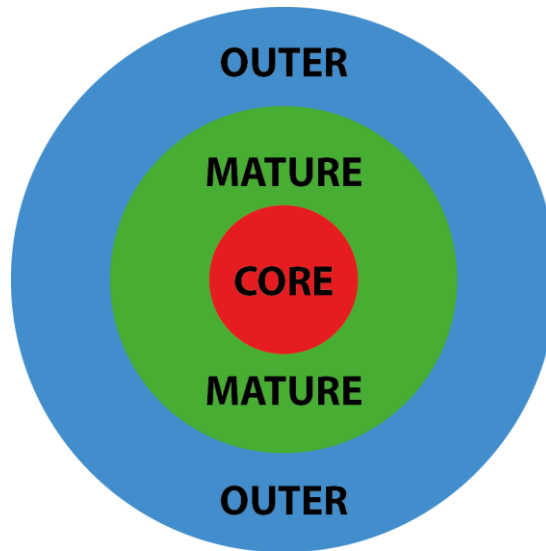
5.1.3 Layering

Figure 5.1.3-1



Layering of the data model and extensibility (represented by the onion model) as seen in Figure 5.1.3-2, showing a global multi-sector core as well as outer layers that may have different levels of maturity or may have narrower scope (e.g., region-specific, sector-specific) as seen in Figure 5.1.3-3.

Figure 5.1.3-2



A layered 'onion' model defines core data and supports extensions by:

- industry sector
- geographic region

Typically implemented via use of multiple namespaces.

Figure 5.1.3-3

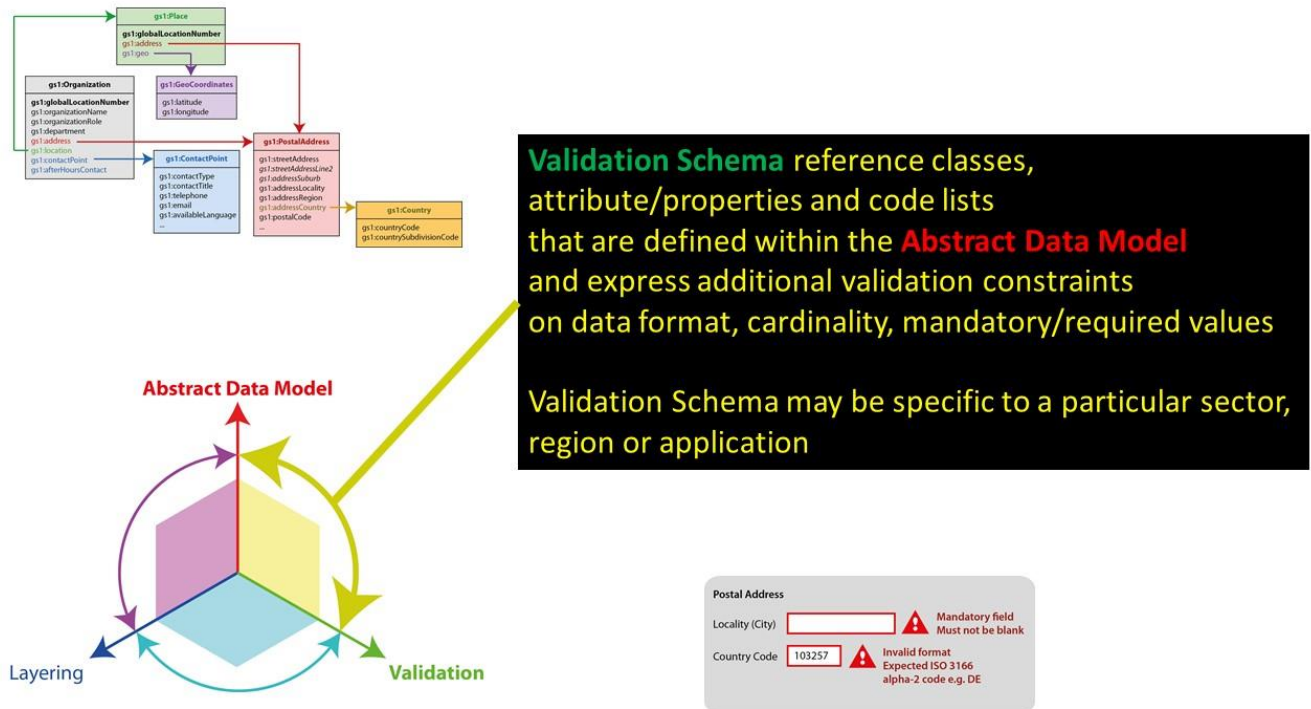


5.1.4 Abstract Data Model, Validation and Layering – Logical connections

There are some logical connections / intersections of these three independent dimensions as shown in the following three illustrations: **Figure 5.1.4-1**, **Figure 5.1.4-2**, and **Figure 5.1.4-3**.

The Validation schema reference the abstract data model and also depend on the contents of the layering. The schema can also go beyond what is defined in the abstract data model by adding validation constraints (e.g., mandatory properties, cardinality constraints etc.)

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Figure 5.1.4-1


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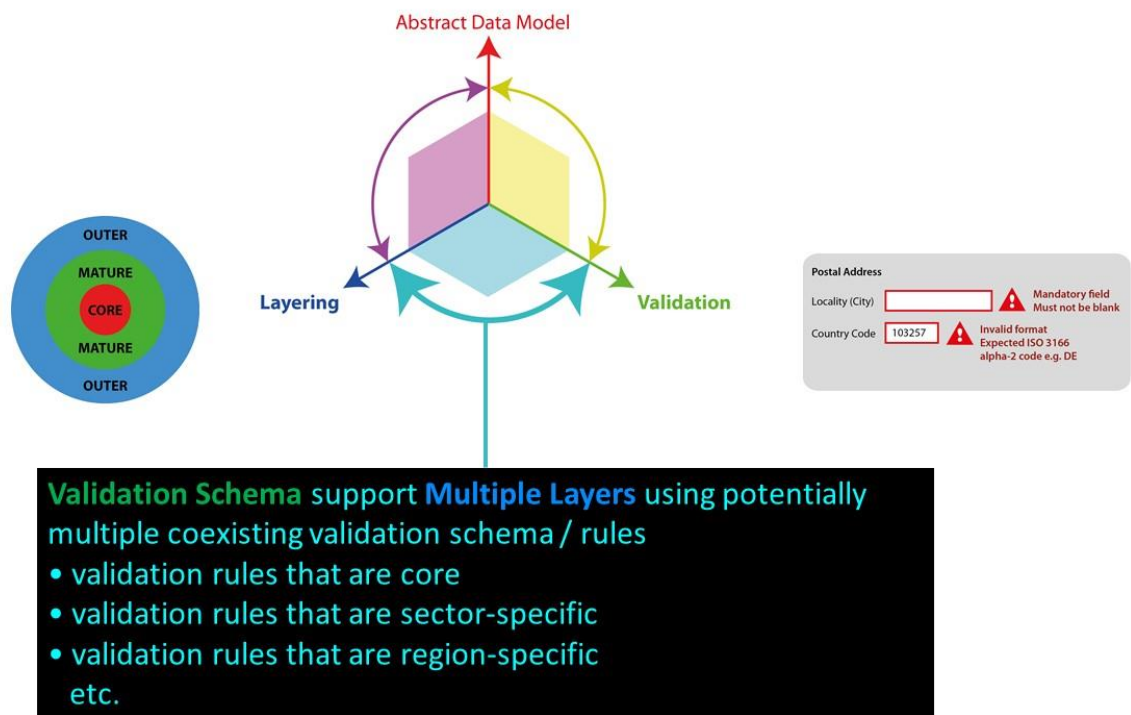
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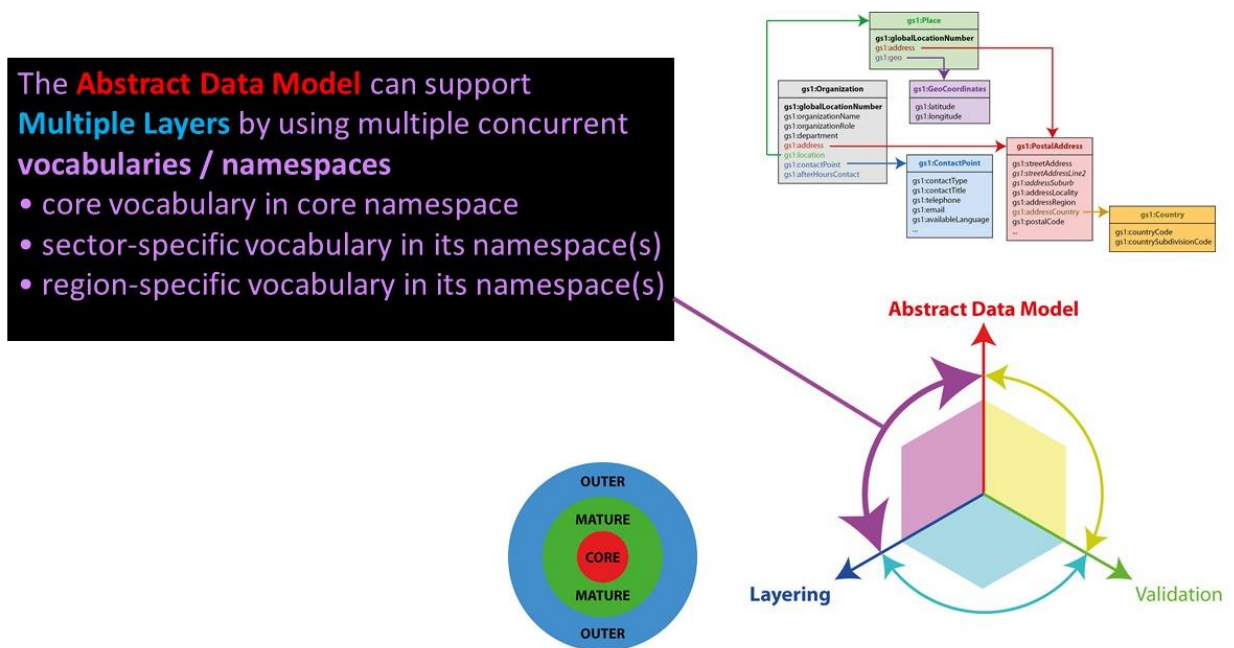
Because there can be multiple validation layers (e.g., core, global, multi-sector vs other validation layers for outer layers of the onion model), it is possible to be flexible about validating at each layer of the onion, even if for example, different regional or sector-specific layers have different requirements. Multiple validation layers is one way we can support the onion model, to check that the data is correctly validated.

Figure 5.1.4-2


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Use of multiple namespaces is the other way we can support the flexibility of the onion model. We expect to have a namespace for the core global multi-sector aspect of the data model. Anything outside of that (defined in the outer layers of the onion model) can be defined within its own namespace, so that there is no conflict between different definitions in the outer layers and no ambiguity about where a particular class, property/attribute or code list is defined. Each region or sector defining its own 'extensions' to the global multi-sector core can do so within their own namespace and can make cross-references to the global multi-sector core but express how it is extending that in its own way, for its own needs (which might be to meet the needs of some specific legislation in a particular region or sector). It is not a problem for the data to make use of multiple namespaces. XML and JSON-LD support this natively. JSON does not - but we can use JSON-LD context resources to hide some of the namespace complexity from anyone who wants to consume the JSON-LD data as if it is just JSON, while preserving support for multiple namespaces for those who need those details.

