Goods Requirements

Business Message Standard (BMS)

Release 3.1

1-May-2013, Issue 1

Document Summary

Document Item	Current Value
Document Title	Goods Requirements - Business Message Standard (BMS)
BMS Release	3.1
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Work Group Name	eCom SMG
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Change Request Reference

Date of CR Submission to GSMP:	CR Submitter(s):	Refer to Change Request (CR) Number(s):
20 –Aug- 2008	John Ryu, GS1	08-000209
06-Sep-2006	Eric Maree, Accenture	07-000320
11-May-2004	GUSI	04-000211

Business Requirements Document (BRAD) Reference

BRAD Title:	BRD Date:	BRAD Version
BRAD Upstream Standards – Demand & Supply Signals	01-Nov-2004	0.1.0

Document Change History

Date of Change	Version	Changed By	Reason for Change	Summary of Change
January 6, 2012	BMS 3.0 Issue 1.0.0	Coen Janssen	Publication of BMS 3.0	Noted in Summary of Changes section
1-May-2013	BMS 3.1 issue 1	Coen Janssen	Update to 3.1	Noted in Summary of Changes section

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1.1. Problem Statement / Business Need

In several business scenarios the buyer needs to communicate his Goods Requirements to the seller. This can be needed in traditional order driven scenarios and is definitely needed in supplier managed scenarios. The Goods Requirements communicated by the buyer can be gross or net (=gross requirements -/- inventory).

1.2. Objective

This standard defines the transaction model and data model for the following business message:

■ Goods Requirement

1.3. Audience

■ Manufacturers

■ Suppliers

■ Logistic Service Providers

1.4. References

Reference Name	Description
[Ref1] BMS eCom Common Library 3.1	The documented design of components that are used in multiple messages. In the eCom Domain.
[Ref2] BMS Shared Common Library 3.1	The documented design of components that are used in both the eCom Domain and GDSN
Ref2] BRAD Upstream Standards - Demand & Supply Signals 0.1.0	

1.5. Acknowledgements

1.5.1. Work Group

Function	Name	Company / organisation
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Co-chair	Schmidt, Tom Eric	August Storck KG
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Member	Bodemer, Petra	dm-drogerie markt GmbH + Co. KG
Member	Boikanyo, Rebone	GS1 South Africa / Consumer Goods Council of South Africa
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Member	De Flou, Nele	GS1 Belgium & Luxembourg
Member	Dicks, Arne	GS1 Germany
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Member	Lenman, Mia	GS1 Sweden
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Member	Ng, Ella	GS1 Australia
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Member	Tompsett, Simon	Waitrose
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Member	Tse, Steve	GS1 Hong Kong
Member	Tyson, Betty	Knouse Foods Cooperative, Inc
Member	Van den Bergh, Senne	GS1 Belgium & Luxembourg
Member	Van der Eijk, Pim	OASIS - Sonnenglanz Consulting BV
Member	Veldhuis, Saskia	Procter & Gamble Co.
Member	Welch, Shan	GS1 UK
Member	Westerkamp, Jan	GS1 Netherlands
Member	Wilson, Mary	GS1 US
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Member	Yang, Shaopeng	GS1 China
Member	Yusdiar, Dani	GS1 Indonesia
Member	Zwanziger, Greg	SUPERVALU

