



Customer Information Quality Party Relationships (xPRL) Specification Version 3.0

Public Review Draft 01

03 October 2008

Specification URIs:

This Version:

<http://docs.oasis-open.org/ciq/v3.0/xPRL/prd01/specs/ciq-xprl-specs-prd01.html>
<http://docs.oasis-open.org/ciq/v3.0/xPRL/prd01/specs/ciq-xprl-specs-prd01.doc>
<http://docs.oasis-open.org/ciq/v3.0/xPRL/prd01/specs/ciq-xprl-specs-prd01.pdf>

Previous Version:

N/A

Latest Version:

<http://docs.oasis-open.org/ciq/v3.0/xPRL/specs/ciq-xprl-specs.html>
<http://docs.oasis-open.org/ciq/v3.0/xPRL/specs/ciq-xprl-specs.doc>
<http://docs.oasis-open.org/ciq/v3.0/xPRL/specs/ciq-xprl-specs.pdf>

Technical Committee:

OASIS Customer Information Quality TC

Chair:

Ram Kumar (kumar.sydney@gmail.com)

Editor:

Ram Kumar (kumar.sydney@gmail.com)

Related work:

This specification replaces or supercedes:

- OASIS CIQ extensible Customer Relationships Language (xCRL) V2.0 Committee Specification

Declared XML Namespace(s):

urn:oasis:names:tc:ciq:xprl:3

Abstract:

This Technical Specification defines the extensible Party Relationships Language (xPRL) specifications of OASIS Customer Information Quality Specifications Version 3.0.

Status:

This document was last revised or approved by the OASIS CIQ Technical Committee (TC) on the above date. The level of approval is also listed above. Check the current location noted above for possible later revisions of this document. This document is updated periodically on no particular schedule.

Technical Committee members should send comments on this specification to the Technical Committee's email list. Others should send comments to the Technical Committee by using the "Send A Comment" button on the Technical Committee's web page at <http://www.oasis-open.org/committees/ciq/>.

For information on whether any patents have been disclosed that may be essential to implementing this specification, and any offers of patent licensing terms, please refer to the Intellectual Property Rights section of the Technical Committee web page (www.oasis-open.org/committees/ciq/ipr.php).

The non-normative errata page for this specification is located at <http://www.oasis-open.org/committees/ciq/>.

Notices

Copyright © OASIS® 1993–2008. All Rights Reserved. OASIS trademark, IPR and other policies apply.

All capitalized terms in the following text have the meanings assigned to them in the OASIS Intellectual Property Rights Policy (the "OASIS IPR Policy"). The full Policy may be found at the OASIS website.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published, and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this section are included on all such copies and derivative works. However, this document itself may not be modified in any way, including by removing the copyright notice or references to OASIS, except as needed for the purpose of developing any document or deliverable produced by an OASIS Technical Committee (in which case the rules applicable to copyrights, as set forth in the OASIS IPR Policy, must be followed) or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by OASIS or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and OASIS DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY OWNERSHIP RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

OASIS requests that any OASIS Party or any other party that believes it has patent claims that would necessarily be infringed by implementations of this OASIS Committee Specification or OASIS Standard, to notify OASIS TC Administrator and provide an indication of its willingness to grant patent licenses to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification.

OASIS invites any party to contact the OASIS TC Administrator if it is aware of a claim of ownership of any patent claims that would necessarily be infringed by implementations of this specification by a patent holder that is not willing to provide a license to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification. OASIS may include such claims on its website, but disclaims any obligation to do so.

OASIS takes no position regarding the validity or scope of any intellectual property or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; neither does it represent that it has made any effort to identify any such rights. Information on OASIS' procedures with respect to rights in any document or deliverable produced by an OASIS Technical Committee can be found on the OASIS website. Copies of claims of rights made available for publication and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of this OASIS Committee Specification or OASIS Standard, can be obtained from the OASIS TC Administrator. OASIS makes no representation that any information or list of intellectual property rights will at any time be complete, or that any claims in such list are, in fact, Essential Claims.

The names "OASIS", "CIQ", "xNL", "xAL", "xNAL", "xPIL", "xPRL", "xCIL", "xCRL", "Genericcode", and "UBL" are trademarks of OASIS, the owner and developer of this specification, and should be used only to refer to the organization and its official outputs. OASIS welcomes reference to, and implementation and use of, specifications, while reserving the right to enforce its marks against misleading uses. Please see <http://www.oasis-open.org/who/trademark.php> for above guidance.

Table of Contents

1	NORMATIVE REFERENCES	6
2	NAME, ADDRESS, PARTY, AND PARTY RELATIONSHIP	7
2.1	TERMINOLOGY	7
2.2	DEFINITIONS.....	7
3	EXTENSIBLE PARTY RELATIONSHIPS LANGUAGE (XPRL) VERSION 3.0	8
3.1	PRE-REQUISITE	8
3.2	THE NEED FOR A PARTY RELATIONSHIPS STANDARD.....	8
3.3	XPRL v3.0 SCHEMA FILES	9
3.4	NAMESPACES USED	9
3.5	OUT OF SCOPE	9
4	TYPES OF PARTY RELATIONSHIPS SUPPORTED	10
4.1	PERSON(S) TO PERSON(S) RELATIONSHIP(S).....	10
4.2	PERSON(S) TO ORGANISATION(S) RELATIONSHIP(S), AND VICE VERSA	10
4.3	ORGANISATION(S) TO ORGANISATION(S) RELATIONSHIP(S).....	10
4.4	COMPLEX PARTY RELATIONSHIPS	11
5	XPRL DATA MODEL	12
5.1	EXAMPLES	12
5.1.1	Example 1	12
5.1.2	Example 2	12
5.1.3	Example 3	13
5.2	XPRL ENTITY-RELATIONSHIP MODEL.....	13
5.3	XPRL XML SCHEMA MODEL	14
6	ENTITY “PARTY RELATIONSHIPS”	15
6.1	DATA TYPES.....	15
6.2	CODE LISTS (ENUMERATIONS)	15
6.3	ORDER OF ELEMENTS AND PRESENTATION	15
6.4	DATA MAPPING	15
6.5	DATA QUALITY	15
6.6	EXTENSIBILITY	15
6.7	LINKING AND REFERENCING	15
6.8	ID ATTRIBUTE.....	15
6.9	SCHEMA CONFORMANCE	16
6.10	SCHEMA CUSTOMISATION GUIDELINES	16
6.11	XPRL EXAMPLES.....	16
6.11.1	Person To Person Relationship	16
6.11.2	Organisation To Organisation Relationship	16
6.11.3	Organisation To Person Relationship.....	17
6.11.4	Person To Person To Organisation To Organisation Relationships	17
6.11.5	Person To Person To Person Relationships	18
7	DIFFERENCES BETWEEN TWO TYPES OF ENTITY SCHEMAS PROVIDED BY XPRL SPECIFICATIONS	19
7.1	FILES FOR OPTION 1 (THE DEFAULT).....	19
7.2	FILES FOR OPTION 2.....	19
7.2.1	XML Schema File.....	19
7.2.2	Genericcode Based Code List Files.....	19
7.2.2.1	For Party Relationships (xPRL).....	19
7.3	NAMESPACE ASSIGNMENT	19
7.4	DIFFERENCES BETWEEN CIQ ENTITY SCHEMAS USED IN OPTION 1 AND OPTION 2	19

