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9 **Information Technology – Business Agreement Semantic Descriptive**
10 **Techniques - Part 2: Registration of Scenarios and their Components as**
11 **Business Objects**

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Warning

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142 Foreword

143 ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies
 144 (ISO member bodies). The work of preparing International Standards is normally carried out through ISO
 145 technical committees. Each member body interested in a subject for which a technical committee has been
 146 established has the right to be represented on that committee. International organizations, governmental and
 147 non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the
 148 International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

149 International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

150 The main task of technical committees is to prepare International Standards. Draft International Standards
 151 adopted by the technical committees are circulated to the member bodies for voting. Publication as an
 152 International Standard requires approval by at least 75 % of the member bodies casting a vote.

153 Attention is drawn to the possibility that some of the elements of this document may be the subject of patent
 154 rights. ISO shall not be held responsible for identifying any or all such patent rights.

155 International Standard ISO/IEC 15944-2 was prepared by Joint Technical Committee ISO/IEC JTC 1,
 156 *Information Technology*, Subcommittee SC 32, *Data Management and Interchange*.

157 ISO/IEC 15944 consists of the following parts, under the general title *Information Technology — Business*
 158 *Agreement Semantic Descriptive Techniques*:

159 — *Part 1: Operational aspects of Open-edi for implementation*

160 — *Part 2: Registration of scenarios and their components as business objects*

161 — *Part 3: Open-edi description techniques*

162 — *Part 4: Business transaction scenarios – Accounting and economic ontology*

163 — *Part 5: Identification and mapping of various categories of jurisdictional domains as sources of*
 164 *external constraints*

165 This standard contains several annexes with Annexes A and B being normative and Annexes C, D, E and F
 166 being for information purposes only.

167 Introduction

168 0.1 Purpose and overview

169 This International Standard specifies procedures for the registration of Open-edi scenarios and scenario
 170 components as “business objects.” ISO/IEC JTC 1 defines registration as the assignment of an unambiguous
 171 name to an object in a way that makes the assignment available to interested parties. Scenarios and scenario
 172 components that may be registered are members of object classes specified in technical standards such as
 173 those developed by ISO/IEC JTC 1/SC 32.

174 NOTE In this International Standard, the definition of registration has been changed so that registration is the
 175 assignment of linguistically independent identifiers, rather than names, to scenarios and scenario components.

176 Registration of scenarios and scenario components offers several benefits to the e-Business community.
 177 Registration

- 178 a) supports wider use of registered items both by providing international recognition to the fact that such
179 items conform to an ISO standard and by making them publicly available to potential users.
- 180 b) provides both immediate recognition to extensions of an International Standard and a source for updates
181 to that International Standard during the regular maintenance cycle.
- 182 c) may provide a single mechanism to access information concerning items that are specified in different
183 standards.
- 184 d) provides a mechanism for managing temporal change. Items specified in a standard or in a register may
185 change over time either due to changes in technology or for other reasons. Published standards do not
186 clearly document what changes may have occurred, and do not include information about earlier versions
187 of specified items. Such information can be maintained in a register.
- 188 e) may be used to make sets of standardized tags available for encoding of registered items in data sets.
- 189 f) supports cultural and linguistic adaptability by providing both a means for recording equivalent names of
190 items used in different languages, cultures, application areas, and professions and a means for making
191 those equivalent names publicly available.

192 ISO/IEC 14662 Open-edi Reference Model¹⁾ section 4.1.2 states:

193 "Different user groups will generate Open-edi scenarios in accordance with the specification given in the BOV
194 related standards. Open-edi shall be specified in conformity to the BOV related standards. Business
195 communities can propose Open-edi scenarios as candidates for standardization and registration into (an)
196 Open-edi scenario repository (ies). Procedures to be used for introducing new Open-edi scenarios in one or
197 more repositories are specified in a BOV related standard."

198 The objective of this standard is the identification, registration, referencing and re-useability of common
199 objects in a business transaction. As stated in ISO/IEC 15944-1, re-useability of scenarios and scenario
200 components is an achievable objective because existing (global) business transactions, whether conducted on
201 a for-profit or not for profit basis, already consist of reusable components unambiguously understood among
202 participating parties. However, such existing "standard" components have not yet been formally specified and
203 registered. The purpose of this standard is to fill this gap.

204 An open-edi scenario is expected to be generated among user groups in accordance with the specification
205 given in the ISO/IEC 15944-1, and to be submitted as a candidate for a new Open-edi scenario for reuse in
206 the open world. User groups or parties will have a need to reuse an Open-edi scenario as a whole or some
207 component, or to refer just for preliminary negotiation and further reuse purposes.

208 Open-edi scenario types will have specific or generic characteristics with different granularity, so that the
209 registration scheme should meet those requirements.

210 Open-edi scenarios include the following components to be described using an Open-edi Description
211 Technique (OeDT)

- 212 - Scenario attribute
- 213 - Role
- 214 - Information Bundle (IB)
- 215 - Semantic Component (SC)

216 This International Standard specifies procedures to be followed in preparing and maintaining registers of
217 scenarios and scenario components. Although any organization may choose to establish registers of such

1) ISO/IEC 14662 Information technology - Open-edi Reference Model/Technologies de l'information - Modèle de référence EDI-ouvert. The English and French versions of this ISO/IEC standard are publicly available. {See <<http://www.jtc1.org>>}

218 items that conform to this International Standard, this International Standard is intended particularly to apply to
219 registers established under the auspices of ISO/IEC/ JTC 1/SC 32.

220 A registration authority is an organization authorised by ISO to maintain a register. ISO discourages the
221 proliferation of registers, but the maintenance of a single large register places a heavy burden on the
222 registration authority. A goal of this International Standard is to achieve a balance between minimising the
223 number of registers for scenarios and scenario components and minimising the burden on the registration
224 authorities.

225 **0.2 Use of "Person", "person", and "party" in the context of business transactions and** 226 **commitment exchange**

227 When the ISO/IEC 14662 Open-edi Reference Model standard was first developed, the "Internet" and "WWW"
228 were in their embryonic stage and their impact on private and public sector organizations was not fully
229 understood. Consequently, in the First Edition of ISO/IEC 14662 (1997), the Business Operational View
230 (BOV) was initially defined as

231 - "a perspective of business transactions limited to those aspects regarding the making of business
232 decisions and **commitments** among organizations which are needed for the description of a business
233 transaction".

234 The 1984 ISO/IEC 6523 standard definition of "organization" was used in the first edition of ISO/IEC 14662.
235 ISO/IEC 6523 was changed in 1998 when it became a two-part standard. The fact that today Open-edi
236 through the Internet and WWW also involves "individuals" has been taken into account in the revision of this
237 standard. Further, ISO/IEC 14662 did not define "commitment", nor the discrete properties and behaviors an
238 entity must have to be capable of making a "commitment" as well as bridging legal and IT perspectives in the
239 dematerialized world of the Internet.

240 During the development of ISO/IEC 15994-1 the term "commitment" was defined. At the same time it was
241 recognized that in order to be able to make a commitment, the term Open-edi Party was not specific enough
242 to satisfy scenario specifications when the legal aspects of commitment were considered. In many instances
243 commitments were noted as being actually made between and among machines (automata or computer
244 programs) acting under the direction of those legally capable of making commitment, rather than the
245 individuals in their own capacities. It was also recognized that in some jurisdictions 'artificial' persons such as
246 corporate bodies could make commitment.

247 To address these extended requirements an additional term: Person, was created. The construct of Person
248 has been defined in such a way that it is capable of having the potential legal and regulatory constraints
249 applied to it.

250 The reader should understand that

251 - the use of the Person with a capital "P" represents Person as a defined term, i.e., as the entity within
252 an Open-edi Party that carries the legal responsibility for making commitment(s);

253 - "individual", "organization" and "public administration" represent the three common subtypes of
254 "Person". Definitions for these terms and their use are found in ISO/IEC 15944-1.

255 - the words "person(s)" and/or "party(ies)" are used in their generic contexts in this standard. A "party to
256 a business transaction" has the properties and behaviours of a "Person". {See further ISO/IEC
257 15944-1, Clause 6, and in particular 6.1.3 and 6.2}.

258 **0.3 Importance and role of terms and definitions**

259 The ISO/IEC Directives Part 2 provide for "Terms and definitions" as a "Technical normative element,"
260 necessary for the understanding of certain terms used in the document. A primary reason for having "Terms
261 and definitions" in a standard is because one cannot assume that there exists a common understanding,
262 worldwide, for a specific concept. And even if one assumes that such an understanding exists, then having
263 such a common definition in Clause 3 serves to formally and explicitly affirm (re-affirm) such a common

264 understanding, i.e. ensure that all parties concerned share this common understanding as stated through the
265 text of the definitions in Clause 3.

266 A primary objective of this multipart standard on business semantic descriptive techniques is to ensure that
267 there is a common understanding of the Business Operational View (BOV) from commercial, legal, ICT, public
268 policy and cross-sectorial perspectives. It is therefore important to ascertain and confirm that which may be
269 considered a “common understanding” in one of these domains is also so unambiguously understood and
270 accepted in the others.

271 This subclause is included in each Part of this multipart standard to emphasize that harmonized terms and
272 definitions are essential to the continuity of the overall standard. Definitions and associated terms should be
273 established as early as possible in the standards development process. Comments on any definition should
274 address the question of changes needed to avoid possible misinterpretation. Definitions may need to be
275 amended/improved as part of the harmonization of terms/definitions among the various Parts.

276 In order to minimize ambiguity in the terms and definitions introduced in Clause 3 of each Part of this multipart
277 standard, Canada has committed to develop French language equivalents for the same. Some
278 terms/definitions may need to be amended/improved as part of developing the French language translation.

279 Normative Annex A Consolidated list of terms and definitions with cultural adaptability: ISO English and ISO
280 French language equivalency is derived from Clause 3 of each Part of ISO/IEC 15944. Canada has committed
281 to maintain this comprehensive list in a database as the reference file for Annex A. This Annex A reference file
282 will insure the consistency of terms/definitions among the various Parts in the on-going harmonization effort.
283 Annex A is repeated in each Part as a convenient reference.

284 **0.4 Organization and description of the document**

285 This Part of ISO/IEC 15944 describes the procedure by which Open-edi Scenarios and scenario components
286 can be registered, starting with requirements in Clause 5 for reusability and the ability to support cultural
287 adaptability, as well as requirements of a jurisdictional nature as are applicable to the nature and goal of the
288 business transaction. Registration principles are then stated in Clause 6, including:

- 289 - the federation of registration authorities,
- 290 - internationally unique identification of Open-edi registry entries,
- 291 - responsibilities of registration authorities,
- 292 - registry operation,
- 293 - registration status,
- 294 - state of a register,
- 295 - information required for registering scenarios and scenario components,
- 296 - formal specification of scenarios and scenario components using an Open-edi Descriptive Technique

297 The composite Open-edi registry item identifier is described in Clause 7. Clause 8 describes roles and
298 responsibilities in the management of Open-edi registers. Clause 9 describes the registration authority and
299 operations in the management of an Open-edi register. Clause 10 is an overview of the ISO/FDIS 19135
300 register and its adaptation to the Open-edi register schema.

301 Normative Annex A is a consolidated list of terms and definitions as described in 0.3. Information required for
302 registration of Open-edi registry entries includes attributes for administration, scenario scoping and
303 specification, and scenario classification. All Open-edi registration administration attributes are listed in
304 normative Annex B. Informative Annex C provides a convenient reference to Open-edi scoping and
305 specification attributes. Informative Annex D provides a description of scenario classification concepts.
306 Informative Annex E provides a brief description of UML notation. Informative Annex F provides information
307 on two classes of constraints, i.e., internal and external, as part of the business transaction model.

308 **Information Technology - Information Technology — Business**
309 **Agreement Semantic Descriptive Techniques - Part 2:**
310 **Registration of Scenarios and their Components as Business**
311 **Objects**

312 **1 Scope**

313 This International Standard specifies procedures to be followed in establishing, maintaining, and publishing
314 registers of unique, unambiguous and permanent identifiers and meanings that are assigned to Open-edi
315 scenarios and scenario components. In order to accomplish this purpose, the standard specifies elements of
316 information that are necessary to provide identification and meaning to the registered items and to manage
317 the registration of these items.

318 This international standard defines the procedures to be applied by qualified JTC1 Registration Authority(ies)
319 appointed by the ISO and IEC council to maintain a register(s) of Open-edi scenarios and/or scenario
320 components for the purpose of their reusability.

321 **2 Normative references**

322 The following referenced documents are indispensable for the application of this document. For dated
323 references, only the edition cited applies. For undated references, the latest edition of the referenced
324 document (including any amendments) applies.

325 ISO/IEC Directives, part 1, *Procedures for the technical work*

326 ISO/IEC JTC 1 *Procedures for the technical work of ISO/IEC JTC 1 on Information Technology*

327 ISO/IEC Directives, 5th Edition, Section 2.7.2, Clause 18, Annex E, *pertaining to registration authorities*

328 ISO 639-2:1998, *Codes for the representation of names of languages — Part 2: Alpha-3 code*

329 ISO 1087-1:2000, *Terminology work -- Vocabulary -- Part 1: Theory and application*

330 ISO 3166-1:1997, *Codes for the representation of names of countries and their subdivisions — Part 1:*
331 *Country codes*

332 ISO/IEC 6523-1:1998 (E) *Information Technology - Structure for the identification of organizations and*
333 *organization parts - Part 1: Identification of organization identification schemes*

334 ISO/IEC 7812-2:2000 *Identification cards- Identification of issuers – Part 2: Application and registration*
335 *procedures and basic attributes*

336 ISO/IEC 11179-3:2003 *Information technology – Metadata registries (MDR) – Part 3: Registry metamodel and*
 337 *basic attributes*²

338 ISO/IEC 11179-6:2005 *Information technology – Metadata registries (MDR) – Part 6: Registration*

339 ISO/IEC 14662: 2004 *Information Technology - Open-edi reference model*

340 ISO/IEC 15944-1: 2002 *Information technology- Business agreement semantic descriptive techniques Part 1:*
 341 *Business operational aspects of Open-edi for implementation*

342 ISO/FDIS 19135, *Geographic information – Procedures for registration of items of geographic information*

343 **3 Terms and definitions**

344 For the purposes of this document, the following terms and definitions apply.

345 **3.1**

346 **address**

347 set of **data elements** that specifies a **location** to which a **recorded information** item(s), a **business**
 348 **object(s)**, a material object(s) and/or a person(s) can be sent or from which it can be received

349 NOTE 1 An address can be specified as either a physical address and/or electronic address.

350 NOTE 2 In the identification, referencing and retrieving of registered business objects, it is necessary to state whether the
 351 pertinent recorded information is available in both physical and virtual forms.

352 NOTE 3: In the context of Open-edi, a “recorded information item” is modelled and registered as an Open-edi scenario
 353 (OeS), Information Bundle (IB) or Semantic Component (SC)

354 **3.2**

355 **administrative note**

356 general note about the **OeRI**

357 **3.3**

358 **applicant (for an OeRI)**

359 **Person** which requests the assignment of an **OeRI** and an associated **entry label**

360 NOTE An applicant can be an individual, organization, or public administration

361 **3.4**

362 **attribute**

363 characteristic of an object or entity

364 [ISO/IEC 11179-3:2003, (3.1.3)]

365 **3.5**

366 **business**

367 series of **processes**, each having a clearly understood purpose, involving more than one party, realised
 368 through the exchange of **recorded information** and directed towards some mutually agreed upon goal,
 369 extending over a period of time

370 [ISO/IEC 14662:2004, (3.1.2)]

² Subsequent to the issuance of ISO/IEC 11179-3:2003, Technical Corrigenda 1 was issued. As a result some of the definitions changed. This standard utilizes the terms & definitions of Technical Corrigenda 1 of ISO/IEC 11179-3 where applicable and relevant.

371 **3.6**
 372 **business object**
 373 **unambiguously** identified, specified, referenceable, registered and re-useable **Open-edi scenario** or
 374 **scenario component** of a **business transaction**

375 NOTE As an “object”, a “business object” exists only in the context of a business transaction.

376 **3.7**
 377 **business object identifier**
 378 unique **identifier** of a **business object** in an **OeRI** within an **Open-edi Registration Organization (OeRO)**

379 **3.8**
 380 **business object status**
 381 **designation** of the status in the administrative process of an **Open-edi Registration Organization** for
 382 handling **OeRIs**

383 **3.9**
 384 **business object type**
 385 **coded domain** for the type of **business object** being registered, i.e., **Open-edi scenario, IB** or **SC**

386 **3.10**
 387 **Business Operational View (BOV)**
 388 perspective of **business transactions** limited to those aspects regarding the making of **business** decisions
 389 and **commitments** among **Persons**, which are needed for the description of a **business transaction**

390 [ISO/IEC 14662:2004, (3.1.3)]

391 **3.11**
 392 **business transaction**
 393 predefined set of activities and/or **processes** of parties which is initiated by a party to accomplish an explicitly
 394 shared **business** goal and terminated upon recognition of one of the agreed conclusions by all the involved
 395 parties although some of the recognition may be implicit

396 [ISO/IEC 14662:2004, (3.1.4)]

397 **3.12**
 398 **change description**
 399 description of why and how the **OeRI** has been modified since the prior version of the **OeRI**

400 NOTE It is advised that such a change description be accompanied by the “original “ template values utilized and a
 401 “change template” indicating which “Decision Code(s)” has been changed as well as the date the change will take effect.