1.5.2. Development Team Members

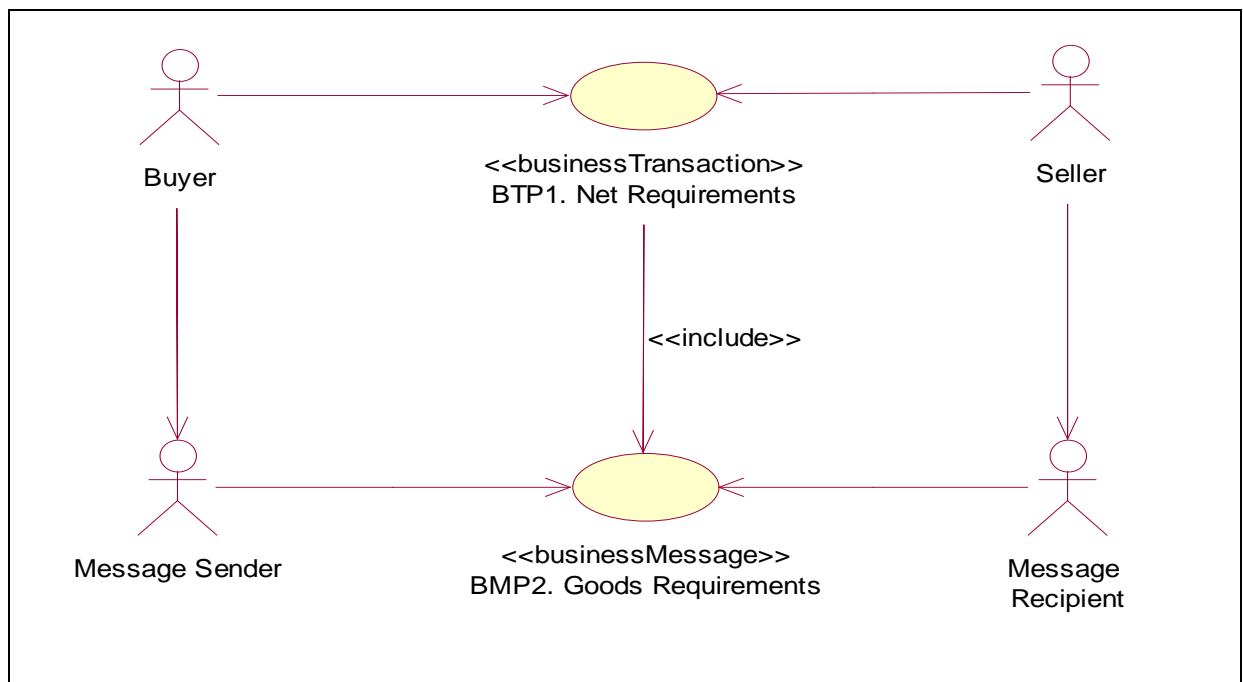| Function	Name	Organisation
GSMP Process Lead	Jean-Luc Champion	GS1 Global Office
Standards Content Lead	Coen Janssen	GS1 Global Office
Technical Development Lead	Ewa Iwicka	GS1 Global Office
Peer Review	Eric Kauz	GS1 Global Office

2. Business Context

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

3. Business Transaction View
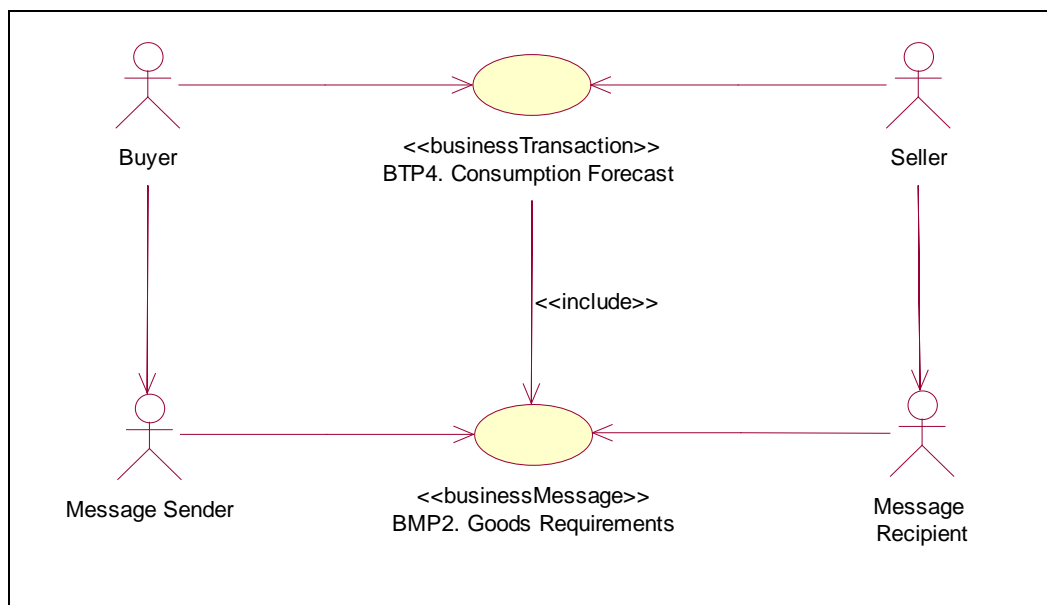
3.1. Business Transaction - Net Requirements

Use Case Diagram

Use Case Description

Use Case ID	BTP1
Use Case Name	Net Requirements
Use Case	The buyer communicates his net requirements to the seller.