Figure 5.1.4-3



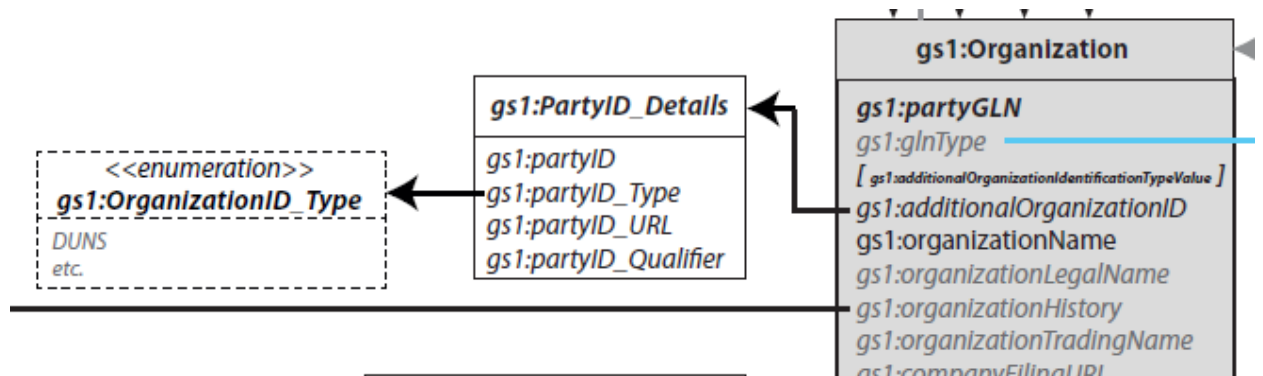
5.2 Attributes for locations, organisations, and registry details

5.2.1 Primary / core GLN attributes

5.2.2 Party GLN attributes

A party is defined as an entity that needs to be represented in a business-related transaction. This may be a legal entity or function that defines who is transacting in a business scenario.

Figure 5.2.2-1



5.2.2.1 Legal entity GLN attributes

A legal entity is any business, government body, department, charity, individual or institution that has standing in the eyes of the law and has the capacity to enter into agreements or contracts. Examples of legal entity attributes are detailed as follows; **N.B.** this is not an exhaustive list.

| Code Value | Name | Definition |
|------------------------------|------------------------------|--|
| DUNS | DUNS | Data Universal Numbering System. It is a nine-digit numbering system which uniquely identifies an individual business. The DUNS number is a nine-digit number issued by Dun & Bradstreet assigned to each business location in the D&B database having a unique, separate, and distinct operation for the purpose of identifying them. A DUNS number is also a way in which separate corporate entities, having no official relationship, can be branded as one by sharing one DUNS number among the affiliated comp |
| DUNS_PLUS_FOUR | DUNS+4 | The DUNS+4 refers to the DUNS number assigned by Dun and Bradstreet, plus a 4-character suffix that is assigned by the vendor to establish additional Central Contractor Registration (CCR) database records for identifying alternative electronic funds transfer (EFT) accounts for the same vendor located at the same physical address. Dun and Bradstreet has no affiliation with the 4-character suffix. |
| EO_ID | Economic Operator Identifier | A type of identifier in the format of the invariant set of ISO646:1991 used in accordance with the EU Implementing Regulation 2018/574 to identify an economic operator. |
| EU_VAT_IDENTIFICATION_NUMBER | EU VAT Identification Number | An identifier used to identify companies for value added tax purposes in the European Union. |

N.B. The above table is intended as an example of the List Code Values from - <http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:AdditionalPartyIdentificationTypeCode&release=3>

a. Company Registration Number (CRN):

A company registration number is a unique combination of numbers and, in some cases, letters. The company registration number (also known as the company number, registration number or simply abbreviated to CRN) is used to identify your company and verify the fact that it is an entity registered with Companies House.

b. DUNS Number:

A data universal numbering system (DUNS) number is a unique, nine-digit numerical identifier that is assigned to a single business entity. Dun & Bradstreet created DUNS in 1963 to identify businesses as part of its business credit reporting system.

c. Taxpayer Identification Numbers (TIN)

The taxpayer identification number (TIN) is the unique identifier assigned to the Account Holder by the tax administration in the Account Holder's jurisdiction of tax residence. It is a unique combination of letters and/or numbers used to identify an individual or entity for the purposes of administering the tax laws of that jurisdiction. In some countries where the TIN is not used a national identification number, national identity number, or national insurance number is used by the governments of countries as a means of tracking their citizens, permanent residents, and temporary residents for the purposes of work, taxation, government benefits, health care, and other governmentally related functions.

■ https://en.wikipedia.org/wiki/Taxpayer_Identification_Number

■ https://en.wikipedia.org/wiki/National_identification_number

d. Legal Entity Identifier (LEI):

The Legal Entity Identifier (LEI) is a 20-character, alpha-numeric code based on the ISO 17442 standard developed by the International Organization for Standardization (ISO). It connects to key reference information that enables clear and unique identification of legal entities participating in financial transactions. Each LEI contains information about an entity's ownership structure and thus answers the questions of 'who is who' and 'who owns whom'.

5.2.2.2 Functional entity GLN attributes

Organisation role, purpose of dept / sub dept. – something like the following:

| Properties of gs1:Place | | |
|--|--------------------|--|
| Property | Expected Type | Description |
| Global Location Number (GLN) gs1:globalLocationNumber | xsd:string | A Global Location Number (GLN) is the GS1 Identification Key used to identify physical locations or parties. The key comprises a GS1 Company Prefix, Location Reference and Check Digit. |
| Has Geocoordinates gs1:geo | gs1:GeoCoordinates | Links to information about geocoordinates for a place. |

A function is an organisational subdivision or department based on the specific tasks being performed, as defined by the organisation, see Figure 5.2.2.1-1. A function must be allocated its own GLN when its business purpose is different from other functions or more specific than other functions, and there is a business need to identify the function across organisations. Information associated with the function GLN will include the related legal entity and may include the contact details (visiting address, email address, phone number, etc.), tax registration numbers (e.g., VAT number), and financial account information when its business purpose is different from other functions or more specific than other functions, and there is a business need to identify the function across organisations.

Figure 5.2.2.1-1

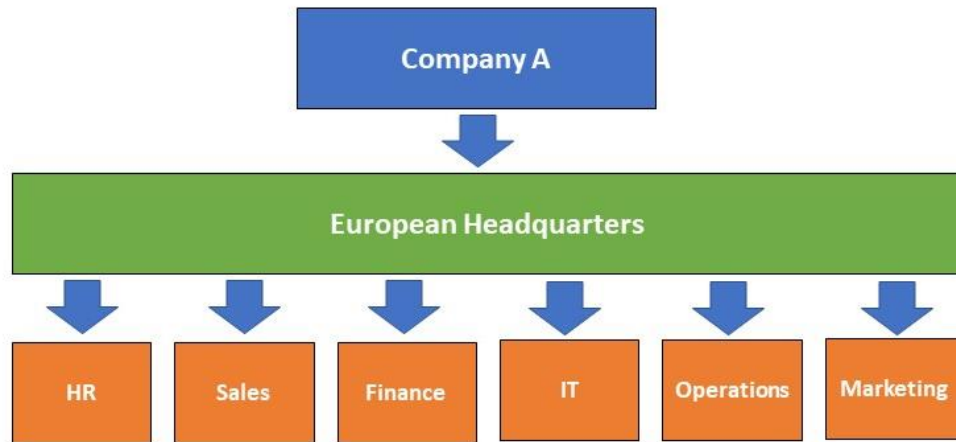
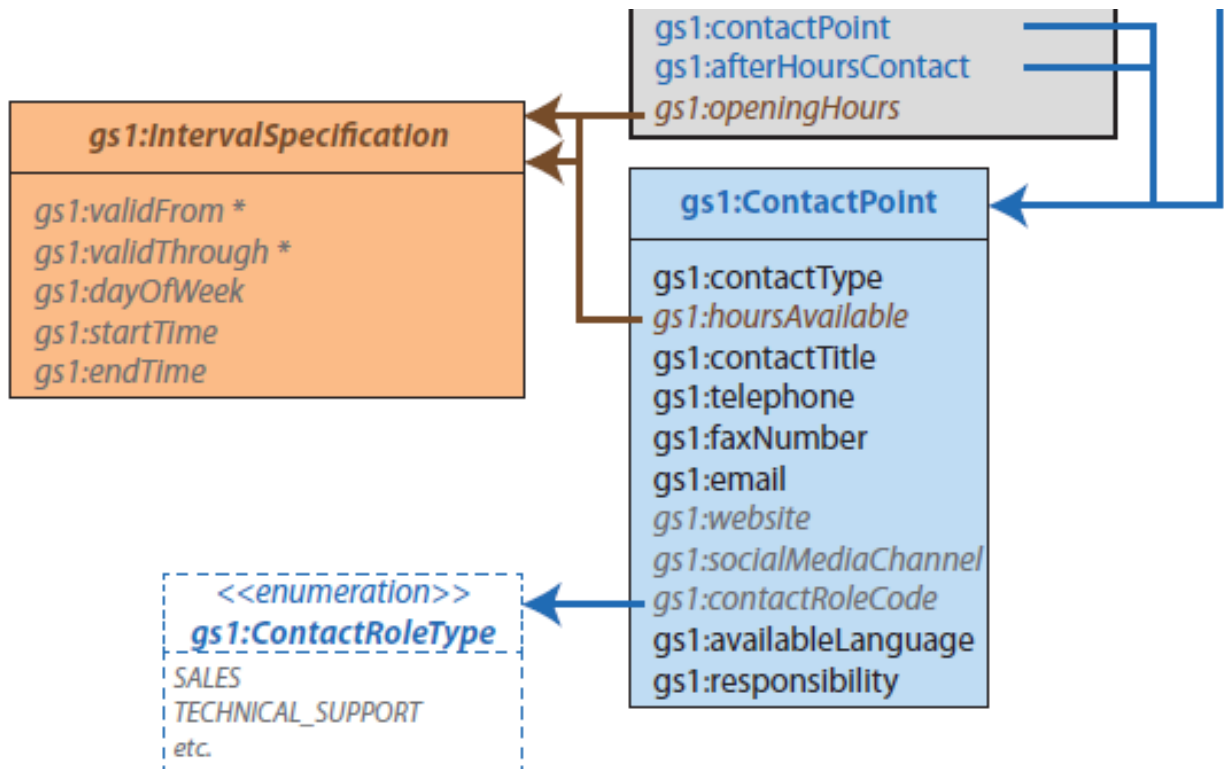


Figure 5.2.2.1-2



5.2.2.3 Physical location GLN attributes

A physical location is a site (an area, a structure or group of structures) or an area within a site where something was, is or will be located. Examples of physical location attributes are detailed as follows; **N.B. this is not an exhaustive list.**

a. Postal Address:

A postal address can include information required to identify a location that may include the following information: a street address, post code, zip code, county, district, region, state, country etc.

b. Geographic Coordinates

A geographic coordinate system is a three-dimensional reference system that locates points on the Earth's surface. The unit of measure is usually decimal degrees. A point has two coordinate values: latitude and longitude. Latitude and longitude measure angles. Latitude and Longitude - The latitude is specified by degrees, starting from 0° and ending up with 90° to both sides of the equator, making latitude Northern and Southern. The equator is the line with 0° latitude. The longitude has the symbol of lambda and is another angular coordinate defining the position of a point on a surface of earth.

If Geodetic property is not expressed, then WGS84 is assumed to be the default. WGS84 (World Geodetic System 1984) and comprises of four different things:

- an ellipsoid
- a horizontal datum
- a vertical datum
- a coordinate system

c. Geodetic datum or geodetic system

It is a system for precisely measuring locations on Earth or other planetary body. Datums are crucial to any technology or technique based on spatial location, including geodesy, navigation, surveying, geographic information systems, remote sensing, and cartography. A Horizontal datum is used to measure a location across the Earth's surface, in latitude and longitude or another coordinate system; a vertical datum is used to measure the elevation or depth relative to a standard origin, such as mean sea level (MSL).

