

Business Requirements Analysis Document (BRAD)

for

Multi-Source GTINs

**BRG: GDSN Multi-source
sub-group**

Version: _____0.8

Date: 03/04/2005



Change Request Reference

| | |
|--|--|
| Refer to Change Request (CR) Number(s): | |
| CR Submitter(s): | |
| Date of CR Submission to GSMP: | |

Document Summary

| | |
|-------------------------------|--|
| Document Number: | 0.8 |
| Document Title: | <i>Multi-source Synchronization</i> |
| Owner: | BRG: GDSN Multi-source sub-group Chairperson: Nadine Radomski, Dean Foods Co. |
| Status: | (<i>check one box</i>) <input checked="" type="checkbox"/> DRAFT <input type="checkbox"/> Approved |
| BRAD Template Version: | 0.2 |

Document Change History

| Date of Change | Version | Changed By | Reason for Change | Summary of Change | Model Build # | CR # |
|-------------------|---------|-----------------|--|---|---------------|------|
| November 3, 2004 | 0.1 | Nadine Radomski | First draft | Initial creation of multi-source BRAD | N/A | N/A |
| November 15, 2004 | 0.2 | Nadine Radomski | Task Group feedback | General changes. | N/A | N/A |
| November 16, 2004 | 0.2 | Rob Toole | | | | |
| December 6, 2004 | 0.3 | Rob Toole | | | | |
| January 1, 2005 | 0.4 | Rob Toole | | Incorporated new members into document | | |
| January 12, 2005 | 0.5 | Rob Toole | | Added details to use cases; this is still iterative. | | |
| February 15, 2005 | 0.6 | Rob Toole | Task Group Meeting input – 07/02/2005 – 09/02/2005 | -Added all meeting notes in Section 11 as most are implementation considerations - Changed GTIN Administrator to Brand Owner or Proxy throughout the document - Inserted related requirements in use cases where appropriate - Highlighted yellow areas in document require review (e.g. official term | | |

| | | | | | | |
|----------------|-----|-----------------|---------------------------------------|--|--|--|
| | | | | definitions must be inserted) | | |
| March 31, 2005 | 0.7 | Nadine Radomski | Resolution of open issues | Added <ul style="list-style-type: none"> ➤ new requirements from March GDSN physical meeting ➤ feedback from follow-up calls to close open issues. ➤ Removed Section 11 (meeting notes) and placed into separate documents. | | |
| April 3, 2005 | 0.8 | Nadine Radomski | Updates from GDSN Task Group Feedback | <ul style="list-style-type: none"> ➤ Corrected misspellings ➤ Added 3rd Party Agent Sequence Diagram ➤ Cleaned up Use cases based on Task Group feedback | | |

Note: During development include revisions in history. Upon Approval, eliminate revisions and include only delta from previous version.

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1 Executive Overview

(Summarizes the business need or problem, the business case, and the solution). This header section left empty.

The GDSN currently supports the synchronization of Trade Items from a single source such as a Manufacturer or distributor to multiple recipients. Although the fundamental GDSN technology allows for the synchronization of a GTIN from multiple sources; there are many implementation roadblocks that are delaying or even stopping synchronization among Wholesalers, 3-Tier distributors, Private Label Manufacturers, ~~brand-owner~~ Brand Owners that do not have a relationship with the final recipient, Brokers and other Third Party agents such as Importers, warehouses and freight forwarders. The business needs addressed in this document include: ~~brand-owner~~ Brand Owner security, GTIN consistency among sources, the Brand Owner and Proxy roles and an Administrative Record.

~~Brand-owner~~ Brand Owner security is an issue today because there are no security measures in place to ensure that only an authorized entity is registering and maintaining a GTIN. Using Private label as an example, the ~~brand-owner~~ Brand Owner is typically a Retailer or a third party entity representing a group of stores. The ~~brand-owner~~ Brand Owner may choose to synchronize their own GTINs or they may ask another entity to serve on its behalf to avoid large investments in system changes. ~~Brand-owner~~ Brand Owner/proxy security will allow the ~~brand-owner~~ Brand Owner to identify the GLN of the Proxy and restrict all other GLNs from maintaining the ~~brand-owner~~ Brand Owner's GTINs.

Once the appropriate security is in place, additional entities such as distributors, Wholesalers, Brokers and other third party agents may now register their version of the GTIN. As a GTIN is published to recipients from multiple sources, several issues may arise due to a lack of consistency. As an example, a recipient may receive a GTIN from several sources and find that the sources have different dimensions from each other. How will the recipient know which information provider published the correct dimensions? It will be the Brand Owner or Proxy's responsibility to ensure that all sources of the GTIN understand which attributes and values must be consistent for a particular GTIN. In an effort to ensure that all industries and geographic locations will benefit from this process, consistency of the Classification category code will be the only mandatory consistency rule. A Brand Owner or Proxy has the option to select any additional attribute(s) from the core trade item BRD to be consistent among all sources. To accomplish this, the Brand Owner or Proxy will set a baseline that will be used to ensure consistency for a GTIN from all sources. An Administrative Record will be created to indicate the baseline attributes and their values. Once registered in the GDSN, the baseline is set and the Administrative Record is published out to the Data Pool of each authorized information provider of the GTIN. Once the authorized Data Pool receives the Administrative Record, the baseline attributes and their values will be available to authorized Information Providers to create their version of the GTIN and synchronize with the final recipient. The result will be a consistent GTIN from each source that will allow all recipients to quickly process and confirm synchronization.

1.1 Business Opportunity and Business Needs

(States the business need, establishing the context for the business process and requirements.)

To ensure that GTINs synchronized by multiple sources can be properly registered, published and accepted by the intended recipient, consistency rules must be established

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to support GTIN allocation rules. In addition, ~~Trade Mark Owner~~ Brand Owners must be assured that their products are properly represented within the GDSN if they so desire.

For example, there is currently no way to identify or prevent variations of a GTIN from multiple sources that may break GTIN allocation rules. In many instances the ~~brand owner~~ Brand Owner is synchronizing their GTIN along with information providers such as distributors and/or brokers. If these sources all provide varying data that should be unchangeable according to GTIN allocations rules, how will the recipient's system know which version of the GTIN is correct? These variations will cause extensive manual review and follow-up for the recipient as well as the sources.

In some instances, ~~Trade Mark owner~~ Brand Owners or specific industries may have unique requirements regarding data consistency. Without a mechanism for supporting consistency, registration may be compromised and receipt of publications may be rejected by recipients.

The term "source" does not properly indicate the type of role a company plays in the supply chain for a particular item. As an example, the recipient will need to know if the company registering the GTIN is actually a manufacturer or distributor of the product that will make deliveries and expect payment. In some instances, the source may be a Third Party Agent such as a Broker or importer. Without this knowledge, recipients cannot properly receive and process the GTIN data from these unique sources. In the instance where a manufacturer is synchronizing its GTINs with a Retailer and a Third Party agent, the agent has no view of the synchronization status between the Retailer and the Manufacturer. As a result, the agent is unable to determine if GTINs have been accepted and/or authorized by the retailer.

1.2 Business Intention

Summarizes proposed solution.

It is the intention of the BRG members building this document **is** to:

- Significantly reduce / eliminate any barriers to registering multi-source GTINs in the Global Registry
- **Identify** attributes **that** can only **be changed** by the Brand Owner
- Ensure consistency of selected attributes among the multiple occurrences of the GTIN
- Define multi-source business requirements that accommodate various industry and business models
- Define manageable requirements from a datapool perspective in an effort to foster adoption by source and recipient trading partners.

1.3 Business Justification

(States business case for solution.)

One of the largest barriers to item synchronization to-day is the fact that recipients are unable to determine which GTIN is accurate if multiple sources synchronize the same GTIN with differing values. This has been most prevalent in the Private Label and Distributor business relationships.

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1.4 Audience

(List of expected users of the BRAD expressed as stakeholders).

Any entity that is involved with the synchronization of a GTIN that may have multiple sources. This includes the source, source datapool, recipient and recipient datapool. These actors may include any entity performing one or more of the roles found in the multi-source supply chain:

- ~~brand-owner~~ Brand Owner
- Proxy
- Manufacturer
- Distributor
- Broker
- Retailer
- Wholesaler
- additional 3rd parties which may include but are not limited to Third-Party Agents such as a warehouse, freight forwarder, importer, sales & marketing agents and 3rd Party Agents that have not been identified yet.

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2 Acknowledgements

(List of the individuals—and their companies—who participated in the creation, review and approval of this BRAD.)

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2.3 Project Support

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|-----------------|---------------|--------------|
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| GDD | | |
| Process Manager | Cameron Green | GS1 HO |

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2.4 Project Advisors

| Function | Name | Organisation |
|----------|------|--------------|
| | | |
| ... | | |

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3 References

(as applicable)

| Reference Name | Description |
|------------------------|---|
| Mark Ingram, Sarah Lee | Chair of GCI-DSD Item Authorization sub-group. Advised BRG Members with the Item Authorization process and how it may be used to meet multi-source Agent needs. |
| GDSN Task Group | The Task Group responsible for the development of the Global Data Synchronization Network. |

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4 Scope

4.1 Overall Business Context

| Context Category | Value(s) |
|----------------------|---|
| Industry | All |
| Geopolitical | All |
| Product | All |
| Process | Data Synchronization |
| System Capabilities | Data synchronization of item from multiple sources to one or more recipients. |
| Official Constraints | None |
| | |

If no value use, the default of “All” except for Official Constraints where default is “None”.

4.2 In Scope

The Scope of this document is limited to the following processes:

- GTIN synchronization models as they apply to multi-source
- Party Synch as it applies to multi-source
- ~~brand-owner~~Brand Owner/Proxy Security
- Transfer of Administrative Record rights
- Validation Rules as it applies to multi-source
- Baseline_attributes/Administrative Record
- Multi-source business process message flow
- Item authorization flow and visibility as it applies to multi-source

The multi-source process begins when there is the potential of multiple sources of GTIN information in the GDSN.

4.2.1 Immediate Phase

What high-level business requirements will be included in this version of the BRAD.

BRG members assigned in sub-groups

- Establish multi-source base model
- Support ~~brand-owner~~Brand Owner / proxy security
- Support administrative records
- Support the creation of baseline attributes
- Support the validation of GTINs against administrative records by referencing baseline attribute requirements
- Support the Item Authorization Message as it applies to multi-source

4.2.2 Subsequent Phases [optional]

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What high-level business requirements are planned for inclusion in future BRAD versions.

The following are expected to be further defined with pilot testing and included in the January 2006 release:

- Broker Item Authorization process
- Final Attribute tolerance ranges
- Hierarchies

4.3 Out of Scope

What high-level business requirements are planned for inclusion in future BRAD versions.

The following processes will not be addressed in this document:

- Price & promotion
- Relationship Dependant Data
- DSD Item Authorization Process
- Full Party Synchronization
- New Item Introduction
- Service related GTINs

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5 General Definition

5.1 Initial Challenges

Initial challenges provide justification for requirements. This section tries to answer why the solution will be designed one way as opposed to another. This section is optional.

~~The goal of this BRAD is to~~ Elimination of the barriers that currently impede trading partners from synchronizing their multi-source items. It is imperative that the technical solutions designed from this document do not create additional barriers to adoption nor further entrench existing barriers. Unnecessary complexity will further delay adoption of an already complex business process.

5.2 Assumptions

Assumptions reference existing external documents, concepts, requirements or events that are helpful for either understanding or utilizing this solution. This section is optional.

Companies utilizing multi-source synchronization have a basic understanding of data synchronization and GTIN Allocation Rules.

Approval of the multi-source BRAD will occur in a timely manner to support the following target dates:

- Multi-source piloting to begin no later than ~~July 31, 2005~~ August 31, 2005.
- Full production of multi-source solution to be available to all certified datapools and their trading partners no later than January 31, 2006.

5.3 Dependencies

What other standards, processes or technical solutions outside of this requirements document are required for this solution's adoption. This section is optional.

This BRAD is dependent upon the development of complimentary processes within the GDSN by the following target dates:

- Basic Party Synch in production no later than ~~July 2005~~ January 31, 2006.
- Item Authorization available for piloting no later than ~~July 2005~~ January 31, 2006.

5.4 Allocating the Numbers

5.4.1 General rule

A Global Trade Item Number™ (GTIN™) is used to identify any item (trade item or service) upon which there is a need to retrieve pre-defined information and that may be priced or ordered or invoiced at any point in any supply chain. A separate unique GTIN is required whenever any of the pre-defined characteristics of an item are different in any way that is relevant to the trading process. The guiding principle is if the consumer is expected to distinguish a new trade item from an old trade item and purchase accordingly, a new GTIN should be assigned to the new trade item (product package and shelf edge label declarations should appear the same to the consumer). However, any law or regulation that contradicts these rules shall supercede these rules.

Specific rules that apply to prevalent industry practices have been endorsed by the Global Commerce Initiative Board, for the Fast Moving Consumer Goods (FMCG) industry. These rules covering many common business cases can be found in Appendix 2.1.A. While all EAN.UCC standards are voluntary, the rules are intended to drive normative practice within the FMCG sector

5.4.2 Responsibility

5.4.2.1 Branded items

The Brand Owner, the organisation that owns the specifications of the trade item regardless of where and by whom it is manufactured, is normally responsible for the allocation of the Global Trade Item Number™ (GTIN™). On joining an EAN Member Organisation or the UCC the Brand Owner receives an EAN.UCC Company Prefix which is for the sole use of the company to which it is assigned. The company prefix may not be sold, leased or given, in whole or in part, for use by any other company.

The Brand Owner is the organisation that owns the trade item specifications and may be:

The manufacturer or supplier - the company manufactures the trade item or has it manufactured, in any country, and sells it under its own brand name

The importer or wholesaler - the importer or wholesaler has the trade item manufactured, in any country, and sells it under its own brand name or the importer or wholesaler changes the trade item (for example by modifying the packaging of the trade item).

The retailer - the retailer has the trade item manufactured, in any country, and sells it under its own brand.

5.4.2.2 Exceptions and non branded items

There are some exceptions as follows:

Non-Branded Items - Items without a brand name and generic items – not private labels – are still assigned Global Trade Item Numbers™ (GTIN™) by their manufacturer. As different manufacturers may supply items that appear identical to the consumer, it is possible that items that are apparently the same have different GTINs. Companies that trade in these items need to organise their computer applications (replenishment programs for example) to cope with this eventuality. Examples of items that sometimes have no brand are apples, plasterboard, candles, drinking glasses etc.

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Customer Specific Items - When a trade item is made specifically for one trade customer and is orderable only by this customer, it is permissible for a GTIN to be assigned by the customer. In this case the GTIN should be formed from the customer's EAN.UCC Company Prefix (see Section 2.6.6).

Other Exceptions - If the Brand Owner does not assign a GTIN, the importer or another intermediary can assign an item a *temporary* GTIN. This may be used until a GTIN is assigned in the normal way. Alternatively a retail organisation can assign an *internal* number, for use within its own stores only, to an item that does not yet have a GTIN assigned to it.

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5.5 Customer Specific Articles

5.5.1 Introduction

The EAN.UCC System guidelines for trade items (see Section 2.1) state that each item of trade is assigned a non-significant number that uniquely identifies the item in an unrestricted environment. The same number is used to identify a series of identical items, with every variant being allocated a separate unique identification number whenever the variation is apparent and significant between partners in the supply chain or to the final user.

This system enables the use of Automatic Data Capture (ADC) and Electronic Data Interchange (EDI) in an open environment, globally. However, in a number of business sectors, because of the vast number of possible different manifestations of certain made-to-order articles, pre-allocation of Global Trade Item Numbers™ (GTINs™) at the lowest level is not feasible.

For organisations that trade in such made-to-order products, EAN International, in association with trade representatives, has developed the following guideline. This guideline has been designed to improve supply chain efficiency by enabling ADC and, in particular, efficient ordering via EDI.

This guideline is fully compatible with, and should be treated as a special case of, the EAN.UCC System recommendations for the numbering and symbol marking of trade items.

5.5.2 Application Overview

5.5.2.1 Definition

A Customer Specific Article (CSA) is broadly defined as any item where the supplier defines all possible manifestations of the article from which the customer may choose, and pre-allocation of article numbers at the lowest level is not feasible. CSAs are never made for stock, and hence are always made to order. However, made-to-order articles are not necessarily customer specific, but could be standard.

A typical example of a CSA is a chair that is available in 300 different types of upholstery for the seat, back, and armrest. This list of available upholstery could also be used for other types of furniture the supplier offers. There are 27,000,000 ordering possibilities for this chair (300 x 300 x 300). Typically the supplier's catalogue lists a generic style of chair as well as the 300 different upholstery options. The customer chooses the style of chair and selects upholstery for the seat, back, and armrest.

On receipt of order, the supplier produces the customer specific chair and makes it available to the customer. Because the supplier defines the customer's options, and because the customer must specify his or her choices based on those options, the order contains all the information the supplier requires to manufacture the chair.

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This example highlights four separate process steps:

- The supplier makes available all the possible manifestations of an article.
- The customer specifies the actual article required using the supplier catalogue.
- The supplier manufactures the article in accordance with the customer's specifications.
- The CSA is delivered.

The EAN.UCC System has formalized this process, enabling efficient Automatic Data Capture (ADC) and Electronic Data Interchange (EDI) throughout the supply chain. The CSA data model is based on the assumption that the supplier defines the possible components (either in a paper or electronic catalogue) and the customer specifies the actual article required.

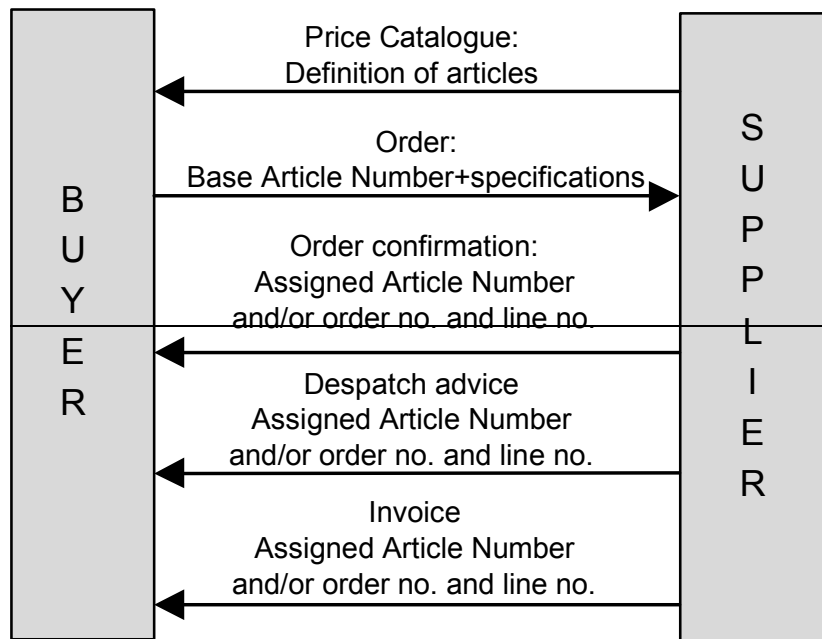
The processes for identifying and ordering the article are dealt with separately. Although these processes are closely related, each requires separate consideration in an open system.

