

Item Data Notification Business Message Standard (BMS)

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1 Business Domain View

1.1 Introduction

Message Definition

The Item Data Notification provides the ability to align item master data in a peer to peer environment. The message supports both the exchange of "General Item information" which is relationship independent, as well as "Specific Item information" which is relationship dependent. The message will often be sent by the manufacturer or supplier of the item, but also may be sent by the customer (for example in cases where the customer owns the product design).

Principles

The current situation in the upstream supply chain of the CPG industry is that all manufacturers and suppliers are faced with different business processes and data interchanges when they move into more integrated relationships. Different business processes and approaches create a barrier to the scalability of integration efforts whilst also imposing many costs: the time and money spent making transactions; the delays caused by the need for corrections; plus inevitable information gaps and misunderstandings.

Both parties should obtain benefits from integration, among them reduced inventory and a reduction in re-work and waste. One example is that suppliers should have better visibility of forecasted production and can improve their reaction to changes.

A key part of this integration is the alignment of master data between buyer and seller.

Item Master Data is a set of data, which describes the specifications and structures of each item involved in Supply Chain Processes. Each set of data can uniquely be identified by a Global Trade Item Number (GTIN).

The transaction can be established by either the manufacturer or the supplier. Only one party will initiate the transaction. Which of both parties initiates the transaction needs to be agreed upon in the Integration Agreement; changes in item master data need to be commonly agreed & realised by the party initially initiating the transaction, i.e. the message flow will only be in one direction in order to ensure data alignment.

Master data will be aligned each time information changes or new information is added. There is no need for a response message during the alignment of master data between buyer and seller.

The "Master Data Alignment" building block has three elements:

- 1. Identifying and clarifying, between the two parties, the coding for items.
- Agreeing on the attributes to be shared about each item for example specifications, logistical handling information, packaging format.
- 3. Ongoing alignment of the item and attribute data so that suppliers and manufacturers are working off a common and current understanding of this important base information. One challenge facing all trading relationships is maintaining accuracy and the distribution of base item data given the rapid changes to specifications and logistics information that can arise.

Item information will be composed of "General Item information" which is relationship independent and "Specific Item information" which is relationship dependent item data.

General Item Information

General item information allows the identification and clarification of general, i.e. relationship independent item coding between trading partners, the agreement on the attributes to be shared about each item as well as the alignment of item information between trading partners.

Specific Item Information

Specific item information (relationship dependent) allows the identification and clarification of relationship specific item coding between trading partners, the agreement on the attributes to be shared about each item as well as the alignment of item information between trading partners.



It contains those relationship specific item related parts of the overall (and mostly paper based) Integration Agreement, which might change often and therefore make sense to be exchanged electronically to ensure alignment between both parties while limiting manual effort.

1.2 References

[BMS_Upstream] BRAD for Upstream Master Data Alignment
[BRAD_WIO] BRAD Warehousing Inbound and Outbound Processes, 1.0, GS1 2012
[BMS_Shared] BMS Shared Common Library, 3.6, GS1 2014
[BMS_eCom] BMS eCom Common Library, 3.6, GS1 2014

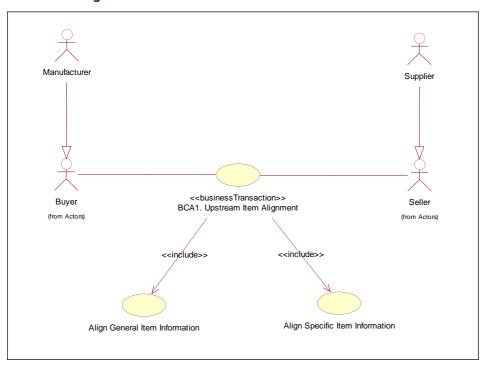
2 Business Context

Context Category	Value(s)
Industry	All
Geopolitical	All
Product	All
Process	Align
System Capabilities	GS1 System
Official Constraints	None

3 Business Transaction View

3.1 Business Transaction – Upstream Item Alignment

Use Case Diagram





Use Case Description

Use Case ID	BCA1						
Use Case Name	Upstrea	m Item Align	ment				
Use Case Description	Item inf relation depende Manufac and driv on item supplier	The data interchange for Item Alignment includes the item information messages. Item information can be composed of "General Item information" which is relationship independent and "Specific Item information" which is relationship dependent item data. Manufacturer and supplier will commonly agree on item information to be shared and drive the process of exchanging these data. While both parties need to agree on item master data, it is understood that only one party, i.e. manufacturer or supplier, will send the item information messages and that the information flow will be in one direction only in order to ensure alignment.					
Actors (Goal)	Seller: t Sender: seller.	to align item to send the	information with the seller. information with the buyer. item information to the receiver. Sender could be buyer or the item information. The receiver could be the buyer or seller.				
Preconditions	_		EMENT IS IN PLACE EMBLED AND AGREED				
Post conditions	ITEM D	ATA IS ALIGN	IED.				
Scenario	_	when the sen es with	der generates the item information.				
	Step #	Actor	Activity Step				
	1	Sender	Sends the Item Data Notification.				
	2	Receiver	Receives the Item Data Notification.				
	3 Receiver Integrates item information into own systems.						
	Ends when the receiver has integrated the item information in own systems.						
Alternative Scenario	None						
Related Requirements	Not App	Not Applicable					
Related Rules	Not App	licable					

Activity Diagram(s)

Not Applicable

Sequence Diagram(s)

