



# **Business Message Standard (BMS) Invoice**

**BMS Release: 2.3.0, BRG Name: eCom**

*Issue 0.4.3, 25-May 2007*

## Document Summary

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## Change Request Reference

Date of CR Submission to GSMP:	CR Submitter(s):	Refer to Change Request (CR) Number(s):
20061218	Rob Heather, GS1 UK	06-000337
20061118	Andy Kim, GS1 Australia	06-000300
20061118	Andy Kim, GS1 Australia	06-000301
20061119	Andy Kim, GS1 Australia	06-000302
20060403	Ben Holland- Accenture	06-000084
20041215	Upstream, GS1	04-000229

## Business Requirements Document (BRAD) Reference

BRAD Title:	BRAD Date:	BRAD Version
Invoice Enhancements	20070109	Version 0.0.1
Upstream Standards Financial Settlement	20060613	Version 0.1.1
BRD Simple Invoice Extension	20040924	Version 1.3.1

## Document Change History

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
20050210	0.1.0	John Ryu	Initial Version in BMS/BSD template	Migration of BRD to standard BMS/BSD format	5724
20050331	0.1.1	Andrew Hearn	Context Update	Updated the context listed within the document	
20050405	0.0.1	Marco Schuyt	First Draft	New invoice based on Simple Invoice and Request for Payment	

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
200050603	0.2.0	Marco Schuyt	Second Draft	Second draft of the new invoice, based on the Simple Invoice.	
20050615	0.2.1	Marco Schuyt	Content update	Content updated on basis of comments of BRG Pay as explained in the consolidated comment sheet.	
20050630	0.2.2	Marco Schuyt	Public review, peer review		
20050711	0.2.3	Marco Schuyt	Clarification of 3 <sup>rd</sup> party usage in the invoice.	Class diagram updated with Payee. Use case descriptions and diagram updated with 3 <sup>rd</sup> party clarification.	
20050727	0.2.4	John Ryu	Peer Review	<p>Added Float datatype in the InvoiceTotals class.</p> <p>Updated Official Dictionary Entry Name in GDD to reflect the Float datatype</p> <p>Updated code list to remove any nonalphanumeric character. SELF-BILLED_INVOICE changed to SELF_BILLED_INVOICE</p> <p>Updated the Business Document Example add currency into the invoiceAllowanceChargeAmount Change ranferOfOwnerShipDate- →transferOfOwnershipDate</p>	MDL P4CL: 7189  BSD P4CL: 7191
20050818	0.2.5	John Ryu	BuildMaster incorporation and template enforcement.	<p>For consistency replaced Amount Datatype to Float in class diagram (InvoiceLineItemInformationAfterTaxes, InvoiceAllowanceCharge) and updated sample data to reflect this.</p> <p>Updated GDD.</p> <p>Updated class diagram per Modelling Best Practice renamed elements. FROM: VatTaxInform.. TO: VATTaxInformation</p> <p>FROM: EuInvoiceParty TO: EUInvoiceParty</p> <p>Reformatted per BMS/BSD template.</p>	Build MDL P4CL: 7316  BSD P4CL: 7317
20051003	0.3.0	Coen Janssen	Technical Public Review – Upstream Standards	Several functional changes, see paragraph 1.10. Also adjusted the examples.	

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
20051010	0.3.1	John Ryu	Incorporate Main Harmonized Model	See paragraph 1.10 for changes.	BSD P4CL: 7542
20060206	0.3.2	Coen Janssen	Bugfix on 2.1	See paragraph 1.10 for changes	BSD P4CL: 8022
20060613	0.3.3	Mark Van Eeghem	Additional CR06-000084	Added taxAccountingCurrency for invoicetotals and taxinformation	P4CL BSD 8909 P4CL MDL 8487
20070208	0.4.0	John Ryu	Updated BMS into template version 1.6 CR 06-300/1/2 and 06-337	Changes noted in section 10. Summary of Changes	MDL P4CL: 9067  BSD P4CL: 9070
20070323	0.4.1	John Ryu	Update based on peer review  eCom BRG Motioned BSD for TSD development	Changes noted in section 10 Summary of Changes.	BSD P4CL: 9130
20070412	0.4.2	John Ryu	Post for Public Review	Updated to BMS template Version 1.8	BSD P4CL: 9225
20070525	0.4.3	John Ryu	eCom BRG eBallot approved	Updated BMS to approved	BSD p4cl: 9542

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# 1. Business Domain View

## 1.1. Problem Statement / Business Need

The Invoice Message is defined as requesting payment for goods or services under conditions agreed upon between the seller and the buyer. It contains the necessary information needed for payment consisting of parties, items, prices, amounts and quantities.

