

# **Business Message Standard (BMS)**

**for**

**Deliver/FTL/LTL Motor Carrier  
Bill of Lading**

**BRG: Deliver**

**BMS Release: 2.0.2**

**Document Version: 2.0.3**

**Release Date: 31.03.2005**



### Change Request Reference

<b>Refer to Change Request (CR) Number(s):</b>	N/A
<b>CR Submitter(s):</b>	N/A
<b>Date of CR Submission to GSMP:</b>	N/A

### Business Requirements Document (BRAD) Reference

<b>BRAD Title:</b> LTL and Motor Fuel Carrier Bill of Lading – Business Requirement Document
<b>BRAD Date:</b> 11/10/2004
<b>BRAD Version:</b> 1.0.1

<b>BRAD Title:</b>
<b>BRAD Date:</b>
<b>BRAD Version:</b>

### Document Summary

<b>Document Title:</b>	BMS for Deliver/FTL/LTL Motor Carrier Bill of Lading
<b>Document Version:</b>	2.0.3
<b>Owner:</b>	Deliver BRG
<b>Status:</b>	(Check one box) <input type="checkbox"/> DRAFT <input checked="" type="checkbox"/> Approved
<b>BMS Template Version:</b>	1.0
<b>Targeted BMS Release:</b>	2.0.2

### Document Change History

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
31/12/2004	2.0.0	Rob Toole	Created FTL/LTL Motor Carrier BOL BSD from BRAD		N/A
31/03/2005	2.0.2	Andrew Hearn	Context Update	Updated the context listed within the document	N/A
18.04.2007	2.0.3	Giovanni Biffi	Editorial Changes	Minor Editorial Changes	

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# Business Solution Design

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## 1 Business Solution Design

### 1.1 Business Domain View

#### 1.1.1 Problem Statement / Business Need

A message is needed for a shipper to electronically pass load information from a consignor to a less-than-truckload (LTL) or (FTL) motor carrier to a consignee similar to the hardcopy Bill of Lading.

#### 1.1.2 Objective

To supply the detail design of a LTL/FTL Motor Carrier Bill of Lading transaction needed to meet the requirements of the referenced BRAD(s).

#### 1.1.3 Audience

The audience for this document is the global business community within the motor carrier sector being any business that ships, carries, or receives goods at one or more points in the supply chain.

#### 1.1.4 Artefacts

Artefact name	State	Artefact / State description
Business Requirements Worksheet For Bill of Lading		Outlines broad Business Requirements for the processing of a Motor Carrier Bill of Lading.

#### 1.1.5 References

Reference Name	Description
Change Request 02-000200	
BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11-10-2004	

### 1.1.6 Acknowledgements

#### 1.1.6.1 BRG Members

Function	Name	Company
BRG Manager	Bruno, Julien	Gencod EAN France
BRG Co-Chair	Noyes, Debra	Johnsonville Sausage
BRG Co-Chair	Donarski, Sue	Schneider Logistics
BRG Member	Mario Abitol	EAN Argentina
BRG Member	Regina De Baker	Watkins
BRG Member	Jean François Fusco	Geodis Solution
BRG Member	Wayne Gingerich	Werner Enterprises
BRG Member	Roman Gural	UPS
BRG Member	Thorsten Kirschner	CCG (EAN Germany)
BRG Member	Aart Koning	Albert Heijn
BRG Member	Paul Martin	General Mills
BRG Member	Shanda Marvin	Procter & Gamble
BRG Member	Kari Melhus	Target Corporation
BRG Member	Jeff Miller	Kraft Foods, Inc.
BRG Member	Mike Osiecki	Best Buy Company
BRG Member	Bob Robertson	Manhattan Associates
BRG Member	Tan Jin Soon	SANC (EAN Singapore)
BRG Member	Tamari Tashiro	DCC (EAN Japan)
BRG Member	José Jean-Paul Tavares	EAN Brazil
BRG Member	Marco Van Der Lee	EAN 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	Bill, Lohse	ABF
Participant	Bob, Robertson	Manhattan Associates
Participant	Brian, Finale	UPS
Participant	Dana, Morton	Fedex
Participant	Debra, Noyes	Johnsonville Sausage
Participant	Doug, Anderson	Kleinschmidt
Participant	Franck, Napoli	LMI
Participant	Jared, Andrews	LMI
Participant	John, Hervey	NACS
Participant	Kari, Melhus	Target
Participant	Kevin, Wiederkeher	ABF
Participant	Mike, Osiecki	Best Buy Company

