



# Business Message Standard (BMS) Inventory Report

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08- Aug- 2007	Eric Maree, Accenture	07-000309
05-Nov-2004	GS1	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
BRD for Inventory Activity or Inventory Status	19-Nov-2004	0.6.2

## Document Change History

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
13-Jan-2012	Issue 1.0.0	Mark Van Eeghem	BMS Publication 3.0.0	See Summary Of Changes	N/A

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# 1. Business Domain View

## 1.1. Problem Statement / Business Need

There is a need for the messages to be exchanged between both parties, and to add additional trading partners involved in maintaining inventory levels such as the distributor, manufacturer, material supplier, retailer, warehouse, and wholesaler.

The Inventory Report includes all the activities and techniques of maintaining the stocks of items.

## 1.2. Objective

To supply the detail design of the (specific) business transaction needed to meet the requirements of the referenced BRAD(s).

## 1.3. Audience

The audience for this document is the global business community being any business that stores or owns goods at one or more points in the supply chain.

## 1.4. References

Reference Name	Description
BMS Common Library	The documented design of components that are used in both the eCom domain and GDSN
BMS eCom Domain Common Library	The documented design of components that are used in multiple messages in the eCom Domain.
BRAD Upstream Standards - Demand & Supply Signals 0.1.0	
BRD Inventory Activity or Inventory Status 0.6.2	

## 1.5. Acknowledgements

### 1.5.1. Work Group

Function	Name	Company / organisation
Chair eCom BRG	Edison, Carol	General Mills, Inc.
Chair MR3 subteam	Spaan, Stef	GS1 Netherlands
Member	Backert, Veronique	Dilicom
Member	Blankenstein, Kyra	GS1 Netherlands
Member	Bradley, Ardetha	Georgia Pacific
Member	Burke, Miriam	Procter & Gamble Co.
Member	Chatagnier, Isabelle	GS1 France
Member	Childs, Justin	GS1 Global Office

Function	Name	Company / organisation
Member	Chresta, Richard	GS1 Switzerland
Member	Cox, Marc	Philips Electronics N.V.
Member	De Flou, Nele	GS1 Belgium & Luxembourg
Member	Denyer, Troy	GS1 Australia
Member	Dicks, Arne	GS1 Germany
Member	Dodd, Marilyn	3M Company
Member	Duvinger, Karina	GS1 Sweden
Member	Earleywine, Sarah	IDEA (US)
Member	Fedoseev, Sergey	GS1 Russia
Member	Foerderer, Klaus	GS1 Germany
Member	Foxvog, Douglas	DERI, National Univ. of Ireland
Member	Fransen, Wim	EskoArtwork
Member	Gathmann, Stefan	GS1 Ireland
Member	Gilbert, Jean-Christophe	GS1 France
Member	Grangard, Anders	GS1 Global Office
Member	Herrick, Lisa	GS1 Global Office
Member	Hill, Douglas	GS1 Denmark
Member	Hoberg, Peter	Consafe Lodistics
Member	Iwicka, Ewa	GS1 Global Office
Member	Jin Soon, Tan	GS1 Singapore
Member	Joest, Holger	SA2 Worldsynchron GmbH
Member	Kempkes, Fred	Unilever N.V.
Member	Kidd, Robin	Nestle
Member	Kille, Grant	SA2 Worldsynchron GmbH
Member	Kozovic, Vladimir	GS1 Serbia
Member	Krid, Anne-Claire	GS1 France
Member	Lai, Keith	GS1 Australia
Member	Laur, Rita	GS1 Canada
Member	Lazarkova, Galya	GS1 Austria
Member	Lenman, Mia	GS1 Sweden
Member	Lockhead, Sean	GS1 Global Office
Member	Maniero, Ana Paula	GS1 Brasil
Member	Maree, Eric	Accenture Supply Chain Services
Member	Martinko, Michal	Hewlett-Packard
Member	McLeod, Ed	Procter & Gamble Co.
Member	Melcher, Jeff	The Exchange (AAFES)
Member	Montes de Oca, Alejandra	GS1 Mexico

Function	Name	Company / organisation
Member	Moritz, Marcus	GS1 Germany
Member	Mugnier, Norbert	Dilicom
Member	Narbaïts-Jauréguy, Corinne	GS1 France
Member	Noyes, Debra	Johnsonville Sausage, Inc
Member	Picoito, Joao	GS1 Portugal
Member	Plaksin, Leon	GS1 Australia
Member	Popper, Bret	Kraft Foods
Member	Post, Valerie	Link Snacks Inc, Jack Links Beef Jerky
Member	Pottier, Natascha	GS1 France
Member	Pujol, Xavier	GS1 Spain
Member	Repetto, Mirko	GS1 Italy
Member	Robba, Steven	SA2 Worldsynchron GmbH
Member	Rosell, Pere	GS1 Spain
Member	Rosenberg, Steven	GS1 US
Member	Ryu, John	GS1 Global Office
Member	Schmidt, Tom Eric	August Storck KG
Member	Schneider, Christian	GS1 Switzerland
Member	Sedano Acosta, Federico	GS1 Argentina
Member	Sharma, Vishal	General Mills, Inc.
Member	Sharratt, Jon	Target Corporation
Member	Shimazaki, Ayako	GS1 Japan
Member	SION, Emilie	GS1 France
Member	Smith, Matthew	Bunnings Group Limited
Member	Sobrinho, Gabriel	GS1 Netherlands
Member	Strand, Roman	GS1 Germany
Member	Takahashi, Akira	Data Applications Co, Ltd
Member	Tomassi, Gina	PepsiCo, Inc.
Member	Trelle, Ute	SA2 Worldsynchron GmbH
Member	Voorspuij, Jaco	DHL
Member	Welch, Shan	GS1 UK
Member	Westerkamp, Jan	GS1 Netherlands
Member	Windsperger, Bekki	Best Buy Co., Inc.