Description	
Actors (Goal)	Buyer: To send the net requirements. Seller: To receive the net requirements.
Performance Goals	Not Applicable
Preconditions	Net Requirements: CALCULATED
Post conditions	Net Requirements: COMMUNICATED
Scenario	**Begins when:** Buyer has calculated his net requirements. **Continues with**:

Step #	Actor	Activity Step
1.	Buyer	Sends Goods Requirements message to the Seller.
2.	Seller	Receives Goods Requirements Message

Ends when:

Alternative Scenario	*(any alternatives to the above scenario)*

Step #	Actor	Activity Step
		Not Applicable

Business Transaction Rules	

1.	For communicating the consumption forecast use the goodsRequirementsType with value NET_REQUIREMENTS

3.2. Business Transaction - Consumption Forecast

Use Case Diagram

Use Case Description

Use Case ID	BTP4
Use Case Name	Consumption Forecast
Use Case Description	The buyer communicates his forecasted consumption to the seller.
Actors (Goal)	Buyer: To send the consumption forecast. Seller: To receive the consumption forecast.
Performance Goals	Not Applicable
Preconditions	Consumption Forecast: CALCULATED
Post conditions	Consumption Forecast: COMMUNICATED

Scenario	**Begins when:** Buyer has calculated his forecasted consumption. **Continues with**:

Step #	Actor	Activity Step
1.	Buyer	Sends Goods Requirements message to the Seller.
2.	Seller	Receives Goods Requirements Message

Ends when:

Alternative Scenario	*(any alternatives to the above scenario)*

Step #	Actor	Activity Step
		Not Applicable

Business Transaction Rules	

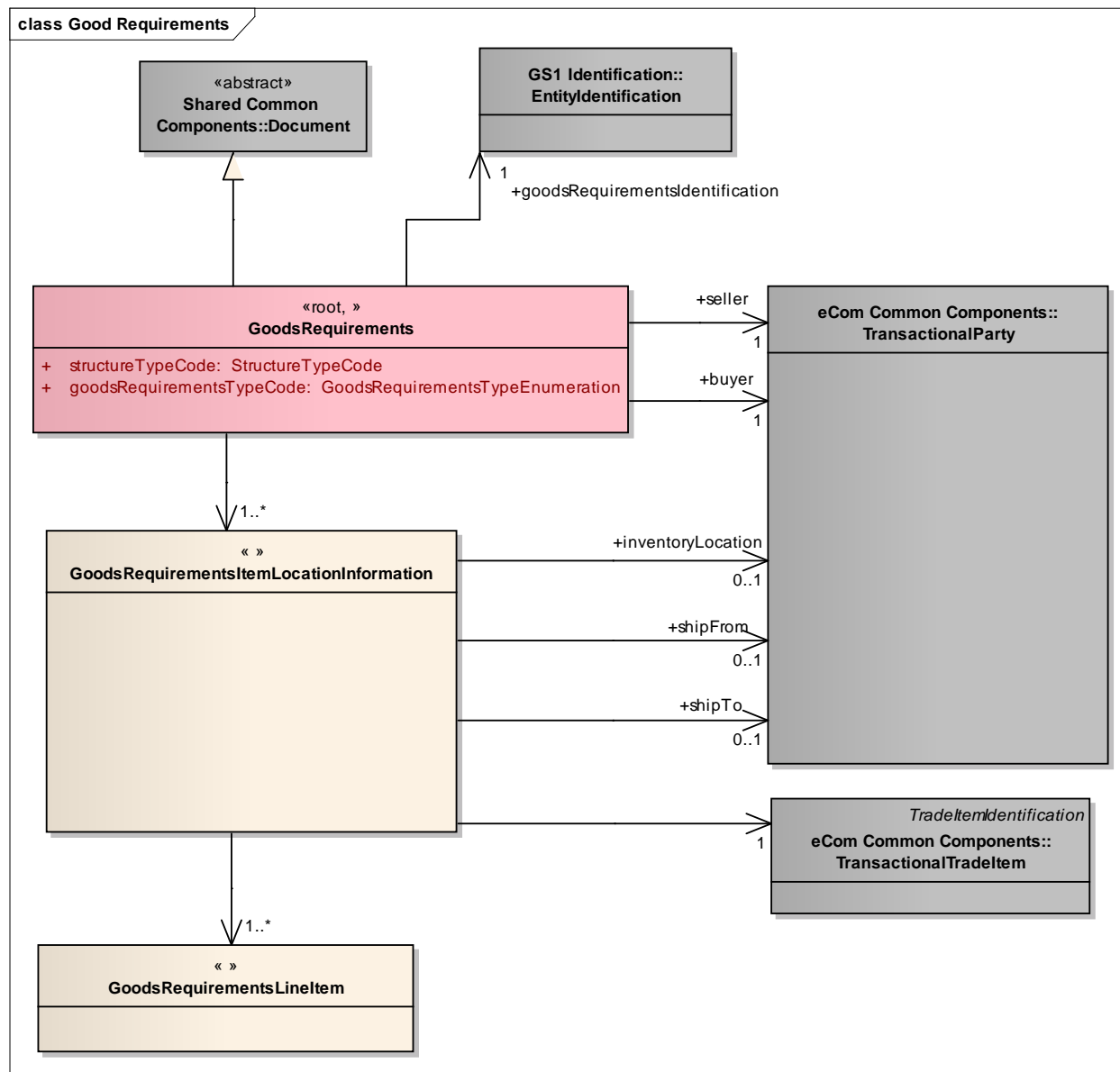| 1	For communicating the consumption forecast use the goodsRequirementsType with value GROSS_REQUIREMENTS

