



Creating A Single Global Electronic Market

# Core Component and Business Process Document Overview Version 1.02

## ebXML Business Process & Core Components

23 March 2001

### **1 Status of this Document**

This document is an ebXML White Paper for the eBusiness community.

Distribution of this document is unlimited.

The document formatting is based on the Internet Society's Standard RFC format.

#### ***The latest version:***

CC and BP Document Overview Ver 1.02

25

## 26 **2 ebXML participants**

27 We would like to recognize the following for their significant participation to the  
28 development of this document.

29

30 Team lead: James Whittle, e CentreUK

31

32 Editors: Sue Probert, Commerce One  
33 Mike Adcock, APACS

34

35 Team Participants: Gait Boxman, TIE  
36 Thomas Becker, SAP

### 37 **3 Table of Contents**

38	1	Status of this Document .....	1
39	2	ebXML participants.....	2
40	3	Table of Contents .....	3
41	4	Introduction .....	4
42	4.1	Summary .....	4
43	4.1.1	Specifications .....	4
44	4.1.2	White Papers .....	4
45	4.2	Overview .....	5
46	4.3	Audience.....	6
47	5	Definition and Scope .....	7
48	5.1	ebXML Business Process Specification Schema .....	7
49	5.2	ebXML Context & Re-Usability of Core Components and Business Processes ....	8
50	5.3	EbXML Naming Convention for Core Components .....	8
51	5.4	ebXML Core Component Discovery and Analysis.....	9
52	5.5	ebXML Document Assembly & Context Rules.....	10
53	6	Disclaimer .....	11
54	7	Contact Information .....	11
55	8	Copyright Statement.....	11
56			

## 4 Introduction

### 4.1 Summary

This document provides an overview explaining the relationship between the following documents.

#### 4.1.1 Specifications

1. ebXML Specification - Business Process Specification Schema: Ver 0.99
2. ebXML Concept - Context & Re-Usability of Core Components: Ver 1.02
3. ebXML Convention – Naming Convention for Core Components: Ver 1.02
4. ebXML Methodology - Core Component Discovery and Analysis: Ver 1.02
5. ebXML Specification - Document Assembly & Context Rules: Ver 1.02

