

Business Message Standard (BMS)

for

**Invoice –
European Union Invoice Extension**

BRG: Pay

**Version: 1.0.4
BMS Release: 2.1.1**

Date: 07.03.2007

(Date format: dd.mm.cyyy)



Change Request Reference

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CR Submitter(s):	Catherine Karim
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CR Submitter(s):	Tom Heist
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CR Submitter(s):	Tom Heist
Date of CR Submission to GSMP:	10/08/2004

Business Requirements Document (BRAD) Reference

BRAD Title: Invoice – European Union Value Added Tax (VAT) Extension
BRAD Date: 19/05/2005
BRAD Version: 0.0.4

Document Summary

Document Title:	Invoice – European Union Invoice Extension
Document Version	1.0.4
Owner:	Pay BRG
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BMS Template Version:	0.3
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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	Initial Draft	P4CL 7609

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
20051021	0.2	Mark Van Eeghem	Peer Review	<ul style="list-style-type: none"> • EU which stands for European Union should be considered as two word. Therefore, need to change class names from Eu-->EU. • VAT which stands for Value Added Tax should be considered as three words. Therefore, needs to change class name from EuVat-->EUVAT. • class Diagram 1.5.3.1 (EU Invoice Extension) • InvoiceLineItem was being reused, but all the associations drawn in this section 1.5.3.1 have to be drawn on section 1.5.3.2 EU Invoice Line Item Extension. As those associations added in section 1.5.3.1 will have a major impact to the existing InvoiceLineItem structure. • Removed duplicate solution for the role name delivery Note associated to DocumentOrDocumentLineReference as this exists in Invoice as deliveryNote associated to Reference. 	P4CL 7631

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
20051122	0.3.0	Mark Van Eeghem	EMT Decision	Restricted elements in BSD to the ones that are EU legislation driven, and/or that are common to at least 6 out of 8 MOs	P4CL BSD 7800 P4CL MDL 7802
20051205	0.4.0	Mark Van Eeghem	Peer review	Corrected BSD based on Peer Review	P4CL BSD 7876 P4CL MDL 7875
20060217	1.0.0	Mark Van Eeghem	Added sample data	Added sample data	P4CL BSD 7876 P4CL MDL 7875
20060428	1.0.1	Mark Van Eeghem	ITRG Review	Corrected sample data	P4CL BSD 8300 P4CL MDL 7875
20060515	1.0.2	Mark Van Eeghem	ITRG Review	Corrected test data, updated TOC	P4CL BSD 8342 P4CL MDL 7875
07.03.2007	1.0.3	Andrew Hearn	Errata	Update BMS Version Number	
25.04.2007	1.0.4	Giovanni Biffi	Editorial Changes	Minor Editorial Changes to the Document	N/A

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1 Business Solution

1.1 Business Domain View

1.1.1 Problem Statement / Business Need

The Council of the European Union issued Council Directive 2001/115/EC of 20 December 2001 amending Directive 77/388/EEC with a view to simplifying, modernising and harmonising the conditions laid down for invoicing in respect of value added tax. This directive created a need to develop an extension of the existing invoicing standards for European Union countries to implement these requirements.

1.1.2 Objective

To supply the detail design of the EU VAT business transaction needed to meet the requirements of the Invoice-European Union Value Added Tax (VAT) Extension BRAD.

1.1.3 Audience

European Union Trading Partners

1.1.4 Artefacts

Artefact name	State	Artefact / State description
No artefacts		

1.1.5 References

Reference Name	Description
EAN.UCC BMS For Request For Payment	Version 2.0
EAN.UCC BMS For Simple Invoice Extension	Version 2.1
Council Directive 2001/115/EC	20 December 2001
Change Request #04-000179	14 September 2004
Spreadsheet attachment to CR#04-000179	Data requirements_v19 2.xls
BSD Common Library	