5.5.2.2 Customer Specific Articles Data Flow

The data flow model is organised on a series of assumptions designed to ensure that the model is independent of the type of article and the sector: It is a generic model. Because many different procedures may be applied by various manufacturers, the generic model is meant to be a general guide. By using this model, companies can communicate in a standard way and (re)organise the automated handling of Customer Specific Article (CSA) specification according to this guideline.

The model assumes that the supplier informs the customer of all available ordering options and specifications. This is achieved by means of an electronic catalogue (see Figure 2.6.6.2.2—1). From this catalogue the customer can determine which article(s) to order. In the order message the Base Article Number and the chosen specifications are communicated.

Figure 2.6.6.2.2—1



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In the order confirmation the supplier may confirm that the article ordered can be manufactured (that is, that the buyer has made a correct combination of specifications). This should be the case assuming the customer has up to date database information. The order confirmation may also be used to notify the customer of the assigned article number. The assigned article number may be used in all subsequent communications. For example, the despatch advice and invoice messages use the assigned article number and, if required, the order number plus the order line number to establish an unambiguous link with the CSA.

The article produced may not be numbered with a string of numbers representing the Base Article Number plus the applicable specifications (see [Section 2.6.6.3.3](#)).

5.5.3 Allocating EAN.UCC System Numbers for Customer Specific Articles

5.5.3.1 General Rule

Each different product must be identified by a unique number. This implies that each variant of a product is assigned a different number. For example, each different size or colour of a garment has its own individual identification number. Article numbers should be sequentially allocated for this purpose.

5.5.3.2 Ordering of Customer Specific Articles

The ordering process of Customer Specific Articles (CSAs), the customer specification process, is based on a supplier's catalogue definitions. Internal identification systems are often manual and become increasingly complex and prone to error as the number of trading partners increases. In addition, the use of internal codes can be cumbersome, inflexible, and prone to duplication between different suppliers. These recommendations, which are based on the open systems principle, seek to avoid internally based systems. Catalogue products using EAN.UCC System identification numbers are guaranteed to be uniquely identifiable worldwide.

A Customer Specific Articles *EANCOM*[®] User Profile for the price catalogue (PRICAT), orders (ORDERS), and the response to order (ORDRSP) messages has been published that utilises the numbering system outlined below.

5.5.3.2.1 Base Article Number

A supplier assigned Base Article Number is given to each generic product type for ordering purposes. An EAN/UCC 13 Identification Number is used for this functionality. The EAN/UCC 13 ID Number is defined by the supplier and must be unique with respect to all other EAN.UCC System identification numbers. Because it does not identify an item, the Base Article Number will never be carried by a bar code symbol on an article. It is solely used for ordering purposes.

The Base Article Number indicates to the customer that a number of supplier defined questions have to be answered by the customer. These specifications (questions and associated answers), which are relevant to a Base Article Number, are communicated via an electronic catalogue. The specifications available for each different article are defined by the supplier.

5.5.3.2.2 Specifications

Specifications are linked to the different Base Article Numbers for the purposes of ordering. The same specifications may be used with different Base Article Numbers. Specifications fall into one of the categories described in the following subsections.

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5.5.3.2.3 — Option

An option is a specification with a discrete value that is pre-defined by the supplier and associated with a Base Article Number.

Each option may be identified with an EAN/UCC-13 Identification Number. The EAN/UCC-13 Identification Number is defined by the supplier and must be unique with respect to all other EAN.UCC System identification numbers. An ID number of an option will never be carried by a bar code symbol on an article. It solely is used for communication purposes.

Options, such as red leather seat cover, may be valid for different base articles.

5.5.3.2.4 — Parameter

A parameter is a specification within a range of values (e.g., dimensions) ranging from a minimum to a maximum and including a step size.

Each parameter may be identified with an EAN/UCC-13 Identification Number. The EAN/UCC-13 Identification Number is defined by the supplier and must be unique with respect to all other EAN.UCC System identification numbers. The parameter identification will never be carried by a bar code symbol on an article. It is solely used for ordering purposes.

Parameters should be communicated using the standard EANCOM[®] syntax and should be related to a Base Article Number.

5.5.3.2.5 — Part

A part is a physical article that may also be ordered separately.

Parts are identified within Global Trade Item Identification Numbers[™] (GTINs[™]). The EAN/UCC-13 Identification Number for the part may be used in association with a Base Article Number to create a composite, an article made up of one or more individual parts. A part may be associated with a number of different base articles.

5.5.3.2.6 — External References

An external reference is often required for a customer designed or custom-made item. External references are specified through a separate, non-EDI communication channel, such as a fax or CAD/CAM drawing. A secondary source can be used to communicate a set of customer defined specifications (not pre-defined by the supplier).

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~~5.5.3.2.7 Data Carrier~~

~~EAN.UCC System identification numbers used to identify Customer Specific Articles (CSAs) for ordering purposes may never be carried by a bar code symbol on the physical article. However, suppliers may wish to utilise bar code scanning as part of the order process. This may be achieved by representing base articles and identification numbers in machine readable form in a paper catalogue. UCC/EAN-128 Bar Code Symbols, utilising an Application Identifier for internal applications, should be used for this purpose.~~

~~5.5.3.2.8 Identification of the Physical Article Actually Produced~~

~~In environments with automated systems the physical article needs to be identified and the identification of the produced article is required in machine readable form (as a bar code symbol). The identification of the physical article must be communicated from the supplier to the customer. Both supplier and customer should be able to use the same identification number and each needs to keep a record of this number.~~

~~For open systems, the most appropriate identification number is the EAN/UCC-13 Identification Number. Identifying a physical article with an EAN/UCC-13 ID Number and a bar code symbol allows Customer Specific Articles (CSAs) to be integrated within a system that manages all other items identified using the EAN.UCC System. During order confirmation, the supplier assigns an EAN/UCC-13 Identification Number to the product. It is not necessary to pre-assign numbers to all possible articles, only to those that are actually produced.~~

~~5.5.3.2.9 Data Carrier~~

~~The bar code symbol requirements for Customer Specific Articles (CSAs) are the same as those for trade items. The data carrier used to carry the EAN.UCC System identification number of a physical article shall be one of the following:~~

- ~~• EAN-13 or UPC-A Bar Code Symbol~~
- ~~• ITF-14 Bar Code Symbol~~
- ~~• UCC/EAN-128 Bar Code Symbol (attribute information always uses UCC/EAN-128 Bar Code Symbols)~~

~~With CSAs, the choice of data carrier is left to the discretion of the organisation responsible for issuing the EAN.UCC System identification number. Trade items that will be scanned at a Point-of-Sale always should be marked using the EAN/UPC Symbology.~~

~~5.5.3.2.10 Application of Global Identifier Serialised for Trade (GIST)~~

~~The Global Identifier Serialised for Trade (GIST) may be used to provide a standard identification number, that may then be bar coded on the physical product, for one-off traded products such as:~~

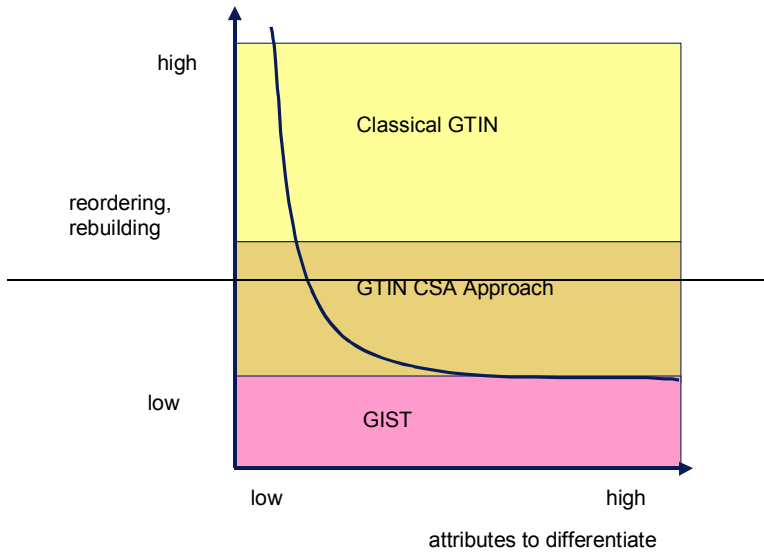
- ~~• Highly complex Configure To Order products that are built only once to meet a specific customer order.~~
- ~~• Intangible or unique items designed to meet an individual buyer's requirement.~~
- ~~• Extracts of intellectual property that are traded.~~

~~The GIST provides a unique data key that can be used to find all the details of the traded item, including the entire item's attributes, in the supplier's database. The GIST is the unique key used to access this information.~~

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The GIST is typically assigned by the manufacturer (seller) of the product, and can then be communicated to the assembler and the buyer along with access to the master data. Until confirmed business need is substantiated no concrete application rules can be provided. The possible use of GIST is limited by the dominating concepts of GTIN™ and CSA (customer specified articles) approach, Figure 2.6.7-1 serves orientation purposes.

Figure 2.6.7—1



Note:—The assignment of a unique product identification number, assigned at source by the manufacturer, has a potential impact on business applications.

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6 Business Process Analysis

6.1 Business Scenario for ~~brand-owner~~Brand Owner Proxy Security

6.1.1 Business Process Participants Descriptions

| Actor | Description |
|----------------|---|
| Brand Owner | The Brand Owner, the organisation that owns the specifications of the trade item regardless of where and by whom it is manufactured, is normally responsible for the allocation of the Global Trade Item Number™ (GTIN™). See section 5.4.2.1 of this document for additional information. In relation to the GDSN, the Brand Owner is normally responsible for the creation of the GTIN and/or its Administrative Record. For more information about the Administrative Record, see section 6.2 of this document. |
| Proxy | An organisation that is selected by the Brand Owner to maintain the baseline attributes and Administrative Records in the GDSN. For example, a proxy may be a distributor, broker, data pool, solution partner or other 3 rd party. |
| Data Recipient | Party, which is authorized to view, use, download a set of Master Data provided by a Data Source. |
| Data Source | Entity that provides the global data synchronization network with Master Data. For a given Item or Party, the source of data is responsible for permanent updates of the information under its responsibility. |

6.1.2 Business Scenario Overview

The current GDSN does not prohibit a company from registering or maintaining a GTIN that it does not own. In many instances, the ~~brand-owner~~Brand Owner may want to ensure that only companies authorized to register their products are doing so. In order to close this security gap, it is imperative that proper security be put into place to prevent any unauthorized maintenance. The ~~brand-owner~~Brand Owner needs the ability to register their own GTINs or to allow another company to register GTINs on their behalf.

6.1.3 Current Business Scenario ('as is') OPTIONAL

High-level description of the current business process.

6.1.4 Proposed Business Scenario ('to be')

High-level description of the business process once the required solution is implemented.

~~For Each Trading Partner, the following requirements should be accommodated:~~

- ~~□ Identify their GLN/Party organization.~~
- ~~□ Need GLN of their Data Pool. (If data pool partners with service providers then we need confirmation that each node is an authorized provider for the Trading Partner)~~

For Each GTIN/~~TM~~, ~~t~~The following requirements should be accommodated:

- If the Brand Owner does not wish to maintain its Administrative Record(s), it may identify a proxy to do so. A Proxy may be a Retailer, Wholesaler, Distributor, Manufacturer, Importer, Broker, Solution Partner, Data Pool or any party selected by the Brand Owner that is capable of meeting GDSN Data Synchronization standards.

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- Identify the ~~brand-owner~~ Brand Owner and Proxy on each Administrative Record (reference section 6.2 for more information)
- The Brand owner or its Proxy will Identify GLNs of (information providers) authorized sources that can publish to create a registry item and CIN for a GTIN/TM- ~~Should be identified on the Administrative Record.~~
- The Brand Owner and any authorized proxy must have a A-registered GLN
- Identify attributes that can only be changed by the Brand Owner or its Proxy in the Administrative Record as baseline attributes
- Identify restrictions at an attribute level so that the Brand Owner or Proxy can retain control of the GTIN/TM-
- A Proxy may be based on Target Market
- Some attributes, particularly dimensions will need to have a-tolerance ranges that do not violate GTIN allocation rules,s because they are not an absolute-
- ~~□ Recipient data pool will validate when receiving the Administrative Record. The Administrative Record recipient is the Supply side when considering distribution and private label models and the like.~~
- When synchronizing in the GDSN actors must identify their roles by properly populating the Information Provider and Brand Owner GLNs.

Brand Owner or Proxy Validation requirements are as follows:

- Ensure that changes and new registry entries and publications do not break Brand Owner or Proxy rules (reference section 6.2).

6.2 Business Scenario for Administrative Record

6.2.1 Business Process Participants Descriptions

| Actor | Description |
|----------------|--|
| Brand Owner | The Brand Owner, the organisation that owns the specifications of the trade item regardless of where and by whom it is manufactured, is normally responsible for the allocation of the Global Trade Item Number™ (GTIN™). See section 5.4.2.1 of this document for additional information. In relation to the GDSN, the Brand Owner is normally responsible for the creation of the GTIN and/or it's Administrative Record. For more information about the Administrative Record, see section 6.2 of this document. |
| Proxy | An organisation that is selected by the Brand Owner to maintain the baseline attributes and Administrative Records in the GDSN. For example, a proxy may be a distributor, broker, data pool, solution partner or other 3 rd party. |
| Data Recipient | Party, which is authorized to view, use, download a set of Master Data provided by a Data Source. |
| Data Source | Entity that provides the global data synchronization network with Master Data. For a given Item or Party, the source of data is responsible for permanent updates of the information under its responsibility. |

6.2.2 Business Scenario Overview

In order to accommodate true consistency, a Brand Owner or Proxy needs the ability to identify the minimum attributes that should be consistent for a GTIN from all sources.

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Without consistency, recipients are unable to determine which source is providing an accurate depiction of the GTIN if multiple sources differ in attribute values. Many business relationships and industries have unique requirements in today's business process. In some instances, the consistency requirements for a business process may apply to an entire industry. In other situations, these consistency requirements may vary by business relationship between the source and recipient or even by the trade item. It is imperative that consistency for a GTIN is flexible enough to accommodate many geographies, industries and business relationships.

6.2.3 Current Business Scenario ('as is') OPTIONAL

High-level description of the current business process.

6.2.4 Proposed Business Scenario ('to be')

High-level description of the business process once the required solution is implemented.

The Administrative Record is a GTIN/TargetMarket record -that is created by the Brand Owner or Proxy. It's purpose is to identify the minimum attributes that must be consistent for a GTIN/TM from all sources. An Administrative Record has the following requirements:

- Can only be created by the Brand Owner or Proxy
- There can be more than one Administrative Record for every GTIN / Target Market
- Classification Category Code must always be consistent among all sources of a GTIN
- Must meet GTIN allocation rules
- An Administrative Record is not required for every GTIN
- ~~GTIN Administrator has the option to synchronize the administrative record with~~ All authorized sources should have appropriate access to a GTIN/TM Admin Record through their Source Data Pool
- The GLN Access List is mutually exclusive; therefore, a GLN can appear on only one Administrative Record for a GTIN.

The absence of an Administrative Record means that the ~~brand owner~~Brand Owner is not involved in data synchronization or has not chosen to ~~not~~ identify consistency requirements for a GTIN. As a result, if a GTIN has been sent to a recipient by several sources, they may not be able to synchronize with all sources if certain attributes are significantly different.

A Baseline attribute is any attribute identified by the Brand Owner or Proxy as a minimum consistency requirement for any source of the GTIN/TM. A default baseline attribute of classification category code is required for every Administrative Record. In other words, all sources of a particular GTIN/TM will be required to match their classification category code value to the value of the classification category code in the Administrative Record.

Additional baseline attributes can be established for any GTIN/TM. The requirements for these attributes are as follows:

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- Can only be designated by the Brand Owner or Proxy
- Must be included in the approved Core Item BRD/GDD
- Cannot be RDD attributes
- Cannot be a candidate attribute

Necessary Validation rules will be applied for baseline attributes within the administrative record.

~~Any attribute that is in the Administrative Record, but not identified as a baseline attribute, is a suggested value. Sources are not required to match the value of these non-baseline attributes to the Administrative Record and validation will not occur for suggested values.~~

~~There are several situations when a GTIN Administrator should synchronize the Administrative Record with all authorized sources. They are as follows:~~

- ~~If the GTIN Administrator creates the Administrative Record after sources have already registered their version of the GTIN~~
- ~~If the GTIN Administrator has assigned a Catalog Item Deletion Date~~
- ~~If the GTIN Administrator has assigned a Catalog Item Cancel Date~~
- ~~If the GTIN Administrator has assigned a Catalog Item Discontinue Date~~

6.3 Business Scenario for Multi-source Base Model

6.3.1 Business Process Participants Descriptions

| Actor | Description |
|--------------------------|--|
| Brand Owner | The Brand Owner, the organisation that owns the specifications of the trade item regardless of where and by whom it is manufactured, is normally responsible for the allocation of the Global Trade Item Number™ (GTIN™). See section 5.4.2.1 of this document for additional information. In relation to the GDSN, the Brand Owner is normally responsible for the creation of the GTIN and/or it's Administrative Record. For more information about the Administrative Record, see section 6.2 of this document. |
| Proxy | An organisation that is selected by the Brand Owner to maintain the baseline attributes and Administrative Records in the GDSN. For example, a proxy may be a distributor, broker, data pool, solution partner or other 3 rd party. |
| Data Recipient | Party, which is authorized to view, use, download a set of Master Data provided by a Data Source. |
| Data Source | Entity that provides the global data synchronization network with Master Data. For a given Item or Party, the source of data is responsible for permanent updates of the information under its responsibility. |
| Administrative Data Pool | The Source Data Pool responsible for registering the Administrative Record at GS1 for the Brand Owner or it's Proxy. |

6.3.2 Business Scenario Overview

To truly synchronize item information that is supplied by multiple sources, it is necessary to establish consistency that is needed for current and/or future business processes. The Brand Owner or Proxy will establish a baseline that will identify the minimum consistency standards required for a unique business relationship or industry. The

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minimum consistency requirement for any multi-sourced GTIN supplied by multiple sources will be Classification Category code. Beyond that, the Brand Owner or its Proxy will define additional consistency requirements.

Consistency indicates that each version of the GTIN is within GTIN allocation Rules and meets consistency requirements established in the baseline. The baseline requirements may be reflective of a business relationship or industry consistency issues required for the current business process. By way of example, A retailer may desire all suppliers of it's private label GTIN to include the exact same text in the Brand Name attribute when registering the GTIN. In this instance, the Retailer is able to establish Brand Name in addition to Classification Category Code as the baseline attributes that will be checked for consistency.

6.3.3 Current Business Scenario ('as is') OPTIONAL

High-level description of the current business process.

6.3.4 Proposed Business Scenario ('to be')

High-level description of the business process once the required solution is implemented.

The steps outlined below will be followed to establish consistency among multi-source GTINs.

- Once the Brand Owner or Proxy establishes the appropriate baseline attributes, it will register an Administrative Record that will identify the values of each baseline attribute.
- The Brand Owner or Proxy will notify each Information Provider of the baseline attributes and their values to ensure that their Source Data Pool can perform validations.
- There is no need to communicate the administrative record to the end recipient unless they need to take action
- Until the administrative record is available in the GDSN no multi-source validation will occur
- Once the Administrative Record ~~has been registered in the~~ available in GDSN, each source will then register and synchronize their ~~Information Provider own instance of the~~ GTINs/TM.

