

# **Business Message Standard (BMS)**

**for**

## **Global Data Synchronization Search**

### **BRG: Align**

### **BMS Release: 2.0**

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### **Release Date: 31.12.2004**

*(dd.mm.cyyy)*



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### Document Summary

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### Document Change History

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
08.12.2004	2.0.0	Rob Toole	Initial version in BMS/BSD template	Migration of BRD to standard BMS/BSD format	N/A
31.12.2004	2.0.0	Rob Toole	Added GDD information and updated class diagram		
23.04.2007	2.0.1	Giovanni Biffi	Editorial Changes	Minor Editorial Changes to the Document	N/A

# Business Message Standard

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### 1 Business Solution

#### 1.1 Business Domain View

##### 1.1.1 Problem Statement / Business Need

The EAN.UCC Data Synchronization GSMP project team identified a need to have a Global Search mechanism to support the Global Data Synchronization Network (GDSN) processes. A Change Request (CR) was submitted to create a separate project team to address this task.

Prior to synchronising Item or Party data, participants in the Global Data Synchronisation Network (GDSN) need to be able to discover Items or Parties that may be of interest. It is envisioned that this discovery process will be realized via a standardized Global Data Synchronisation process and related messages. This Global Search is a foundation to ensure that data (Item and Party) is discoverable within the Global Data Synchronization Network and conforms to a common structure, complying with global standards.

There is a precondition for those participating in the Global Data Synchronisation Network (GDSN) that implementation of some aspects of the network become mandatory, eg., assigning each Trade Item a Global Product Classification. Only those companies and service providers that have implemented the requirements of the EAN.UCC standards fully and accurately, have made their data available with a Source Data Pool, and have successfully completed the Registration process will be able to anticipate that their data will feature correctly in the results of a search. See diagram in Section 2 “Business Process View” of the Global Data Synchronization Network and its functionality.

##### 1.1.2 Objective

The initial objective is to define process and data standards for the Global Registry to enable discovery within the Global Data Synchronisation Network. Subsequent projects will expand the search capability throughout the Global Data Synchronisation Network.

The process and messages specified in this document are mandatory for parties that make up the Global Data Synchronisation Network (GDSN); namely, the Global Registry, Source Data Pools and Recipient Data Pools. Processes and messages outlined in this document are made available to Data Sources and Data Recipients as a “minimal set” that must be supported by certified Data Pools. Data Pools may offer additional processes and messages to their customers as “value added services” to this minimal set.

##### 1.1.3 Audience

The audience of this standard is any participant in the global supply chain. This includes retailers, manufacturers, distributors, wholesalers, exchanges, service providers and other third parties. Entities wishing to become a certified Source and Recipient Data Pool within the Global Data Synchronization Network will be the adopters of this Global Search standard.

##### 1.1.4 Artefacts

Artefact name	State	Artefact / State description
Catalogue Item Synchronisation Business Requirement Document (BRD)		The Business Requirement Document depicting the process and data standards for Catalogue Item synchronisation.
Party Synchronisation BRD		The Business Requirement Document depict-

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		ing the process and data standards for Party synchronisation.
Global Data Synchronisation Search and Browse Business Requirements Worksheet (v0.6, Feb 4,2003).		The initial requirements for Global Search functionality.

### 1.1.5 References

Function	Name	Company / organisation
Co-Chair	Mike Merulla	Wegmans
Participant	Marianne Boncore	Pepsi
Participant	Maureen Bonito	Mars Inc.
Participant	Greg Buckley	Pepsi
Participant	Rob Fassberg	QRS
Participant	James Funk	SCJohnson
Participant	Fred Geiger	UCCnet
Participant	Brad Goldman	WWRE
Participant	Vic Hansen	Unilever
Participant	Mike Harris	ViaLink
Participant	Bruce Hawkins	WalMart
Participant	Grant Kille	WWRE
Participant	Ed Licul	Transora
Participant	Sean Lockhead	UCCnet
Participant	Markus Mathar	Sinfos
Participant	Gena Morgan	ISS
Participant	Barb Munro	Kraft
Participant	Mike Nemirovsky	Campbell Soup
Participant	Becky Pickett	Ahold, USA
Participant	Budi Saputra	P&G
Participant	Joy Schneck	General Mills
Participant	Jim Sheehan	Shaws
Participant	Karen Spooner	Kraft
Participant	Mike Walton	UDEX
Participant	Greg Zwanziger	SuperValu
EAN.UCC Process Manager	Michele Southall	UCC