8	DATA EXCHANGE AND INTEROPERABILITY	20
8.1	DATA INTEROPERABILITY SUCCESS FORMULA	20
8.2	INFORMATION EXCHANGE AGREEMENT – GUIDELINES	20
9	CONFORMANCE	22
9.1	CONFORMANCE CLAUSES	22
9.1.1	<i>Specifications Schema Conformance</i>	22
9.1.2	<i>Specifications Schema Extensibility Conformance</i>	22
9.1.3	<i>Specifications Code List Schema Customisation Conformance</i>	22
9.1.4	<i>Interoperability Conformance</i>	22
9.1.4.1	Interoperability Conformance – Using Elements and Attributes	22
9.1.4.2	Interoperability Conformance – Extending the Schema	22
9.1.4.3	Interoperability Conformance – Using Code Lists	22
9.1.4.4	Interoperability Conformance – Customising the Code Lists	22
9.1.4.5	Interoperability Conformance – Customising the Schema	23
9.1.4.6	Interoperability Conformance – Data/Information Exchange Agreement	23
A.	ACKNOWLEDGEMENTS	24
B.	DOCUMENTATION AND EXAMPLES	25
	DOCUMENTATION	25
	EXAMPLES	25
C.	REVISION HISTORY	26

1 Normative References

Following are the documents that users of this specification SHOULD read and understand:

- OASIS Customer Information Quality Specifications V3.0 – Name, Address and Party, Committee Specification 02, March 2008, <http://www.oasis-open.org/committees/ciq>
- OASIS Codelist Representation (Genericode) Version 1.0, Committee Specification 01, December 2007, <http://www.oasis-open.org/committees/codelist>
- Context Value Association, Working Draft 0.4, April 2008, <http://www.oasis-open.org/committees/codelist>
- OASIS Code List Adaptation Case Study (OASIS CIQ), 2007, <http://www.oasis-open.org/committees/codelist>

11 2 Name, Address, Party, and Party Relationship

12 2.1 Terminology

13 The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD
14 NOT", "RECOMMENDED", "MAY", and "OPTIONAL" are to be interpreted as described in [RFC2119].

15 While RFC2119 permits the use of synonyms, to achieve consistency across specifications, "MUST" is
16 used instead of "SHALL" and "REQUIRED", "MUST NOT" instead of "SHALL NOT", and "SHOULD"
17 instead of "RECOMMENDED" in this specification. To enable easy identification of the keywords,
18 uppercase is used for keywords.

19 2.2 Definitions

20 Following are the core entities and its definitions used by CIQ TC:

21 **Name**

22 Name of a person or an organisation

23 **Address**

24 A physical location or a mail delivery point

25 **Party**

26 A Party COULD be of two types namely,

- 27 • Person
- 28 • Organisation

29 An Organisation COULD be a company, association, club, not-for-profit, private firm, public firm,
30 consortium, university, school, etc.

31 Party data consists of many attributes (e.g. Name, Address, email address, telephone, etc) that
32 are unique to a party. However, a person or organisation's name and address are generally the
33 key identifiers (but not necessarily the unique identifiers) of a "Party". A "Customer" is of type
34 "Party".

35 **Party Relationship**

36 Pairwise affiliation or association between two people, between two organisations, or between an
37 organisation and a person.

38 xPRL supports chains of interlocking pairwise party relationships, linked by common members.

3 Extensible Party Relationships Language (xPRL) Version 3.0

3.1 Pre-requisite

It is a pre-requisite that users MUST study the “**OASIS CIQ V3.0 Name, Address and Party Committee Specification 02**” that was released in November 2008 before reading this document. The specification is located in: <http://www.oasis-open.org/committees/ciq>.

This Party Relationships specification uses the same design concepts and other industry specifications used by OASIS CIQ V3.0 CS02 Name, Address, and Party specifications.

When OASIS CIQ Name, Address and Party Version 3.0 Committee Specifications were originally released in November 2007, xPRL version 3.0 was not part of the release. However, the following documents released in November 2007 and subsequently released as Committee Specification 02 in November 2008 are applicable to this specification also and hence, SHOULD be read in conjunction with this specification.

- CIQ Committee Specifications Version 3.0 CS02 - Name, Address and Party
- CIQ Specifications Version 3.0 – General Introduction and Overview
- CIQ Specifications Version 3.0 – Release Notes
- CIQ Specifications Version 3.0 – Technical Overview
- CIQ Specifications Version 3.0 – Frequently Asked Questions
- CIQ Specifications Version 3.0 CS02 – Package Overview

To extract and install the xPRL related schema, documents and examples, read the “CIQ Specifications Version 3.0 - xPRL Package Overview” document located in the downloaded package’s directory “\ciq-xprl-v3\ciqv3.0\supp”.

3.2 The need for a Party Relationships Standard

The rapid adoption of e-business has created a new world of interoperability between organisations, systems, processes, platforms, tools and, most importantly, data. When we start to consider party management initiatives (e.g. CRM/eCRM, Single/360 degree View of a Party, Customer Information Warehouse, Customer Data Management, Party Data Management, Master Data Management), there are many other factors than software license fees and customisation, training, maintenance that raise the cost of deployment. Integration of systems, for example, can be a far more significant and costly challenge. That is because, in most large enterprises, party information is captured and stored in multiple “proprietary” systems. Bringing it all together for analysis in a party information management system usually involves time-consuming integration using the proprietary APIs provided by CRM and other enterprise software vendors. Backend systems integration is where most of the real cost – and risk – of implementing CRM and ERP systems lies. Many of these implementations have significantly under delivered because cost has prohibited them from interfacing with other key systems.

If there is a standard way of defining party information and relationships between parties that is vendor neutral and open (i.e., independent of tools, systems, languages and platforms) and enabled portability and interoperability of data, then it would be possible to reduce the expensive and complex Integration problems associated with new business initiatives.

Extensible Party Relationships Language (xPRL) specification is intended to meet this requirement. xPRL, is a set of XML vocabulary specifications for defining party (person or organisation) characteristics such as name, address, age, party identifier, e-mail address and so on that will assist in uniquely identifying a party. In addition, xPRL describes, in a standard way, relationship(s) between parties. As currently

83 defined, xPRL enables users to describe relationships such as person-to-person, person-to-organisation
 84 or organisation-to-organisation in a standard way. So, if a CRM system and, say, an Enterprise Resource
 85 Planning system both understood xPRL definitions via its interfaces or through a middleware, they could
 86 interoperate without needing expensive, custom integration. This would accelerate the time taken to
 87 deploy such systems and allow them to interact more readily with a wider range of other systems.

88 There are no standards for representing party relationships in industry and xPRL helps fill this gap by
 89 defining the nature of relationship between two or more parties and detailed personal profile of each party
 90 involved in the relationship. For detailed personal profile of each party (e.g. name, address, contact
 91 details, party characteristics), xPRL uses OASIS xPIL v3.0 Specification.