### 1.5.2. Design Team Members

Function	Name	Organisation
Modeller	Eric Kauz / Coen Janssen / Mark van Eeghem	GS1 Global Office
XML Technical Designer	Dipan Anarkat	GS1 Global Office

Function	Name	Organisation
Peer Reviewer	John Ryu / Eric Kauz	GS1 Global Office

## 2. Business Context

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

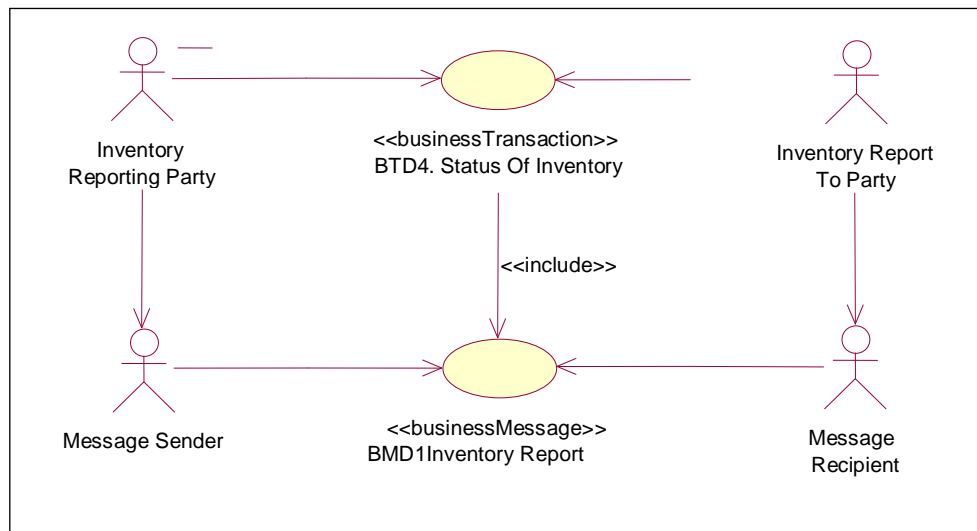
## 3. Additional Technical Requirements Analysis

Not Applicable

## 4. Business Transaction View

### 4.1. Business Transaction STATUS OF INVENTORY

#### 4.1.1. Business Transaction Use Case Diagram





### 4.1.2. Use Case Description

Use Case ID	BTD4						
Use Case Name	Status of Inventory						
Use Case Description	This use case describes the exchange of the Inventory Status. The inventory Report provides the inventory levels of an item where items are stored.						
Actors (Goal)	Inventory Report To Party: The actor who receives the Inventory Status. This role can be played by various parties (Distributor, Manufacturer, Material Supplier, Owner of items, Place where items are stored, Retailer, Warehouse, and Wholesaler). Inventory Reporting Party: The actor who transmits the Inventory Report. This role can be played by various parties (Distributor, Manufacturer, Material Supplier, Owner of items, Place where items are stored, Retailer, Warehouse, and Wholesaler).						
Preconditions	Both trading partners have agreed upon the reporting dates and times.						
Post conditions	Success: The 'Inventory Report To Party' receives the Inventory Report message. Failure: The 'Inventory Report To Party' does not receive the Inventory Status message.						
Scenario	<p><b>Begins when:</b> The submitter of the inventory report prepares the Inventory Report message on the agreed upon date and time.</p> <p><b>Continues with:</b></p> <table><tr><th>Step #</th><th>Actor</th><th>Activity Step</th></tr><tr><td>1.</td><td>Inventory Reporting Party</td><td>Sends the Inventory Report.</td></tr></table> <p><b>Ends when:</b> The 'Inventory Report To Party' receives the Inventory Report message.</p>	Step #	Actor	Activity Step	1.	Inventory Reporting Party	Sends the Inventory Report.
Step #	Actor	Activity Step					
1.	Inventory Reporting Party	Sends the Inventory Report.					
Alternative Scenario	There are no alternative scenarios.						
Business Transaction Rules							

### 4.1.3. Business Transaction Activity Diagram(s)

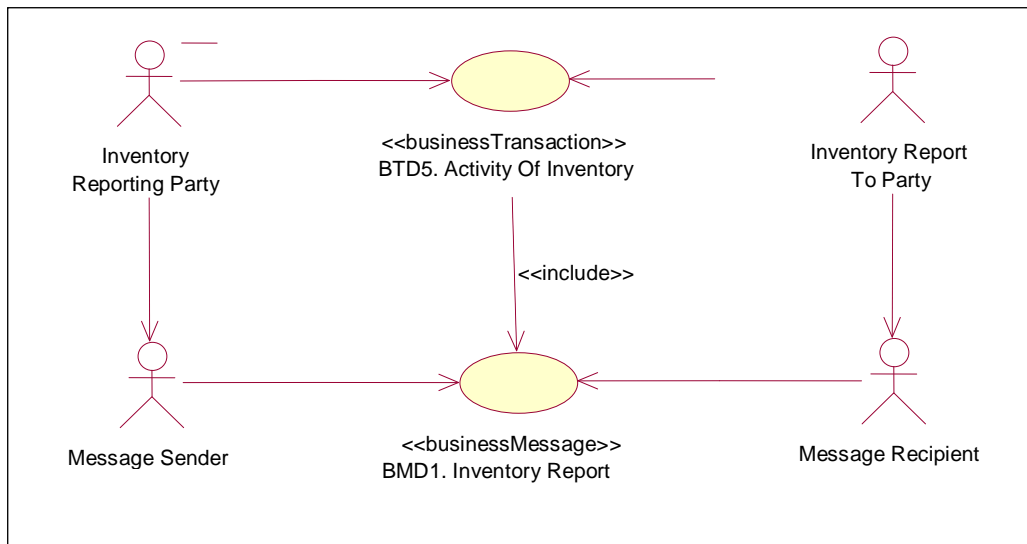
Not Applicable

### 4.1.4. Business Transaction Sequence Diagram(s) (optional)

Not Applicable

## 4.2. Business Transaction ACTIVITY OF INVENTORY

### 4.2.1. Business Transaction Use Case Diagram



## 4.2.2. Use Case Description

Use Case ID	BTD5						
Use Case Name	Activity of Inventory						
Use Case Description	This use case describes the exchange of the Inventory Activity. The inventory activity provides the activity of an item.						
Actors (Goal)	<p>Inventory Report To Party: The actor who receives the Inventory Activity. This role can be played by various parties (Distributor, Manufacturer, Material Supplier, Owner of items, Place where items are stored, Retailer, Warehouse, and Wholesaler).</p> <p>Inventory Reporting Party: The actor who transmits the Inventory Activity. This role can be played by various parties (Distributor, Manufacturer, Material Supplier, Owner of items, Place where items are stored, Retailer, Warehouse, and Wholesaler).</p>						
Preconditions	Both trading partners have agreed upon the reporting dates and times.						
Post conditions	Success: The 'Inventory Report To Party' receives the Inventory Report message. Failure: The 'Inventory Report To Party' does not receive the Inventory Report message.						
Scenario	<p><b>Begins when:</b></p> <p>The submitter of the inventory activity prepares the Inventory Report message on the agreed upon date and time.</p> <p><b>Continues with:</b></p> <table><tr><th>Step #</th><th>Actor</th><th>Activity Step</th></tr><tr><td>1.</td><td>Inventory Reporting Party</td><td>Sends the Inventory Report.</td></tr></table> <p><b>Ends when:</b> The 'Inventory Report To Party' receives the Inventory Report message.</p>	Step #	Actor	Activity Step	1.	Inventory Reporting Party	Sends the Inventory Report.
Step #	Actor	Activity Step					
1.	Inventory Reporting Party	Sends the Inventory Report.					
Alternative Scenario	There are no alternative scenarios.						
Business Transaction Rules							