4. Business Information View

Note: Reference Shared Common Library Business Message (BMS) Release 3.0.0 and eCom Domain Common Library Business Message (BMS) Release 3.0.0 for all common information.

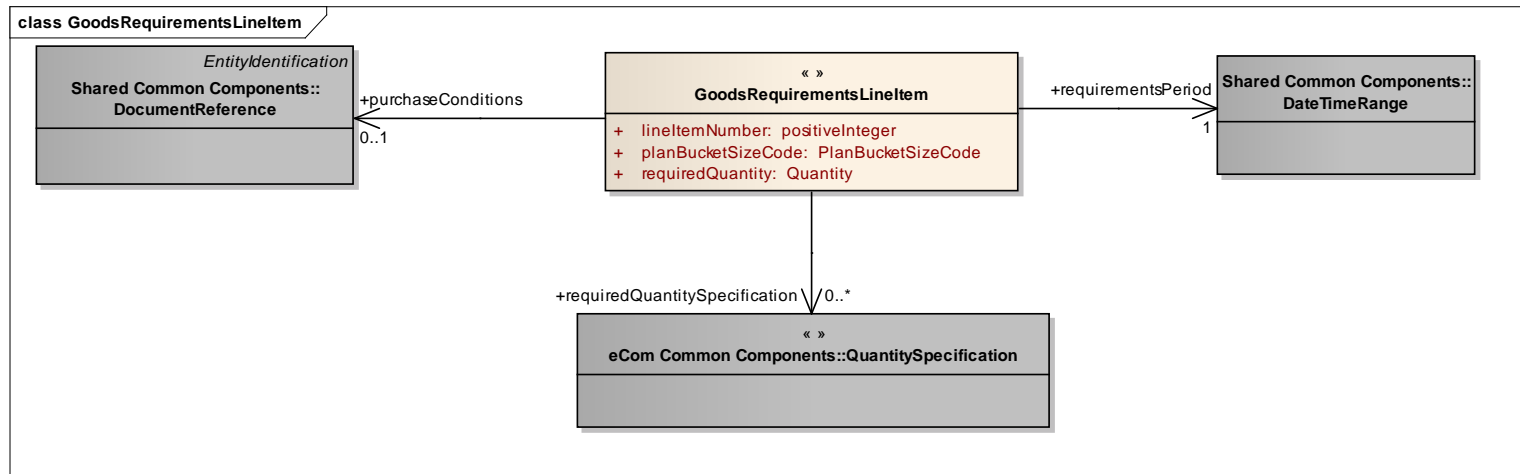## 4.1.   Goods Requirements

Class Diagram

GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
GoodsRequirements				Contains the Goods Requirements from the buyer to the seller for given trade items and locations for specific time periods.	
Association	buyer	TransactionalParty	1..1	The buyer associated with the goods requirements for given trade items and locations for specific time periods.	
Association	seller	TransactionalParty	1..1	The seller associated with the goods requirements for given trade items and locations for specific time periods.	
Association	goodsRequirementsIdentification	EntityIdentification	1..1	Contains the unique identifier of the business document.	
Association		GoodsRequirementsItemLocationInformation	1..*	Contains the Goods Requirements for given trade items and locations for specific time periods.	
Generalization		Document		Basic information about the content of the message including version number, creation date and time.	
Attribute	structureTypeCode	StructureTypeCode	1..1	Contains the type of grouping and sequence of the business document.	
Attribute	goodsRequirementsTypeCode	GoodsRequirementsTypeEnumeration	1..1	Contains the type of Goods Requirements, gross or net.	
GoodsRequirementsItemLocationInformation				Contains the Goods Requirements for a given trade item and location for specific time periods.	
Association	shipFrom	TransactionalParty	0..1	The ship from location associated with a goods requirement.	
Association	shipTo	TransactionalParty	0..1	The ship to location associated with a goods requirement.	
Association	inventoryLocation	TransactionalParty	0..1	The location of inventory associated with a goods requirement.	
Association		GoodsRequirementsLineItem	1..*	Specifies the projected goods requirements for a given location / item.	
Association		TransactionalTradeItem	1..1	The trade item associated with a goods requirement.	

4.2. Goods Requirements Line Item

Class Diagram

GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
GoodsRequirementsLineItem				Specifies the projected goods requirements for a given location / item.	