402 **3.13**
 403 **clarification**
 404 non-substantive change to an **OeRI**

405 NOTE 1 A non-substantive change does not change the semantics or technical meaning of the **OeRI**.

406 NOTE 2 Clarification does not result in a change to the registration status of the **OeRI**.

407 [ISO/FDIS 19135, (4.1.1 adapted)]

408 **3.14**
 409 **coded domain**
 410 domain for which (1) the boundaries are defined and explicitly stated as a **rulebase** of a **coded domain**
 411 **Source Authority**; and, (2) each entity which qualifies as a member of that domain is identified through the
 412 assignment of a unique **ID code** in accordance with the applicable **Registration Schema** of that **Source**
 413 **Authority**

414 NOTE 1 The rules governing the assignment of an ID code to members of a coded domain reside with its Source Authority
415 and form part of the Coded Domain Registration Schema of the Source Authority.

416 NOTE 2 Source Authorities which are jurisdictional domains are the primary source of coded domains.

417 NOTE 3 A coded domain is a data set for which the contents of the data element values are predetermined and defined
418 according to the rulebase of its Source Authority and as such have predefined semantics.

419 NOTE 4 Associated with a code in a coded domain can be:

420 - one or more equivalent codes;

421 - one or more equivalent representations especially those in the form of Human Interface Equivalent (HIE) (linguistic)
422 expressions.

423 NOTE 5 In a coded domain the rules for assignment and structuring of the ID codes must be specified.

424 NOTE 6 Where an entity as member of a coded domain is allowed to have, i.e., assigned, more than one ID code, i.e., as
425 equivalent ID codes (possibly including names), one of these must be specified as the pivot ID code.

426 NOTE 7 A coded domain in turn can consist of two or more coded domains, i.e., through the application of the inheritance
427 principle of object classes.

428 NOTE 8 A coded domain may contain ID codes which pertain to predefined conditions other than qualification of membership
429 of entities in the coded domain. Further, the rules governing a coded domain may or may not provide for user extensions.

430 EXAMPLE Common examples include: (1) the use of ID Code "0" (or "00", etc.) for "Others; (2) the use of ID Code "9" (or
431 "99", etc.) for "Not Applicable"; (3) the use of "8" (or "98") for "Not Known"; if required, (4) the pre-reservation of a series of
432 ID codes for use of "user extensions".

433 NOTE 9 In object methodology, entities which are members of a coded domain are referred to as instances of a class.

434 EXAMPLE 10 In UML modelling notation, an ID code is viewed as an instance of an object class.

435 3.15

436 coded domain Source Authority (cdSA)

437 **Person**, usually an **organization**, as a **Source Authority** which sets the **rules** governing a **coded domain**

438 NOTE 1 Source Authority is a role of a Person and for widely used coded domains the coded domain Source Authority is
439 often a jurisdictional domain.

440 NOTE 2 Specific sectors, (e.g., banking, transport, geomatics, agriculture, etc.), may have particular coded domain
441 Source Authority(ies) whose coded domains are used in many other sectors.

442 NOTE 3 A coded domain Source Authority usually also functions as a Registration Authority but can use an agent, i.e.,
443 another Person, to execute the registration function on its behalf.

444 3.16

445 commitment

446 making or accepting of a right, obligation, liability or responsibility by a **Person** that is capable of enforcement
447 in the **jurisdictional domain** in which the **commitment** is made

448 [ISO/IEC 15944-1:2002, (3.9)]

449 3.17

450 composite identifier

451 **identifier** (in a **business transaction**) functioning as a single unique **identifier** consisting of one or more
452 other **identifiers**, and/or one or more other **data elements**, whose interworking are **rule-based**

453 NOTE 1 Identifiers (in business transactions) are for the most part composite identifiers.

454 NOTE 2 The rules governing the structure and working of a composite identifier should be specified.

455 NOTE 3 Most widely used composite identifiers consist of the combinations of:

- 456 - the ID of the overall identification/numbering schema, (e.g., ISO/IEC 6532, ISO/IEC 7812, ISO/IEC 7506,
457 UPC/EAN, ITU-T E.164, etc.), which is often assumed;
- 458 - the ID of the issuing organization (often based on a block numeric numbering schema); and,
- 459 - the ID of the entities forming part of members of the coded domain of each issuing organization.

460 3.18

461 **computational integrity**

462 expression of a **standard** in a form that ensures precise description of behaviour and semantics in a manner that
463 allows for automated processing to occur, and the managed evolution of such **standards** in a way that enables
464 dynamic introduction by the next generation of information systems

465 NOTE Open-edi standards have been designed to be able to support computational integrity requirements especially from
466 a registration and re-use of business objects perspective.

467 3.19

468 **constraint**

469 **rule**, explicitly stated, that prescribes, limits, governs or specifies any aspect of a **business transaction**

470 NOTE 1 Constraints are specified as rules forming part of components of Open-edi scenarios, i.e., as scenario attributes,
471 roles, and/or Information Bundles.

472 NOTE 2 For constraints to be registered for implementation in Open-edi, they must have unique and unambiguous
473 identifiers.

474 NOTE 3 A constraint may be agreed to among parties (condition of contract) and is therefore considered an "internal
475 constraint". Or a constraint may be imposed on parties, (e.g., laws, regulations, etc.), and is therefore considered an
476 "external constraint".

477 [ISO/IEC 15944-1:2002, (3.11)]

478 3.20

479 **Contact³**

480 instance of a **role** of a **Person** to whom a **recorded information** item(s), a material object(s), a **business**
481 **object(s)**, can be sent to or received from in a specified context

482 NOTE 1 A Person here as a Contact can be an individual, an organization (or organization part or organization Person).

483 NOTE 2 Contact is capitalized to distinguish it from the many ordinary uses of the word

484 3.21

485 **Contact information**

486 information to enable a **Contact** to be located or communicated with

487 [ISO/IEC 11179-3: 2003, (3.3.27)]

³ Harmonized with ISO/IEC 11179-3:2003 + COR 1 but from an e-business perspective.

- 488 **3.22**
 489 **Contact name⁴**
 490 **name** by which a Person wishes to be designated as a **Contact**
- 491 NOTE Where an organization is the OeRI applicant, it may designate an organization Person, an agent, or a third party as
 492 its Contact name in applying to register a scenario or scenario component as business object.
- 493 **3.23**
 494 **Contact position title⁵**
 495 **name** of title of the position held by an **organization Person** as a **Contact**
- 496 [ISO/IEC 11179-3: 2003, (3.3.29)]
- 497 **3.24**
 498 **control body**
 499 group of technical experts that makes decisions regarding the content of a **register**
- 500 [ISO/FDIS 19135, (4.1.2)]
- 501 **3.25**
 502 **creation date**
 503 **date** the OeRI for a **business object** is created
- 504 **3.26**
 505 **data element**
 506 unit of data for which the **definition, identification**, representation and Permissible Values are specified by
 507 means of a set of **attributes**
- 508 [ISO/IEC 11179-3:2003, (3.3.36)]
- 509 **3.27**
 510 **date**
 511 ISO 8601 compliant representation of a date in a YYYY-MM-DD format using the Gregorian calendar
- 512 **3.28**
 513 **de facto language**
 514 **natural language** used in a **jurisdictional domain** which has the properties and behaviours of an **official**
 515 **language** in that **jurisdictional domain** without having formally been declared as such by **that jurisdictional**
 516 **domain**
- 517 NOTE 1 A de facto language of a jurisdictional domain is often established through long term use and custom.
- 518 NOTE 2 Unless explicitly stated otherwise and for the purposes of modelling a business transaction through scenario(s),
 519 scenario attributes and/or scenario components, a de facto language of a jurisdictional domain is assumed to have the
 520 same properties and behaviours of an official language.
- 521 [ISO/IEC 15944-5:200n, (3.nn)]
- 522 **3.29**
 523 **definition**
 524 representation of a concept by a descriptive statement which serves to differentiate it from related concepts
- 525 [ISO 1087-1:2000, (3.3.1)]

⁴ Adapted from original ISO/IEC 11179-3 definition but placed in an e-business context. The original 11179-3 definition was changed in the COR 1.

⁵ Adapted from 11179-3:2003 but in an e-business context.

526 **3.30**
 527 **designation**
 528 representation of a concept by a sign which denotes it

529 NOTE: In terminology work, three types of designations are distinguished: symbols, appellations (a.k.a. names), and terms.

530 [ISO 1087-1:2000, (3.4.1 adapted)]

531 **3.31**
 532 **documentation language code**
 533 **language code** of the **language** used for documentation by the **Open-edi Registration Organization**

534 NOTE Use the three character alphabetic language codes and names from ISO 639-2/T (Terminology).

535 **3.32**
 536 **effective date**
 537 **date** an **OeRI** became/becomes available to **registry** users

538 **3.33**
 539 **electronic address**
 540 **address** utilized in a recognized electronic addressing scheme, (e.g., telephone, telex, IP, etc.), to which
 541 **recorded information** item(s) and/or **business object(s)** can be sent to or received from a **Contact**

542 **3.34**
 543 **entry label**
 544 **name** information uniquely associated with the **identification** and resulting **International Registration**
 545 **Business Object Identifier** of a **business object** as a registered **Open-edi scenario** or **scenario component**

546 NOTE More than one entry label may be associated with an IRBOI depending on the applicable language(s) utilized as
 547 Human Interface Equivalents (HIEs).

548 **3.35**
 549 **external constraint**
 550 **constraint** which takes precedence over **internal constraints** in a **business transaction**, i.e., is external to
 551 those agreed upon by the parties to a **business transaction**

552 NOTE 1 Normally external constraints are created by law, regulation, orders, treaties, conventions or similar instruments.

553 NOTE 2 Other sources of external constraints are those of a sectorial nature, those which pertain to a particular
 554 jurisdiction or a mutually agreed to common business convention, (e.g., INCOTERMS, exchanges, etc.).

555 NOTE 3 External constraints can apply to the nature of the good, service and/or right provided in a business transaction.

556 NOTE 4 External constraints can demand that a party to a business transaction meet specific requirements of a
 557 particular role.

558 EXAMPLE 1 only a qualified medical doctor may issue a prescription for a controlled drug;

559 EXAMPLE 2 only an accredited share dealer may place transactions on the New York Stock Exchange;

560 EXAMPLE 3 hazardous wastes may only be conveyed by a licensed enterprise.

561 NOTE 5 Where the Information Bundles (IBs), including their Semantic Components (SCs) of a business transaction are
 562 also to form the whole of a business transaction, (e.g., for legal or audit purposes), all constraints must be recorded.

563 EXAMPLE There may be a legal or audit requirement to maintain the complete set of recorded information pertaining
 564 to a business transaction, i.e., as the Information Bundles exchanged, as a "record".

565 NOTE 6 A minimum external constraint applicable to a business transaction often requires one to differentiate whether
 566 the Person, i.e., that is a party to a business transaction, is an "individual", "organization", or "public administration". For
 567 example, privacy rights apply only to a Person as an "individual".

568 [ISO/IEC 15944-1:2002, (3.23)]

569 **3.36**

570 **Human Interface Equivalent (HIE)**

571 representation of the **unambiguous** and IT-enabled semantics of an **IT interface equivalent** (in a **business**
572 **transaction**), often the **ID code** of a **coded domain** (or a **composite identifier**), in a formalized manner
573 suitable for communication to and understanding by humans

574 NOTE 1 Human interface equivalents can be linguistic or non-linguistic in nature, but their semantics remain the same
575 although their representations may vary.

576 NOTE 2 In most cases there will be multiple Human Interface Equivalent representations as required to meet localization
577 requirements, i.e. those of a linguistic nature, jurisdictional nature and/or sectorial nature.

578 NOTE 3 Human Interface Equivalents include representations in various forms or formats, (e.g., in addition to written text
579 those of an audio, symbol (and icon) nature, glyphs, image, etc.)

580 **3.37**

581 **IB identifier**

582 unique, linguistically neutral, **unambiguous**, referenceable **identifier** for an **Information Bundle**

583 **3.38**

584 **ID code**

585 **identifier** assigned by the **coded domain Source Authority (cdSA)** to a member of a **coded domain ID**

586 NOTE 1 ID codes must be unique within the Registration Schema of that coded domain.

587 NOTE 2 Associated with an ID code in a coded domain can be:

- 588 - one or more equivalent codes;
- 589 - one or more equivalent representations, especially those in the form of human equivalent (linguistic) expressions.

590 NOTE 3 Where an entity as a member of a coded domain is allowed to have more than one ID code, i.e., as equivalent
591 codes (possibly including names), one of these must be specified as the pivot ID code.

592 EXAMPLE Common examples include: (1) the use of an ID code "0" (or "00", etc.), for "Other"; (2) the use of an ID code
593 "9" (or "99") for "Not Applicable"; (3) the use of "8" (or "98") for "Not Known"; if required, (4) the pre-reservation of a series
594 or set of ID codes for use for "user extensions".

595 NOTE 4 A coded domain may contain ID codes pertaining to entities which are not members as peer entities, i.e., have
596 the same properties and behaviours, such as ID codes which pertain to predefined conditions other than member entities.
597 If this is the case, the rules governing such exceptions must be predefined and explicitly stated.

598 NOTE 5 In UML modeling notation, an ID code is viewed as an instance of an object class.

599 **3.39**

600 **identification**

601 **rule-based process**, explicitly stated, involving the use of one or more **attributes**, i.e., **data elements**, whose
602 value (or combination of values) are used to identify uniquely the occurrence or existence of a specified **entity**

603 [ISO/IEC 15944-1:2002, (3.26)]

604 **3.40**

605 **identifier (in business transaction)**

606 **unambiguous**, unique and a linguistically neutral value, resulting from the application of a **rule-based**
607 **identification** process

608 NOTE 1 Identifiers must be unique within the identification scheme of the issuing authority.

609 NOTE 2 An identifier is a linguistically independent sequence of characters capable of uniquely and permanently
610 identifying that with which it is associated {See ISO/FDIS 19135, (4.1.5)}

611 [ISO/IEC 15944-1:2002, (3.27)]

612 3.41

613 **Information Bundle (IB)**

614 formal description of the semantics of the **recorded information** to be exchanged by Open-edi Parties
615 playing roles in an **Open-edi scenario**

616 [ISO/IEC 14662:2004, (4.1.2.2)]

617 3.42

618 **internal constraint**

619 **constraint** which forms part of the **commitment(s)** mutually agreed to among the parties to a **business**
620 **transaction**

621 NOTE Internal constraints are self-imposed. They provide a simplified view for modelling and re-use of scenario
622 components of a business transaction for which there are no external constraints or restrictions to the nature of the
623 conduct of a business transaction other than those mutually agreed to by the buyer and seller.

624 [ISO/IEC 15944-1:2002, (3.33)]

625 3.43

626 **International Registration Business Object Identifier (IRBOI)**

627 internationally unique **identifier** for an **OeRI**

628 NOTE IRBOIs are of the nature of a composite identifier.

629 3.44

630 **International Standard Identifier**

631 **Identifier** of the version of this part of ISO/IEC 15944 upon which **attributes** are based

632 3.45

633 **item class**

634 set of items with common properties

635 NOTE Class is used in this context to refer to a set of instances, not the concept abstracted from that set of instances.

636 [ISO/FDIS 19135, (4.1.6)]

637 3.46

638 **IT interface equivalent**

639 computer processable **identification** of the **unambiguous** semantics of a **scenario**, **scenario attribute**
640 and/or **scenario component(s)** pertaining to a **commitment** exchange in a **business transaction** which
641 supports **computational integrity**

642 NOTE 1 IT interface equivalents have the properties of identifiers (in business transaction) and are utilized to support
643 semantic interoperability in commitment exchange.

644 NOTE 2 The value of an IT interface equivalent at times is a composite identifier.

645 NOTE 3 An IT interface equivalent as a composite identifier can consist of the identifier of a coded domain plus an ID
646 code of that coded domain.