## Business Solution Design

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Participant	Patrick, Pinter	ABF
Participant	Regina, De Baker	Watkins
Co-chair	Rick, Battista	Roadway
Participant	Roman, Gural	UPS
Participant	Scott, Keske	Best Buy Company
Participant	Shanda, Marvin	Procter & Gamble
Co-chair	Sue, Donarski	Schneider Logistics
Participant	Tan, Jin Soon	SANC (EAN Singapore)
Participant	Wayne, Gingerich	Werner

### 1.1.6.4 Design Team Members

Function	Name	Organisation
Modeller	Eric, Kauz	GS1
XML Technical Designer		
EANCOM Technical Designer		
Peer Reviewer	John, Ryu	GS1

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## 1.2 Business Context

Context Category	Value(s)
Industry	All
Geopolitical	All
Product	All
Process	Deliver
System Capabilities	EAN.UCC
Official Constraints	None

## 1.3 Additional Technical Requirements Analysis

### 1.3.1 Technical Requirements (optional)

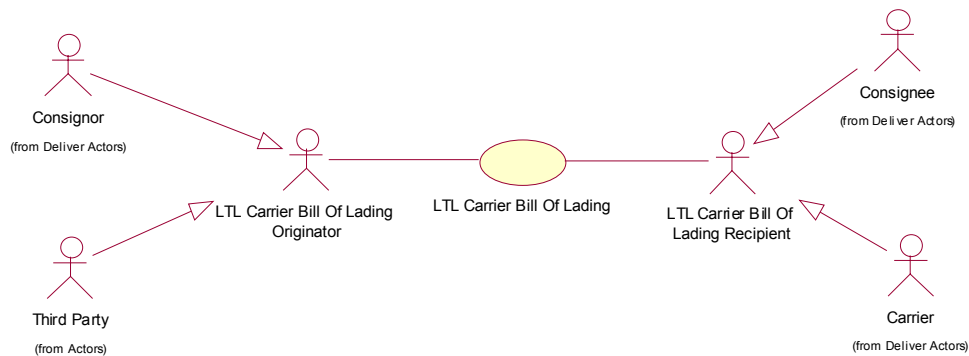
*(User Interface, Security, Performance, Quality, etc.)*

Number	Statement	Rationale



## 1.4 Business Transaction View

### 1.4.1 Business Transaction Use Case Diagram



### 1.4.2 Use Case Description: LTL Carrier Bill of Lading

<b>Use Case ID</b>	UC-1
<b>Use Case Name</b>	Add LTL Carrier Bill of Lading
<b>Use Case Description</b>	This Use Case describes the exchange of the LTL Carrier Bill of Lading used to ensure that the consignor, the LTL carrier, and the customer (the consignee) are all getting the information they need for the processing of the goods through the supply chain. The use of an LTL Carrier Bill of Lading represents a shipment from a single origin to a single destination. The carrier will keep the original Bill of Lading on file and use a delivery receipt for confirmation of the delivery of goods. The LTL Carrier Bill of Lading referenced in this Use Case is an electronic message version of the traditional bill of lading.
<b>Actors (Goal)</b>	<p>Carrier: Party responsible for the transport of freight/goods.</p> <p>Consignor: Party responsible for the origination of the LTL Carrier Bill of Lading</p> <p>LTL Carrier Bill of Lading Originator: This actor is a generalization of the two actors (Consignor, Third Party) who can originate an LTL Carrier Bill of Lading.</p> <p>Consignee: Party identified as the final recipient of freight/goods. A consignee can also be a party requesting the shipment of the freight/goods.</p> <ul style="list-style-type: none"> <li>LTL Carrier Bill of Lading Recipient: This actor is a generalization of the two actors (Carrier, Consignee) who can receive an LTL Carrier Bill of Lading.</li> </ul>
<b>Performance Goals</b>	<i>Goals related to technical requirements</i>
<b>Preconditions</b>	Freight contracts and/or trading partner agreements are in place and the trading partners are capable of sending and receiving electronic messages. The Consignor has freight/goods ready for a carrier
<b>Post conditions</b>	The end-state of the price data alignment process occurs when the parties have achieved price data alignment
<b>Scenario</b>	<b>Begins when</b> the LTL Carrier Bill of Lading Originator (Consignor or Third Party) sends the LTL Carrier Bill of Lading message to the LTL Carrier Bill of Lading Recipient