92 3.3 xPRL v3.0 Schema Files

93 Following are the different schemas produced for xPRL version 3.0:

Schema File name	Description	Comments
xPRL.xsd (formerly known as "xCRL.xsd")	Entity Party Relationship	Defines a set of reusable types and elements for relationships between parties
xPRL-types.xsd	Entity Party Relationship Enumerations	Defines a set of enumerations to support Relationship entity
*.gc files	Entity Party Relationship	Defines a set of enumerations/code lists in genericode

94
 95 *xPRL.xsd* reuses the OASIS CIQ V3.0 XML schemas of Name, Address and Party entities.

96 3.4 Namespaces Used

97 Following are the namespaces used in the specification:

Entity	Namespace	Recommended Prefix	Schema Files
Party Relationship	urn:oasis:names:tc:ciq:xprl:3	xprl (or) r	xPRL.xsd xPRL-types.xsd
xLink	http://www.w3.org/1999/xlink	xlink	xlink-2003-12-31.xsd

98 3.5 Out of Scope

99 This specification does not cover the areas that are considered out of scope by CIQ Specifications V3.0
 100 as defined in the following document:

- 101 • Customer Information Quality Specifications version 3.0 CS02, General Introduction and Overview,
 102 September 2008

103 In addition to the above, this specification does not cover the following as these are outside the scope of
 104 the CIQ technical committee:

- 105 • Relationship description about party related “non personal profile entities” such as financial/business
 106 transactions, information, product information, service information, etc
- 107 • Privacy and access policies, access logging, tracking, and control of party data and between parties

108 4 Types of Party Relationships Supported

109 Following are the core types of party relationships and the contextual role each party plays in the
110 relationship that are supported by this specification. A party could be an individual (person or an
111 organisation), or a group of persons or organisations.

112 4.1 Person(s) To Person(s) Relationship(s)

113 Some examples of Person(s) to Person(s) relationship(s) are:

- 114 • Mrs. Mary Johnson and Mr. Patrick Johnson, where Mary is the “*Wife*” of Patrick and Patrick is the
115 “*Husband*” of Mary
- 116 • Mrs. Mary Johnson and Mr. Patrick Johnson “*IN TRUST FOR*” Mr. Nick Johnson, where Mary and
117 Patrick are the “*Trustees*” of Nick and Nick is the “*Beneficiary*”
- 118 • Mrs. Mary Johnson, Care of Mr. Patrick Johnson, where Mary is “*Dependent*” on Patrick
- 119 • Personal/Business contacts
- 120 • Group of people have a relationship with another group of people. E.g. Family to Family relationship
- 121 • Family tree and profiles of each individual person in the tree

122 4.2 Person(s) To Organisation(s) Relationship(s), and vice versa

123 Some examples of Person(s) to Organisation(s) relationship(s) are:

- 124 • Mrs. Mary Johnson and Mr. Patrick Johnson “*DOING BUSINESS AS*” Johnson & Associates, where
125 Mary and Patrick are persons who are jointly doing a business under the name of a trading entity
126 called “Johnson & Associates”
- 127 • Mr. Ram Kumar, Care of Digeridoo Pty. Ltd, where Ram is the person and Digeridoo Pty. Ltd. is the
128 Company
- 129 • Mrs. Mary Johnson and Mr. Patrick Johnson “*IN TRUST FOR*” Mr. James Johnson “*DOING*
130 *BUSINESS AS*” Johnson and Associates
- 131 • Mr. Ram Kumar is the “*Chief Technical Officer*” of XYZ Company, where Ram Kumar has a
132 designation of Chief Technical Officer and is an employee of XYZ Company
- 133 • Ram Kumar’s business (organisation) contacts
- 134 • Ram Kumar of XYZ Company is a consultant/contractor/supplier to ABC Company, where Ram
135 Kumar is an employer of XYZ Company and XYZ Company’s client is ABC Company
- 136 • Ram Kumar is an employee of UVR Company
- 137 • Organisation and its employees (e.g. Organisation structure)

138 4.3 Organisation(s) To Organisation(s) Relationship(s)

139 Some examples of Organisation(s) to Organisation(s) relationship(s) are as follows:

- 140 • Company A is a *subsidiary* of Company B
- 141 • Company A is the *parent* of Company B
- 142 • Company A, Company B and Company C are the subsidiary companies of Company D
- 143 • Richardson and Wrench “*TRADING AS*” Johnson Associates, Inc
- 144 • Richardson and Wrench is a “*LAND LINE CUSTOMER OF*” AT&T and is also a “*SUPPLIER*” to AT&T
- 145 • Company A’s business partners are Company B, Company C, and Company D .

- 146 • Group (not necessarily a legal entity) of companies have a relationship with another group (not
- 147 necessarily a legal entity) of companies in bidding a tender
- 148 • Golf Club of Turramurra suburb is a *member* of the NSW State Golf Club Association

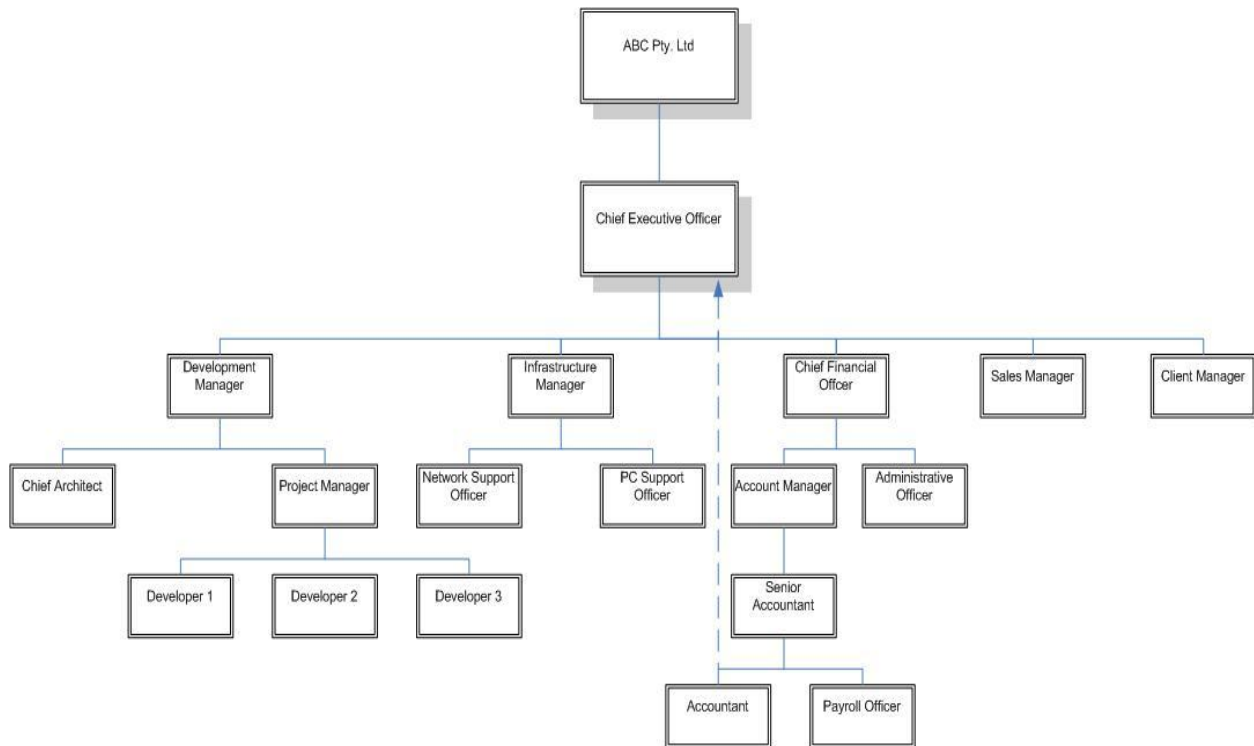
149 4.4 Complex Party Relationships

150 xPRL also provides the capability to define and represent complex relationships that may be hierarchical