## 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 of the standards would be any participant in the global supply chain. This would include retailers, manufacturers, service providers, and other third parties

## 1.4. References

Reference Number	Reference Name	Description
[Ref1]	BRAD Upstream Standards	Financial Settlement Version 0.1.0Version Financial requirements for the Upstream IRT
[Ref2]	BRD Request for Payment	
[Ref3]	BRD Simple Invoice Extensions	
[Ref4]	BRAD Invoice Enhancements	Version 0.0.1
[Ref5]	BMS Common Library	BMS Version Release 2.3

## 1.5. Acknowledgements

### 1.5.1. BRG Work Group

Function	Name	Company / Organisation
BRG Work Group Chair	Open	
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BRG Work Group Member	Ryohei ARIGA	Procter & Gamble
BRG Work Group Member	Rick BATTISTA	Roadway
BRG Work Group Member	Maureen BONITO	ISI Mars
BRG Work Group Member	Richard CRESTA	GS1 Switzerland
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Function	Name	Company / Organisation
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BRG Work Group Member	Fred KEMPKE	Unilever
BRG Work Group Member	Rita LAUR	GS1 Canada
BRG Work Group Member	Bill LOHSE	Data Tronics
BRG Work Group Member	Ana Paula MANIERO	GS1 Brazil
BRG Work Group Member	Eric MAREE	Accenture
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BRG Work Group Member	Frank NAPOLI	LMI
BRG Work Group Member	Eileen NAUSED	McCormick
BRG Work Group Member	Debby NOYES	Johnsonville
BRG Work Group Member	Marie PERRY	Coca Cola
BRG Work Group Member	Natascha POTTIER	GS1 France
BRG Work Group Member	Rich RICHARDSON	GS1 US
BRG Work Group Member	Steve ROSENBERG	GS1 US
BRG Work Group Member	Kazuya SATO	GS1 Japan
BRG Work Group Member	Jon SHARRATT	Target
BRG Work Group Member	Andy SLOW	GS1 Singapore
BRG Work Group Member	Tan Jin SOON	GS1 Singapore
BRG Work Group Member	Stef SPAAN	GS1 Netherlands

Function	Name	Company / Organisation
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BRG Work Group Member	Chi YANG	UPS

### 1.5.2. Design Team Members

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Modeler	John RYU	GS1
XML Technical Designer	Dipan ANARKAT	GS1
EANCOM Technical Designer	Not Applicable	
Peer Reviewer	Eric KAUZ	GS1

## 2. Business Context

Context Category	Value(s)
Industry	All
Geopolitical	Global
Product	All
Process	Pay
System Capabilities	GS1 System
Official Constraints	European VAT Regulation, Sales Tax