## Business Solution Design

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	<b>Ends when...</b> the LTL Carrier Bill of Lading Recipient receives the LTL Carrier Bill of Lading.
<b>Alternative Scenario</b>	
<b>Related Requirements</b>	None
<b>Related Rules</b>	<i>Business rules associated with use case.</i> None

### 1.4.3 Business Transaction Activity Diagram(s)

Not available

### 1.4.4 Business Transaction Sequence Diagram(s) (optional)



## Business Solution Design

### 1.5 Information Model (including GDD Report)

#### 1.5.1 Data Description:

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirements
BillOfLadingCollectOnDeliveryInformation				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	cODAmount			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	cODTermsOfPayment			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	isCustomerCheckAcceptable			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
BillOfLadingCommodityIdentification				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	commodityDescription			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	declaredValue			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	freightClassCode			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	masterHandlingUnitPackage-FormCode			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	masterHandlingUnitQuantity			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	quantityContainedOnMaster-HandlingUnit			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	volume			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	None			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		None	BillOfLadingHazardousInformation	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		commodityClassificationCode	CommodityClassification	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		commodityMeasurements	PackageDimension	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
BillOfLadingDateTime				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11

## Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirements
	actualPickupDate			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	deliverByDate			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	deliverNoLaterThanDate			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	deliverNotBeforeDate			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	deliverOnThisDate			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	estimatedDeliveryDate			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	requestedDeliveryDate			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	scheduledDeliveryDate			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
BillOfLadingHazardousInformation				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	dangerousGoodsPackingGroup			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	hazardousMaterialsClass			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	hazardousMaterialsDescription			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	hazardousMaterialsSe- quenceNumber			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	shippingCommodityName			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	technicalCommodityName			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	unitedNationsNumber			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		None	Contact	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
BillOfLadingTotals				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	totalMasterHandlingUnitQuantity			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	totalPurchaseOrderPackages			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	totalQuantityContainedOnMas- terHandlingUnit			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	totalQuantityContainedOnMas- terHandlingUnitPackageForm- Code			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11

## Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirements
	totalVolume			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	totalWeight			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	totalWeight			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
CommodityClassification				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	commodityClassificationCode			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	commodityClassificationCodeType			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
DeliverLocationInformation				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		contactInformation	Contact	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		None	NameAndAddress	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		None	PartyIdentification	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
DeliverReference				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	deliverReferenceIdentification			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	deliverReferenceType			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	None			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	None			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
LTLCarrierBillOfLading				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	freightTerms			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	remarks			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	specialHandlingCode			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	specialServicesCode			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	trailerDescription			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11

## Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirements
	uniqueTrailerIdentifier			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	uniqueTruckIdentifier			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	None			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	None			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	None			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	None			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		None	BillOfLadingCollectOnDeliveryInformation	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		None	BillOfLadingCommodity-Identification	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		None	BillOfLadingDateTime	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		None	BillOfLadingTotals	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		None	CarrierIdentification	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		billTo	DeliverLocationInformation	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		consignee	DeliverLocationInformation	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		Consignor	DeliverLocationInformation	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		customsBroker	DeliverLocationInformation	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		shipFrom	DeliverLocationInformation	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		shipper	DeliverLocationInformation	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		shipTo	DeliverLocationInformation	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		shipmentIdentificationNumber	EntityIdentification	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		None	PurchaseOrderInformation	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		referenceNumber	Reference	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		None	ShipmentSealInformation	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
PackageDimension				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		packageHeight	Measurement	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		packageLength	Measurement	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11

## Business Solution Design

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirements
		packageWidth	Measurement	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
PurchaseOrderInformation				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	additionalShipperInformation			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	isPurchaseOrderQuantityOnPallet			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	purchaseOrderDepartment			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	purchaseOrderNumber			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	purchaseOrderQuantity			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	purchaseOrderType			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	purchaseOrderWeight			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
ShipmentSealInformation				BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
	None			BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11
		None	PartyIdentification	BRD for LTL and Motor Fuel Carrier BOL V 1.0.1 11