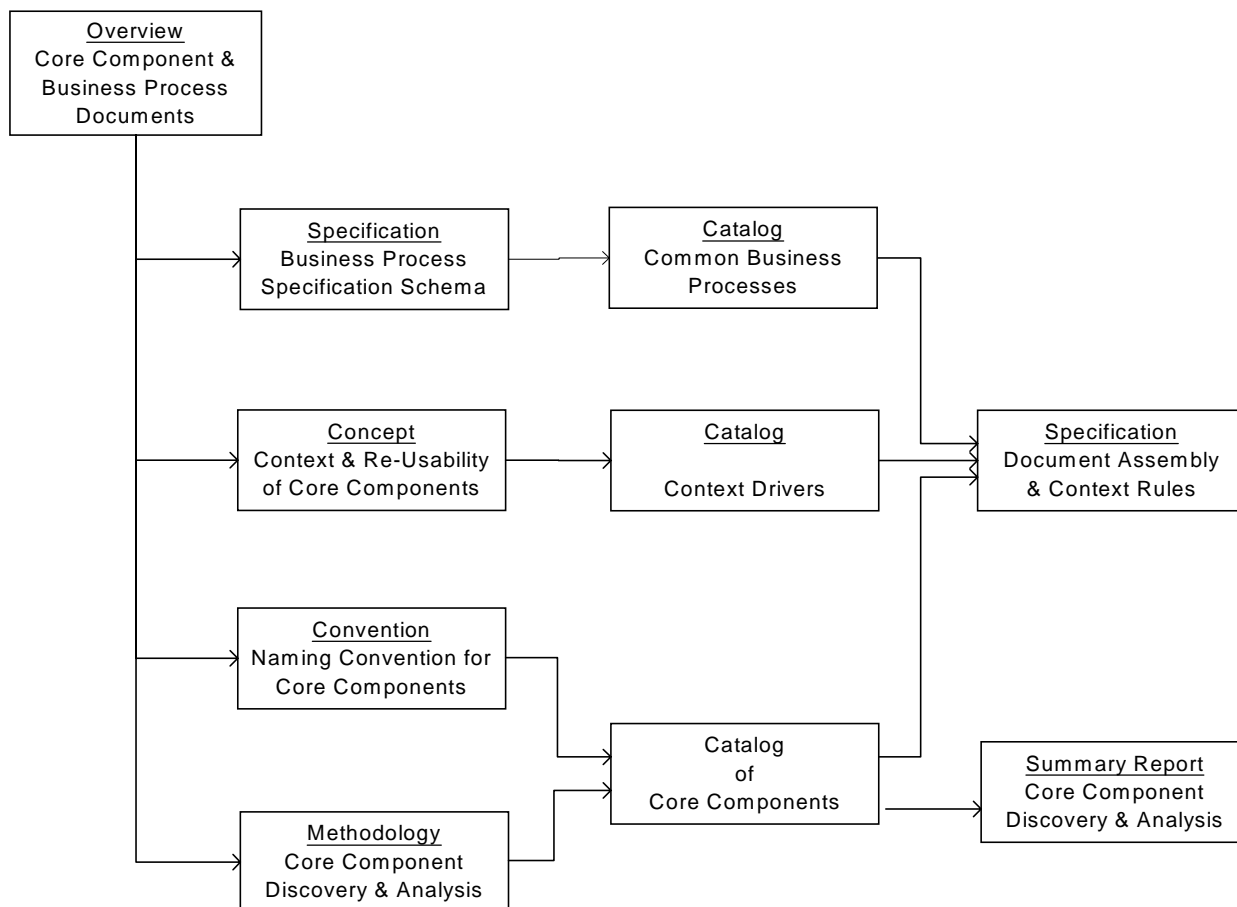
#### 4.1.2 White Papers

- Business Process and Business Document Analysis Overview
- ebXML Business Process methodology guidelines
- ebXML Catalog of Common Business Processes Version 0.9
- Business Process Analysis Worksheets & Guidelines
- Initial Catalog of Context Drivers
- Initial Catalog of Core Components
- Summary Report on Core Component Discovery & Analysis (work in progress – available by May 2001)
- Example implementation of ebXML context rules in an XML environment (work in progress – available by May 2001)

The terminology within these documents is defined in the ebXML Glossary of Terms.

## 4.2 Overview

The following diagram illustrates the relationship between the documents.



The “Business Process Specification Schema” document incorporates all of the Core Component specifications. This document provides insight into the specific business processes, whether based on models or XML schemas. It will be used in conjunction with other technical specifications published in other infrastructure documentation.

The “Context & Re-usability of Core Components” document builds upon the key premises and highlights the concepts/benefits gained through the use of a consistent methodology. Furthermore, it will emphasize the re-use of previously defined Components. The “Catalog of Context Drivers” document is the key to successful identification and re-usability of what has been previously defined. It should be used as reference material to clarify context & re-usability of Core Components.

The “Naming Convention for Core Components” and “Core Component Discovery & Analysis” documents will enable the generation of entries into the “Catalog of Core Components”. This is by no means a complete listing of all the entities required to support all business processes: rather it is a subset to emulate and insure understanding of the process.

The “Document Assembly and Context Rules” document is a roadmap to assist the reader in establishing and maintaining deployment of core components.