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 Chair	Joel Goldberg	Rosenthal & Rosenthal Inc.
BRG Vice Chair	Henry Gerstman	Wells Fargo Century, Inc.
BRG Member	Janet Bailey	VFC
BRG Member	Craig Brinkman	Procter & Gamble
BRG Member	Suzanne Fassler	J.C.Penney
BRG Member	Brenda Hall	Wal-Mart
BRG Member	Sandra Hurd	The CIT Group
BRG Member	Patricia Owyang	Levi Strauss & Co.
BRG Member	Marie Perry	Coca Cola Enterprises
BRG Member	Bill Steger	Ahold Financial
BRG Member	Laura Stone	Pfizer
BRG Member	Arne Dicks	GS1 – Germany
BRG Member	Karina Duvinger	GS1 – Sweden
BRG Member	Catherine Karim	GS1 – France
BRG Member	Ana Paula Maniero	GS1 – Brazil

1.1.6.2 ITRG Members

Function	Name	Company / organisation
ITRG Chair	Not applicable	
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

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

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)

Number	Statement	Rationale
1	Not applicable	

1.4 Business Transaction View

1.4.1 Business Transaction Use Case Diagram

Not applicable

1.4.2 Use Case Description

Not applicable

1.4.3 Business Transaction Activity Diagram(s)

Not applicable

1.4.4 Business Transaction Sequence Diagram(s) (optional)

Not applicable

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1.4.5 Data Description:

1.4.5.1 EU Invoice Extension

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
EUInvoiceExtension				BRAD Invoice – European Union Value Added Tax (VAT) Extension v 0.0.4
	taxPurposesDateTime			BRAD Invoice – European Union Value Added Tax (VAT) Extension v 0.0.4 – BR 3
	vATCurrency			BRAD Invoice – European Union Value Added Tax (VAT) Extension v 0.0.4 – BR 15
		<<INHERITANCE>>	Invoice	BRAD Invoice – European Union Value Added Tax (VAT) Extension v 0.0.4
		vATCurrencyInformation	CurrencyExchangeRateInformation	BRAD Invoice – European Union Value Added Tax (VAT) Extension v 0.0.4 – BR 16

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1.4.5.2 EU Invoice Line Item Extension

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
EUInvoiceLineItemExtension				BRAD Invoice – European Union Value Added Tax (VAT) Extension v 0.0.4
	isDeliveryDutyFree			BRAD Invoice – European Union Value Added Tax (VAT) Extension v 0.0.4 – BR 5
	isSupplyIntraCommunity			BRAD Invoice – European Union Value Added Tax (VAT) Extension v 0.0.4 – BR 6
	deliveredQuantity			BRAD Invoice – European Union Value Added Tax (VAT) Extension v 0.0.4 – BR 43
		<<HAS>>	DespatchInformation	BRAD Invoice – European Union Value Added Tax (VAT) Extension v 0.0.4 – BR 3
		<HAS>>	DeliverDateInformation	BRAD Invoice – European Union Value Added Tax (VAT) Extension v 0.0.4 – BR 3

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1.4.6 GDD Report :

1.4.6.1 EU Invoice Extension

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
EUInvoiceExtension		<<Extension>>	Invoice	EU Invoice Extension. Details	Extension on regular Invoice to meet the legal requirements of the European Union in matters of Value added Tax..	
	taxPurposesDateTime			EU Invoice Extension. Tax Purposes Date Time. Date Time	Date/time on which the supply of goods or of services was made or completed for tax purposes, or the date on which any payment on account (in advance of the issue of an invoice) was made, if ascertainable and if different from invoice issue date.	0..1
	vATCurrency			EU Invoice Extension. VAT Currency. Code	Other currency different from the invoiced currency in which the VAT amount according to the national law must be invoiced.	0..1
		vATCurrencyInformation	CurrencyExchangeRateInformation	EU Invoice Extension. VAT Currency Information. Currency Exchange Rate Information	The exchange rate information with regards to the currency in which the VAT is invoiced	0..1