### 4.2.3. Business Transaction Activity Diagram(s)

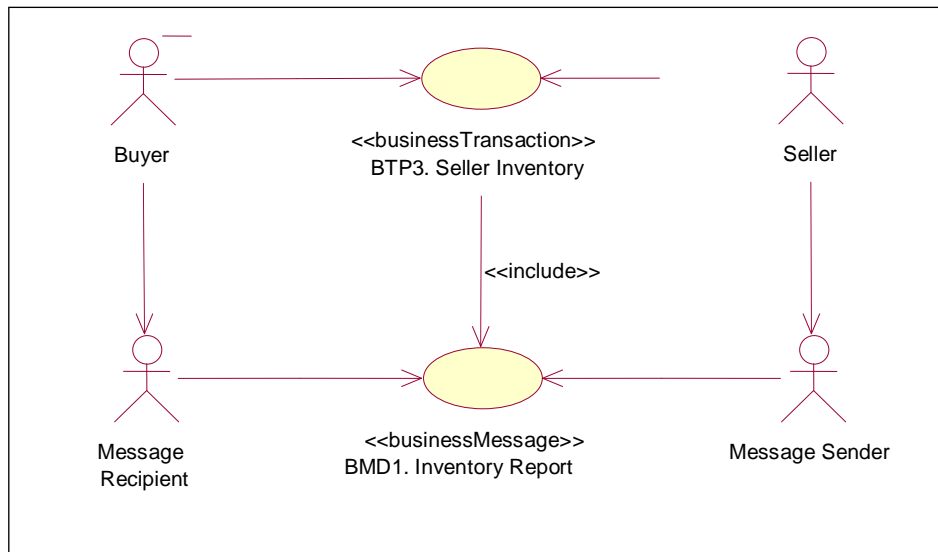
Not Applicable

### 4.2.4. Business Transaction Sequence Diagram(s)

Not Applicable

## 4.3. Business Transaction SELLER INVENTORY

### 4.3.1. Business Transaction Use Case Diagram



### 4.3.2. Use Case Description

Use Case ID	BTP3	
Use Case Name	Seller Inventory	
Use Case Description	The Seller Inventory transaction communicates at prescribed intervals the inventory levels of trade items in a specific location (plant, warehouse) to enable material requirements planning.	
Actors (Goal)	Buyer: To receive the inventory level information of the Seller. Seller: To communicate his inventory level information.	
Preconditions	Inventory Status: CALCULATED	
Post conditions	Inventory Status: COMMUNICATED	
Scenario	<b>Begins when:</b> The seller has calculated his inventory level.	
	<b>Continues with:</b>	
	Step #	Actor
	1.	Seller
	2.	Buyer
	Activity Step	
	Sends the Inventory Report message to the buyer.	
	Receives the Inventory Report message.	

	<b>Ends when:</b> buyer receives the Inventory Report message.
<b>Alternative Scenario</b>	There are no alternative scenarios.
<b>Business Transaction Rules</b>	In the Inventory Report message the Buyer is the Inventory Report to Party and the Seller is the Inventory Reporting Party.

### 4.3.3. Business Transaction Activity Diagram(s)

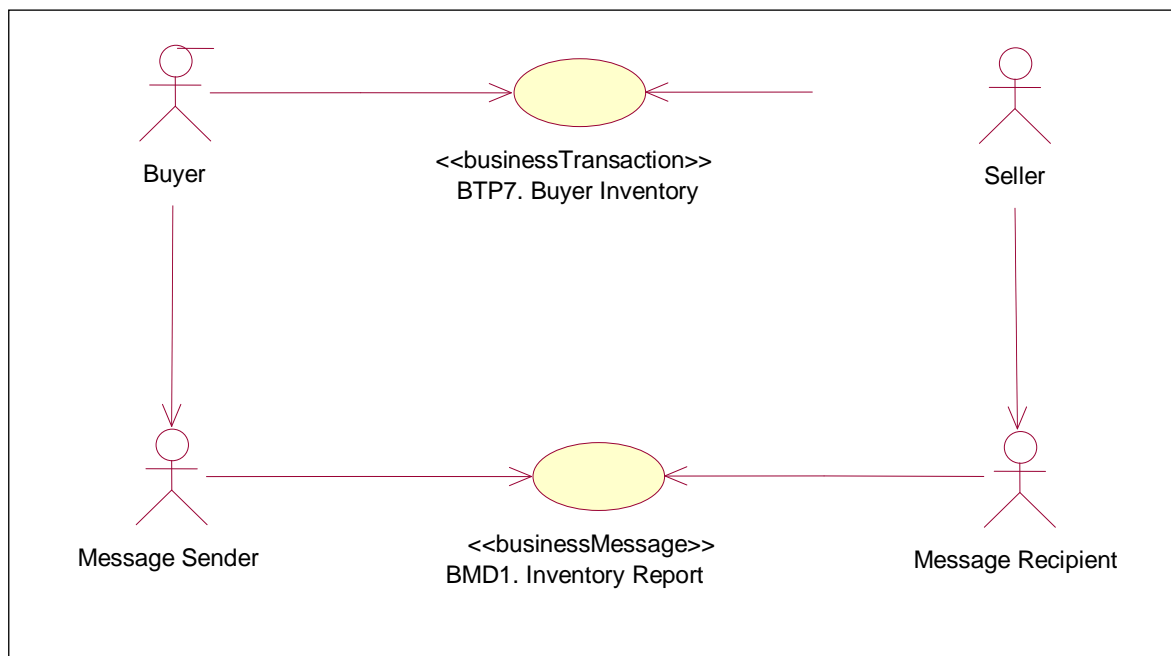
Not Applicable

### 4.3.4. Business Transaction Sequence Diagram(s)

Not Applicable

## 4.4. Business Transaction BUYER INVENTORY

### 4.4.1. Business Transaction Use Case Diagram



### 4.4.2. Use Case Description

<b>Use Case ID</b>	BTP7
<b>Use Case Name</b>	Buyer Inventory
<b>Use Case Description</b>	The Buyer Inventory transaction communicates at prescribed intervals the inventory levels of trade items in a specific location (plant, warehouse) to enable material requirements planning.
<b>Actors (Goal)</b>	Seller: To receive the inventory level information of the buyer. Buyer: To communicate his inventory level information.
<b>Preconditions</b>	Inventory Status: CALCULATED

