

## **B2B Designers & Developers Guide**

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## Foreword

This NICC Document (ND) has been produced by NICC B2B WG

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## Introduction

The “[NICC B2B Interface Framework document \(ND1507:2007\)](#)” provides the introduction and framework for all NICC B2B standards. It is important to read the Framework in conjunction with this document.

This document forms part of a suite of documentation developed and maintained by NICC B2B. The structure is shown @ [http://niccb2b.org.uk/wiki/index.php/Main\\_Page/work/documents#NICC\\_B2B\\_Document\\_Structure](http://niccb2b.org.uk/wiki/index.php/Main_Page/work/documents#NICC_B2B_Document_Structure) [2]. The documents can be accessed from the NICC publication web site @ <http://www.nicc.org.uk/> and if they are in development from <http://niccb2b.org.uk/>. For access and further details please contact [niccb2b@niccb2b.org.uk](mailto:niccb2b@niccb2b.org.uk).

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## 1 Scope

The scope includes automated business transactions between UK Communications Providers (CPs) using Business-to-Business (B2B) interfaces that are used to order and manage products traded between CPs in the UK telecommunications market. In particular, for high volume mass market data and voice products sold to “end user” consumer and business customers, for example voice, broadband and associated access products.

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## 2 References

### 2.1 Informative references (available @ [http://niccb2b.org.uk/wiki/index.php/Main\\_Page/Publications](http://niccb2b.org.uk/wiki/index.php/Main_Page/Publications))

#### Framework, Requirements

- [1] [ND1507:2007: NICC B2B Interface Framework Document Issue 2](#)
- [2] [NICC B2B Document Structure](#)
- [3] [ND1622:2007: NICC B2B Interface Requirements Document Issue 2](#)
- [4] [ND1623:2007: B2B Trouble-To-Resolve \(T2R\) User Story Requirements Issue 1](#)
- [5] [ND1624: B2B Lead-to-Cash \(L2C\) User Story Requirements](#)
- [31] [Location/Address identification User Story requirements](#)

#### Principles & System Standards

- [6] [ND1617:2006: Automated Business to Business \(B2B\) Transactions: Architecture and Principles Issue 1](#)
- [7] [ND1618:2006: Profile for ebXML Messaging Service 2.0 Gateways](#)
- [8] [ND1427 B2B Location & Address Identification Principles](#)

#### Process Standards & Gap Analysis

- [9] [ND1626:2007: NICC B2B Trouble-To-Resolve \(T2R\) Interface Standard Issue 1.01](#)
- [10] [ND1509:2007: B2B Trouble-To-Resolve \(T2R\) International Gap Analysis Issue 1](#)
- [11] [ND1637:2008 T2R XML \(generic schema\) standard](#)
- [12] [ND1627: B2B Lead-To-Cash \(L2C\) Interface Standard](#)
- [13] [ND1641 Lead-To-Cash \(L2C\) XML Schema](#)

**Best Practice**

- [14] [ND1422:2007: NICC B2B Best Practice Issue 1](#)
- [15] [ND1421:2007: NICC B2B User Story Approach Issue 1](#)
- [16] [ND1617:2006: Automated Business to Business \(B2B\) Transactions: Architecture and Principles Issue 1](#)
- [17] [ND1618:2006: Profile for ebXML Messaging Service 2.0 Gateways](#)
- [18] [ND1508:2007: Trouble To Resolve \(T2R\) white paper proposal Issue 2](#)
- [19] [ND1510:2007: Lead-To-Cash \(L2C\) White Paper Proposal Issue 1](#)
- [20] [Guidelines on Tools for Structuring B2B Specifications](#)
- [21] [B2B Designers & Developers Guide](#)

**Conformance reports**

- [22] [NICC B2B Conformance report 1 - WBCC/WVC](#)

**Proposals to address issues & requirements**

- [23] [Location & address identification](#)
- [24] [Appointing & arranging access](#)
- [25] [Billing](#)
- [26] [Service inventory & catalogue](#)
- [27] [T2R structured information](#)
- [28] [T2R: exception handling processes](#)
- [29] [Tools for structuring B2B documentation](#)
- [30] [Systems/platform migration](#)

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## 3 Definitions and abbreviations