## Business Solution Design

### 1.5.2 GDD Report

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
BillOfLadingCollectOnDeliveryInformation				Bill Of Lading_ Collect On Delivery. Details	None	
	cODAmount			Bill Of Lading_ Collect On Delivery. Collect On Delivery_ Amount. Amount	Cash on delivery fee amount including currency code.	0..1
	cODTermsOfPayment			Bill Of Lading_ Collect On Delivery. Collect On Delivery_ Terms Of Payment_ Type. Deliver Payment Method_ Code	Identifies which party is responsible for paying the fee to collect the COD amount.	0..1
	isCustomerCheckAcceptable			Bill Of Lading_ Collect On Delivery. Customer_ Check_ Acceptable. Indicator	Can the driver receive a check for payment of the COD fee (yes/no).	1..1
BillOfLadingCommodityIdentification				Bill Of Lading_ Shipment Containment. Details	None	
	commodityDescription			Bill Of Lading_ Shipment Containment. Commodity Description_ Text. Text	Text description of the commodity being shipped. When NMFC is used for Commodity Classification, the description must match the NMFC Code Description.	1..1
	declaredValue			Bill Of Lading_ Shipment Containment. Declared_ Value. Amount	The value of the commodities being shipped. Includes currency	0..1
	freightClassCode			Bill Of Lading_ Shipment Containment. Freight Class Code_ Text. Text	Either the negotiated or the actual freight class as determined by the National Motor	0..1



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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
					Freight Tariff Association	
	masterHandlingUnitPackageFormCode			Bill Of Lading_ Shipment Containment. Package Form Type. Handling Package Form_ Code	Type of packaging at the highest level of shipment.	1..1
	masterHandlingUnitQuantity			Bill Of Lading_ Shipment Containment. Handling Package_ Quantity. Numeric	The number of units at the highest level of packaging unitised. Includes Unit of Measure	1..1
	quantityContainedOnMasterHandlingUnit			Bill Of Lading_ Shipment Containment. Contained On Master Handling Unit_ Quantity. Quantity	The quantity contained on the master handling unit. Includes Unit of Measure.	1..1
		volume		Bill Of Lading_ Shipment Containment. Total Volume. Volume_ Measure	The total capacity of the commodities being shipped. Includes Unit of Measure	0..1
		weight		Bill Of Lading_ Shipment Containment. Total Weight. Weight_ Measure	Total weight of the commodity being shipped including packaging. Includes Unit of Measure	1..1
		None	BillOfLadingHazardousInformation	Bill Of Lading_ Shipment Containment. Association. Bill Of Lading_ Hazardous Goods	n.a.	0..*
		commodityClassificationCode	CommodityClassification	Bill Of Lading_ Shipment Containment. Commodity Classification_ Association. Commodity Classification	Code specifying the type of product being shipped. National Motor Freight Classification code is required in North America.	0..1
		commodityMeasurements	PackageDimension	Bill Of Lading_ Shipment Containment. Commodity	n.a.	0..1

## Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				Measurements_ Association. Package_ Dimension		
BillOfLadingDateTime				Bill Of Lading_ Date Group. Details	None	
	actualPickupDate			Bill Of Lading_ Date Group. Actual Pickup_ Date Time. Date Time	The date/time on which the carrier took physical possession of the freight.	1..1
	deliverByDate			Bill Of Lading_ Date Group. Deliver By_ Date Time. Date Time	Carrier must deliver shipment before this date / time	0..1
	deliverNoLaterThanDate			Bill Of Lading_ Date Group. Deliver No Later Than_ Date Time. Date Time	Carrier cannot deliver shipment past this date / time	0..1
	deliverNotBeforeDate			Bill Of Lading_ Date Group. Deliver Not Before_ Date Time. Date Time	Carrier cannot deliver shipment prior to this date / time	0..1
	deliverOnThisDate			Bill Of Lading_ Date Group. Deliver On_ Date Time. Date Time	Carrier must deliver the shipment on this date / time.	0..1
	estimatedDeliveryDate			Bill Of Lading_ Date Group. Estimated Delivery_ Date Time. Date Time	The date/time on which the carrier is estimated to deliver the shipment.	0..1
	requestedDeliveryDate			Bill Of Lading_ Date Group. Requested Delivery_ Date Time. Date Time	Carrier is requested to deliver the shipment on this date / time. Date / time is subject to changed based on the business process that may dictate the requested date / time.	0..1

## Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
	scheduledDeliveryDate			Bill Of Lading_ Date Group. Scheduled Delivery_ Date Time. Date Time	Business rules / process determines delivery date mandated to the carrier.	0..1
BillOfLadingHazardousInformation				Bill Of Lading_ Hazardous Goods. Details	None	
	dangerousGoodsPackingGroup			Bill Of Lading_ Hazardous Goods. Dangerous Goods_ Packing Group. Identifier	Identifies the degree of risk these dangerous goods present during transport according to IATA/IMDG/ADR/RID regulations.	1..1
	hazardousMaterialsClass			Bill Of Lading_ Hazardous Goods. Hazardous Materials_ Class. Identifier	A code specifying the kind of hazard for a material	1..1
	hazardousMaterialsDescription			Bill Of Lading_ Hazardous Goods. Hazardous Materials_ Description. Text	Text description of hazardous goods.	1..1
	hazardousMaterialsSequenceNumber			Bill Of Lading_ Hazardous Goods. Hazardous Materials_ Sequence_ Number. Numeric	Sequence number identifying each instance of Hazardous Material associated with shipped commodity.	1..1
	shippingCommodityName			Bill Of Lading_ Hazardous Goods. Shipping_ Commodity_ Name. Text	Common name of the commodity being shipped.	1..1
	technicalCommodityName			Bill Of Lading_ Hazardous Goods. Technical_ Commodity_ Name. Text	Chemical name (chemical make-up) of the commodity being shipped.	1..1
	unitedNationsNumber			Bill Of Lading_ Hazardous Goods. United Nations_ Number. Numeric	UN classification of commodity being shipped.	1..1
		None	Contact	Bill Of Lading_ Hazardous	n.a.	1..1

## Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				Goods. Association. Contact		
BillOfLadingTotals				Less Than Truckload Carrier_ Bill Of Lading Summary. Details	None	
	totalMasterHandlingUnitQuantity			Less Than Truckload Carrier_ Bill Of Lading Summary. Total Master Handling Unit_ Quantity.	Total Number of Handling Units	1..1
	totalPurchaseOrderPackages			Less Than Truckload Carrier_ Bill Of Lading Summary. Total Purchase Order Package_ Quantity.	Total quantity of goods in purchase order. Includes Unit of Measure	0..1
	totalQuantityContainedOnMasterHandlingUnit			Less Than Truckload Carrier_ Bill Of Lading Summary. Contained On Master Handling Unit_ Total Quantity. Numeric	Number of pieces contained on master handling unit.	0..1
	totalQuantityContainedOnMasterHandlingUnitPackageFormCode			Less Than Truckload Carrier_ Bill Of Lading Summary. Handling Package Form_ Code. Handling Package Form_ Code	Unit of measure list associated with the number if pieces contained on a master handling unit.	0..1
	totalVolume			Less Than Truckload Carrier_ Bill Of Lading Summary. Total Volume. Volume_ Measure	Total volume of the shipment. Includes Unit of Measure	0..1
	totalWeight			Less Than Truckload Carrier_ Bill Of Lading	Total shipment weight. Includes Unit of Measure	0..1

## Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				Summary. Total Weight. Weight_ Measure		
CommodityClassification				Commodity Classification. Details	n.a.	
	commodityClassificationCode			Commodity Classification. Commodity Classification_ Code. Text	Code specifying the type of product being shipped. National Motor Freight Classification code is required in North America.	1..1
	commodityClassificationCodeType			Commodity Classification. Commodity Classification_ Code Type. Commodity_ Code	Code Type associated with Commodity Classification Code.	1..1
DeliverLocationInformation				Deliver_ Location. Details	n.a.	
		contactInformation	Contact	Deliver_ Location. Association. Contact	None	0..*
		None	NameAndAddress	Deliver_ Location. Association. Party Address Group	None	1..1
		None	PartyIdentification	Deliver_ Location. Association. Party Identification	None	0..1
DeliverReference				Deliver_ Entity Reference. Details	Number used to reference package or shipment for the purposes of status inquiry.	
	deliverReferenceIdentification			Deliver_ Entity Reference. Deliver Reference_ Identification. Text	n.a.	1..1
	deliverReferenceType			Deliver_ Entity Reference. Deliver Reference_ Type.	n.a.	1..1

## Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				Deliver Reference_ Code		
	None			Deliver_ Entity Reference. Entity Type. Code	n.a.	0..*
	None			Deliver_ Entity Reference. Identification. Identifier	n.a.	0..*
LTLCarrierBillOfLading				Less Than Truckload Carrier_ Bill Of Lading. Details	n.a.	
	freightTerms			Less Than Truckload Carrier_ Bill Of Lading. Deliver Payment Method_ Type. Deliver Payment Method_ Code	Identifies party responsible for paying the freight invoice.	0..1
	remarks			Less Than Truckload Carrier_ Bill Of Lading. Remarks_ Text. Text	n.a.	0..1
	specialHandlingCode			Less Than Truckload Carrier_ Bill Of Lading. Special Handling_ Code. Code	n.a.	0..*
	specialServicesCode			Less Than Truckload Carrier_ Bill Of Lading. Special Service_ Code. Special Service_ Code	n.a.	0..1
	trailerDescription			Less Than Truckload Carrier_ Bill Of Lading. Trailer Description_ Text. Text	A free form description of the type of equipment being used for shipment.	0..1
	uniqueTrailerIdentifier			Less Than Truckload Carrier_ Bill Of Lading. Trailer_ Unique_ Identifi-	The trailer number as labelled on the trailer plus owners code.	0..1

## Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				cation. Text		
	uniqueTruckIdentifier			Less Than Truckload Carrier_ Bill Of Lading. Truck_ Unique_ Identification. Text	The number identifying the conveyance unit.	0..1
	None			Less Than Truckload Carrier_ Bill Of Lading. Special Handling_ Code_ Shipment Special Handling_ Code. Type	n.a.	0..*
	None			Less Than Truckload Carrier_ Bill Of Lading. Special Handling_ Code_ Shipment Special Handling_ Code. Type	n.a.	0..*
	None			Less Than Truckload Carrier_ Bill Of Lading. Code_ Shipment Special Handling_ Code. Type	n.a.	0..*
	None			Less Than Truckload Carrier_ Bill Of Lading. Special Service_ Code_ Shipment Special Handling_ Code. Type	n.a.	0..1
		None	BillOfLadingCollectOnDeliveryInformation	Less Than Truckload Carrier_ Bill Of Lading. Association. Bill Of Lading_ Collect On Delivery	n.a.	0..1
		None	BillOfLadingCommodityIdentification	Less Than Truckload Carrier_ Bill Of Lading. Association. Bill Of Lading_ Shipment Contain-	n.a.	1..*

## Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				ment		
		None	BillOfLadingDateTime	Less Than Truckload Carrier_ Bill Of Lading. Association. Bill Of Lading_ Date Group	n.a.	1..*
		None	BillOfLadingTotals	Less Than Truckload Carrier_ Bill Of Lading. Association. Less Than Truckload Carrier_ Bill Of Lading Summary	n.a.	1..1
		None	CarrierIdentification	Less Than Truckload Carrier_ Bill Of Lading. Association. Carrier_ Shipment Identification	None	1..1
		billTo	DeliverLocationInformation	Less Than Truckload Carrier_ Bill Of Lading. Bill To_ Association. Deliver_ Location	Party where freight invoice is to be sent	0..1
		consignee	DeliverLocationInformation	Less Than Truckload Carrier_ Bill Of Lading. Consignee_ Association. Deliver_ Location	Party receiving the freight/goods.	0..1
		Consignor	DeliverLocationInformation	Less Than Truckload Carrier_ Bill Of Lading. Consignor_ Association. Deliver_ Location	Party requesting the shipment of the freight/goods. Party responsible for origination of Motor Carrier Bill of Lading.	0..1
		customsBroker	DeliverLocationInformation	Less Than Truckload Carrier_ Bill Of Lading. Customs Broker_ Association. Deliver_ Location	Party responsible for processing the shipment through customs.	0..1
		shipFrom	DeliverLocationInformation	Less Than Truckload	The physical address of where	1..1



## Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
			formation	Carrier_ Bill Of Lading. Ship From_ Association. Deliver_ Location	the shipment originated	
		shipper	DeliverLocationInformation	Less Than Truckload Carrier_ Bill Of Lading. Shipper_ Association. Deliver_ Location	Party responsible for shipping the goods.	0..1
		shipTo	DeliverLocationInformation	Less Than Truckload Carrier_ Bill Of Lading. Ship To_ Association. Deliver_ Location	Ultimate destination where the shipment is delivered.	1..1
		shipmentIdentificationNumber	EntityIdentification	Less Than Truckload Carrier_ Bill Of Lading. Association. Entity Identification	n.a.	1..1
		None	PurchaseOrderInformation	Less Than Truckload Carrier_ Bill Of Lading. Association. Less Than Truckload Carrier Bill Of Lading_ Purchase Order Information	n.a.	0..*
		referenceNumber	Reference	Less Than Truckload Carrier_ Bill Of Lading. Reference Number_ Association. Entity Reference	n.a.	0..*
PackageDimension				Package_ Dimension. Details	None	
		packageHeight	Measurement	Package_ Dimension. Package_ Height_ Association. Multi-unit Measure	n.a.	1..1