### **1.1.6 Acknowledgements**

#### **1.1.6.1 BRG Members**

N/A

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### 1.1.6.2 ITRG Members

N/A

### 1.1.6.3 Task/Project Group Participants (where applicable)

N/A

### 1.1.6.4 Design Team Members

Function	Name	Organisation
Modeller	Bob Celeste	UCC
XML Technical Designer		
EANCOM Technical Designer		
Peer Reviewer		



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### 1.2 Business Context

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

### 1.3 Additional Technical Requirements Analysis

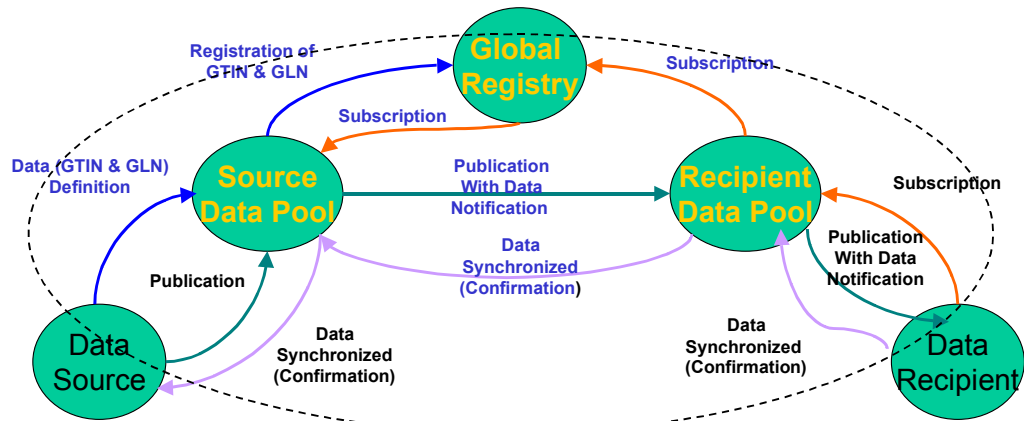
#### 1.3.1 Technical Requirements (optional)

Number	Statement	Rationale

1.4 Business Transaction View

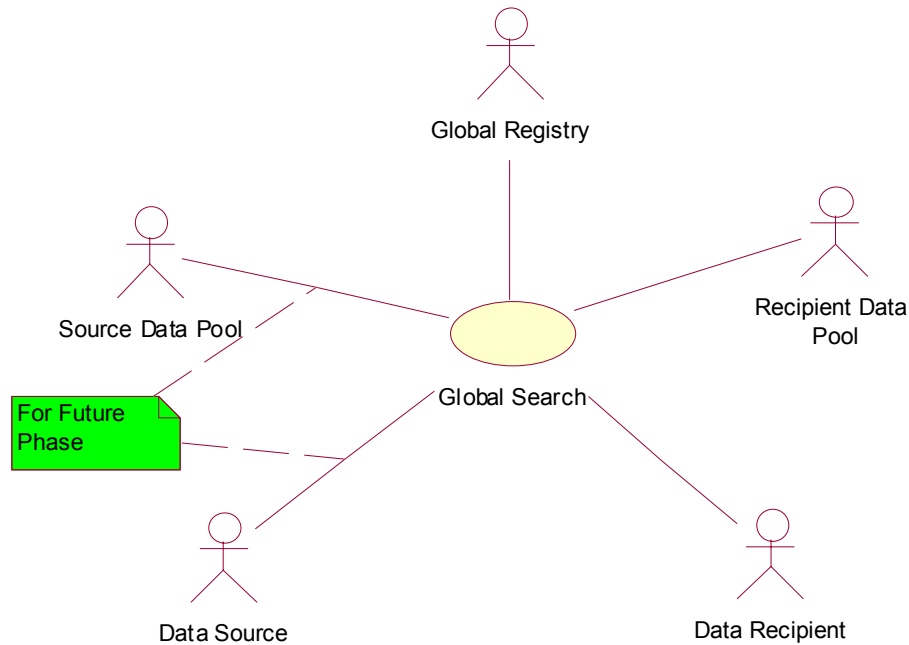
1.4.1 Business Transaction Use Case Diagram