## 3. Additional Technical Requirements Analysis

Not Applicable

### 3.1. Technical Requirements

Number	Statement	Rationale



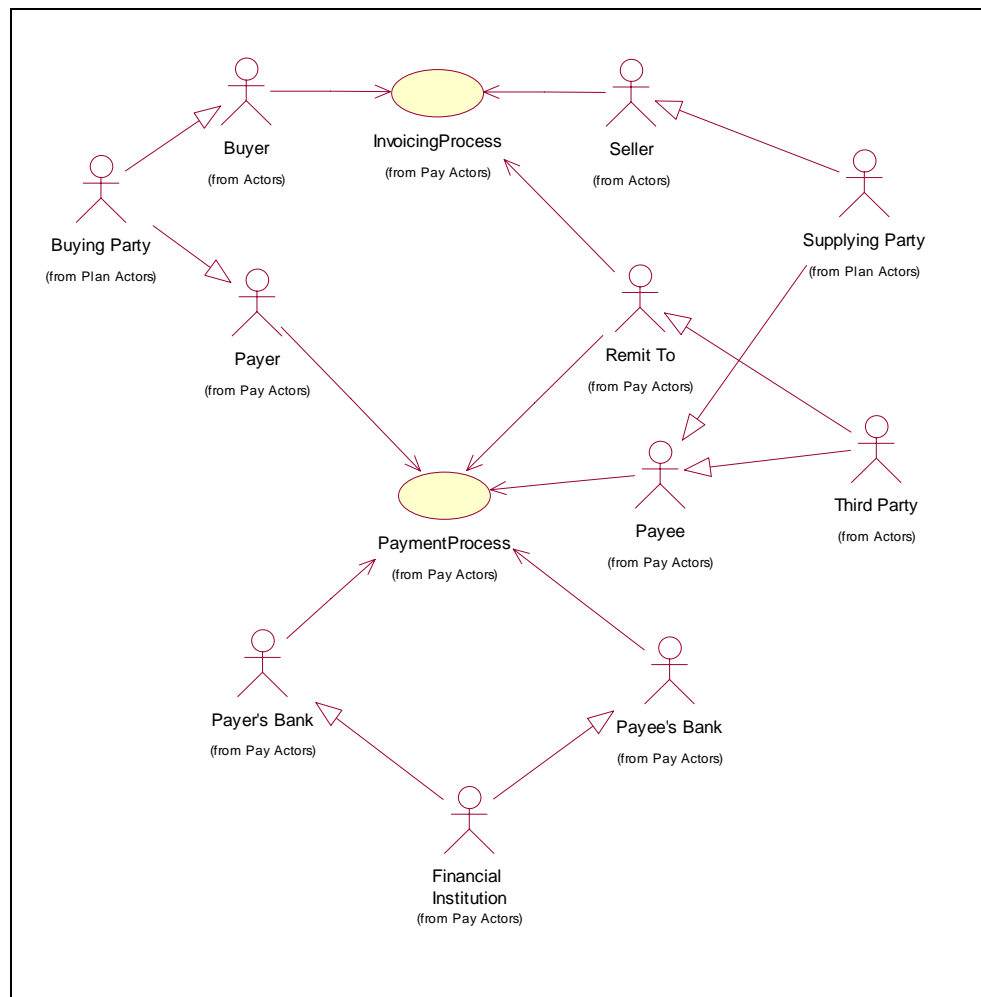
## 4. Business Transaction View

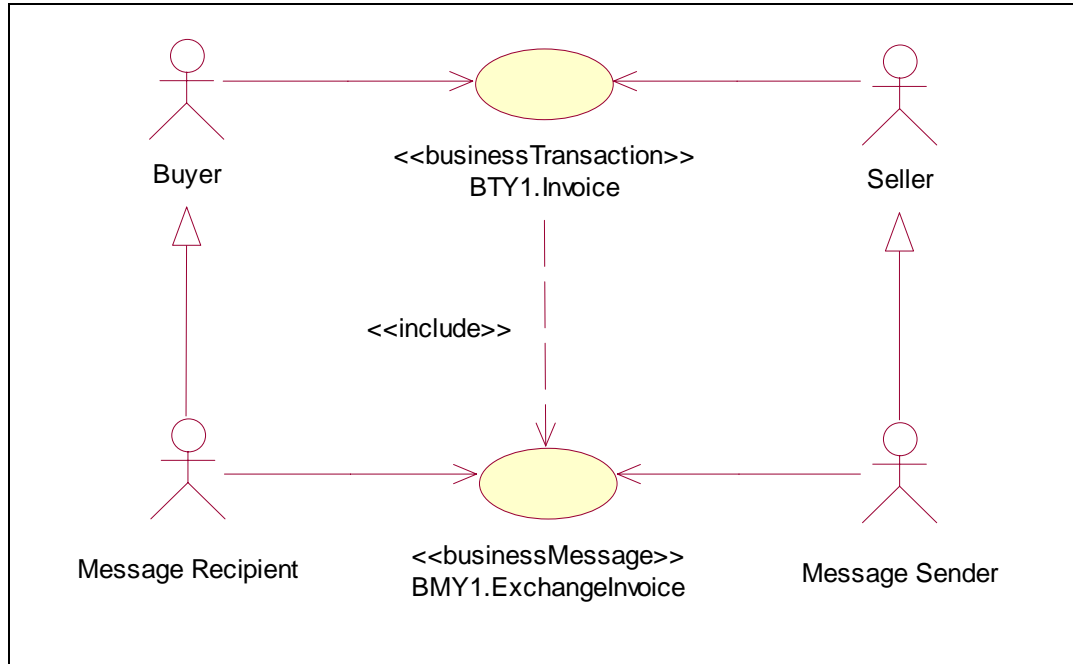
### 4.1. Business Transaction Use Case Diagram

The diagram below illustrates the parties and the roles they (can) play in the invoicing and payment processes.

- Amongst others, the invoice transaction sets the preconditions for the payment process. Therefore the invoice also contains information about the parties that will become active during the payment process, i.e. the payer and the payee.
- Furthermore there might be a third party involved, such as a factor.

**Figure 4-1** Parties and roles in the invoicing and payment processes



**Figure 4-2** Use Case Diagram: Invoice Business Transaction


## 4.2. Use Case Description

<b>Use Case ID</b>	BMY-1
<b>Use Case Name</b>	Exchange Invoice
<b>Use Case Description</b>	The invoice message enables the supplier to send an invoice to the manufacturer related to delivered goods (in case of non consignment scenario) or to used (consumed) goods (in case of a consignment scenario)
<b>Actors (Goal)</b>	Buyer: To receive the invoice Seller: To send the invoice Remit-to: To receive the invoice
<b>Performance Goals</b>	None
<b>Preconditions</b>	None
<b>Post conditions</b>	None

<b>Scenario</b>	<p><b>Begins when...</b></p> <p>The seller generates an invoice based on the goods deliveries or consumption reports (in case of consignment).</p> <p><b>Continues with...</b></p> <table border="1"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Seller</td> <td>Issues and sends the invoice to the buyer.</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p><b>Ends when</b> The buyer receives the invoice.</p>	Step #	Actor	Activity Step	1	Seller	Issues and sends the invoice to the buyer.			
Step #	Actor	Activity Step								
1	Seller	Issues and sends the invoice to the buyer.								
<b>Alternative Scenario</b>	<p><b>Begins when...</b></p> <p>The seller generates an invoice based on the goods delivered or consumption reports (in case of consignment) and the payment is to be made to a remit-to</p> <table border="1"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Seller</td> <td>Issues and sends the invoice to the buyer and to the remit-to</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p><b>Ends when:</b></p> <p>The buyer and remit-to receives the invoice</p>	Step #	Actor	Activity Step	1	Seller	Issues and sends the invoice to the buyer and to the remit-to			
Step #	Actor	Activity Step								
1	Seller	Issues and sends the invoice to the buyer and to the remit-to								
<b>Related Requirements</b>	1. No Related Requirements									
<b>Related Rules</b>	1. No Related Rules									

