

Business Message Standard (BMS)

for

Cross Dock Despatch Advice Extension

BRG: Deliver

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Change Request Reference

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CR Submitter(s):	Marco van der Lee – GS1 Netherlands Aart Koning – Albert Heijn
Date of CR Submission to GSMP:	July 23, 2004

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CR Submitter(s):	Marco Van der Lee
Date of CR Submission to GSMP:	July 23 2004

Business Requirements Document (BRAD) Reference

BRAD Title: Cross Docking – Deliver
BRAD Date: 1 Sep 2005
BRAD Version: 0.0.6

Document Summary

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Document Change History

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

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
20051018	0.1	Mark Van Eeghem	Initial Draft	Migration of BRAD to standard BMS/BSD format	N/A
20051020	0.2	Mark Van Eeghem	Completed GDD section	Pasted in GDD report for the extension	N/A
20051103	0.3	Mark Van Eeghem	Incorporate changes from Deliver BRG	Removed CrossDock-DespatchInformationExtension and incorporated	N/A

			session at GSMP Event San Mateo 10/2005	all changes into a single extension. The ultimate consignee relationships have been modified to a cardinality of 1..*	
20051117	0.3.2	Mark Van Eeghem	Corrected typo	in Use Case Description: page 6---Related Rules....1 The party which makes the DESADV must make(s) and send(s	BSD P4CL: 7755 MODEL P4CL: 7667
20060117	0.3.3	Mark Van Eeghem	Added business example (Section 1.6)	Business example was missing	BSD P4CL: 7990 MODEL P4CL: 7956
20060308	1.0.0	Mark Van Eeghem	Corrected error in model detected during TSD phase.	Updated model, GDD & business example.	BSD P4CL 8147 MODEL P4CL 8148
20060503	1.0.1	Mark Van Eeghem	Corrected use case diagram and use case description	Updated BMS as per ITRG review comments	BSD P4CL 8301 MODEL P4CL 8148
07.03.2007	1.0.2	Andrew Hearn	Errata	Update BMS Version Number	

Business Message Standard

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1 Business Solution

1.1 Business Domain View

1.1.1 Problem Statement / Business Need

This change request is to request the development/adjustment of the EAN.UCC standards in the delivering process for the cross dock scenario.

For the ordering process area, as part of the cross dock process as a whole, change request are already issued and processed by the BRG Order.

The result is a adjusted BRD for the Order with cross dock requirements included. Standards for the delivering area will include: a communication standard to advise the receiver about the shipment of the goods in combination with AIDC applications, like barcode labels, to link in a efficient way the physical flow of goods with the flow of related information.

Currently the business scenario/process "Cross Docking" is not completely represented in the EAN.UCC standards (XML message standard, UML models and pallet label).

For the cross dock scenario it's needed to include information in the information standard about:

- the cross dock and final destination of the delivery
- the requested delivery date/time on the cross dock and final destination

1.1.2 Objective

To supply the detail design of the Despatch Advice business transaction needed to meet the requirements of the referenced BRAD.

1.1.3 Audience

- Retailers / Wholesalers
- Suppliers
- Carriers
- Logistic Service Providers

1.1.4 Artefacts

(List of the artefacts that are used as either an input to the process or an output from the process, also indicating the different states that the artefact takes during the process.)

Artefact name	State	Artefact / State description
No artefacts		

1.1.5 References

#	Reference Name	Description
[Ref1]	Cross Docking: How to use the EAN•UCC standards	EAN International brochure, 2000
[Ref2]	Guide to Use XML EAN_UCC Standards for Cross Docking Ordering v 0.4.doc	Document of Order BRG

1.1.6 Acknowledgements

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

1.1.6.1 BRG Members

Function	Name	Company / organisation
BRG Co-Chair	Sue Donarski	Schneider
BRG Co-Chair	Debra Noyes	Johnsonville
BRG Member	David Burns	INTTRA
BRG Member	Jeofrey Cubillos	IBC Solutions
BRG Member	Regina De Baker	Watkins Motor Line
BRG Member	Jean-François Fusco	Aexxdis
BRG Member	Wayne Gingerich	Werner
BRG Member	Roman Gural	UPS
BRG Member	Thorsten Kirschner	GS1 Germany
BRG Member	Aart Koning	Albert Heijn
BRG Member	Shanda Marvin	Procter & Gamble
BRG Member	Kari Melhus	Target
BRG Member	Jeff Miller	Kraft
BRG Member	Mike Osiecki	Best Buy
BRG Member	Bob Robertson	VCF
BRG Member	Tamari Tashiro	GS1 Japan
BRG Member	Tan Jin Soon	GS1 Signapore
BRG Member	Marco van der Lee	GS1 Netherlands
BRG Member	Apostolos Xiradakis	Unilever

1.1.6.2 ITRG Members

Function	Name	Company / organisation
ITRG Chair		
ITRG Member		
ITRG Member		
ITRG Member		
...		