<b>Post conditions</b>	Inventory Status: COMMUNICATED		
<b>Scenario</b>	<b>Begins when:</b> The buyer has calculated his inventory level.		
	<b>Continues with:</b>		
	<b>Step #</b>	<b>Actor</b>	<b>Activity Step</b>
	1.	Buyer	Sends the Inventory Report message to the seller.
	2.	Seller	Receives the Inventory Report message.
	<b>Ends when:</b> seller receives the Inventory Report message.		
<b>Alternative Scenario</b>	There are no alternative scenarios.		
<b>Business Transaction Rules</b>	In the Inventory message the Seller is the Inventory Report to Party and the Buyer is the Inventory Reporting Party.		

#### 4.4.3. Business Transaction Activity Diagram(s)

Not Applicable

#### 4.4.4. Business Transaction Sequence Diagram(s)

Not Applicable

## 5. Information Model (Including GDD Report)

### 5.1. GDD Reports

#### 5.1.1. GDD Report: Inventory Report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
<b><u>InventoryReport</u></b>				The Inventory Report enables a party (the inventory reporting party) to provide information on inventory levels and inventory changes to another party (the inventory report to party).	renamed from InventoryActivityOrInventoryStatus
Association	inventoryReportIdentification	EntityIdentification	1..1	Unique identification of the inventory report, assigned by the inventory reporting party.	
Association	inventoryReportToParty	TransactionalParty	1..1	The identification of the party to which the inventory is being reported.	
Association		InventoryItemLocationInformation	1..*	Contains the inventory information for a given trade item and location.	
Association	inventoryReportingParty	TransactionalParty	1..1	The identification of the party reporting about the inventory.	
Association	reportingPeriod	DateTimeRange	1..1	The time period for which the inventory report provides information.	
Generalization		Document		Basic information about the content of the message including version number, creation date and time.	
Attribute	inventoryReportTypeCode	InventoryReportTypeEnumeration	1..1	Code specifying the type of inventory information being provided. E.g. inventory status information.	renamed from inventoryDocumentType and made enumeration instead of code.
Attribute	structureTypeCode	StructureTypeCode	1..1	Contains the type of grouping and sequence of the business document.	
<b><u>InventoryItemLocationInformation</u></b>				Contains the inventory information for a given trade item and location.	
Association		InventoryStatusLineItem	0..*	Information specifying the inventory status of a specific trade item at a specific location at a	

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
				specific point in time.	
Association		TransactionalTradeItem	1..1	Contains the identification of the item for which the inventory information is specified.	
Association	inventoryLocation	TransactionalParty	1..1	Identification of the physical place where the items are located.	
Association		InventoryActivityLineItem	0..*	Information specifying the inventory activity of a specific trade item at a specific location in a specific time period.	

### 5.1.2. GDD Report: Inventory Activity Line Item

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
<b><u>InventoryActivityLineItem</u></b>				Information specifying the inventory activity of a specific trade item at a specific location in a specific time period.	
Association		LogisticUnitIdentification	0..1	Detailed identification of the logistic unit that contains the goods.	
Association	inventorySubLocation	PartyIdentification	0..1	Detailed party identification of the location at which the goods are stored.	
Association		InventoryActivityQuantitySpecification	1..*	Supplies the inventory activity item information with the quantity of units, inventory activity type, an optional inventory movement indicator, and an optional reference number.	
Association	reportingPeriod	DateTimeRange	0..1	The time period on which the inventory activity line item provides information.	
Attribute	lineItemNumber	positiveInteger	1..1	Provides the line number associated to the Inventory Activity Line Item.	
<b><u>InventoryActivityQuantitySpecification</u></b>				Supplies the inventory activity item information with the quantity of units, inventory activity type, an optional inventory movement indicator, and	

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
				an optional reference number.	
Association		TransactionalReference	0..*	Reference to a document or transaction related to the specified inventory activity.	
Association		TransactionalItemData	0..*	Detailed information on the item being reported on, such as best before date, batch number.	
Attribute	inventoryActivityTypeCode	InventoryActivityTypeCode	1..1	Code specifying the type of activity being reported for the inventory item.	
Attribute	quantityOfUnits	Quantity	1..1	The number of units and the unit of measure associated to the Inventory Item.	
Attribute	inventoryMovementTypeCode	InventoryMovementTypeCode	0..1	Code specifying whether the reported activity leads to an increase or decrease of the inventory quantity.	renamed from inventoryMovementIndicator