~~Each source will send a CIN to the appropriate buyer(s).~~

- ~~It is suggested that the buyer(s) return a CIC message to each source to ensure the correct GTIN information has been properly received.~~

6.4 Business Scenario for ~~brand-owner~~ Brand Owner ~~Direct Broker/Agent Model~~ 3rd Party Synchronization

Business Requirements Analysis Document

6.4.1 Business Process Participants Descriptions

| Actor | Description |
|--------------------------|--|
| Brand Owner | <p>The Brand Owner, the organisation that owns the specifications of the trade item regardless of where and by whom it is manufactured, is normally responsible for the allocation of the Global Trade Item Number™ (GTIN™). See section 5.4.2.1 of this document for additional information.</p> <p>In relation to the GDSN, the Brand Owner is normally responsible for the creation of the GTIN and/or its Administrative Record. For more information about the Administrative Record, see section 6.2 of this document.</p> |
| Proxy | An organisation that is selected by the Brand Owner to maintain the baseline attributes and Administrative Records in the GDSN. For example, a proxy may be a distributor, broker, data pool, solution partner or other 3 rd party. |
| Data Recipient | Party, which is authorized to view, use, download a set of Master Data provided by a Data Source. |
| Data Source | Entity that provides the global data synchronization network with Master Data. For a given Item or Party, the source of data is responsible for permanent updates of the information under its responsibility. |
| Administrative Data Pool | The Source Data Pool responsible for registering the Administrative Record at GS1 for the Brand Owner or its Proxy. |

6.4.2 Business Scenario Overview

The business scenario for Brand Owner 3rd Party synchronization is similar to the Multi-source Base Model in that the basic message flow is the same; however, it is significantly different in that the agent/broker does NOT have a specific trading partner relationship with the recipient. The agent is an extension of the ~~brand-owner~~Brand Owner for ~~marketing, sales and/or retail services~~diversified services. The agent needs to establish and maintain synchronization with the ~~brand-owner~~Brand Owner and receive updates on if/when the recipient accepts the GTIN through a Catalogue Item Confirmation. This will allow the agent/broker to properly service both parties.

6.4.3 Current Business Scenario ('as is') OPTIONAL

High-level description of the current business process.

The current broker business scenario is one where the manufacturer and agent work together to exchange information to complete a new item form and present the new item to the retailer. Once authorized, the item may be subject to certain trade promotions and serviced at retail stores supporting multiple plan-o-grams. It is important for the agent to keep an accurate authorization list at the store-level to determine how to properly optimize and maintain the shelf.

In other business relationships where an agent is working with a ~~brand-owner~~Brand Owner to coordinate a business process, this model will also apply to ensure that the agent is aware of the synchronization status between the source and the final recipient.

6.4.4 Proposed Business Scenario ('to be')

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High-level description of the business process once the required solution is implemented.

The proposed business scenario provides for a means for the three parties to stay in synchronization by performing the following steps:

- The Brand Owner or Proxy will create an Administrative Record that will identify the appropriate baseline attributes and their values.
- Once the Administrative Record is available in GDSN, each source will then register and synchronize their own instance of the GTINs/TM.
- It is the Buyers-Data Recipient's option to receive another GIN from-synchronize with the Agent/Broker.
 - ~~The buyer(s) will return a CIC message to each source to ensure the correct GTIN information has been properly received.~~
 - ~~Once the GTIN Administrator has received a CIC from the buyer, it will send an Item Authorization Message to the agent/broker.~~
- It is the source's option to notify the agent/broker of the synchronization status of the GTINs with the end recipient by using the Item Authorization message flow.

6.5 Business Scenario for Non-Trading Partner Proxy

6.5.1 Business Process Participants Descriptions

6.5.2 Business Scenario Overview

~~The business scenario is similar to the current single source GDSN model in that there is one source for a GTIN in the GDSN; however, the source has no direct business relationship to the recipient. By way of example, assume several small to medium brand owners have asked a Broker to serve as their GTIN administrator in the GDSN on their behalf. The Agent/Broker will gather all data and create the appropriate XML messages for synchronization to occur. The Agent/Broker is considered a source and transmits the messages through their datapool into the GDSN.~~

~~In the situation where a brand owner has several regional Agent/Brokers covering various regions of the country, the brand owner will submit the GTINs they wish to register to the appropriate regional Agent/Broker. It is the brand owners option to provide this information outside of the GDSN if deemed appropriate. The Agent/Broker will serve as the GTIN Administrator within the GDSN and will synchronize with the buyer(s). The brand owner must decide which of these regional Agents/Brokers will serve as GTIN Administrator for each GTIN. There can only be one GTIN Administrator for a GTIN.~~

6.5.3 Current Business Scenario ('as is') OPTIONAL

High-level description of the current business process.

~~The GS1 Registry today only contains the Information Provider GLN. In this scenario, the Information Provider is the Agent/Broker, not the brand owner. The brand owner GLN does not exist in the GS1 registry; therefore, the buyer must determine who the Agent/Broker is representing through normal business processes. This significantly slows down the synchronization process.~~

6.5.4 Proposed Business Scenario ('to be')

Business Requirements Analysis Document

~~High-level description of the business process once the required solution is implemented.~~

~~The use of Proxy security can be referenced to determine which brand owner the GTIN Administrator is representing.~~

Business Requirements Analysis Document

7 Business Rules and Requirements Analysis

7.1 Business Requirements

(Required Functionality, Features, Data.)_Take from scenarios

| Number | Business Requirement | Rationale | |
|--------|---|---|---|
| 1) | <p>For each GTIN/TM, identify the Brand Owner and Proxy on each Administrative Record.</p> <p><u>Actors involved:</u> Brand Owner, Proxy</p> <p><u>Referenced Use Case:</u> Brand Owner Proxy Security</p> | Rationale | |
| | | <p>Test Criteria (pass/fail)</p> <p><i>(To be used to test the resulting standard)</i></p> | <p>Pass: Brand Owner and Proxy identified on each Administrative Record for each GTIN/TM</p> <p>Fail: Brand Owner and Proxy NOT identified on each Administrative Record for each GTIN/TM</p> |
| 2) | <p>For each GTIN/TM, Source of the Administrative Record (either the Brand Owner or the Proxy) will identify GLNs of authorized sources (Authorized Information Providers) that can register and publish to create a registry item and CIN for a GTIN/TM.</p> <p><u>Actors involved:</u> Brand Owner, Proxy</p> <p><u>Referenced Use Case:</u> Brand Owner Proxy Security</p> | Rationale | |
| | | <p>Test Criteria (pass/fail)</p> <p><i>(To be used to test the resulting standard)</i></p> | <p>Pass: GLN's of authorized sources identified for each GTIN/TM</p> <p>Fail: GLN's of authorized sources NOT identified for each GTIN/TM</p> |
| 3) | <p>For each GTIN/TM, Brand Owner or its Proxy identifies which attributes can be changed by authorized information provider, on Administrative Record.</p> <p><u>Actors involved:</u> Brand Owner, Proxy</p> <p><u>Referenced Use Case:</u> Brand Owner Proxy Security</p> | Rationale | |
| | | <p>Test Criteria (pass/fail)</p> <p><i>(To be used to test the resulting standard)</i></p> | <p>Pass: For each GTIN/TM, Attributes which can be changed by authorized information provider, on Administrative Record, are identified</p> <p>Fail: For each GTIN/TM, Attributes which can be changed by authorized information provider, on Administrative Record, are NOT identified</p> |
| 4) | <p>For each GTIN/TM, Brand Owner or its Proxy identifies consistency rules at an attribute level.</p> <p><u>Actors involved:</u> Brand Owner, Proxy</p> <p><u>Referenced Use Case:</u> Brand Owner Proxy Security</p> | Rationale | So that the Brand Owner or Proxy can retain control of the GTIN/TM. |
| | | | |

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| Number | Business Requirement | Rationale | |
|--------|---|--|--|
| | | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Restrictions at an attribute level are identified, for each GTIN/TM Fail: Restrictions at an attribute level are NOT identified, for each GTIN/TM |
| 5) | For each GTIN/TM, Brand Owner identifies attributes with tolerance ranges. <u>Actors involved:</u> Brand Owner, Proxy <u>Referenced Use Case:</u> Brand Owner Proxy Security | Rationale | Some attributes, particularly dimensions, will need to have tolerance ranges that do not violate GTIN allocation rules, because they are not an absolute. |
| | | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Attributes with tolerance ranges identified, for each GTIN/TM Fail: Attributes with tolerance ranges NOT identified, for each GTIN/TM |
| 6) | Brand Owner or Proxy creates the Administrative Record. <u>Actors involved:</u> Brand Owner, Proxy, Recipient, Source <u>Referenced Use Case:</u> Administrative Record | Rationale | The Administrative Record is a GTIN/Target Market record that is created by the Brand Owner or Proxy. It's purpose is to identify the attributes that must be consistent for a GTIN/TM from all sources. |
| | | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Administrative Record created Fail: Administrative Record NOT created |
| 7) | Brand Owner or Proxy establishes the appropriate baseline attributes. <u>Actors involved:</u> Brand Owner, Proxy, Recipient, Source <u>Referenced Use Case:</u> Multi-Source Base | Rationale | The Administrative Record is a GTIN/Target Market record that is created by the Brand Owner or Proxy. It's purpose is to identify the attributes that must be consistent for a GTIN/TM from all sources. |
| | | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Appropriate baseline attributes created Fail: Appropriate baseline attributes NOT created |
| 8) | Brand Owner or Proxy registers an Administrative Record that will identify the values of each baseline attribute. <u>Actors involved:</u> Brand Owner, Proxy, Recipient, Source | Rationale | The Administrative Record is a GTIN/Target Market record that is created by the Brand Owner or Proxy. It's purpose is to identify the attributes that must be consistent for a GTIN/TM from all sources. |

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| Number | Business Requirement | Rationale | |
|--------|--|--|---|
| | <p><u>Referenced Use Case</u>: Multi-Source Base</p> | <p>Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i></p> | <p>Pass: Administrative Record that will identify the values of each baseline attribute registered</p> <p>Fail: Administrative Record that will identify the values of each baseline attribute NOT registered</p> |
| 9) | <p>Brand Owner or Proxy will establish an access list for each Administrative Record identifying the authorized Information providers of that GTIN.</p> <p><u>Actors involved</u>: Brand Owner, Proxy, Recipient, Source</p> <p><u>Referenced Use Case</u>: Multi-Source Base</p> | <p>Rationale</p> <p>Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i></p> | <p>To ensure that only authorized Information Providers are registering and publishing .</p> <p>Pass: A GLN not on access list is stopped from registering or publishing the GTIN.</p> <p>Fail: A GLN not on the access list is allowed to register or publish the GTIN.</p> |
| 10) | <p>Absence of GLNs in the Access List indicates that any source is able to register and publish the GTIN without authorization. As a result, ALL Source Data Pools will receive the Administrative Record.</p> <p><u>Actors involved</u>: Brand Owner, Proxy, Recipient, Source</p> <p><u>Referenced Use Case</u>: Multi-Source Base</p> | <p>Rationale</p> <p>Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i></p> | <p>Brand Owners / Proxies have the option of allowing any source to register and publish their GTINs.</p> <p>Pass: A GLN not on access list is stopped from registering or publishing the GTIN.</p> <p>Fail: A GLN not on the access list is allowed to register or publish the GTIN.</p> |
| 11) | <p>Brand Owner or Proxy will notify the Administrative Data Pool of each authorized Information Provider of the baseline attributes and their values.</p> <p><u>Actors involved</u>: Brand Owner, Proxy, Recipient, Source</p> <p><u>Referenced Use Case</u>: Multi-Source Base</p> | <p>Rationale</p> <p>Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i></p> | <p>To ensure that their source data pool can perform validations.</p> <p>Pass: Each Information Provider notified of the baseline attributes</p> <p>Fail: Each Information Provider NOT notified of the baseline attributes</p> |
| 12) | <p>Each Source registers and synchronizes its own instance of the GTIN/TM.</p> <p><u>Actors involved</u>: Brand Owner,</p> | <p>Rationale</p> | |

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| Number | Business Requirement | Rationale | |
|--------|---|--|---|
| | Proxy, Recipient, Source <u>Referenced Use Case:</u> Multi-Source Base | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Each Source registers and synchronizes its own instance of the GTIN/TM Fail: Each Source DOES NOT register and synchronize its own instance of the GTIN/TM |
| 13) | Data Recipient may synchronize with the Agent/Broker. <u>Actors involved:</u> Brand Owner, Proxy, Recipient, Source <u>Referenced Use Case:</u> Brand Owner 3 rd Party Synchronization | Rationale Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 14) | Source may notify the Agent/Broker of the synchronization status of the GTINs with the End Recipient Brand Owner. <u>Actors involved:</u> Brand Owner, Proxy, Recipient, Source <u>Referenced Use Case:</u> Brand Owner 3 rd Party Synchronization | Rationale Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 15) | An administrative record may apply to all TMs or a specific TM (or a group of TMs when available). | Rationale Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | If an Administrative Record has the same baseline attributes, values and validation rules regardless of TM, it is more efficient to maintain one record than multiple duplicate records. Pass: One administrative record will be used to validate all GTIN/GLN/TM records in the registry Fail: One administrative record cannot be used to validate all GTIN/GLN/TM occurrences in the Registry. |
| 16) | In a situation where you have an administrative record for all TMs and another administrative record for a specific TM, the specific overrides the generic. | Rationale | If there is a need to differentiate the baseline attributes, values or validation rules for one specific TM out of a group of TMs, it is more efficient to only supply the variation rather than an administrative record for each TM. |

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| Num ber | Business Requirement | Rationale | |
|------------|--|--|------------------------------------|
| | | | administrative record for each TM. |
| | | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 17) | Each administrative record may have its own access list. | Rationale | |
| | | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 18) | There can be multiple administrative records within a TM, but the access list is mutually exclusive (a GLN can only be on one occurrence of the administrative record per TM). | Rationale | |
| | | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Fail: |

7.2 Technical Requirements (optional)

(User Interface, Security, Performance, Quality, Backwards. Compatibility)

RCI Schema changes and Registry changes:

| Num ber | Technical Requirement | Rationale | |
|------------|--|----------------------------------|---|
| 1) | RCI and CIN schema change: Optional attribute to designate a GTIN record in the registry as the Administrative Record. | Rationale | Administrative Record will require different processing; therefore a Boolean attribute needs to be added to differentiate the GTIN from others. |
| | | Test Criteria (pass/fail) | Pass: Can easily identify the |

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| Number | Technical Requirement | Rationale | |
|--------|--|--|--|
| | | <i>(To be used to test the resulting standard)</i> | Administrative Record. Fail: Unable to identify which GTIN is the Administrative Record. |
| 2) | Multiple GLNs stored on registry record, to identify authorized Data Sources. This is an optional attribute if record is Administrative GTIN record. | Rationale | May be one set of authorized data sources for one GTIN and different for another GTIN. |
| | | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: data source on GTIN on Administrative Record. Processing continues. Fail: data source not on Administrative record's authorized GLN list. Processing stops and error message returned to data source "not authorized to register / publish GTIN." |

CIN Schema changes

| Number | Technical Requirement | Rationale | |
|--------|--|--|--|
| 1) | CIN schema to include a list of GTIN validations that the Brand Owner or Proxy requires. | Rationale | Validations include attributes to be validated against the Brand Owner or Proxy values and tolerance values (i.e. +/- 5%, exact match) . Brand Owner or Proxy Password would be added to schema. |
| | | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | To be determined by Business Requirements section. |

Enhanced source datapool functionality

| Number | Technical Requirement | Rationale | |
|--------|---|--|--|
| 1) | Process consistency checks on the Administrative Record. | Rationale | |
| | | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 2) | Maintain authorized list of data sources for Brand Owner or Proxys. | Rationale | |
| | | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 3) | Each Source Data Pool will store a copy of the Administrative Record. | Rationale | Will ensure Source Data Pools can continue synchronizing multi-source products in the event of unexpected outage at GS1. |
| | | | Pass: Source Data Pool can process multi-source consistency checks if |

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| Number | Technical Requirement | Rationale | |
|--------|--|--|--|
| | | <i>resulting standard)</i> | GS1 is active. Fail: Source Data Pool unable to perform multi-source consistency checks when GS1 is not active. |
| 4) | Store and enforce Brand Owner or Proxy validations (Where Data Recipient is Brand Owner or Proxy). | Rationale | Will ensure Source Data Pools can continue synchronizing multi-source products in the event of unexpected outage at GS1. |
| | | Test Criteria (pass/fail) <i>(To be used to test the resulting standard)</i> | Pass: Source Data Pool can process multi-source consistency checks if GS1 is active. Fail: Source Data Pool unable to perform multi-source consistency checks when GS1 is not active. |

Enhanced recipient datapool functionality

| Number | Technical Requirement | Rationale |
|--------|-----------------------|-----------|
| 1 | | |

7.3 Business Rules

((Business rules are the decisions, guidelines and controls that are behind business requirements. include definitions, constraints, calculations.))

| Number | Rule | Details | |
|--------|--|--|--|
| 1 | Classification category code must be identical on all messages for a GTIN from multiple sources. | Rule Type | Mandatory Constraint |
| | | Rationale | If the same GTIN is referencing different classification category codes, one of the sources has broken GTIN allocation rules and must re-assign the GTIN. |
| | | Constrained Actor(s) | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Processing continues. Fail: Classification category code does not match the Administrative Record. Process stops and error message is returned to the source. |

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| Number | Rule | Details | |
|--------|---|--|--|
| 2 | If Brand Owner is involved in data synch (regardless if they are the source of their own items), the Brand Owner GLN must be in the Party Registry. | Rule Type | Mandatory Constraint |
| | | Rationale | The Brand Owner will need to indicate if they will register their own GTINs or if they will select a proxy. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Brand Owner GLN found in Registry. Trading Partner active in GDSN data synch. Fail: Brand Owner GLN not found in Registry. Trading Partner not active in GDSN data synch. No consistency can be established. |
| 3 | Only a Brand Owner can establish a Proxy to maintain their GTINs by assigning them the role of Brand Owner or Proxy. | Rule Type | Mandatory Constraint |
| | | Rationale | This security step will protect a Brand Owner from unauthorized changes to and Administrative record. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Brand Owner assigns a proxy to serve as Brand Owner or Proxy. Processing continues. Fail: a company other than the Brand Owner attempts to assign a proxy for a Brand Owner. Processing stops. Error message sent to source indicating "your are not authorized to establish a proxy for this Brand Owner." |
| 4 | Only a Brand Owner or Proxy is allowed to create and maintain an administrative record. | Rule Type | Mandatory Constraint |
| | | Rationale | There must be one source of an administrative record to ensure security. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Administrative record is created. Fail: error message: you are not authorized to create an administrative record. |
| 5 | Multiple Administrative Records are allowed for each GTIN/TM. | Rule Type | |
| | | Rationale | If a Brand Owner or its Proxy wishes to define unique consistency rules for geographic areas within a Target Market, multiple Administrative Records will be required for that Target Market. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Administrative record is created. Fail: error message: you are not authorized to create an administrative |