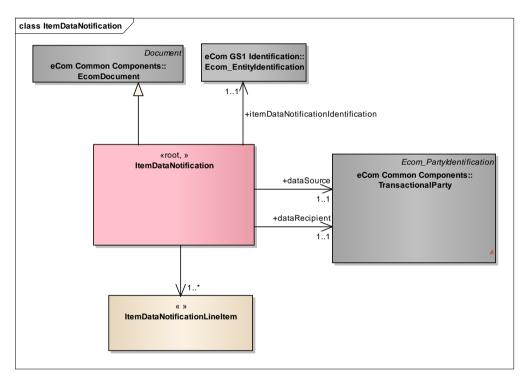
Not Applicable



4 Business Information View

4.1 Item Data Notification

Class diagram





GDD report

The content of the ItemDataNotification class, its structure and component definitions can be accessed in the Global Data Dictionary: http://apps.gs1.org/GDD/bms/Version3 3/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:ItemDataNotification

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
ItemDataNotification				A message used to align master data including relationship dependent and relationship independent in a peer to peer environment.	
Association		ItemDataNotificationLi neItem	1*	The detail level of an Item Data Notification message.	
Association	dataSource	TransactionalParty	11	The party who sends the item information.	
Generalization		EcomDocument		Basic information about the content of the message including version number, creation date and time.	WR 14-000110
Association	itemDataNotificationId entification	Ecom_EntityIdentifica tion	11	The unique identifier for the Item Data Notification message.	WR 15-000314
Association	dataRecipient	TransactionalParty	11	The party who receives the item information.	

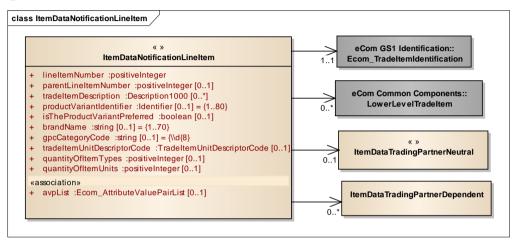


Note: Reference Shared Common Library Business Message (BMS) Release 3.6 and eCom Domain Common Library Business Message (BMS) Release 3.6 for all common information.



4.2 Item Data Notification Line Item

Class Diagram



GDD Report

The content of the ItemDataNotificationLineItem class, its structure and component definitions can be accessed in the Global Data Dictionary: http://apps.gs1.org/GDD/bms/Version3 3/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:ItemDataNotificationLineItem

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
ItemDataNotification LineItem				The detail level of an Item Data Notification message.	
Association		Ecom_TradeItemIdenti fication	11	Contains the identification of the trade item.	WR 15-000314
Association		LowerLevelTradeItem	0*	Identification and quantity of trade items contained in the current trade item	WR 13-000188
Association		ItemDataTradingPartne rDependent	0*	Trade Item Data that has values that can differ depending on the relationship between trading partners.	
Association		ItemDataTradingPartne rNeutral	01	Trade Item Data that has values that does not differ based on the relationship between trading partners.	



Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Attribute	lineItemNumber	positiveInteger	11	Provides the line number associated to the Item Data Notification Line Item.	
Attribute	avpList	Ecom_AttributeValuePa irList	01	Temporary attributes introduced between minor versions.	WR 14-000110
Attribute	productVariantIdentifie r	Identifier	01	Text identifying a variant of the product, for example for promotional reasons.	WR 13-000188
Attribute	isTheProductVariantPre ferred	boolean	01	A statement whether the variant of the product, specified in the productVariantIdentifier is a preferred one.	
Attribute	tradeItemDescription	Description1000	0*	Additional information necessary to communicate to the industry to help define the product.	
Attribute	brandName	string	01	The recognisable name used by a brand owner to uniquely identify a line of trade item or services. This is recognizable by the consumer.	WR 13-000188
Attribute	gpcCategoryCode	string	01	A code that identifies a category in the GPC product classification	WR 13-000188
Attribute	parentLineItemNumber	positiveInteger	01	The number of line item containing information about the parent of the current item. It allows establishing hierarchical link between the two items.	WR 14-000021 WR 14-000044
Attribute	tradeItemUnitDescripto rCode	TradeItemUnitDescript orCode	01	Describes the hierarchical level of the trade item.	WR 13-000188
Attribute	quantityOfItemTypes	positiveInteger	01	The number of various item types not identified by GTIN, contained in the Trade Item.	WR 13-000188
Attribute	quantityOfItemUnits	positiveInteger	01	The number of items not identified by GTIN, contained in the Trade Item.	WR 13-000188

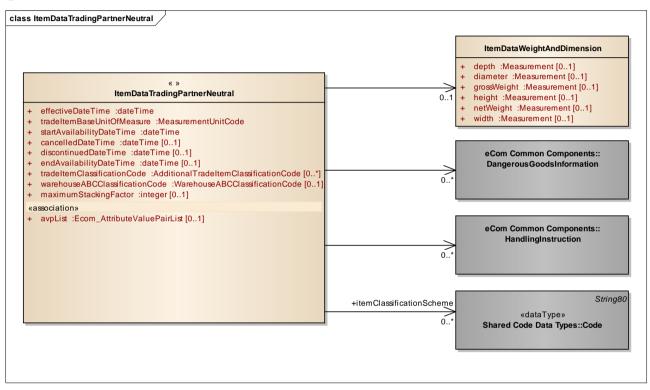


Note: Reference Shared Common Library Business Message (BMS) Release 3.6 and eCom Domain Common Library Business Message (BMS) Release 3.6 for all common information.