151 or deeply nested structure in nature. Examples include:

- 152 • Mrs Mary Jackson AND Mr. James Jackson “*IN TRUST FOR*” Mr. Patrick Jackson “*DOING*
- 153 *BUSINESS AS*” Jackson and Associates Pty. Ltd “*TRADING AS*” Jackson International Pty. Ltd
- 154 • An organisation structure. An example of an organisation structure that can be represented using
- 155 *xPRL* is shown below.

156



157

158

159

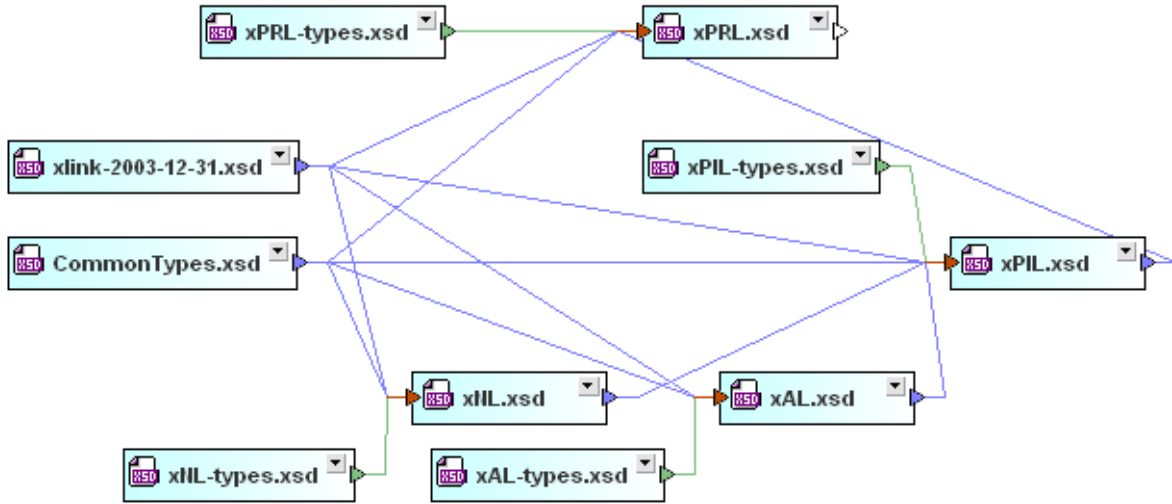
160

5 xPRL Data Model

161

xPRL links two parties through a “Relationship” entity. The two party entities in the relationship reuse Party entity defined in xPIL specification. xPIL specification reuses xNL and xAL specifications. This is shown in the following figure:

162
163



164

165

166

At least two parties are required to define a relationship. We classify the two parties as “Party in context/discussion” and “Other Party”. For example, if Party “A” has a relationship with Party “B”, then Party “A” is “the party in context/discussion” and Party “B” is “the other party”, and vice versa. If Party “B” in turn has a relationship with Party “C”, then Party “B” is “the party in context/discussion” and Party “C” is “the other party”. “The party in context/discussion” does not mean that it has more authority or priority over “the other party”. It is just a way of differentiating between two parties that MAY or MAY NOT play equally important roles in the relationship. Given that “Party A” is the subject of discussion, “Party A” is defined as “the party in context/discussion”. The following section provides some examples that explain this in detail.

167

168

169

170

171

172

173

174

175

5.1 Examples

176

5.1.1 Example 1

177

Mrs. Mary Jackson is the wife of Mr. Patrick Jackson

178

In the above example, if we use Mary Jackson as the “Party” under discussion whose profile and relationships are defined using xPRL, then Mary Jackson is defined as “the party in context/discussion” and Patrick Jackson is defined as “the other party”. Both the parties here play an equally important role in their relationship to each other namely, Mary being the “wife of” Patrick and Patrick being the “husband of” Mary.

179

180

181

182

183

5.1.2 Example 2

184

Mrs. Mary Jackson is the wife of Mr. Patrick Jackson and Mr. John Jackson is the brother of Mr. Patrick Jackson

185

186

In the above example, if Mary Jackson is the “Party” under discussion, then Mary is “the party in context/discussion” and Patrick is “the other party”. If this relationship should also include John, then Patrick is now represented as “the party in context/discussion” and John is represented as “the other

187

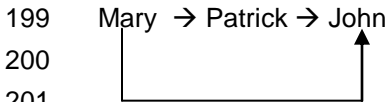
188

189 party” under xPRL. There is no direct relationship between Mary and John represented here as shown
 190 below unless the example explicitly states that “Mary is the sister in law of John”:
 191 Mary Jackson -> Patrick Jackson -> John Jackson

192 **5.1.3 Example 3**

193 Mrs. Mary Jackson is the wife of Mr. Patrick Jackson. Mr. John Jackson is the
 194 brother of Mr. Patrick Jackson and is the brother-in-law of Mrs. Mary Jackson