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| Number | Rule | Details | |
|--------|---|--|--|
| | | | record. |
| 6 | If the Brand Owner is not active in the GDSN, any Information Provider can register their GTINs. | Rule Type | Fact |
| | | Rationale | If the Brand Owner is not involved in GDSN data synch, there is no consistency rules nor authorized list of Information Providers. As a result, there should not be any limitation on Information Providers registering the Brand Owners GTINs. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Any Information Provider allowed to register the Brand Owner's GTINs. Fail: Information Providers not allowed to register Brand Owners GTINs. |
| 7 | GLN Access Lists are mutually Exclusive. | Rule Type | Mandatory constraints |
| | | Rationale | A GLN can only be included on one access list for a GTIN/TM. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: When more than one Administrative Record exists for a GTIN/TM, a GLN passes multi-source validation for the GTIN/TM version with their GLN on the access list. Fail: Information Provider is unable to register GTIN because of consistency requirements other than those specified on the Administrative record with their GLN on the access list. |
| 8 | If Brand Owner is active in the GDSN, an Information Provider must be authorized to register a Brand Owner GTIN. | Rule Type | Mandatory Constraint |
| | | Rationale | Brand Owner can set authorized Information Provider list to ALL or to specific GLNs. This ensures security and control of the Brand Owner's GTINs in GDSN. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Information Provider GLN is authorized to register GTIN. Processing continues. Fail: Information Provider GLN not authorized to register GTIN. Registration attempt rejected by GS1 Registry. Error message returned to Information Provider. |
| 9 | If Brand Owner is active in GDSN, Minimum consistency requirements can be established by identifying additional baseline attributes for a GTIN. | Rule Type | Fact |
| | | Rationale | If identified as baseline attributes, the information providers GTIN will be checked against the administrative record for accuracy/consistency. |

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| Number | Rule | Details | |
|--------|---|--|---|
| | | | record for accuracy/consistency. |
| 10 | If Brand Owner is active in GDSN, their GLN will be accurately reflected in the Brand Owner GLN for their GTINs. | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| | | Rule Type Rationale | Fact If identified as baseline attributes, the information providers GTIN will be checked against the administrative record for accuracy/consistency. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 11 | If Brand Owner isn't active in GDSN, the Brand Owner can authorize a Proxy to represent them in the GDSN by providing written authorization to GS1. | Rule Type | Fact |
| | | Rationale | Without a Brand Owners involvement, a Brand Owner or Proxy cannot be assigned and an Administrative Record cannot be established. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 12 | If Brand Owner doesn't have an active GLN in the GDSN Party Registry, the Proxy's GLN will be represented in the Brand Owners GLN attribute. | Rule Type | Fact |
| | | Rationale | Without a Brand Owners involvement, a Brand Owner or Proxy cannot be assigned and an Administrative Record cannot be established. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 13 | Information Provider GLN on Administrative Record must be the Brand Owner's or Proxy's GLN. | Rule Type | Mandatory Constraint |
| | | Rationale | Brand Owner GLN is not in the registry. In order to appropriately identify the administrative record for a Brand Owner, the GLN must be that of the Brand Owner. This will also reduce the amount of changes in the Registry if the Brand Owner selects a different proxy. This change will not affect the Administrative Record. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: the information provider properly represents the Brand Owner. Processing continues. Fail: If not match, processing stops and the Brand Owner or Proxy receives an error message indicating that "Information provider GLN does |

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| Number | Rule | Details | |
|--------|--|--|--|
| | | | not match the Brand Owner.” |
| 14 | Baseline attributes will be established for an individual GTIN/TM. | Rule Type | Mandatory Constraint |
| | | Rationale | The process would be too complex and inflexible if baseline attributes were established for all GTINs owned by a source. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 15 | All baseline attributes with values in the Administrative Record are considered mandatory even if they are optional in the core trade item BRD | Rule Type | Fact |
| | | Rationale | If a Brand Owner or Proxy selects an attribute to be part of the baseline, a value must be established in order to properly perform validation against the Administrative Record. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: value is present. Processing continues. Fail: Processing stops. Error message returned to the Brand Owner or Proxy indicating “no value provided in the baseline attribute xyz.” |
| 16 | Only attributes in the core trade Item BRD are eligible to be a baseline attribute. | Rule Type | Fact |
| | | Rationale | Customer specific or candidate attributes may cause barriers to implementation for Trading Partners, solution Partners and/or Datapools. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: attempt to set up a candidate attribute as a baseline attribute. Should receive an error message – invalid attribute selected. Fail: a candidate attribute is allowed to become a baseline attribute. |
| 17 | Candidate attributes may not be baseline attributes on the Administrative Record. | Rule Type | Fact |
| | | Rationale | There is a potential that a candidate attribute may not be approved in it's current form. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 18 | Item Authorization message triggered by Brand Owner or recipient may be used to indicate that a GTIN has been authorized for use by the recipient. | Rule Type | Action Enable |
| | | Rationale | Agent/Broker is a key player in the trade process and needs to operate with the same data as its client and customer to service each effectively |

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| Number | Rule | Details | |
|--------|--|--|---|
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Item authorization message sent from Brand Owner to Agent/Broker once CIC received from Buyer. Fail: No item authorization message is received from Brand Owner to agent/broker. |
| 19 | If Administrative Record exists, Source Classification category Code must match classification category code on Administrative Record. | Rule Type Rationale Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Mandatory Constraint Multi-source validation rule Pass: matches administrative record. Fail: Does not match Administrative record. Process stopped. Error message returned to source. |
| 20 | If a Boolean attribute is referenced as a baseline attribute, source Boolean attribute must match same Boolean attribute in the Administrative Record. | Rule Type Rationale Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Mandatory Constraint Multi-source validation rule. Pass: matches administrative record. Fail: Does not match Administrative record. Process stopped. Error message returned to source. |
| 21 | GTIN/GLN/TM record is validated against the administrative record at the time the GTIN is added to the registry. | Rule Type Rationale Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 22 | All validated attributes are stored by the source data pool. | Rule Type Rationale Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 23 | An indicator is carried on the GTIN/GLN/TM record identifying the administrative record (or instance of the administrative record) it was validated against. | Rule Type Rationale Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 24 | A correction to the administrative record causes all existing GTIN records to be immediately re-validated against the corrected administrative record. | Rule Type Rationale Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |

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| Num ber | Rule | Details | |
|------------|--|--|------------------------------|
| | | | |
| | | <i>resulting standard)</i> | Fail: |
| 25 | Sources are notified if their record fails validation against the corrected administrative record. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 26 | A GTIN/GLN/TM correction is validated against the administrative record if the corrected attribute is contained in the administrative record. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 27 | Once a GTIN/GLN/TM is successfully validated against an existing Administrative record, CINs may be created from that GTIN/GLN/TM. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 28 | The validation of the GTIN/GLN/TM against the administrative record is performed at the time that GTIN/GL/TM is initially registered. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 29 | The validation of the GTIN/GLN/TM against the administrative record is performed any time an attribute associated with the administrative record is changed. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 30 | A GTIN/GLN/TM change is validated against the administrative record if the changed attribute is contained in the administrative record. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 31 | A GTIN/GLN/TM will continue to exist in the registry if an administrative record is deleted. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |

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| Number | Rule | Details | |
|--------|---|--|------------------------------|
| 32 | Consistency checks are no longer required on existing GTINs once the administrative record has been deleted. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 33 | When an administrative record is added to the registry while another non-administrative instance of that GTIN exists, all GTIN/GLN/TM instances are subject to immediate validation against the administrative record. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 34 | If a GTIN/GLN/TM has passed consistency checks with a previous administrative record and no action to change or correct the GTIN/GLN/TM has been invoked by the source, the source can continue to submit CINs if normal validation requirements associated with GTIN Allocation Rules are met. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 35 | If the source has submitted a change or correct, CINs will not be permitted until the GTIN/GLN/TM passes consistency checks against the administrative record. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 36 | Sources of a non-compliant GTIN/GLN/TM are notified that their GTIN/GLN/TM record(s) are no longer valid. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 37 | The Brand Owner or its Proxy will be responsible for querying the GDSN for any source that has registered the GTIN, but does not have their GLN listed on the access list. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 38 | The administrative record will include the multi-source validation rules for each baseline attribute. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] | Pass: |

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| Number | Rule | Details | |
|--------|---|--|---|
| | | | |
| | | <i>(To be used to test the resulting standard)</i> | Fail: |
| 39 | A maximum of 2 values is allowed for each numeric baseline attribute in the administrative record. | Rule Type | |
| | | Rationale | Two values will allow the Brand Owner to establish a tolerance range for a numeric attribute. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 40 | For each numeric value included on the administrative record, a comparison expression must be provided. A comparison expression may include one of the following: >, <, =, > or =, < or =. | Rule Type | |
| | | Rationale | A comparison expression will identify if the Brand Owner expects a perfect match or an allowable tolerance range. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 41 | When identifying an exact numeric match for a baseline attribute, an expression of “=” will be associated with the attribute value in the administrative record. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 42 | Tolerance ranges are always identified with numeric values, never percentages. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 43 | An authorized source will not be allowed to register a GTIN/LN/TM if a baseline numeric attribute falls outside the tolerance range identified in the administrative record. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 44 | When identifying a tolerance range for a numeric value, min/max values can be identified | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 45 | The Brand Owner cannot require an exact match on a | Rule Type | |

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| Number | Rule | Details | |
|--------|--|--|--|
| | Unit Of Measure (UOM). A UOM included in an administrative record only serves as the basis for determining conversion rules. | Rationale | Considering the various UOMs utilized global, an exact match on a UOM may prohibit registration. |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 46 | Where a conversion factor exists on a UOM, conversion is allowed. Conversion standards established by the GDSN will be utilized. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 47 | When a text value is included in the administrative record, a comparison expression must be included and may be one of the following: “ Equals ” – must equal the content exactly. “ Contains ” – must include the specified content somewhere in the text field “ Starts With ” – the text field must start with the specified value. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 48 | When a text value is included in the administrative record, a case sensitive / insensitive indicator must be included. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 49 | When a text value is included in the administrative record, more than one language may be identified. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| 50 | When a text value is included in the administrative record, the Brand Owner has the option to restrict certain languages to the specified baseline attribute. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |

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| Number | Rule | Details | |
|--------|---|--|------------------------------|
| | | <i>resulting standard)</i> | |
| 51 | When a text value is included in the administrative record, the UTF8 character set will be supported. | Rule Type | |
| | | Rationale | |
| | | Test Criteria [pass/fail] <i>(To be used to test the resulting standard)</i> | Pass: Fail: |
| | | | |

Business Requirements Analysis Document

8 Structured Business Scenarios

8.1 Structured Business Scenario for Brand Owner Proxy Security

8.1.1 Use Case Diagram

Figure 1 - Use Case Diagram: ...

8.1.2 Use Case Definition

| Use Case ID | UC-1 | | | | | | | | | | |
|-----------------------------|---|---|--------|-------|---------------|---|----------------------|---|---|----------------------|---|
| Use Case Name | Establish Brand Owner Proxy Security | | | | | | | | | | |
| Use Case Description | Brand Owner registers its own GTINs or allows another company to do so on its behalf. | | | | | | | | | | |
| Actors (Goal) | <p>Brand Owner or Proxy – For each GTIN/TM, Identify the following:</p> <ul style="list-style-type: none"> ➤ The Brand Owner and Proxy on each Administrative Record. ➤ Baseline attributes on the Administrative Record. ➤ Values and tolerance ranges for baseline attributes on the Administrative Record ➤ Multi-source validation rules for the baseline attributes <p>Administrative Data Pool: Source Data Pool for the Brand Owner or Proxy will ensure that only the Brand Owner or it's authorized Proxy can create the Administrative Record.</p> <p>Global Registry: ensure that only the Administrative Data Pool can create, change, delete the Administrative Record.</p> | | | | | | | | | | |
| Performance Goals | Ensure that an Administrative Record can only be created/maintained by the Brand Owner or it's authorized Proxy. In addition, make certain that only the Administrative Data Pool can create/maintain the Administrative Record on the Global Registry. | | | | | | | | | | |
| Preconditions | Parties have registered GLN(s). Brand Owner or Proxys are based on Target Market. | | | | | | | | | | |
| Post conditions | Identify the Brand Owner / Proxy and the Administrative Record for a GTIN/TM in the Global Registry. | | | | | | | | | | |
| Scenario | <p>Begins when a Brand Owner or Proxy submits an Administrative Record to the Administrative Data Pool.</p> <p>Continues with...</p> <table border="1"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Brand Owner or Proxy</td> <td>Identify the Brand Owner and Proxy on each Administrative Record for each GTIN/TM</td> </tr> <tr> <td>2</td> <td>Brand Owner or Proxy</td> <td>Identify GLNs of authorized sources that can publish to create a registry item and CIN for each GTIN/TM</td> </tr> </tbody> </table> | | Step # | Actor | Activity Step | 1 | Brand Owner or Proxy | Identify the Brand Owner and Proxy on each Administrative Record for each GTIN/TM | 2 | Brand Owner or Proxy | Identify GLNs of authorized sources that can publish to create a registry item and CIN for each GTIN/TM |
| Step # | Actor | Activity Step | | | | | | | | | |
| 1 | Brand Owner or Proxy | Identify the Brand Owner and Proxy on each Administrative Record for each GTIN/TM | | | | | | | | | |
| 2 | Brand Owner or Proxy | Identify GLNs of authorized sources that can publish to create a registry item and CIN for each GTIN/TM | | | | | | | | | |

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| | 3 | Brand Owner or Proxy | Identify which attributes can only be changed by the Brand Owner or its Proxy on Administrative Record, for each GTIN/TM. | | | | | | | | | |
|---|--|----------------------|---|--------|--|---------------|---|---|---|--|--|--|
| | 4 | Brand Owner or Proxy | Identify restrictions at an attribute level for each GTIN/TM. | | | | | | | | | |
| | 5 | Brand Owner or Proxy | Identify attributes with tolerance ranges for each GTIN/TM. | | | | | | | | | |
| <p>Ends when the Administrative Data Pool has formatted a valid Administrative Record.</p> | | | | | | | | | | | | |
| Alternative Scenario | <p><i>(any alternatives to the above scenario)</i></p> <p><i>This is where scenarios, other than the primary scenario above, can be listed</i></p> <table border="1"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | | | Step # | Actor | Activity Step | | | | | | |
| Step # | Actor | Activity Step | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Related Requirements | <p>Related technical requirements may be inserted here</p> <table border="1"> <tr> <td> </td> <td> </td> </tr> </table> | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Related Rules | <p><i>Rules relevant to this use case should be drawn from the list in section 7.3 and placed here</i></p> <table border="1"> <tr> <td>1</td> <td>Only the Brand Owner can assign a Proxy for a GTIN/TM.</td> </tr> <tr> <td>2</td> <td>Only the Brand Owner or its authorized Proxy can create baseline attributes with values and multi-source validation rules</td> </tr> <tr> <td>3</td> <td>Only an Administrative Data Pool can create/maintain an Administrative Record in the Global Registry.</td> </tr> </table> | | | 1 | Only the Brand Owner can assign a Proxy for a GTIN/TM. | 2 | Only the Brand Owner or its authorized Proxy can create baseline attributes with values and multi-source validation rules | 3 | Only an Administrative Data Pool can create/maintain an Administrative Record in the Global Registry. | | | |
| 1 | Only the Brand Owner can assign a Proxy for a GTIN/TM. | | | | | | | | | | | |
| 2 | Only the Brand Owner or its authorized Proxy can create baseline attributes with values and multi-source validation rules | | | | | | | | | | | |
| 3 | Only an Administrative Data Pool can create/maintain an Administrative Record in the Global Registry. | | | | | | | | | | | |

8.1.3 Activity Diagram (optional)

This section is used to enter activity diagrams which can include collaborations between multiple business processes utilizing multiple message standards. Note, not all solutions require collaborations.

(Note: Activity diagrams are optional. The business process modeller shall determine the use and number of activity diagrams included. Each activity diagram shall be given a consecutive paragraph number (e.g., 2.4.1) and heading.)

8.1.4 Sequence Diagrams (optional)

This section is used to enter sequence diagrams which can include collaborations between multiple business processes utilizing multiple message standards. Note, not all solutions require collaborations.

(Note: Sequence diagrams are optional. The business process modeller shall determine the use and number of sequence diagrams included in the BRAD. Each sequence diagram shall be given a consecutive paragraph number (e.g., 2.5.1) and heading.)

8.2 Structured Business Scenario for Administrative Record

8.2.1 Use Case Diagram

Business Requirements Analysis Document

Figure 2 - Use Case Diagram: ...

8.2.2 Use Case Definition

| Use Case ID | UC-2 | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|--------|-------|---------------|---|-----|---|---|-----|--|---|-----|--|---|-----|---|
| Use Case Name | Establish GS1 Administrative Record | | | | | | | | | | | | | | | | |
| Use Case Description | The Administrative Data Pool creates the Administrative Record in the GS1 Registry. | | | | | | | | | | | | | | | | |
| Actors (Goal) | <p>Brand Owner or Proxy – Create the Administrative Record, registers it in GDSN and publishes out to Authorized Information Providers (Sources).</p> <p>Administrative Data Pool (ADP) – The Source Data Pool responsible for creating and maintaining the Administrative Record in the Global Registry on behalf of the Brand Owner or its authorized Proxy.</p> <p>Global Registry – Make certain only the correct Brand Owner / Proxy and its Administrative Data Pool are able to create/maintain an Administrative Record.</p> <p>Source Data Pools (SDP) – the Source Data Pool representing each of the authorized Information Providers included in the GLN Access List on the Administrative Record. The SDP will receive a copy of the Administrative Record that they will store in order to use for multi-source validation when registering the GTIN/TM on behalf of the authorized Source(s).</p> <p>Brand Owner and Proxy may also be referred to as the Source of the Administrative Record.</p> | | | | | | | | | | | | | | | | |
| Performance Goals | Valid Administrative Record in the Global Registry containing the current Registry attributes, IsAdministrativeRecord Boolean attribute set to true and a GLN access list indicating which GLNs are authorized to register and publish the GTIN in a TM. | | | | | | | | | | | | | | | | |
| Preconditions | <ul style="list-style-type: none"> ➢ Administrative Data Pools have received the Administrative Record from the Brand Owner / Proxy. ➢ ADP & all authorized SDPs have an updated copy of the multi-source validation rules. ➢ An administrative Record has not yet been registered for the GTIN. | | | | | | | | | | | | | | | | |
| Post conditions | The Administrative Record is stored at the Registry and stored at all authorized Source Datapools. | | | | | | | | | | | | | | | | |
| Scenario | <p>Begins when... The Administrative Data Pool ADDs the Administrative Record to the GS1 Registry.</p> <p>Continues with...</p> <table border="1"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>ADP</td> <td>Register Administrative Record in GDSN.</td> </tr> <tr> <td>2</td> <td>ADP</td> <td>Retrieves list of authorized SDPs from registry (referencing GLN access list).</td> </tr> <tr> <td>3</td> <td>SDP</td> <td>Send the Administrative Record to the SDP of all authorized Information Providers.</td> </tr> <tr> <td>4</td> <td>SDP</td> <td>Notifies only authorized sources of the Administrative Record, baseline attributes, their values and multi-source validation rules.</td> </tr> </tbody> </table> | | Step # | Actor | Activity Step | 1 | ADP | Register Administrative Record in GDSN. | 2 | ADP | Retrieves list of authorized SDPs from registry (referencing GLN access list). | 3 | SDP | Send the Administrative Record to the SDP of all authorized Information Providers. | 4 | SDP | Notifies only authorized sources of the Administrative Record, baseline attributes, their values and multi-source validation rules. |
| Step # | Actor | Activity Step | | | | | | | | | | | | | | | |
| 1 | ADP | Register Administrative Record in GDSN. | | | | | | | | | | | | | | | |
| 2 | ADP | Retrieves list of authorized SDPs from registry (referencing GLN access list). | | | | | | | | | | | | | | | |
| 3 | SDP | Send the Administrative Record to the SDP of all authorized Information Providers. | | | | | | | | | | | | | | | |
| 4 | SDP | Notifies only authorized sources of the Administrative Record, baseline attributes, their values and multi-source validation rules. | | | | | | | | | | | | | | | |