## The GDSN Business Flow



**Certified GDSN Actors**  
**EAN.UCC Standards Validation**  
**Discovery of Data (Search ---)**

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### 1.4.2 Use Case Description

<b>Use Case ID</b>	UC-1										
<b>Use Case Name</b>	Global Search										
<b>Use Case Description</b>	This Use Case describes how a Data Recipient requests a search of the Global Registry and how the Global Registry returns a result to the Data Recipient.										
<b>Actors (Goal)</b>	<ul style="list-style-type: none"> <li>Global Registry, Source Data Pool, Recipient Data Pool, Data Source and Data Recipient</li> </ul>										
<b>Performance Goals</b>	N/A										
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>All searchable Item and Party Information must be registered in the Global Registry</li> </ul>										
<b>Post conditions</b>	A Search Request is created and search results are returned to the searching party.										
<b>Scenario</b>	<p><b>Begins when...</b> The Data Recipient creates a Search Request.</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>Data Recipient</td> <td>Sends the Search Request to its Recipient Data Pool.</td> </tr> <tr> <td>2</td> <td>Recipient Data Pool</td> <td>Sends the Search Request to the Global Registry.</td> </tr> </tbody> </table>		Step #	Actor	Activity Step	1	Data Recipient	Sends the Search Request to its Recipient Data Pool.	2	Recipient Data Pool	Sends the Search Request to the Global Registry.
Step #	Actor	Activity Step									
1	Data Recipient	Sends the Search Request to its Recipient Data Pool.									
2	Recipient Data Pool	Sends the Search Request to the Global Registry.									

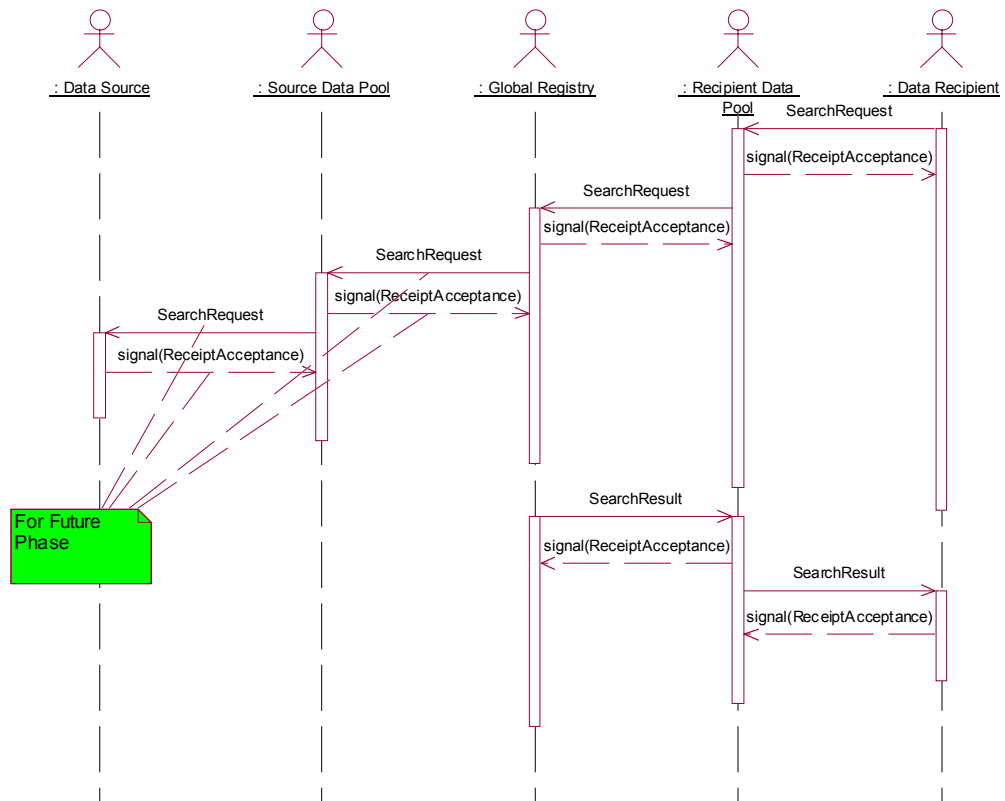
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	3	Global Registry	Matches the Search Criteria with registered Items and Parties.
	4	Global Registry	Sends the Search Result to the Recipient Data Pool.
	5	Recipient Data Pool	Sends the Search Result to the Data Recipient.
	<p><b>Ends when...</b> The Data Recipient receives the search result and sends an acknowledgement to the Recipient Data Pool.</p>		
<b>Alternative Scenario</b>	<b>AS 3 - The Global Registry does not find a match for the search criteria</b>		
	<b>Step #</b>	<b>Actor</b>	<b>Activity Step</b>
	1	Global Registry	Sends a Search Result to the Recipient Data Pool indicating that a match was not found.
	2	Recipient Data Pool	Sends the Search Result to the Data Recipient.
	3	Data Recipient	The Data Recipient receives the search result and sends an acknowledgement to the Recipient Data Pool.
<b>Related Requirements</b>	1		
<b>Related Rules</b>			