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

No Activity Diagram

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

No Sequence Diagram

## 5. Information Model (Including GDD Report)

### 5.1. GDD Report

#### 5.1.1. Invoice

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
DigitalSignature				When a digital signature is included as part of the invoice, the digital signature must be encrypted using an approved GS1 encryption technique.			
Invoice				The Invoice message is sent by the supplier to the customer claiming payment for goods or services supplied under conditions agreed by the seller and the buyer. This same message with correct data qualification also covers the functions of proforma invoice, debit and credit note. The seller may invoice for one or more transactions referring to goods and services related to one or more order, delivery instruction, call off, etc. The invoice may contain references to payment terms, transport details and additional information for customs or statistical purposes in the case of cross-border transaction.			
	countryOfSupplyOfGoods			The country from which the delivery has taken place.	0..1	Code. Content Code List. Agenc. Identifier Code List. Agency Name. Text	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-8}
	invoiceCurrency			The monetary unit used for calculation in an invoice.	1..1	Code. Content Code List. Agenc. Identifier Code List. Agency Name. Text	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-4}



Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
	invoiceType			Code specifying the type of invoice.	1..1	Code. Content Code List. Agenc. Identifier Code List. Agency Name. Text	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-3}
		taxCurrencyInformation	CurrencyExchangeRateInformation	Contains the currency in which taxes will be paid, as well as the exchange rate against the invoice currency.	0..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-9+10}
		None	DigitalSignature	A character string, generated using an asymmetric technique, which provides message non-repudiation, integrity checking and authentication.	0..1		[BRD Simple Invoice Extension] {1.1-1}
		None	Document	Used to specify basic information about the content of the message including version number; creation date and time.	1..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-2+11}
		invoiceIdentification	EntityIdentification	Contains the unique identifier of the business document.	1..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-1}
		None	InvoiceAllowanceCharge	The allowances and/or charges applicable to the invoice.	0..*		[BRD Simple Invoice Extension] {1.1-1}
		None	InvoiceLineItem	Contains the specification of the Invoice Line Item.	1..*		[BRD Simple Invoice Extension] {1.1-1}
		buyer	InvoiceParty	Party to whom merchandise and/or service is sold.	1..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-12+13+14+16}
		payee	InvoiceParty	Identifies the credit party when other than the beneficiary.	0..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-30+31+32+34}
		payer	InvoiceParty	Party initiating payment.	0..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-



Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
							24+25+26+28}
		remitTo	InvoiceParty	The party (account owner) that receives a payment when such party is not the same as the seller.	0..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-24+25+26+28}
		seller	InvoiceParty	Party selling merchandise to a buyer.	1..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-18+19+20+22}
		taxRepresentative	InvoiceParty	The party who is responsible for declaring the Value Added Tax (VAT) on the sale of goods or services.	0..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-36+37+38}
		None	InvoiceTotals	The specification of the prepaid amounts, or total monetary values due for the entire invoice.	1..1		[BRD Simple Invoice Extension] {1.1-1}
		None	PaymentTerms	The specification of the payment terms applicable to this invoice.	0..*		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-7+40+41+42}
		shipTo	ShipToLogistics	Party to where goods will be or have been shipped.	0..1		[BRAD Invoice Enhancement V 0.0.1] {BR# 2} [BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-39}
		invoicingPeriod	TimePeriod	Period for which an invoice is issued.	0..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-5+6}
InvoiceLineItem				To identify an invoice line item and it's configuration.			
	amountExclusiveAllowancesCharges			The sum of the line item amount. Including Invoice line charges and allowances.The line amount = quantity * Price + Charges – Allowances.	0..1	Numeric.Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-59}
	amountInclusiveAllowancesCharges			The sum of the line item amount.Excluding Invoice line charges and allowances.The line amount = quantity * Price.	0..1	Amount.Content Amount Currency.	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
						Code List Version. Identifier	58}
	invoicedQuantity			The quantity as per invoice.	1..1	Quantity. Content Quantity Unit. Code Quantity Unit. Code List Agency. Identifier	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-56+57}
	itemDescription			A short textual description of the invoiced item. Is legally required in some countries.	0..1	Text. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-48}
	itemPriceBaseQuantity			To specify the basis for a unit price.	0..1	Quantity. Content Quantity Unit. Code Quantity Unit. Code List Agency. Identifier	BRAD Upstream Standards –Financial Settlement 0.1.0 {7.1.1-48}
	itemPriceExclusiveAllowanceCharges			The price stated is the gross price excluding all allowances, charges and taxes. Allowances and charges must be stated for net calculation purposes.	0..1	Numeric. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-61}
	itemPriceInclusiveAllowanceCharges			The price stated is the net price including all allowances and charges and excluding taxes. Allowances and charges may be stated for information purposes only.	0..1	Numeric. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-61}
	transferOfOwnershipDate			The date on which the economic transfer of the goods took place. The tax authorities stipulate the specification of this date in invoices for goods and services.	1..1	Date Time. Content Date Time. Format. Text	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-54}
		consumptionReport	Document OrDocumentLineReference	A reference number identifying a consumption report.	0..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-51}
		despatchAdvice	Document OrDocume	A reference number identifying a despatch advice.	0..1		[BRAD Upstream Standards –Financial



Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
			ntLineReference				Settlement 0.1.0 {7.1.1-49}
		invoice	Document OrDocumentLineReference	A reference number identifying an invoice.	0..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-49}
		orderIdentification	Document OrDocumentLineReference	Reference number assigned by the buyer to an order.	0..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-52}
		purchaseConditions	Document OrDocumentLineReference	A reference number identifying the purchase conditions.	0..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-53}
		receivingAdvice	Document OrDocumentLineReference	A reference number identifying a receiving advice.	0..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-50}
		invoiceLineAllowanceCharge	InvoiceAllowanceCharge	The allowances and/or charges applicable to the invoice line.	0..*		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-64+65+66+67}
		None	InvoiceLineItemInformationAfterTaxes	This is the invoice line amount including tax.	0..1		[BSD Invoice Version 0.3.2]
		invoiceLineTaxInformation	InvoiceTaxInformation	Information about the tax applicable to the invoice line.	0..*		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-60}
		None	LineItem	Used to specify basic information about the content of the line item including line item number.	1..1		BRD Simple Invoice Extensions
		deliveryNote	Reference	Reference number assigned by the issuer to a delivery note.	0..1		BRD Simple Invoice Extensions
		None	TradeItemIdentification	The identification of any item (product or service) upon which there is a need to retrieve pre-defined information and that may be priced, ordered, or invoiced at any point in any supply chain.	1..1		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-47}
InvoiceLi				Contains the invoice line amount including tax.			





Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
nelItemInformationAfterTaxes							
	amountExclusiveAllowancesCharges			The amount excluding the allowances and/or charges.	0..1	Numeric. Content	[BSD Invoice Version 0.3.2]
	amountInclusiveAllowancesCharges			The amount including the allowances and/or charges.	0..1	Numeric. Content	[BSD Invoice Version 0.3.2]
InvoiceTotals				The specification of the prepaid amounts, or total monetary values due for the entire invoice.			
	taxAccountinCurrency			The monetary unit used for calculation in an invoice.	0..1	Code. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-78}
	totalAmountInvoiceAllowancesCharges			The amount specified is the total of all invoice charges/allowances.	0..1	Numeric. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-76}
	totalAmountLineAllowancesCharges			The amount specified is the total of all invoice line charges/allowances.	0..1	Numeric. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-77}
	totalInvoiceAmount			Total sum charged in respect of a single Invoice in accordance with the terms of delivery.	1..1	Numeric. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-79}
	totalInvoiceAmountPayable			Total amount including taxes (gross amount) that needs to be paid.	0..1	Numeric. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-79}
	totalLineAmountExclusiveAllowancesCharges			The sum of all the line item amounts.Excluding Invoice line charges and allowances.The line amount = quantity * Price.	0..1	Numeric. Content	BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-76}
	totalLineA			The sum of all the line item amounts. Including	0..1	Numeric.	[BRAD Upstream

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
	mountInclusiveAllowancesCharges			Invoice line charges and allowances. The line amount = quantity * Price + Charges – Allowances.		Content	Standards –Financial Settlement 0.1.0 {7.1.1-77}
	totalTaxAmount			Total of all duty/tax/fee amounts.	0..1	Numeric. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-78}
		taxSubtotal	InvoiceTaxInformation	The Tax sub total specifies the total tax amounts for each tax rate.	0..*		[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-73+74+75}