4.3 Item Data Trading Partner Neutral

Class Diagram





GDD Report

The content of the ItemDataTradingPartnerNeutral class, its structure and component definitions can be accessed in the Global Data Dictionary: http://apps.gs1.org/GDD/bms/Version3_3/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:ItemDataTradingPartnerNeutral

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
ItemDataTradingPartnerNeutral				Trade Item Data that has values that does not differ based on the relationship between trading partners.	renamed from RelationshipInde pendentItemDat a
Association	itemClassificati onScheme	Code	0*	Classification of an item according to the scheme not listed in tradeItemClassificationCode	
Association		HandlingInstruction	0*	Instruction on the way to treat goods during transport and storage.	WR 13-000188
Association		ItemDataWeightAnd Dimension	01	The dimension and weight attributes for a trade item.	
Association		DangerousGoodsInf ormation	0*	Hazardous instructions applicable to delivered goods, such as where or how specified packages or containers are to be handled because of restriction from dangerous goods.	WR 13-000188
Association	administrative UnitOfLogistic ServiceBuyer	AdministrativeUnit	01		
Attribute	effectiveDateTi me	dateTime	11	Date as of which the information of the master data is valid.	
Attribute	avpList	Ecom_AttributeValu ePairList	01	Temporary attributes introduced between minor versions.	WR 14-000110
Attribute	tradeItemBase UnitOfMeasure	MeasurementUnitCo de	11	The default Unit of Measure used for the full order to pay process.	
Attribute	startAvailabilit yDateTime	dateTime	11	Date as of which the trade item is available.	
Attribute	cancelledDate Time	dateTime	01	Date on which the cancellation of the launch of a trade item (that was never and will never be manufactured) is made.	
Attribute	discontinuedD ateTime	dateTime	01	Date as of which the trade item is no longer to be manufactured.	



Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Attribute	endAvailability DateTime	dateTime	01	Date from which onwards the trade item will no longer be available.	
Attribute	tradeItemClas sificationCode	AdditionalTradeItem ClassificationCode	0*	Code specifying the product class of the trade item according to a specific classification scheme. The classification scheme needs to be indicated as a coded value as well.	
Attribute	warehouseABC ClassificationC ode	WarehouseABCClass ificationCode	01	Provides classification of items based on their speed of movement in and out of the warehouse.	WR 13-000188
Attribute	maximumStac kingFactor	integer	01		WR 13-000188
ItemDataWeightAndDimension				Logical grouping of dimension and weight attributes for a trade item.	
Attribute	depth	Measurement	01	The measurement from front to back of the trade item. Measurements are relative to how the customer normally views the trade item. Needs to be associated with a valid UOM.	
Attribute	diameter	Measurement	01	The measurement of the diameter of the trade item at its largest point. For example, 165 "mmt", value - mmt, diameter. Has to be associated with valid UOM.	
Attribute	grossWeight	Measurement	01	Used to identify the gross weight of the trade item. The gross weight includes all packaging materials of the trade item. At pallet level the gross weight includes the weight of the pallet itself.	
Attribute	height	Measurement	01	The measurement of the height of the trade item. The vertical dimension from the lowest extremity to the highest extremity, including packaging. At a pallet level the trade item height will include the height of the pallet itself.	
Attribute	netWeight	Measurement	01	Used to identify the net weight of the trade item. Net weight excludes any packaging materials. Has to be associated with a valid UoM	
Attribute	width	Measurement	01	The measurement from left to right of the trade item.	

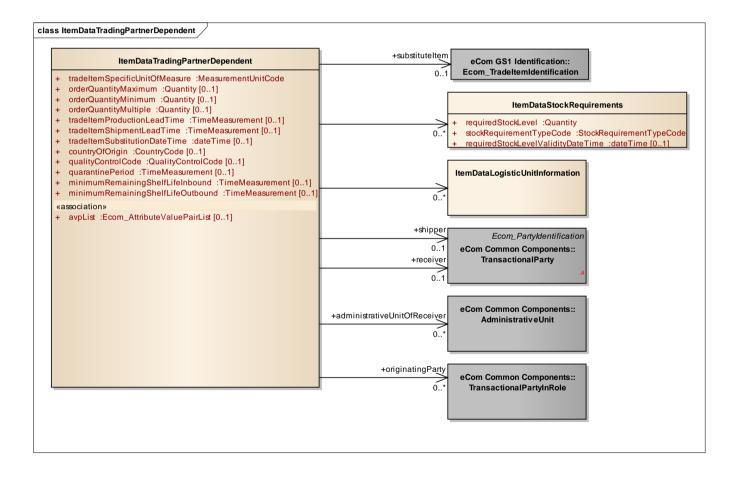




Note: Reference Shared Common Library Business Message (BMS) Release 3.6 and eCom Domain Common Library Business Message (BMS) Release 3.6 for all common information.