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| | Ends when authorized SDPs have a valid copy of the Administrative Record. | | | | | | | | | | | | | | | | |
|-----------------------------|--|---------------|--|---------------|--|---|---|---|---|---|---|---|---|---|--|---|------------------|
| Alternative Scenario | <p><i>(any alternatives to the above scenario)</i></p> <p><i>This is where scenarios, other than the primary scenario above, can be listed</i></p> <table border="1"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | Step # | Actor | Activity Step | | | | | | | | | | | | | |
| Step # | Actor | Activity Step | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Related Requirements | <p>These are not necessarily chronological – some have questions associated also</p> <table border="1"> <tbody> <tr> <td>1</td> <td>SDP Stores the “fat” Administrative record which contains all baseline attributes, values and multi-source validation rules.</td> </tr> <tr> <td>2</td> <td>Allow multiple Administrative records for a Target Market (this is optional)</td> </tr> <tr> <td>3</td> <td>Each Administrative Record is associated with one access list</td> </tr> <tr> <td>4</td> <td>Needs to be new attribute in Global Registry called Administrative Record Sequence Number which will be part of key</td> </tr> <tr> <td>5</td> <td>Need to flag Administrative Record in GS1 registry – at GTIN level or TM level?</td> </tr> <tr> <td>6</td> <td>An authorized GLN list indicates that it is closed to only authorized GLNs. Lack of a list means it is open to all.</td> </tr> <tr> <td>7</td> <td>Need to check to see if there is an authorized list and if GLN is authorized</td> </tr> <tr> <td>8</td> <td>Only one GTIN/TM</td> </tr> </tbody> </table> | 1 | SDP Stores the “fat” Administrative record which contains all baseline attributes, values and multi-source validation rules. | 2 | Allow multiple Administrative records for a Target Market (this is optional) | 3 | Each Administrative Record is associated with one access list | 4 | Needs to be new attribute in Global Registry called Administrative Record Sequence Number which will be part of key | 5 | Need to flag Administrative Record in GS1 registry – at GTIN level or TM level? | 6 | An authorized GLN list indicates that it is closed to only authorized GLNs. Lack of a list means it is open to all. | 7 | Need to check to see if there is an authorized list and if GLN is authorized | 8 | Only one GTIN/TM |
| 1 | SDP Stores the “fat” Administrative record which contains all baseline attributes, values and multi-source validation rules. | | | | | | | | | | | | | | | | |
| 2 | Allow multiple Administrative records for a Target Market (this is optional) | | | | | | | | | | | | | | | | |
| 3 | Each Administrative Record is associated with one access list | | | | | | | | | | | | | | | | |
| 4 | Needs to be new attribute in Global Registry called Administrative Record Sequence Number which will be part of key | | | | | | | | | | | | | | | | |
| 5 | Need to flag Administrative Record in GS1 registry – at GTIN level or TM level? | | | | | | | | | | | | | | | | |
| 6 | An authorized GLN list indicates that it is closed to only authorized GLNs. Lack of a list means it is open to all. | | | | | | | | | | | | | | | | |
| 7 | Need to check to see if there is an authorized list and if GLN is authorized | | | | | | | | | | | | | | | | |
| 8 | Only one GTIN/TM | | | | | | | | | | | | | | | | |
| Related Rules | <p>Rules relevant to this use case should be drawn from the list in section 7.3 and placed here</p> <table border="1"> <tbody> <tr> <td>1</td> <td>There cannot be more than one access list for an Administrative Record</td> </tr> <tr> <td>2</td> <td>Access lists must be mutually exclusive</td> </tr> <tr> <td>3</td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table> | 1 | There cannot be more than one access list for an Administrative Record | 2 | Access lists must be mutually exclusive | 3 | | | | | | | | | | | |
| 1 | There cannot be more than one access list for an Administrative Record | | | | | | | | | | | | | | | | |
| 2 | Access lists must be mutually exclusive | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

8.2.3 Activity Diagram (optional)

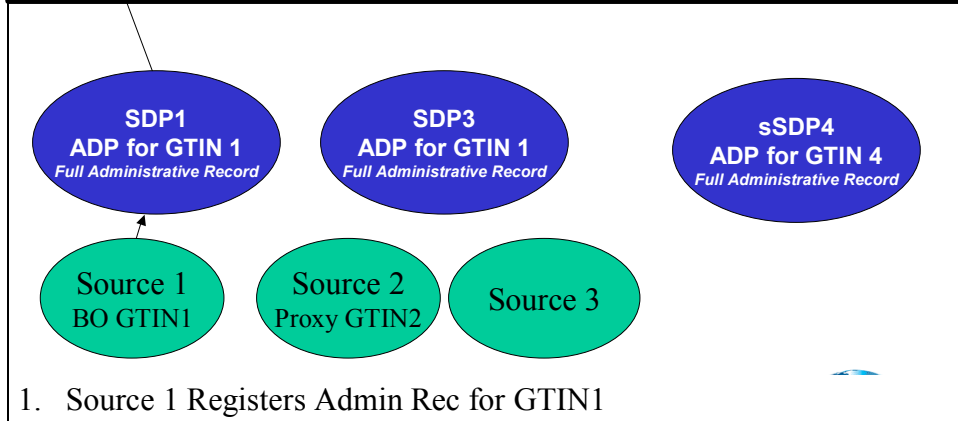
This section is used to enter activity diagrams which can include collaborations between multiple business processes utilizing multiple message standards. Note, not all solutions require collaborations.

(Note: Activity diagrams are optional. The business process modeller shall determine the use and number of activity diagrams included. Each activity diagram shall be given a consecutive paragraph number (e.g., 2.4.1) and heading.)

8.2.4 Sequence Diagrams (optional)

This section is used to enter sequence diagrams which can include collaborations between multiple business processes utilizing multiple message standards. Note, not all solutions require collaborations.

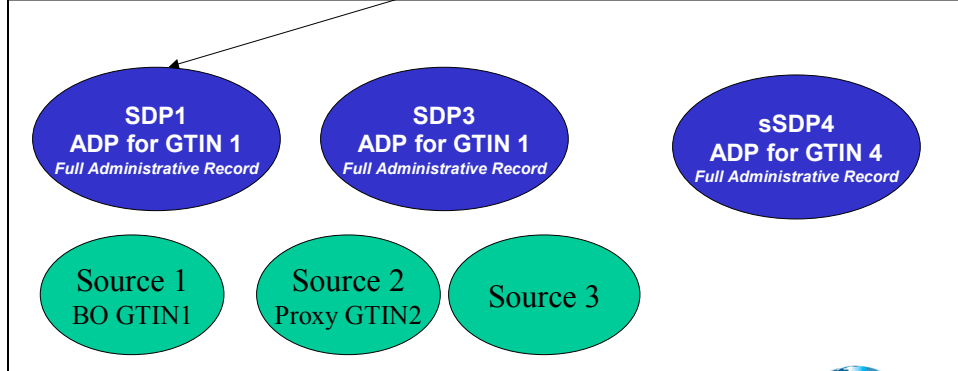
| Global Registry | | | | | | | | | |
|-----------------|-----|-----|-------|-----------|--------|-------|---------|------------|-------------|
| GTIN | GLN | TM | TMsub | ClassCode | SDPGLN | State | RegDate | IsAdminRec | Access List |
| 1 | 1 | 840 | | 10000028 | SDP1 | Reg | Mar 1 | T | 1,3,4 |



1. Source 1 Registers Admin Rec for GTIN1

GLOBAL STANDARDS MANAGEMENT PROCESS  5

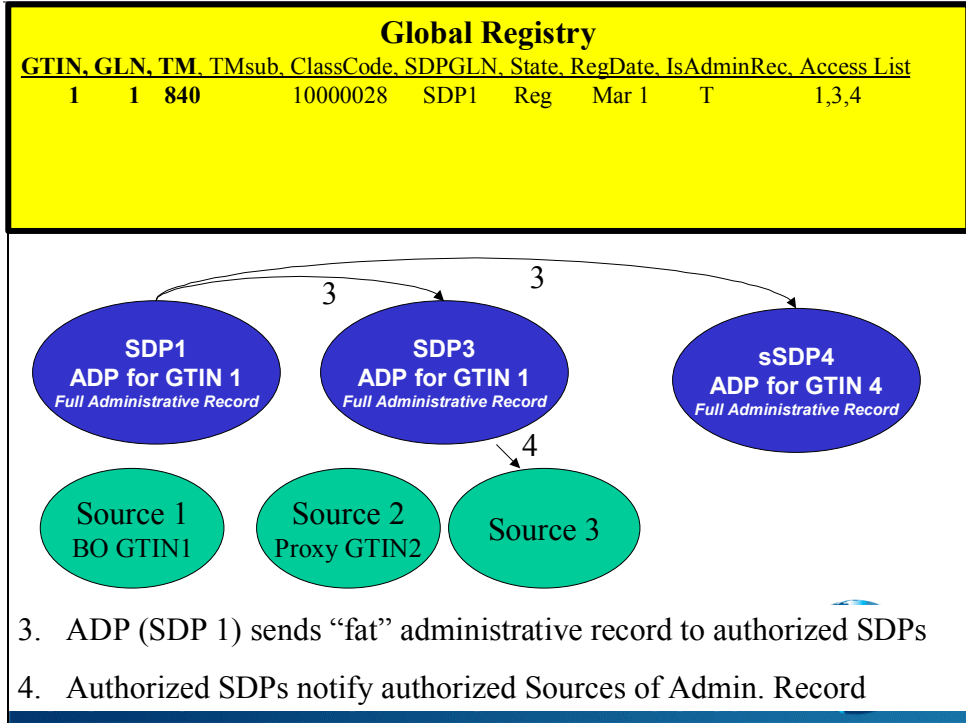
| Global Registry | | | | | | | | | |
|-----------------|-----|-----|-------|-----------|--------|-------|---------|------------|-------------|
| GTIN | GLN | TM | TMsub | ClassCode | SDPGLN | State | RegDate | IsAdminRec | Access List |
| 1 | 1 | 840 | | 10000028 | SDP1 | Reg | Mar 1 | T | 1,3,4 |



2. ADP (SDP 1) retrieves list of Authorized SDPs from Registry.

GLOBAL STANDARDS MANAGEMENT PROCESS  6

Business Requirements Analysis Document



(Note: Sequence diagrams are optional. The business process modeller shall determine the use and number of sequence diagrams included in the BRAD. Each sequence diagram shall be given a consecutive paragraph number (e.g., 2.5.1) and heading.)

8.3 Structured Business Scenario for Multi-Source Base

Business Requirements Analysis Document

8.3.1 Use Case Diagram

Figure 3 - Use Case Diagram: ...

8.3.2 Use Case Definition

| | |
|-----------------------------|--|
| Use Case ID | UC-3 |
| Use Case Name | Establish Multi-Source Base |
| Use Case Description | Once the Brand Owner / Proxy establishes the Administrative Record, the authorized Sources of the GTIN/TM may now synchronize with the appropriate Recipients. |
| Actors (Goal) | <p>Brand Owner or Proxy- Establish appropriate baseline attributes, register Administrative Record, notify each Authorized Information Provider (Source) of baseline attributes and their values, inform Recipient Data Pool of Administrative Record.</p> <p>Source– Submits the GTIN/TM to it's SDP. Should make certain all baseline attribute values are reflected in its copy of the GTIN/TM.</p> <p>Source Data Pool (SDP) – Makes certain the Source is authorized to synchronize the GTIN/TM (GLN Access List). Validates the GTIN/TM against the Administrative Record to ensure that all Baseline Attributes are included with the appropriate values and/or ranges and that multi-source validation rules (in addition to GDSN validation rules) are properly met.</p> <p>Source / Source Data Pool (sSDP) - Submits the GTIN/TM to it's SDP. Should make certain all baseline attribute values are reflected in its copy of the GTIN/TM. Makes certain the Source is authorized to synchronize the GTIN/TM (GLN Access List). Validates the GTIN/TM against the Administrative Record to ensure that all Baseline Attributes are included with the appropriate values and/or ranges and that multi-source validation rules (in addition to GDSN validation rules) are properly met.</p> <p>Recipient – Receives consistent information on GTIN/TM from multiple sources through its Recipient Data Pool. It is recommended that CICs be returned for each CIN for multi-sourced GTINs.</p> <p>Recipient Data Pool (RDP) – Must have ability to receive same GTIN on CIN from multiple sources.</p> |
| Performance Goals | Consistent data is received by the final recipient for a particular GTIN from all authorized sources. |
| Preconditions | <ul style="list-style-type: none"> ➤ Global Registry has denoted copy of the Administrative Record by storing IsAdministrativeRecord = T on Brand Owner/Proxy Global Registry Record ➤ GLN Access List included on Global Registry Record for Brand Owner / Proxy. ➤ Multi-source validation rules are included in the “fat” Administrative Record. ➤ All authorized SDPs have a copy of the “Fat” Administrative Record. |
| Post conditions | Final Recipient is able to process a GTIN from multiple sources without delay. |
| Scenario | <p>Begins when Recipient submits a subscription to the GDSN.</p> <p>Continues with...</p> |

Business Requirements Analysis Document

| | Step # | Actor | Activity Step | | | | | | | | | |
|-----------------------------|---|---------------|---|--------|-------|---------------|--|--|--|--|--|--|
| | 1 | Recipient | Submits Catalogue Item Subscription (CIS) to the RDP | | | | | | | | | |
| | 2 | RDP | Sends the CIS to the SDP(s) and the Registry | | | | | | | | | |
| | 3 | Source | Submits their GTIN/GLN/TM occurrence to their SDP | | | | | | | | | |
| | 4 | SDP | Registers the GTIN occurrence in the global Registry (both GDSN & Multi-source Validation against the administrative record must occur prior to registration) | | | | | | | | | |
| | 5 | Source | Submits the Catalogue Item Notification (CIN) to their SDPs | | | | | | | | | |
| | 6 | SDP | Sends the CIN to the RDP (Both GTIN allocation and Multi-source validations against the administrative record must occur prior to submitting the CIN) | | | | | | | | | |
| | 7 | RDP | Sends the CIN to the Recipient | | | | | | | | | |
| | 8 | Recipient | Returns a CIC for each CIN received | | | | | | | | | |
| | 9 | RDP | Sends the CIC to the appropriate SDPs * it is recommended that CICs are sent back to the SDP for multi-source synchronization. | | | | | | | | | |
| | 10 | SDP | Notifies Source(s) of the CIC. | | | | | | | | | |
| | Ends when SDP receives CIC from RDP. | | | | | | | | | | | |
| Alternative Scenario | <p><i>(any alternatives to the above scenario)</i></p> <p><i>This is where scenarios, other than the primary scenario above, can be listed</i></p> <table border="1"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | | | Step # | Actor | Activity Step | | | | | | |
| Step # | Actor | Activity Step | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Related Requirements | <table border="1"> <tbody> <tr> <td>1</td> <td> </td> </tr> </tbody> </table> | | | 1 | | | | | | | | |
| 1 | | | | | | | | | | | | |
| Related Rules | <p>Rules relevant to this use case should be drawn from the list in section 7.3 and placed here</p> <table border="1"> <tbody> <tr> <td>1</td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table> | | | 1 | | | | | | | | |
| 1 | | | | | | | | | | | | |
| | | | | | | | | | | | | |

8.3.3 Activity Diagram (optional)

This section is used to enter activity diagrams which can include collaborations between multiple business processes utilizing multiple message standards. Note, not all solutions require collaborations.

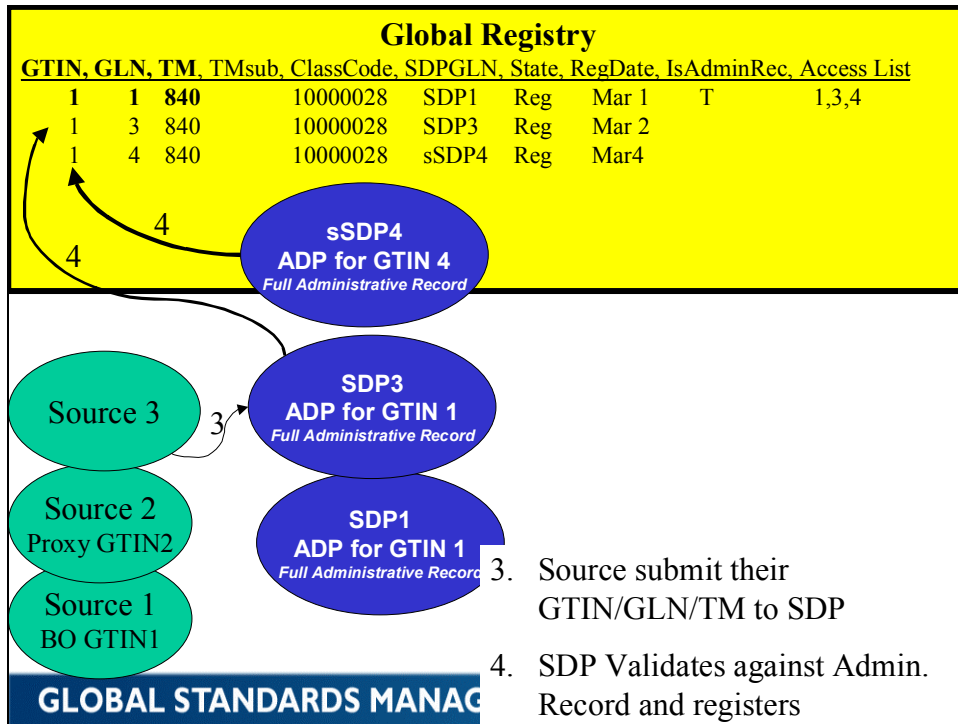
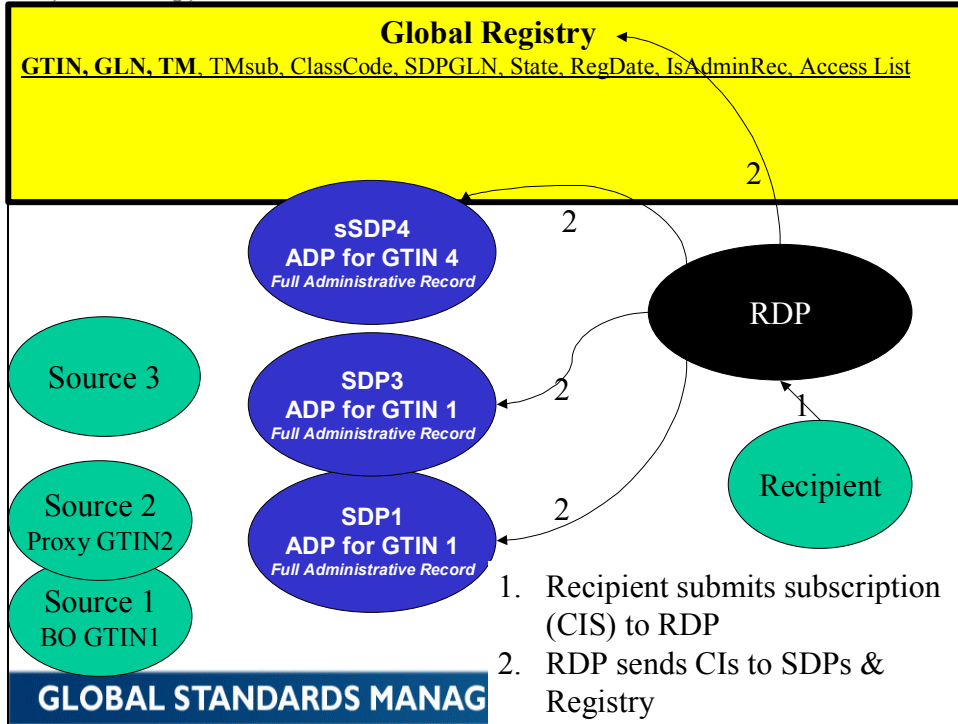
(Note: Activity diagrams are optional. The business process modeller shall determine the use and number of activity diagrams included. Each activity diagram shall be given a consecutive paragraph number (e.g., 2.4.1) and heading.)