647 NOTE 4 An IT interface equivalent is, at times, used as a semantic identifier.

648 NOTE 5 An IT interface equivalent may have associated with it one or more Human Interface Equivalents (HIEs).

- 649 NOTE 6 The value of an IT interface equivalent is independent of its encoding in programming languages or APIs.
- 650 **3.47**
 651 **jurisdictional domain**
 652 jurisdiction, recognized in law as a distinct legal and/or regulatory framework, which is a source of **external**
 653 **constraints on Persons**, their behaviour and the making of **commitments** among **Persons** including any
 654 aspect of a **business transaction**
- 655 NOTE 1 The pivot jurisdictional domain is a United Nations (UN) recognized member state. From a legal and sovereignty
 656 perspective they are considered "peer" entities. Each UN member state, (a.k.a. country) may have sub-administrative divisions
 657 as recognized jurisdictional domains, (e.g., provinces, territories, cantons, länder, etc.), as decided by that UN member state.
- 658 NOTE 2 Jurisdictional domains can combine to form new jurisdictional domains, (e.g., through bilateral, multilateral and/or
 659 international agreements).
- 660 EXAMPLE Included here, for example, are the European Union (EU), NAFTA, WTO, WCO, ICAO, WHO, Red Cross, the
 661 ISO, the IEC, the ITU, etc.
- 662 NOTE 3 Several levels and categories of jurisdictional domains may exist within a jurisdictional domain
- 663 NOTE 4 A jurisdictional domain may impact aspects of the commitment(s) made as part of a business transaction
 664 including those pertaining to the making, selling, transfer of goods, services and/or rights (and resulting liabilities) and
 665 associated information. This is independent of whether such interchange of commitments is conducted on a for-profit or
 666 not-for-profit basis and/or includes monetary values.
- 667 NOTE 5 Laws, regulations, directives, etc., issued by a jurisdictional domain are considered as parts of that jurisdictional
 668 domain and are the primary sources of external constraints on business transactions.
- 669 [ISO/IEC 15944-5: 200n, (3.nnn)]
- 670 **3.48**
 671 **jurisdictional domain identifier**
 672 **ID code** of a **jurisdictional domain** as recognized for use by peer **jurisdictional domains** within a system of
 673 mutual recognition
- 674 **3.49**
 675 **language**
 676 system of signs for communication, usually consisting of vocabulary and **rules**
- 677 NOTE In this standard, language refers to natural languages or special languages, but not "programming languages" or
 678 "artificial languages"
- 679 [ISO 5127-2: 2001, (1.1.2.01)]
- 680 **3.50**
 681 **language code**
 682 combination of characters used to represent a **language** or **languages**
- 683 NOTE In this multipart ISO/IEC 15944 standard, the ISO 639-2/T (terminology) three-alpha code shall be used.
- 684 [ISO 639-2: 1998 (3.2 adapted)]
- 685 **3.51**
 686 **location**
 687 place, either physical or electronic that can be defined as an **address**
- 688 **3.52**
 689 **name**
 690 **designation** of an object by a linguistic expression

691 [ISO 1087: 2000 (5.3.1.3)]

692 **3.53**

693 **natural language**

694 **language** which is or was in active use in a community of people, and the **rules** of which are mainly deduced
695 from the usage

696 [ISO 5217:2000 (1.1.2.02)]

697 **3.54**

698 **OeRI language code**

699 language code of the language used for the OeRI by the submitting organization

700 **3.55**

701 **official language**

702 **external constraint** in the form of a **natural language** specified by a **jurisdictional domain** for official use by
703 **Persons** forming part of and/or subject to that **jurisdictional domain** for use in communication(s) either (1)
704 within that **jurisdictional domain**; and/or, (2) among such **Persons**, where such communications are **recorded**
705 **information** involving **commitment(s)**

706 NOTE 1 Unless official language requirements state otherwise, Persons are free to choose their mutually acceptable natural
707 language and/or special language for communications as well as exchange of commitments.

708 NOTE 2 A jurisdictional domain decides whether or not it has an official language. If not, it will have a de facto language.

709 NOTE 3 An official language(s) can be mandated for formal communications as well as provision of goods and services to
710 Persons subject to that jurisdictional domain and for use in the legal and other conflict resolution system(s) of that
711 jurisdictional domain, etc.

712 NOTE 4 Where applicable, use of an official language may be required in the exercise of rights and obligations of individuals
713 in that jurisdictional domain.

714 NOTE 5 Where an official language of a jurisdiction has a controlled vocabulary of the nature of a terminology, it may well
715 have the characteristics of a special language. In such cases, the terminology to be used shall be specified.

716 NOTE 6 For an official language, the writing system(s) to be used shall be specified, where the spoken use of a natural
717 language has more than one writing system.

718 EXAMPLE 1 The spoken language of use of an official language may at times have more than one writing system. For
719 example, three writing systems exist for the Inuktitut language. Canada uses two of these writing systems, namely, a Latin-1
720 based (Roman), the other is syllabic-based. The third is used in Russia and is Cyrillic-based.

721 EXAMPLE 2 Another example is that of Norway which has two official writing systems, both Latin-1 based, namely, Bokmål
722 (Dano-Norwegian) and Nynorsk (New Norwegian).

723 NOTE 7 A jurisdiction may have more than one official language but these may or may not have equal status.

724 EXAMPLE Canada has two official languages, Switzerland has three, while the Union of South Africa has eleven official
725 languages.

726 NOTE 8 The BOV requirement of the use of a specific language will place that requirement on any FSV supporting service.

727 EXAMPLE A BOV requirement of Arabic, Chinese, Russian, Japanese, Korean, etc., as an official language requires the
728 FSV support service to be able to handle the associated character sets.

729 [ISO/IEC 19544-5:200n, (3.nnn)]

- 730 **3.56**
 731 **Open-edi Description Technique (OeDT)**
 732 specification method such as a Formal Description Technique, another methodology having the
 733 characteristics of a Formal Description Technique, or a combination of such techniques as needed to formally
 734 specify BOV concepts, in a computer processable form
- 735 [ISO/IEC 14662:2004 (4.1.1)]
- 736 **3.57**
 737 **Open-edi register**
 738 information store or database maintained by an **Open-edi Registry**
- 739 **3.58**
 740 **Open-edi registration administration attribute**
 741 member of a set of **attributes** to uniquely identify an **Open-edi scenario**, **Information Bundle**, or **Semantic**
 742 **Component** and the relevant **Person** responsible for its maintenance
- 743 **3.59**
 744 **Open-edi Registration Authority (OeRA)**
 745 **Person** responsible for maintaining the register of **OeROs** and for the issuance of **OeRO identifiers**
- 746 **3.60**
 747 **Open-edi Registration Organization (OeRO)**
 748 **Person** qualified by the **OeRA** to assume the responsibility for the registration of **scenario** and **scenario**
 749 **components**
- 750 **3.61**
 751 **Open-edi Registration Organization address**
 752 physical and/or electronic **address** of the **Open-edi Registration Organization**
- 753 NOTE A physical address includes a "pick-up" address such as a mailbox or such other location one can deliver to.
- 754 **3.62**
 755 **Open-edi Registration Organization Identifier (OeORI)**
 756 **identifier** assigned to an **Open-edi Registration Organization**
- 757 **3.63**
 758 **Open-edi Registration Organization name**
 759 **designation** for the **Open-edi Registration Organization**
- 760 **3.64**
 761 **Open-edi Registry (OeR)**
 762 information system for the registration of **scenarios** and **scenario components**
- 763 **3.65**
 764 **Open-edi Registry Item (OeRI)**
 765 **recorded** information within a **registry** relating to a specific **Open-edi scenario** or **scenario components** of
 766 a **scenario** including linkage information to a **scenario content**
- 767 **3.66**
 768 **Open-edi registry record**
 769 collection of **recorded information** for an **OeRI**
- 770 **3.67**
 771 **Open-edi Scenario (OeS)**
 772 formal specification of a class of **business transactions** having the same **business goal**
- 773 [ISO/IEC 14662:2004, (3.1.12)]

774 **3.68**
 775 **Open-edi sponsoring authority**
 776 **Person** recognized in accordance with the requirements of this part of ISO/IEC 15944, to receive **Open-edi**
 777 **Registration Organization** applications for submission to an **Open-edi Registration Authority**⁶

778 **3.69**
 779 **organization**
 780 unique framework of authority within which a person or persons act, or are designated to act, towards some
 781 purpose

782 NOTE The kinds of organizations covered by this International Standard include the following examples:

783 EXAMPLE 1 An organization incorporated under law.

784 EXAMPLE 2 An unincorporated organization or activity providing goods and/or services including:

- 785 1) partnerships;
- 786 2) social or other non-profit organizations or similar bodies in which ownership or control is vested in a group of
 787 individuals;
- 788 3) sole proprietorships
- 789 4) governmental bodies

790 EXAMPLE 3 Groupings of the above types of organizations where there is a need to identify these in information
 791 interchange.

792 [ISO/IEC 6523-1:1998 (3.1)]

793 **3.70**
 794 **organization address**
 795 the physical and/or electronic **address** of an **organization**

796 NOTE A physical address includes a "pick-up" address such as a mailbox or such other location one can deliver to.

797 **3.71**
 798 **organization name**
 799 **designation** for the **organization**

800 NOTE The name by which the organization is known to the registration authority.

801 [ISO/IEC 11179-3: 2003, (3.3.94)]

802 **3.72**
 803 **origin**
 804 source (document, project, discipline or model) for the **OeRI**

805 **3.73**
 806 **Person**
 807 entity, i.e., a natural or legal person, recognized by law as having legal rights and duties, able to make
 808 **commitment(s)**, assume and fulfil resulting obligation(s), and able of being held accountable for its action(s)

809 NOTE 1 Synonyms for "legal person" include "artificial person", "body corporate", etc., depending on the terminology
 810 used in competent jurisdictions.

⁶ Adapted from ISO/IEC 7812-2: *Identification cards- Identification of issuers – Part 2: Application and registration procedures and basic attributes*. ISO/IEC JTC 1/SC 32 serves as the Open-edi Sponsoring Authority for ISO/IEC 15944.

811 NOTE 2 Person is capitalized to indicate that it is being utilized as formally defined in the standards and to differentiate it
812 from its day-to-day use.

813 NOTE 3 Minimum and common external constraints applicable to a business transaction often require one to differentiate
814 among three common subtypes of Person, namely "individual", "organization", and "public administration"

815 [ISO/IEC 15944-1:2002, (3.47)]

816 **3.74**

817 **physical address**

818 **address** that is used/recognized by a postal authority and/or courier service to deliver information item(s),
819 material object(s), or **business object(s)** to a **Contact** at either an actual **address** or a pick-up point **address**
820 (e.g., P.O. Box, rural route, etc.)

821 **3.75**

822 **principle**

823 fundamental, primary assumption and quality which constitutes a source of action determining particular
824 objectives or results

825 NOTE 1 A principle is usually enforced by rules that affect its boundaries.

826 NOTE 2 A principle is usually supported through one or more rules.

827 NOTE 3 A principle is usually part of a set of principles which together form a unified whole.

828 EXAMPLE Within a jurisdictional domain, examples of a set of principles include a charter, a constitution, etc.

829 **3.76**

830 **process**

831 series of actions or events taking place in a defined manner leading to the accomplishment of an expected
832 result

833 [ISO/IEC 15944-1:2002, (3.53)]

834 **3.77**

835 **recorded information**

836 information that is recorded on or in a medium irrespective of form, recording medium or technology utilized,
837 and in a manner allowing for storage and retrieval

838 NOTE 1 This is a generic definition and is independent of any ontology, (e.g., those of "facts" versus "data" versus
839 "information" versus "intelligence" versus "knowledge", etc.).

840 NOTE 2 Through the use of the term "information," all attributes of this term are inherited in this definition.

841 NOTE 3 This definition covers:

842 i) any form of recorded information, means of recording, and any medium on which information can be
843 recorded; and,

844 ii) all types of recorded information including all data types, instructions or software, databases, etc.

845 [ISO/IEC 15944-1:2002, (3.56)]

846 **3.78**

847 **reference document**

848 external document(s) containing relevant **recorded information** about the **scenario** or **scenario component**

849 **3.79**

850 **reference document identifier**

851 **identifier** of a **reference document**

- 852 [ISO/IEC 11179-3: 2003, (3.3.112)]
- 853 **3.80**
854 **reference document language code**
855 **language code(s) of the language(s) used in the reference document**
- 856 **3.81**
857 **reference document title**
858 **title(s) of the reference document**
- 859 NOTE A reference document may have more than one title depending on the languages in which it is produced
- 860 [ISO/IEC 11179-3: 2003, (3.3.114)]
- 861 **3.82**
862 **reference document type description**
863 **description of the type of reference document**
- 864 [ISO/IEC 11179-3: 2003, (3.3.115)]
- 865 **3.83**
866 **reference organization**
867 **relationship between a reference document and an organization**
- 868 [ISO/IEC 11179-3: 2003, (3.3.116)]
- 869 **3.84**
870 **register**
871 **set of files containing identifiers assigned to items with descriptions of the associated items**
- 872 [ISO/FDIS 19135, (4.1.9)]
- 873 **3.85**
874 **register manager**
875 **organization to which management of a register has been delegated by the register owner**
- 876 NOTE In the case of an ISO register, the register manager performs the functions of the registration authority
877 specified in the ISO/IEC Directives.
- 878 [ISO/FDIS 19135, (4.1.10)]
- 879 **3.86**
880 **register owner**
881 **organization that establishes a register**
- 882 [ISO/FDIS 19135, (4.1.11)]
- 883 **3.87**
884 **registrar**
885 **representative of an Open-edi Registration Organization**
- 886 **3.88**
887 **registrar Contact**
888 **Contact information associated with a registrar of an Open-edi registration organization**
- 889 **3.89**
890 **registration**
891 **rule-based process, explicitly stated, involving the use of one or more data elements, whose value (or**
892 **combination of values) are used to identify uniquely the results of assigning an OeRI**

- 893 **3.90**
 894 **Registration Authority (RA)**
 895 **Person** responsible for the maintenance of one or more **Registration Schemas** including the assignment of a
 896 unique **identifier** for each recognized entity in a **Registration Schema**
- 897 [ISO/IEC 15944-1:2002, (3.57)]
- 898 **3.91**
 899 **Registration Schema (RS)**
 900 formal **definition** of a set of **rules** governing the data fields for the description of an entity and the allowable
 901 contents of those fields, including the **rules** for the assignment of **identifiers**
- 902 [ISO/IEC 15944-1:2002, (3.58)]
- 903 **3.92**
 904 **registration status**
 905 **designation** of the status in the **registration** administration of an **OeRI**
- 906 **3.93**
 907 **registry**
 908 information system on which a **register** is maintained
- 909 [ISO/FDIS 19135, (4.1.13)]
- 910 **3.94**
 911 **retirement**
 912 declaration that an **OeRI** is no longer suitable for use in the production of new data
- 913 NOTE The status of the retired OeRI changes from 'valid' to 'retired'. A retired OeRI is kept in the register to support
 914 the interpretation of data produced before its retirement.
- 915 [ISO/FDIS 19135, (4.1.14 adapted)]
- 916 **3.95**
 917 **role**
 918 specification which models an external intended behaviour (as allowed within a scenario) of an Open-edi Party.
- 919 [ISO/IEC 14662: 2004, (4.1.2.1)]
- 920 **3.96**
 921 **rule**
 922 statement governing conduct, procedure, conditions and relations
- 923 NOTE 1 Rules specify conditions that must be complied with. These may include relations among objects and their
 924 attributes.
- 925 NOTE 2 Rules are of a mandatory or conditional nature.
- 926 NOTE 3 In Open-edi, rules formally specify the commitment(s) and role(s) of the parties involved, and the expected
 927 behaviour(s) of the parties involved as seen by other parties involved in (electronic) business transactions. Such rules are
 928 applied to:
- 929 - content of the information flows in the form of precise and computer-processable meaning, i.e. the semantics of
 930 data; and,
- 931 - the order and behaviour of the information flows themselves.
- 932 NOTE 4 Rules must be clear and explicit enough to be understood by all parties to a business transaction. Rules also
 933 must be capable of being able to be specified using a Formal Description Technique(s) (FDTs).

- 934 EXAMPLE A current and widely used FDT is "Unified Modelling Language (UML)".
- 935 NOTE 5 Specification of rules in an Open-edi business transaction should be compliant with the requirements of ISO/IEC
936 15944-3 "Open-edi Description Techniques (OeDT)".
- 937 **3.97**
938 **rulebase**
939 pre-established set of **rules** which interwork and which together form an autonomous whole
- 940 NOTE One considers a rulebase to be to rules as database is to data.
- 941 **3.98**
942 **scenario attribute**
943 formal specification of information, relevant to an **Open-edi scenario** as a whole, which is neither specific to
944 **roles** nor to **Information Bundles**
- 945 [ISO/IEC 14662: 2004 (4.1.2.3)]
- 946 **3.99**
947 **scenario component**
948 one of the three fundamental elements of a **scenario**, namely **role**, **Information Bundle**, and **Semantic**
949 **Component**
- 950 **3.100**
951 **scenario content**
952 set of **recorded information** containing **registry** entry **identifiers**, labels and their associated **definitions** and
953 related **recorded information** posted (or reposted) in any **registry** for **business objects**
- 954 **3.101**
955 **scenario specification attribute**
956 **attribute** of a **scenario**, **role**, **Information Bundle**, and/or **Semantic Component**
- 957 **3.102**
958 **SC identifier**
959 unique, linguistically neutral, **unambiguous**, referencable **identifier** of a **Semantic Component**
- 960 **3.103**
961 **Semantic Component (SC)**
962 unit of **recorded information unambiguously** defined in the context of the **business** goal of the **business**
963 **transaction**
- 964 NOTE A SC may be atomic or composed of other SCs.
- 965 [ISO/IEC 14662: 2004 (4.1.2.2)]
- 966 **3.104**
967 **Source Authority (SA)**
968 **Person** recognized by other **Persons** as the authoritative source for a set of **constraints**.
- 969 NOTE 1 A Person as a Source Authority for internal constraints may be an individual, organization, or public administration.
- 970 NOTE 2 A Person as Source Authority for external constraints may be an organization or public administration.
- 971 EXAMPLE In the field of air travel and transportation, IATA as a Source Authority, is an "organization," while ICAO as a
972 Source Authority, is a "public administration".
- 973 NOTE 3 A Person as an individual shall not be a Source Authority for external constraints.

974 NOTE 4 Source Authorities are often the issuing authority for identifiers (or composite identifiers) for use in business
975 transactions.

976 NOTE 5 A Source Authority can undertake the role of Registration Authority or have this role undertaken on its behalf by
977 another Person.

978 NOTE 6 Where the sets of constraints of a Source Authority control a coded domain, the SA has the role of a coded
979 domain Source Authority.