Association	requiredQuantitySpecification	QuantitySpecification	0..*	Specifies the cumulative quantity already received for the current time bucket.	
Association	requirementsPeriod	DateTimeRange	1..1	Contains the start and end dates and optionally start and end times of the requirements period.	
Association	purchaseConditions	DocumentReference	0..1	Contains a reference to the commercial agreement under which the goods are supplied.	
Attribute	lineItemNumber	positiveInteger	1..1	Provides the line number associated to the Goods Requirements Line Item.	
Attribute	planBucketSizeCode	PlanBucketSizeCode	1..1	Code specifying the duration of the requirements period.	renamed from timeBucketSizeType
Attribute	requiredQuantity	Quantity	1..1	The number of units required in the specified requirements period.	

4.3. Code Lists & Enumerations

4.3.1. Referenced Code Lists

Class	Codelist	Referenced in
GoodsRequirements	StructureTypeCode	eCom Domain Common Library Business Message (BMS) Release 3.0.0
GoodsRequirementsLine Item	PlanBucketSizeCode	eCom Domain Common Library Business Message (BMS) Release 3.0.0

Note: Reference Shared Common Library Business Message (BMS) Release 3.0.0 and eCom Domain Common Library Business Message (BMS) Release 3.0.0 for all Code Lists

4.3.2. Goods Requirements Type Enumeration

CodeValue	Description
ACTUAL_SALES	Actual goods sales
FORECAST	Forecasted goods sales
GROSS_REQUIREMENTS	Planned material consumption
NET_REQUIREMENTS	Planned material consumption corrected for available inventory

5. Business Message Example

The following is an example of a gross requirements message. The message is sent out on February 9th at 11 AM. The message is identified with the unique identifier 2005001. The content owner is the sending party, in this case the manufacturer (Buyer 8712345678913).

The gross requirements are sent by the manufacturer (Buyer 8712345678913) to the material supplier (Seller 8812345678903).

For informational purposes the manufacturer includes the name of his material requirements planner (Mr. Kramer).

The gross requirements are for two delivery sites, X (Ship To 8712345670009) and Y (Ship To 8712345678951).

The gross requirements are for one item, A (GTIN 08712345678906).

For item A and delivery site X the gross requirements are:

- Week February 11-17: 1000 units, of which 500 units have already been received.
- Week February 18-25: 200 units.