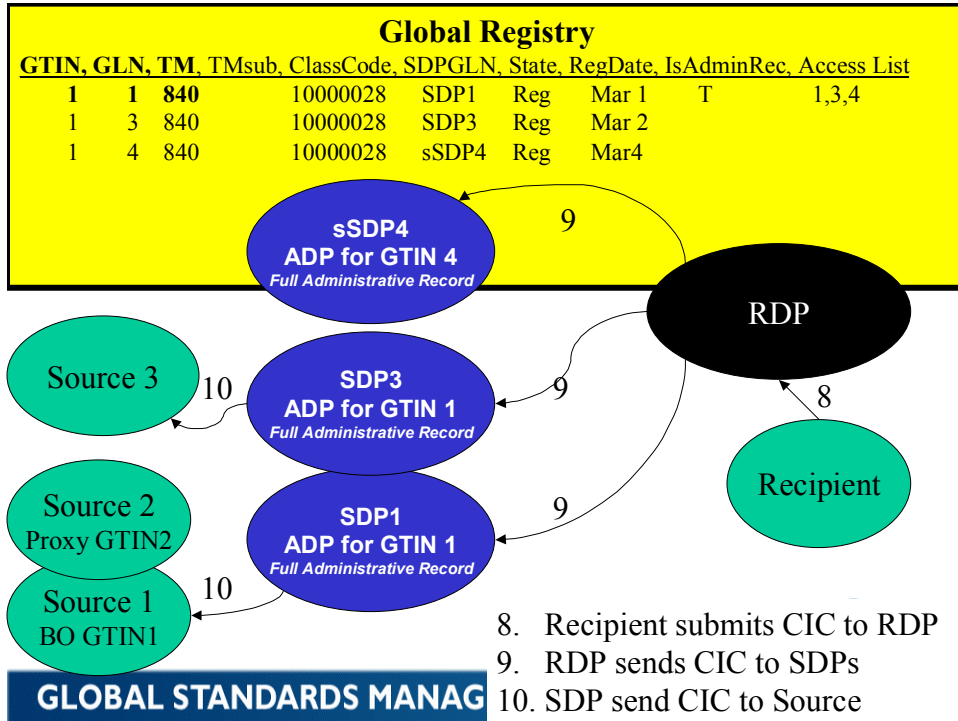
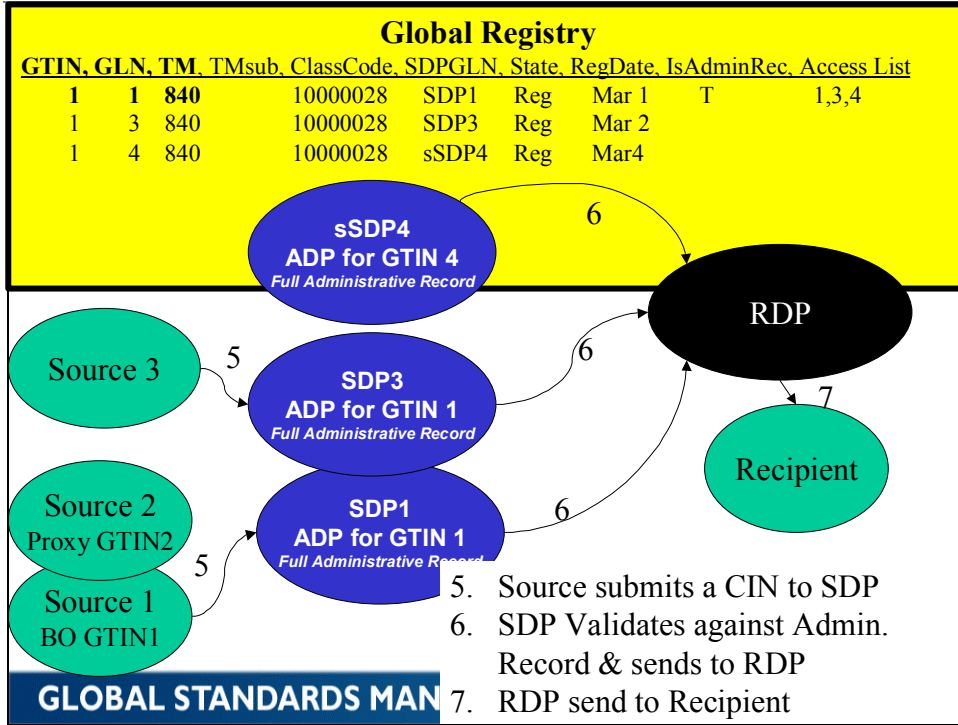
8.3.4 Sequence Diagrams (optional)

This section is used to enter sequence diagrams which can include collaborations between multiple business processes utilizing multiple message standards. Note, not all solutions require collaborations.

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(Note: Sequence diagrams are optional. The business process modeller shall determine the use and number of sequence diagrams included in the BRAD. Each sequence diagram shall be given a consecutive paragraph number (e.g., 2.5.1) and heading.)





8.4 Structured Business Scenario for Brand Owner 3rd Party Synchronization

8.4.1 Use Case Diagram

Figure 4 - Use Case Diagram: ...

Business Requirements Analysis Document

8.4.2 Use Case Definition

| Use Case ID | UC-4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|--|--|--------|-------|---------------|---|-----|---|---|-----|--|---|-----|---|---|-----|--|---|-----|--|---|------------------------|---|---|--|---|---|-----|--|
| Use Case Name | Brand Owner 3 rd Party Synchronization. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Use Case Description | Sources register and synchronize their own instances of the GTIN(s)/TM(s) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Actors (Goal) | <p>Source – May synchronize with the Agent/Broker (other Authorized Information Providers) and final recipient. May be the Brand Owner, Proxy or authorized Information Provider.</p> <p>Source Data Pool (SDP) -</p> <p>Recipient – May synchronize with the Source. The recipient does not have a business relationship with the 3rd Party Recipient.</p> <p>3rd Party Recipient – Agent representing Brand Owner, Proxy or Source Recipient in business dealings with final recipient. No direct relationship with final recipient.</p> <p>Recipient Data Pool (RDP) -</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Performance Goals | 3 rd Party Recipient is aware of GTIN/TM status at final Recipient. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preconditions | <ul style="list-style-type: none"> ➤ All authorized SDPs have a copy of the updated multi-source validation rules ➤ All authorized SDPs have a copy of the Administrative Record. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Post conditions | <ul style="list-style-type: none"> ➤ GTIN/TM successfully received by 3rd party recipient and final recipient ➤ Authorization message received by 3rd party recipient indicating status of GTIN/TM at final recipient. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Scenario | <p>Begins when the source requests SDP to Add the GTIN/TM to the GS1 Registry</p> <p>Continues with...</p> <table border="1" data-bbox="532 1270 1429 1883"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>SDP</td> <td>May synchronize with the Agent/Broker (Authorized Information Provider)</td> </tr> <tr> <td>2</td> <td>SDP</td> <td>Receives GTIN/TM for multi-source item from Source</td> </tr> <tr> <td>3</td> <td>SDP</td> <td>Runs GTIN/TM through GTIN Allocation Rules validation and passes successfully</td> </tr> <tr> <td>4</td> <td>SDP</td> <td>Runs GTIN/TM through multi-source consistency checks against Administrative Record according to multi-source validation rules and passes successfully.</td> </tr> <tr> <td>5</td> <td>SDP</td> <td>Submits Add CIN to RDPs of Final Recipient and 3rd Party Recipient</td> </tr> <tr> <td>6</td> <td>RDP of Final Recipient</td> <td>Process GTIN/TM accordingly and returns a CIC to SDP.</td> </tr> <tr> <td>7</td> <td>RDP of 3rd Party Recipient</td> <td>Process GTIN/TM accordingly and returns a CIC to SDP.</td> </tr> <tr> <td>8</td> <td>SDP</td> <td>Creates Item Authorization Message and validates accordingly</td> </tr> </tbody> </table> | | Step # | Actor | Activity Step | 1 | SDP | May synchronize with the Agent/Broker (Authorized Information Provider) | 2 | SDP | Receives GTIN/TM for multi-source item from Source | 3 | SDP | Runs GTIN/TM through GTIN Allocation Rules validation and passes successfully | 4 | SDP | Runs GTIN/TM through multi-source consistency checks against Administrative Record according to multi-source validation rules and passes successfully. | 5 | SDP | Submits Add CIN to RDPs of Final Recipient and 3 rd Party Recipient | 6 | RDP of Final Recipient | Process GTIN/TM accordingly and returns a CIC to SDP. | 7 | RDP of 3 rd Party Recipient | Process GTIN/TM accordingly and returns a CIC to SDP. | 8 | SDP | Creates Item Authorization Message and validates accordingly |
| Step # | Actor | Activity Step | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | SDP | May synchronize with the Agent/Broker (Authorized Information Provider) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | SDP | Receives GTIN/TM for multi-source item from Source | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | SDP | Runs GTIN/TM through GTIN Allocation Rules validation and passes successfully | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | SDP | Runs GTIN/TM through multi-source consistency checks against Administrative Record according to multi-source validation rules and passes successfully. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | SDP | Submits Add CIN to RDPs of Final Recipient and 3 rd Party Recipient | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | RDP of Final Recipient | Process GTIN/TM accordingly and returns a CIC to SDP. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | RDP of 3 rd Party Recipient | Process GTIN/TM accordingly and returns a CIC to SDP. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | SDP | Creates Item Authorization Message and validates accordingly | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | 9 | SDP | Send Item Authorization Message to RDP of 3 rd Party Recipient | | | | | | | | | |
|-----------------------------|---|---------------|---|--------|-------|---------------|--|--|--|--|--|--|
| | Ends when RDP of 3 rd Party Recipient returns confirmation on Item Authorization Message to SDP. | | | | | | | | | | | |
| Alternative Scenario | <p><i>(any alternatives to the above scenario)</i></p> <p><i>This is where scenarios, other than the primary scenario above, can be listed</i></p> <table border="1"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | | | Step # | Actor | Activity Step | | | | | | |
| Step # | Actor | Activity Step | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Related Requirements | 1 | | | | | | | | | | | |
| Related Rules | Rules relevant to this use case should be drawn from the list in section 7.3 and placed here | | | | | | | | | | | |
| | 1 | | | | | | | | | | | |
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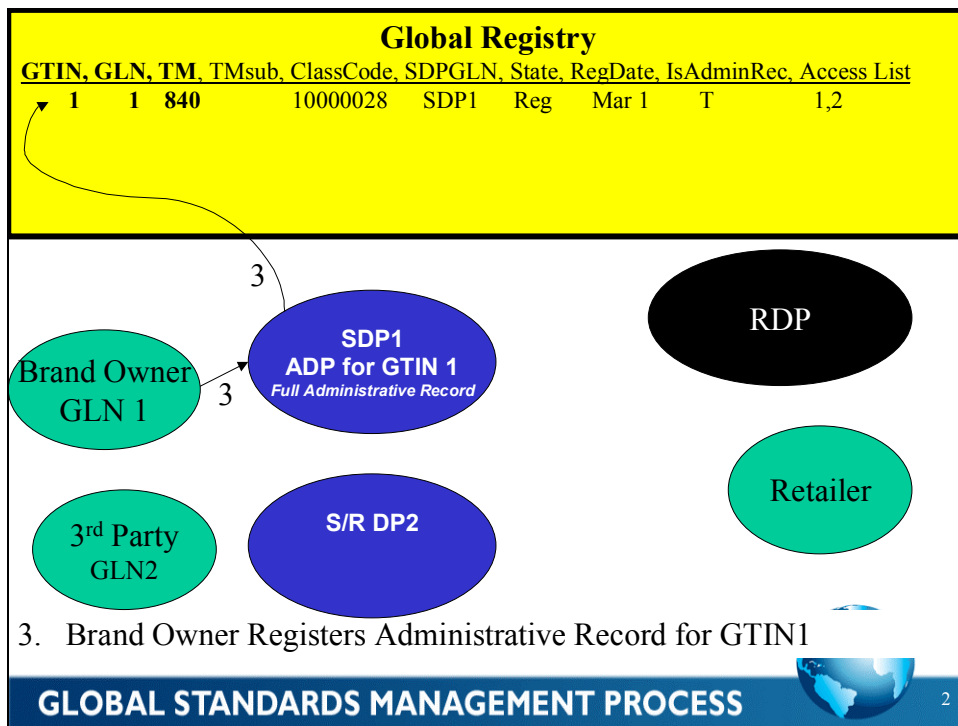
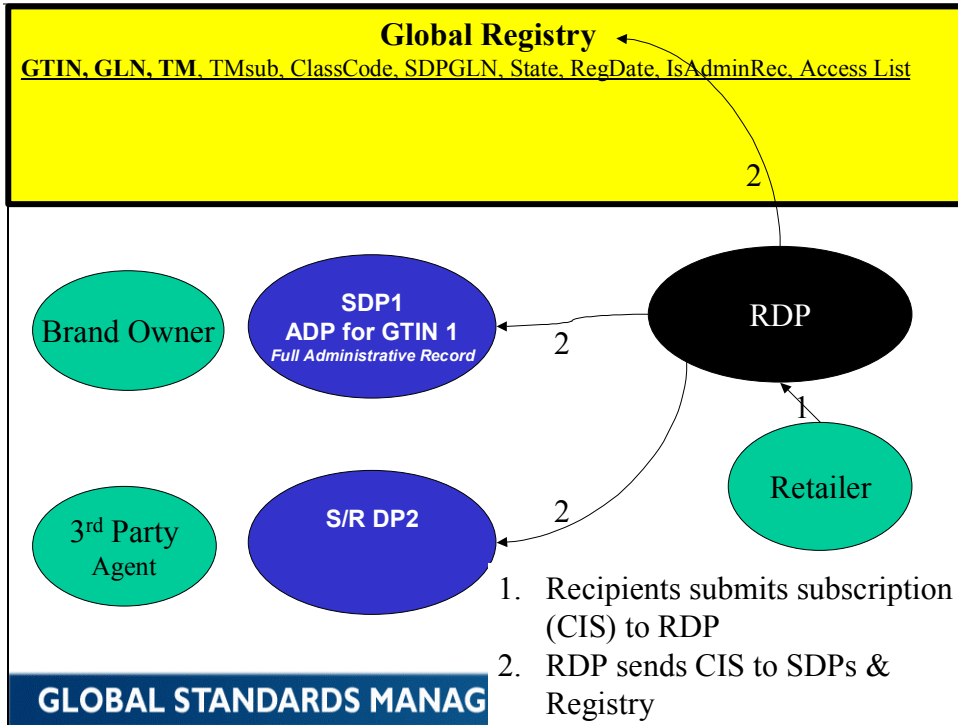
8.4.3 Activity Diagram (optional)

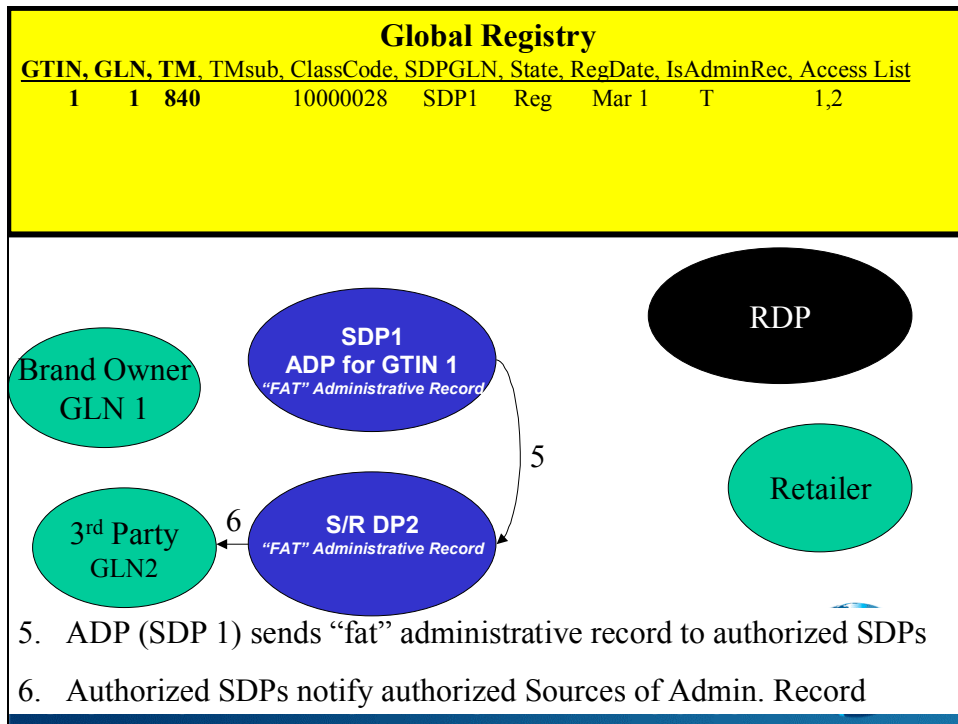
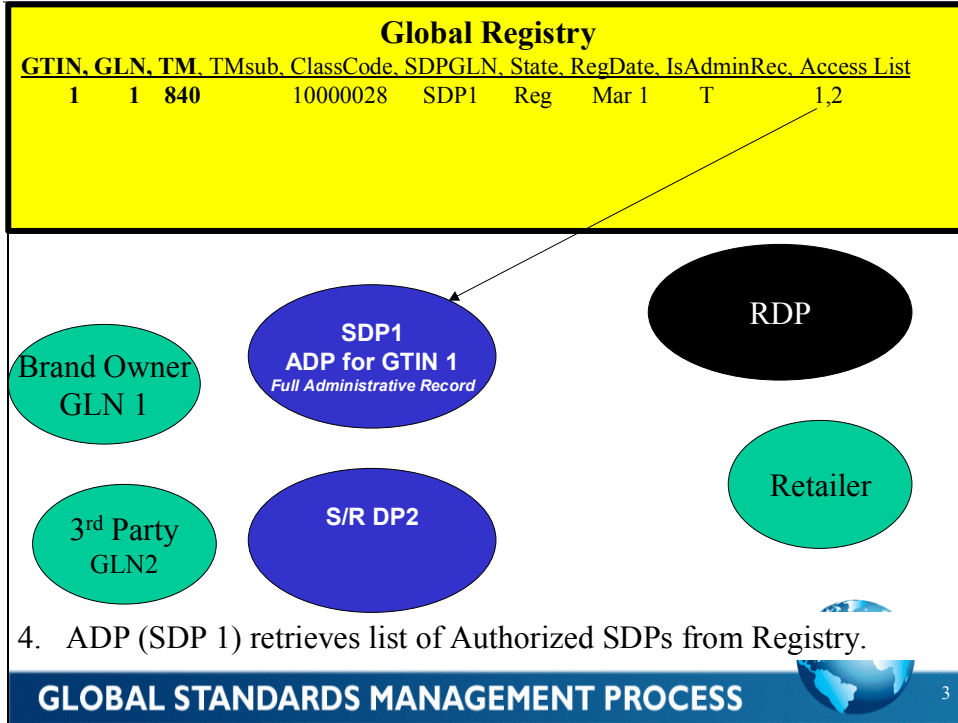
This section is used to enter activity diagrams which can include collaborations between multiple business processes utilizing multiple message standards. Note, not all solutions require collaborations.