## 1.4.3 Business Transaction Activity Diagram(s)

N/A

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



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### 1.5 Information Model (including GDD Report)

#### 1.5.1 Data Description:

##### 1.5.1.1 Search Request

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirements
CriteriaJoinType				Global Data Synchronisation Search BRD V1.2 02.12.2004
	CriteriaJoinValue			Global Data Synchronisation Search BRD V1.2 02.12.2004
	None			Global Data Synchronisation Search BRD V1.2 02.12.2004
				Global Data Synchronisation Search BRD V1.2 02.12.2004
CriteriaObjectOperator				Global Data Synchronisation Search BRD V1.2 02.12.2004
	CriteriaOperator			Global Data Synchronisation Search BRD V1.2 02.12.2004
	None			Global Data Synchronisation Search BRD V1.2 02.12.2004
		CriteriaObject	CriteriaObject	Global Data Synchronisation Search BRD V1.2 02.12.2004
		3F372E5E02AF	FixedObjectValue	Global Data Synchronisation Search BRD V1.2 02.12.2004
				Global Data Synchronisation Search BRD V1.2 02.12.2004
EntityIdentification				Global Data Synchronisation Search BRD V1.2 02.12.2004
	uniqueCreatorIdentification			Global Data Synchronisation Search BRD V1.2

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirements
				02.12.2004
		contentOwner	PartyIdentification	Global Data Synchronisation Search BRD V1.2 02.12.2004
				Global Data Synchronisation Search BRD V1.2 02.12.2004
FixedObjectValue				Global Data Synchronisation Search BRD V1.2 02.12.2004
	objectValue			Global Data Synchronisation Search BRD V1.2 02.12.2004
				Global Data Synchronisation Search BRD V1.2 02.12.2004
SearchRequest				Global Data Synchronisation Search BRD V1.2 02.12.2004
	dataRecipient			Global Data Synchronisation Search BRD V1.2 02.12.2004
	recipientDataPool			Global Data Synchronisation Search BRD V1.2 02.12.2004
		None	EntityIdentification	Global Data Synchronisation Search BRD V1.2 02.12.2004
		SearchCriteria	SearchCriteria	Global Data Synchronisation Search BRD V1.2 02.12.2004
		SearchTarget	SearchTarget	Global Data Synchronisation Search BRD V1.2 02.12.2004
				Global Data Synchronisation Search BRD V1.2 02.12.2004
SearchTarget				Global Data Synchronisation Search BRD V1.2 02.12.2004
	searchTopic			Global Data Synchronisation Search BRD V1.2 02.12.2004

