

Business Message Standard (BMS)

For

Configure to Order

BRG: Order

Version: 0.0.3

Date: 07/04/2005

(dd/mm/ccyy)



Change Request Reference

Refer to Change Request (CR) Number(s):	CR 02-000179
CR Submitter(s):	Geoff Mack - FurnishNet
Date of CR Submission to GSMP:	20020821

Business Requirements Analysis Document (BRAD) Reference

BRD Title: Configure to Order
BRD Date: November 1, 2003
BRD Version: 0.1.5

Document Summary

Document Title:	BSD Configure to Order
Document Version	0.0.3
Owner:	Order BRG
Status:	(<i>Check one box</i>) DRAFT X Approved
BSD Template Version:	1.0
Targeted BMS Publication Version	Post Version 2.0.2

Document Change History

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
20050315	0.0.1	Maria Victoria	Creation of the document	Migration of the BRD Configure to Order approved by Order BRG and ITRG for publication December 2004.	
20050407	0.0.2	John Ryu	Updated BSD for harmonization	<ul style="list-style-type: none"> Pasted Related Requirements Section Pasted GDD Platform Harmonized Class Diagram 	Model P4CL: 6352 BSD P4CL: 6364

				<ul style="list-style-type: none"> Updated Business Document section 1.6 to reflect the enforcement of GTIN and removal of the alternate trade item identification as part of Version 2.0.1 release 	
20072304	0.0.3	Giovanni Biffi	Editorial Changes	<ul style="list-style-type: none"> Minor Editorial Changes to the Document 	

Business Solution Design

1	Business Solution	5
1.1	Business Domain View.....	5
1.1.1	Problem Statement / Business Need.....	5
1.1.2	Objective.....	5
1.1.3	Audience.....	5
1.1.4	Artefacts	5
1.1.5	References	6
1.1.6	Acknowledgements	7
1.1.7	BRG Members.....	7
1.1.8	ITRG Members	7
1.1.9	Task/Project Group Participants (<i>where applicable</i>)	7
1.1.10	Design Team Members	7
1.2	Business Context	8
1.3	Additional Technical Requirements Analysis	8
1.3.1	Technical Requirements (optional).....	8
1.4	Business Transaction View	9
1.4.1	Business Transaction Use Case Diagram.....	9
1.4.2	Use Case Description.....	9
1.4.3	Business Transaction Activity Diagram(s).....	10
1.4.4	Business Transaction Sequence Diagram(s) (optional)	10
1.5	Information Model (including GDD Report)	11
1.5.1	Data Description:	11
1.5.2	GDD Report:	14
1.5.3	Class Diagrams	17
1.5.4	Code Lists.....	19
1.6	Business Document Examples.....	19
1.7	Testing.....	22
1.7.1	Pass / Fail Criteria	22
1.7.2	Test Data	22
1.8	Summary of Changes.....	22
2	XML Technical Solution ITRG Packet.....	23

1 Business Solution

1.1 Business Domain View

1.1.1 Problem Statement / Business Need

Change Request #02-000179 has identified a need to build the business requirements to provide support for configurable items on a purchase order. A configurable item is one that starts with a single structure, but to which a large variety of options may be added in a variety of combinations. A unique product identification code is assigned to the main structure of a configurable item, but due to the variety of combinations of options, it is NOT practical to assign unique product identification to each completed configured item.

The current XML EAN.UCC Standards documents don't permit:

- Ordering a base item with a customer specific combination of options

This scenario applies to many manufacturers and retailers. For manufacturers and retailers who specialize in upholstered furniture, it can apply to the vast majority of their business. For these companies, any model that does not support configured product is not an accurate business model, and any implementation from a model that does not support configured product is not usable. As such, the business benefits of this request are the ability to do business at all.

1.1.2 Objective

The objective is to incorporate the Configure to Order message into the EAN.UCC System.

1.1.3 Audience

The audience for this document is the global business community, the senders and receivers of configurable orders.