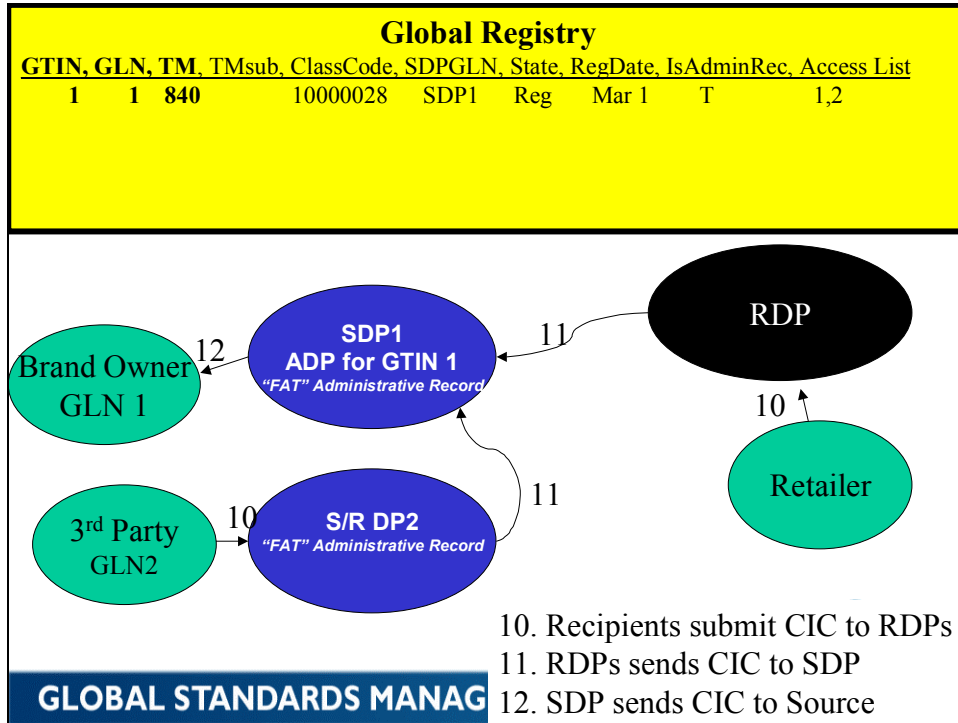
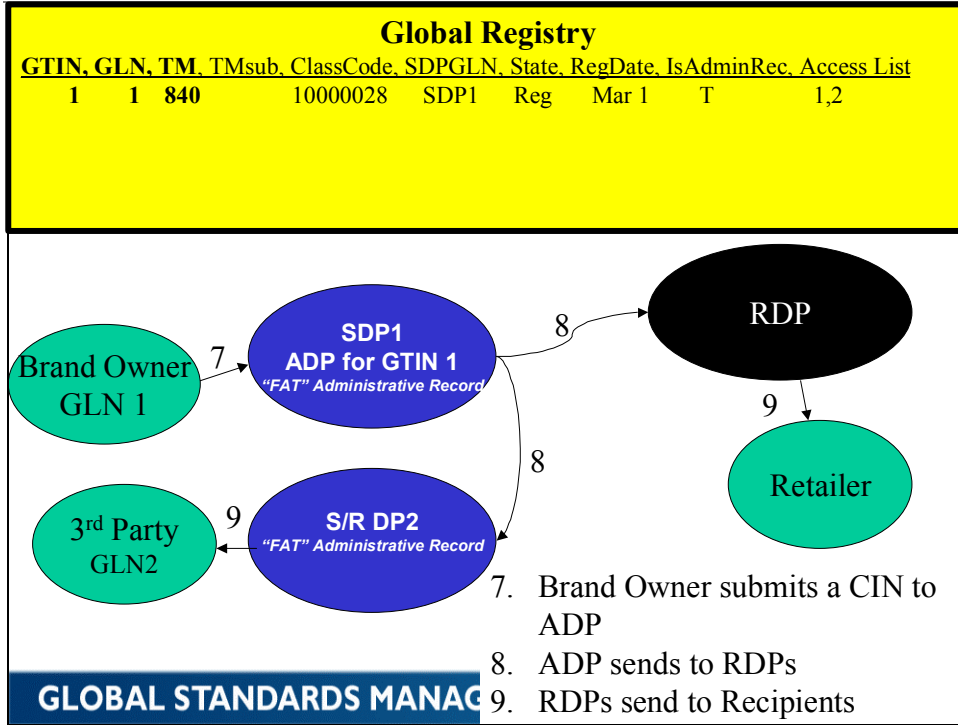
(Note: Activity diagrams are optional. The business process modeller shall determine the use and number of activity diagrams included. Each activity diagram shall be given a consecutive paragraph number (e.g., 2.4.1) and heading.)

8.4.4 Sequence Diagrams (optional)

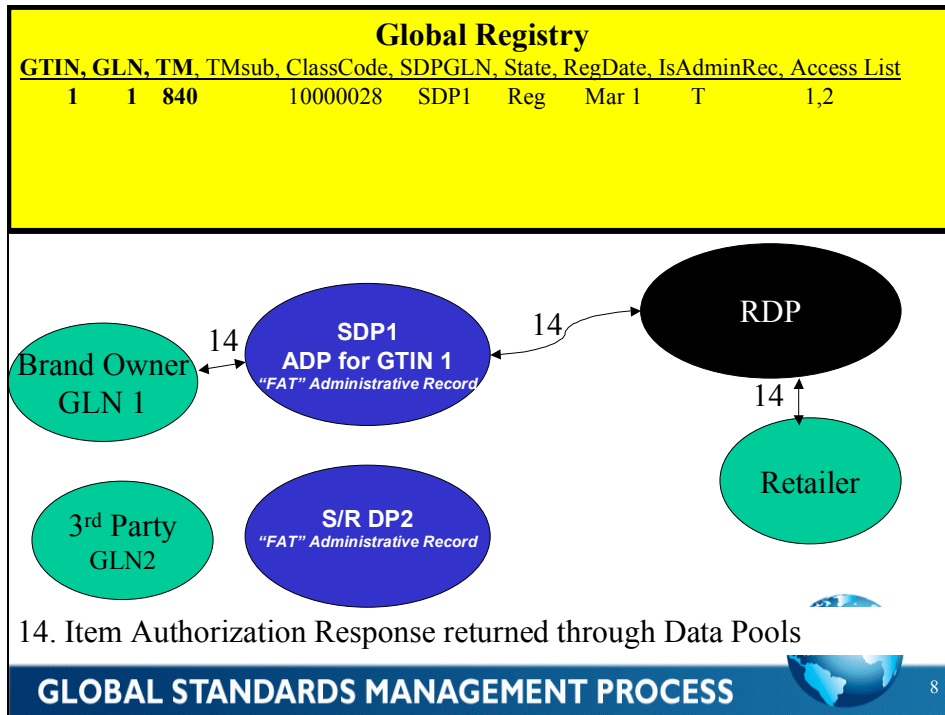
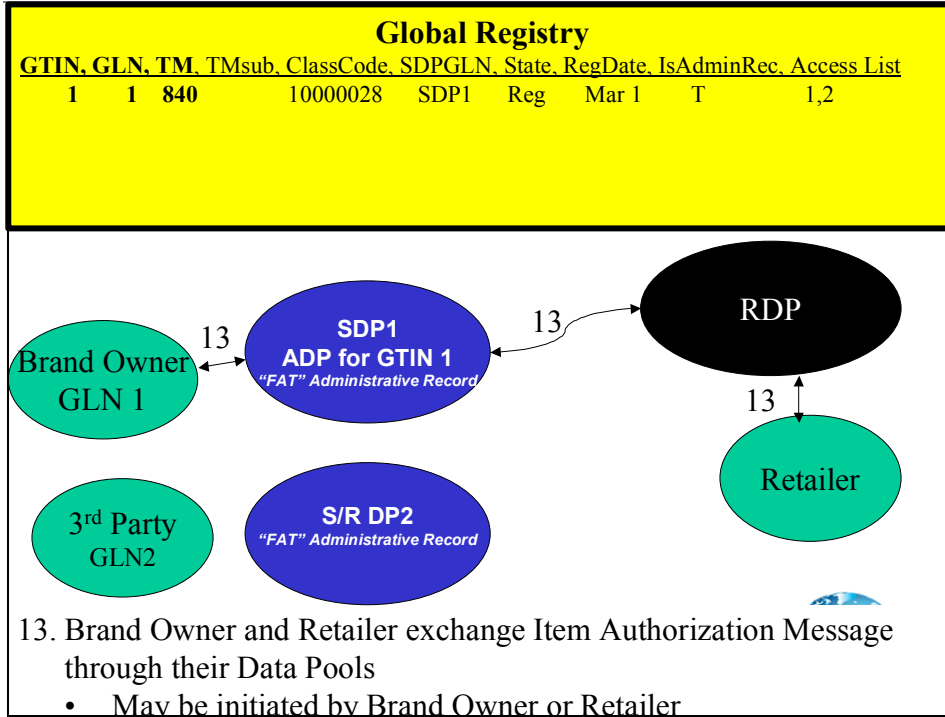
This section is used to enter sequence diagrams which can include collaborations between multiple business processes utilizing multiple message standards. Note, not all solutions require collaborations.



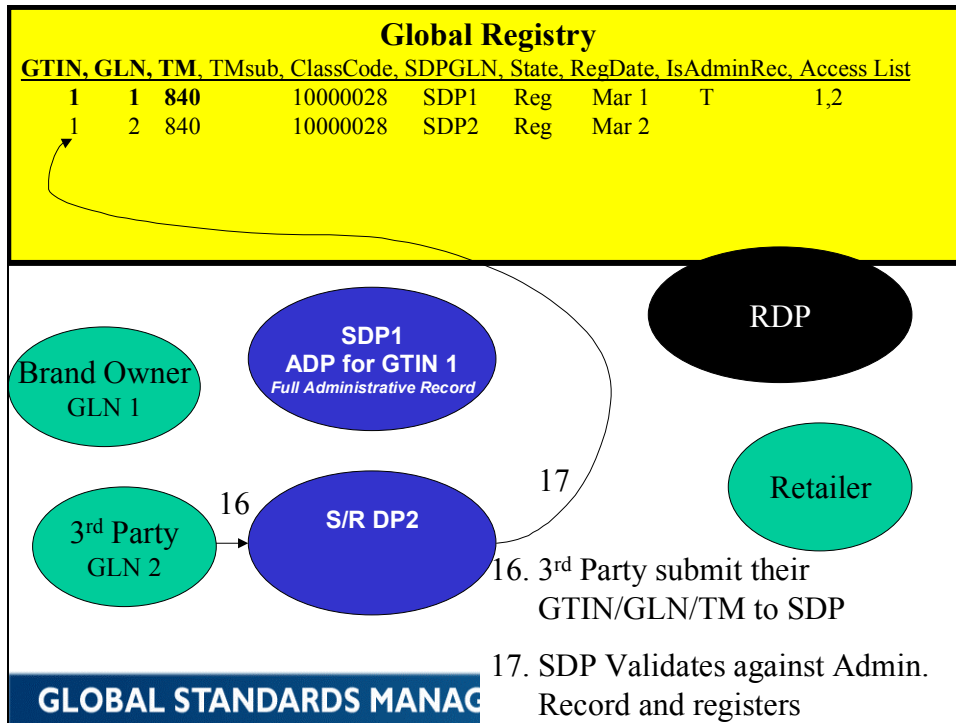
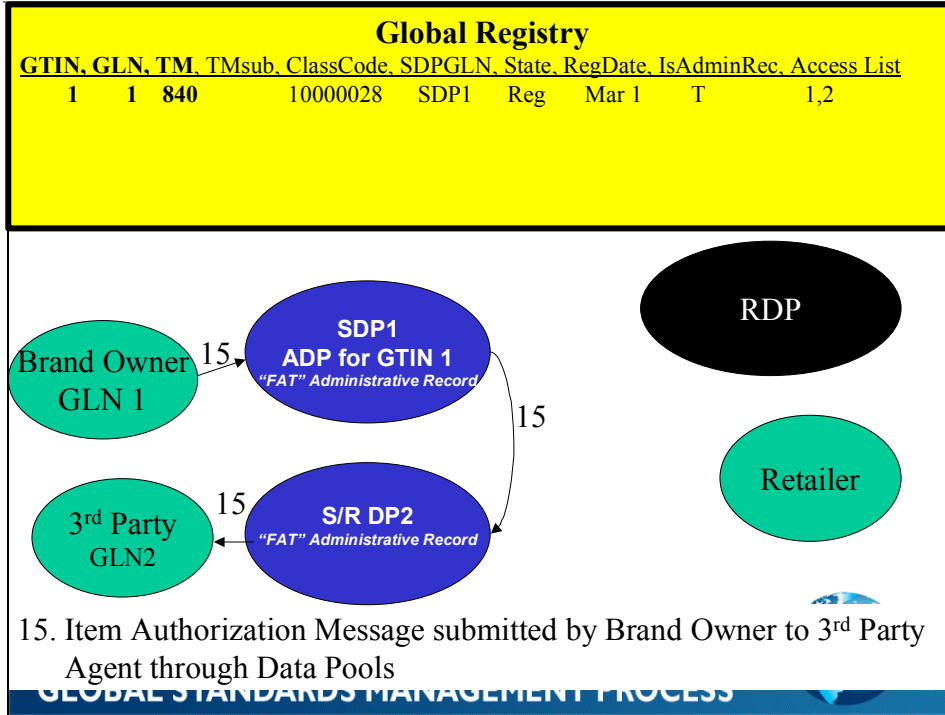


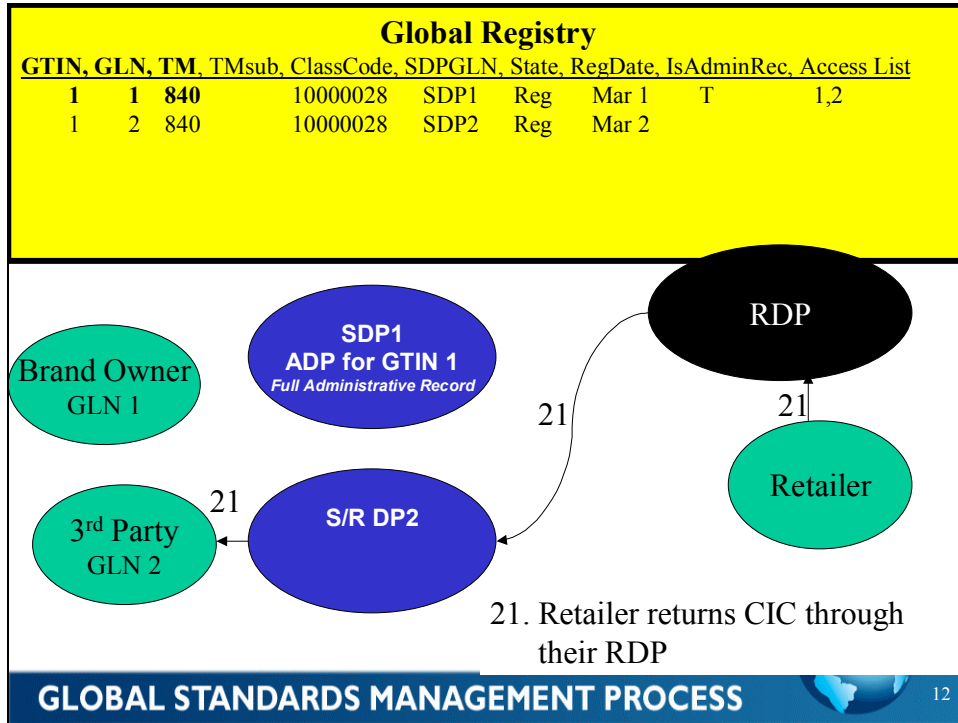
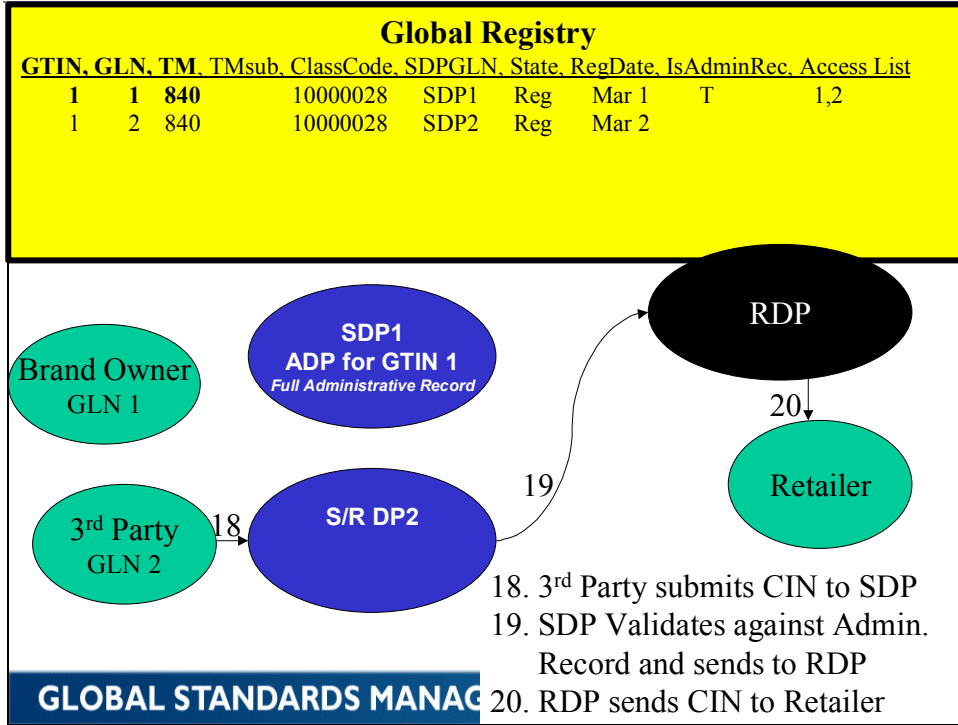


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(Note: Sequence diagrams are optional. The business process modeller shall determine the use and number of sequence diagrams included in the BRAD. Each sequence diagram shall be given a consecutive paragraph number (e.g., 2.5.1) and heading.)