5.2.2.4 Digital location GLN attributes

At present three different digital location uses have been included as detailed below:

5.2.2.4.1 GDSN (Global Data Synchronisation Network)

GLNs are mandatory within GDSN, and they are used to identify data owners/information providers, such as distributors, brokers, and manufacturers, as well as legal entities and physical locations.

- GLN for Data Recipient
- GLN for Data Source

5.2.2.4.2 GS1 EDI (Electronic Data Interchange)

■ GS1 XML:

The Distribution Management Entity (DME), identified by a GLN, initiates the delivery process generating a shipment request to a depot. The DME is, then, the addressee of the EDI messages confirming the shipment, keeping track of the evolution of the process, and is detailed in the "[GS1 Pharmaceutical Clinical Trial Electronic Messaging Standard Implementation Guideline](#)".

The following are some of the business-critical data fields included in the message. Note that structural fields (e.g., unique message identifier) are not listed, however these will be provided in the full mapping specifications).

- Fields recommended to be included in the header:
- Sending entity GLN, i.e., DME vendor or third-party depot system
- Receiving entity GLN
- Protocol ID
- Goods receiving Site ID (GLN) (depot or site)
- Date of request
- Requested delivery date
- Comments i.e., free text, e.g., priorities or other special request
- Message type, i.e., blinded shipment serial number specified, free picking, re-supply, site to site transfer,
- There is a list of options for this field
- DME Order Reference ID
- Storage conditions (temperature, also used to enable the DC to set the temperature tracker) or storage precautions (e.g., protect from light, protect from UV, keep in shade, protect from sun)



Note: *Distribution Management Entity (DME) - A term used to identify the system(s) managing, distribution, and disposition of clinical supplies. In many cases this is the interactive technology IRT system, portal, a set of tools or different databases used to share information during a clinical trial, etc.*

■ **GS1 EANCOM:**

The GLNs of the “Interchange Sender” and “Interchange Recipient” are unique digital location identifiers in the EDI network, normally identifying the EDI mailbox. Sometimes the GLN used can be the same as the one assigned to a physical location but sometimes it is a dedicated code used as “digital address” over the EDI network. This digital GLN allows the identification of at least a Value Added Network (VAN) and / or connection protocol (an IP address, certificate to be used etc.)

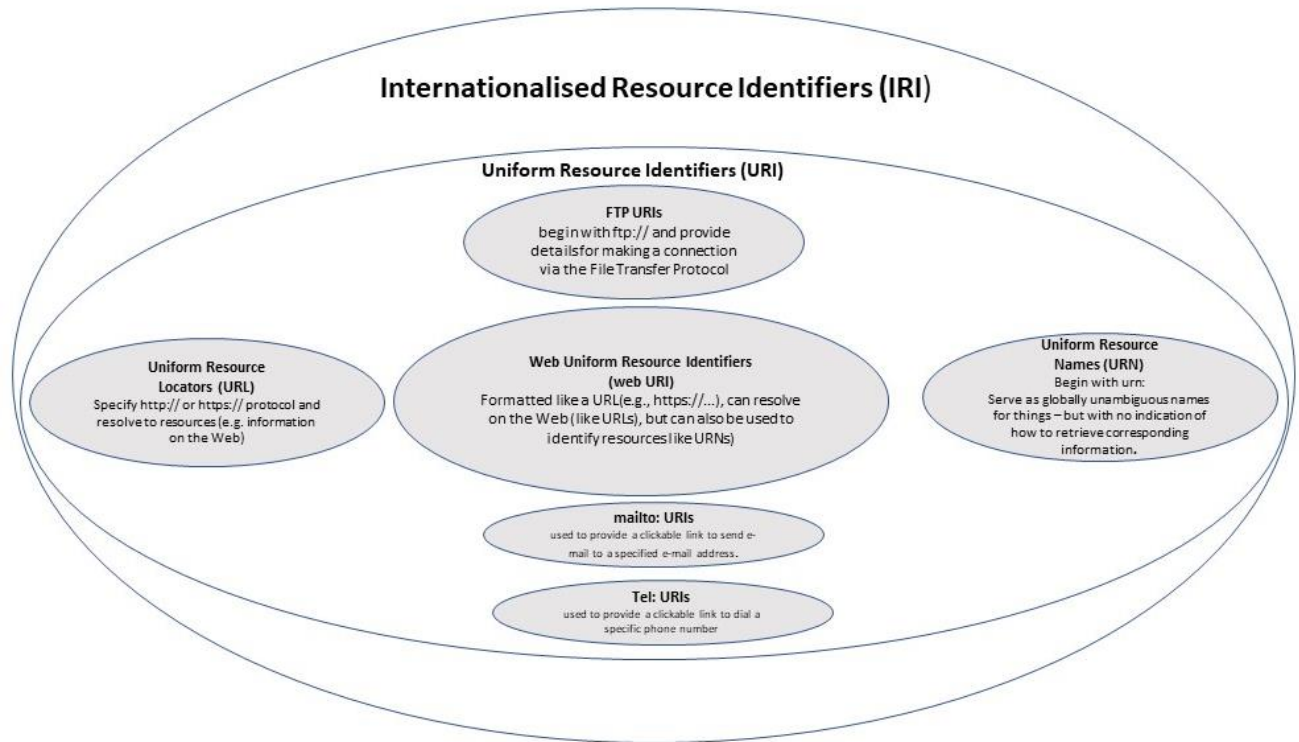
Going into more detail, the EDI interchange could even use two different GLNs. The first one mapping the digital mailbox as described previously and the second one, as an extension of the first, named “routing address” that provides additional instructions for the delivery of the message. This second code is purely digital.

- Interchange Sender – Sender identification.
- Interchange Recipient – Recipient identification.

5.2.2.4.3 Uniform Resource Locator (URL) / Uniform Resource Identifier (URI)

Figure 5.2.3.2.3-1 shows a Venn diagram in which we see that Uniform Resource Identifier is the broad term that includes Uniform Resource Names (URNs) and Uniform Resource Locators (URLs) as well as URIs with various protocols including http or https, ftp, mailto, Tel etc. This means that every URL and every URN is also a URI, since URI is the broader umbrella term.

Figure 5.2.2.4.3-1



An example may include:

- https and http URLs

6 Global Location Number – Data Model Attributes

The Global Location Number Unified Modeling Language (UML) class diagram defines data classes, attributes/properties, code lists / enumerations.

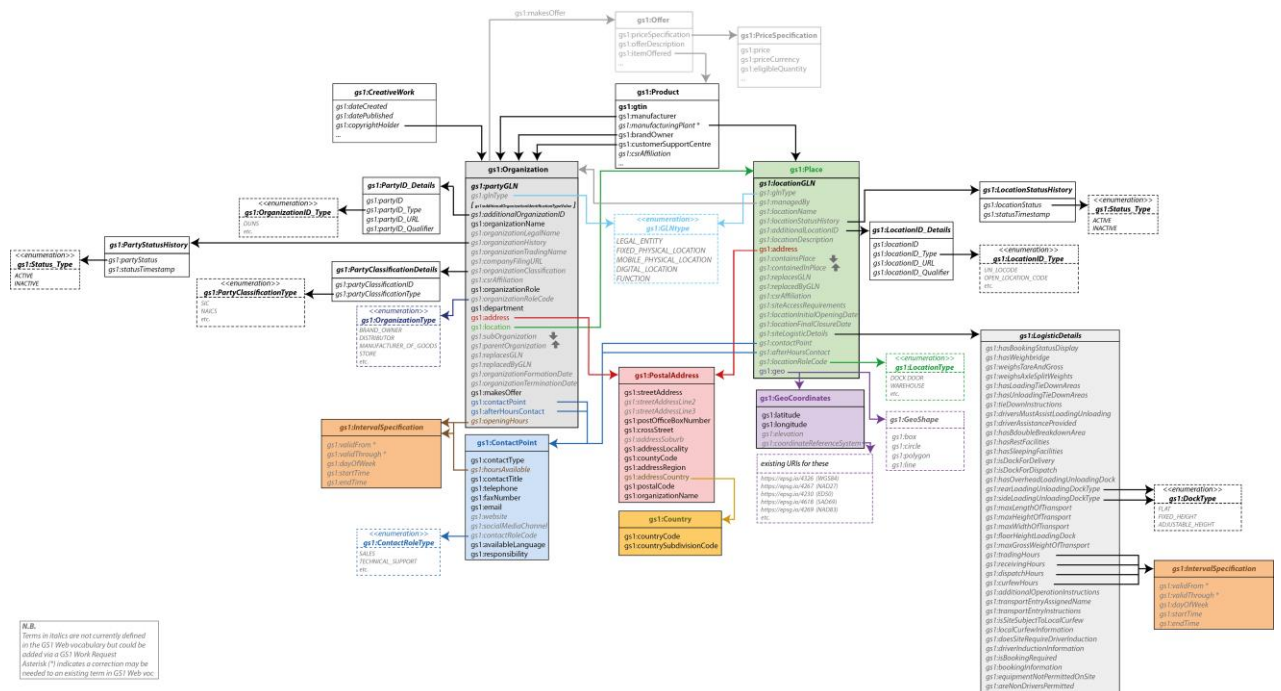
- includes definitions (and examples of usage)
- specifies expected data types for values.
- supports hierarchical data structures and hierarchies of locations / parties.
- supports re-use of the data model at any level in the location/party hierarchy.
- concerned with unambiguous semantic interpretation, not validation.

UML class diagram below providing an overview and graphical introduction to the various tabs within the "GLN Data Model" working draft spreadsheet. *Note to reviewers of this draft document, this is a separate document and in the final approved version this will be linkable.*



Note: Some attributes in the UML class diagram are not shown.

Figure 6-1



Notes:
Terms in *italics* are not currently defined in the GS1 9909 vocabulary but could be added via GS1 Work Request. Asterisk (*) indicates a correction may be needed to an existing term in GS1 Work Request.