Business Solution Design

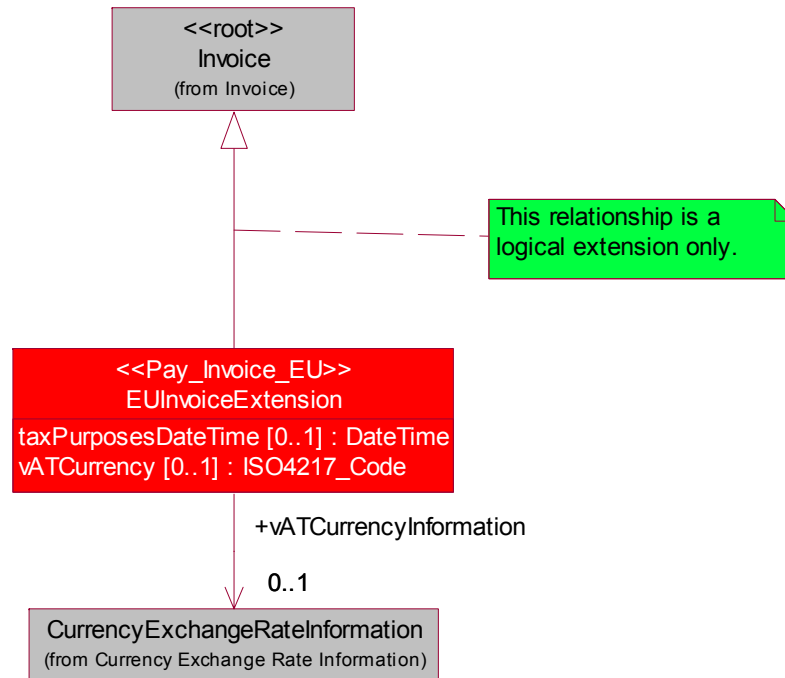
1.4.6.2 EU Invoice Line Item Extension

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
EUInvoiceLineItemExtension		<<Extension>>	InvoiceLineItem	EU Invoice Line Item Extension. Extension. Invoice Line Item.Details	Extension of the regular Line Item information within Invoice for European Union Invoice and Value Added Tax Purposes	
	isDeliveryDutyFree			EU Invoice Line Item Extension. Is Delivery Duty Free. Indicator	Reference to relevant regulation in the national tax regulation or reason for exemption from tax	1..1
	isSupplyIntraCommunity			EU Invoice Line Item Extension. Is Supply Intra Community. Indicator	Covers the supply of GOODS between EU businesses, who are registered for VAT in different EU Member States, where supplies are made VAT-free from the Member State of the supplier but become liable to VAT, at the appropriate rate, in the Member State of the customer.	1..1
	deliveredQuantity			EU Invoice Line Item Extension. Delivered Quantity. Quantity	The quantity of articles or services which has been delivered to the delivery party.	0..1
		<<HAS>>	DeliverDateInformation	EU Invoice Line Item Extension. Association. Deliver Date Information	Delivery Date Information specific to a line item within the context of the European Invoice	0..1
		<<HAS>>	DespatchInformation	EU Invoice Line Item Extension. Association. Despatch Information	Despatch Information specific to a line item within the context of the European Invoice	0..1