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### 1.5.1.2 Search Result

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirements
				Global Data Synchronisation Search BRD V1.2 02.12.2004
EntityIdentification				Global Data Synchronisation Search BRD V1.2 02.12.2004
	uniqueCreatorIdentification			Global Data Synchronisation Search BRD V1.2 02.12.2004
		contentOwner	PartyIdentification	Global Data Synchronisation Search BRD V1.2 02.12.2004
				Global Data Synchronisation Search BRD V1.2 02.12.2004
PartySearchResult				Global Data Synchronisation Search BRD V1.2 02.12.2004
		None	Party	Global Data Synchronisation Search BRD V1.2 02.12.2004
				Global Data Synchronisation Search BRD V1.2 02.12.2004
RegistryCatalogueItemSearchResult				Global Data Synchronisation Search BRD V1.2 02.12.2004
		None	RegistryCatalogueItemSearch-Content	Global Data Synchronisation Search BRD V1.2 02.12.2004
				Global Data Synchronisation Search BRD V1.2 02.12.2004
TradeItemSearchResult				Global Data Synchronisation Search BRD V1.2 02.12.2004
		None	TradeItemSearch-Content	Global Data Synchronisation Search BRD V1.2 02.12.2004



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### 1.5.2 GDD Report

#### 1.5.2.1 Search Request

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
CriteriaJoinType				Search Criterion Join. Details	None	
	CriteriaJoinValue			Search Criterion Join. Criteria Join Value Code. Criteria Join Value Code_	Indicates the exact join criteria as limited by the values in the Criteria Join Value List.	1..1
	None			Search Criterion Join. Criteria Join Value Code. Code		0..*
CriteriaObjectOperator				Search Criterion Object Operator. Details	n.a.	
	CriteriaOperator			Search Criterion Object Operator. Criterion Operator Code. Criteria Operator Code_ Code		1..1
	None			Search Criterion Object Operator. Criterion Operator Code. Code		0..*
		CriteriaObject	CriteriaObject	Search Criterion Object Operator. Choice_ Association. Search Criterion Object	None	1..1
		3F372E5E02AF	FixedObjectValue	Search Criterion Object Operator. Choice_ Association. Fixed_ Search Object Value	None	1..1
EntityIdentification				Entity Identification. Details	The unique identification of a document.	

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
	uniqueCreatorIdentification			Entity Identification. Identification. Identifier	N/A	1..1
		contentOwner	PartyIdentification	Entity Identification. Content Owner. Party Identification	None	1..1
FixedObjectValue				Fixed_ Search Object Value. Details	None	
	objectValue			Fixed_ Search Object Value. Search Object. Text		1..1
SearchRequest				Search Request. Details	n.a.	
	dataRecipient			Search Request. Data Recipient_ Party. GLN_ Identifier	The Global Location Number (GLN) of the business entity that has initiated the search and to whom the search results will finally be delivered to. This role takes on the attributes of the Global Location Number.	1..1
	recipientDataPool			Search Request. recipient-DataPool_ Party. GLN_ Identifier	The Global Location Number (GLN) of the Data Recipient's data pool. The search results will pass through this Data Pool en-route to the Data Recipient. This role takes on the attributes of the Global Location Number.	0..1
		None	EntityIdentification	Search Request. Search Request_ Identification. Entity Identification	None	1..1
		SearchCriteria	SearchCriteria	Search Request. Association. Search Criterion	None	1..*
		SearchTarget	SearchTarget	Search Request. Association.	None	1..*

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				Search Domain		
SearchTarget				Search Domain. Details	n.a	
	searchTopic			Search Domain. Search Topic. Search Topic Code List_ Code	Identifies the topic or object of the search as defined by the Search Topic List.	1..1

End of Report

### 1.5.2.2 Search Result

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
EntityIdentification				Entity Identification. Details	The unique identification of a document.	
	uniqueCreatorIdentification			Entity Identification. Identification. Identifier	N/A	1..1
		contentOwner	PartyIdentification	Entity Identification. Content Owner. Party Identification	None	1..1
PartySearchResult				Party_ Search Result. Details	None	
		None	Party	Party_ Search Result. Association. Party	None	1..*
RegistryCatalogueItemSearchResult				Registry Catalogue Item_ Search Result. Details	None	
		None	RegistryCatalogueItem-	Registry Catalogue Item_ Search Result. Association.	Not Available	1..*