6.1 Organisation

| Property of gs1:Organization | Expected Type | Examples | Description |
|---|--------------------------------|--------------------------|--|
| gs1:partyGLN | xsd:string | | |
| gs1:glntype | gs1:GLNType | Legal entity | |
| gs1:additionalOrganizationID | gs1:PartyID_Details | | |
| Organization Name gs1:organizationName | rdf:langString | GS1 Global Office | The name of the organization expressed in text. |
| gs1:organizationLegalName | rdf:langString | GS1 AISBL | The legal name of the business. |
| gs1:organizationTradingName | rdf:langString | GS1 or GS1 Global Office | A trading name or alternative forms of a legal entity's name as recognised by some jurisdictions |
| gs1:companyFilingURL | xsd:anyURI | | |
| gs1:organizationClassification | gs1:PartyClassificationDetails | | |
| gs1:csrAffiliation | xsd:anyURI | | The URL of a corporate social responsibility programme to which this place is affiliated |

| Property of gs1:Organization | Expected Type | Examples | Description |
|--|-------------------------------------|--|---|
| Organization Role gs1:organizationRole | gs1:OrganizationRoleType | N/A | Code indicating an organization role. Allowed code values are specified in OrganizationalRole code list. |
| gs1:organizationRoleCode | gs1:OrganizationRoleType | Retailer / Manufacturer | Code indicating an organization role. |
| Department gs1:department | rdf:langString | Human Resources, Marketing etc. | The name of a division of an organization dealing with a specific activity |
| Has Postal Address gs1:address | gs1:PostalAddress | GS1 Global Office, Floor 19, Avenue Louise 326, 1050 Brussels, Belgium | The postal address for an organization or place. |
| Has Location gs1:location | gs1:Place | N/A | The place associated with an organization. |
| gs1:subOrganization | gs1:Organization | Company subsidiary | A relationship between two organizations where the first includes the second, e.g., as a subsidiary |
| gs1:parentOrganization | gs1:Organization | Parent Company or Parent Organization | The larger organization that this organization is a subOrganization of, if any. |
| gs1:replacesGLN | gs1:Organization and / or gs1:Place | | |
| gs1:replacedByGLN | gs1:Organization and / or gs1:Place | | |
| Has Business Contact gs1:contactPoint | gs1:ContactPoint | N/A | Links to information about a business location for an organization. |
| Has After Hours Contact gs1:afterHoursContact | gs1:ContactPoint | N/A | Links to afterhours contact information for an organization. |
| Opening Hours gs1:openingHours | gs1:IntervalSpecification | | |
| Additional Organization Identification Type Value gs1:additionalOrganizationIdentificationTypeValue | xsd:string | See Note 2 | The value associated with the Additional Organization Identification Type Value. |
| Makes Offer gs1:makesOffer | gs1:Offer | N/A | gs1:makesOffer is a way to connect a gs1:Organization to a gs1:Offer class, typically to indicate that a retailer offers a product for sale at a particular price specification |

| Property of gs1:Organization | Expected Type | Examples | Description |
|--|---------------|---|--|
| Global Location Number (GLN) gs1:globalLocationNumber | xsd:string | (414)9521101530 001 or (417)9521101530 018 | A Global Location Number (GLN) is the GS1 Identification Key used to identify physical locations or parties. The key comprises a GS1 Company Prefix, Location Reference, and Check Digit. For more information see http://www.gs1.org/gln |
| gs1:organizationFormationDate | xsd:date | | |
| gs1:organizationTerminationDate | xsd:date | | |



Note 1: gs1:organizationName occurs in both gs1:Organization and gs1:PostalAddress



Note 2: Global Legal Entity Identifier Foundation (GLEIF)
LEI Code 52990034RLKT0WSOAM90 (This is the LEI Code for GS1 AISBL)
URL version: <https://search.gleif.org/#/record/52990034RLKT0WSOAM90>

6.2 Place

| Property of gs1:Place | Expected Type | Examples | Description |
|-----------------------------------|-------------------------------------|--|---|
| gs1:locationGLN | xsd:string | | |
| gs1:glnType | gs1:GLNtype | Mobile locations | |
| gs1:managedBy | gs1:Organization | | |
| gs1:locationName | rdf:langString | GS1 Global Office (Brussels) | The title of a place expressed as a string. |
| gs1:locationDescription | rdf:langString | GS1 Global Office Corporate Headquarters (Brussels) – Blue Tower | The description of a place expressed as a string. |
| Has Postal Address gs1:address | gs1:PostalAddress | N/A | The postal address for an organization or place. |
| gs1:containsPlace | gs1:Place | Warehouse or dock door | Parent location to child location |
| gs1:containedInPlace | gs1:Place | Shelf within bay within warehouse. | . Child location to parent location that encloses it. |
| gs1:replacesGLN | gs1:Organization and / or gs1:Place | | |
| gs1:replacedByGLN | gs1:Organization and / or gs1:Place | | |
| gs1:siteAccessRequirements | xsd:anyURI | | |

| Property of gs1:Place | Expected Type | Examples | Description |
|---|---------------------------|-------------------------------------|---|
| gs1:locationRoleCode | gs1:LocationType | Dock door, warehouse | Warehouse, dock door, shelf or any granularity location. |
| Has Geocoordinates <i>gs1:geo</i> | gs1:GeoCoordinates | N/A | Links to information about geocoordinates for a place. |
| gs1:contactPoint | gs1:ContactPoint | N/A | Links to information about a business location for an organization. |
| gs1:afterHoursContact | gs1:ContactPoint | | |
| Global Location Number (GLN) <i>gs1:globalLocationNumber</i> | xsd:string | (414)5425000030003 or 5425000030003 | A Global Location Number (GLN) is the GS1 Identification Key used to identify physical locations or parties. The key comprises a GS1 Company Prefix, Location Reference and Check Digit. For more information see http://www.gs1.org/gln |
| gs1:siteLogisticDetails | gs1:LogisticDetails | | |
| gs1:locationStatusHistory | gs1:LocationStatusHistory | | |
| gs1:additionalLocationID | gs1:LocationID_Details | | |
| gs1:csrAffiliation | xsd:anyURI | | |

6.3 Postal Address

| Property of gs1:PostalAddress | Expected Type | Examples | Description |
|---|----------------|-------------------|---|
| Street Address gs1:streetAddress | rdf:langString | Avenue Louise 326 | The street address expressed as free form text. The street address is printed on paper as the first lines below the name. For example, the name of the street and the number in the street or the name of a building. |
| Street Address Line 2 gs1:streetaddressLine2 | rdf:langString | Blue Tower | The street address expressed as free form text. The street address is printed on paper as the first lines below the name. For example, the name of the street and the number in the street or the name of a building. |

| Property of gs1:PostalAddress | Expected Type | Examples | Description |
|---|------------------|--|---|
| Street Address Line 3 gs1:streetaddressLine3 | rdf:langString | Floor 19 | The street address expressed as free form text. The street address is printed on paper as the first lines below the name. For example, the name of the street and the number in the street or the name of a building. |
| PO Box Number gs1:postOfficeBoxNumber | xsd:string | PO Box 84 | The number that identifies a PO box. A PO box is a box in a post office or other postal service location assigned to an organization where postal items may be kept. |
| Cross Street gs1:crossStreet | rdf:langString | Vleurgat (Street in Brussels) intersecting with Avenue Louise (street in Brussels) | A street intersecting a main street (usually at right angles) and continuing on both sides of it. |
| Address Suburb gs1:addressSuburb | rdf:langString | Ixelles (suburb of Brussels) | A suburb within a town or City |
| Address Locality gs1:addressLocality | rdf:langString | Brussels | Text specifying the name of the locality, for example a city. |
| County Code gs1:countyCode | xsd:string | United Kingdom: CAMBS – Cambridgeshire or HANTS - Hampshire | A code that identifies a county. A county is a territorial division in some countries, forming the chief unit of local administration. In the US, a county is a political and administrative division of a state. |
| Province State Code gs1:addressRegion | rdf:langString | NJ – New Jersey | Text specifying a province or state in abbreviated format for example NJ. |
| Address Country gs1:addressCountry | gs1:Country | Australia- Alpha-2 code <i>AU</i> , Alpha-3 code <i>AUS</i> , or numeric code <i>036</i> | Code specifying the country (and country subdivision) for the address using ISO 3166-1. |
| Postal Code gs1:postalCode | xsd:string | B-1050 (GS1 Global Office Corporate Headquarters) | Text specifying the postal code for an address. |
| Organization Name gs1:organizationName | rdf:langString | GS1 Global Office | The name of the organization expressed in text. |



Note: gs1:organizationName occurs in both gs1:Organization and gs1:PostalAddress

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6.4 Country

| Property of gs1:Country | Expected Type | Examples | Description |
|--|---------------|--|---|
| Country Code gs1:countryCode | xsd:string | ISO 3166 Country Name: Australia | A short text string code (see values defined in ISO 3166) specifying the country in which a processing or other activity is performed, for example processing, bottling, manufacturing. |
| Country Subdivision Code gs1:countrySubdivisionCode | xsd:string | Australia: Subdivision Code Link - ISO 3166-2:AU | A short text string code (see values defined in ISO 3166_2) specifying the country subdivision in which an activity is performed, for example processing, bottling, manufacturing. |

6.5 Geo Coordinates

| Property of gs1:GeoCoordinates | Expected Type | Examples | Description |
|---|---------------|---|---|
| Latitude gs1:latitude | xsd:string | 50.8226469 – (<i>latitude of Blue Tower GS1 Global Office, Brussels</i>) | Angular distance North or South from the earth's equator measured through 90 degrees. |
| Longitude gs1:longitude | xsd:string | 4.36898 – (<i>longitude of Blue Tower GS1 Global Office, Brussels</i>) | The arc or portion of the earth's equator intersected between the meridian of a given place and the prime meridian and expressed in degrees |
| Elevation gs1:elevation | xsd:string | "85m or 278.9 ft" above sea level. (<i>Elevation of Blue Tower GS1 Global Office, Brussels</i>) | The elevation of a location (WGS 84). Values may be of the form 'NUMBER UNITOFMEASUREMENT' (e.g., '1,000 m', '3,200 ft') while numbers alone should be assumed to be a value in meters. |
| Co-Ordinate Reference System gs1:coordinateReferenceSystem | xsd:anyURI | WGS84, NAD83, NAD27 etc. | Points to existing standard URI values such as: https://epsg.io/4326 |



Note: All references to GS1 Global Office are for example purposes only.

6.6 Geo Shape

| Property of gs1:GeoShape | Expected Type | Examples | Description |
|--------------------------|---------------|--|--|
| Box gs1:box | xsd:string | Bounding box that encloses a polygon – convenience rather than actual use case. https://wiki.openstreetmap.org/wiki/Bounding_Box | A box is the area enclosed by the rectangle formed by two points. The first point is the lower corner, the second point is the upper corner. A box is expressed as two points separated by a space character. |
| Circle gs1:circle | xsd:string | Geofence, perimeter etc. | A circle is the circular region of a specified radius centered at a specified latitude and longitude. A circle is expressed as a pair followed by a radius in meters. |
| Polygon gs1:polygon | xsd:string | Coordinates of the US Pentagon - https://en.wikipedia.org/wiki/The_Pentagon or Palmerston Forts - https://en.wikipedia.org/wiki/Palmerston_Forts | A polygon is the area enclosed by a point-to-point path for which the starting and ending points are the same. A polygon is expressed as a series of four or more space delimited points where the first and final points are identical. |
| Line gs1:line | xsd:string | In the maritime and port community the concept of "berth" or "quay wall" is defined as exactly that "a straight line between two end-points. | A line is a point-to-point path consisting of two or more points. A line is expressed as a series of two or more point objects separated by space. |

6.7 Location Status History

| Property of gs1:LocationStatusHistory | Expected Type | Examples | Description |
|---------------------------------------|----------------|----------|-------------|
| gs1:locationStatus | gs1:StatusType | | |
| gs1:statusTimestamp | xsd:dateTime | | |

6.8 Party Status History

| Property of gs1:PartyStatusHistory | Expected Type | Examples | Description |
|------------------------------------|----------------|----------|-------------|
| gs1:partyStatus | gs1:StatusType | | |
| gs1:statusTimestamp | xsd:dateTime | | |

6.9 Status Type

| Code Value | Name | Description |
|------------|----------|-------------|
| ACTIVE | Active | |
| INACTIVE | Inactive | |

6.10 Location Identification Details

| Property of gs1:LocationID_Details | Expected Type | Examples | Description |
|------------------------------------|---------------------|----------|----------------------------------|
| gs1:locationID | xsd:string | | |
| gs1:locationID_Type | gs1:LocationID_Type | | |
| gs1:locationID_URL | xsd:anyURI | | Alternative location ID as a URL |
| gs1:locationID_Qualifier | xsd:string | | |

6.11 Location ID Type

| Code Value | Name | Definition |
|--------------------|------|------------|
| UN_LOCODE | | |
| OPEN_LOCATION_CODE | | |