Business Solution Design

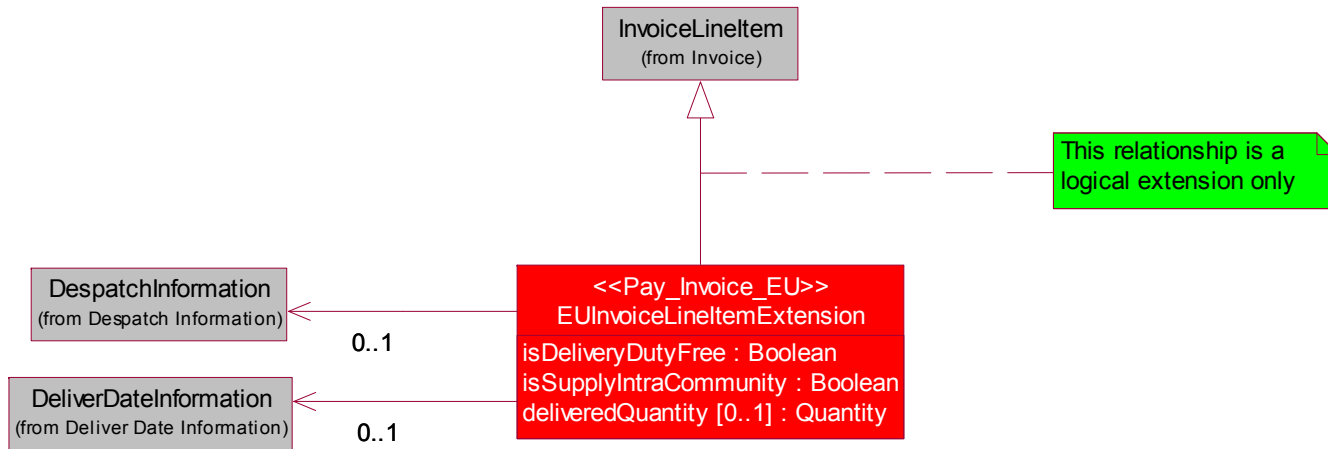
1.4.7 Class Diagrams

1.4.7.1 EU Invoice Extension



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1.4.7.2 EU Invoice Line Item Extension



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1.4.8 Code Lists

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

Code List Name	Code List Description
InvoiceTypeCodeList	
Code Name	Code Description
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.
SELF-BILLED_INVOICE	Claim for payment for goods or services supplied under conditions agreed between the seller and the buyer, buyer originated.
AGREED_TERMS	Claim for payment of goods or services based upon terms agreed on a bi-lateral basis between the trading partners.
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.

The list items marked in Yellow have been added to the existing InvoiceTypeCodeList for the purpose of this extension.

1.5 Business Document Example

The following is an example of an invoice message inclusive the EU Invoice Extension. The message is sent out on June 27th 2005 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.

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)	
- gLN	8812345678903
InvoiceParty (+seller)	
- gLN	8712345678913
InvoiceParty (+remitTo)	
- gLN	87123456789230
InvoiceAllowanceCharge	
- invoiceAllowanceChargeAmount	100
- invoiceAllowanceChargeType	ALLOWANCE_GLOBAL
- invoiceAllowanceOrChargeType	ALLOWANCE
InvoiceTaxInformation	
- dutyTaxFeeType	VALUE_ADDED_TAX
PaymentTerms	
- paymentTermsEvent	DATE_OF_INVOICE
- paymentTermsType	DISCOUNT
DiscountPayment	
- discountType	Payment within 30 days
- discountPercent	1%
PaymentTimePeriod	
TimePeriodDue	

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- timePeriod	DAYS
- value	30
EUInvoiceExtension	
- taxPurposesDateTime	2005-06-24T11:00:00
- vATCurrency	SEK
CurrencyExchangeRateInformation (+vATCurrencyInformation)	
- currencyConversionFrom	EUR
- currencyConversionTo	SEK
- exchangeRate	0.235
VATTaxInformationExtension	
- vATCategory	STANDARD_RATE
- rate	19
InvoiceAllowanceCharge	
- invoiceAllowanceChargeAmount	50
- invoiceAllowanceChargeType	CHARGE_GLOBAL
- invoiceAllowanceOrChargeType	CHARGE
InvoiceTaxInformation	
- dutyTaxFeeType	VALUE_ADDED_TAX
VATTaxInformationExtension	
- vATCategory	STANDARD_RATE
- rate	19
InvoiceLineItem *1	
- lineItemNumber	1
- InvoicedQuantity	50
- transferOfOwnershipDate	2005-06-24
- itemPriceInclusiveAllowancesCharges	10
- amountInclusiveAllowancesCharges	500
InvoiceTaxInformation (+ invoiceLineTaxInformation)	
- dutyTaxFeeType	VALUE_ADDED_TAX
VATTaxInformationExtension	
- vATCategory	STANDARD_RATE
- rate	19
TradeItemIdentification	
- gTIN	08712345678906
DocumentOrDocumentLineReference (+despatchAdvice)	
- uniqueCreatorIdentification	200506001
EUInvoiceLineItemExtension	
- isDeliveryDutyFree	NO