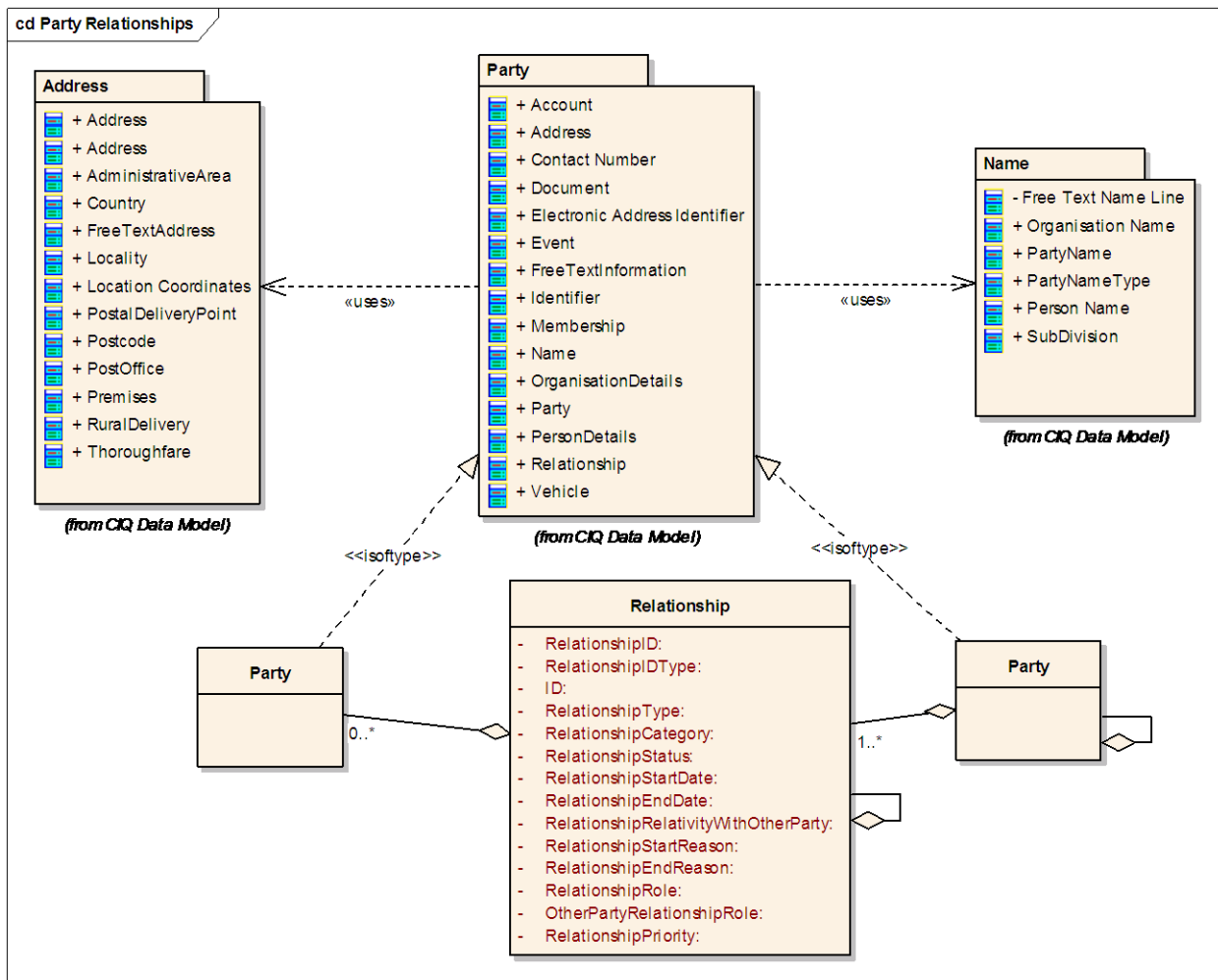
195 In the above example, if Mary Jackson is the “Party” under discussion, then Mary is “the party in
 196 context/discussion” and Patrick is “the other party”. Mary also has a relationship with John. Therefore,
 197 John is also defined as “the other party”. To define the relationship between Patrick and John, Patrick is
 198 defined as “the party in context/discussion” and John is defined as “the other party” as shown below:



200
 201
 202 The data model of xPRL specification is shown in the next section.

203 **5.2 xPRL Entity-Relationship Model**

204 The diagram below shows the Entity Relationship model of xPRL specification.
 205

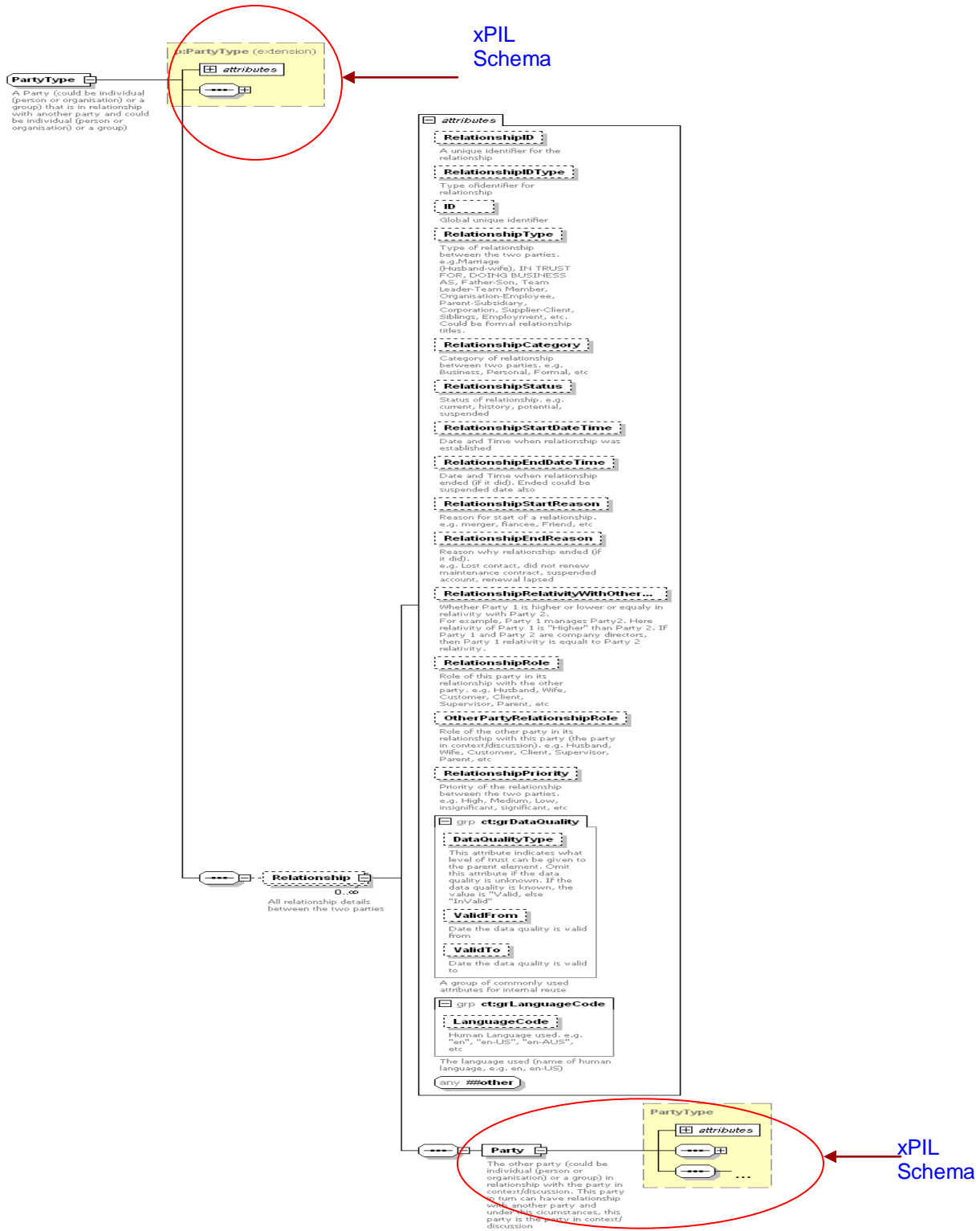


206
 207

208 **5.3 xPRL XML Schema Model**

209 The figure below shows the XML Schema model of xPRL specification.

210



211

212 The entity "Relationship" in the schema has about 11 attributes that defines the relationship attributes
 213 such as type, status, start and end dates.

214 6 Entity “Party Relationships”

215 6.1 Data Types

216 All elements and attributes in *xPRL* schema have strong XML data types.

217 All free-text values of elements (text nodes) and attributes are constrained by XML simple type
218 “*normalizedString*” (collapsed white spaces) defined in *CommonTypes.xsd*. Other XML data types are
219 also used throughout the schema.