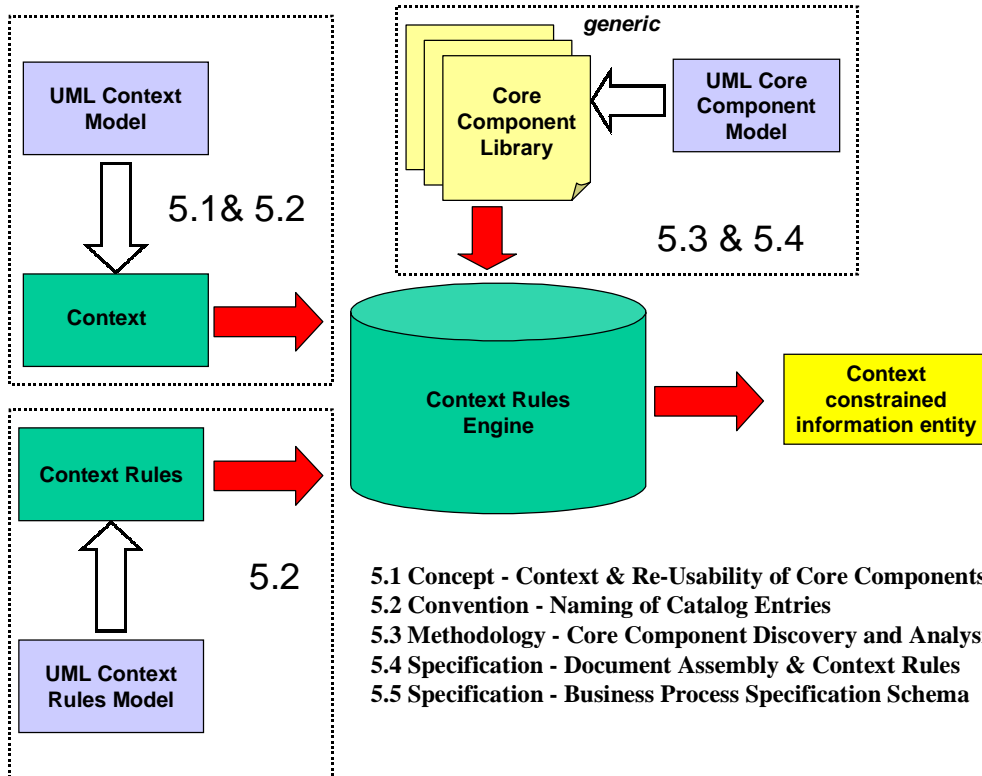
### 4.3 Audience

The following table of potential readers indicates the relative level of interest to the different reader groups.

Documents ⇓	Audience⇒	Software developers	Business domain experts	Business IT developers	Standards experts
Specification - Business Process Specification Schema		X X X	X X X	X X X	X X
Concept - Context & Re-Usability of Core Components		X X X	X X X	X X X	X X
Convention – Naming Convention for Core Components		X	X X X	X	X X X
Methodology – Core Component Discovery and Analysis		X	X X X	X	X X X
Specification - Document Assembly & Context Rules		X X X	X X X	X X X	X X
Legend:					
*** = High Interest					
** = Medium Interest					
* = Low Interest					

## 5 Definition and Scope

The diagram below presents an overview of the scope, showing the area to which each document relates.



### 5.1 ebXML Business Process Specification Schema

The ebXML Business Process Specification Schema provides a standard framework for the configuration of business systems to support the execution of business transactions. It provides for the nominal set of specification elements necessary to configure a runtime system in order to execute collaboration through a set of ebXML business transactions. This schema facilitates the infrastructure release of ebXML's Transport Routing and Packaging, Collaborative Partner, and Registry/Repository specifications.

Users of the Specification Schema will create business process specifications as either UML diagrams, or eXtensible Markup Language (XML) documents. The Specification Schema supports the specification of Business Transactions and the choreography of Business Transactions in Business Collaborations. Each Business Transaction specified in the Catalog of Common Business Processes can be implemented using one of many available standard patterns. These patterns determine the actual exchange of messages and business signals between the partners to achieve the required electronic commerce transaction.

The current version of the specification schema addresses collaborations between two parties (binary collaborations). The current version does not address the semantics of, multi-party choreography, context-based content, or economic exchanges and contracts.

## **5.2 ebXML Context & Re-Usability of Core Components and Business Processes**

This document defines the way in which context is categorised. It describes the context drivers that have been identified as most critical for facilitating the maximum re-use of Core Components and Business Process models.

The document contains the context definitions, the sources of classification value lists, and examples of how these contexts will be applied in business use. It describes how to build business documents drawing on the contents of a repository, and it contains a pictorial model of Core Component and Context Descriptor Relationships.

## **5.3 EbXML Naming Convention for Core Components**

This document describes the rules for naming ebXML Core Components and Business Processes. These rules are based on the guidelines and principles described in document ISO 11179-5, clause 6 (Guidelines for Structured Naming Conventions).

In addition to the naming convention rules that lead to a Dictionary Entry Name, the document also provides rules for creating definitions and establishes the principle of synonyms. This principle will cover the instances where a commonly used business term equates to a well-formed Dictionary Entry Name.