980 **3.105**
981 **standard**
982 documented agreement containing technical specifications or other precise criteria to be used consistently as
983 rules, guidelines, or definitions of characteristics, to ensure that materials, products, processes and services
984 are fit for their purpose

985 NOTE This is the generic definition of “standard” of the ISO and IEC (and now found in the ISO/IEC JTC1 Directives,
986 Part 1, Section 2.5:1998) {See also ISO/IEC Guide 2: 1996 (1.7)} <<<http://www.iso.ch/infoe/intro.html>>>]

987 [ISO/IEC 15944-1:2002, (3.64)]

988 **3.106**
989 **stewardship (of OeRI)**
990 relationship of an **OeRI**, a **Contact**, and an **organization** involved in the stewardship of an **OeRI**

991 **3.107**
992 **stewardship organization**
993 a unique framework of authority within which a **Person** or **Persons** act, or are designated to act in the
994 stewardship of an **OeRI**

995 **3.108**
996 **submission (of OeRI)**
997 relationship of an **OeRI**, a **Contact**, and an **organization** involved in the submission of an **OeRI**

998 **3.109**
999 **submitting organization**
000 **organization** authorised by a **register owner** to propose changes to the content of a **register**

001 [ISO/FDIS 19135, (4.1.16)]

002 **3.110**
003 **supersession**
004 replacement of an **OeRI** by one or more new **OeRIs**

005 NOTE The status of the replaced item changes from ‘valid’ to ‘superseded.’

006 [ISO/FDIS 19135, (4.1.18 adapted)]

007 **3.111**
008 **unambiguous**
009 level of certainty and explicitness required in the completeness of the semantics of the **recorded information**
010 interchanged appropriate to the goal of a **business transaction**

011 [ISO/IEC 15944-1:2002, (3.66)]

012 **3.112**
013 **until date**
014 **date** at which an **OeRI** is no longer effective in the registry

- 1015 **3.113**
 1016 **version identifier**
 1017 unique number assigned to identify a version of an **OeRI**

1018 NOTE The default = 1.0

1019 **4 Symbols and abbreviated terms**

BOI	Business Object Identifier
BOV	Business Operational View
BTM	Business Transaction Model
CFR	Cost and Freight
CIF	Cost, Insurance and Freight
CIP	Carriage and Insurance Paid To
CPT	Carriage Paid To
DAF	Delivered At Frontier
DDP	Delivered Duty Paid
DDU	Delivered Duty Unpaid
DEQ	Delivered Ex Quay
DES	Delivered Ex-Ship
EXW	Ex Works
FAS	Free Alongside Ship
FCA	Free Carrier
FDT	Formal Description Technique
FOB	Free On Board
FSV	Functional Services View
HIE	Human Interface Equivalent
IB	Information Bundle
ICC	International Chamber of Commerce
ICT	Information and Communications Technology
ID	Identifier
IEC	International Electrotechnical Commission
INCOTERM	International Commercial Terms (from International Chamber of Commerce (ICC))
IRBOI	International Registration Business Object Identifier
ISO	International Organization for Standardization
IT	Information Technology
ITTF	Information Technology Task Force (of ISO/IEC)
ITU	International Telecommunication Union
JTC 1	Joint Technical Committee 1
NWIP	New Work Item Proposal

OeDT	Open-edi Descriptive Technique
OeRA	Open-edi Registration Authority
OeRO	Open-edi Registration Organization
OeROI	Open-edi Registration Organization Identifier
OeR	Open-edi Registry
OeS	Open-edi Scenario
QoS	Quality of Service
RA	Registration Authority
RS	Registration Schema
SC	Semantic Component (in the context of Open-edi Scenario components)
TC	Technical Committee
TMB	Technical Management Board
UML	Unified Modeling Language

020 5 Open-edi registration requirements

021 5.1 General

022 The requirements of semantic descriptive techniques and use of natural or special **languages** applicable to
 023 the nature and goal of the **business transaction** as incorporated in the context and characteristics of the
 024 registered scenarios and **scenario components** are required to support, one or more of the following, as
 025 applicable:

- 026 - the ability to register any **organization** and support the requirements of internal and/or external
 027 **constraints**
- 028 - the ability to support cultural adaptability requirements as well as requirements of a jurisdictional
 029 nature as are applicable to the nature and goal of the business transaction
- 030 - sets of **recorded information** to be included within a **registry**
- 031 - unambiguity in use of formal descriptive techniques including those of scenario components involving
 032 **coded domains**

033 5.2 Reusability

034 Rule 1:

035 **Any scenario, scenario attribute, and/or scenario component shall be identified and specified in a**
 036 **manner that maximizes its reuseability.**

037 Scenario contents to be referenced for reuse of the scenario are to be registered with the various business
 038 information documents as well as implementable (executable) computer programs. The linkage information for
 039 accessing that information shall be clearly described in the **OeRI** application.

040 5.3 Multilingualism and Human Interface Equivalents

041 Rule 2:

042 **The registration of any scenario or scenario component shall be capable of supporting multilingual**
 043 **semantic equivalents at the human interface.**

1044 This rule, although not expressly stated in Part 1, was nevertheless assumed and supported in the **definition**
 1045 for “**identifier (in business transaction).**” the use of “**IT-interface**” and “**Linguistic Human-Interface**
 1046 **Equivalents**” in the templates for Part 1 as well as the bilingual, i.e. English/French (and multilingual
 1047 expandable) normative Annex A. The purpose of this Clause 5.3 is to build on these Part 1 assumptions and
 1048 state them explicitly in order to be able to support **computational integrity** requirements, while at the same
 1049 time providing the ability to support multiple, i.e. multilingual human interface, semantic equivalents.

1050 The languages used in this standard are:

- 1051 - International level: ISO English,
- 1052 - Multilingual Equivalents

1053 This standard supports and facilitates the use of equivalents in languages other than ISO English. Annex A
 1054 contains French language equivalents of the terms and definitions and is structured to facilitate the addition of
 1055 other language equivalents.

1056 The use of **unambiguous**, unique and linguistically neutral **identifiers** for scenarios and scenario
 1057 components will facilitate interoperability in the use of different languages in various **jurisdictional domains**,
 1058 and thus will support cultural adaptability. Such identifiers can be simple identifiers or **composite identifiers**
 1059 and together form the **IT-interface equivalent** of the semantics of the **processes** and data comprising the
 1060 scenario or scenario component.

1061 From a human interface perspective, any **natural language** can be utilized to express and represent the
 1062 semantics embedded in an **IT interface equivalent**, i.e. as a “**Human Interface Equivalent**”.

1063 **Rule 3:**

1064 **On the whole, and from an internal constraints only based perspective, parties to a business**
 1065 **transaction are free to choose the language(s) to be used.**

1066 **Rule 4:**

1067 **If the nature of the good, service, and/or right which is the goal of the business transaction and/or the**
 1068 **location(s) at which the business transaction is deemed to take place invokes an external**
 1069 **constraint(s), then the external constraints invoked may well mandate choice of language(s) (e.g. an**
 1070 **official language) to be supported in the registration and reuse of the business transaction being**
 1071 **modelled.**

1072 Open-edi standards including this standard recognize that on the whole, parties to a business transaction are
 1073 free to choose and decide among themselves the language(s) to be used. This can be a natural language or
 1074 a special language, (e.g., as may be appropriate in a specific industry sector, technical area, scientific
 1075 discipline, etc.). Agreement on choice of language is important in order to ensure common understandings of
 1076 the recorded information exchanged among parties to a business transaction. However, depending on the
 1077 nature of the business transaction (e.g. in terms of goods or services provided, the **location** of the business
 1078 transaction, etc.), a particular constraint may require the use of specific language (or de facto language). This
 1079 may result in the requirement of the use of a language other than ISO English (or in addition to English). If this
 1080 is the case such linguistic requirements shall be specified.

1081 **6 Principles of registration**

1082 The following principles are introduced to ensure simplicity in and convenience of registering scenarios and
 1083 scenario components as well as identifying and retrieving the information of registered scenarios and of
 1084 scenario components.

1085 **6.1 Federation of registration authorities**

1086 **Rule 5:**

087 **An Open-edi Registration Organization (OeRO) and its operation shall be performed in accordance**
 088 **with this part of ISO/IEC 15944 as governed by an Open-edi Registration Authority (OeRA) based upon**
 089 **JTC1 registration definition and cultural adaptability (multiple linguistic support concept) from the**
 090 **viewpoint of diversified laws and regulatory environment.**

091 Patterned after ISO/IEC 11179-6, *Information Technology – Metadata registries (MDR) – Part 6: Registration*,
 092 the **Open-edi Registry** is for Open-edi registry entries (i.e., scenario, IB or SC) that fall under the purview of
 093 application of the ISO/IEC 14662 Open-edi Reference Model and the multipart ISO/IEC 15944 standard and in
 094 particular this Part 2. The Open-edi Registry is a system for registering **business objects**. A particular
 095 Open-edi Registry may be used to manage any number of **Open-edi registers**, the information stores or
 096 databases of business objects. Each Open-edi register is maintained by one or more **Open-edi Registration**
 097 **Organizations**. The number of Open-edi registers and Open-edi Registration Organizations for any particular
 098 implementation of an Open-edi Registry is the decision of the implementer and/or operator of a particular
 099 Open-edi Registry⁷.

100 Each administered business object in any Open-edi register is associated with only one Open-edi Registration
 101 Organization through the **International Registration Business Object Identifier (IRBOI)** of that business
 102 object.

103 The principal participants of Open-edi Registries are Open-edi Registration Organizations, **submitting**
 104 **organizations**, and **stewardship organizations**. The Open-edi Registration Organization has one or more
 105 **registrars** as its **contacts**. Submitting organizations provide Open-edi registry entries for Open-edi registers.
 106 A submitter is a contact for a submitting organization for a particular OeRI. A submitting organization may
 107 utilize any number of submitters. Each OeRI is associated with only one submitter. Stewardship
 108 organizations are authoritative sources for the attributes of OeRIs. A steward is a contact for a stewardship
 109 organization for a particular OeRI. A stewardship organization may utilize any number of stewards. Each
 110 OeRI is associated with only one steward.

111 **6.2 Identification**

112 **Rule 6:**

113 **Open-edi registry entries registered under the provisions of this part of ISO/IEC 15944 shall each be**
 114 **assigned an International Registration Business Object Identifier (IRBOI) that uniquely identifies the**
 115 **OeRI.**

116 Open-edi registry entries registered under the provisions of this part of ISO/IEC 15944 are each assigned one
 117 International Registration Business Object Identifier (IRBOI). The **Open-edi Registration Organization**
 118 **Identifier (OeROI)** portion of the International Registration Business Object (IRBOI), as specified in 7.3.2, is
 119 optional in those registries that do not exchange contents with other registries. This identifier value uniquely
 120 identifies the OeRI within the framework of this part of ISO/IEC 15944. Subclause 7.2 describes the structure
 121 of the International Registration Business Object Identifier that is used to identify each OeRI.

122 **6.3 OeRA/OeRO Responsibilities**

123 **Rule 7:**

124 **The operation of an Open-edi register shall be carried out under the authority of an Open-edi**
 125 **Registration Organization that is accountable to an Open-edi Registration Authority according to the**
 126 **requirements of ISO/IEC JTC 1/SC 32, the Open-edi sponsoring authority for ISO/IEC 15944.**

127 For the purposes of this part of ISO/IEC 15944, an **Open-edi Registration Authority (OeRA)** shall be
 128 appointed according to the rules of clause 18 of the ISO/IEC Directives, *Procedures for the technical work of*
 129 *ISO/IEC JTC 1 on Information Technology*. The OeRA shall receive and process applications for Open-edi

⁷ ISO/IEC 11179-6, *Information Technology – Metadata registries (MDR) – Part 6: Registration*, Clause 5 Metadata Registries of Administered Items

1130 Registration Organizations (OeROs), assign Open-edi Registration Organization Identifiers (OeROIs) and
 1131 maintain the register. Its duties shall be carried out in accordance with the rules set out in the above-
 1132 mentioned clause 18 of the ISO/IEC Directives for JTC 1 and ISO/IEC 6523. The OeRA shall determine the
 1133 appropriate form(s) in which applications shall be submitted based on the required contents of the Open-edi
 1134 register. It shall also provide the **Open-edi sponsoring authority** with guidance notes on the submission of
 1135 applications.

1136 Open-edi Registration Organizations shall be responsible for:

- 1137 - specification and documentation of the rules of the organization's business object **identification**
 1138 scheme and the administration of it,
- 1139 - the assignment, registration, documentation, where appropriate promulgation, and maintenance of
 1140 **business object identifiers** within the organization's business object identification scheme, ensuring
 1141 that each business object identifier is unique within the organization's business object identification
 1142 scheme. This may include a rule for the minimum period to elapse between the withdrawal of a
 1143 business object identifier and its reallocation,
- 1144 - The Open-edi register shall be made available to member bodies and liaison organizations of ISO and
 1145 to any other interested party at reasonable charge. The register and its index(es) shall be available in
 1146 printed form. The register shall also be held in a form that allows copies to be produced on machine-
 1147 readable media, such as floppy discs. If there is evidence of demand, the register shall also be made
 1148 available for access and interrogation over public international telecommunication services at
 1149 reasonable charge, provided a charging mechanism is available to enable the cost of providing the
 1150 service to be recovered.

1151 **6.4 Registry operation**

1152 **Rule 8:**

1153 **The Open-edi Registration Authority shall establish clearly stated procedures for necessary activities**
 1154 **of the Open-edi Registry.**

1155 Example functional activities that need procedures are:

- 1156 - Addition of new Open-edi registry entries - Submitters shall submit Open-edi registry entries into the
 1157 Open-edi register.
- 1158 - Harmonization of Open-edi registry entries - The objective of harmonization is to resolve any potential
 1159 duplicate or overlapping of OeRIs and to understand the justifiable differences that may exist among
 1160 the harmonized OeRIs. Procedures shall be established to facilitate OeRI harmonization and reuse.
- 1161 - **Clarification** of Open-edi registry entries to correct errors in spelling, punctuation or grammar -
 1162 Procedures shall be established to change Open-edi registry entries.
- 1163 - **Supersession** of Open-edi registry entries in substantive semantic or technical change to supersede
 1164 and erroneous entry - Procedures shall be established to supersede Open-edi registry entries.
- 1165 - **Retirement** of Open-edi registry entries - Procedures shall be established to retire Open-edi registry
 1166 entries.

1167 Functional operating procedures are needed for those that develop, operate, and/or maintain an Open-edi
 1168 Registry. Clause 8 describes the roles and responsibilities of the roles of organizations involved in the
 1169 management of Open-edi registers.

1170 Further, the Open-edi Registry shall operate in an IT-enabled manner; Open-edi registry entries shall be
 1171 submitted, exchanged, accessed and processed automatically. Open-edi registry entries shall be prepared,
 1172 structured and made available for unambiguous usage within and among information systems, allowing for
 1173 maximum interoperability. This requirement can be expressed as "computational integrity."

174 6.5 Registration status

175 The content of a register is potentially dynamic. New OeRIs will be proposed and accepted or not accepted.
 176 Once accepted, OeRIs may be subsequently clarified, superseded, or retired. Information elements are
 177 required in order to support the management of OeRIs throughout their life, including their sponsoring
 178 organization, status, **dates** of assumption of particular states, and possible supersession by other OeRIs in
 179 the register.

180 Individual OeRIs shall be individually managed, moving through a set of well-defined states. Information about
 181 the temporal history of each OeRI shall be maintained.

182 Normally only the valid, superseded, and retired OeRIs are exposed when the contents of a register are made
 183 available to the public. Proposed and unaccepted OeRIs are part of the approval mechanism and are only
 184 required for management of the register. Submitting organizations shall have access to both proposed and
 185 unaccepted OeRIs because information about them may be useful for the development of new proposals.

186 An OeRI in a register has a period of validity that begins on the date on which the proposal to register the
 187 OeRI was accepted, and ends on the date on which a decision to supersede or retire the OeRI has been
 188 made. Although retired and superseded OeRIs are no longer valid for use in the production of new data, they
 189 are kept in the register to support the interpretation of data produced before their retirement or supersession.

190 NOTE This does not imply that use of an unregistered OeRI specified in a standard is somehow "invalid" until the
 191 OeRI is registered. However, a reference using an OeRI IRBOI can apply only to the specification of an OeRI.

192 OeRIs may change over time due to changes in requirements, technology or for other reasons. By defining a
 193 series of OeRIs of the same **item class**, each with associated dates of validity, a register can identify how a
 194 particular concept has changed over a period of time. If an OeRI is superseded by another OeRI, the date the
 195 succession occurred shall be captured, along with references to and from the OeRI that superseded it. At any
 196 given time only one OeRI in the series shall be 'valid'.

197 Rule 9:

198 **Only valid, superseded, and retired OeRIs shall be exposed when the contents of a register are made**
 199 **available to the public.**

200 **Registration status** specifies the state of a Business Object (i.e., scenario, IB, or SC) that is in an Open-edi
 201 register. Registration status shall apply to individual OeRIs that have been entered into the Open-edi register.
 202 Status of registered OeRIs shall be one of three values of the **business object status** coded domain:

203 1 = Valid

204 2 = Superseded

205 3 = Retired

206 In the event the OeRI Status is 2, "Superseded", i.e., when a scenario, IB or SC may be replaced by another
 207 scenario, IB, or SC at some point in time (e.g. because a duplicate is discovered), "Superseded" attributes
 208 provide for the association to the new scenario, IB, or SC and the date of and reason for replacement.
 209 "Superseded" also provides for the development of more granular versions, changes in business operational
 210 requirements and/or applicable **external constraints**.

211 6.6 State of a register

212 It is necessary to be able to specify a unique state in the evolution of the contents of a register since those
 213 contents will evolve over time. This International Standard specifies two alternative mechanisms, distinguished
 214 by the rate of change of the contents of a register, for specifying such a unique state.