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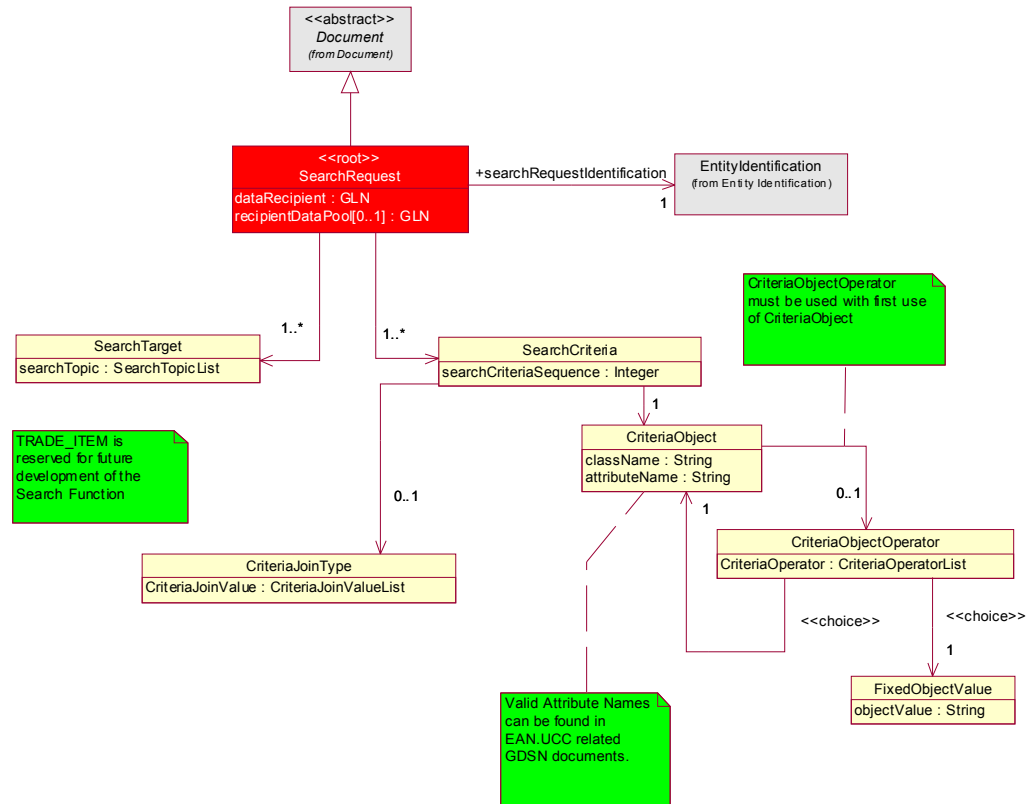
Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
			SearchContent	Registry Catalogue Item_ Search Content		
TradeItemSearchResult				Trade Item_ Search Result. Details	None	
		None	TradeItemSearchContent	Trade Item_ Search Result. Association. Trade Item_ Search Content	N.A	1..*