1.1.4 Artefacts

Artefact name	State	Artefact / State description
BRD Order v 1.4.4	Approved	Contains the business requirements for Cross Docking Order using the Order message. Based on a CR (03-00167) submitted by Bill Purnell on behalf of Order BRG
BRD Multi Ship to Order v0.3.8A	Approved	Contains the business requirements of the Multi Ship to Order process. Based on a CR (01-00094) submitted by Bill Purnell on behalf of Order BRG
BRD Multi Ship to Order v0.3.9	Approved	Contains the business requirements for Cross Docking Order using the Multi Ship to Order message. Based on a CR (03-00167) submitted by Bill Purnell on behalf of Order BRG
BRAD Enhancements to the Multi Ship to Order for Music Industry	Motion to progress	Contains the business requirements for the music industry needed to use the Multi Ship to Order message. Based on a CR (04-00137 & 04-138) submitted by Maria Victoria Caro on behalf of Robert Bates (NAMMS)
BMS Multi Ship to Order v.0.11.0	Approved	Business Message Standard for Multi Ship to Order

Business Solution Design

		release in version 2.0.1
BMS Order v 0.12.0	Approved	Business Message Standard for Order release in version 2.0.1

1.1.5 References

Reference Name	Description
None	

1.1.6 Acknowledgements

1.1.7 BRG Members

Function	Name	Company / organisation
BRG Chair	Bill Purnell	Foot Locker
BRG Member	Alice Aguemon	GS1 France
BRG Member	Branko Safaric	GS1 Slovenia
BRG Member	Brendon Beumer	Royal Ahold
BRG Member	Caren Kaegebein	VF Corporation
BRG Member	Don Weston	Pfizer Canada
BRG Member	Dorien Mouthaan	GS1 Netherlands
BRG Member	Frank Kuhlmann	GS1 Germany
BRG Member	Frederico Cunha	GS1 Brazil
BRG Member	Johnny Tang	GS1 Hong Kong
BRG Member	Marcelo Alonso	GS1 Argentina
BRG Member	Massimo Bolchini	GS1 Italy
BRG Member	Naoto Sakamoto	GS1 Japan
BRG Member	Steve Wilhoit	Eveready Battery Company
BRG Member	Thomas Moriarty	JC Penney Co. Inc

1.1.8 ITRG Members

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

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

Function	Name	Company / organisation
BRG Participant	Geoff Mack	Furnish Net

1.1.10 Design Team Members

Function	Name	Organisation
Modeller	John Ryu	GS1 HO
XML Technical Designer		
EANCOM Technical Designer		
Peer Reviewer		

1.2 Business Context

Context Category	Value(s)
Industry	Furniture
Geopolitical	Global
Product	Configurable
Process	Order
System Capabilities	None
Official Constraints	None

1.3 Additional Technical Requirements Analysis

1.3.1 Technical Requirements (optional)

Number	Statement	Rationale

1.4 Business Transaction View

1.4.1 Business Transaction Use Case Diagram

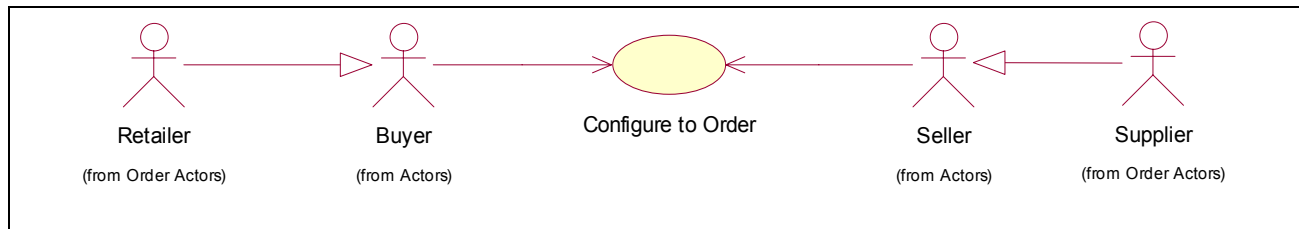


Figure 1 – Configure to Ordering of Trade Items Use Case Diagram

1.4.2 Use Case Description

Use Case ID	UC -1
Use Case Name	Ordering of Configurable Items specifying ship to location
Use Case Description	<p>This Use Case provides the ability for a buyer can create one order for one or more configurable items.</p> <p>One order can contain order lines for configurable items as well as order lines for stock items.</p>
Actors (Goal)	Buyer, Seller, Consumer
Performance Goals	
Preconditions	<ul style="list-style-type: none">• The Buyer and Seller have aligned Party and Item information, with the exception of the values of the consumer's options for the configurable item.• During data alignment, the retailer has received from the manufacturer item definition information that defines exactly which options are available on each configurable item, and which values may be used in each of those options.• The Buyer and Seller agree that each can produce and process an order with configurable items.• The Buyer and Seller agree on whether an Order Response message is required, as an option based on the pre-determined trading partner agreements.
Post conditions	The Seller has received the Configure to Order sent by the Buyer.
Scenario	Begins when an end-consumer walks into a retail store and buys a configurable item (e.g. sofa).