220 6.2 Code Lists (Enumerations)

221 Use of code lists/enumerations is identical to use of code lists for entity “*Name*”, “*Address*”, and “*Party*”
222 specifications. This is explained in the OASIS CIQ V3.0 Name, Address and Party specification document
223 (see section 3.4).

224 Code lists/enumerations used in *xPRL* for code list option 1 reside in an “include” *xPRL-types.xsd*. Code
225 lists/enumerations used in *xPRL* for code list option 2 reside as “.gc” genericcode files.

226 **NOTE:** The code list/enumeration values for different enumeration lists that are
227 provided as part of the specification are not complete. They only provides some sample
228 values (and in most cases no values) and it is up to the end users to customise them
229 to meet their data exchange requirements if the default values are incomplete, not
230 appropriate or over kill

231 6.3 Order of Elements and Presentation

232 Order of name elements MUST be preserved for correct presentation. This is explained in the OASIS
233 CIQ V3.0 Name, Address and Party specification document (see section 3.6).

234 6.4 Data Mapping

235 Mapping data between *xPRL* schema and a database is similar to that of entity “*Name*”, “*Address*”, and
236 “*Party*” as described in the OASIS CIQ V3.0 Name, Address and Party specification document (see
237 section 3.7).

238 6.5 Data Quality

239 *xPRL* schema allows for data quality information to be provided as part of the entity using attribute
240 *DataQuality*. This is explained in the OASIS CIQ V3.0 Name, Address and Party specification document
241 (see section 3.8).

242 6.6 Extensibility

243 All elements in *Party* namespaces are extensible as described in the OASIS CIQ V3.0 Name, Address
244 and Party specification document (see section 3.9) are applicable to this specification too.

245 6.7 Linking and Referencing

246 All linking and referencing rules described in the OASIS CIQ V3.0 Name, Address and Party specification
247 document (see section 3.10) are applicable to this specification too.

248 6.8 ID Attribute

249 Use of attribute ID is described in the OASIS CIQ V3.0 Name, Address and Party specification document
250 (see section 3.11) are applicable to this specification too.

251 6.9 Schema Conformance

252 Any XML documents produced MUST conform to the CIQ Specifications Schemas namely, *xPRL.xsd*,
253 *xNL.xsd*, *xAL.xsd*, *xNAL.xsd* and *xPIL.xsd*, i.e. the documents MUST be successfully validated against
254 the Schemas. This assumes that the base schemas MUST be modified.

255 If Option 2 for Code List is used, all genericode files MUST conform to the Genericode XML Schema, i.e.
256 all genericode files MUST successfully validate against the schema.

257 Any customisation of the code list files based on Option 1 MUST be well formed schemas.

258 6.10 Schema Customisation Guidelines

259 Schema customisation rules and concepts as described in the OASIS CIQ V3.0 Name, Address and
260 Party specification document (see section 3.13) are applicable to this specification too.

261 6.11 xPRL Examples

262 6.11.1 Person To Person Relationship

263 *Mrs Mary Jackson and Mr. James Jackson, where Mary Jackson is the "wife of" James Jackson*

```
264 <r:Party>  
265   <p:PartyName>  
266     <n:PersonName>  
267       <n:NameElement>Mrs.Mary Jackson</n:NameElement>  
268     </n:PersonName>  
269   </p:PartyName>  
270   <r:Relationship r:RelationshipType="Marriage"  
271     r:Party1RelationshipRole="Wife"  
272     r:Party2RelationshipRole="Husband">  
273     <r:Party p:PartyType="Person">  
274       <p:PartyName>  
275         <n:PersonName>  
276           <n:NameElement>Mr. James Jackson</n:NameElement>  
277         </n:PersonName>  
278       </p:PartyName>  
279     </r:Party>  
280   </r:Relationship>  
281 </r:Party>
```

282 6.11.2 Organisation To Organisation Relationship

283 *ABC Pty. Ltd is a subsidiary of XYZ Pty. Ltd*

```
284 <r:Party>  
285   <p:PartyName>  
286     <n:OrganisationName>  
287       <n:NameElement>ABC Pty. Ltd</n:NameElement>  
288     </n:OrganisationName>  
289   </p:PartyName>  
290   <r:Relationship r:RelationshipType="Corporation"  
291     r:RelationshipRole="Subsidiary Company"  
292     r:OtherPartyRelationshipRole="Parent Company">  
293     <r:Party>  
294       <p:PartyName>  
295         <n:OrganisationName>  
296           <n:NameElement>XYZ Pty. Ltd</n:NameElement>  
297         </n:OrganisationName>  
298       </p:PartyName>  
299     </r:Party>  
300   </r:Relationship>  
301 </r:Party>
```


302 6.11.3 Organisation To Person Relationship

303 *ABC Pty. Ltd is the employer of Ram Kumar*

```
304 <r:Party>
305   <p:PartyName>
306     <n:OrganisationName>
307       <n:NameElement>ABC Pty. Ltd</n:NameElement>
308     </n:OrganisationName>
309   </p:PartyName>
310   <r:Relationship r:RelationshipType="Employment"
311     r:RelationshipRole="Employer"
312     r:OtherPartyRelationshipRole="Employee">
313     <r:Party>
314       <p:PartyName>
315         <n:PersonName>
316           <n:NameElement>Ram Kumar</n:NameElement>
317         </n:PersonName>
318       </p:PartyName>
319     </r:Party>
320   </r:Relationship>
321 </r:Party>
```

322 6.11.4 Person To Person To Organisation To Organisation Relationships

323 *Mr. James Jackson "IN TRUST FOR" Mr. Patrick Jackson "DOING BUSINESS AS" Jackson and*
324 *Associates Pty. Ltd "TRADING AS" Jacksons International Ltd*

```
325 <r:Party p:PartyType="Person">
326   <p:PartyName>
327     <n:PersonName>
328       <n:NameElement>Mr. James Jackson</n:NameElement>
329     </n:PersonName>
330   </p:PartyName>
331   <!-- Relationship between James Jackson and Patrick Jackson -->
332   <r:Relationship r:RelationshipType="IN TRUST FOR"
333     r:RelationshipRole="TRUSTEE"
334     r:OtherPartyRelationshipRole="BENEFICIARY">
335     <r:Party p:PartyType="Person">
336       <p:PartyName>
337         <n:PersonName>
338           <n:NameElement>Mr. Patrick Jackson</n:NameElement>
339         </n:PersonName>
340       </p:PartyName>
341     <!-- Relationship between Patrick Jackson and Jackson and Associates Pty. Ltd -->
342     <r:Relationship r:RelationshipType="DOING BUSINESS AS"
343       r:RelationshipRole="Director"
344       r:OtherPartyRelationshipRole="Company">
345       <r:Party p:PartyType="Organisation">
346         <p:PartyName>
347           <n:OrganisationName>
348             <n:NameElement n:ElementType="FullName">Jackson and Associates Pty. Ltd
349           </n:NameElement>
350           </n:OrganisationName>
351         </p:PartyName>
352       <!-- Relationship between Jackson and Associates Pty. Ltd and
353         Jacksons International Ltd -->
354       <r:Relationship r:RelationshipType="TRADING AS"
355         r:RelationshipRole="Original Registered Company"
356         r:OtherPartyRelationshipRole="Trading Company">
357         <r:Party p:PartyType="Organisation">
358           <p:PartyName>
359             <n:OrganisationName>
360               <n:NameElement n:ElementType="FullName">Jacksons International Ltd
361             </n:NameElement>
362             </n:OrganisationName>
363           </p:PartyName>
364         </p:Party> <!-- Jacksons International Ltd -->
365       </Relationship>
366     </p:Party> <!-- Jackson and Associates -->
```

```
367     </p:Relationship>
368   </p:Party>      <!-- Mr. Patrick Jackson ->
369   </p:Relationship>
370 </p:Party>      <!-- Mr. James Jackson ->
```