4.4 Item Data Trading Partner Dependent

Class Diagram





GDD Report

The content of the ItemDataTradingPartnerDependent class, its structure and component definitions can be accessed in the Global Data Dictionary: http://apps.gs1.org/GDD/bms/Version3_3/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:ItemDataTradingPartnerDependent

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
ItemDataTradingPartnerDepe ndent				Trade Item Data that has values that can differ depending on the relationship between trading partners.	
Association	countryOfOrigin	CountryCode	01		WR 13-000188
Association		ItemDataStockRequir ements	0*	The stock level details for the trade item.	
Association		QualityControlCode	01		
Association	administrativeU nitOfReceiver	AdministrativeUnit	0*	An organizational grouping of the receiving party used for internal planning, control and accounting purposes.	WR 13-000188
Association	shipper	TransactionalParty	01	A party who engages in shipping goods. In a commercial scenario this would be the supplier.	WR 13-000188
Association	receiver	TransactionalParty	01	A party who engages in receiving goods. In a commercial scenario this would be the customer.	WR 13-000188
Association	originatingParty	TransactionalPartyIn Role	0*	A party that supplies the goods or services, depending on its role in the supply chain.	WR 13-000188
Association		ItemDataLogisticUnit Information	0*	The logistical packaging details for the trade item.	
Association	substituteItem	Ecom- TradeItemIdentificati on	01	A trade item which can replace a given item for a specified period of time.	WR 15-000314
Attribute	tradeItemSpecif icUnitOfMeasur e	MeasurementUnitCod e	11	The Unit of Measure (EDIFACT code list 6411) associated with a specific instance of the trade item. This unit of measure will override the relationship independent Unit of Measure.	
Attribute	avpList	Ecom_AttributeValue PairList	01	Temporary attributes introduced between minor versions.	WR 14-000110
Attribute	orderQuantityM aximum	Quantity	01	The maximum quantity of the trade item that can be ordered. A number or a count. This value can represent the total number of units ordered over a set period of time with multiple orders.	



Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Attribute	orderQuantityMi nimum	Quantity	01	Represent an agreed to minimum quantity of the trade item that can be ordered. A number or a count. This applies to each individual order. Can be a fixed amount for all customers in a target market.	
Attribute	orderQuantityM ultiple	Quantity	01	The order quantity multiples in which the trade item may be ordered. If the Order Quantity Minimum is 100, and the Order Quantity Multiple is 20, then the trade item can only be ordered in quantities which are divisible by the Order Quantity Multiple of 20.	
Attribute	tradeItemProdu ctionLeadTime	TimeMeasurement	01	The normal delivery time measured from receipt of the order by the seller until the trade item is shipped by the seller, in case the product is not in stock.	
Attribute	tradeItemShip mentLeadTime	TimeMeasurement	01	The normal delivery time measured from receipt of order by the seller until the trade item is shipped by the seller, in case the product is in stock.	
Attribute	tradeItemSubst itutionDateTime	dateTime	01	The date on which an item will be replaced by a substitute item.	
Attribute	countryOfOrigin	CountryCode	01	Country from which the goods are supplied.	
Attribute	qualityControlC ode	QualityControlCode	01	Code specifying a type of required quality control. Allowed code values are specified in GS1 Code List QualityControlCode.	WR 13-000188
Attribute	quarantinePerio d	TimeMeasurement	01	The length of time a material, substance, product, or reagent needs to be stored before use.	WR 13-000188
Attribute	minimumRemai ningShelfLifeIn bound	TimeMeasurement	01	The length of time a material, substance, product, or reagent can be stored under specified environmental conditions and continue to meet all applicable specification requirements and/or remain suitable for its intended function. This is the shelf life for products intended to be used by the receiving party.	WR 13-000188



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Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Attribute	minimumRemai ningShelfLifeOu tbound	TimeMeasurement	01	The length of time a material, substance, product, or reagent can be stored under specified environmental conditions and continue to meet all applicable specification requirements and/or remain suitable for its intended function. This is the shelf life for products intended to be shipped to other receiver party.	WR 13-000188
ItemDataStockRequirements				A logical grouping of data detailing the stock level of an item which must be adhered to.	
Attribute	requiredStockL evel	Quantity	11	The stock level of an item which must be adhered to.	
Attribute	stockRequireme ntTypeCode	StockRequirementTy peCode	11	The type of stock requirement that must be adhered to. For example, safety stock, maximum stock.	
Attribute	requiredStockL evelValidityDat eTime	dateTime	01	The point in time (date) as of which a required stock level (for example safety or maximum) is valid.	

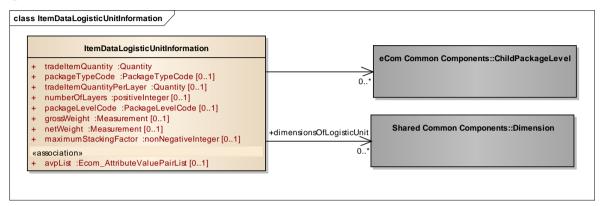


Note: Reference Shared Common Library Business Message (BMS) Release 3.6 and eCom Domain Common Library Business Message (BMS) Release 3.6 for all common information.



4.5 Item Data Logistic Unit Information

Class Diagram



GDD Report

The content of the ItemDataLogisticUnitInformation class, its structure and component definitions can be accessed in the Global Data Dictionary: http://apps.gs1.org/GDD/bms/Version3 3/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:ItemDataLogisticUnitInformation

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
ItemDataLogisticUnitInforma tion				A logical grouping of information regarding an item of any composition established for transport and/or storage which needs to be managed through the supply chain.	
Association		ChildPackageLevel	0*	Information about the hierarchical level and packaging quantity of the current item.	WR 13-000188
Association	dimensionsOfLo gisticUnit	Dimension	0*	Information specifying the physical dimensions of a specific logistic unit.	WR 13-000188
Attribute	tradeItemQuant ity	Quantity	11	The number of trade items contained in the logistic unit.	
Attribute	packageTypeCo de	PackageTypeCode	01	The package Type (for example case, display) associated with the item contents of a single despatch unit.	