# Business Solution Design

## 1.5.3 Class Diagrams

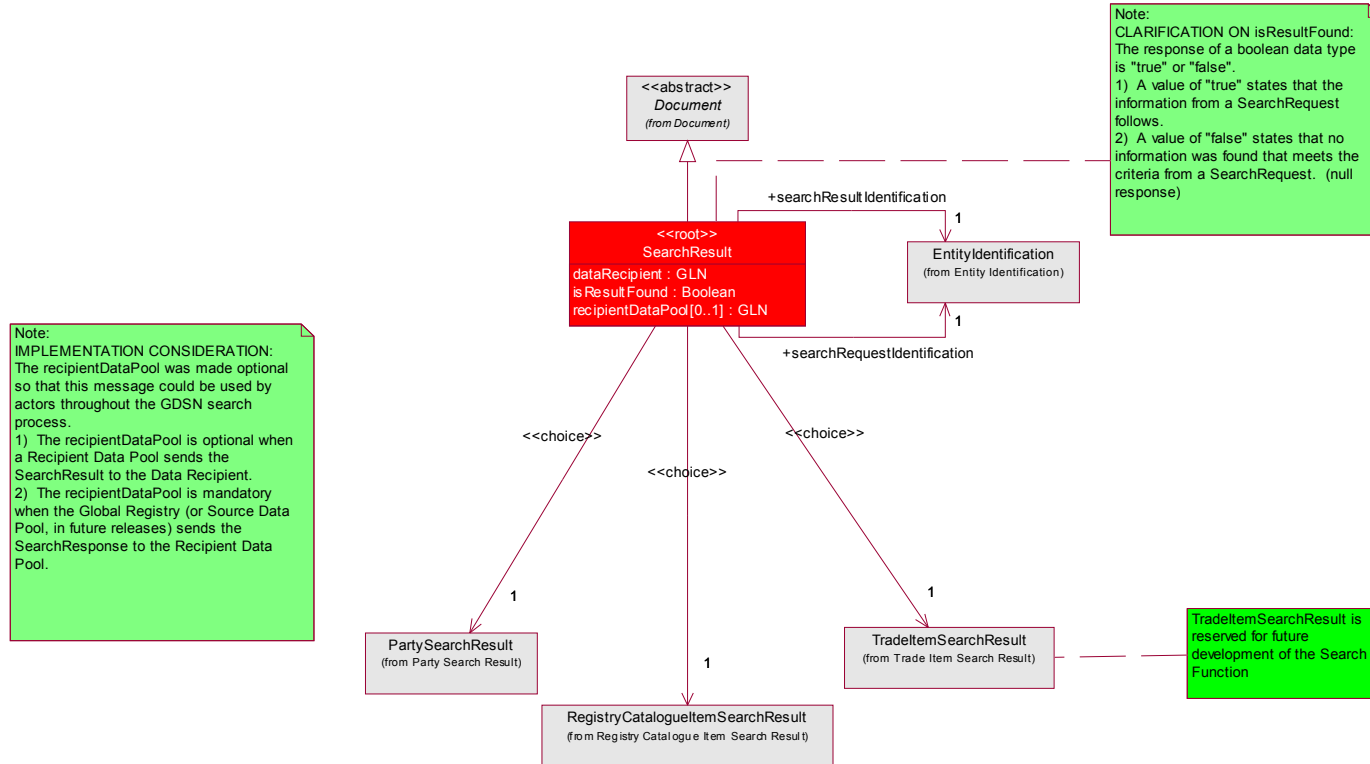
### 1.5.3.1 Search Request

Note:  
**IMPLEMENTATION CONSIDERATION:**  
 The recipientDataPool was made optional so that this message could be used by actors throughout the GDSN search process.  
 1) The recipientDataPool is optional when a Data Recipient sends the SearchRequest to his Data Pool.  
 2) The recipientDataPool is mandatory when a Data Pool sends the SearchRequest to the Global Registry.



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## 1.5.3.2 Search Result



## Business Solution Design

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### 1.5.4 Code Lists

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

Code List Name	Code List Description
SearchTopicList	
Code Name	Code Description
PARTY	N/A
REGISTRY_CATALOGUE_ITEM	N/A
TRADE_ITEM	N/A

Code List Name	Code List Description
CriteriaJoinValueList	
Code Name	Code Description
AND	N/A
OR	N/A

Code List Name	Code List Description
CriteriaOperatorList	
Code Name	Code Description
EQUAL_TO	N/A
GREATER_THAN	N/A
LESS_THAN	N/A
LIKE	N/A
NOT_EQUAL_TO	N/A

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### 1.6 Business Document Example

N/A

### 1.7 Implementation Considerations

N/A

### 1.8 Testing

#### 1.8.1 Pass / Fail Criteria

N/A

*Unit testing criteria for business solution.*

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

#### 1.8.2 Test Data

N/A

Attribute	Value



## Business Solution Design

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### 1.9 Appendices

### 1.10 Summary of Changes

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

Change	BMS Ver- sion	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