215 a) For slowly changing registers, e.g., those disseminated as published hard copy documents, a version
 216 may be specified.

- 1217 b) For rapidly changing registers, e.g., those made available as online interactive databases, a date of
1218 latest change may be specified.

1219 6.7 Registration information

1220 Rule 10:

1221 **Every application for registration of an Open-edi scenario submitted for registration in accordance**
1222 **with this International Standard shall include administrative information, scenario specification, and**
1223 **classification.**

1224 In order to achieve successful registration and reuse of **Open-edi scenarios** and their components,
1225 registration information is required to easily determine the applicability of an Open-edi scenario to a specific
1226 business application. Every application for registration of an Open-edi scenario submitted for registration in
1227 accordance with this International Standard shall include the following information.

- 1228 - Administrative information for scenario identification and OeRO management
- 1229 - Scenario specification for determination of suitability of application to business objectives
- 1230 - Classification information for convenient retrieval to meet business objectives

1231 Reuse of registered scenarios and their components requires identification of **Open-edi registration**
1232 **administration attributes**, e.g., ownership and location from which scenarios and their components can be
1233 retrieved. Annex B provides Open-edi registration administration attributes for registering scenarios and their
1234 components, patterned after the metadata attributes required for Administered Items in ISO/IEC 11179-3,
1235 *Information Technology - Metadata registries (MDR): - Part 3: Registry metamodel and basic attributes.*

1236 In addition, the scenario specification itself, as prescribed in ISO /IEC 15944-1, is essential in applying the
1237 scenarios and their components to a specific business objective. Clear understanding of the registered
1238 scenario would facilitate reuse of Open-edi Scenarios; therefore the scenario specification shall be described
1239 in as formal a manner as possible. A scenario specification includes attributes for scoping a scenario, an
1240 indication of the applicability of Open-edi scenario, role, **information bundle** and semantic component
1241 attributes, and a detailed description of their applicable attributes. The scenario specification in terms of its
1242 scope elements and components is then formally expressed in an **Open-edi Description Technique (OeDT)**
1243 according to OeDT requirements as prescribed in ISO/IEC 14662 and elaborated on in Part 3 of this multipart
1244 standard. Open-edi scoping and specification attributes are repeated for convenience in Annex C.

1245 Classification concepts provide characteristics of Open-edi scenarios and their components that are also
1246 fundamental for their reuse. Well-organized classification concepts provide the best search criteria for
1247 retrieving a registered scenario that is the best fit for certain business objectives. Classification concepts
1248 effectively identify the scope of registered scenarios and their components. When a scenario is registered, its
1249 applicable classification concepts are also associated with it. Primitive classification concepts that form an
1250 accounting and economic ontology are captured in Annex X of Part 4: *Business transaction scenarios –*
1251 *Accounting and economic ontology*, and in Part 5: *Identification and mapping of various categories of*
1252 *jurisdictional domains as sources of external constraints*, from an external constraints perspective.

1253 6.8 OeDT requirements

1254 Rule 11:

1255 **Open-edi scenarios shall be specified via an OeDT according to OeDT requirements as prescribed in**
1256 **ISO/IEC 14662.**

1257 An Open-edi scenario is specified according to the ISO/IEC 15944-1 Template for specifying the scope of an
1258 Open-edi scenario and the Consolidated Template of attributes of Open-edi scenarios, roles and Information
1259 Bundles. This specification of a scenario in terms of its scope elements and components is then formally
1260 expressed in an OeDT according to OeDT requirements as prescribed in ISO/IEC 14662.

261 - An OeDT to be used for Open-edi scenarios shall allow for both hierarchical decomposition and a
262 modular approach.

263 - The behaviour of an Open-edi Party playing a role is expressed through the OeDT.

264 Note: There may well be requirements arising from Part 3 of this standard, OeDT, that may require additional
265 text to be included in this subclause. The Project Editor reserves the right to identify and bring forward added
266 text which may be needed to ensure a harmonized and mutually supportive approach between Parts 2 and 3
267 of the ISO/IEC 15944 multipart standard.

268 **7 OeRI identifiers**

269 **7.1 General**

270 OeRIs registered under the provisions of this part of ISO/IEC 15944 are each assigned an International
271 Registration Business Object Identifier (IRBOI). This identifier value uniquely identifies the OeRI within the
272 framework of this part of ISO/IEC 15944.

273 **7.2 Components of International Registration Business Object Identifier (IRBOI)**

274 The uniqueness of a **Business Object**, (i.e., scenario, IB or SC) registered under the auspices of this part of
275 ISO/IEC 15944 is determined by an International Registration Business Object Identifier, a **composite**
276 **identifier** comprised of the values of four identifying attributes:

- 277 1) The **International Standard Identifier**,
- 278 2) An identifier assigned to an Open-edi Registration Organization, hereafter called the Open-edi
279 Registration Organization Identifier (OeROI)
- 280 3) An identifier assigned to a Business Object within an Open-edi Registration Organization,
281 hereafter called Business Object identifier (BOI)
- 282 4) An identifier assigned to a version under which a Business Object registration is submitted or
283 updated hereafter called version identifier.

284 Note: Although the version identifier may not necessarily be required to make a Business Object unique within
285 an Open-edi Registry, the inclusion of the version identifier in the International Registration Business Object
286 Identifier would provide a unique reference point, should a conflict arise.

287 **7.3 Assignment of Values to International Registration Business Object Identifier (IRBOI)** 288 **Components**

289 **7.3.1 General**

290 An International Registration Business Object Identifier shall be assigned to an OeRI (i.e., scenario, IB or SC)
291 submitted for registration. The values of each component of International Registration Business Object
292 Identifier are assigned as follows.

293 **7.3.2 Assignment of Open-edi Registration Organization Identifier (OeROI)**

294 Every organization wishing to become an Open-edi Registration Organization under the auspices of this part
295 of ISO/IEC 15944 shall possess an internationally recognized organization code, assigned in accordance with
296 the procedure prescribed in Clause 8. The Open-edi Registration Organization Identifier shall be of variable
297 length, up to 70 characters.

1298 7.3.3 Assignment of Business Object Identifier (BOI)

1299 Each new Business Object (i.e., scenario, IB or SC) accepted into the Open-edi register shall be assigned a
 1300 new Business Object Identifier. A new Business Object Identifier shall also be assigned to an existing
 1301 Business Object when it is modified in such a way as to change the meaning of the Business Object; for
 1302 example, addition of a role in a scenario. See 7.3.4 for guidelines on differentiating between new and
 1303 versioned Business Objects.

1304 Based on the requirements of the subject matter included in its Open-edi register, each Open-edi Registration
 1305 Organization shall establish and publish as appropriate, specific guidelines for any additional conditions
 1306 requiring assignment of a new Business Object Identifier (i.e., generation of a new Business Object), due to
 1307 changes in the values of mandatory attributes established for its Open-edi register.

1308 The first character of each Business Object Identifier shall be one of three values of the **business object type**
 1309 coded domain:

1310 1 = Scenario

1311 2 = Information Bundle

1312 3 = Semantic Component

1313 The Business Object Identifier is completed by specifying a scenario identifier, **IB identifier**, or **SC identifier**
 1314 following the business object type. Each Open-edi Registration Organization shall establish and publish
 1315 specific guidelines on the format, presentation, and generation of Business Object Identifiers that are used
 1316 with the Open-edi register.

1317 7.3.4 Assignment of version identifier

1318 - Even though at any given point in time only one version of a scenario, IB or SC can be valid, multiple
 1319 previous versions may have existed and a future version may be in preparation. The version
 1320 association makes it possible to link the consecutive versions of a scenario, IB or SC. There will not
 1321 be branches in the versioning; only linear versioning will be supported.

1322 - Guidelines for versioning scenarios, IBs and SCs follow. Each Open-edi Registration Organization
 1323 shall establish and publish specific guidelines on the format, presentation, and generation of version
 1324 identifiers that are used within the Open-edi register.

1325 7.3.4.1 Scenarios

1326 Any change in scenario scoping attributes results in a new scenario, not a new version.

1327 - anything that materially affects scenario processing logic requires a new scenario, e.g., constraints
 1328 that set pre or post conditions on state transition,

1329 - SC relationships within an IB or within a scenario,

1330 - interoperability demands among roles,

1331 - any change in logic affecting the states of roles in the collaboration,

1332 - any change in role transitions, role events, role actions, or role internal functions that affect processing
 1333 logic in the collaboration state machine.

1334 Only a new version of a role could result in a new scenario version. A new role would result in a new scenario.
 1335 Inheritance change would make a new role; cross-reference change would not.

336 Security service requirement change in a role would result in a role/scenario version. This is also true for a
 337 security service requirement change in the scenario itself, i.e., scenario version. Scenario communication
 338 quality of service change would result in a scenario version.

339 Communications and quality of service change in a role would result in a role/scenario version.

340 7.3.4.2 Information Bundles

341 Variation in IB contents would result in a new IB version. Material change in an IB would result in a new IB.
 342 Adding an IB only (e.g., no new role or constraint) to a scenario would result in a new version of the scenario

343 Security service requirement change in an IB or in an SC within an IB would result in a new IB version.

344 7.3.4.3 Semantic Components

345 Changes in a coded domain that serves as an SC would result in a new version of the IB that contains the SC.
 346 Also, scenarios that use the IB would result in a new version. This would also be true for adding an SC to an
 347 IB.

348 Editorial changes to the definition of an SC would result in a new SC version, as long as the meaning
 349 expressed by the definition remains the same. An SC attribute change, e.g., SC security service requirement,
 350 would result in a new IB version.

351 Changes in scenario, role, or IB demands on the Open-edi support infrastructure would result in a new version
 352 of a scenario or IB.

353 8 Roles and responsibilities in the management of Open-edi registers

354 8.1 Introduction

355 Several organizations play a role in the management of an Open-edi register. The roles and their relationships
 356 are illustrated in Figure 1 as a conceptual model using UML notation⁸. Figure 1 is patterned after ISO/FDIS
 357 19135, where the OeRA, OeRO, and stewardship organization are represented as the **Register Owner**,
 358 **Register Manager** and **Control body**, respectively. This model is not intended to be implemented in
 359 software and data, but as a set of organizations and the interactions between them.

360 NOTE Although they are not organizations, register and registry are included in Figure 1 because they are the basis
 361 of the roles played by the organizations included.

362 8.2 Open-edi Sponsoring Authority

363 ISO/IEC JTC 1/SC 32, as Open-edi sponsoring authority is responsible

- 364 - to ensure that an OeRO application fully complies with an OeRA's procedures for application for
- 365 OeRO and that a unique OeROI is assigned
- 366 - to process, within 30 days of receipt of the request, OeRO applications from within their countries or
- 367 areas of responsibility
- 368 - to notify the applicant in writing, within 30 days of receipt of the application, as to the disposition of the
- 369 application
- 370 - to respond to general enquiries covering OeRO application

⁸ The conceptual schema specified in this International Standard is described using the Unified Modeling Language (UML) (ISO/IEC 19501). UML notation is described in Annex E.

1371 8.3 Open-edi Registration Authority (OeRA)

1372 An OeRA is an organization that

1373 a) has established one or more Open-edi registers, and

1374 b) has primary responsibility for the management, dissemination, and intellectual content of those Open-
1375 edi registers.

1376 An OeRA may serve as the OeRO for any Open-edi register that it has established, or it may appoint another
1377 organization to serve as the OeRO. An OeRA shall specify the criteria that determine which organizations may
1378 act as submitting organizations that propose changes to the content of the Open-edi register. An OeRA may
1379 serve as the stewardship organization for any Open-edi register that it has established, or it may delegate that
1380 role to a subgroup within the organization or to the OeRO that it has appointed to manage that Open-edi
1381 register. The OeRA shall establish a procedure to process appeals by submitting organizations of decisions
1382 made by the stewardship organization of an Open-edi register. The specification of this procedure shall
1383 include appropriate time limits for completion of the process.

1384 The OeRA shall specify the time interval for reports from the OeRO that describe the proposals received and
1385 the decisions taken since the last report. The OeRA shall set terms and conditions for making the contents of
1386 the register available to the public.

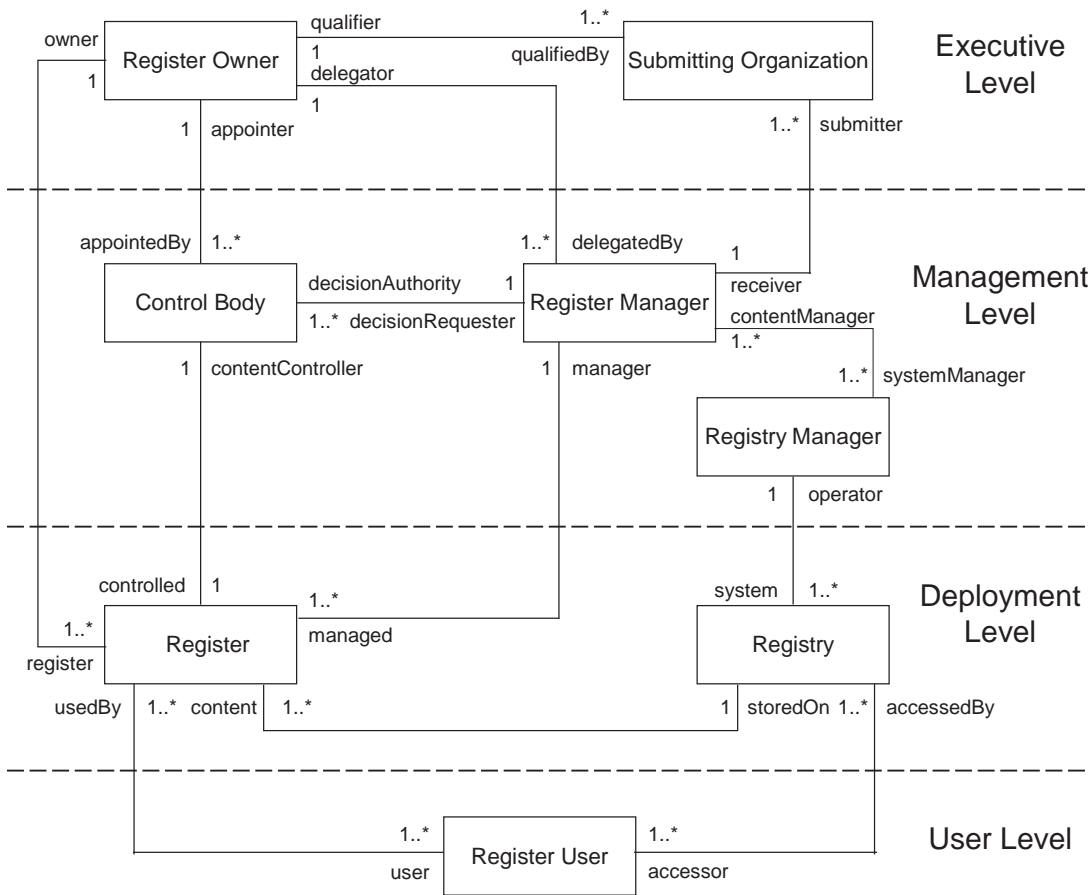
1387 8.4 Open-edi Registration Organization (OeRO)

1388 8.4.1 Appointment of an OeRO

1389 An OeRA may delegate the role of an OeRO to another organization. This is the usual case for registers
1390 established by ISO or IEC Technical Committees.

1391 8.4.2 Responsibilities of an OeRO

1392 An OeRO shall manage an Open-edi register within the item classes for which it is responsible in
1393 conformance with Clause 9. An OeRO may manage multiple Open-edi registers. An OeRO may own and
1394 operate the **Open-edi Registry (OeR)** that holds an Open-edi register that it manages, or it may delegate
1395 operation of the OeR to an OeR manager. Upon request, the OeRO shall distribute an information package
1396 containing a description of the Open-edi register and how to submit proposals for changes to the content of
1397 the Open-edi register. The OeRO shall accept proposals from submitting organizations and manage the
1398 proposals as specified in 9.3. The OeRO shall pass proposals to the stewardship organization (8.5) for
1399 decisions as to acceptability, and shall serve as the point of contact between the stewardship organization and
1400 the submitting organization for negotiations regarding changes to the proposal. The OeRO shall provide
1401 reports to the OeRA at intervals specified by the OeRA. Each report shall describe the proposals received and
1402 the decisions taken since the last report. The contents of the Open-edi register shall be available to the public
1403 under the terms and conditions set by the OeRA.



404

405

Figure 1 — ISO/FDIS 19135 organizational relationships

406 **8.5 Submitting organizations**

407 **8.5.1 Eligible submitting organizations**

408 A submitting organization is an organization that is qualified under criteria determined by the OeRA to propose
 409 changes to the content of an Open-edi register. The OeRO shall determine whether a submitting organization
 410 is qualified in accordance with the criteria established by the OeRA. A potential submitting organization may
 411 appeal the determination to the OeRA.

412 **8.5.2 Responsibilities of submitting organizations**

413 Submitting organizations shall manage the submission of proposals to the OeRO or appeals to the OeRA that
 414 are initiated from within their respective countries or organizations as specified in 9.3.

415 **8.6 Stewardship organization**

416 A stewardship organization is a group of technical experts appointed by a OeRA to decide on the acceptability
 417 of proposals for changes to the content of an Open-edi register (9.3.7). The stewardship organization shall
 418 accept proposals from the OeRO and render a decision regarding each proposal within the time limits
 419 specified by the OeRA.

