



The Global Language of Business

# Invoice Extension Metered Goods Information Business Message Standard (BMS)

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## Business Requirements Document (BRAD) Reference

Not applicable

## Document Change History

Date of Change	Version	Changed By	Reason for Change	Summary of Change
01-Mar-2017	BMS 3.3 – Issue 1	Ewa Iwicka	BMS Release 3.3	New document
15-Oct-2018	BMS 3.4 – Draft for community review	Ewa Iwicka	BMS Release 3.4	See summary of changes
08-Nov-2019	BMS 3.4.1 – Issue 1	Radhika Chauhan	BMS Release 3.4.1	See summary of changes

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## Table of Contents

<b>1</b>	<b>Business Domain View</b> .....	<b>4</b>
1.1	Introduction .....	4
<b>2</b>	<b>Business Context</b> .....	<b>4</b>
<b>3</b>	<b>Business Transaction View</b> .....	<b>4</b>
<b>4</b>	<b>Business Information View</b> .....	<b>6</b>
4.1	Metered Goods Information Extension .....	6
4.2	Data Types .....	8
4.3	Enumerations (message specific) .....	9
4.4	Code Lists .....	9
<b>5</b>	<b>Business Message Examples</b> .....	<b>9</b>
5.1	Example .....	9
<b>6</b>	<b>Implementation Considerations</b> .....	<b>10</b>
6.1	User Guide .....	10
<b>7</b>	<b>Summary of Changes</b> .....	<b>11</b>
7.1	BMS Release 3.3 .....	11
7.2	BMS Release 3.4 .....	11
7.3	BMS Release 3.4.1 .....	11
<b>8</b>	<b>Appendices</b> .....	<b>11</b>
<b>9</b>	<b>Acknowledgements</b> .....	<b>11</b>
9.1.1	Work Group .....	11
9.1.2	Development Team Members .....	13

# 1 Business Domain View

## 1.1 Introduction

### Message Definition / Business need

Metered Information Extension is an extension to the Invoice Document used to enable exchange of information necessary for invoicing goods such as services, or utilities that the usage quantity is measured by a dedicated meter (e.g. gas, electricity, etc.).

### Principles

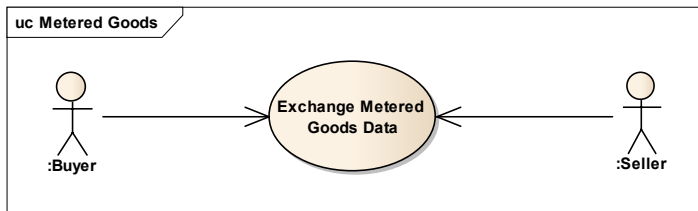
Typically, the Invoice serves as a message claiming payment for goods or services. In the context of metered goods additional information needs to be provided. The data are exchanged via an extension to the Invoice on message or line item level.

# 2 Business Context

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

# 3 Business Transaction View

### Use case diagram



### Use Case Description

<b>Use Case Name</b>	UC1
<b>Use Case Description</b>	Provide metering unit identification, location and measurement data enabling payment for measured goods
<b>Actors (Goal)</b>	Seller (payee) Buyer (payer)
<b>Performance Goals</b>	None
<b>Preconditions</b>	None
<b>Post conditions</b>	None

<b>Main Scenario</b>	<p><b>Begins when</b> the seller generates an invoice based on the quantity of measured goods deliveries.</p> <p>Continues with:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 10%;">Step #</th> <th style="width: 15%;">Actor</th> <th style="width: 75%;">Activity Step</th> </tr> </thead> <tbody> <tr> <td></td> <td>Seller</td> <td>Issues and sends the invoice to the buyer.</td> </tr> </tbody> </table> <p><b>Ends when</b> The buyer receives the invoice.</p>	Step #	Actor	Activity Step		Seller	Issues and sends the invoice to the buyer.
Step #	Actor	Activity Step					
	Seller	Issues and sends the invoice to the buyer.					
<b>Alternative Scenario(s)</b>	Not Applicable						
<b>Related Rules</b>	None						