6.12 Logistic Details

| Property of gs1:LogisticDetails | Expected Type | Examples | Description |
|---------------------------------------|---------------------------|----------|-------------|
| gs1:hasBookingStatusDisplay | gs1:NonbinaryLogicCode | | |
| gs1:hasWeighbridge | gs1:NonbinaryLogicCode | | |
| gs1:weighsTareAndGross | gs1:NonbinaryLogicCode | | |
| gs1:weighsAxleSplitWeights | gs1:NonbinaryLogicCode | | |
| gs1:hasLoadingTieDownAreas | gs1:NonbinaryLogicCode | | |
| gs1:hasUnloadingTieDownAreas | gs1:NonbinaryLogicCode | | |
| gs1:tieDownInstructions | rdf:langString | | |
| gs1:driversMustAssistLoadingUnloading | gs1:NonbinaryLogicCode | | |
| gs1:driverAssistanceProvided | gs1:NonbinaryLogicCode | | |
| gs1:hasBdoubleBreakdownArea | gs1:NonbinaryLogicCode | | |
| gs1:hasRestFacilities | gs1:NonbinaryLogicCode | | |
| gs1:hasSleepingFacilities | gs1:NonbinaryLogicCode | | |
| gs1:isDockForDelivery | gs1:NonbinaryLogicCode | | |
| gs1:isDockForDispatch | gs1:NonbinaryLogicCode | | |
| gs1:hasOverheadLoadingUnloadingDock | gs1:NonbinaryLogicCode | | |
| gs1:rearLoadingUnloadingDockType | gs1:DockType | | |
| gs1:sideLoadingUnloadingDockType | gs1:DockType | | |
| gs1:maxLengthOfTransport | gs1:QuantitativeValue | | |
| gs1:maxHeightOfTransport | gs1:QuantitativeValue | | |
| gs1:maxWidthOfTransport | gs1:QuantitativeValue | | |
| gs1:lfloorHeightLoadingDock | gs1:QuantitativeValue | | |
| gs1:maxGrossWeightOfTransport | gs1:QuantitativeValue | | |
| gs1:tradingHours | gs1:IntervalSpecification | | |
| gs1:receivingHours | gs1:IntervalSpecification | | |
| gs1:dispatchHours | gs1:IntervalSpecification | | |
| gs1:curfewHours | gs1:IntervalSpecification | | |
| gs1:additionalOperationInstructions | rdf:langString | | |
| gs1:transportEntryAssignedName | rdf:langString | | |
| gs1:transportEntryInstructions | rdf:langString | | |
| gs1:isSiteSubjectToLocalCurfew | gs1:NonbinaryLogicCode | | |

| Property of gs1:LogisticDetails | Expected Type | Examples | Description |
|--------------------------------------|------------------------|----------|-------------|
| gs1:doesSiteRequireDriverInstruction | gs1:NonbinaryLogicCode | | |
| gs1:driverInductionInformation | xsd:anyURI | | |
| gs1:isBookingRequired | gs1:NonbinaryLogicCode | | |
| gs1:bookingInformation | rdf:langString | | |
| gs1:equipmentNotPermittedOnSite | rdf:langString | | |
| gs1:areNonDriversPermitted | gs1:NonbinaryLogicCode | | |

6.13 Dock Type

| Code Value | Name | Definition |
|-------------------|------|------------|
| FLAT | | |
| FIXED_HEIGHT | | |
| ADJUSTABLE_HEIGHT | | |

6.14 Location Type

| Code Value | Name | Description |
|--------------------------------|--------------------------------|---|
| ACCOUNTS_DEPARTMENT | Accounts Department | Department that looks after the preparation of financial statements, maintenance of general ledger, payment of bills, preparation of customer bills, payroll, and more. |
| AGED_CARE_SERVICE | Aged Care Service | Service or facility providing aged care |
| AIRPORT_GATE | Airport Gate | Entrance to a movable passage like a tunnel or bridge leading to the aircraft |
| AMBULANCE_SERVICE | Ambulance Service | Provides initial patient care and transportation to a medical facility |
| AMUSEMENT_ENTERTAINMENT_GAMING | Amusement Entertainment Gaming | Provides recreation and entertainment services |
| AREA_HEALTH | Area Health | A grouping of entities, usually hospitals and associated healthcare service providers, which are defined as an Area Health Service |
| BERTH | Berth | A location for a ship / vessel to stay in a port |
| BUILDING_LOT_SITE | Building Lot Site | A location where a structure is being constructed or repaired. |
| CLINIC | Clinic | A facility, often associated with a hospital or medical school, that is devoted to the diagnosis and care of outpatients |

| Code Value | Name | Description |
|--------------------------------------|--------------------------------------|---|
| COLLECTION_CENTRE | Collection Centre | Collection centre |
| CONSOLIDATING_CENTRE | Consolidating Centre | A facility where small shipments are combined into truckloads bound for a destination. |
| CONSTRUCTION_SITE | Construction Site | A construction site is an area or piece of land on which construction works are being carried out. |
| CORRECTION_FACILITY | Correction Facility | Provides detention and rehabilitative services to inmates |
| DENTAL_SURGERY | Dental Surgery | Provides oral health treatment and support services |
| DOCK_DOOR | Dock Door | A door or collection of doors where trucks or rail cars are loaded (shipping) or unloaded (receiving). Used to load or unload products for logistics. gs1:OrganizationRoleType-DOCK_DOOR |
| EARLY_CHILDHOOD_EDUCATING_AND_CENTRE | Early Childhood Education and Centre | Premises used regularly for the education or care of children who are pre-school age or younger |
| EDUCATION_FACILITY | Education Facility | Public or private education premises where primary, secondary or tertiary education is conducted |
| EMERGENCY_DEPARTMENT | Emergency Department | An area of a hospital especially equipped and staffed for emergency care |
| FARM_VINEYARD_CROP | Farm Vineyard Crop | |
| FEED_LOT | Feed Lot | An area or building where livestock are fed |
| FIELD | Field | An area of open land, especially one planted with crops or pasture |
| FOOD_BUSINESS | Food Business | Business selling food to consumers such as cafes, restaurants, food trucks |
| FREIGHT_TERMINAL | Freight Terminal | An assigned area in which containers are prepared for loading into a truck, train, vessel or aeroplane or are stacked immediately after discharge from a truck, train, vessel or aeroplane. |
| FREIGHT_HUB | Freight Hub | A physical location that is an interchange point at which equipment or goods are exchanged between drivers and/or transport operators |
| GARDEN_CENTRE | Garden Centre | An establishment where plants and gardening equipment are sold |
| GOVERNMENT_DEPARTMENT_AGENCY | Government Department Agency | |
| HEALTH_DEPARTMENT | Health Department | An area within a hospital which provides specific treatment or support services (not individually included in the Location Type list) |
| HOSPITAL_DEPARTMENT | Hospital Department | An area within a hospital which provides specific treatment or support services (not individually included in the Location Type list) |
| IMAGING_DIAGNOSTICS | Imaging Diagnostics | Imaging/diagnostics area usually within a hospital or radiology facility |

| Code Value | Name | Description |
|-----------------------------|-----------------------------|---|
| IMPREST_LOCATION | Impress Location | Usually a ward-level location in which stock is held for use on that ward |
| INTERMODAL_TERMINAL | Intermodal Terminal | Transportation process that involves multiple modes of transportation (i.e., road, rail). |
| LIBRARY | Library | A building or room containing collections of books, periodicals, and sometimes films and recorded music for use or borrowing by the public or the members of an institution |
| MAIN_RECEPTION | Main Reception | Main reception of a facility |
| MANUFACTURING_PLANT_FACTORY | Manufacturing Plant Factory | A facility or plant where manufacturing of goods and materials takes place |
| MARKET | Market | A location where groceries are sold |
| MENTAL_HEALTH_SERVICE | Mental Health Service | Provides mental health treatment and support services |
| NURSE_STATION | Nurse Station | Nurse station within a hospital or other healthcare service provider |
| OFFICE | Office | A room, set of rooms, or building where the business of a commercial or industrial organization or of a professional person is conducted |
| OPERATING_THEATRE | Operating Theatre | A facility usually within a hospital used to perform medical/surgical procedures |
| PACKHOUSE | Packhouse | A building where packs or bundles of goods are packed for transport and sale |
| PATHOLOGY | Pathology | Pathology area within a hospital or independently operated |
| PERSONAL_SERVICES | Personal Services | Business providing personal services such as Beauty Therapy, Tattoo parlours, Hair Salons etc. |
| PETROL_STATION | Petrol Station | An establishment beside a road selling fuel for motor vehicles |
| PHARMACY | Pharmacy | A shop where medicinal drugs are sold |
| PRIMARY_HEALTH_SERVICE | Primary Health Service | A Health Service which provides a first point of consultation for patients. Includes community centres |
| PRODUCTION_LINE | Production Line | An area in a factory in which goods being manufactured is passed through a set linear sequence of mechanical or manual operations |
| RAIL_STATION | Rail Station | A location with one or more buildings/platforms where trains stops for people to embark/disembark |
| REPACKER | Repacker | An area in a facility that provides repacking of goods |
| RESIDENCE | Residence | A dwelling or an apartment where one lives |
| RETAIL_OUTLET | Retail Outlet | Business premises or facilities for selling products to Consumers. A retail outlet may take the form of a shop or store which buyers visit to make purchases. |
| SALES_YARD | Sales Yard | A location for individuals or companies to sell used goods |

| Code Value | Name | Description |
|-------------------------|---------------------------|--|
| SCHOOL_COLLEGE_UNI | School College University | Institutions for providing primary, secondary or tertiary education |
| SEAPORT | Seaport | A maritime facility comprise of one or more wharves where ships may dock to load and discharge passenger and cargo |
| SILO | Silo | A tall tower or pit used to store grain |
| SLAUGHTER_HOUSE | Slaughterhouse | A facility where animals are slaughtered for meat as food |
| SPORTS_AND_RECERATIONAL | Sports and Recreational | A location for individuals to engage in sports and recreational activities for leisure |
| STATION | Station | An establishment or building where a specified activity or service is based |
| STORAGE_LOCATION | Storage Location | A location where material and goods are stored |
| TERMINAL | Terminal | A terminal is an area or location which serves as a pathway for handling transport process |
| WARD | Ward | Usually, a sub-location within a hospital |
| WAREHOUSE_AND_OR_DEPOT | Warehouse and/or Depot | Inventory storage location which holds bulk stock amounts for onward distribution |
| WHOLE_OF_STATE | Whole of State | Entire state including all entities within the state that fall under the control of a state Health Jurisdiction |

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6.15 Contact point

| Property of gs1:ContactPoint | Expected Type | Examples | Description |
|--|---------------------------|--|--|
| Contact Type gs1:contactType | rdf:langString | Customer support, store security guard etc. | The function or role of a contact for example Customer Support. |
| Hours Available gs1:hoursAvailable | gs1:IntervalSpecification | Shop opening hours Monday to Friday 09.00 to 17.00 | A structured value providing information about the opening hours of a place or a certain service inside a place. |
| Contact Role Code gs1:contactRoleCode | gs1:ContactRoleType | | |
| Contact Title gs1:contactTitle | rdf:langString | Manager, secretary, HR Director etc. | The job title of the person that can be contacted for example Manager. |
| Telephone gs1:telephone | xsd:string | +44 217 992 9999 (UK landline telephone number) | A telephone number for example +44 217 992 9999. |
| Telefax gs1:faxNumber | xsd:string | +44 217 992 9998 (UK landline fax number) | A fax number used for transmitting and reproducing fixed graphic material over telephone lines or other electronic transmission media. |

| Property of gs1:ContactPoint | Expected Type | Examples | Description |
|--|----------------|--|--|
| E-mail gs1:email | xsd:string | helpdesk@example.com | Creating/sending/receiving of unstructured free text messages or documents using computer network, a mini-computer or an attached modem and regular telephone line or other electronic transmission media. |
| Website gs1:website | xsd:anyURI | www.example.com | A Website is a set of related web pages and other items typically served from a single web domain and accessible via URLs. |
| Social Media Channel gs1:socialMediaChannel | xsd:anyURI | https://twitter.com/gs1 | Social media are interactive technologies that allow the creation or sharing/exchange of information, ideas, career interests, and other forms of expression via virtual communities and networks. |
| Available Language gs1:availableLanguage | xsd:string | English, French, German etc. | ISO 639-1 code specifying the language of a specified contact point. |
| Responsibility gs1:responsibility | rdf:langString | Purchaser – responsible for sourcing saleable product. | Text further specifying the area of responsibility of the trade contact. |