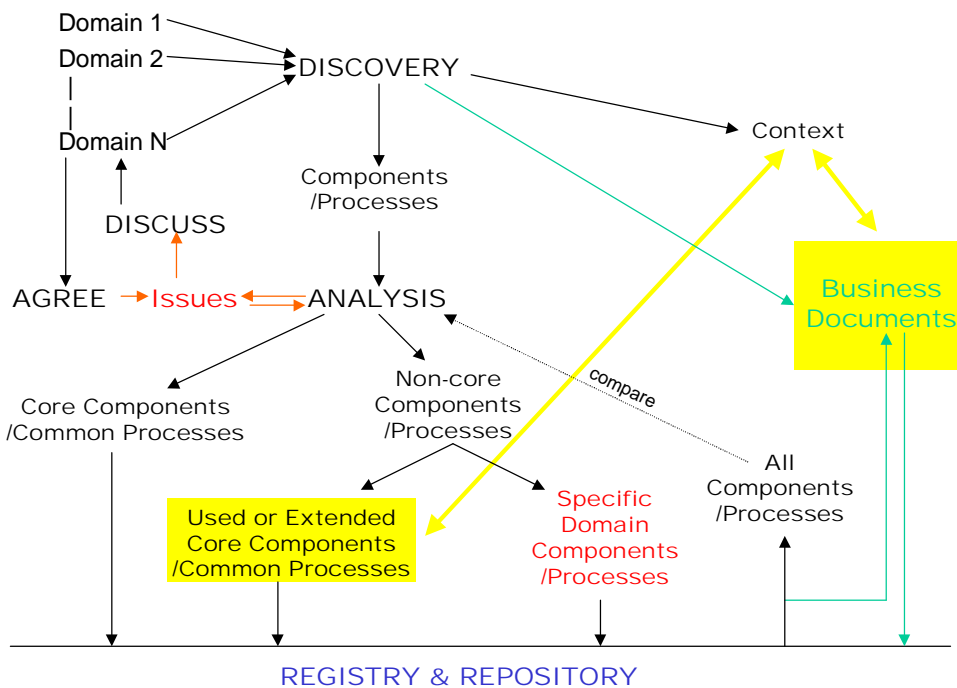
164

## 165 5.4 ebXML Core Component Discovery and Analysis

Business information experts in each domain area, using appropriate techniques for extracting, gathering, and recording their “discovered” Core Components conduct the discovery activity. For each Core Component a precise definition is established, together with any additional material pertinent to the specific domain.

171 To ensure cross-domain harmonization for each “discovered” component, a  
172 comprehensive and consistent analysis needs to be conducted by a domain-neutral  
173 technical assessment team.

175 The processes by which a library of Core Components is created and maintained are  
176 shown in the following diagram:



179

## 5.5 ebXML Document Assembly & Context Rules

The challenge of ebXML is to create a framework for automating trading partner interactions that is both:

- Sufficiently generic to permit implementation across the entire range of business processes (in various industries, geographical regions, legislative environments, etc.)
- Expressive enough to be more effective than ad hoc implementations between specific trading partners.

This specification deals with two particular aspects of the task:

- The assembly of core component schemas into full business document schemas,
  - The modeling of core components for business documents in such a way that the components provide useful building blocks for real-world trading scenarios.
- Furthermore, they must be open enough to take into account the wide variety of document formats required by organizations with differing business practices and requirements.

The methodology described here is driven by the need for interoperability: companies must be able to communicate business documents effectively with minimum human intervention, even though the formats used may have a significantly different syntax.

Central to achieving this goal is the notion of context. Context provides a framework for adapting generic core components to specific business needs, while keeping the transformation process transparent so that the processing engine can find a useful set of common information for use by different trading partners. An example of a contextual category that is useful for business is industry: different industries may have different requirements for core components. By starting with a generic core component and using context to derive a context-specific core component, we ensure that, at the very least, the information in the generic component will be useful when interacting with a trading partner in a different context (i.e. industry, region, etc.). This should be contrasted with the alternative: context-specific business documents that are not built from generic core components and therefore provide no common basis for interaction outside of that context.

In order to assemble full business documents from core components, rules are drawn specifying what components are to be included in the document, and how.

In order to generate a context-specific core component, rules are associated with different values for each of the context categories. This specification presents a proposed syntax for these context rules, and a methodology for applying them, in order to achieve maximum reuse of existing XML software development tools and libraries.

This specification describes the way in which rules can be formed and/or derived, but is not a prescriptive specification. It is believed that rule mechanisms will be achieved in different ways within different implementations/solutions.

224

## 225 6 Disclaimer

226 The views and specification expressed in this document are those of the authors and are  
227 not necessarily those of their employers. The authors and their employers specifically  
228 disclaim responsibility for any problems arising from correct or incorrect implementation  
229 or use of this design.

## 230 7 Contact Information

### 231 Team Leader

232 Name James Whittle  
233 Company e centre<sup>UK</sup>  
234 Street 10, Maltravers Street  
235 city, state, zip/other London  
236 Nation UK  
237  
238 Phone: +44-20-7655-9022  
239 EMail: james.whittle@e-centre.org.uk

240

### 241 Vice Team Lead

242 Name Mike Adcock  
243 Company APACS  
244 Street Mercury House, Triton Court, 14 Finsbury Square  
245 city, state, zip/other London EC2A 1LQ  
246 Nation UK  
247  
248 Phone: +44-20-7711-6318  
249 EMail: mike.adcock@apacs.org.uk

250

### 251 Editor

252 Name Thomas Becker  
253 Company SAP AG  
254 Street Neurottstrasse 16  
255 city, state, zip/other D-69189 Walldorf  
256 Nation Germany  
257  
258 Phone: +49-6227-741862  
259 EMail: [thomas.becker@sap.com](mailto:thomas.becker@sap.com)

260

## 261 8 Copyright Statement

262 Copyright © ebXML 2001. All Rights Reserved.

263

264 To be agreed.