### 3.1 Abbreviations

B2B	Business to Business (electronic transactions via a gateway)
CP	Communications Provider
ITIL	Information Technology Infrastructure Library
ITU	International Telecommunications Union
L2C	Lead to Cash
LLU	Local Loop Unbundling
NICC	Network Interoperability Consultative Committee
OASIS	Organization for the Advancement of Structured Information Standards
T2R	Trouble to Resolve
TMF	TeleManagement Forum
WLR	Wholesale Line Rental
XML	eXtensible Mark-up Language

### 3.2 Definitions

#### 3.2.1 Lead-To-Cash (L2C)

This refers to the experience a CP customer has buying an existing product or service from another CP. It begins with a sales dialogue between the buyer and the supplier which establishes that one of their products or services meets their needs. It ends when this need is fulfilled, the service is available to use and supplier has been paid.

It includes “pre-order” or “order” management & “financial attribution” (including billing) in the NICC B2B requirements document. It is second behind T2R in NICC B2B’s priorities.

### 3.2.2 Trouble to Resolve (T2R)

This begins when a customer has told a CP they are not happy with either their product or service, or when the CP has proactively spotted a problem. It ends when that problem has been resolved and the customer is satisfied.

It includes “assurance”, “ticket/fault management “ in the NICC B2B requirements document and “trouble administration” by the ITU, and covers other sub-processes that are related to the T2R process, but which are not core to it.

### 3.2.3 Concept-to-market (C2M):

This process starts when one of several trigger events takes place, e.g., when a CP needs to

- remake a product because of high fault rates
- innovate a new service based on customer demand
- rationalise and create new self service products

C2M process spans the time from this trigger event, through product development, marketing, launch, and ready for sale/support. In addition, during the concept, specify and plan phases, C2M will determine how the product flows into in-life support and billing.

### 3.2.4 Touchpoint Components

The Components defined in this standards are the “Touchpoints” or Business Transactions between Buyer and Supplier within the T2R macro process. The Components defined in this standard are the “Touch-points” or Business Transactions between Buyer and Supplier within the T2R macro process. The Components are defined in detail within the set of tables in the L2C & T2R standard documents {9} & [12]. The intention is that all CPs should adopt the interface standard and “reuse” these Components when implementing solutions to support the T2R & L2C processes.

### 3.2.5 Pattern

A Pattern is a description of the process for a particular Business Scenario within T2R & L2C. The T2R & L2C processes can run end-to-end taking the “success” path. There can also be numerous variations in this flow to cater for no-standard or exceptional conditions, e.g.: delays; costs attributable to the Buyer; need to obtain more information; etc. These scenarios tend to occur in many service solutions, so again there is benefit in orchestrating the Components within the process flows in a standardised way. For the purposes of these standards, a Business Scenario/Use Case and corresponding process flow will be referred to as a “Pattern”.

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## 4. Purpose

This document provides system and process designers and developers with a guide to developing B2B interfaces using NICC B2B standards and best practice.

## 5. Designing & Developing B2B interfaces

NICC B2B has consulted widely and published standard process frameworks and generic XML schemas for use by designers and developers of B2B gateway interfaces used to order and manage products traded between UK Communication Providers.

Process designs should adopt the standard touchpoints in NICC B2B standards and conform to the patterns. By doing this they are not being prescriptive about internal CP processes, but will enable the industry to exchange a standard format of information in the same way with a common dialogue across all CP and all products.

The processes covered are Lead-to-Cash (L2C) [3] and Trouble-to-Resolve (T2R) [4] and the documentation includes:

- [ND1626:2007: NICC B2B Trouble-To-Resolve \(T2R\) Interface Standard Issue 1.01](#) [9]
- [ND1637:2008 T2R XML \(generic schema\) standard](#) [11]
- [ND1627: B2B Lead-To-Cash \(L2C\) Interface Standard](#) [12]

- [ND1641 Lead-To-Cash \(L2C\) XML Schema](#) [13]

B2B gateway technical level documentation is covered by:

- [ND1618:2006: Profile for ebXML Messaging Service 2.0 Gateways](#) [17]