### 5.1.3. GDD Report: Inventory Status Line Item

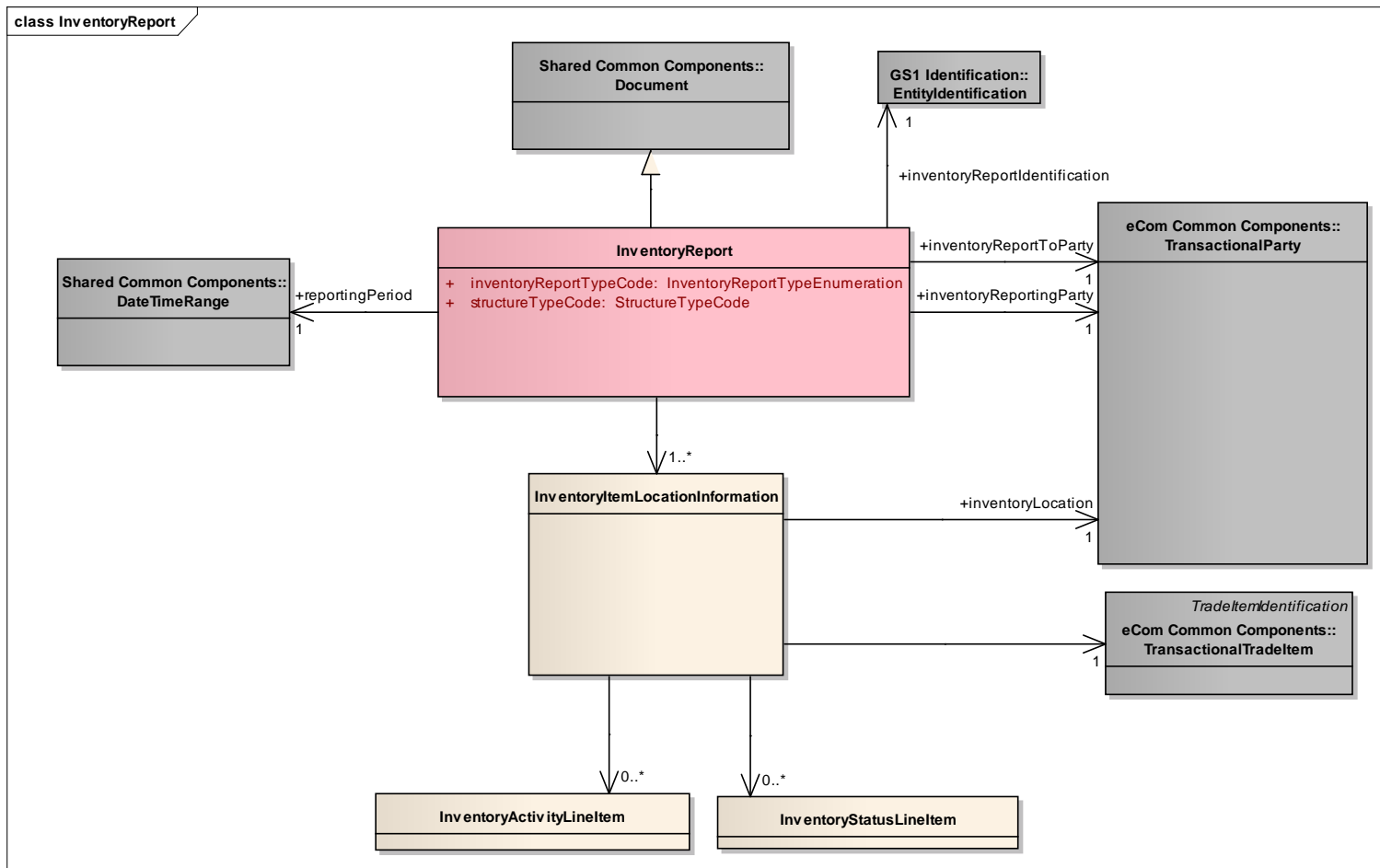
Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
InventoryStatusLineItem				Information specifying the inventory status of a specific trade item at a specific location at a specific point in time.	
Association		InventoryStatusQuantitySpecification	1..*	Information about the stored goods per inventory status.	
Association	inventorySubLocation	PartyIdentification	0..1	Detailed party identification of the inventory sub location at which the goods are stored.	
Association		LogisticUnitIdentification	0..1	Detailed identification of the logistic unit that contains the goods.	
Attribute	lineItemNumber	positiveInteger	1..1	Provides the line number associated to the Inventory Status Line Item.	



Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Attribute	inventoryDateTime	dateTime	0..1	Date and time the inventory for this line item was assessed. If this is not provided the beginDateTime provided at the business document level represents the inventoryDateTime.	