## Business Solution Design

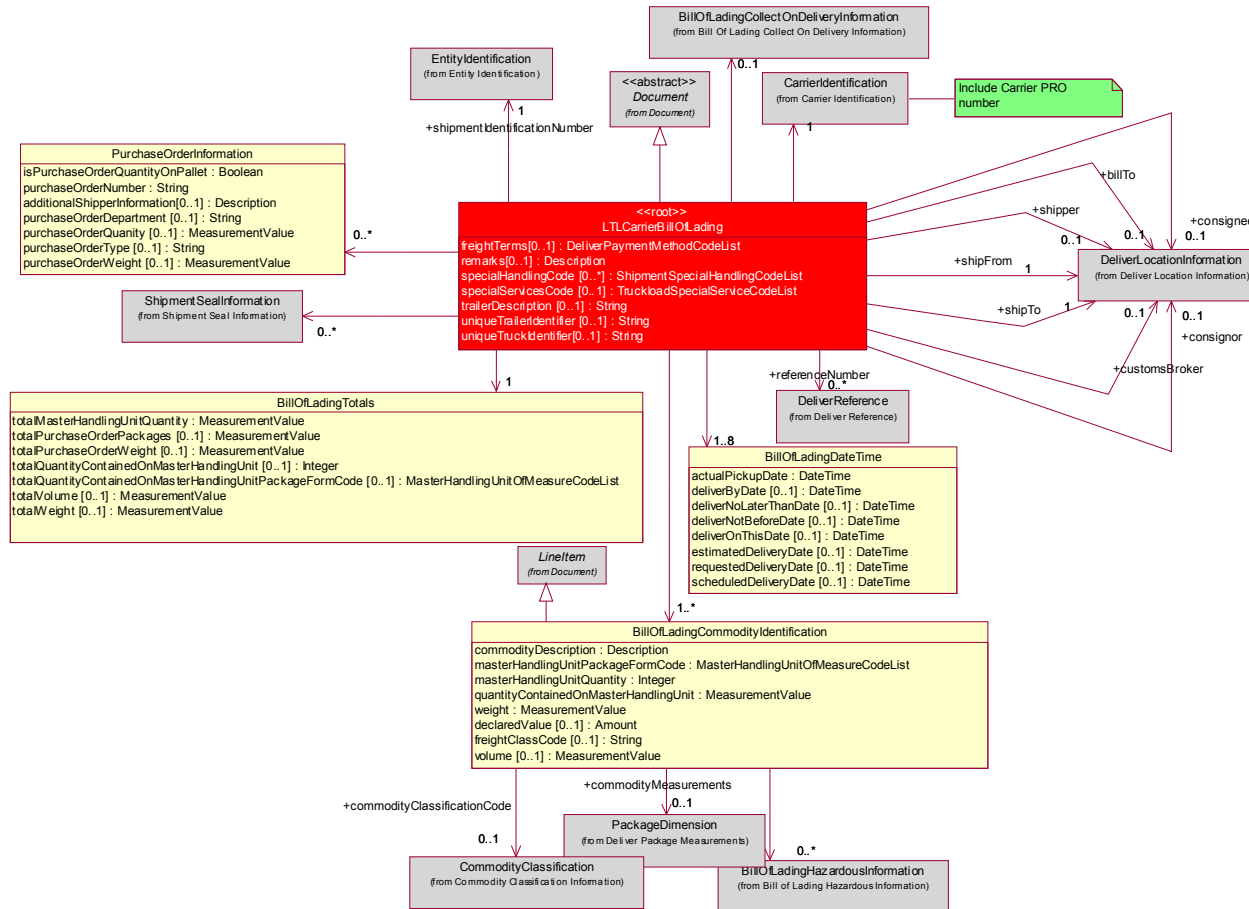
Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
		packageLength	Measurement	Package_ Dimension. Package_ Length_ Association. Multi-unit Measure	n.a.	1..1
		packageWidth	Measurement	Package_ Dimension. Package_ Width_ Association. Multi-unit Measure	n.a.	1..1
PurchaseOrderInformation				Less Than Truckload Carrier Bill Of Lading_ Purchase Order Information. Details	n.a.	
	additionalShipperInformation			Less Than Truckload Carrier Bill Of Lading_ Purchase Order Information. Additional_ Shipper_ Text. Text	n.a.	1..1
	isPurchaseOrderQuantityOnPallet			Less Than Truckload Carrier Bill Of Lading_ Purchase Order Information. Is Purchase Order On Pallet_ Quantity. Indicator	Said to contain amount on pallet.	1..1
	purchaseOrderDepartment			Less Than Truckload Carrier Bill Of Lading_ Purchase Order Information. Purchase Order_ Department_ Text. Text	Department responsible for issuing the purchase order	0..1
	purchaseOrderNumber			Less Than Truckload Carrier Bill Of Lading_ Purchase Order Information. Purchase Order_	The number assigned to identify a purchase order. Contained in Purchase Order Information.	1..1

## Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				Number. Text		
	purchaseOrderQuantity			Less Than Truckload Carrier Bill Of Lading_ Purchase Order Information. Purchase Order_ Quantity. Quantity	Purchase order quantity on the order. Includes Unit of Measure	0..1
	purchaseOrderType			Less Than Truckload Carrier Bill Of Lading_ Purchase Order Information. Purchase Order_ Type. Text	n.a	0..1
	purchaseOrderWeight			Less Than Truckload Carrier Bill Of Lading_ Purchase Order Information. Purchase Order_ Total Weight. Measure	Total weight on purchase order. Includes Unit of Measure	0..1
ShipmentSealInformation				Shipment_ Seal. Details	n.a	
	None			Shipment_ Seal. Seal_ Number. Text	The number marked on the physical seal applied to a trailer.	1..1
		None	PartyIdentification	Shipment_ Seal. Seal_ Party Identification_ Association. Party Identification	Identification of the party that applied the seal.	1..1

# Business Solution Design

## 1.5.3 Class Diagrams



## **Business Solution Design**

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### **1.5.4 Code Lists**

#### **1.5.4.1 Deliver Payment Method Code List**

See Common BSD

#### **1.5.4.2 Shipment Special Handling Code List**

See Common BSD

#### **1.5.4.3 TruckloadSpecialServiceCodeList**

See Common BSD

#### **1.5.4.4 Master Handling Unit Of Measure Code List**

See Common BSD

## Business Solution Design

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### 1.6 Business Document Example

Not filled in the previous BRAD version:

### 1.7 Implementation Considerations

Not Available

### 1.8 Testing

#### 1.8.1 Pass / Fail Criteria

Number	Test Criteria	Related Requirement	Design Element	Pass Criteria	Fail Criteria
1					
2					
3					

#### 1.8.2 Test Data

### 1.9 Appendices

#### 1.10 Summary of Changes

Change	BMS Version	Associated CR Number
•		

### 2 XML Technical Solution ITRG Packet

The Technical Representation of the Business process is documented in a Technical Solution ITRG Packet containing all supplemental XML artefacts and is used by the Information Requirements Group (ITRG) to evaluate the solution. Upon approval from the Information Technical Requirements Group (ITRG), the Technical Solution ITRG Packet is updated to the Technical Solution Implementers Packet and published with the Business

Message Standard at:

[http://www.ean-ucc.org/global\\_smp/ean.ucc\\_standards.htm](http://www.ean-ucc.org/global_smp/ean.ucc_standards.htm).

Technical Solution ITRG Packet Content:

- Business Message Standard (BMS)
- ITRG Review Packet
  - Style Sheet: This HTML has been created using a Style Sheet that is a visual representation of the data. It is not an actual Style Sheet, but an ex-ample of what a Style Sheet may look like.
  - Instance File: The Instance File is an example of what the schema may look like when it includes live data. This can be used as comparison to a completed schema and can serve as a point of reference for development.
  - Technical Level GDD Report

Technical Solution Implementers Packet Content:

Contains all the message specific.XSD files required to implement

Example:

- AS2Envelope
- Command.xsd
- DocumentCommand.xsd
- Proxy.xsd
- ComponentLibrary.xsd

Both the Business Message Standard and the Implementers Packet are available during the ITRG Review Period in the working documents section of the ITRG eRoom:

[http://eroom.uncouncil.org/eRoom/facility/InformationTechnicalAssessmentGroupITAG/0\\_14f7](http://eroom.uncouncil.org/eRoom/facility/InformationTechnicalAssessmentGroupITAG/0_14f7)

All documents for review will be in this folder listed by name of the Change Request and Change Request Number. The Business Message Standard is not open for review, but offered as the basis for determining the suitability of the technical solutions.

This eRoom may be accessed by using the following User Name and Password:

User Name: guest

Password: guest