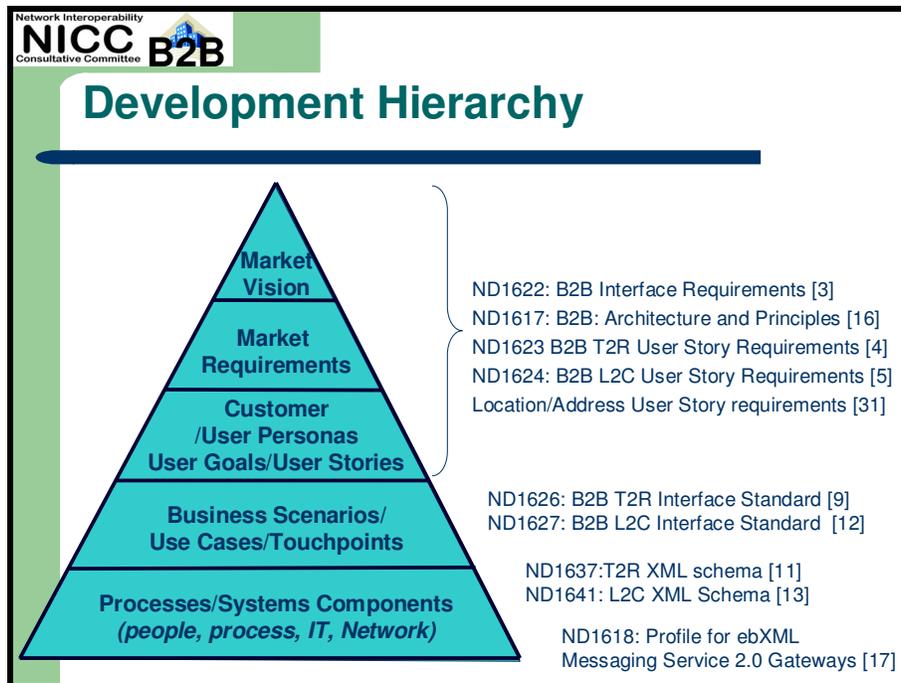
These process standards and XML schemas are based on an analysis of: the industry issues and requirements documented in the publications listed below; processes used for key high volume products such as LLU, WLR and Broadband; international standards such as those published by ITU, TMF and OASIS.

- [ND1622:2007: NICC B2B Interface Requirements Document Issue 2](#) [3]
- [ND1617:2006: Automated Business to Business \(B2B\) Transactions: Architecture and Principles Issue 1](#) [16]
- [ND1623:2007: B2B Trouble-To-Resolve \(T2R\) User Story Requirements Issue 1](#) [4]
- [ND1624: B2B Lead-to-Cash \(L2C\) User Story Requirements](#) [5]
- [Location & address identification](#) [23]
- [Appointing & arranging access](#) [24]
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- [Tools for structuring B2B documentation](#) [29]
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The developed method is documented in the following documents

- [ND1508:2007: Trouble To Resolve \(T2R\) white paper proposal Issue 2](#) [18]
- [ND1510:2007: Lead-To-Cash \(L2C\) White Paper Proposal Issue 1](#) [19]
- [ND1421:2007: NICC B2B User Story Approach Issue 1](#) [15]

These requirements, standards and best practice fit into the development hierarchy as follows:



## 6. Benefits

The benefits of standard reusable interfaces, processes and information content include:

- Reducing the number and complexity of interfaces will reduce development and maintenance costs through development and reuse of standard components and capabilities;
- Standard components means development times come down reducing time to market for new products and services;
- Standard high quality components and capabilities should make them more able to support complex trading relationships and maintain end-to-end services for consumers;
- Standard interfaces means more focus and investment on non-functional requirements such as security, resilience and scalability;
- Improved and standard interfaces means less things go wrong, costly manual intervention is replaced by zero touch working;
- Establishing best practice means better quality services, less reinvention and confusion;
- Future proofing and evolution of standards, for example to enable the multi-party multi-service industry that is developing, cannot be achieved on a product by product basis. It needs to be done once in one forum.
- The bottom line is to implement quicker, cheaper and better interfaces to the benefit of all.

## 7. Keeping this document up to date and relevant

For each major new products and B2B gateways developed a conformance review will be carried out such as [NICC B2B Conformance report 1 - WBCC/WVC](#) [22]. These reports will recommend updates to NICC B2B standards and best practice or changes to designs to align with the standards and other key products.

If you have any comments or suggestions for improvement please forward them to [niccb2b@niccb2b.com](mailto:niccb2b@niccb2b.com) or place them directly on to the NICC B2B website @ [http://niccb2b.org.uk/wiki/index.php/Main\\_Page/work/Issues](http://niccb2b.org.uk/wiki/index.php/Main_Page/work/Issues)

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## History

<b>Document history</b>		
V1.1.1	May 2009	Initial Issue