371 6.11.5 Person To Person To Person Relationships

372 *Mr. James Jackson is husband of Mrs. Jessie Jackson, and Mrs. Jessie Jackson is the sister of Mr. Craig*
373 *Smith.*

```
374 <r:Party>
375   <p:PartyName>
376     <n:PersonName n:NameKey="123">
377       <n:NameElement>Mr. James Jackson</n:NameElement>
378     </n:PersonName>
379   </p:PartyName>
380   <r:Relationship r:RelationshipType="Husband-Wife"
381     r:RelationshipRole="Husband"
382     r:OtherPartyRelationshipRole="Wife">
383     <r:Party>
384       <p:PartyName>
385         <n:PersonName n:NameKey="456">
386           <n:NameElement>Mrs. Jessie Jackson</n:NameElement>
387         </n:PersonName>
388       </p:PartyName>
389     <r:Relationship r:RelationshipType="Siblings"
390       r:RelationshipRole="Sister"
391       r:OtherPartyRelationshipRole="Brother">
392       <r:Party>
393         <p:PartyName>
394           <n:PersonName n:NameKey="789">
395             <n:NameElement>Mr. Craig Smith</n:NameElement>
396           </n:PersonName>
397         </p:PartyName>
398       <r:Relationship r:RelationshipType="Brother-in-Law"
399         r:RelationshipRole="Brother-in-Law"
400         r:OtherPartyRelationshipRole="Brother-in-Law">
401         <p:Party>
402           <p:PartyName>
403             <n:PersonName n:NameKeyRef="123"/> <!-- Reference Key ->
404           </p:PartyName>
405         </p:Party>
406       </r:Relationship>
407     </r:Party>
408   </r:Relationship>
409 </r:Party>
410 </r:Relationship>
411 </r:Party>
```

412

413

414 7 Differences between two types of Entity Schemas 415 provided by xPRL Specifications

416 Two types of entity schemas are defined in CIQ V3.0 Specifications and are described in detail in the
417 OASIS CIQ V3.0 Name, Address and Party specification document (see section 3.13). This feature is
418 applicable to this specification also. The two types are:

419 **Option1 (Default):** All code lists for relationship entity represented using XML schema (in one file) and
420 “included” in the appropriate entity schema (*xPRL-types.xsd*).

421 **Option 2:** Code Lists represented using Genericcode structure of OASIS Codelist TC. Each enumeration
422 list in option 1 is a separate “.gc” file in this option.

423 7.1 Files for Option 1 (The Default)

424 Following are the additional XML schema files (in addition to the files defined in OASIS CIQ V3.0 Name,
425 Address and Party specification) provided as default in CIQ Specifications package for Option 1:

- 426 • *xPRL.xsd*
- 427 • *xPRL-types.xsd* (6 Default Code Lists defined for xPRL)

428 7.2 Files for Option 2

429 Following is the additional XML schema files (in addition to the files defined in OASIS CIQ V3.0 Name,
430 Address and Party specification) provided as default in CIQ Specifications package for Option 2:

431 7.2.1 XML Schema File

- 432 • *xPRL.xsd*

433 No **-types.xsd* files exist in Option 2 as all the code lists are defined as genericcode files.

434 7.2.2 Genericcode Based Code List Files

435 In addition to the files as defined in section 7.2.2 of the OASIS CIQ V3.0 Name, Address and Party
436 specification, following Genericcode files are also included.

437 7.2.2.1 For Party Relationships (xPRL)

438 6 default genericcode based code list files with .gc extension. Each enumeration list in Option 1 is defined
439 as a separate file in Option 2.

440 7.3 Namespace Assignment

441 Use of namespace for options 1 and 2 is described in the OASIS CIQ V3.0 Name, Address and Party
442 specification document (see section 7.3) are applicable to this specification too.

443 7.4 Differences between CIQ Entity Schemas used in Option 1 and 444 Option 2

445 Differences between CIQ Entity Schemas used in Option 1 and Option 2 described in the OASIS CIQ
446 V3.0 Name, Address and Party specification document (see section 7.4) are applicable to this
447 specification too.

448

449 8 Data Exchange and Interoperability

450 ASIS CIQ TC defines data/information interoperability as follows:

451 **“Get the *right data* to the *right place* at the *right time* in the *right format* with the *right quality* with**
452 **the *right security* in the *right context* and with the *right governance* to applications, processes, or**
453 **users”**

454 It is the view of the CIQ committee that to enable interoperability of data/information between parties, the
455 best solution is to parse the data elements into its atomic elements thereby preserving the semantics and
456 quality of data. By this way the parties involved in data exchange will be in the best position to understand
457 the semantics and quality of data thereby minimising interoperability issues. How the data will be
458 exchanged between parties, whether in parsed or unparsed structure, must be negotiated between the
459 parties to enable interoperability.

460 One cannot expect interoperability to occur automatically without some sort of negotiation between
461 parties (e.g. Information Exchange Agreement, whether internal or external to an organisation) involved in
462 data exchange. Once information exchange agreements between parties are in place, then the
463 data/information exchange process can be automated. Moreover, the entire information exchange and
464 interoperability process SHOULD be managed through an effective governance process which SHOULD
465 involve all the parties involved in the information exchange process. This enables effective and efficient
466 management of any change to the information exchange process in the future.

467 8.1 Data Interoperability Success Formula

468 We at OASIS CIQ TC strongly believe in the following “Data Interoperability Success Formula”:

469 **Data Interoperability = Open Data Architecture + Open Data Integration + Data Quality +**
470 **Open Data Standards + Data Semantics + Data Security + Data Governance**

471 All components on the right hand side of the above formula are important for successful data
472 interoperability. The term “Open” used here indicates artifacts that are independent of any proprietary
473 solution (e.g. open industry artifacts or artifacts that are open within an enterprise).

474 8.2 Information Exchange Agreement – Guidelines

475 To ensure interoperability of CIQ represented data/information between applications/business systems
476 (whether internal to the organisation or external to the organisation) it is strongly advised that an
477 information exchange agreement/specification for CIQ SHOULD be in place. This agreement/specification
478 SHOULD outline in detail the customisation of CIQ specifications.