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Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Attribute	tradeItemQuant ityPerLayer	Quantity	01	The number of trade items contained on a single layer of a pallet. Only used if the pallet has no GTIN. It indicates the number of trade items placed on a pallet layer according to supplier or retailer preferences.	
Attribute	numberOfLayer s	positiveInteger	01	The number of layers that a pallet contains. Only used if the pallet has no GTIN. It indicates the number of layers that a pallet contains, according to supplier or retailer preferences.	
Attribute	packageLevelCo de	PackageLevelCode	01	Code specifying the hierarchical level of this logistical unit within a consignment or shipment.	WR 13-000188
Attribute	grossWeight	Measurement	01	Used to identify the gross weight of the trade item. The gross weight includes all packaging materials of the trade item. At pallet level the gross weight includes the weight of the pallet itself.	WR 13-000188
Attribute	netWeight	Measurement	01	Used to identify the net weight of the trade item. Net weight excludes any packaging materials.	WR 13-000188
Attribute	maximumStacki ngFactor	nonNegativeInteger	01	A factor that determines the maximum stacking for the product. Indicates the number of levels the product may be stacked.	WR 13-000188
Attribute	avpList	Ecom_AttributeValue PairList	01	Temporary attributes introduced between minor versions.	WR 14-000110



Note: Reference Shared Common Library Business Message (BMS) Release 3.6 and eCom Domain Common Library Business Message (BMS) Release 3.6 for all common information.



4.6 Enumerations (message specific)

Not applicable

4.7 Code Lists

Class	Codelist	GDD Link
ItemDataLogisticUnitInformatio n	PackageLevelCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:PackageLevelCode
ItemDataStockRequirements	StockRequirementTypeCod e	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:StockRequirementTypeCode
ItemDataTradingPartnerDepen dent	CountryCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:CountryCode
ItemDataTradingPartnerDepen dent, ItemDataTradingPartnerNeutral	MeasurementUnitCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:MeasurementUnitCode
ItemDataTradingPartnerDepen dent	QualityControlCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanti cURN=urn:gs1:gdd:cl:QualityControlCode
ItemDataNotificationLineItem	TradeItemUnitDescriptorCo de	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:TradeItemUnitDescriptorCode
ItemDataTradingPartnerNeutral	AdditionalTradeItemClassifi cationCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:AdditionalTradeItemClassificationCode
ItemDataTradingPartnerNeutral	WarehouseABCClassificatio nCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:WarehouseABCClassificationCode



Note: Refer to the Global Data Dictionary (GDD) for the code values.



5 Business Message Examples

5.1 Example **1**

This is an example of the Item Data Notification message. The message is identified with the unique identification number ID37788. The message is sent from Data Source – a product manufacturer and seller (GLN 4098765000010) to Data Receipient, a potential buyer (GLN 5412345000013). Message is sent on 20th of February 2011 at 8.45 AM. It contains details about a product identified with GTIN 40987650000346. If this product is not available, it can be substituted with another product, GTIN 40987650003484.

Party Information

GS1 Global Location Number	Party Type
5412345000013	Data Receipient
4098765000010	Data Source

Attribute	Value
ItemDataNotification	
creationDateTime	24.05.2004, 18:12
documentStatusCode	ORIGINAL
EntityIdentification	
(+itemDatanotificationIdentification)	ID27700
entityIdentification	ID37788
TransactionalParty (+dataSource)	
gln	4098765000010
TransactionalParty (+dataRecipient)	
gln	5412345000013
ItemDataNotificationLineItem	
lineItemNumber	1
TradeItemIdentification	
gtin	40987650000346
tradeItemDescription	Ingredient ABC
ItemDataTradingPartnerDependent	
tradeItemSpecificUnitOfMeasure	KGM
orderQuantityMaximum	CS 100
orderQuantityMinimum	CS 5
orderQuantityMultiple	CS 5
tradeItemProductionLeadTime	DAY 15
tradeItemShipmentLeadTime	DAY 20
tradeItemSubstitutionDateTime	24.05.2005, 18:12
TradeItemIdentification (+substituteItem)	
gtin	40987650003484
ItemDataStockRequirements	
requiredStockLevel	CS 5
stockRequirementTypeCode	SAFETY_STOCK
requiredStockLevelValidityDateTime	24.05.2005, 18:12
ItemDataLogisticUnitInformation	



	in Bata Notification Business Message Standard (BMS)
Attribute	Value
tradeItemQuantity	5
packageTypeCode	CS
tradeItemQuantityPerLayer	4
numberOfLayers	4
ItemDataTradingPartnerNeutral	
effectiveDateTime	01.01.2004, 18:12
tradeItemBaseUnitOfMeasure	CS
startAvailabilityDateTime	01.02.2004
cancelledDateTime	24.05.2004, 18:12
tradeItemClassificationCode	10005267
ItemDataWeightAndDimension	
depth	CMT 20
diameter	CMT 12
grossWeight	KGM 1.5
height	CM 10
netWeight	KGM 1.5
width	CMT 10



6 Implementation Considerations

6.1 User Guide

The Functional User Guide contains more information about the structure and content of the Item Data Notification message: http://www.gs1.org/docs/ecom/xml/3/3.4/eCom-Trade messages.html#ItemDataNotification