	<p>Continues with...</p> <ul style="list-style-type: none">• In the process of ordering, the consumer/retailer makes many decisions about the finished piece, choosing from a wide variety options (e.g. fabric). The options that can be selected are all totally defined with the publication of the item identification, as offered by the manufacturer.• The retailer then sends the order to the manufacturer with instructions on which base item to start with (e.g. frame), which options to include, and with which values each option should be constructed. The resulting piece may literally be a "one-of-a-kind" piece, depending on what options the customer chooses. <p>Ends when the Seller receives the Configure to Order for processing</p>
Alternative Scenario	<ul style="list-style-type: none">• The Seller validates the information on the Configure to Order• The Seller may create and send an acknowledgement as receipt of the message to the Buyer• The Seller may create and send a Response back to the Buyer, no steps. When the Seller sends an Accepted Order Response message, the Buyer knows that the Seller is going to fulfil the order.

1.4.3 Business Transaction Activity Diagram(s)

No Activity Diagram

1.4.4 Business Transaction Sequence Diagram(s) (optional)

No Sequence Diagram

1.5 Information Model (including GDD Report)

1.5.1 Data Description:

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirements
ConfigureToOption				BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
	optionValue			BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
	requestedOptionQuantity			BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
		optionUnitPrice	MultiAmount	BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
		None	SubConfigureToOption	BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
		optionTradeItemIdentification	TradeItemIdentification	BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
ConfigureToOrder				BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
		None	ConfigureToOrder-LineItem	BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5

Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirements
		None	Document	BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
		orderIdentification	EntityIdentification	BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
		None	OrderLogisticalInformation	BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
		None	OrderPartyInformation	BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
ConfigureToOrder-LineItem				BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
		baseItemUnitPrice	MultiAmount	BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
		None	ConfigureToOption	BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
		None	SimpleOrderLineItem	BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
SubConfigureToOption				BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
	optionValue			BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5
		subOptionTradeItemIdentifica-	TradeItemIdentification	BRD Title: Configure to Order

Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirements
		tion		BRD Date: November 1,2003 BRD Version: 0.1.5
		None	SubConfigureToOption	BRD Title: Configure to Order BRD Date: November 1,2003 BRD Version: 0.1.5

1.5.2 GDD Report:

Configure to Order

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
ConfigureToOption				Configure To_ Option_ Purchase Order Sub Line. Details	Specify the identification for each of the options of the configurable item, its value, quantity and price.	
	optionValue			Configure To_ Option_ Purchase Order Sub Line. Option. Text	Not Available	1..1
	requestedOptionQuantity			Configure To_ Option_ Purchase Order Sub Line. Requested_ Quantity. Quantity	Not Available	1..1
		optionUnitPrice	MultiAmount	Configure To_ Option_ Purchase Order Sub Line_ Option Unit Price_ Price. Multi-currency Amount	Not Available	0..1
		None	SubConfigureToOption	Configure To_ Option_ Purchase Order Sub Line_ Association. Configure To_ Option_ Purchase Order Sub Line	Not Available	0..*
		optionTradeItemIdentification	TradeItemIdentification	Configure To_ Op-	Not Available	1..1

Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				tion_Purchase Order Sub Line_ Option Trade Item Identification_ Association. Trade Item Identification		
ConfigureToOrder				Configure To_ Purchase Order. Details	The Configure to Order provides the ability for a buyer to order configurable items, that starts with a base item, but to which a large variety of options may be added in a variety of combinations.	
		None	ConfigureToOrder-LineItem	Configure To_ Purchase Order. Line Item. Configure To_ Purchase Order Line	Not Available	1..*
		None	Document	Configure To_ Purchase Order. Inheritance. Electronic_ Document	Not Available	1..1
		orderIdentification	EntityIdentification	Configure To_ Purchase Order. Order Identification_ Association. Entity Identification	Not Available	1..1
		None	OrderLogisticalInformation	Configure To_ Purchase Order. Association. Order_ Logistical Information Group	Not Available	1..1

Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
		None	OrderPartyInformation	Configure To_ Purchase Order. Association. Order_ Party Group	Not Available	1..1
ConfigureToOrder-LineItem				Configure To_ Purchase Order Line. Details	Specify the information related to each line item, and each Configure to Order will contain one or more line items.	
		baseItemUnitPrice	MultiAmount	Configure To_ Purchase Order Line. Base Item Unit Price_ Price. Multi-currency Amount	Not Available	0..1
		None	ConfigureToOption	Configure To_ Purchase Order Line. Association. Configure To_ Option_ Purchase Order Sub Line	Not Available	0..*
		None	SimpleOrderLineItem	Configure To_ Purchase Order. Inheritance. Order_ Party Group	Not Available	1..1
SubConfigureToOption				Configure To_ Sub Option_ Purchase Order Sub Line. Details	Specify the identification for each of the sub options of the option of the configurable item and its value.	
	optionValue			Configure To_ Sub Option_ Purchase Order Sub Line.	Not Available	1..1

Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				Option. Text		
		subOptionTradeItemIdentification	TradeItemIdentification	Configure To_ Sub Option_ Purchase Order Sub Line. Sub Option Trade Item Identification_ Association. Trade Item Identification	Not Available	1..1
		None	SubConfigureToOption	Configure To_ Sub Option_ Purchase Order Sub Line. Association. Configure To_ Sub Option_ Purchase Order Sub Line	Not Available	