The contract to be used for the requirements in week February 11-17 (2004000012) was issued by the business unit of the material supplier (content owner 8712345678999). Within the contract line 23 refers to this item.

For the requirements in week February 18-25 no contract has been specified.

For item A and delivery site Y the gross requirements are:

- Week February 11-17: 300 units.

- Week February 18-25: 1200 units.

The contract used for the requirements in week February 11-17 (2004000012) is the same as for delivery site X.

For the requirements in week February 18-25 no contract has been specified.

GoodsRequirements	
- creationDateTime	2005-02-09T11.00.00
- documentStatusCode	ORIGINAL
- structureTypeCode	ITEM_BY_LOCATION
- goodsRequirementsTypeCode	GROSS_REQUIREMENTS
EntityIdentification (+goodsRequirementsIdentification)	
- entityIdentification	2005001
PartyIdentification (+contentOwner)	
- gln	8712345678913
TransactionalParty (+seller)	
- gln	8812345678903
TransactionalParty (+buyer)	
- gln	8712345678913
Contact	
- personName	Kramer
- responsibility	goodsRequirementsPlanner
GoodsRequirementsItemLocationInformation *1	
TransactionalParty (+shipTo)	
- gln	8712345670009
TransactionalTradeItem	
- gtin	08712345678906
GoodsRequirementsLineItem *1.1	
- lineItemNumber	1
- planBucketSizeCode	WEEK
- requiredQuantity	1000
DateTimeRange (+requirementsPeriod)	
- beginDate	2005-02-11
- endDate	2005-02-17
DocumentReference (+purchaseConditions)	
- lineItemNumber	23
- entityIdentification	2004000012
PartyIdentification (+contentOwner)	
- gln	8712345678999

GoodsRequirements	
QuantitySpecification(+requiredQuantitySpecification)	
- quantitySpecificationType	RECEIVED
- specificQuantity (value, unitOfMeasure)	500
GoodsRequirementsLineItem *1.2	
- lineItemNumber	2
- planBucketSizeCode	WEEK
- requiredQuantity	1200
DateTimeRange (+requirementsPeriod)	
- beginDate	2005-02-18
- endDate	2005-02-25
GoodsRequirementsItemLocationInformation *2	
TransactionalParty (+shipTo)	
- gln	8712345678951
TransactionalTradeItem	
- gtin	08712345678906
GoodsRequirementsLineItem *2.1	
- lineItemNumber	1
- planBucketSizeCode	WEEK
- requiredQuantity	300
DateTimeRange (+requirementsPeriod)	
- beginDate	2005-02-11
- endDate	2005-02-17
DocumentReference (+purchaseConditions)	
- lineItemNumber	23
- entityIdentification	2004000012
PartyIdentification (+contentOwner)	
- gln	8712345678999
GoodsRequirementsLineItem *2.2	
- lineItemNumber	2
- planBucketSizeCode	WEEK
- requiredQuantity (value, unitOfMeasure)	1200
DateTimeRange	
- beginDate	2005-02-18
- endDate	2005-02-25

6. Implementation Considerations

Not Applicable

7. Appendices

Not Applicable

8. Summary of Changes

8.1. BMS Release 3.0

Change	BSD Version	Associated CR Number
For BMS Release 3.0.0 Updated to reflect changes in modelling methodology.	Issue 1.0.0	Not Applicable
For Issue Resolution: ■ Fixed typo in title section 11: "Principals" -> "Principles" ■ Updated business example and test data for the changes in sequencing and issue resolution.	Issue 1.0.0	Not Applicable
For Peer Review: ■ Changed font in alternate scenario in use case section 4.2 from Times New Roman to Arial ■ Changed font in alternate scenario in use case section 4.4 from Times New Roman to Arial ■ Changed alignment in the business rule in section 4.2 to left. ■ Changed alignment in the business rule in section 4.4 to left.	Issue 1.0.0	Not Applicable
For Publication ■ Added Copyright R in GS1 Logo ■ Changed Status to Approved ■ Removed year reference in footer copyright statement ■ Replaced Section 10 with updated AG Principles	Issue 1.0.0	Not Applicable

8.2. BMS Release 3.1

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