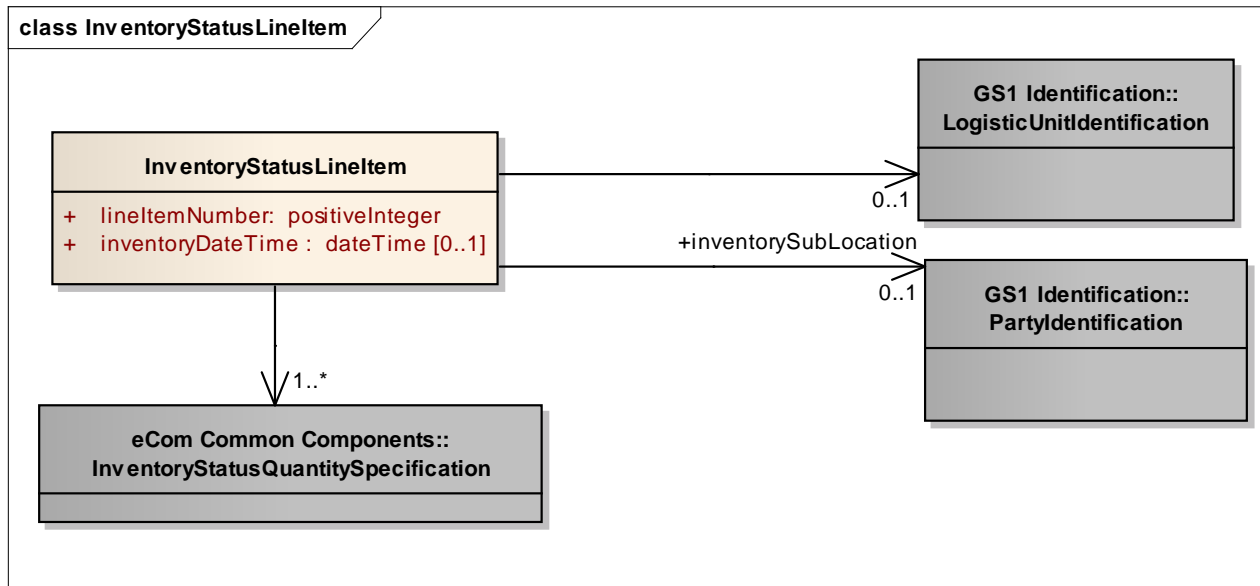
## 5.2. Class Diagrams

Figure 5-1 Class Diagram: Inventory Report



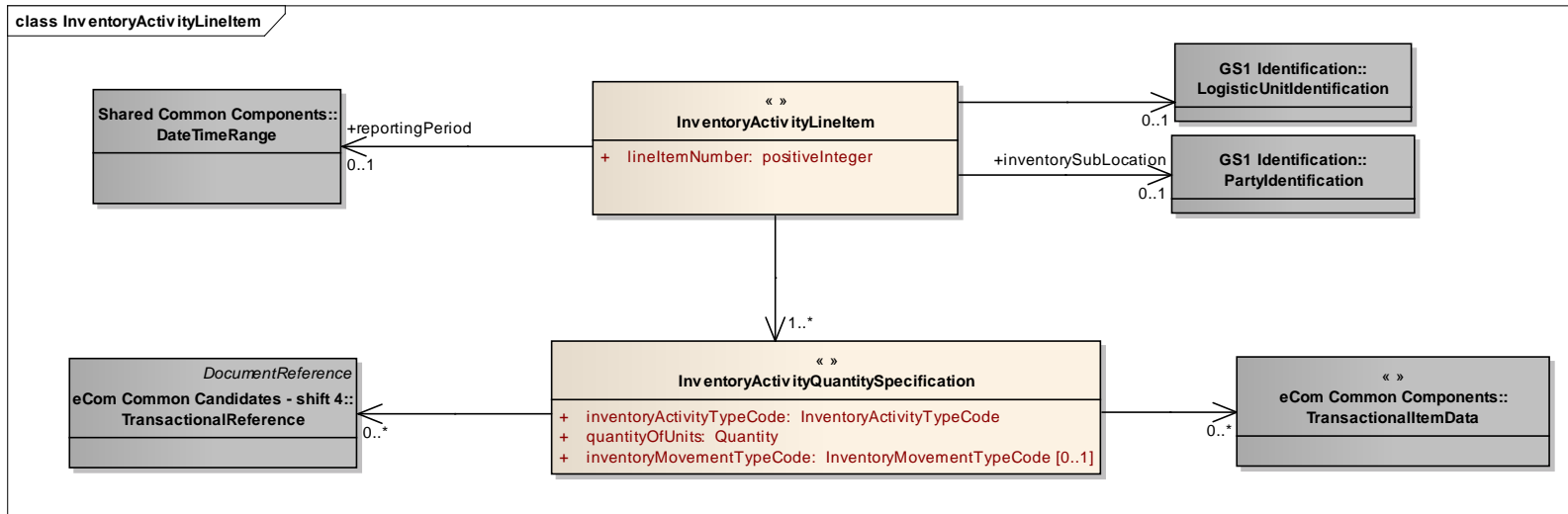
**Note:** Reference Shared Common Library Business Message (BMS) Release 3.0.0 and eCom Domain Common Library Business Message (BMS) Release 3.0.0 for all common information.

**Figure 5-2** Class Diagram: Inventory Status Line Item



**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.

**Figure 5-3** Class Diagram: Inventory Activity Line Item



**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.

## 5.3. Code Lists & Enumerations

### InventoryReportTypeEnumeration

CodeValue	Description
INVENTORY_ACTIVITY	Inventory Activity is used to report on all the changes on the inventory level per item.
INVENTORY_STATUS	Inventory Status is used to report on the actual inventory per item.



**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

Class	Codelist	Referenced in
InventoryReport	StructureTypeCode	eCom Domain Common Library Business Message (BMS) Release 3.0.0
InventoryActivityQuantity Specification	InventoryActivityType Code	eCom Domain Common Library Business Message (BMS) Release 3.0.0
InventoryActivityQuantity Specification	InventoryMovementT ypeCode	eCom Domain Common Library Business Message (BMS) Release 3.0.0

## 6. Business Document Example

### 6.1. Inventory Status Example

The following is an example of an inventory status 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 (Inventory Reporting Party **999999999991**).

The inventory information is sent by the manufacturer (Inventory Reporting Party **999999999991**) to the material supplier (Inventory Report To Party **999999999992**).

The inventory status information is for two inventory locations; X (Inventory Location **999999999993**) and Y (Inventory Location **999999999994**).

The inventory status information is for three items; A (GTIN **0111111111111**), B (GTIN **0222222222222**) and C (GTIN **0333333333333**).

All inventories have been assessed at February 9<sup>th</sup> at 8 AM, except for the inventory of item C at location X, this has been assessed at 12 PM the previous day.

#### Location X

For item A the inventory status is:

- Total inventory 25 of which 15 available for sale and 10 expired.
- For item B the inventory status is:
- Total inventory 50, completely on hand, containing 30 units with production date **2004-11-24** and 20 units with production date **2004-11-17**.
- For item C the inventory status is:
- Total inventory 325, of which 300 units are on hold and 25 units are damaged..

#### Location Y

For item A the inventory status is:

- Total inventory 160 of which 80 are located on pallet **8888888888888881** and 80 on pallet **8888888888888882**. Of the items on pallet 1 25 are available for sale, and 55 are expired. The items on pallet 2 are all available for sale.

#### Summarized:

Line	InventoryLocation	TradeItem	LogisticUnit
1	999999999993	011111111111111	n/a
2	999999999993	0222222222222	n/a
3	999999999993	0333333333333	n/a
4	999999999994	0333333333333	8888888888888881
5	999999999994	0333333333333	8888888888888882

<b>InventoryReport</b>	
- inventoryReportTypeCode	INVENTORY_STATUS
- structureTypeCode	LOCATION_BY_ITEM
<b>Document</b>	
- creationDateTime	2005-02-09T11.00.00
- documentStatusCode	ORIGINAL
<b>DateRange (+reportingPeriod)</b>	
- beginDate	2005-02-09
- beginTime	08.00.00
<b>EntityIdentification (+inventoryReportIdentification)</b>	
- entityIdentification	2005001
<b>PartyIdentification (+contentOwner)</b>	
- gln	9999999999991
<b>TransactionalParty (+inventoryReportToParty)</b>	
- gln	9999999999992
<b>TransactionalParty (+inventoryReportingParty)</b>	
- gln	9999999999991
<b>InventoryItemLocationInformation *1</b>	
<b>TransactionalParty (+inventoryLocation)</b>	
- gln	9999999999993
<b>TransactionalTradeItem</b>	
- gtin	01111111111111
<b>InventoryStatusLineItem *1.1</b>	
- lineItemNumber	1
<b>InventoryStatusQuantitySpecification</b>	
- inventoryStatusTypeCode	AVAILABLE_FOR_SALE
- quantityOfUnits	15 CARTONS
<b>InventoryStatusQuantitySpecification</b>	
- inventoryStatusTypeCode	EXPIRED
- quantityOfUnits	10 CARTONS
<b>InventoryItemLocationInformation *2</b>	
<b>TransactionalParty (+inventoryLocation)</b>	
- gln	9999999999993
<b>TransactionalTradeItem</b>	
- gtin	02222222222222
<b>InventoryStatusLineItem *2.1</b>	
- lineItemNumber	2
<b>InventoryStatusQuantitySpecification</b>	