### 5.1.2. Common Library: Invoice Tax Information

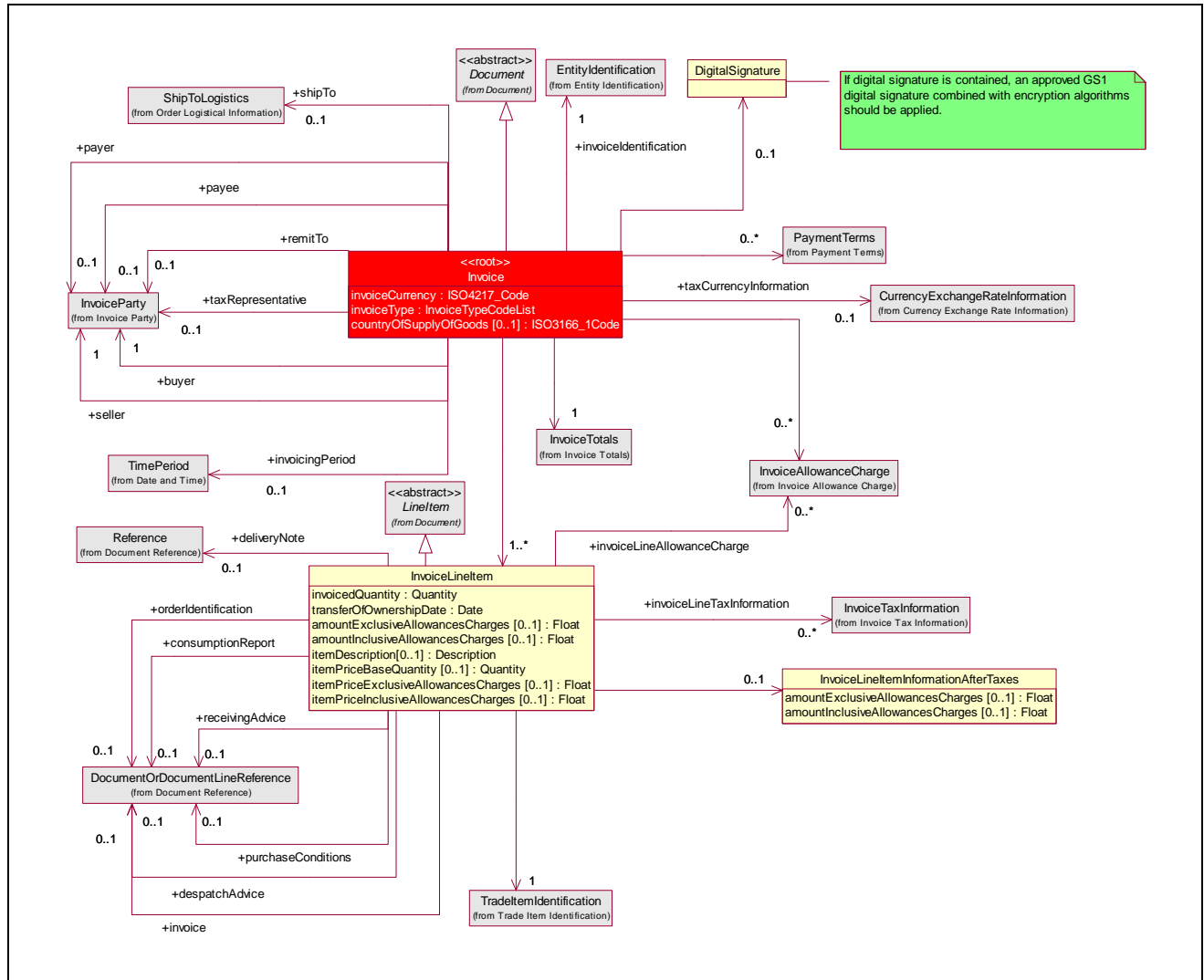
Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
InvoiceTaxInformation				Information about the taxes applicable to the invoice.			
	dutyTaxFeeType			Type of duty, tax or fee.	0..1	Code. Content Code List. Agenc. Identifier Code List. Agency Name. Text	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-70}
	extension			Extension Point	0..1	Text. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-70}
	taxableAmount			Amount on which a tax has to be applied.	0..1	Numeric. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-70}
	taxableAmountInTaxAccountingCurrency			Amount on which a tax has been applied, where the monetary value is expressed in the currency used for tax accounting purposes.	0..1	Numeric. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-81}

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
	taxAmount			Tax imposed by government or other official authority related to the weight/volume charge or valuation charge.	0..1	Numeric. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-78}
	taxAmountInTaxAccountingCurrency			Tax imposed by government or other official authority related to the weight/volume charge or valuation charge, and where the monetary value is expressed in the currency used for tax accounting purposes.	0..1	Numeric. Content	[BRAD Upstream Standards –Financial Settlement 0.1.0] {7.1.1-82}
	taxPercentage			Tax Percentage is defined as a percentage or rate on the line item	0..1	Percentage	[BRAD Invoice Enhancement V 0.0.1] {BR# 3}