6.2 Examples of item hierarchy in Item Data Notification

6.2.1 Scenario 1

Description

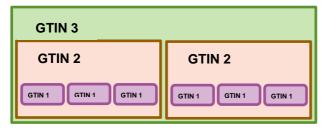
A trade Item unit is marked with GTIN 1



3 units are packed in a carton, marked with GTIN 2

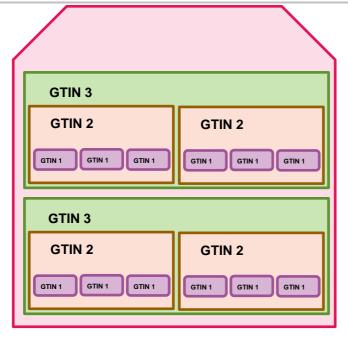


2 cartons are packed in a case, marked with GTIN 3:



2 cases are placed on a pallet:





Atribute / Class	Data	
ItemDataNotificationLineItem		
lineItemNumber	1	
TradeItemIdentification		
gtin	GTIN 1	
ItemDataNotificationLineItem		
lineItemNumber	2	
TradeItemIdentification		
gtin	GTIN 2	
LowerLevelTradeItem		
TradeItemIdentification		
gtin	GTIN 1	
quantityOfLowerLevelTradeItem	3	
ItemDataNotificationLineItem		
lineItemNumber	3	
TradeItemIdentification		
gtin	GTIN 3	
LowerLevelTradeItem		
TradeItemIdentification		
gtin	GTIN 2	
quantityOfLowerLevelTradeItem	2	
ItemDataTradingPartnerDependent		
ItemDataLogisticUnitInformation		
tradeItemQuantity	2	



Atribute / Class	Data
packageTypeCode	PALLET
packageLevelCode	3 (Outer)
tradeItemQuantityPerLayer	2
numberOfLayers	2
maximumStackingFactor	4

6.2.2 Scenario 2

Description

A carton is marked with GTIN => it is a Trade Item

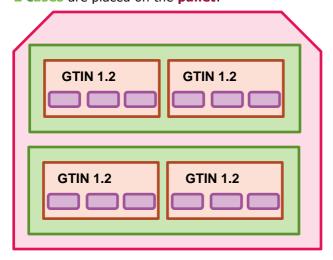
The carton contains 3 units, not marked with GTIN:



2 cartons are packed in a case, not marked with GTIN:



2 cases are placed on the pallet:



Atribute / Class	Data
ItemDataNotificationLineItem	
lineItemNumber	1
TradeItemIdentification	
gtin	GTIN 1.2
ItemDataTradingPartnerDependent	



Atribute / Class	Data
ItemDataLogisticUnitInformation	
tradeItemQuantity	2
packageTypeCode	CARTON
packageLevelCode	2 (Intermediate)
ChildPackageLevel	
packageLevelCode	1 (Inner)
childPackageLevelQuantity	3
ItemDataNotificationLineItem	
lineItemNumber	2
TradeItemIdentification	
gtin	GTIN 1.2
ItemDataTradingPartnerDependent	
ItemDataLogisticUnitInformation	
tradeItemQuantity	4
packageTypeCode	PALLET
packageLevelCode	3 (Outer)
ChildPackageLevel	
packageLevelCode	2 (Intermediate)
childPackageLevelQuantity	2
tradeItemQuantityPerLayer	2
numberOfLayers	2
maximumStackingFactor	4



6.2.3 Scenario 3

Description

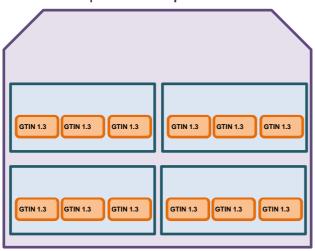
A trade Item unit is marked with GTIN



3 units are packed in a carton, not marked with GTIN:



4 cartons are placed on the pallet:



obuge example		
Atribute / Class	Data	
ItemDataNotificationLineItem		
lineItemNumber	1	
TradeItemIdentification		
gtin	GTIN 1.3	
ItemDataTradingPartnerDependent		
ItemDataLogisticUnitInformation		
tradeItemQuantity	1	
packageTypeCode		
packageLevelCode	1 (Inner)	
T. B. N. W. W. W.		
ItemDataNotificationLineItem		
lineItemNumber	2	
TradeItemIdentification		
gtin	GTIN 1.3	
ItemDataTradingPartnerDependent		



Item Data Notification Dusiness Message Standard (DMS		
Atribute / Class	Data	
ItemDataLogisticUnitInformation		
packageTypeCode	CASE	
packageLevelCode	2 (Intermediate)	
ChildPackageLevel		
packageLevelCode	1 (Inner)	
childPackageLevelQuantity	3	
ItemDataNotificationLineItem		
lineItemNumber	3	
TradeItemIdentification		
gtin	GTIN 1.3	
ItemDataTradingPartnerDependent		
ItemDataLogisticUnitInformation		
tradeItemQuantity	12	
packageTypeCode	PALLET	
packageLevelCode	3 (Outer)	
ChildPackageLevel		
packageLevelCode	2 (Intermediate)	
childPackageLevelQuantity	4	
tradeItemQuantityPerLayer	2	
numberOfLayers	2	
maximumStackingFactor	4	



6.2.4 Scenario 4

Description

A carton is marked with GTIN

The carton contains 3 units: 1 unit A + 2 units B, not marked with GTIN



Atribute / Class	Data
ItemDataNotificationLineItem	
lineItemNumber	1
TradeItemIdentification	
gtin	GTIN 1.4
quantityOfItemTypes	2
quantityOfItemUnits	3



7 Summary of Changes

Any change in the GS1 standards is done based on the Work Request (WR) submitted by the GS1 User Companies or Member Organisations. All Work Requests are documented in the Work Request system available on the GS1 website: http://wr.gs1.org. The system is accessible to registered users. New visitors need to register first, to be able to access it. WRs can be searched by the number referenced in tables below, see: Search Work Requests. The number starts with the two last digits of the year when it was submitted, followed by the consecutive number within that year.