1.1.6.3 Task/Project Group Participants (*where applicable*)

Function	Name	Company / organisation
Participant	N/A	

1.1.6.4 Design Team Members

Function	Name	Organisation
Modeller	Mark Van Eeghem	GS1
XML Technical Designer	Dipan Anarkat	GS1
EANCOM Technical Designer	None	
Peer Reviewer	John Ryu	GS1

1.2 Business Context

(Note: The business context of the business)

Context Category	Value(s)
Industry	All
Geopolitical	All
Product	All
Process	Deliver
System Capabilities	EAN.UCC System
Official Constraints	Cross Docking

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

1.3 Additional Technical Requirements Analysis

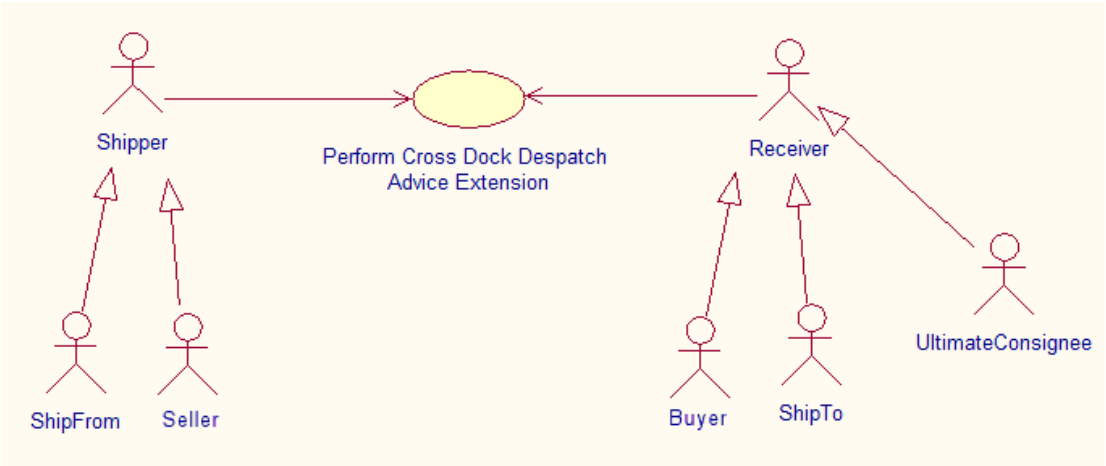
1.3.1 Technical Requirements (optional)

(User Interface, Security, Performance, Quality, etc.)

Number	Statement	Rationale
1	N/A	

1.4 Business Transaction View

1.4.1 Business Transaction Use Case Diagram



1.4.2 Use Case Description

Use Case ID	UC-1											
Use Case Name	Perform Cross Dock Despatch Advice Process											
Use Case Description	Cross Dock Despatch Advice Extension											
Actors (Goal)	<p>Buyer: Party to which merchandise is sold. (i.e. retailer, wholesaler, store).</p> <p>Seller: Party selling merchandise to a buyer. (i.e. supplier, LSP).</p> <p>Shipper: Party from where goods will be or have been shipped. (i.e. supplier, LSP, retailer).</p> <p>Receiver: Party to where goods will be or have been shipped. (i.e. LSP, retailer, store).</p> <p>Ultimate Consignee: Party which is the final destination of where the goods will be or have been shipped to.</p>											
Performance Goals	To perform and execute the despatch Advice within the specific context of Cross docking.											
Preconditions												
Post conditions												
Scenario	<p>Begins when: the Ship From Party closed the doors of the delivery vehicle</p> <table><tr><th>Step #</th><th>Actor</th><th>Activity Step</th></tr><tr><td>1</td><td>Ship-From /Shipper</td><td>Sends Despatch Advice to the ShipToParty on the CrossDock Station</td></tr><tr><td>2</td><td>ShipTo/</td><td>Receives Despatch Advice from the Ship From part and checks the</td></tr></table>			Step #	Actor	Activity Step	1	Ship-From /Shipper	Sends Despatch Advice to the ShipToParty on the CrossDock Station	2	ShipTo/	Receives Despatch Advice from the Ship From part and checks the
Step #	Actor	Activity Step										
1	Ship-From /Shipper	Sends Despatch Advice to the ShipToParty on the CrossDock Station										
2	ShipTo/	Receives Despatch Advice from the Ship From part and checks the										