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- isSupplyIntraCommunity	NO
- deliveredQuantity	50
- deliverDate	2005-06-21
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
EUInvoiceLineItemExtension	
- isDeliveryDutyFree	NO
- isSupplyIntraCommunity	NO
- deliveredQuantity	10
- deliverDate	2005-06-24
InvoiceTotals	
- totalInvoiceAmount	752
- totalLineAmountInclusiveAllowancesCharges	650
- totalTaxAmount	152
- totalAmountInvoiceAllowancesCharges	100
InvoiceTaxInformation (+ TaxSubTotal)	
- dutyTaxFeeType	VALUE_ADDED_TAX
- taxAmount	152
- taxableAmount	800
VATTaxInformationExtension	
- vATCategory	STANDARD_RATE
- rate	19

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1.6 Implementation Considerations

Not applicable

1.7 Testing

1.7.1 Pass / Fail Criteria

Not applicable

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

1.7.2 Test Data

Attribute	Value
Not applicable	

1.8 Appendices

1.9 Summary of Changes

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

Change	BMS Version	Associated CR Number
<ul style="list-style-type: none"> - Removed deliveryParty in Class Diagram EUInvoiceExtension as it is the same as shipTo, which is already available in core - Removed invoicee in Class Diagram EUInvoiceExtension as it is the same as remitTo, which is already available in core - Removed supplier in Class Diagram EUInvoiceExtension as it is the same as seller, already available in core. - Removed itemFreeTextDescription in class diagram EUInvoiceLineItemExtension: During technical review of the upstream CR the itemDescription was added to the core model. - Removed suppliersArticleIdentification in class diagram EUInvoiceLineItemExtension: redundant, since the TradeItemIdentification class contains the additionalItemIdentification(0..*) - Removed CORRECTED_INVOICE from the InvoiceTypeCodeList, as CREDIT_NOTE and DEBIT_NOTE from Invoice were already meant to cover this requirement. - Title Page1, Date: 22 November 2005 changed to Date: 22.11.2005 to be consistent. - Document Change History1: changed "Date: 22 November 2005" to "22.11.2005" and added date format (dd.mm.cyy) to be consistent - Document Change History: "Added BMS Release: 3.0" reflected in the Document Summary Section as well - Added reference to BSD Common Library Document Change History: Summary of change for version 0.3 "**Restricted elements in BSD to the ones that are EU legislation", removed bullet - Document Change History 2 and 3, repeat heading rows for better readability. - P4CL for v0.2 and v0.3: the p4cl was incorrect: version 0.1-->7609 Version 0.2-->7631 version 0.3 --->BSD p4CL: 7802 	V 0.4	CR 04-00179

Change (continued)	BMS Version	Associated CR Number
<ul style="list-style-type: none"> - Added line numbers to the whole document for better readability. - Added in the GDD report the association to CurrencyExchangeRateInformation. - Added in the GDD report the Inheritance/generalization to Invoice class - Added the definition in the GDD report for isDeliveryDutyFree - Added the definition in the GDD report for isSupplyIntraCommunity - Added the definition in the GDD report for deliveredQuantity - Added the Multiplicity [1..1] for isDeliveryDutyFree in the EUInvoiceLineItemExtension - Added the Multiplicity [1..1] for isSupplyIntraCommunity in the EUInvoiceLineItemExtension - Changed name from isIntraCommunitySupplyIndicator to isSupplyIntraCommunity in EUInvoiceLineItemExtension Class Diagram - Changed name from isDutyFreeDeliveryIndicator to isDeliveryDutyFree in Class Diagram EUInvoiceLineItemExtension - Removed the datatype column in the GDD Report - Added remark to the InvoiceTypeCodelist to highlight which items were added in this BMS. - Added Business Document Example - Added implementation consideration "N/A" 	V0.4	CR 04-00179

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