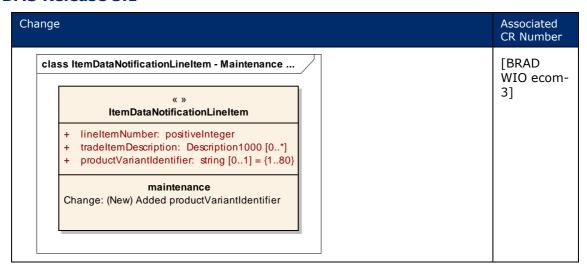


Note: WRs submitted earlier than February 2012 should be searched in Old Change Requests.

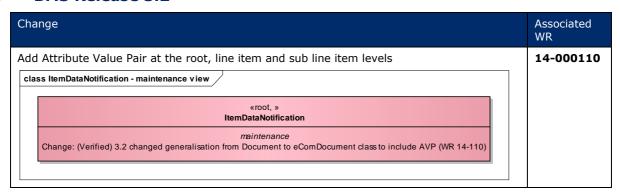
7.1 BMS Release 3.0

Change	Associated CR Number
Update for Major release 3.0: updated to reflect changes in modelling methodology.	n/a

7.2 BMS Release **3.1**



7.3 BMS Release **3.2**





hange	Associated WR
dded: (WR 13-188)	13-000188
TheProductVariantPreferred	14-000021
wer level trade item	14-000044
ade unit descriptor code	14-000110
rand name	
PC	
uantity of item types	
uantity of item units	
dded a reference to parent line number to support hierarchical items. (WRs 14-021 14-44)	
dded Attribute Value Pair at the root, line item and sub line item levels (WR 14-110)	
class ItemDataNotificationLineItem - Maintenance View /	
« » ItemDataNotificationLineItem	
+ lineItemNumber :positiveInteger + tradeItemDescription :Description1000 [0*] + productVariantIdentifier :Identifier [01] = {180} + isTheProductVariantPreferred :boolean [01] + brandName :string [01] = {170} + gpcCategoryCode :string [01] = {\ldot\ldot\ldot\ldot\ldot\ldot\ldot\ldot	
maintenance Change: (Complete) 3.1 added +productVariantIdentifier Change: (Verified) 3.2 added +avpList (WR 14-110) Change: (Verified) 3.2 added +brandName (WR 13-188) Change: (Verified) 3.2 added +gpcCategoryCode (WR 13-188) Change: (Verified) 3.2 added +jarnentLineItemNumber (WR 14-021 & 14-044) Change: (Verified) 3.2 added +parentLineItemNumber (WR 14-021 & 14-044) Change: (Verified) 3.2 added +quantityOfItemUnits (WR 13-188) Change: (Verified) 3.2 added +quantityOfItemUnits (WR 13-188) Change: (Verified) 3.2 added +tradeItemUnitDescriptorCode (WR 13-188) Change: (Verified) 3.2 added assiciation to LowerLevelTradeItem (WR 13-188) Change: (Verified) 3.2 changed multiplicity of ItemDataTradingPartnerDependent class from 01 to 0* (WR 13-188)	



ange	Associated WR
ded: (WR 13-188)	13-000188
ngerous goods information	14-00011
rehouse ABC Classification Code	
ximum Stacking Factor	
ndling instruction	
ded Attribute Value Pair at the root, line item and sub line item levels (WR 14-110)	
ass ItemDataTradingPartnerNeutral - Maintenance view	
« » ItemDataTradingPartnerNeutral	
+ effectiveDateTime :dateTime + «association» avpList :Ecom_AttributeValuePairList [01] + tradeItemBaseUnitOfMeasure :MeasurementUnitCode + startAvailabilityDateTime :dateTime + cancelledDateTime :dateTime [01] + discontinuedDateTime :dateTime [01] + endAvailabilityDateTime :dateTime [01] + tradeItemClassificationCode :AdditionalTradeItemClassificationCode [0*] + warehouseABCClassificationCode :WarehouseABCClassificationCode [01] + maximumStackingFactor :integer [01]	
maintenance Change: (Verified) 3.2 added +avpList (WR 14-110) Change: (Verified) 3.2 added +maximumStackingFactor (WR 13-188) Change: (Verified) 3.2 added +warehouseABCClassificationCode (WR 13-188) Change: (Verified) 3.2 added association to DangerousGoodsInformation (WR 13-188) Change: (Verified) 3.2 added association to HandlingInstructions (WR 13-188) Change: (Verified) 3.2. added association to Code named +itemClassificationScheme (WR 13-188)	