Business Solution Design

		Receiver	delivered goods through scanning the SSCCs
	3	Ship-From/Shipper	Picks the goods per final destinations and sends a Despatch Advice to the ShipTo party of the final destination (Ultimate consignee)
	4	ShipTo/Receiver	Receives the Despatch Advice from the ShipFrom party and checks the delivered goods.
	5		
	Ends when... the ShipTo Party/Receiver on the final destination accepts the delivered goods.		
Alternative Scenario	<i>(any alternatives to the above scenario)</i>		
Related Requirements			
	1		
Related Rules	1	The party which makes the DESADV must make and send the Despatch Advice to the Ship To Party/Receiver after the moment that the doors of the delivery vehicle are closed.	
	2	<p>By a cross dock delivery a Ship From Party/Shipper can send a Despatch Advice per final destination (Ultimate Consignee) or one Despatch Advice with the information for all the final destinations.</p> <p>For example: Delivery of a consignment (more shipments) to a Cross Dock Station. The consignment contains a shipment with 2 pallets for destination A and a shipment with 3 pallets for destination B. The Ship From Party can send 2 separate despatch advice (one for destination A and one for destination B) or only one despatch advice with the information for destination A and destination B).</p>	
	3	If all the information for all the final destinations are sent in the same despatch advice, the message will be structured by final location.	

1.4.3 Business Transaction Activity Diagram(s)

Not applicable

1.4.4 Business Transaction Sequence Diagram(s) (optional)

Not applicable

Business Solution Design

1.5 Information Model (including GDD Report)

1.5.1 Data Description:

(Contains list of attributes included in the model and the related requirement which led to its inclusion in the design.)). .

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
CrossDock-DespatchAdvice-Extension				BRAD Cross Docking Deliver V 0.0.6 Requirements
	shipmentIdentificationNumber			BRAD Cross Docking Deliver V 0.0.6 Requirement 1
		ultimateConsignee	PartyIdentification	BRAD Cross Docking Deliver V 0.0.6 Requirement 2
		has	ShipmentPerUltimateConsignee	BRAD Cross Docking Deliver V 0.0.6 Requirement 3
ShipmentPerUltimateConsignee				BRAD Cross Docking Deliver V 0.0.6 Requirement 3
		has	DespatchAdviceLogisticUnitLineItem	BRAD Cross Docking Deliver V 0.0.6 Requirement 3
		has	EstimatedDelivery	BRAD Cross Docking Deliver V 0.0.6 Requirement 3

Business Solution Design

1.5.2 GDD Report :

(Output from GDD should be pasted in this section.)

Cross Dock Despatch Advice Extension v1.0

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity	Data Type Components
CrossDockDespatchAdviceExtension				Cross Dock Despatch Advice Extension. Details	Extension on the Despatch Advice message, specifically for the Cross Docking scenarios.		
	shipmentIdentificationNumber			Cross Dock Despatch Advice Extension. Shipment Identification Number. Text	A globally unique number assigned by a Shipper to a shipment, identifying a logical grouping of physical units for the purpose of a transport shipment.	0..1	Text. Content