1420 8.7 OeR manager

1421 An OeR manager is a person or an organization responsible for the day-to-day management of an OeR. An
 1422 OeR manager may engage a third-part service provider to perform this service. An OeR manager shall ensure
 1423 the integrity of any Open-edi register held in the OeR (9.6), and shall provide means for electronic access to
 1424 the OeR (9.5) for OeROs, stewardship organizations, and Open-edi register users.

1425 8.8 Open-edi Register user

1426 Open-edi register users include any person or organization interested in accessing or influencing the content of
 1427 an Open-edi register. Users have a variety of registration requirements:

- 1428 - Developers of standards and specifications want to re-use OeRIs specified in an Open-edi register;
- 1429 - Data producers want to use in their products OeRIs specified in an Open-edi register;
- 1430 - Data users want to understand the meaning of Open-edi register OeRIs used by a data producer; and
- 1431 - Systems developers want to provide a capability to use Open-edi register OeRIs in data production,
 1432 interchange, or consumption.

1433 An OeRA may set terms and conditions for different levels of access to the Open-edi register to satisfy the
 1434 requirements of different categories of users.

1435 Open-edi register users vary in the frequency of access they need from the occasional data user who may
 1436 need to determine the meaning of an OeRI on a very infrequent basis to the data producer who may need to
 1437 use values from an Open-edi register many times a day. OeROs shall consider the requirements of different
 1438 categories of users in selecting methods for publishing the content of an Open-edi register (9.5).

1439 9 Registration authority and operations

1440 9.1 Establishment of registers

1441 Any organization may establish a register. A register established by an ISO Technical Committee (TC) or
 1442 Subcommittee is an ISO register. Although this International Standard is intended primarily for registers
 1443 established by ISO/IEC JTC 1/SC 32, other ISO or IEC Technical Committees may choose to establish
 1444 registers that conform to this International Standard. Organizations other than ISO or IEC Technical
 1445 Committees or Subcommittees may also choose to establish registers that conform to this International
 1446 Standard. In establishing registers, ISO Technical Committees are required to follow the general rules
 1447 specified in the ISO/IEC Directives, but may develop detailed rules and procedures to satisfy their own
 1448 requirements.

1449 The ISO/IEC Directives require a TC, when it is developing an International Standard that may require
 1450 registration, to inform the Chief Executive Officer at an early stage in order to permit any necessary
 1451 negotiations and to allow the ISO/TMB or IEC Council Board to take a decision in advance of the publication
 1452 of the International Standard. The ISO/IEC JTC 1 Procedures specify the rules for the establishment of JTC 1
 1453 registers.

1454 Every register requires a technical standard that specifies the classes of OeRIs to be registered. To establish
 1455 a register that conforms to this International Standard, an organization shall

- 1456 a) be the organization that produced the technical standard that specifies the item classes to be held in
 1457 the register, or
- 1458 b) have the approval of that organization.

459 9.2 Registration authority for Open-edi scenarios

460 9.2.1 Responsibilities of the OeRA

461 An OeRA shall be appointed according to the rules of clause 18 of the ISO/IEC Directives, *Procedures for the*
 462 *technical work of ISO/IEC JTC 1*. The OeRA shall receive and process applications for OeRO. Its duties shall
 463 be carried out in accordance with the rules set out in the above-mentioned ISO/IEC Directives for JTC 1,
 464 Clause 18 and ISO/IEC 6523. The OeRA shall determine the appropriate form in which applications shall be
 465 submitted. It shall also provide ISO/IEC JTC 1/SC 32, the Open-edi Sponsoring Authority for ISO/IEC 15944,
 466 with guidance notes on the submission of applications.

467 Rule 12: 468

469 **JTC 1 OeROs for Open-edi scenarios shall be appointed by the OeRA in accordance with the**
 470 **procedure for the appointment of JTC 1 Registration Authorities defined in the JTC 1 Directives.**

471 9.2.2 Qualification

472 Any organization seeking appointment, as a JTC 1 OeRO for Open-edi scenarios shall demonstrate that it
 473 meets the qualifications required of JTC 1 RAs as defined in the JTC 1 Directives 2.7.2.2, Qualifications, with
 474 the following condition.

- 475 - It shall confirm that it has sufficient resources to operate an Internet web site in support of this
 476 International standard.

477 9.2.3 OeRO establishment

478 A JTC 1 OeRO for Open-edi scenarios shall operate under contract with the OeRA.

479 The following conditions are applied for establishing an OeRO:

- 480 - A national member body itself or its commissioned agents, national or regional, can be an OeRO
 481 candidate for JTC 1 OeRO
- 482 - A national OeRO should be qualified and internationally acceptable and have a right to delegate its
 483 roles to commissioned national or regional agents
- 484 - An OeRO basically exists for the national or the regional domain area (i.e., generalized through
 485 jurisdictional domains), however an allied OeRO between/among countries is a possible candidate
- 486 - The national member body should be required to indicate a newly established OeRO to JTC 1 SC32

487 See further JTC 1 Directives 2.7.2.1, Appointment and 2.7.2.3, Contract.

488 9.2.4 Duties

489 A JTC1 OeRO for Open-edi scenarios shall:

- 490 - Act and handle all aspects of registration administration in accordance with this International standard
 491 and good business practice.
- 492 - Receive and review applications and maintain an accurate register
- 493 - Make public access to complete details of all register entries available and provide information's as
 494 appropriate.

495 See further JTC 1 Directives 2.7.2.4, Duties.

1496 9.3 Processing of OeRI submissions

1497 Any organization or individual may submit an application of a scenario, IB or SC to a JTC1 OeRO for Open-
 1498 edi scenarios. See further JTC 1 Directives Annex E2.3, Criteria for Eligibility of Applicants for Registration.
 1499 Submitting organizations may submit requests to add OeRIs to a register, to modify OeRIs in a register, or to
 1500 retire OeRIs in a register. Modifications are of two kinds; simple clarifications that cause no substantive
 1501 change to an OeRI, and substantive changes that are handled through a supersession process. The
 1502 stewardship organization shall determine whether a proposed modification is to be handled as a clarification
 1503 or supersession. An OeRO shall accept requests to modify and retire a registered scenario only from the
 1504 original submitting organization of the scenario. OeRO management shall deny any other request for scenario
 1505 modification and retirement.

1506 An OeRO may be able to retire a registered scenario as obsolete with a six-month 'wait and warn' period if the
 1507 following conditions occur:

- 1508 - ten years elapsed since the scenario was registered
- 1509 - no scenario update activity by applicant **Persons** or user access

1510 9.3.1 Confidentiality of OeRIs

1511 OeRIs entries shall not contain secret, proprietary or non-publishable material. The OeRO shall make all
 1512 information within all OeRIs publicly available. See further JTC 1 Directives Annex E2.11, Confidential
 1513 Information.

1514 9.3.2 Addition

1515 Addition is the insertion into a register of an OeRI that describes a concept not described by an OeRI already
 1516 in the register.

1517 9.3.3 Clarification

1518 Clarifications correct errors in spelling, punctuation, or grammar. A clarification shall not cause any
 1519 substantive semantic or technical change to a registered OeRI.

1520 9.3.4 Supersession

1521 Modification of a registered OeRI that results in substantive semantic or technical change shall be
 1522 accomplished by including a new OeRI in the register with a new IRBOI and the date on which it superseded
 1523 the original OeRI. The original OeRI shall remain in the register but shall include the date at which it was
 1524 superseded, and a reference to the OeRI that superseded it.

1525 9.3.5 Retirement

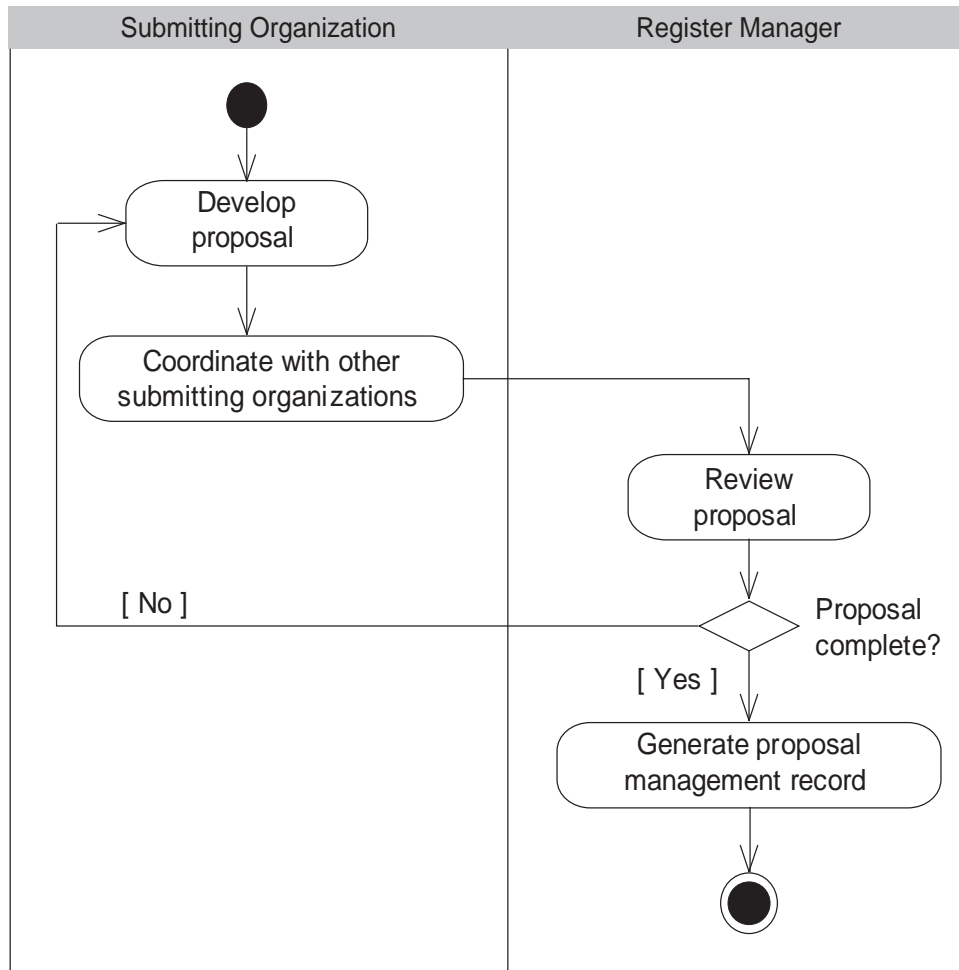
1526 Submitting organizations may submit requests for retirement of registered OeRIs that are no longer useful for
 1527 producing data. Retirement shall be accomplished by leaving the OeRI in the register, marking it retired, and
 1528 including the date on which it was retired.

1529 9.3.6 Application procedure for registration

1530 An application for registration starts with the submission of a new OeRI application for registration and
 1531 terminates with the registration acceptance. The submission shall conform to the following requirements:

- 1532 - Identification and authentication of **applicant** and confirmation of required conformance to this
 1533 International Standard
- 1534 - Language adaptability

- 535 Use of English for the minimum required description is mandatory, however the OeRO may permit additional
536 descriptive information in an OeRO-authorized language.
- 537 An application for registration of an Open-edi scenario shall be rejected if:
- 538 - The scenario to be registered already exists in a register
 - 539 - The scenario is not executable or referable
 - 540 - The scenario contains non-publishable information (e.g., classified) or intellectual property right (IPR)
541 restrictions.
 - 542 - The scenario contains objectionable information from a public order and morals viewpoint
- 543 Pre registration procedure
- 544 - The OeRO shall call for public comments before registration, however the OeRO has no duty to
545 answer to each comment.
- 546 Announcement of registration
- 547 - Accepted scenario application is announced to the public after the termination of a 6 month public
548 comment due date.
- 549 Post registration procedure
- 550 - OeRO shall make access available via electronic mechanism
- 551 See further JTC 1 Directives Annex E2.4, Applications for Registration and Annex E2.13.2, Minimum
552 Content of Forms.
- 553 The process for submitting proposals for registration of OeRIs is illustrated in Figure 1, which is patterned after
554 ISO/FDIS 19135. The OeRO is represented in Figure 1 as the Register Manager.



1555

1556

Figure 2 — Submission of proposals for registration

1557

9.3.7 Approval process

1558

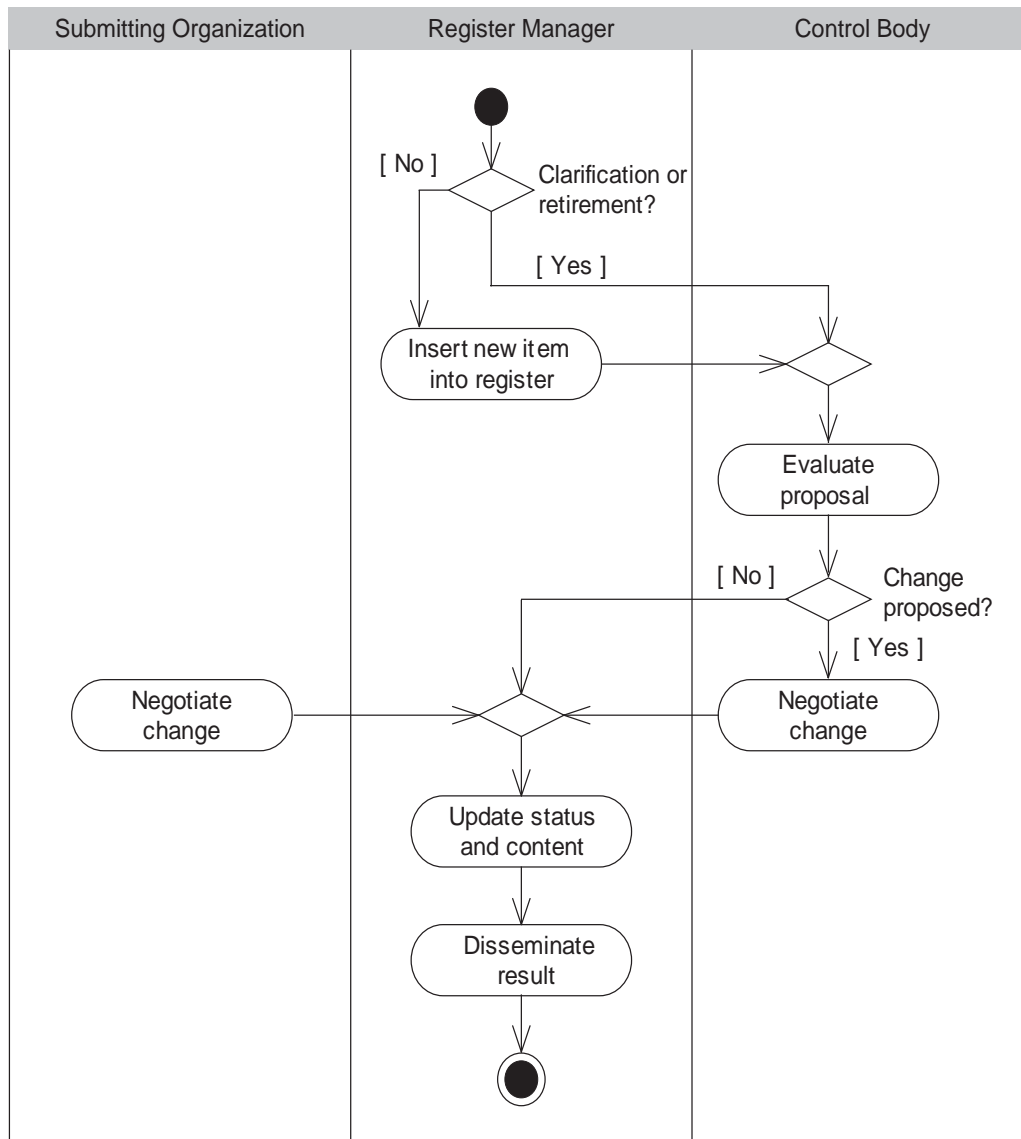
The process for determining the acceptability of proposals is illustrated in Figure 2, which is patterned after ISO/FDIS 19135. The OeRO is represented in Figure 2 as the Register Manager and the stewardship organization is represented as the Control Body. Approval of an OeRI shall be completed within a time period specified by the OeRA.

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Figure 3 — Approval process

565 The OeRO shall

566 a) forward the proposal to the stewardship organization if the proposal is for clarification or retirement of
567 an OeRI;

568 b) for registration of a new OeRI or modification of an existing OeRI:

569 1) insert the new or superseding OeRI into the register

570 2) assign an IRBOI to the new or superseding OeRI, as specified in 7.2;

571 3) set the **registration status** to 'notValid'; and

572 4) forward the proposal to the stewardship organization.

1573 The stewardship organization shall

1574 c) decide to accept the proposal without change, to accept the proposal subject to changes negotiated
1575 with the submitting organization, or not to accept the proposal. Criteria for not accepting a proposal
1576 include:

1577 1) the specification of the OeRI is incomplete or incomprehensible;

1578 2) an identical OeRI already exists in the register;

1579 3) the proposed OeRI does not belong to an item class included in this register; or

1580 4) the justification for the proposal is inadequate.

1581 d) inform the OeRO of the decision, and the rationale for the decision, within a time limit specified by the
1582 OeRA.

1583 The OeRO shall

1584 a) serve as point of contact if there is a need for negotiations between the submitting organization and
1585 the stewardship organization regarding changes to the proposal that are specified by the stewardship
1586 organization as a condition of acceptance; and

1587 b) inform the submitting organization of the results of processing a proposal.