- inventoryStatusTypeCode	ON_HAND
- quantityOfUnits	50 PCS
<b>TransactionalItemData</b>	
- productionDate	2004-11-24
<b>TransactionalItemData</b>	
- productionDate	2004-11-17
<b>InventoryItemLocationInformation *3</b>	
<b>TransactionalParty (+inventoryLocation)</b>	
- gln	9999999999993
<b>TransactionalTradeItem</b>	
- gtin	03333333333333
<b>InventoryStatusLineItem *3.1</b>	
- lineItemNumber	3
- inventoryDateTime	2005-02-09T00.00.00
<b>InventoryStatusQuantitySpecification</b>	
- inventoryStatusTypeCode	ON_HOLD
- quantityOfUnits	300 PCS
<b>InventoryStatusQuantitySpecification</b>	
- inventoryStatusTypeCode	DAMAGED
- quantityOfUnits	25 PCS
<b>InventoryItemLocationInformation *4</b>	
<b>TransactionalParty (+inventoryLocation)</b>	
- gln	9999999999994
<b>TransactionalTradeItem</b>	
- gtin	03333333333333
<b>InventoryStatusLineItem *4.1</b>	
- lineItemNumber	4
<b>LogisticUnitIdentification</b>	
- scc	8888888888888881
<b>InventoryStatusQuantitySpecification</b>	
- inventoryStatusTypeCode	AVAILABLE_FOR_SALE
- quantityOfUnits (value, unitOfMeasure)	25, PCS
<b>InventoryStatusQuantitySpecification</b>	
- inventoryStatusTypeCode	EXPIRED
- quantityOfUnits	55, PCS
<b>InventoryStatusLineItem *4.2</b>	
- lineItemNumber	5
<b>LogisticUnitIdentification</b>	
- scc	8888888888888882



<b>InventoryStatusQuantitySpecification</b>	
- inventoryStatusTypeCode	AVAILABLE_FOR_SALE
- quantityOfUnits	80, PCS

## 6.2. Inventory Activity Example

The following is an example of an inventory activity 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 (Inventory Reporting Party **9999999999991**).

The inventory information is sent by the retailer (Inventory Reporting Party 9999999999991) to the manufacturer (Inventory Report To Party **9999999999992**).

The inventory activity information is for three inventory locations; X (Inventory Location **9999999999993**), Y (Inventory Location **9999999999994**) and Z (Inventory Location **9999999999995**).

The inventory status information is for four items; A (GTIN 0111111111111), B (GTIN **0222222222222**), C (GTIN **0333333333333**) and D (GTIN **0444444444444**).

The activities reported all took place between 10 PM on February 7<sup>th</sup> and 10 PM February 8<sup>th</sup>, except for Item A at location Y, there the end time is 11 PM.

### Item A

On location X the following activity is reported:

- Quarantine 15, Recall 10

On location Y the following activity is reported:

- Destroyed 10 (decrease of inventory)

### Item B

On location X the following activity is reported:

- Distressed 20 KGM, originating from lotnumber 123456789

### Item C

On location X the following activity is reported:

- Despatch discrepancy of 300 units, received 25 units

On location Y the following activity is reported:

- Physical count 250 units

### Item D

On location Z the following activity is reported:

- Damaged in facility 250 units.

### Summarized:

Line	TradeItem	InventoryLocation
1	0111111111111	9999999999993
2	0111111111111	9999999999994

Line	TradeItem	InventoryLocation
3	02222222222222	9999999999993
4	03333333333333	9999999999993
5	03333333333333	9999999999994
6	04444444444444	9999999999995

InventoryReport	
- inventoryReportTypeCode	INVENTORY_ACTIVITY
- structureTypeCode	ITEM_BY_LOCATION
<b>Document</b>	
- creationDateTime	2005-02-09T11.00.00
- documentStatusCode	ORIGINAL
<b>DateRange (+reportingPeriod)</b>	
- beginDate	2005-02-07
- beginTime	22.00.00
- endDate	2005-02-08
- endTime	22.00.00
<b>EntityIdentification (+inventoryReportIdentification)</b>	
- entityIdentification	2005001
<b>PartyIdentification (+contentOwner)</b>	
- gln	9999999999991
<b>TransactionalParty (+inventoryReportToParty)</b>	
- gln	9999999999992
<b>TransactionalParty (+inventoryReportingParty)</b>	
- gln	9999999999991
<b>InventoryItemLocationInformation *1</b>	
<b>TransactionalParty (+inventoryLocation)</b>	
- gln	9999999999993
<b>TransactionalTradeItem</b>	
- gtin	01111111111111
<b>InventoryActivityLineItem *1.1</b>	
- lineItemNumber	1
<b>InventoryActivityQuantitySpecification</b>	
- inventoryActivityTypeCode	QUARANTINE
- quantityOfUnits	15 PCS
<b>InventoryActivityQuantitySpecification</b>	
- inventoryActivityTypeCode	RECALL
- quantityOfUnits	10 PCS

<b>InventoryItemLocationInformation *2</b>	
<b>TransactionalParty (+inventoryLocation)</b>	
- gln	9999999999994
<b>TransactionalTradeltem</b>	
- gtin	01111111111111
<b>InventoryActivityLineItem *2.1</b>	
- lineItemNumber	2
<b>DateTimeRange (+reportingPeriod)</b>	
- beginDate	2005-02-07
- beginTime	22.00.00
- endDate	2005-02-08
- endTime	23.00.00
<b>InventoryActivityQuantitySpecification</b>	
- inventoryActivityTypeCode	DESTROYED
- quantityOfUnits	10 PCS
- inventoryMovementTypeCode	MOVING_PRODUCT_OUT_OF_INVENTORY
<b>InventoryItemLocationInformation *3</b>	
<b>TransactionalParty (+inventoryLocation)</b>	
- gln	9999999999993
<b>TransactionalTradeltem</b>	
- gtin	02222222222222
<b>InventoryActivityLineItem *3.1</b>	
- lineItemNumber	3
<b>InventoryActivityQuantitySpecification</b>	
- inventoryActivityTypeCode	DISTRESSED
- quantityOfUnits	20 KGM
<b>TransactionalItemData</b>	
- lotNumber	123456789
<b>InventoryItemLocationInformation *4</b>	
<b>TransactionalParty (+inventoryLocation)</b>	
- gln	9999999999993
<b>TransactionalTradeltem</b>	
- gtin	03333333333333
<b>InventoryActivityLineItem *4.1</b>	
- lineItemNumber	4
<b>InventoryActivityQuantitySpecification</b>	
- inventoryActivityTypeCode	DESPATCH_DISCREPANCY
- quantityOfUnits	300, PCS
<b>TransactionalReference</b>	