1.5.3 Class Diagrams

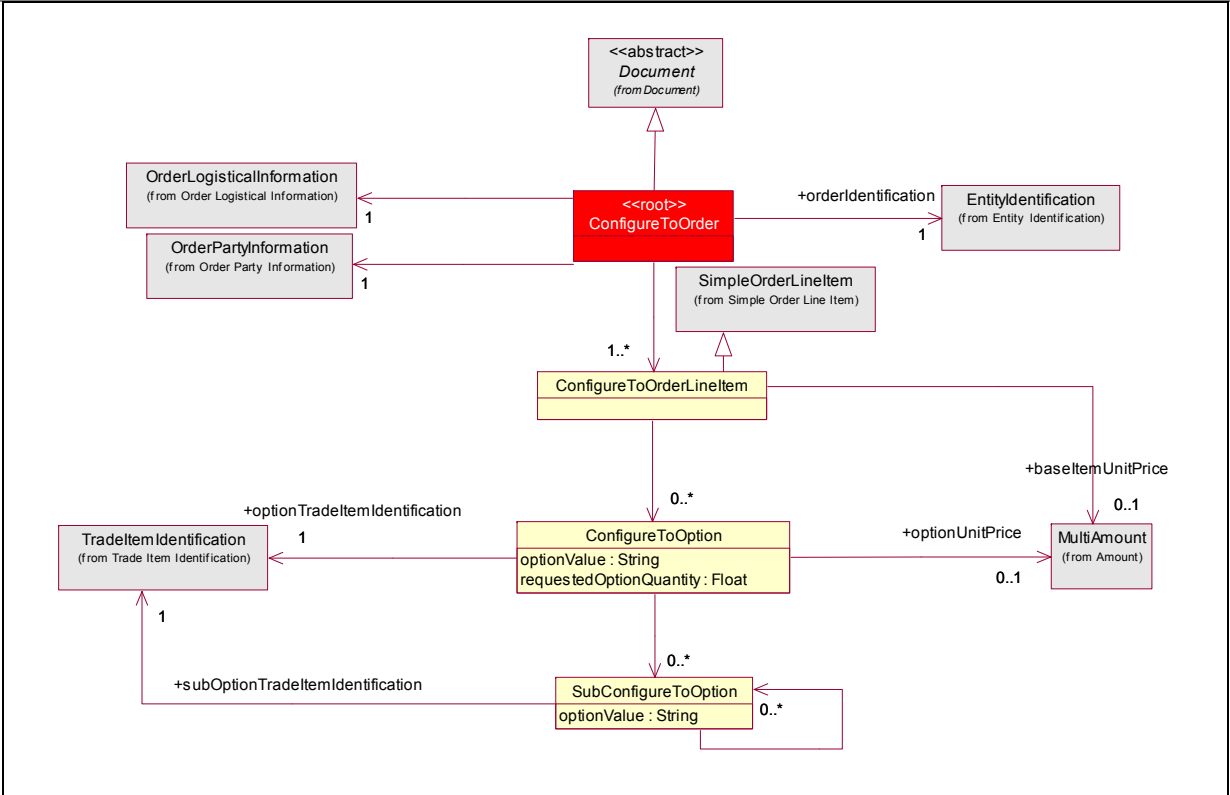


Figure 2 – Configure To Order Class Diagram

1.5.4 Code Lists

No Code Lists

1.6 Business Document Examples

EXAMPLE 1 ORDER LINE - FURNITURE LINE ITEM

BASE ITEM

Line Number: 1
(Base)Trade Item Identification (GTIN): 00052800483200 (Sofa)
(Base) Trade Item Identification: 11-212 (Sofa)
Additional Trade Item Identification List: BUYER_ASSIGNED
Quantity: 1
Net Price (Total Unit Price): 1000 USD
Base Unit Price: 500 USD

ITEM CONFIGURATION SECTION

Option Trade Item Identification (GTIN): 00614141006601(Primary Fabric)
Option Trade Item Identification: 50579L44 (Primary Fabric)
Additional Trade Item Identification List: SELLER_ASSIGNED
Quantity: 1
Option Unit Price: 250 USD
Option Value: 456abc (identify specific fabric as Velvet)

Option Trade Item Identification (GTIN): 00614141005501 (Secondary Fabric)
Option Trade Item Identification: 20295L12 (Secondary Fabric)
Additional Trade Item Identification List: SELLER_ASSIGNED
Quantity: 1
Option Unit Price: 250 USD
Option Value: 09884 (identify specific fabric)
Sub Option Trade Item Identification (GTIN): 00614141004401 (Placement)
Sub Option Trade Item Identification: 9987V45 (Placement)
Additional Trade Item Identification List: SELLER_ASSIGNED
Option Value: 98098 (Seat Cushion)
Sub Option Trade Item Identification (GTIN): 00614141003301 (Orientation)
Sub Option Trade Item Identification: 54309854 (Orientation)
Additional Trade Item Identification List: SELLER_ASSIGNED
Option Value: Railroad

Sub Option Trade Item Identification (GTIN): 00614141002201 Customer Owned Material)

Business Solution Design

Sub Option Trade Item Identification: 809854 (Customer Owned Material)
Additional Trade Item Identification List: SELLER_ASSIGNED
Option Value: True

Sub Option Trade Item Identification (GTIN): 00614141001101 (Excess Material instruction)
Sub Option Trade Item Identification: 85245 (Excess Material instruction)
Alternative Trade Item Identification List: SELLER_ASSIGNED
Option Value: Return to Customer

EXAMPLE 2 ORDER LINE – AUTOMOBILE LINE ITEM

BASE ITEM

Line Number: 1
(Base) Item Identification: 8436518390545
Quantity: 1
Net Price (Total Unit Price): 25.000
Base Unit Price: 20.000

ITEM CONFIGURATION SECTION

Option Trade Item Identification (GTIN): 00514141006601 (Primary Seat Cover)
Option Trade Item Identification: 88098L (Primary Seat Cover)
Additional Trade Item Identification List: SELLER_ASSIGNED
Quantity: 1
Option Unit Price: 2.000 EUR
Option Value: 786876 (Leather)
Sub Option Trade Item Identification (GTIN): 00333141006601 (Protection)
Sub Option Trade Item Identification: 9098905 (Protection)
Additional Trade Item Identification List: SELLER_ASSIGNED
Option Value: True

Option Trade Item Identification (GTIN): 00333333006601 Exterior Color)
Option Trade Item Identification: 20295L12 (Exterior Color)
Additional Trade Item Identification List: SELLER_ASSIGNED
Quantity: 1
Option Unit Price: 3.000 EUR
Option Value: 8797 (White)
Sub Option Trade Item Identification (GTIN): 00848141006601 (Finish)
Sub Option Trade Item Identification: 8436518393802 (Finish)
Option Value: Perlized

Business Solution Design

1.7 Testing

None

1.7.1 Pass / Fail Criteria

Number	Test Criteria	Related Requirement	Design Element	Pass Criteria	Fail Criteria

1.7.2 Test Data

Appendices

1.8 Summary of Changes

Change	BSD 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.

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 example 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.uc-council.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