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6.16 Interval Specification (used to express Opening Hours, Delivery Hours etc.)

| Property of gs1:IntervalSpecification | Expected Type | Examples | Description |
|---------------------------------------|-----------------------------|--|---|
| Valid From gs1:validFrom | xsd:date OR xsd:dateTime | Tuesday 1 st June 2021 or Tuesday 1 st June 2021 09.00 | The date when the item becomes valid. |
| Valid Through gs1:validThrough | xsd:date OR xsd:dateTime | The end of an offer, salary period, or a period of opening hours. | The date after when the item is not valid. |
| Day of Week gs1:dayOfWeek | | Monday, Tuesday, Wednesday etc. | A week is a time unit equal to seven days - https://en.wikipedia.org/wiki/Week |
| Start Time gs1:startTime | xsd:time | 9am, 09.00 hrs, midday, midnight | Time of opening |
| End Time gs1:endTime | xsd:time | 5pm, 17.00 hrs, midday, midnight etc. | Time of closing |

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6.17 Contact Role

| Code Value | Name | Description |
|-------------------|------|-------------|
| SALES | | |
| TECHNICAL_SUPPORT | | |

6.18 Party Identification Details

| Property of gs1:PartyID_Details | Expected Type | Examples | Description |
|---------------------------------|-------------------------|---|------------------------------|
| gs1:partyID | xsd:string | | |
| gs1:partyID_Type | gs1:OrganizationID_Type | | |
| gs1:partyID_URL | xsd:anyURI | <p>LEI: https://search.gleif.org/#/record/52990034RLKT0W5OAM90</p> <p>DUNS: https://www.dnb.com/business-directory/company-profiles.gs1.d2fd8d17216eb24c1dcf129f56ce3e66.html https://www.bisnode.de/upik-profile/283432615/gs1/</p> | Referrer containing party id |
| gs1:partyID_Qualifier | xsd:string | | |

6.19 Organization ID Type

| Code Value | Name | Definition |
|----------------|------------------------------|--|
| DUNS | DUNS | Data Universal Numbering System. It is a nine-digit numbering system which uniquely identifies an individual business. The DUNS number is a nine-digit number issued by Dun & Bradstreet assigned to each business location in the D&B database having a unique, separate, and distinct operation for the purpose of identifying them. A DUNS number is also a way in which separate corporate entities, having no official relationship, can be branded as one by sharing one DUNS number among the affiliated comp |
| DUNS_PLUS_FOUR | DUNS+4 | The DUNS+4 refers to the DUNS number assigned by Dun and Bradstreet, plus a 4-character suffix that is assigned by the vendor to establish additional Central Contractor Registration (CCR) database records for identifying alternative electronic funds transfer (EFT) accounts for the same vendor located at the same physical address. Dun and Bradstreet has no affiliation with the 4-character suffix. |
| EO_ID | Economic Operator Identifier | A type of identifier in the format of the invariant set of ISO646:1991 used in accordance with the EU Implementing Regulation 2018/574 to identify an economic operator. |

| Code Value | Name | Definition |
|------------------------------|---|---|
| EU_VAT_IDENTIFICATION_NUMBER | EU VAT Identification Number | An identifier used to identify companies for value added tax purposes in the European Union. Link: https://ec.europa.eu/taxation_customs/vies/faqvies.do#item_11 |
| APE | Activite Principale Exercee (APE) | The French industry code for the main activity of a company. , Also referred to as NAF code. 01.47Z (Raising of poultry) |
| EORI | Economic Operators Registration and Identification number | Businesses and people wishing to trade with the EU must, use the EORI number as an identification number in all customs procedures when exchanging information with Customs - https://ec.europa.eu/taxation_customs/dds2/eos/eori_home.jsp?Lang=en |
| SEC | U.S. Securities and Exchange Commission | The SEC enforces the statutory requirement that public companies and other regulated companies submit quarterly and annual reports, as well as other periodic reports. |
| CAGE | Commercial and Government Entity | The Defense Logistics Agency (DLA) Commercial and Government Entity. A CAGE code is a five character alpha-numeric identifier assigned to entities located IN the United States and its territories |
| DoDAAC | Department of Defense Activity Address Code | Is a six position code that uniquely identifies a Department of Defense unit, activity, or organization that has the authority to requisition, contract for, receive, have custody of, issue, or ship DoD assets, or fund/pay bills for materials and/or services. |
| GLEIF | Global Legal Entity Identifier Foundation (GLEIF) | LEI Code 52990034RLKT0WSOAM90 <i>Note: This is for GS1 AISBL</i> https://search.gleif.org/#/record/52990034RLKT0WSOAM90 - <i>Note: This is the URI version for GS1 AISBL</i> |
| APE | Activite Principale de l'Entreprise | When registering a company in France, the Insee (The National Institute of Statistics and Economic Studies) will give you an APE code, sometimes also called the NAF code. This code only serves to identify which sector your activity is in |
| NAF | Nomenclature des Activités Françaises | When registering a company in France, the Insee (The National Institute of Statistics and Economic Studies) will give you an APE code, sometimes also called the NAF code. This code only serves to identify which sector your activity is in |
| RCS | Registre du commerce et des sociétés | The RCS (Registre du commerce et des sociétés), otherwise known as the Greffe, is the registry for the company accounts and by-laws of all companies in France. e.g., PARIS B 517 403 572 à city name |
| SIREN | Système d'identification du répertoire des établissements | Identifies any agency that is a component of the company |
| SIRET | Système d'identification du répertoire des établissements | The SIRET code (French: Système d'identification du répertoire des établissements), or SIRET number is an INSEE code (National Institute of Statistics and Economic Studies) which allows the geographic identification of any French establishment or business |



Note: ID Issuer Code(s) are identifiers assigned by local, regional, national, or international authorities.

6.20 Organisation Classification

| Property of gs1:PartyClassificationDetails | Expected Type | Examples | Description |
|---|-----------------------------|----------|-------------|
| gs1:partyClassificationID | xsd:string | | |
| gs1:partyClassificationType | gs1:PartyClassificationType | | |

6.21 Party Classification Type

| Code Value | Name | Definition |
|------------|---|---|
| UK SIC | UK Standard Industrial Classification of Economic Activities (UK SIC) | UK Standard Industrial Classification used in classifying business establishments and other statistical units by the type of economic activity in which they are engaged. |
| NACE | Nomenclature Activity Classification Economy (NACE) | A European industry classification code used to identify the activity of a company. 13.30 (Finishing of textiles) |
| ISIC | International Standard Industrial Classification (ISIC) | A code specifying an international standard industrial classification. 5630 (Beverage serving activities) |
| SIC | Standard Industrial Classification (SIC) | The Standard Industrial Classification is a system for classifying industries by a four-digit code and is used by government agencies to classify industry areas. 2052 (Cookies and crackers) |
| GICS | Global Industry Classification Standard (GICS®) | Consists of 11 sectors, 24 industry groups, 69 industries and 158 sub-industries into which S&P has categorized all major public companies. 25301040 (Restaurants) |
| ICB | Industry Classification Benchmark (ICB) | Globally utilized standard for the categorization and comparison of companies by industry and sector. 10102030 (Computer Hardware) |
| NACE | Nomenclature of Economic Activities | NACE (Nomenclature of Economic Activities) is the European statistical classification of economic activities. NACE groups organizations according to their business activities |
| NAICS | North American Industry Classification System (NAICS) | Standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analysing, and publishing statistical data related to the U.S. business economy. 445230 (Fruit and Vegetable Markets) |

| Code Value | Name | Definition |
|------------|---|--|
| ANZSIC | Australia and New Zealand Standard Industrial Classification (ANZSIC) | Standard classification used in Australia and New Zealand for the collection, compilation, and publication of statistics by industry. 1012 (Mineral exploration) |

6.22 GLN Type

| Code Value | Name | Description |
|--------------------------|---|---|
| LEGAL_ENTITY | Legal entity | Any business, government body, department, charity, individual, or institution that has standing in the eyes of the law and has the capacity to enter into agreements or contracts. |
| FUNCTION | Function | An organisational subdivision or department. |
| PHYSICAL_LOCATION | Fixed physical location or Mobile physical location | Fixed physical location - a tangible place that does not change locations and may be represented by an address, coordinates, or other means. Mobile physical location - a tangible place that is expected to change locations and may be represented by an address, coordinates, or other means. |
| FIXED_PHYSICAL_LOCATION | Fixed physical location | Fixed physical location - a tangible place that does not change locations and may be represented by an address, coordinates, or other means. |
| MOBILE_PHYSICAL_LOCATION | Mobile physical location | Mobile physical location - a tangible place that is expected to change locations and may be represented by an address, coordinates, or other means. |
| DIGITAL_LOCATION | Digital Location | An electronic (non-physical) address that is used for communication between computer systems. |

6.23 Coordinate Reference System

| Code Value | Name | Definition |
|------------|---------------------------------------|---|
| WGS84 | World Geodetic System 1984 (WGS84) | Is an Earth-centered, Earth-fixed terrestrial reference system and geodetic datum - https://epsg.io/4326 |
| NAD83 | North American Datum of 1983 | NAD83 is an acronym for North American Datum of 1983, a geocentric datum and geographic coordinate system based on the 1980 Geodetic Reference System ellipsoid (GRS80). Mainly used in North America, its measurements are obtained from both terrestrial and satellite data - https://geodesy.noaa.gov/datums/horizontal/north-american-datum-1983.shtml |
| NAD27 | North American Datum of 1927 (NAD 27) | https://www.ngs.noaa.gov/datums/horizontal/north-american-datum-1927.shtml |
| ED50 | European Datum 1950 | ED50 ("European Datum 1950") is a geodetic datum which was defined after World War II for the international connection of geodetic networks - https://en.wikipedia.org/wiki/ED50 |
| SAD69 | South American Datum (SAD) | SAD was established as the regional geodetic datum for South America in 1969 - https://en.wikipedia.org/wiki/South_American_Datum |

6.24 Creative Work

| Property of gs1:CreativeWork | Expected Type | Examples | Description |
|------------------------------|------------------|--|---|
| gs1:dateCreated | xsd:date | January 1 2021 or 1 st January 2021 | Photography: When you take a photo, your digital camera records the date and time information in the actual image, this happens automatically when you point and click. The accuracy of this information depends on the date and time settings of your camera. |
| gs1:datePublished | xsd:date | January 1 2021 or 1 st January 2021 | Literature: Date published can most usually be found on the copyright page of a book. That page will tell you when the work was copyrighted – and if the book is a first edition, the copyright date will be the same as the date published. ... The last date listed is what should be used to fill in the date published. |
| gs1:copyrightHolder | gs1:Organization | Music recording artist, book author, music record label etc. | A "copyright owner" or "copyright holder" is a person or a company who owns any one of the Exclusive Rights of copyright in a work |