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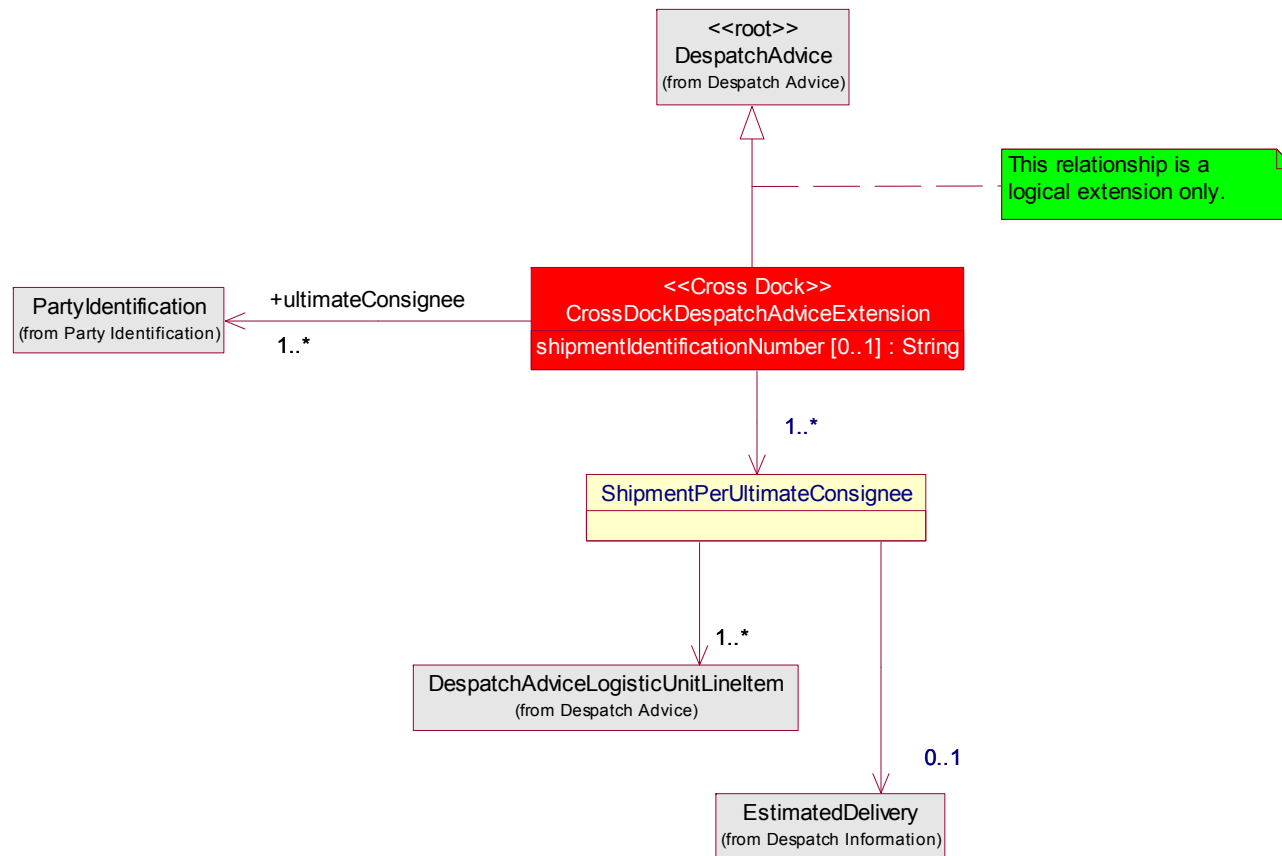
Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity	Data Type Components
		ultimateConsignee	PartyIdentification	Cross Dock Despatch Advice Extension. Ultimate Consignee. Party Identification	The final destination identified by the Global Location Number or an alternate identification	1..*	
		"has"	ShipmentPerUltimateConsignee	Cross Dock Despatch Advice Extension. Association. Shipment Per Ultimate Consignee	Definition for unnamed associations not required	1..*	
ShipmentPerUltimateConsignee				Shipment Per Ultimate Consignee. Details	The shipment per final destination identified per line-item of logistic units.		

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity	Data Type Components
		"has"	EstimatedDelivery	Shipment Per Ultimate Consignee. Association. Estimated Delivery	The estimated delivery time/date for the final destination within the Cross Docking Scenario	0..1	
		"has"	DespatchAdvice-LogisticUnitLineItem	Shipment Per Ultimate Consignee. Association. Despatch Advice Logistic Unit Line Item	Definition for unnamed associations not required	1..*	

1.5.3 Class Diagrams

1.5.3.1 Cross Dock Despatch Advice Extension



Business Solution Design

1.5.4 Code Lists

Not Applicable

Code List Name	Code List Description
Code Name	Code Description

1.6 Business Document Example

The following is an example of a despatch advice message with the crossdock extension. The message is sent out on February 9th at 11 AM. The message is identified with the unique identifier 200540001. The content owner is the sending party, in this case the material supplier (Shipper 8812345678903). The ultimate consignee is 8812347678903

The despatch advice is sent by the material supplier (Shipper 8812345678903) to the manufacturer (Receiver 8712345678913).