## 5.2. Class Diagrams

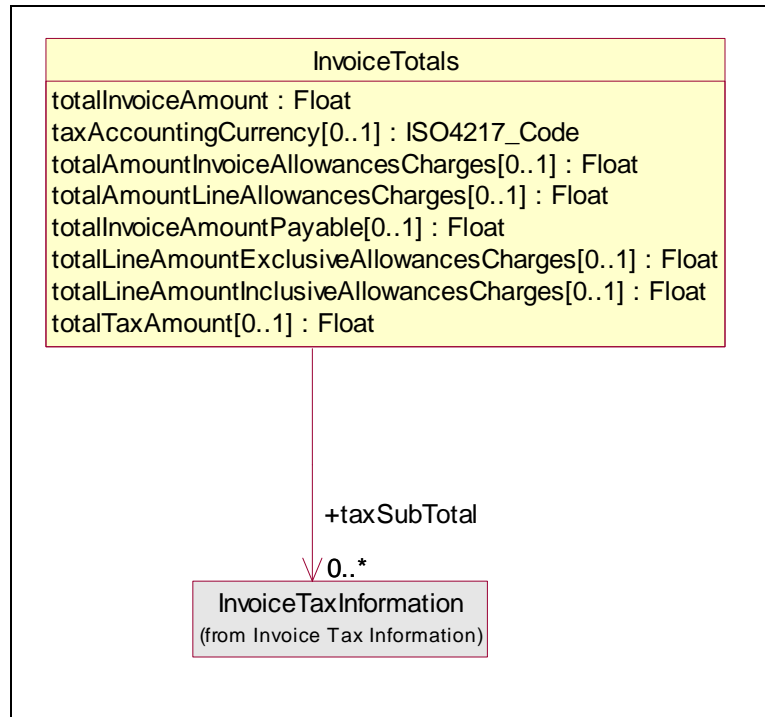
### 5.2.1. Class Diagram Invoice

Figure 5-1 Class Diagram Invoice



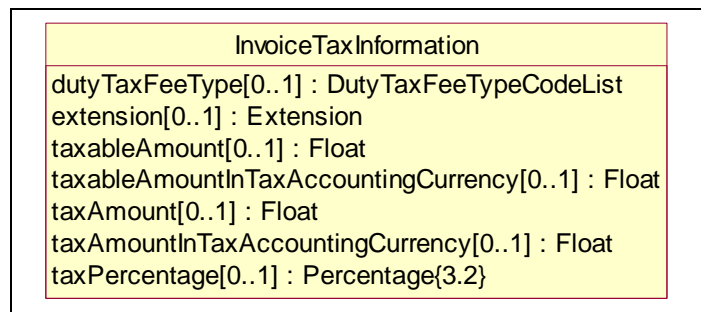
## 5.2.2. Class Diagram Invoice Totals

Figure 5-2 Class Diagram Invoice Totals



## 5.2.3. Class Diagram Invoice Tax Information

Figure 5-3 Class Diagram Invoice Tax Information



Addition of taxPercentage[0..1]:Percentage{3.2} to Invoice Tax Information.

Common Library BMS Release Version 2.3 updated.

### 5.3. Code Lists

Code List Name	Code List Description
<b>InvoiceTypeCodeList</b>	
Code Name	Code Description
AGREED_TERMS	Claim for payment of goods or services based upon terms agreed on a bi-lateral basis between the trading partners.
CORRECTED_INVOICE	Claim for payment of goods and services that includes revised information differing from an earlier submission of the same
CREDIT_NOTE	Credit correction of an earlier exchanged claim for payment by an invoice or any other claim for an identified and agreed financial discrepancy.
DEBIT_NOTE	Debit correction of an earlier exchanged claim for payment by an invoice or any other claim for an identified and agreed financial discrepancy.
INVOICE	Claim for payment for goods or services supplied under conditions agreed between the seller and the buyer, seller originated.
PRO_FORMA_INVOICE	Document or message serving as a preliminary invoice, containing – on the whole - the same information as the final invoice, but not actually claiming payment.
SELF_BILLED_INVOICE	Claim for payment for goods or services supplied under conditions agreed between the seller and the buyer, buyer originated.
TAX_INVOICE	Claim for payment for goods or services supplied under conditions agreed between the seller and the buyer, seller originated for taxation purposes.

Code List Name	Code List Description
<b>VATCategoryCodeList</b>	
Code Name	Code Description
EXEMPT_FROM_TAX	Code specifying that taxes are not applicable. All items in the transaction or a specific line item are exempt from tax.
FREE_EXPORT_ITEM	Code specifying that the item is free export and taxes are not charged.
HIGHER_RATE	Code specifying a higher rate. All items in the transaction or a specific line item are taxed at the higher rate of tax.
LOWER_RATE	A code specifying a lower rate. All items in the transaction or a specific line item are taxed at the lower rate of tax.
MIXED_TAX_RATE	Code specifying that the rate is based on mixed tax. Transaction includes item taxed at different rates.
SERVICES_OUTSIDE_SCOPE_OF_TAX	Code specifying that taxes are not applicable to the services.
STANDARD_RATE	Code specifying the standard rate. All items in the transaction or a specific line item are taxed at the standard rate of tax.
VALUE_ADDED_TAX_NOT_NOW_DUE_FOR_PAYMENT	A code to indicate that the Value Added Tax (VAT) amount which is due on the current invoice is to be paid on receipt of a separate VAT payment request. The value added tax is not due for payment now.
ZERO_RATED_GOODS	Code specifying that the goods are at a zero rate. All items in the transaction or a specific line item are zero tax rated.

## 6. Business Document Example

- The following is an example of an invoice message. The message is sent out on April 5th at 11 AM. The message is identified with the unique identifier 2005001.
- The invoice is sent by the seller (8712345678913) to the buyer (8812345678903).
- The invoice consists of 2 Items 08712345678906 and 08712345678883. Both are subject to 19% VAT.