**Activity diagram**

Not Applicable

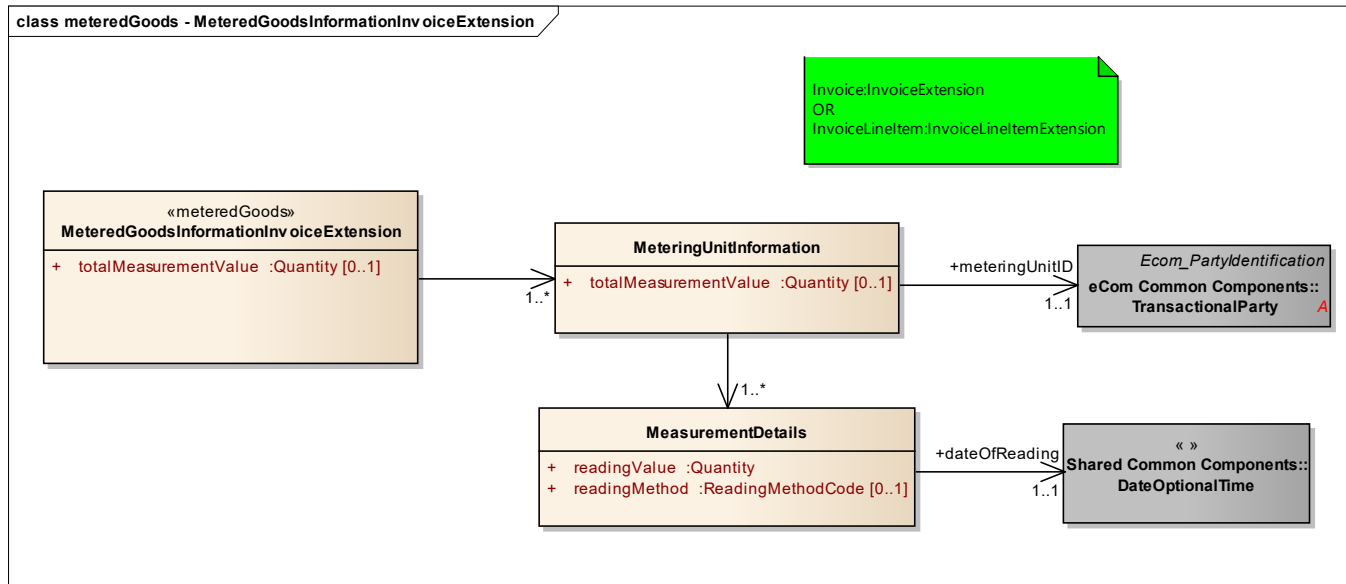
**Communication diagram**

Not Applicable

## 4 Business Information View

### 4.1 Metered Goods Information Extension

#### Class diagram



#### GDD report

The content of the MeteredGoodsInformationInvoiceExtension class, its structure and component definitions can be accessed in the Global Data Dictionary:

[http://apps.gs1.org/GDD/bms/Version3\\_2/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:MeteredGoodsInformationInvoiceExtension](http://apps.gs1.org/GDD/bms/Version3_2/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:MeteredGoodsInformationInvoiceExtension)



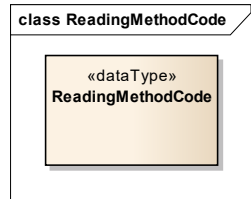
Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
MeteredGoodsInformationInvoiceExtension				An extension specifying information related to payment for metered utilities consumption, such as: water, electricity, gas, etc.	
Association		MeteringUnitInformation	1..*	Information about the metering unit identification and reading status.	
Attribute	totalMeasurementValue	Quantity	0..1	Specifies total consumption value for the invoicing period.	
<b>MeasurementDetails</b>				Specifies details related to consumption reading per metering unit.	
Association	dateOfReading	DateOptionalTime	1..1	Date and optionally time when the reading of the consumption quantity took place.	
Attribute	readingValue	Quantity	1..1	Specifies value of the utilities consumption reading.	
Attribute	readingMethod	ReadingMethodCode	0..1	Specifies the method of reading the consumption value from the utility meter.	
<b>MeteringUnitInformation</b>				Information about the metering unit identification and reading status.	
Association		MeasurementDetails	1..*	Specifies details related to consumption reading per metering unit.	
Association	meteringUnitID	TransactionalParty	1..1	Identification and optionally location of the utilities metering unit.	
Attribute	totalMeasurementValue	Quantity	0..1	Specifies total consumption value for the invoicing period.	



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.3 and eCom Domain Common Library Business Message (BMS) Release 3.3 for all common information.