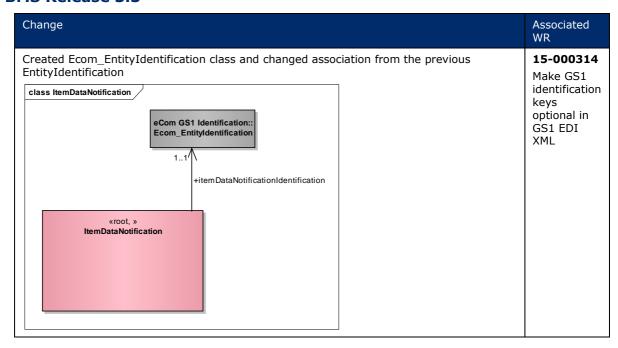


ange	Associated WR
anged class multiplicity from 01 to 0*. Added: (WR 13-188) ministrative unit of Receiver ipper ceiver iginating Party	13-000188 14-000110
untry of origin Party Pa	
ass ItemDataTradingPartnerDependent - maintenance view	
ItemDataTradingPartnerDependent	
+ tradeItemSpecificUnitOfMeasure :MeasurementUnitCode + «association» avpList :Ecom_AttributeValuePairList [01] + orderQuantityMaximum :Quantity [01] + orderQuantityMinimum :Quantity [01] + orderQuantityMultiple :Quantity [01] + tradeItemProductionLeadTime :TimeMeasurement [01] + tradeItemShipmentLeadTime :TimeMeasurement [01] + tradeItemSubstitutionDateTime :dateTime [01] + countryOfOrigin :CountryCode [01] + qualityControlCode :QualityControlCode [01] + quarantinePeriod :TimeMeasurement [01] + minimumRemainingShelfLifeInbound :TimeMeasurement [01] + minimumRemainingShelfLifeOutbound :TimeMeasurement [01]	
maintenance Change: (Verified) 3.2 added +avpList (WR 14-110) Change: (Verified) 3.2 added +countryOfOrigin (WR 13-188) Change: (Verified) 3.2 added +minimumRemainingShelfLifeInbound (WR 13-188) Change: (Verified) 3.2 added +minimumRemainingShelfLifeOutbound (WR 13-188) Change: (Verified) 3.2 added +qualityControlCode (WR 13-188) Change: (Verified) 3.2 added +quarantinePeriod (WR 13-188) Change: (Verified) 3.2 added association to AdministrativeUnit named +administrativeUnitOfReceiver (WR 13-188) Change: (Verified) 3.2 added association to TransactionalParty named +receiver (WR 13-188) Change: (Verified) 3.2 added association to TransactionalParty named +shipper (WR 13-188) Change: (Verified) 3.2 added association to TransactionalParty named +originatingParty (WR 13-188)	

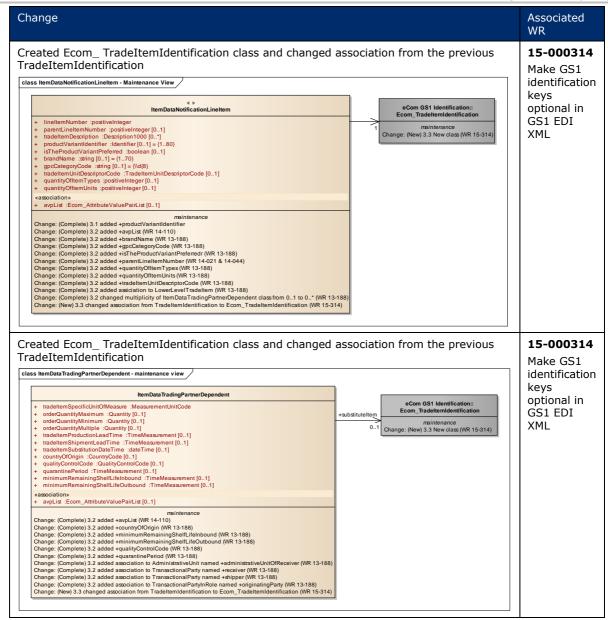


nange	Associated WR
nanged class multiplicity from 01 to 0*. Added: (WR 13-188) ackage level code nild package level code ross weight + net weight + dimensions of logistic unit aximum stacking factor Id Attribute Value Pair at the root, line item and sub line item levels (WR 14-110) Ilass ItemDataLogisticUnitInformation - maintenance view	13-000188 14-000110
ItemDataLogisticUnitInformation + tradeItemQuantity :Quantity + packageTypeCode :PackageTypeCode [01] + tradeItemQuantityPerLayer :Quantity [01] + numberOfLayers :positiveInteger [01] + packageLevelCode :PackageLevelCode [01] + grossWeight :Measurement [01]	
+ netWeight :Measurement [01] + maximumStackingFactor :nonNegativeInteger [01] + «association» avpList :Ecom_AttributeValuePairList [01]	
Change: (Verified) 3.2 added +avpList (WR 14-110) Change: (Verified) 3.2 added +grossWeight (WR13-188) Change: (Verified) 3.2 added +maximumStackingFactor (WR13-188) Change: (Verified) 3.2 added +netWeight (WR13-188) Change: (Verified) 3.2 added +packageLevelCode (WR13-188) Change: (Verified) 3.2 added association to ChildPackageLevel (WR13-188) Change: (Verified) 3.2 added association to Dimension with role name +dimensionOfLogisticUnit (WR13-188)	

7.4 BMS Release 3.3







7.5 BMS Release 3.4

No work requests. Indirect changes due to upgrade to new Shared and eCom Common libraries.

7.6 BMS Release **3.5**

No work requests. Indirect changes due to upgrade to new Shared and eCom Common libraries.

7.7 BMS Release 3.5.1

No work requests. Indirect changes due to upgrade to new Shared and eCom Common libraries.

7.8 BMS Release 3.6

No work requests. Indirect changes due to upgrade to new Shared and eCom Common libraries.



8 Appendices

Not Applicable

9 Acknowledgements

9.1 Work Group

Function	Name	Company / organisation
Co-chair	Rossner (Pottier), Natascha	GS1 France
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