479 Following are the features of CIQ specifications that assist in customisation of the specifications to meet
480 specific application or data exchange requirements, and the details of customisation SHOULD be
481 documented and agreed (if involving more than one party in data exchange) at application/system design
482 time to enable automating interoperability of information/data represented using CIQ specifications at
483 application/system run time:

- 484 • List of all elements of CIQ XML Schemas that SHOULD be used in the exchange. This includes
485 details of which elements are mandatory and which elements are OPTIONAL
- 486 • List of all attributes of CIQ XML Schemas that SHOULD be used in the exchange. This includes
487 details of which attributes are mandatory and which attributes are OPTIONAL
- 488 • The approach that will be used for Code Lists (Option 1 or Option 2)
- 489 • The code list values that SHOULD be used for each CIQ code lists. This includes updating the default
490 XML Schemas for code lists (Option 1) with the values to be used and updating the default
491 genericcode based code lists (Option 2) with the values to be used. These code list files SHOULD then
492 be implemented by all applications/systems involved in data exchange. If genericcode based code list

493 approach (Option 2) is used, then the XSLTs for value validation SHOULD be generated and
494 implemented by all applications/systems involved in data exchange.

- 495 • Whether xLink or Key Reference SHOULD be used to reference party, name or address, and the
496 details
- 497 • Whether XML schema SHOULD be extended by using new attributes from a non-target namespace
498 and if so, details of the additional attributes
- 499 • Whether business rules SHOULD be defined to constrain the CIQ XML schemas and if so, details of
500 the business rules that SHOULD be implemented consistently by all applications/systems involved in
501 data exchange

502 Once the agreement is implemented, it is vital that the agreement SHOULD be governed through a
503 governance process to manage change effectively and efficiently. All parties involved in the data
504 exchange process SHOULD be key stakeholders of the governance process.

505

506

507 9 Conformance

508 The keywords “MUST”, “MUST NOT”, “SHOULD”, “SHOULD NOT”, “MAY” and “OPTIONAL” interpreted
509 as described in [RFC2119] are used as the conformance clauses throughout this document.

510 9.1 Conformance Clauses

511 9.1.1 Specifications Schema Conformance

512 Implementation of xPRL Specification MUST conform to the specifications if the implementation conforms
513 to as stated in section 6.9.

514 9.1.2 Specifications Schema Extensibility Conformance

515 Implementation of xPRL Specification by extending them MUST conform as stated in section 6.6.

516 9.1.3 Specifications Code List Schema Customisation Conformance

517 Customisation of the Code List XML Schema for xPRL using Option 1 MUST be well formed. Changes to
518 the default values provided as part of the specifications is OPTIONAL and MAY be modified by the user.

519 9.1.4 Interoperability Conformance

520 Implementation of xPRL Specification between two or more applications/systems or parties helps achieve
521 interoperability if the implementation conforms to using the agreed conformance clauses as defined in
522 sections 9.1.4.1, 9.1.4.2, 9.1.4.3, 9.1.4.4, 9.1.4.5 and 9.1.4.6.

523 9.1.4.1 Interoperability Conformance – Using Elements and Attributes

524 Implementation of elements and attributes of xPRL Schema enables interoperability if the following
525 conditions are agreed by two or more parties involved in data exchange and are met:

- 526 1. The OPTIONAL elements in the XML Schema that SHOULD be used for implementation and the
527 OPTIONAL elements in the XML Schema that SHOULD be ignored. See section 8.2.
- 528 2. The OPTIONAL attributes in the XML Schema that SHOULD be used for implementation and the
529 OPTIONAL attributes in the XML Schema that SHOULD be ignored. See section 8.2 .

530 9.1.4.2 Interoperability Conformance – Extending the Schema

531 Implementation of the xPRL schema by extending it SHOULD be agreed and managed between two or
532 more parties involved in the data exchange and MUST be conformed to in order to achieve
533 interoperability as stated in section 6.6.

534 9.1.4.3 Interoperability Conformance – Using Code Lists

535 Implementation of a Code List approach SHOULD be agreed and conformance to the selected approach
536 between two or more parties involved in the data exchange MUST be achieved in order to ensure
537 interoperability and this is stated in section 6.2.

538 9.1.4.4 Interoperability Conformance – Customising the Code Lists

539 Implementation of the Code List values SHOULD be agreed between two or more parties involved in the
540 data exchange and MUST be conformed to as agreed in order to ensure interoperability as stated in
541 section 6.2.

542 **9.1.4.5 Interoperability Conformance – Customising the Schema**

543 Customisation of the schema SHOULD be achieved by the following ways:

544 1. Using Code List values

545 2. Defining new business rules to constraint the schema

546 Implementation of the above approaches SHOULD be agreed between two or more parties involved in
547 the data exchange and MUST be conformed to in order to achieve interoperability as stated in section
548 6.10.

549 **9.1.4.6 Interoperability Conformance – Data/Information Exchange Agreement**

550 Implementation and conformance of the implementation to the agreed Data/Information Exchange
551 Agreement between two or more parties involved in the data exchange MUST be achieved to ensure
552 interoperability as stated in section 8.2.

553

554

555

556 **A. Acknowledgements**

557 The following individuals have participated in the creation of version 3.0 of xPRL CIQ specifications and
558 are gratefully acknowledged:

559 **Participants:**

560

Colin Wallis	New Zealand Government	Voting Member, CIQ TC
David Webber	Individual	Voting Member, CIQ TC
Fulton Wilcox	Colts Neck Solutions LLC	Voting Member, CIQ TC
Graham Lobsey	Individual	Voting Member, CIQ TC
Joe Lubenow	Individual	Voting Member, CIQ TC
John Glaubitz	Vertex, Inc	Voting Member, CIQ TC
Michael Roytman	Vertex, Inc	Voting Member, CIQ TC
Ram Kumar	Individual	Chair and Voting Member, CIQ TC

561

562 OASIS CIQ Technical Committee (TC) sincerely thanks the public (this includes other standard groups,
563 organisations and end users) for their continuous feedback and support that helps the TC to work toward
564 improving the CIQ specifications.

565 OASIS CIQ TC also acknowledges the contributions from other former members of the TC since its
566 inception in 2000.

567 **B. Documentation and Examples**

568 **Documentation**

569 Although, all schema files are fully documented using XML Schema annotations it is not always
570 convenient to browse the schema itself. This specification is accompanied by a set of HTML files auto
571 generated by XML Spy. Note that not all information captured in the schema annotation tags is in the
572 HTML documentation.

573 **Examples**

574 Several examples of instance XML documents for *xPRL* schema are provided as XML files. The
575 examples are informative and demonstrate the application of this Technical Specification.

576 The example files and their content are being constantly improved and updated on no particular schedule.

C. Revision History

Revision	Date	Editor	Changes Made
V3.0 WD 01	02 December 2007	Ram Kumar	First Version of Committee Working Draft WD 01
V3.0 WD 02	15 February 2008	Ram Kumar	Revised Version of Committee Working Draft WD 01 incorporating TC comments
V3.0 WD 03	25 February 2008	Ram Kumar	Version for approval as Committee Draft 01 and includes TC review comments on WD 02
V3.0 CD 01	03 March 2008	Ram Kumar	TC Approved Committee Draft
V3.0 PRD 01	03 October 2008	Ram Kumar	Document for 60 days public review