## 4.2 Data Types

### Class diagram



### GDD report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
ReadingMethodCode				Specifies the method of reading the consumption value from the utility meter. Allowed code values are specified in GS1 Code List ReadingMethodCode.	
Generalization		GS1Code			



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.3 and eCom Domain Common Library Business Message (BMS) Release 3.3 for all common information.



### 4.3 Enumerations (message specific)

Not applicable

### 4.4 Code Lists

Class	Code list	Referenced in
MeatActivityHistory	ReadingMethodCode	<a href="http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:ReadingMethodCode">http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:ReadingMethodCode</a>



**Note:** Refer to the Global Data Dictionary (GDD) for the code values.

## 5 Business Message Examples

### 5.1 Example

Attribute	Value
<b>Invoice</b>	
invoiceTypeCode	INVOICE
invoiceCurrencyCode	EUR
<b>Document</b>	
creationDateTime	2016-04-12 10:15
documentStatusCode	ORIGINAL
<b>EntityIdentification (+invoiceIdentification)</b>	
entityIdentification	IN11-548
<b>PartyIdentification (+contentOwner)</b>	
gln	4098765000010
<b>TransactionalParty (+buyer)</b>	
gln	5412345000013
<b>TransactionalParty (+seller)</b>	
gln	4098765000010
<b>InvoiceTotals (+invoiceTotals)</b>	
totalInvoiceAmount	999.6 EUR
totalAmountInvoiceAllowancesCharges	0 EUR
totalLineAmountInclusiveAllowancesCharges	999.6 EUR
totalTaxAmount	159.6 EUR
<b>LeviedDutyFeeTax (+ taxSubTotal)</b>	
dutyFeeTaxCategoryCode	STANDARD_RATE
dutyFeeTaxAmount	159.6 EUR
dutyFeeTaxBasisAmount	840 EUR
dutyFeeTaxPercentage	19.00
dutyFeeTaxTypeCode	VAT
<b>InvoicingPeriod (+invoicingPeriod)</b>	



Attribute	Value
beginDate	2015-01-01
endDate	2015-12-31
<b>InvoiceLineItem</b>	
lineItemNumber	1
invoicedQuantity	12000
measurementUnitCode	MTQ
amountInclusiveAllowancesCharges	120000 EUR
itemPriceInclusiveAllowancesCharges	10 EUR
<b>TransactionalTradeItem</b>	
gtin	40987650000223
<b>MeteredGoodsInformationInvoiceExtension</b>	
<b>MeteringUnitInformation</b>	
totalMeasurementValue	12000
measurementUnitCode	MTQ
<b>MeteringUnitID</b>	
gln	4066665000010
<b>MaesurementDetails *1</b>	
readingValue(Quantity)	7000
measurementUnitCode	MTQ
readingMethod	MANUAL
dateOfReading	2015-06-01
<b>MaesurementDetails *2</b>	
readingValue(Quantity)	5000
measurementUnitCode	MTQ
readingMethod	CALCULATED
dateOfReading	2015-12-31

## 6 Implementation Considerations

### 6.1 User Guide

The Functional User Guide Order contains more information about the structure and content of the Metered Goods Information Invoice Extension: [http://www.gs1.org/docs/ecom/xml/3/3.3/eCom-Trade\\_messages.html#InvoiceMeterExtension](http://www.gs1.org/docs/ecom/xml/3/3.3/eCom-Trade_messages.html#InvoiceMeterExtension)

## 7 Summary of Changes

Any change in the GS1 standards is done based on the Work Request (WR) submitted by the GS1 User Companies or Member Organisations. All Work Requests are documented in the Work Request system available on the GS1 website: <http://wr.gs1.org>. The system is accessible to registered users. New visitors need to register first, to be able to access it. WRs can be searched by the number referenced in tables below, see: Search Work Requests. The number starts with the two last digits of the year when it was submitted, followed by the consecutive number within that year.

 **Note:** WRs submitted earlier than February 2012 should be searched in Old Change Requests.

### 7.1 BMS Release 3.3

Change	Associated WR
Initial Document Creation	WR 16-000461

### 7.2 BMS Release 3.4

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

### 7.3 BMS Release 3.4.1

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

## 8 Appendices

Not Applicable

## 9 Acknowledgements

The following is a list of individuals (and their companies) who participated in the creation, review and approval of this BMS.

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