- transactionalReferenceTypeCode	ALN
<b>EntityIdentification</b>	
- entityIdentification	3391
<b>InventoryActivityQuantitySpecification</b>	
- inventoryActivityTypeCode	RECEIPTS
- quantityOfUnits	25, PCS
- inventoryMovementTypeCode	MOVING_PRODUCT_INTO_INVENTORY
<b>TransactionalReference</b>	
- transactionalReferenceTypeCode	ALQ
<b>EntityIdentification</b>	
- entityIdentification	HIGH TICKET ITEM 4433
<b>InventoryItemLocationInformation *5</b>	
<b>TransactionalParty (+inventoryLocation)</b>	
- gln	9999999999994
<b>TransactionalTradeItem</b>	
- gtin	03333333333333
<b>InventoryActivityLineItem *5.1</b>	
- lineItemNumber	5
<b>InventoryActivityQuantitySpecification</b>	
- inventoryActivityTypeCode	PHYSICAL_COUNT
- quantityOfUnits	250, PCS
<b>InventoryItemLocationInformation *4</b>	
<b>TransactionalParty (+inventoryLocation)</b>	
- gln	9999999999995
<b>TransactionalTradeItem</b>	
- gtin	04444444444444
<b>InventoryActivityLineItem *4.1</b>	
- lineItemNumber	6
<b>InventoryActivityQuantitySpecification</b>	
- inventoryActivityTypeCode	DAMAGED_IN_FACILITY
- quantityOfUnits	250, PCS
- inventoryMovementTypeCode	MOVING_PRODUCT_OUT_OF_INVENTORY

## 7. Implementation Considerations

Not Applicable

## **8. Testing**

### **8.1. Pass / Fail Criteria**

Not Applicable

### **8.2. Test Data**

Not Applicable

## **9. Appendices**

Not Applicable

## 10. Adherence to Architectural Principles

#	AG Principle	BSD Adherence Statement	Does BSD Adhere?	Comment
2.1	The GS1 Architecture shall be fully aligned to GS1 Strategy, Vision, & Mission	The solution in the BSD is aligned with the business problem as defined in the CR and BCD.	<input checked="" type="checkbox"/>	
2.2	The GS1 Architecture shall leverage the use of GS1 Keys	The solution maintains the GS1 keys as the primary, mandatory identifiers.	<input checked="" type="checkbox"/>	
2.3	The GS1 Architecture shall leverage the common GS1 Global Data Dictionary (GDD)	The solution does not alter the formats of primary identifiers and complies with data elements as defined in the Global Data Dictionary.	<input checked="" type="checkbox"/>	
2.4	The GS1 Architecture shall be forward-looking, provide for migration strategies and backward compatibility, and support adaptable and flexible solutions	The solution is backwards compatible according to the stated scope in the document. The solution takes into consideration the potential impact of the standard, especially with respect to implementation and maintenance. Any potential known impact is documented.	<input checked="" type="checkbox"/>	
2.5	The GS1 Architecture shall support business processes tied to trading partner needs, relevant, and committed to demonstrable business value	All business requirements contained in the related BRAD come from trading partners or representatives with a genuine intention to implement the standards when developed. All requirements are driven by the business needs of the trading partners.	<input checked="" type="checkbox"/>	
2.6	The GS1 Architecture shall enable security where appropriate	Security solutions are included where appropriate.	<input checked="" type="checkbox"/>	
2.7	The GS1 Architecture shall be consistent	The solution does not violate consistency of the data architecture within each layer and between each layer of the GS1 System. For example, requirements do not alter a key used across GS1 standards or alter a reusable object without applying this change across related standards.	<input checked="" type="checkbox"/>	
2.8	The GS1 Architecture shall be royalty-free	The solution supports this principle where possible. The solution may include the use of other standards organizations that may not be royalty free.	<input checked="" type="checkbox"/>	
3.1	The GS1 Architecture should promote the achievement of the best overall value at the lowest total cost of ownership	The solution promotes the achievement of the best overall value at the lowest total cost of ownership.	<input checked="" type="checkbox"/>	

#	AG Principle	BSD Adherence Statement	Does BSD Adhere?	Comment
3.2	The GS1 Architecture should promote scalability	The solution takes into consideration the potential scalability of the standard. Any potential known impact to scalability is documented.	<input checked="" type="checkbox"/>	
3.3	The GS1 Architecture should promote seamless integration	The BSD promotes seamless integration with other GS1 Standards if in scope.	<input checked="" type="checkbox"/>	
3.4	The GS1 Architecture should promote interoperability and compliance	The solution takes into consideration data and process interoperability. For example, any shared objects between interoperable messages must remain consistent. Any potential known impact to interoperability is documented.	<input checked="" type="checkbox"/>	
3.5	The GS1 Architecture should promote simplicity and standard interfaces	The solution does not threaten the standardisation of the interfaces of the GS1 System. Interfaces are not limited to references to technology but also include such ideas as business interfaces and process interfaces.	<input checked="" type="checkbox"/>	
3.6	The GS1 Architecture should avoid duplication	The solution does not create duplications with existing GS1 components. If there are potential duplications, these are documented with a stated rationale for the duplication.	<input checked="" type="checkbox"/>	
3.7	The GS1 Architecture should promote technology independence and a layered approach	The solution does not impose implicit or explicit restrictions of any technology.	<input checked="" type="checkbox"/>	
3.8	The GS1 Architecture should promote global cross-sector definitions and leverage the best of global and the best of local	The solution takes into account a global perspective.	<input checked="" type="checkbox"/>	
3.9	The GS1 Architecture shall leverage a common strategy for extensibility	This solution uses consistent and common, extensibility approaches, methodologies and technology where available and applicable.	<input checked="" type="checkbox"/>	
4.1	In support of a common GS1 Architecture, GS1 shall leverage work of other standards bodies wherever possible.	This solution utilizes works of other standards bodies wherever possible.	<input checked="" type="checkbox"/>	
4.2	In support of a common GS1 Architecture, GS1 shall strive to eliminate exceptions and variances wherever possible	The solution strives to eliminate exceptions and variances wherever possible and does not create new variances.	<input checked="" type="checkbox"/>	

## 11. Summary of Changes

Change	BMS Version	Associated CR Number
Updated BMS to Major release 3.0.0 Updated BMS to reflect changes in modelling methodology. Renamed from "Inventory Activity or Inventory Status"	Issue 1.0.0	N/A
Public Review: Removed INVENTORY_STATUS_AND_ACTIVITY from InventoryReportTypeEnumeration	Issue 1.0.0 (21-nov-2011)	N/A
<b>For BMS Publication:</b> <ul style="list-style-type: none"><li>• Updated date of document</li><li>• Clean-up of Document Change History</li><li>• Removed year from copyright statement in footer</li><li>• Corrected spelling of Section 11 Architectural Principles</li><li>• Updated architectural principles section to correct fields.</li></ul>	Issue 1.0.0	N/A