1588 c) If the decision of the stewardship organization is positive, the OeRO shall:

1589 1) complete the proposal management record with registration status set to 'final', disposition set to
1590 'accepted', and *dateDisposed* to the current date;

1591 2) make approved changes to the content of the OeRI; and

1592 3) set the status of the OeRI to 'valid', 'superseded', or 'retired', as appropriate.

1593 d) If the decision of the stewardship organization is negative:

1594 1) update the proposal management record by setting status to 'tentative', disposition) to
1595 notAccepted', and *dateDisposed* to the current date;

1596 2) inform the submitting organization of the deadline for appealing the decision of the stewardship
1597 organization.

1598 e) disseminate the results of the approval process.

1599 Submitting organizations shall

1600 a) negotiate with the stewardship organization with regard to changes to their proposal that are specified
1601 by the stewardship organization as a condition of acceptance; and

1602 b) make known within their respective countries or organizations the decisions taken on proposals by the
1603 stewardship organization as transmitted to them by the OeRO.

1604 **9.3.8 Withdrawal**

1605 Submitting organizations may decide to withdraw a proposal at any time during the approval process.

1606 The OeRO shall

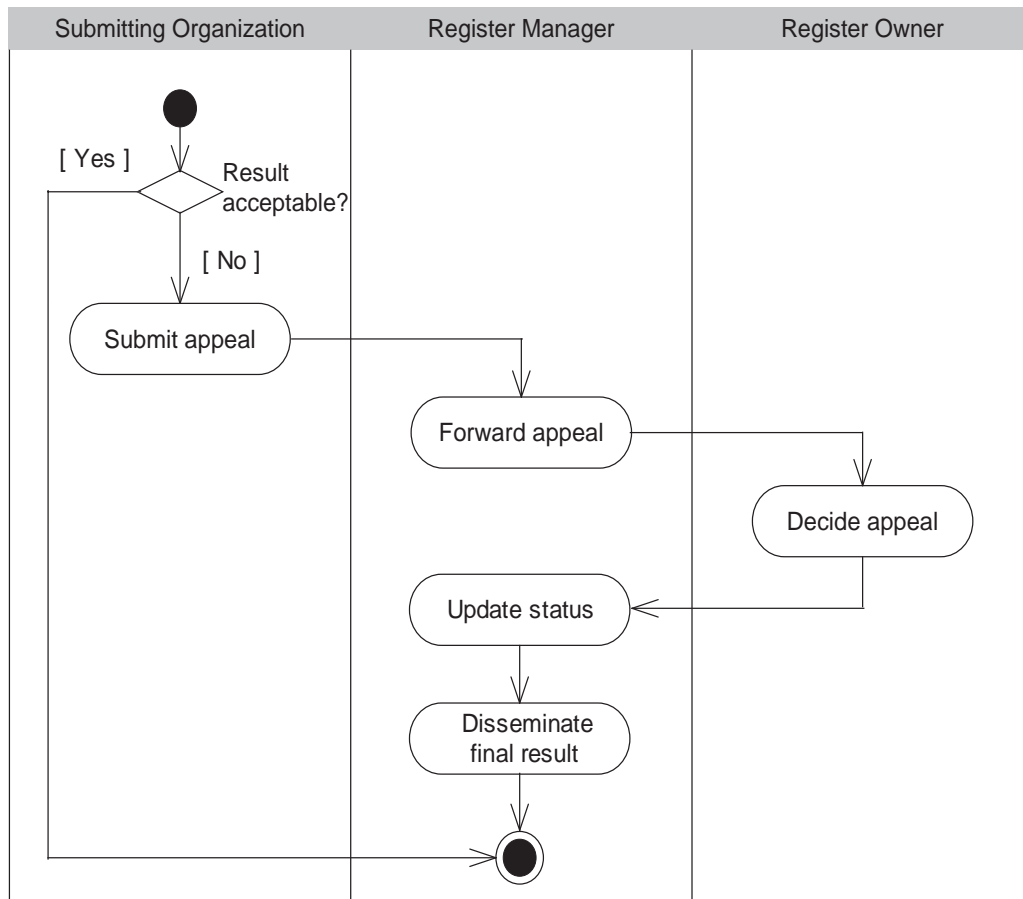
1607 a) change the registration status of the proposal management record from 'pending' to 'final'; and

608 b) change the value for disposition to 'withdrawn' and the value for dateDisposed to the current date.

609 **9.3.9 Appeal**

610 If there is a dispute between an applicant and OeROs, the OeRO shall make reasonable efforts to resolve the
 611 dispute. The OeRO may consult with other OeROs and/or the technical group responsible for the technical
 612 standard. See further JTC 1 Directives Annex E2.15, Dispute Resolution.

613 A submitting organization may appeal to the OeRA if it disagrees with the decision of a stewardship
 614 organization to reject a proposal. An appeal shall contain at a minimum a description of the situation, a
 615 justification for the appeal, and a statement of the impact if the appeal is not successful. The appeal process is
 616 illustrated in Figure 3. The appeal process is patterned after ISO/FDIS 19135. The OeRO is represented in
 617 Figure 3 as the Register Manager and the OeRA is represented as the Register Owner.



618

619 **Figure 4 — Appeal process**

620 The submitting organization shall

- 621 a) determine if the decision regarding a proposal for registration is acceptable; and
- 622 b) if not, submit an appeal to the OeRO.

623 If there is no appeal by the deadline for submitting an appeal, the register manager shall change the
 624 registration status of the proposal management record to 'final' and change the dateDisposed to the current
 625 date.

1626 The OeRO shall

1627 a) forward the appeal to the OeRA.

1628 The OeRA shall

1629 a) process the appeal in conformance with its established procedures (8.2);

1630 b) decide whether to accept or reject the appeal; and

1631 c) return the result to the OeRO.

1632 The OeRO shall

1633 a) update the disposition and dateDisposed of the proposal management record;

1634 b) update the status of the OeRI; and

1635 c) provide the results of the decision to the stewardship organization and to the submitting organization.

1636 The submitting organization shall:

1637 a) make the results of the appeal known within their country or organization.

1638 **9.4 List of submitting organizations**

1639 An OeRO shall maintain and publish a register-specific list of all qualified submitting organizations that have
1640 submitted proposals for changes to the content of each register that it manages. Each list shall include the
1641 **name** and the **contact information** for each submitting organization.

1642 **9.5 Publication**

1643 The OeRO under the terms of this standard shall maintain a register of all Open-edi scenarios and its
1644 packages that it has accepted for registration. The minimum key OeRIs registered (the OeRO can decide and
1645 publicly announce) shall be maintained and published in the English language. Technical definitions and
1646 Informative contents of the register or individual register entries may be provided in other languages according
1647 to the OeRA recommendations.

1648 The OeRO shall provide access at a reasonable cost to all information identified above for all registries via
1649 electronic networks. See further JTC 1 Directives Annex E2.12, Publication of the Register.

1650 An OeRO shall ensure that information about valid, superseded, or retired OeRIs in the register is readily
1651 available to users. The method for providing this information may depend upon the requirements of the
1652 members of the user community.

1653 A transactional approach is recommended to support users with occasional requirements for information
1654 about specific OeRIs. The register should be accessible to users through an Internet web site or other
1655 electronically processable form, within appropriate access constraints. Register services should support
1656 queries based on OeRI names or searches based on keywords occurring in definitions or other elements of
1657 information about the OeRI.

1658 A transfer approach is recommended to support users with requirements for frequent access to many of the
1659 OeRIs in a register. The OeRO should be prepared to provide copies of the set of valid OeRIs contained in the
1660 register as digital data on a physical distribution medium, or on paper. The OeRO should also support a
1661 means for updating distributed copies. The OeRO may charge for the cost of reproduction and distribution of
1662 such copies.

663 9.6 Integrity

664 An OeRO shall ensure, for each register that it manages, that

- 665 a) all aspects of the registration process are handled in accordance with good business practice;
- 666 b) the content of the register is accurate;
- 667 c) only authorised persons can make changes to the register;
- 668 d) the register is secured against loss caused by damage to the system on which that register is
669 maintained;
- 670 e) a softcopy of the register is sent to the OeRA at least once a year; and
- 671 f) confidential information is safeguarded.

672 9.7 Registration proposals

673 The third column of Annex B specifies the obligation and conditionality for Open-edi administration attributes
674 in the submission of a proposal to an OeRO. Additional information requirements may be specified for an item
675 class by the technical standard that specifies that item class. Details may be obtained from the relevant OeRO.

676 9.8 JTC 1 Directives for the operation of registration authority

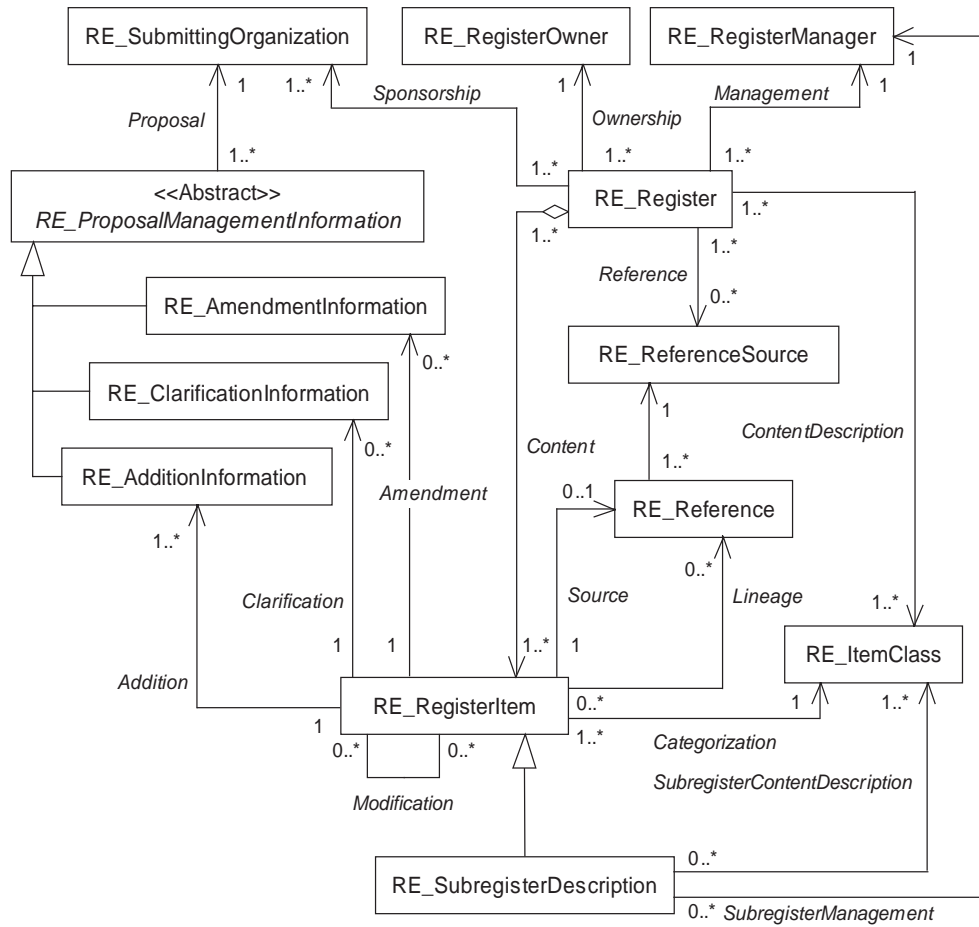
677 See further JTC 1 Directives Annex E2.5, Fees, Annex E2.6, Review and Response to Applications, Annex
678 E2.7, Assignment of Names and Recording of Object Definitions, Annex E2.8, Naming Domain, and Annex
679 E2.9, Rejection of Applications.

680 10 Register schema

681 The structure of a register as specified in ISO/FDIS 19135 Clause 8 is adopted as the Open-edi register
682 schema. Figure 5 depicts the ISO/FDIS 19135 register schema that supports the full implementation of a
683 register. (Open-edi register attributes in this International Standard concentrate on the characteristics of the
684 OeRI, not on the Open-edi register itself. Open-edi register implementers are encouraged to refer to
685 ISO/FDIS 19135 Clause 8.) The ISO/FDIS 19135 register schema is adapted to an Open-edi register schema
686 by representation of:

- 687 - OeRA by RE_RegisterOwner
- 688 - OeRO by RE_RegisterManager
- 689 - Submitting organization by RE_Submitting Organization
- 690 - Open-edi register by RE_Register
- 691 - OeRI by RE_RegisterItem
- 692 - International Registration Business Object Identifier by RE_Register Item itemIdentifier
- 693 - registration status by RE_RegisterItem status
- 694 - **creation date** by RE_ProposalManagementInformation dateProposed
- 695 - **effective date** by RE_RegisterItem dateAccepted
- 696 - last change date by RE_RegisterItem dateAmended

- 1697 - **administrative note** by RE_ProposalManagementInformation registerManagerNotes
- 1698 - **change description** by RE_ProposalManagementInformation justification and by
- 1699 RE_ClarificationInformation proposedChange or RE_AmendmentInformation amendmentType
- 1700 - **explanatory comment** by RE_AdditionalInformation
- 1701 - **reference document** by RE_Reference itemIdentifierAtSource



1702 -

1703

Figure 5 — ISO/FDIS 19135 register schema

704 **Annex A (normative) Consolidated list of terms and definitions with**
 705 **cultural adaptability : ISO English and ISO French language equivalency**

706 **A.1 Introduction**

707 Users of this this part of ISO/IEC 15944 may not have ready access to all standards referenced in either the
 708 ISO English language version or the ISO French language equivalent where available.

709 This standard maximizes the use of existing standards where and whenever possible including relevant and
 710 applicable existing terms and definitions. This Annex A contains the consolidated list of the ISO English and
 711 ISO French language paired terms and definitions used in this standard including those terms and definitions
 712 introduced in this standard. The source is primarily Clause 3, Terms and Definitions, although some terms are
 713 defined in other clauses of this part of ISO/IEC 15944.

714 **A.2 ISO English and ISO French**

715 This standard recognizes that the use of English and French as natural languages is not uniform or
 716 harmonized globally. (Other examples include use of Arabic, German, Portuguese, Russian, Spanish, etc., as
 717 natural languages in various jurisdictions).

718 Consequently, the terms "ISO English" and "ISO French" are utilized here to indicate the ISO's specialized
 719 use of English and French as natural languages in the specific context of international standardization, i.e., as
 720 a "special language".

721 **A.3 Cultural adaptability and quality control**

722 ISO/IEC JTC1 has added "cultural adaptability" as the third strategic direction which all standards
 723 development work should support. The two other existing strategic directions are "portability" and
 724 "interoperability". Not all ISO/IEC JTC1 standards are being provided in more than one language, i.e., in
 725 addition to "ISO/IEC English," in part due to resource constraints.

726 Terms and definitions are an essential part of a standard. This Annex serves to support the "cultural
 727 adaptability" aspects of standards as required by ISO/IEC JTC1. Its purpose is to ensure that if, for whatever
 728 reason, an ISO/IEC JTC1 standard is developed in one ISO/IEC "official" language only, at the minimum the
 729 terms and definitions are made available in more than one language.⁹ A key benefit of translation of terms
 730 and definitions is that such work at providing bilingual/multilingual equivalency:

731 - should be considered a "quality control check" in that establishing an equivalency in another language
 732 ferrets out "hidden" ambiguities in the source language. Often it is only in the translation that
 733 ambiguities in the meaning, i.e., semantics, of the term/definition are discovered. Ensuring
 734 bilingual/multilingual equivalency of terms/definition should thus be considered akin to a minimum
 735 "ISO 9000-like" quality control check; and,

736 - is considered a key element in the widespread adoption and use of standards world-wide (especially
 737 by users of this standard who include those in various industry sectors, within a legal perspective,
 738 policy makers and consumer representatives, other standards developers, IT hardware and service
 739 providers, etc.).

⁹Other ISO/IEC member bodies are encouraged to provide bilingual/multilingual equivalencies of terms/definitions for the language(s) in use in their countries.

1740 **A.4 Organization of Annex A consolidated list is in matrix form**

1741 The terms/definitions are organized in matrix form in alphabetical order (English language). The columns in
 1742 the matrix are as follows:

1743

Col. No.	Use
1	ID as per this part of ISO/IEC 15944 (3.n)
2	Source. International standard referenced or this part of ISO/IEC 15944.
3	ISO English Language - Term
4	ISO English Language - Definition
5	ISO French Language - Term *
6	ISO French Language - Definition

1744

1745 The primary reason for organizing the columns in this order is to facilitate the addition of equivalent
 1746 terms/definitions in other languages as added sets of paired columns, (e.g., Spanish, Japanese, German,
 1747 Russian, etc.).

1748

1749 * Use of an asterisk (*) in Column 5 indicates that the ISO standard referenced (other than this part of
 1750 ISO/IEC 15944) in Column (5) does not have an ISO French language version. For these terms and
 1751 definitions, this part of ISO/IEC 15944 is providing the ISO French language equivalent

A.5 Consolidated Annex A matrix

Identification		ISO English Language		ISO French Language	
Term ID	Source	Term	English Definition	Term	French Definition
1	ISO/IEC 2nd FCD 15944-2:2005 (3.1)	address	<p>set of data elements that specifies a location to which a recorded information item(s), a business object(s), a material object(s) and/or a person(s) can be sent or from which it can be received</p> <p>NOTE 1 An address can be specified as either a physical address and/or electronic address.</p> <p>NOTE 2 In the identification, referencing and retrieving of registered business objects, it is necessary to state whether the pertinent recorded information is available in both physical and virtual forms.</p> <p>NOTE 3: In the context of Open-edi, a "recorded information item" is modelled and registered as an Open-edi scenario (OeS), Information Bundle (IB) or Semantic Component (SC)</p>	adresse	série d'éléments de données servant à préciser l'emplacement où on peut envoyer ou recevoir un élément d'information, un objet matériel, un objet d'affaires, ou une personne.