8.5 Structured Business Scenario for Transfer of Administrative Rights

8.5.1 Use Case Diagram

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Figure 5 - Use Case Diagram: ...

8.5.2 Use Case Definition

| Use Case ID | UC-5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|--|---|--------|-------|---------------|---|-----|---|---|-----|--|---|-----|---|---|-----|--|---|-------------------------|--|---|-----|--|---|-----|--|---|-----|---|---|-----|---|----|--------|---|
| Use Case Name | Transfer of Administrative Rights. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Use Case Description | An acquisition / divestiture requires the transfer of an administrative record from one company to another. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Actors (Goal) | <p>Brand Owner or Proxy- Establish appropriate baseline attributes, register Administrative Record, notify each Authorized Information Provider (Source) of baseline attributes and their values, inform Recipient Data Pool of Administrative Record.</p> <p>Source – May synchronize with the Agent/Broker (other Authorized Information Providers) and final recipient. May be the Brand Owner, Proxy or authorized Information Provider.</p> <p>Source Data Pool (SDP) –</p> <p>Administrative Data Pool (ADP) –</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Performance Goals | Transfer control of the administrative record from previous Brand Owner/Proxy to new brand owner/Proxy. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preconditions | ➤ An administrative record exists in the registry (prior to transfer) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Post conditions | ➤ An administrative Record, controlled by a new Brand Owner, will exist in the registry. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Scenario | <p>Begins when and acquisition/divestiture occurs</p> <p>Continues with...</p> <table border="1"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>ADP</td> <td>Inactivates administrative record in registry by setting IsAdministrativeRecord Boolean to False.</td> </tr> <tr> <td>2</td> <td>ADP</td> <td>Retrieves list of authorized SDPs from registry (referencing GLN access list).</td> </tr> <tr> <td>3</td> <td>ADP</td> <td>Notifies authorized SDPs of attribute change.</td> </tr> <tr> <td>4</td> <td>SDP</td> <td>May now delete the inactive administrative record if they wish</td> </tr> <tr> <td>5</td> <td>New Brand Owner / Proxy</td> <td>Submit request to ADD new Administrative Record to their ADP</td> </tr> <tr> <td>6</td> <td>ADP</td> <td>ADDs new Administrative Record to registry</td> </tr> <tr> <td>7</td> <td>ADP</td> <td>Retrieves list of authorized SDPs from registry (referencing GLN access list).</td> </tr> <tr> <td>8</td> <td>ADP</td> <td>Notifies authorized SDPs of new administrative Record</td> </tr> <tr> <td>9</td> <td>SDP</td> <td>Validates all GTIN/GLN/TMs against New Administrative Record and Notifies source(s) of New Administrative Record and any required changes/corrections</td> </tr> <tr> <td>10</td> <td>Source</td> <td>Correct/Changes their GTIN occurrence if necessary and submits to their SDP (SDP Performs multi-source validation against new</td> </tr> </tbody> </table> | | Step # | Actor | Activity Step | 1 | ADP | Inactivates administrative record in registry by setting IsAdministrativeRecord Boolean to False. | 2 | ADP | Retrieves list of authorized SDPs from registry (referencing GLN access list). | 3 | ADP | Notifies authorized SDPs of attribute change. | 4 | SDP | May now delete the inactive administrative record if they wish | 5 | New Brand Owner / Proxy | Submit request to ADD new Administrative Record to their ADP | 6 | ADP | ADDs new Administrative Record to registry | 7 | ADP | Retrieves list of authorized SDPs from registry (referencing GLN access list). | 8 | ADP | Notifies authorized SDPs of new administrative Record | 9 | SDP | Validates all GTIN/GLN/TMs against New Administrative Record and Notifies source(s) of New Administrative Record and any required changes/corrections | 10 | Source | Correct/Changes their GTIN occurrence if necessary and submits to their SDP (SDP Performs multi-source validation against new |
| Step # | Actor | Activity Step | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | ADP | Inactivates administrative record in registry by setting IsAdministrativeRecord Boolean to False. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | ADP | Retrieves list of authorized SDPs from registry (referencing GLN access list). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | ADP | Notifies authorized SDPs of attribute change. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | SDP | May now delete the inactive administrative record if they wish | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | New Brand Owner / Proxy | Submit request to ADD new Administrative Record to their ADP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | ADP | ADDs new Administrative Record to registry | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | ADP | Retrieves list of authorized SDPs from registry (referencing GLN access list). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | ADP | Notifies authorized SDPs of new administrative Record | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | SDP | Validates all GTIN/GLN/TMs against New Administrative Record and Notifies source(s) of New Administrative Record and any required changes/corrections | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | Source | Correct/Changes their GTIN occurrence if necessary and submits to their SDP (SDP Performs multi-source validation against new | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | | |
|-----------------------------|---|--|
| | | Administrative Record prior to sending GTIN/GLN/TM to registry) |
| | 11 | SDP Submits validated GTIN/GLN/TM to registry |
| | Ends when all authorized sources have made required changes/corrections to their GTIN/GLN/TM occurrence. | |
| Alternative Scenario | <i>(any alternatives to the above scenario)</i> | |
| | <i>This is where scenarios, other than the primary scenario above, can be listed</i> | |
| | Step # | Actor Activity Step |
| | | |
| | | |
| Related Requirements | | |
| | 1 | If the acquiring company is not active in GDSN, the process stops at step 4. |
| Related Rules | Rules relevant to this use case should be drawn from the list in section 7.3 and placed here | |
| | 1 | |
| | | |

8.5.3 Activity Diagram (optional)

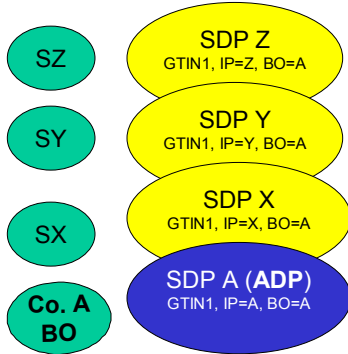
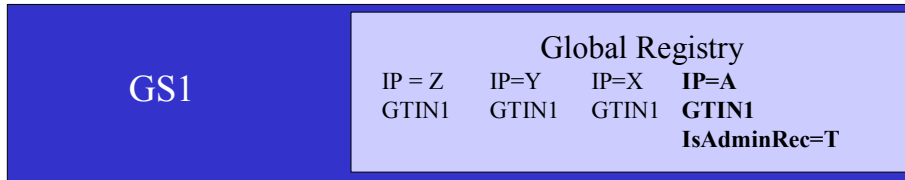
This section is used to enter activity diagrams which can include collaborations between multiple business processes utilizing multiple message standards. Note, not all solutions require collaborations.

(Note: Activity diagrams are optional. The business process modeller shall determine the use and number of activity diagrams included. Each activity diagram shall be given a consecutive paragraph number (e.g., 2.4.1) and heading.)

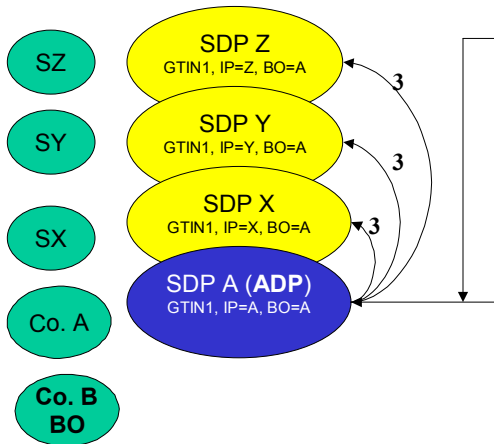
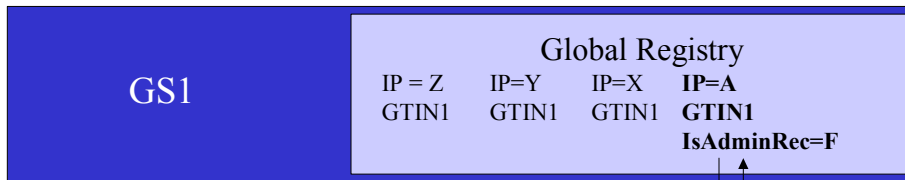
8.5.4 Sequence Diagrams (optional)

This section is used to enter sequence diagrams which can include collaborations between multiple business processes utilizing multiple message standards. Note, not all solutions require collaborations.

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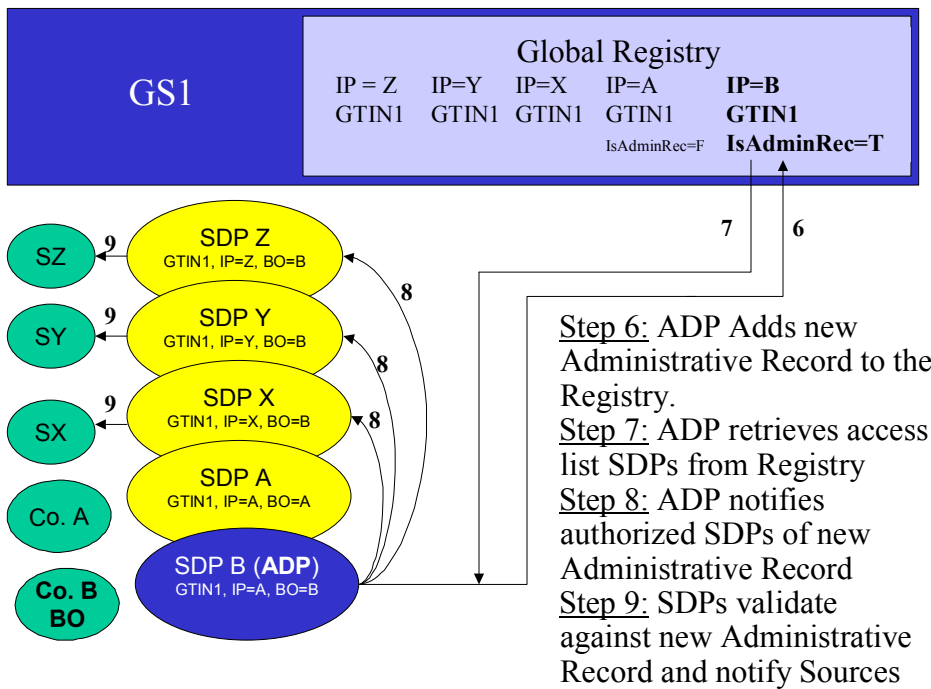
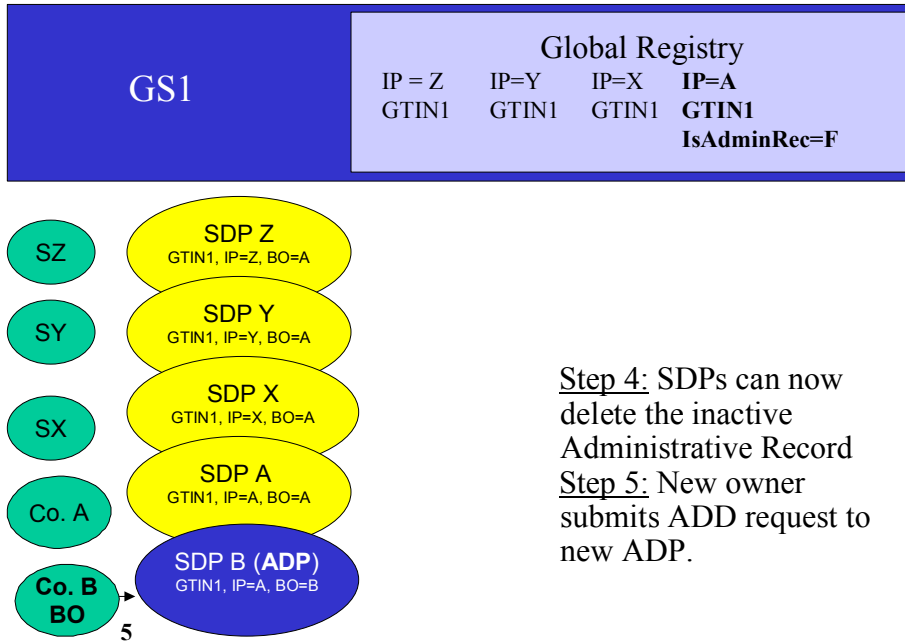
Starting Point:
 Company A is the Brand Owner and maintains the Administrative Record in the Global Registry.



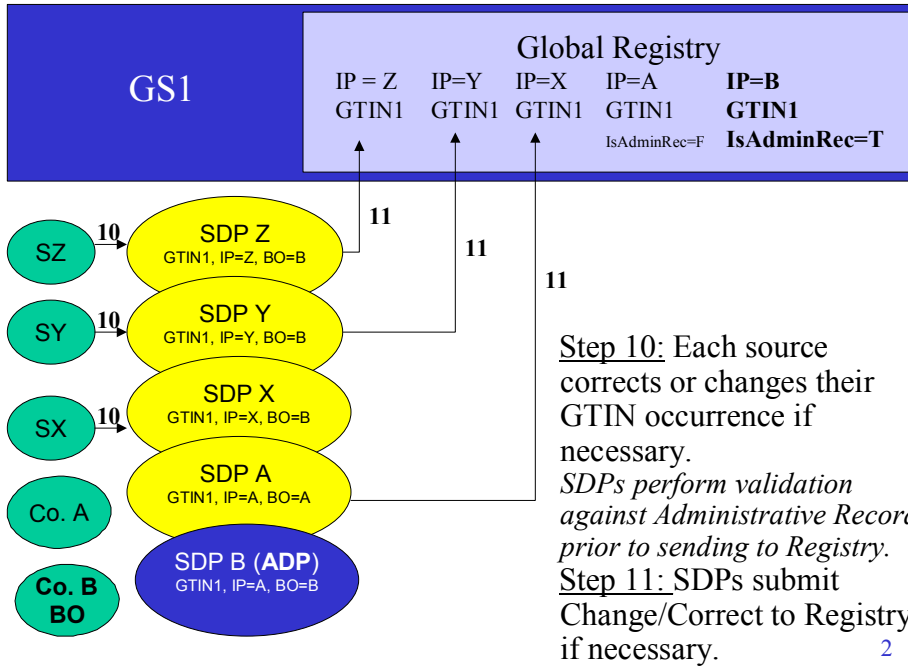
Acquisition/Divestiture:
 Company A sells Brand to Company B.

- Step 1: ADP inactivates Admin Record in Registry
- Step 2: ADP retrieves access list from Registry.
- Step 3: ADP notifies authorized SDPs of the attribute change.

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(Note: Sequence diagrams are optional. The business process modeller shall determine the use and number of sequence diagrams included in the BRAD. Each sequence diagram shall be given a consecutive paragraph number (e.g., 2.5.1) and heading.)

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9 Business Object Analysis

To be completed once requirements, rules and use cases are finished

(Business Objects are the things that business is concerned with (Customer, Invoice, Location, Funds, etc.). In this analysis we will concern ourselves with their individual life cycles and how they relate to each other.)

9.1 Business Object Life-Cycle Discussion

9.1.1 State Diagram(s) (optional)

(Note: State diagrams are optional. The business process modeller shall determine the use and number of state diagrams included in the BRAD. Each state diagram shall be given a consecutive paragraph number (e.g., 2.4.1) and heading.)

9.2 Business Object relationship discussion

High-level class diagram depicting relationships between objects.

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10 Conceptual Solution (Examples)

(Examples of transactions using real life business data) To be completed once Section 9 is complete

11 Implementation Considerations [optional]

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12 Test Scenario Summary [optional]

| Test Scenario ID | Description | Rule ID | Requirement ID | Use Case ID |
|------------------|---|--------------------------|------------------------|---------------------|
| | Description of scenario to be tested. For example: Seller is able to create and send an Order Receipt Acknowledgement. | Associated Business Rule | Associated Requirement | Associated Use Case |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

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13 Glossary of Business Terms

| Term | Description |
|------------------------------------|---|
| GDSN | Global Data Synchronization Network. Includes the GS1 Registry and all certified datapools |
| Administrative Record | GTIN from brand-owner Brand Owner or assigned proxy that indicates the basic consistency rules that must be met by all sources of the GTIN. Can only be created by the Brand Owner or Proxy. |
| Brand Owner or Proxy | An entity responsible for the registration and maintenance of the Administrative Record for a GTIN in the GDSN. The Brand Owner or Proxy may or may not be the brand-owner Brand Owner. In the instance where the Administrator is not the brand-owner Brand Owner, Proxy rights must be established for the Brand Owner or Proxy by the brand-owner Brand Owner. ^A If the brand-owner Brand Owner is not participating in data synchronization, an Administrative Record will not be created and consistency will not be expected between sources of the same GTIN. |
| brand-owner Brand Owner | The company that legally Owns the brand/Trade Mark. The brand-owner Brand Owner may or may not have a direct supply chain relationship with the recipient. It may or may not be the company that manufactures and/or distributes the item. |
| Proxy | A company that is selected by the brand-owner Brand Owner to maintain their baseline attributes and Administrative Records in the GDSN. ^B |
| Source | Manufacturers, Wholesalers, importers, distributors of a product that trade the same item referenced by the same GTIN. Recipients will require synchronization of the same GTIN with each source. Consistency rules will be defined by the Brand Owner or Proxy. |
| Recipient | The Broker, Distributor, Manufacturer, Retailer, Wholesaler, brand-owner Brand Owner or a Third Party Agent such as an importer, warehouse or freight forwarder. |
| Agent/Broker | Agent for the brand-owner Brand Owner that represents the supplier to the retailer/Wholesaler with potentially multiple responsibilities including 1) customer call and primary relationship management, 2) new item form completion and presentation, 3) pricing announcements and price list management, 4) trade funds management and reconciliation, 5) promotion management, 6) management of authorized distribution lists 7) co-marketing budget management and event execution and/or 8) continuous replenishment. |
| Buyer | An entity that purchases the product from the brand-owner Brand Owner or it's agent. |
| Baseline Attribute | Any attribute in the Core Trade Item BRD that is identified by the Brand Owner or Proxy as the minimum consistency requirement for a GTIN. All sources of the GTIN will be required to match the value or to come within the appropriate range for a numeric value. |
| Administrative Datapool (ADP) | |
| Source-Source Datapool (SSDP) | A source acting as a source datapool. |

^B See Appendix B

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| Multi-source | A business relationship where multiple sources synchronize the same GTIN to one or more recipients through the Global Data Synchronization Network. |
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Business Requirements Analysis Document

14 Summary of Changes

| Change | BRAD Version | Associated CR Number |
|---|--------------|----------------------|
| <ul style="list-style-type: none">Created first draft of BRAD | V 0.1 | |
| <ul style="list-style-type: none">Updated BRAD based on GDSN multi-source sub-group feedback | V 0.2 | |
| <ul style="list-style-type: none">Updates based on feedback from sub-group members | V 0.3 | |
| <ul style="list-style-type: none">Incorporated new BRG members into documentation | V 0.4 | |
| <ul style="list-style-type: none">Added/updated Use Cases | V0.5 | |
| <ul style="list-style-type: none">Added notes from February 7 – 9 physical meeting in Section 11 | V 0.6 | |
| <ul style="list-style-type: none">Added new requirements based on feedback from sub-group members | V 0.7 | |
| <ul style="list-style-type: none">Cleaned up errors and added 3rd party synch sequence diagram | V 0.8 | |