6.25 Product

| Property of gs1:Product | Expected Type | Examples | Description |
|---------------------------|------------------|--|--|
| gs1:GTIN | xsd:string | 95240010000012 or (01)95240010000012 | A Global Trade Item Number (GTIN) is the 14 digit GS1 Identification Key used to identify products. The key comprises a GS1 Company Prefix followed by an Item Reference Number and a Check Digit. See https://www.gs1.org/gtin for more details. |
| gs1:manufacturer | gs1:Organization | Nestlé, Kraft Heinz Company or The Coca-Cola Company | The organization that produces the item. |
| gs1:manufacturingPlant | gs1:Place | Coca Cola Bottling Plant, Wakefield, England | A physical location consisting of one or more buildings with facilities for manufacturing. |
| gs1:brandOwner | gs1:Organization | Nestlé, Kraft Heinz Company or The Coca-Cola Company | The brand owner of the product. The organization that is responsible for allocating the GTIN to the product. |
| gs1:customerSupportCentre | gs1:Organization | B&Q stores customer support – online, physical or telephone support. | The organization which provides product support to the trading partner organization to which merchandise is sold. |

6.26 Organization Type

| Code Value | Name | Description and URI |
|--------------------------|--------------------------|---|
| ACCEPTING_PARTY | Accepting Organization | Organization accepting goods, products, services etc. gs1:OrganizationRoleType-ACCEPTING_PARTY |
| BILL_OF_LADING_RECIPIENT | Bill of Lading Recipient | Organization to receive Bill of Lading. gs1:OrganizationRoleType-BILL_OF_LADING_RECIPIENT |
| BILL_TO | Bill To | Organization which receives goods and invoice. gs1:OrganizationRoleType-BILL_TO |
| BILL_FROM | Bill From | Party issuing an invoice. |
| BRAND_OWNER | Brand Owner | The organisation that owns the specifications of the Organization regardless of where and by whom it is manufactured is normally responsible for the allocation of the Global Trade Item Number (GTIN). gs1:OrganizationRoleType-BRAND_OWNER |
| BREEDER | Breeder | The organization which breeds the animal. gs1:OrganizationRoleType-BREEDER |

| Code Value | Name | Description and URI |
|-----------------------------|-----------------------------|---|
| BROKER_AGENT | Broker Agent | A person who buys or sells for another entity without having title to the property. gs1:OrganizationRoleType-BROKER_AGENT |
| BUYER | Buyer | Organization to which merchandise are sold. gs1:OrganizationRoleType-BUYER |
| BUYERS_AGENT_REPRESENTATIVE | Buyers Agent Representative | Third party who arranged the purchase of merchandise on behalf of the actual buyer. gs1:OrganizationRoleType-BUYERS_AGENT_REPRESENTATIVE |
| CARRIER | Carrier | A company, which physically transports goods from one place to another. gs1:OrganizationRoleType-CARRIER |
| CENTRAL_PAYMENT_SERVICE | Central Payment Service | Master of the conveyance. An organization providing central (or consolidated payment) services. gs1:OrganizationRoleType-CENTRAL_PAYMENT_SERVICE |
| CHECKING_PARTY | Checking Organization | Organization or contact designated on behalf of carrier or his agent to establish the actual figures for quantities, weight, volume and/or (cube) measurements of goods or containers which are to appear in the transport contract and on which charges will be based gs1:OrganizationRoleType-CHECKING_PARTY |
| CHEQUE_ORDER | Cheque Order | Organization to which the cheque will be ordered, when different from the beneficiary. gs1:OrganizationRoleType-CHEQUE_ORDER |
| CONSIGNEE | Consignee | Organization to which goods are consigned. gs1:OrganizationRoleType-CONSIGNEE |
| CONSIGNOR | Consignor | The entity who will ship the physical shipment. |
| CONSOLIDATOR | Consolidator | Organization consolidating various consignments, payments etc. gs1:OrganizationRoleType-CONSOLIDATOR |
| CONSUMER | Consumer | The end user of a product or a service. gs1:OrganizationRoleType-CONSUMER |
| CORPORATE_IDENTITY | Corporate Identity | Identity of the organization to whom all other parties of the same commercial organization are linked. gs1:OrganizationRoleType-CORPORATE_IDENTITY |
| CUSTOMS | Customs | Identification of customs authority relevant to the transaction or shipment. gs1:OrganizationRoleType-CUSTOMS |
| CUSTOMS_BROKER | Customs Broker | Organization responsible for the preparation of documents and/or electronic submissions, the calculation on behalf of the client of taxes, duties and excises, and facilitating communication between the importer/exporter and governmental authorities. gs1:OrganizationRoleType-CUSTOMS_BROKER |

| Code Value | Name | Description and URI |
|---------------------------------|---------------------------------------|--|
| CUTTER | Cutter | One engaged in carving meat (In EANCOM as Meat Cutter). gs1:OrganizationRoleType-CUTTER |
| DECLARANTS_AGENT_REPRESENTATIVE | Declarants Agent Representative | Any natural or legal person who makes a declaration to an official body on behalf of another natural or legal person, where legally permitted (CCC). gs1:OrganizationRoleType-DECLARANTS_AGENT_REPRESENTATIVE |
| DELIVERY_PARTY | Delivery Organization | Organization to which goods are delivered. gs1:OrganizationRoleType-DELIVERY_PARTY |
| DESIGNER | Designer | An organization who designs. gs1:OrganizationRoleType-DESIGNER |
| DESPATCH_PARTY | Despatch Organization | Organization where goods are collected or taken over by the carrier. gs1:OrganizationRoleType-DESPATCH_PARTY |
| DISTRIBUTOR | Distributor | Organization distributing goods, financial payments or documents. gs1:OrganizationRoleType-DISTRIBUTOR |
| EMESSAGING_RECEIVER | eMessaging Receiver | Party receiving the message. |
| EMESSAGING_SENDER | eMessaging Sender | Party sending the message |
| EMPTY_EQUIPMENT_DESPATCH_PARTY | Empty Equipment Despatch Organization | Organization from whose premises empty equipment will be or has been despatched. gs1:OrganizationRoleType-EMPTY_EQUIPMENT_DESPATCH_PARTY |
| EMPTY_EQUIPMENT_RETURN_PARTY | Empty Equipment Return Organization | Organization from whose premises empty equipment will be or has been returned. gs1:OrganizationRoleType-EMPTY_EQUIPMENT_RETURN_PARTY |
| EQUIPMENT_OWNER | Equipment Owner | Owner of equipment (container, etc.). gs1:OrganizationRoleType-EQUIPMENT_OWNER |
| EXPORTER | Exporter | Organization who makes - or on whose behalf a Customs clearing agent or other authorized person makes - an export declaration. This may include a manufacturer, seller or other person. Within a Customs union, consignor may have the same meaning as exporter gs1:OrganizationRoleType-EXPORTER |
| FACTOR | Factor | An organization that purchases financial receiving instruments e.g. invoices gs1:OrganizationRoleType-FACTOR |
| FATTENER | Fattener | The Organization which fattens the animal. gs1:OrganizationRoleType-FATTENER |

| Code Value | Name | Description and URI |
|---------------------------|----------------------------------|---|
| FREIGHT_FORWARDER | Freight Forwarder | A person or firm that arranges for a pick up or deliver goods by a carrier on instructions of a shipper or consignee from or to a point by various necessary conveyances and common carriers. gs1:OrganizationRoleType-FREIGHT_FORWARDER |
| GOODS_OWNER | Goods Owner | The organization which owns the goods. gs1:OrganizationRoleType-GOODS_OWNER |
| GROWER | Grower | An organization which is responsible for the growth or production of the unit specifically refers to vegetation. This organization may or may not be a producer or packer. gs1:OrganizationRoleType-GROWER |
| HEAD_OFFICE | Head Office | The executive or main office of an enterprise. gs1:OrganizationRoleType-HEAD_OFFICE |
| HEALTHCARE_PROVIDER | Healthcare Provider | Organisation providing healthcare to patients, consumers, individuals |
| IMPORTER | Importer | Organization who makes - or on whose behalf a Customs clearing agent or other authorized person makes - an import declaration. This may include a person who has possession of the goods or to whom the goods are consigned. gs1:OrganizationRoleType-IMPORTER |
| INFORMATION_PROVIDER | Information Provider | The Organization providing the information contained in the document. gs1:OrganizationRoleType-INFORMATION_PROVIDER |
| INSURER | Insurer | A person or company offering insurance policies for premiums. gs1:OrganizationRoleType-INSURER |
| INTERMEDIARY_BANK_1 | Intermediary Bank 1 | A financial institution between the ordered bank and the beneficiary's bank. gs1:OrganizationRoleType-INTERMEDIARY_BANK_1 |
| INTERMEDIARY_BANK_2 | Intermediary Bank 2 | A financial institution between the ordered bank and the beneficiary's bank. gs1:OrganizationRoleType-INTERMEDIARY_BANK_2 |
| INVENTORY_CONTROLLER | Inventory Controller | To specifically identify the organisation in charge of inventory control. gs1:OrganizationRoleType-INVENTORY_CONTROLLER |
| INVENTORY_REPORTING_PARTY | Inventory Reporting Organization | Organization reporting inventory information. gs1:OrganizationRoleType-INVENTORY_REPORTING_PARTY |
| INVOICEE | Invoicee | Organization receiving an invoice. gs1:OrganizationRoleType-INVOICEE |
| ISSUER_OF_INVOICE | Issuer of Invoice | Organization which issues an invoice. gs1:OrganizationRoleType-ISSUER_OF_INVOICE |

| Code Value | Name | Description and URI |
|-----------------------------|-----------------------------|--|
| LOGISTICS_SERVICE_PROVIDER | Logistics Service Provider | An umbrella term for an entity, which provides a combination of many different logistics services for another entity. gs1:OrganizationRoleType-LOGISTICS_SERVICE_PROVIDER |
| MANUFACTURER_OF_GOODS | Manufacturer of Goods | Organization who manufactures the goods. gs1:OrganizationRoleType-MANUFACTURER_OF_GOODS |
| MANUFACTURING_PLANT | Manufacturing Plant | A physical location consisting of one or more buildings with facilities for manufacturing. gs1:OrganizationRoleType-MANUFACTURING_PLANT |
| MARK_FOR | Mark For | The ultimate destination of a unit load or transport package of goods where the Ship-To is a different location. gs1:OrganizationRoleType-MARK_FOR |
| MESSAGE_FROM | Message From | Organization where the message comes from. gs1:OrganizationRoleType-MESSAGE_FROM |
| MESSAGE_RECIPIENT | Message Recipient | Organization receiving the message. gs1:OrganizationRoleType-MESSAGE_RECIPIENT |
| MINCER | Mincer | One engaged in the cutting or chopping of meat into very small pieces gs1:OrganizationRoleType-MINCER |
| NPC_PRICE_LOCATION | NPC Price Location | A party to which a price for a trade item is applicable. Within the context of GDSN Price Synchronization, it is also known as the 'Price Location' which is a GLN. |
| OPERATING_DIVISION | Operating Division | An entity that is part of another entity. For example, a Regional Marketing Office. Operating Divisions may have multiple days and times of operation. gs1:OrganizationRoleType-OPERATING_DIVISION |
| OPERATOR | Operator | A person or persons who own or operate a business establishment, which services consumers directly. For example, a restaurant owner as part of a chain or an independent operation. gs1:OrganizationRoleType-OPERATOR |
| ORDERING_PARTY | Ordering Organization | To be used only if ordering organization and buyer are not identical. gs1:OrganizationRoleType-ORDERING_PARTY |
| OWNER_OF_EQUIPMENT | Owner of equipment | Organization who owns equipment. gs1:OrganizationRoleType-OWNER_OF_EQUIPMENT |
| OWNER_OF_MEANS_OF_TRANSPORT | Owner of Means of Transport | Organization owning the means of transport. Not a synonym of carrier gs1:OrganizationRoleType-OWNER_OF_MEANS_OF_TRANSPORT |