The ship to Non Commercial Information

GS1 Global Trade Item Number	Quantity	Consumer information	Delivery Date
00074562000525	2	Carol Johnson 1600 Pennsylvania Avenue Pembroke Pines FL 33028 US Telephone Number: 123.456.7890	2005-02-04

## 7. Implementation Considerations

Not Applicable

## 8. Testing

### 8.1. Pass / Fail Criteria

No.	Test Criteria	Related Requirement	Design Element	Pass Criteria	Fail Criteria
1	None				

### 8.2. Test Data

Invoice	
- creationDateTime	2005-06-27T11:00:00
- documentStatus	ORIGINAL
- invoiceType	INVOICE
- invoiceCurrency	EUR
- countryOfSupplyOfGoods	NL
EntityIdentification (+invoiceIdentification)	
- uniqueCreatorIdentification	2005001
PartyIdentification (+contentOwner)	
- gLN	8712345678913
InvoiceParty (+buyer)	

<b>Invoice</b>	
- gLN	8812345678903
InvoiceParty (+seller)	
- gLN	8712345678913
InvoiceParty (+remitTo)	
- gLN	87123456789230
ShipToLogistics(+shipTo)	
ShipToNonCommercial	
NameAndAddress	
name	Carol Johnson
streetAddressOne	1600 Pennsylvania Avenue
city	Pembroke Pines
state	FL
postalCode	33028
countryISOCode	US
Contact	
MultiDescription (+personOrDepartmentName)	Carol Johnson, ENG
CommunicationChannel	
communicationNumber	123.456.7890
communicationChannelCode	TELEPHONE
- timePeriod	DAYS
- value	30
VATTaxInformationExtension	
- vATCategory	STANDARD_RATE
- rate	19
InvoiceAllowanceCharge	
- invoiceAllowanceChargeAmount	50
- invoiceAllowanceChargeType	CHARGE_GLOBAL
- invoiceAllowanceOrChargeType	CHARGE
InvoiceTaxInformation	
- dutyTaxFeeType	VALUE_ADDED_TAX
VATTaxInformationExtension	
- vATCategory	LOWER_RATE
- rate	19
InvoiceLineItem *1	
- lineItemNumber	1
- InvoicedQuantity	50
- transferOfOwnershipDate	2005-06-24



Invoice	
- itemPriceInclusiveAllowancesCharges	10
- amountInclusiveAllowancesCharges	500
InvoiceTaxInformation (+ invoiceLineTaxInformation)	
- dutyTaxFeeType	VALUE_ADDED_TAX
VATTaxInformationExtension	
- vATCategory	STANDARD_RATE
- rate	19
TradeItemIdentification	
- gTIN	08712345678906
DocumentOrDocumentLineReference (+despatchAdvice)	
- uniqueCreatorIdentification	200506001
InvoiceLineItem *2	
- lineItemNumber	2
- InvoicedQuantity	10
- transferOfOwnershipDate	2005-06-24
- itemPriceInclusiveAllowancesCharges	15
- amountInclusiveAllowancesCharges	150
InvoiceTaxInformation (+ invoiceLineTaxInformation)	
- dutyTaxFeeType	VALUE_ADDED_TAX
VATTaxInformationExtension	
- vATCategory	STANDARD_RATE
- rate	19
TradeItemIdentification	
- gTIN	08712345678883
DocumentOrDocumentLineReference (+despatchAdvice)	
- uniqueCreatorIdentification	2005JE001
InvoiceTotals	
- totalInvoiceAmount	752
- totalLineAmountInclusiveAllowancesCharges	650
- totalTaxAmount	152
- totalAmountInvoiceAllowancesCharges	50
InvoiceTaxInformation (+ TaxSubTotal)	
- dutyTaxFeeType	VALUE_ADDED_TAX
- taxAmount	152
- taxableAmount	800
VATTaxInformationExtension	
- vATCategory	STANDARD_RATE

Invoice	
- rate	19

## 9. Appendices

None

## 10. Summary of Changes

Change	BSD Version	Associated CR Number
Invoice (class) added new association to CurrencyExchangeRateInformation with rolename of +taxCurrencyInformation. InvoiceLineItem added new attribute itemDescription InvoiceParty added attribute companyRegistrationNumber (see next) EUInvoicePartyExtension renamed class into VATInvoicePartyExtension removed attribute companyRegistrationNumber VATTaxInformationExtension removed attribute taxCurrency removed attribute currencyExchangeRate	0.3.0	04-000229
Changed location of packages/folders internally in General Business Model Invoice Party Invoice Totals Invoice Tax Information Invoice Allowance Charge	0.3.1	
InvoiceTotals Added new optional attribute totalInvoiceAmountPayable	0.3.2	n/a
InvoiceTotals Added new optional attribute taxAccountingCurrency	0.3.3	06-000084
InvoiceTax Information Added new optional attributes taxAmountInTaxAccountingCurrency and taxableAmountInTaxAccountingCurrency	0.3.3	06-000084

Change	BSD Version	Associated CR Number
VATCategoryCodeList Added LOWER_RATE InvoiceTypeCodeList Added TAX_INVOICE  Invoice Added optional(0..1)(+shipTo) association to ShipToLogistics Removed optional Association(0..1) (+shipTo) to PartyIdentification  InvoiceTaxInformation Added attribute taxPercentage[0..1] : Percentage{3.2}  Updated Example and Test Data  Updated GDD Report with inclusion of Related Requirements.	0.4.0	06-000300 06-000301 06-000302 06-000337
Incorporated peer review comments  Added Invoice Totals class diagram to illustrate the contents of Invoice Totals. Added Not Applicable to sections not used. Corrected font size.	0.4.1	
Posting for Public Review and update to latest BMS Template Version 1.8	0.4.2	