The reported despatch consists of

DespatchAdvice	
- creationDateTime	2005-02-09T11:00:00
- documentStatus	ORIGINAL
EntityIdentification (+despatchAdviceIdentification)	
- uniqueCreatorIdentification	200540001
PartyIdentification (+contentOwner)	
- gLN	8812345678903
PartyIdentification (+shipper)	
- gLN	8812345678903
PartyIdentification (+receiver)	
- gLN	8712345678913
PartyIdentification (+shipTo)	
- gLN	8712345678921
PartyIdentification (+inventoryLocation)	
- gLN	8712345678922
DocumentReference (+purchaseConditions)	
EntityIdentification	
- uniqueCreatorIdentification	2004000012
PartyIdentification (+contentOwner)	
- gLN	8812345678903
Reference (+billOfLadingNumber)	
- referenceDateTime	2005-02-09T10:00:00
- referenceIdentification	88021
DespatchInformation	
ActualShipping	
- actualShipDateTime	2005-02-09T11:10:00
DespatchAdviceLogisticUnitLineItem *1	
- packageType	PE (pallet, modular)
LogisticUnitIdentification	

serialShipmentContainerCode	881234567000010112
DespatchAdviceItemContainmentLineItem *1.1	
- lineItemNumber	1
- quantityContained (value, unitOfMeasure)	700
TradeItemIdentification (+containedItemIdentification)	
- gTIN	08712345678906
DetailLevelReference (+deliveryNote)	
- lineItemNumber	001
Reference	
- referenceDateTime	2005-02-09T11:00:00
- referenceIdentification	2400021
TransactionallItemData	
- lotNumber	ASD00012
- bestBeforeDate	2005-08-01
CrossDockDespatchAdviceExtension	
- shipmentIdentificationNumber	GS12006156969
PartyIdentification (+ultimateConsignee) *1.*	
- gLN	8812347678903
ShipmentPerUltimateConsignee	
DespatchAdviceLogisticUnitLineItem *1.*	
- packageType	PE (pallet, modular)
EstimatedDelivery *0.1	
- actualShipDateTime	2005-02-09T11:45:00

1.7 Implementation Considerations

1.8 Testing

1.8.1 Pass / Fail Criteria

Unit testing criteria for business solution.

Number	Test Criteria	Related Requirement	Design Element	Pass Criteria	Fail Criteria
1	Not applicable				
2					
3					

1.8.2 Test Data

Attribute	Value
- creationDateTime	2005-02-09T11:00:00
- documentStatus	ORIGINAL
- uniqueCreatorIdentification	200540001
- gLN	8812345678903
- referenceDateTime	2005-02-09T10:00:00
- referenceIdentification	88021
- actualShipDateTime	2005-02-09T11:10:00
- packageType	PE (pallet, modular)
serialShipmentContainerCode	881234567000010112
- lineItemNumber	1
- quantityContained (value, unitOfMeasure)	700
- gTIN	08712345678906
- lineItemNumber	001
- referenceDateTime	2005-02-09T11:00:00
- referenceIdentification	2400021
- lotNumber	ASD00012
- bestBeforeDate	2005-08-01
- shipmentIdentificationNumber	GS12006156969
- gLN	8812347678903

1.9 Appendices

1.10 Summary of Changes

(Details changes to BMS for each version by BMS Section)

Change	BMS Ver- sion	Associated CR Number
<ul style="list-style-type: none">Section 1.6 Business Example added.	V 0.3.3	CR 04-00149

2 Technical Solution Design

This section provides the specifications for the standards content ITRG approves. It is called the Technical Solution Design (TSD).

The Technical Solution Design contains:

- TSD Zip file Table of Contents
- Business Message Standard Section Technical Level GDD Report
- XSD (XML Schema Documents)
- XML Instance File and HTML Form View (XML and HTML files containing sample data specified in Section 1.6)

In the process of approving the Technical Solution Design, the ITRG will be provided the following artefacts:

- Any relevant Business Requirements Analysis Document (BRAD)
- Any relevant Business Requirements Document (BRD)
- Section 1 of Business Message Standard (Business Solution Design)
- Comment Resolution Template from Technical Public Review
- XML Test Report
- Change Request
- Other informative or reference documents