| Code Value | Name | Description and URI |
|---|--|--|
| PARTY_DECLARING_THE_VALUE_ADDED_TAX | Organization Declaring the Value Added Tax | A code to identify the organization who is responsible for declaring the Value Added Tax (VAT) on the sale of goods or services. gs1:OrganizationRoleType-PARTY_DECLARING_THE_VALUE_ADDED_TAX |
| PARTY_FOR_WHOM_ITEM_IS_ULTIMATELY_INTENDED | Organization For Whom Item is Ultimately Intended | gs1:OrganizationRoleType-PARTY_FOR_WHOM_ITEM_IS_ULTIMATELY_INTENDED |
| PARTY_RECEIVING_PRIVATE_DATA | Organization Receiving Private Data | The organization who is allowed access to master data information by the data owner when the data is viewed as private. gs1:OrganizationRoleType-PARTY_RECEIVING_PRIVATE_DATA |
| PARTY_RECOVERING_THE_VALUE_ADDED_TAX | Organization Recovering the Value Added Tax | A code to identify the organization who is eligible to recover the Value Added Tax (VAT) on the sale of goods or services. gs1:OrganizationRoleType-PARTY_RECOVERING_THE_VALUE_ADDED_TAX |
| PARTY_TO_RECEIVE_ALL_DOCUMENTS | Organization to Receive All Documents | An organization which is named to be the recipient of all documents. gs1:OrganizationRoleType-PARTY_TO_RECEIVE_ALL_DOCUMENTS |
| PARTY_TO_RECEIVE_COMMERCIAL_INVOICE | Organization to Receive Commercial Invoice | Organization to whom payment for a commercial invoice or bill should be remitted. gs1:OrganizationRoleType-PARTY_TO_RECEIVE_COMMERCIAL_INVOICE |
| PARTY_TO_RECEIVE_ELECTRONIC_MEMO_OF_INVOICE | Organization to Receive Electronic Memo of Invoice | Organization being informed about invoice issue (via EDI). gs1:OrganizationRoleType-PARTY_TO_RECEIVE_ELECTRONIC_MEMO_OF_INVOICE |
| PARTY_TO_RECEIVE_FREIGHT_BILL | Organization to Receive Freight Bill | Organization to whom the freight bill should be sent. gs1:OrganizationRoleType-PARTY_TO_RECEIVE_FREIGHT_BILL |
| PARTY_TO_RECEIVE_REFUND | Organization to Receive Refund | Organization to whom a refund is given. gs1:OrganizationRoleType-PARTY_TO_RECEIVE_REFUND |
| PAYEE | Payee | Organization, which receives payment. gs1:OrganizationRoleType-PAYEE |
| PAYER | Payer | Organization which initiates payment. gs1:OrganizationRoleType-PAYER |
| POINT_OF_SALE | Point of Sale | Refers to the retail type checkout where bar code symbols are normally scanned. gs1:OrganizationRoleType-POINT_OF_SALE |

| Code Value | Name | Description and URI |
|---------------------------------|---------------------------------|---|
| PRICE_LOCATION_PARTY | Price Location Organization | An organization to which a price for a product is applicable. Within the context of GDSN Price Synchronization, it is also known as the 'Price Location' which is a GLN. gs1:OrganizationRoleType-PRICE_LOCATION_PARTY |
| PROXY | Proxy | A company that is selected by the Brand Owner to maintain their baseline attributes and Administrative Records in the GDSN. gs1:OrganizationRoleType-PROXY |
| PUBLIC_WAREHOUSE | Public Warehouse | A building, or a part of one, where storage space is offered to other companies for compensation (fee), for the storage of their goods, merchandise, etc. gs1:OrganizationRoleType-PUBLIC_WAREHOUSE |
| PURCHASE_ORDER_RECEIVER | Purchase Order Receiver | The organization that receives the purchase order for the goods or services. gs1:OrganizationRoleType-PURCHASE_ORDER_RECEIVER |
| RECALL_HEALTH_RECIPIENT | Recall Health Recipient | Organisation/Location/Individual receiving Recall notifications via Recall Health |
| RECALL_HEALTH_SPONSOR | Recall Health Sponsor | Organisation sending Recall notifications via Recall Health |
| RECALL_RECIPIENT | Recall Recipient | Organisation/Location/Individual receiving Recall notifications via Recall |
| RECALL_SPONSOR | Recall Sponsor | Organisation sending Recall notifications via Recall |
| RECEIVING_LOCATION | Receiving Location | An area where trucks or rail cars are loaded (shipping) or unloaded (receiving). Used to load or unload trade items for logistics. |
| REGISTERED_AGENT | Registered Agent | The organization having legal responsibility for the product in the target market for example a company to which market authorization has been issued. gs1:OrganizationRoleType-REGISTERED_AGENT |
| REMIT_TO | Remit To | Organization to whom funds are directed for payment of a commercial invoice. gs1:OrganizationRoleType-REMIT_TO |
| RETURNABLE_ASSET_SERVICE_CENTRE | Returnable Asset Service Centre | The location where a returnable asset is serviced. gs1:OrganizationRoleType-RETURNABLE_ASSET_SERVICE_CENTRE |
| SELLER | Seller | Organization which sells products or services to a buyer. gs1:OrganizationRoleType-SELLER |

| Code Value | Name | Description and URI |
|------------------------|------------------------|---|
| SERVICE_PROVIDER | Service Provider | An organization providing services for another organization (e.g., re-packing supplier's products). gs1:OrganizationRoleType-SERVICE_PROVIDER |
| SHIP_FROM | Ship From | Organization from where goods will be or have been shipped. gs1:OrganizationRoleType-SHIP_FROM |
| SHIP_TO | Ship To | Organization which receives goods and invoices. gs1:OrganizationRoleType-SHIP_TO |
| SLAUGHTERER | Slaughterer | The Organization who has undertaken or will undertake a slaughter. gs1:OrganizationRoleType-SLAUGHTERER |
| STORE | Store | A physical entity that sells products to a consumer. gs1:OrganizationRoleType-STORE |
| STORAGE_AND_HANDLING | Storage and Handling | The movement, protection, storage of products throughout manufacturing, warehousing and distribution |
| SUBSTITUTE_SUPPLIER | Substitute Supplier | Organization which may be in a position to supply products or services should the main usual supplier be unable to do so. gs1:OrganizationRoleType-SUBSTITUTE_SUPPLIER |
| SUPPLIER | Supplier | An organization that provides goods or services. gs1:OrganizationRoleType-SUPPLIER |
| TRANSPORTATION_CARRIER | Transportation Carrier | Organization undertaking or arranging transport of goods between named points. gs1:OrganizationRoleType-TRANSPORTATION_CARRIER |
| VISITING_ADDRESS | Visiting Address | An enterprise's physical location where guests are received during set working hours gs1:OrganizationRoleType-VISITING_ADDRESS |
| WAREHOUSE_AND_OR_DEPOT | Warehouse and or Depot | Industrial department of a company equipped with appropriate equipment and fittings in which goods are stored in appropriate conditions. gs1:OrganizationRoleType-WAREHOUSE_AND_OR_DEPOT |
| WAREHOUSE_KEEPER | Warehouse Keeper | Organization taking responsibility for goods entered into a warehouse. gs1:OrganizationRoleType-WAREHOUSE_KEEPER |
| WHOLESALE | Wholesaler | Seller of articles, often in large quantities, to be retailed by others. gs1:OrganizationRoleType-WHOLESALE |

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Note: The different spelling of organisation and organization is used in this document due to the alignment of the GS1 Web Vocabulary with <https://schema.org/> which uses the spelling as "organization". In other GS1 documentation, for example the GS1 General Specifications the spelling used is "organisation".

A Abbreviations

- GLEIF - Global Legal Entity Identifier Foundation
- JSON - JavaScript Object Notation
- URL - Uniform Resource Locator
- URN - Uniform Resource Name
- XSD - XML Schema Definition

B Glossary of Business Terms

<https://xchange.gs1.org/sites/glossary/en-gb>

■ Automatic Identification and Data Capture (AIDC)

A technology used to automatically capture data. AIDC technologies include barcodes, smart cards, biometrics, and RFID. [GENSPECS]

■ GS1 identification key (ID Key)

A unique identifier for a type of objects (e.g., logistic units) or an instance of an object (e.g., a location or a transport unit).

■ GS1 ID key issuance and allocation

Issuance is the generation of a GS1 Identification Key (ID Key), based on the format and syntax for that key and on the issuance policy of the managing entity.

Allocation is the association of the issued GS1 Identification Key with an object of the type supported by the GS1 Identification Key in accordance with the GS1 rules.

Different entities may be involved in each process. For example, a computer program could be used to do the issuance and a human could be used to do the allocation.

A classic example of this is one where the IT department prepares a spreadsheet of available SSCCs (Serial Shipping Container Codes) for use by the Logistics department. Each SSCC in the spreadsheet is issued, but until the Logistics department actually assign it to a specific logistic unit, it is not considered to be allocated.

■ GS1 Company Prefix

A unique string of four to twelve digits used to issue GS1 identification keys. The first digits are a valid GS1 Prefix and the length must be at least one longer than the length of the GS1 Prefix. The GS1 Company Prefix is issued by a GS1 Member Organisation. As the GS1 Company Prefix varies in length, the issuance of a GS1 Company Prefix excludes all longer strings that start with the same digits from being issued as GS1 Company Prefixes. [GENSPECS]

■ GS1 Digital Link

The expression of the GS1 System of Identifiers on the World Wide Web as defined in the GS1 Digital Link standard. [DIGLNK]

■ Unified Modeling Language

The Unified Modeling Language (UML) is a general-purpose, developmental, modeling language in the field of software engineering that is intended to provide a standard way to visualize the design of a system - https://en.wikipedia.org/wiki/Unified_Modeling_Language

■ Global Legal Entity Identifier Foundation

Established by the Financial Stability Board in June 2014, the Global Legal Entity Identifier Foundation (GLEIF) is tasked to support the implementation and use of the Legal Entity Identifier (LEI). ... GLEIF is a supra-national not-for-profit organization headquartered in Basel, Switzerland.

■ XML Schema Definition

Is a World Wide Web Consortium (W3C) recommendation that specifies how to formally describe the elements in an Extensible Markup Language (XML) document.

■ JavaScript Object Notation

JSON is a lightweight format for storing and transporting data. JSON is often used when data is sent from a server to a web page. JSON is "self-describing" and easy to understand.

■ Uniform Resource Locator

A web address a reference to a web resource that specifies its location on a computer network and a mechanism for retrieving it.

- 810
 - Uniform Resource Name
- 811 An internet identifier.
- 812
 - Parties
- 813
 - Locations
- 814
 - Open Supply chain
- 815
 - Legal entity
- 816 Any business, government body, department, charity, individual or institution that has standing in
- 817 the eyes of the law and has the capacity to enter into agreements or contracts.
- 818
 - Function
- 819 An organisational subdivision or department.
- 820
 - Fixed physical location
- 821 A tangible place that does not change locations and may be represented by an address, coordinates,
- 822 or other means.
- 823
 - Mobile physical location
- 824 A tangible place that is expected to change locations and may be represented by an address,
- 825 coordinates, or other means
- 826
 - Digital location
- 827 An electronic (non-physical) address that is used for communication between computer systems.
- 828
 - Sub location