2	ISO/IEC 2nd FCD 15944-2:2005, (3.2)	administrative note	any general note about the OeRI		
3	ISO/IEC 2nd FCD 15944-2:2005 (3.3)	applicant (for an OeRI)	Person which requests the assignment of an OeRI and an associated entry label NOTE An applicant can be an individual, organization, or public administration		
4	ISO/IEC 11179-3:2003 (3.1.3)	attribute	characteristic of an object or entity	attribut	caractéristique d'un objet ou d'une entité.
5	ISO/IEC 14662:2004 (3.1.2)	business	series of processes, each having a clearly understood purpose, involving more than one party, realised through the exchange of recorded information and directed towards some mutually agreed upon goal, extending over a period of time	affaires	série de processus, ayant chacun une finalité clairement définie, impliquant plus d'une Personne, réalisés par échange d'informations et tendant à l'accomplissement d'un objectif accepté par accord mutuel pour une certaine période de temps.
6	ISO/IEC 2nd FCD 15944-2:2005 (3.6)	business object	unambiguously identified, specified, referenceable, registered and re-useable Open-edi scenario or scenario component of a business transaction NOTE As an "object", a "business object" exists only in the context of a business transaction.	objet d'affaires	

7	ISO/IEC 2nd FCD 15944-2:2005 (3.7)	business object identifier	unique identifier of a business object in an OeRI within an Open-edi Registration Organization(OeRO)		
8	ISO/IEC 2nd FCD 15944-2:2005 (3.8)	business object status	designation of the status in the administrative process of a Open-edi Registration Organization for handling Open-edi registry entries		
9	ISO/IEC 2nd FCD 15944-2:2005 (3.9)	business object type	coded domain for the type of business object being registered, i.e., Open- edi scenario, IB or SC		
10	ISO/IEC 14662:2004 (3.1.3)	Business Operational View (BOV)	perspective of business transactions limited to those aspects regarding the making of business decisions and commitments among Persons, which are needed for the description of a business transaction	Vue opérationnelle des affaires (BOV, Business Operational View)	vue perspective sur les transactions d'affaires, restreinte à ceux des aspects relatifs à la prise par les Personnes de décisions et d'engagements concernant leurs affaires qui sont nécessaires pour décrire une transaction d'affaires.
11	ISO/IEC 14662:2004 (3.1.4)	business transaction	predefined set of activities and/or processes of parties which is initiated by a party to accomplish an explicitly shared business goal and terminated upon recognition of one of the agreed conclusions by all the involved parties although some of the recognition may be implicit	transaction d'affaires	ensemble prédéterminé d'activités menées par des Personnes et/ou de procédures qu'elles suivent, déclenché par une Personne qui vise à atteindre dans les affaires un but expressément partagé, terminé lorsqu'est observée une des conclusions convenues par toutes les Personnes prenantes, bien que cette observation puisse être partiellement implicite.
12	ISO/IEC 2nd FCD 15944-2:2005	change	description of why and how the OeRI has been modified since the prior		

	(3.12)	description	<p>version of the OeRI</p> <p>NOTE It is advised that such a change description be accompanied by the “original “ template values utilized and a “change template” indicating which “Decision Code(s)” has been changed as well as the date the change will take effect.</p>		
13	ISO 19135 (4.1.1, adapted)	clarification	<p>non-substantive change to an OeRI</p> <p>NOTE 1 A non-substantive change does not change the semantics or technical meaning of the OeRI.</p> <p>NOTE 2 A clarification does not result in a change to the registration status of the OeRI.</p>		
14	ISO/IEC 2nd FCD 115944-2:2005 (3.14)	coded domain	<p>domain for which (1) the boundaries are defined and explicitly stated as a rulebase of a coded domain Source Authority; and, (2) each entity which qualifies as a member of that domain is identified through the assignment of a unique ID code in accordance with the applicable Registration Schema of that Source Authority.</p> <p>NOTE 1 The rules governing the assignment of an ID code to members of a coded domain reside with its Source Authority and form</p>		

		<p>part of the Coded Domain Registration Schema of the Source Authority.</p> <p>NOTE 2 Source Authorities which are jurisdictional domains are the primary source of coded domains.</p> <p>NOTE 3 A coded domain is a data set for which the contents of the data element values are predetermined and defined according to the rulebase of its Source Authority and as such have predefined semantics.</p> <p>NOTE 4 Associated with a code in a coded domain can be:</p> <p>one or more equivalent codes;</p> <p>one or more equivalent representations especially those in the form of Human Interface Equivalent (HIE) (linguistic) expressions.</p> <p>NOTE 5 In a coded domain the rules for assignment and structuring of the ID codes must be specified.</p> <p>NOTE 6 Where an entity as member of a coded domain is allowed to have, i.e., assigned, more than one ID code, i.e., as equivalent ID codes (possibly including names), one of these must be specified as the pivot ID code.</p> <p>NOTE 7 A coded domain in turn can</p>		
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			<p>consist of two or more coded domains, i.e., through the application of the inheritance principle of object classes.</p> <p>NOTE 8 A coded domain may contain ID code which pertain to predefined conditions other than qualification of membership of entities in the coded domain. Further, the rules governing a coded domain may or may not provide for user extensions.</p> <p>EXAMPLE Common examples include: (1) the use of ID Code "0" (or "00", etc.) for "Others, (2) the use of ID Code "9" (or "99", etc.) for "Not Applicable"; (3) the use of "8" (or "98") for "Not Known"; if required, (4); the pre-reservation of a series of ID codes for use of "user extensions".</p> <p>NOTE 9 In object methodology, entities which are members of a coded domain are referred to as instances of a class.</p> <p>EXAMPLE In UML modelling notation, an ID code is viewed as an instance of an object class.</p>		
15	ISO/IEC 2nd FCD 15944-2:2005 (3.15)	coded domain Source Authority (cdSA)	<p>Person, usually an organization, as a Source Authority which sets the rules governing a coded domain</p> <p>NOTE 1 Source Authority is a role of a Person and for widely used coded</p>		

			<p>domains the coded domain Source Authority is often a jurisdictional domain.</p> <p>NOTE 2 Specific sectors, (e.g., banking, transport, geomatics, agriculture, etc.), may have particular coded domain Source Authority(ies) whose coded domains are used in many other sectors.</p> <p>NOTE 3 A coded domain Source Authority usually also functions as a Registration Authority but can use an agent, i.e., another Person, to execute the registration function on its behalf.</p>		
16	ISO/IEC 15944-1:2002 (3.9)	commitment	making or accepting of a right, obligation, liability or responsibility by a Person that is capable of enforcement in the jurisdictional domain in which the commitment is made	engagement	création ou acceptation d'un droit, d'une obligation, d'une dette ou d'une responsabilité par une Personne qui est apte à appliquer la juridiction conformément à laquelle l'engagement est pris.
17	ISO/IEC 2nd FCD 15944-2:2005 (3.17)	composite identifier	<p>identifier (in a business transaction) functioning as a single unique identifier consisting of one or more other identifiers, and/or one or more other data elements, whose interworkings are rule-based</p> <p>NOTE 1 Identifiers (in business transactions) are for the most part</p>		

			<p>composite identifiers.</p> <p>NOTE 2 The rules governing the structure and working of a composite identifier should be specified.</p> <p>NOTE 3 Most widely used composite identifiers consist of the combinations of: - the ID of the overall identification/numbering schema, (e.g., ISO/IEC 6532, ISO/IEC 7812, ISO/IEC 7506, UPC/EAN, ITU-T E.164, etc.), which is often assumed; - the ID of the issuing organization (often based on a block numeric numbering schema); and, - the ID of the entities forming part of members of the coded domain of each issuing organization.</p>		
18	ISO/IEC 2nd FCD 15944-2:2005 (3.18)	computational integrity	<p>expression of a standard in a form that ensures precise description of behaviour and semantics in a manner that allows for automated processing to occur, and the managed evolution of such standards in a way that enables dynamic introduction by the next generation of information systems.</p> <p>Notes (deprecated field, move contents above please.)</p> <p>NOTE Open-edi standards have been designed to be able to support computational integrity requirements especially from a registration and re-</p>	intégrité informatique	<p>expression d'un norme sous une forme qui assure la description précise du comportement et de la sémantique d'une façon qui permet un traitement automatique, ainsi que l'évolution gérée de ces normes d'une manière qui permet une introduction dynamique par la génération suivante de systèmes informatiques.</p> <p>Notes (deprecated field, move contents above please.)</p> <p>NOTE [French equivalent needs to be verified and NOTE added</p>

			use of business objects perspectives.		
19	ISO/IEC 15944-1:2002 (3.11)	constraint	<p>rule, explicitly stated, that prescribes, limits, governs or specifies any aspect of a business transaction</p> <p>NOTE 1 Constraints are specified as rules forming part of components of Open-edi scenarios, i.e., as scenario attributes, roles, and/or information bundles.</p> <p>NOTE 2 For constraints to be registered for implementation in Open-edi, they must have unique and unambiguous identifiers.</p> <p>NOTE 3 A constraint may be agreed to among parties (condition of contract) and is therefore considered an "internal constraint". Or a constraint may be imposed on parties, (e.g., laws, regulations, etc.), and is therefore considered an "external constraint".</p>	contrainte	<p>règle, énoncée explicitement, qui prescrit, limite, régit ou spécifie tout aspect d'une transaction d'affaires.</p> <p>Notes (deprecated field, move contents above please.)</p> <p>NOTE 1 Les contraintes sont spécifiées comme des règles faisant partie de composantes de scénarios d'EDI-ouvert, c.-à-d. d'attributs de scénarios, de rôles, et/ou de faisceaux d'information. NOTE 2 Les contraintes doivent avoir des identificateurs uniques et non-ambigus afin d'être enregistrées pour application dans l'EDI-ouvert. NOTE 3 Une contrainte peut faire l'objet d'un accord entre des parties (clause du contrat), et est par conséquent considérée comme « contrainte interne ». Ou une contrainte peut être imposée à des parties (par ex. des lois, des règlements, etc.), et est par conséquent considérée comme une « contrainte externe ».</p>
20	ISO/IEC 2nd FCD 15944-2:2005 (3.20)	Contact	<p>instance of a role of a Person to whom a recorded information item(s), a material object(s), a business object(s), and/or natural persons (as either individual(s), or organization Person(s)) can be sent to or received from in a specified context</p> <p>NOTE 1 Person here as a Contact can be an individual, an organization</p>		

			(or organization part or organization Person). NOTE 2 Contact is capitalized to distinguish it from the many ordinary uses of the word.		
21	ISO/IEC 11179-3: 2003 (3.3.27)	Contact Information	information to enable a Contact to be located or communicated with		
22	ISO/IEC 2nd FCD 15944-2:2005 (3.22)	Contact name	name by which a Person wishes to be designated as a Contact NOTE Where an organization is the applicant, it may designate an organization Person, an agent, a third party as its Contact name in applying to register a scenario or scenario component as a business object.		
23	ISO/IEC 11179-3: 2003 (3.3.29)	Contact position title	name of title of the position held by an organization Person as a Contact		
24	ISO/FDIS 19135, (4.1.2)	control body	group of technical experts that makes decisions regarding the content of a register		

25	ISO/IEC 2nd FCD 15944-2:2005 (3.25)	creation date	date the OeRI for a business object was created		
26	ISO/IEC 11179-3:2003 (3.3.36)	data element	unit of data for which the definition, identification, representation and Permissible Values are specified by means of a set of attributes	élément de données	unité d'information dont la définition, l'identification, la représentation et les valeurs autorisées sont spécifiées au moyen d'un ensemble d'attributs.
27	ISO/IEC 2nd FCD 15944-2:2005 (3.27)	date	ISO 8601 compliant representation of a date in a YYYY-MM-DD format using the Gregorian calendar		
28	ISO/IEC 15944-5:200n (3.nnn)	de facto language	<p>a natural language used in a jurisdictional domain which has the properties and behaviours of an official language in that jurisdictional domain without having formally been declared as such by that jurisdictional domain</p> <p>NOTE 1 A de facto language of a jurisdictional domain is often established through long term use and custom.</p> <p>NOTE 2 Unless explicitly stated otherwise and for the purposes of modelling a business transaction through scenario(s), scenario attributes and/or scenario components, a de facto language of a jurisdictional domain is assumed to</p>		

			have the same properties and behaviours of an official language.		
29	ISO/IEC 1087-1:2000 (3.3.1)	definition	representation of a concept by a descriptive statement which serves to differentiate it from related concepts	définition	représentation d'un concept par un énoncé descriptif permettant de la différencier des concepts associés.
30	ISO 1087-1:2000 (3.4.1)	designation	representation of a concept by a sign which denotes it NOTE In terminology work three types of designations are distinguished: symbols, appellations and terms.	designation	représentation d'un concept par un signe qui le dénomme.
31	ISO/IEC 2nd FCD 15944-2:2005 (3.31)	documentation language code	language code of the language used for documentation by the Open-edi Registration Organization NOTE Use the three character alphabetic language codes and names from ISO 639-2/T (Terminology).		
32	ISO/IEC 2nd FCD 15944-2:2005 (3.32)	effective date	date an OeRI became/becomes available to registry users		
33	ISO/IEC 2nd FCD 15944-2:2005	electronic	address utilized in a recognized electronic addressing scheme, (e.g.,		

	(3.33)	address	telephone, telex, IP, etc.), to which recorded information item(s) and/or business object(s) can be sent to or received from a Contact		
34	ISO/IEC 2n FCD 15944-2:2005 (3.34)	entry label	<p>name information uniquely associated with the identification and resulting International Registration Business Object Identifier of a business object as a registered Open-edi scenario or scenario component</p> <p>NOTE More than one entry label may be associated with an IRBOI depending on the applicable language(s) utilized as Human Interface Equivalents (HIEs).</p>		
35	ISO/IEC 15944-1:2002 (3.23)	external constraint	<p>constraint which takes precedence over internal constraints in a business transaction, i.e., is external to those agreed upon by the parties to a business transaction</p> <p>NOTE 1 Normally external constraints are created by law, regulation, orders, treaties, conventions or similar instruments.</p> <p>NOTE 2 Other sources of external constraints are those of a sectorial nature, those which pertain to a particular jurisdiction or a mutually agreed to common business</p>	contrainte externe	contrainte qui l'emporte sur les contraintes internes dans une transaction d'affaires, c.-à-d. qui est externe à celles convenues entre les parties dans une transaction d'affaires.

			<p>conventions, (e.g., INCOTERMS, exchanges, etc.).</p> <p>NOTE 3 External constraints can apply to the nature of the good, service and/or right provided in a business transaction.</p> <p>NOTE 4 External constraints can demand that a party to a business transaction meet specific requirements of a particular role.</p> <p>EXAMPLE 1 Only a qualified medical doctor may issue a prescription for a controlled drug.</p> <p>EXAMPLE 2 Only an accredited share dealer may place transactions on the New York Stock Exchange.</p> <p>EXAMPLE 3 Hazardous wastes may only be conveyed by a licensed enterprise.</p> <p>NOTE 5 Where the information bundles (IBs), including their Semantic Components (SCs) of a business transaction are also to form the whole of a business transaction, (e.g., for legal or audit purposes), all constraints must be recorded.</p> <p>EXAMPLE There may be a legal or audit requirement to maintain the complete set of recorded information pertaining to a business transaction, i.e., as the information bundles</p>		
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			<p>exchanged, as a "record".</p> <p>NOTE 6 A minimum external constraint applicable to a business transaction often requires one to differentiate whether the Person, i.e., that is a party to a business transaction, is an "individual", "organization", or "public administration". For example, privacy rights apply only to a Person as an "individual".</p>		
36	ISO/IEC 2nd FCD 15944-2:2005 (3.36)	Human Interface Equivalent (HIE)	<p>representation of the unambiguous and IT-enabled semantics of an IT interface equivalent (in a business transaction), often the ID code of a coded domain (or a composite identifier), in a formalized manner suitable for communication to and understanding by humans</p> <p>NOTE 1 Human interface equivalents can be linguistic or non-linguistic in nature but their semantics remains the same although their representations may vary.</p> <p>NOTE 2 In most cases there will be multiple Human Interface Equivalent representations as required to meet localization requirements, i.e. those of a linguistic nature, jurisdictional nature, and/or sectorial nature.</p> <p>NOTE 3 Human Interface Equivalents include representations in various</p>		

			<p>forms or formats, (e.g., in addition to written text those of an audio, symbol (and icon) nature, glyphs, image, etc.)</p> <p>NOTE 1 NOTE 2 NOTE 3</p>		
37	ISO/IEC 2nd FCD 15944-2:2005 (3.37)	IB Identifier	<p>unique, linguistically neutral, unambiguous referenceable identifier for an Information Bundle</p>		
38	ISO/IEC 2nd FCD 15944-2:2005 (3.38)	ID Code	<p>identifier assigned by the coded domain Source Authority (cdSA) to a member of a coded domain ID</p> <p>NOTE 1 ID codes must be unique within the Registration Schema of that coded domain.</p> <p>NOTE 2 Associated with an ID code in a coded domain can be: - one or more equivalent codes; - one or more equivalent representations, especially those in the form of human equivalent (linguistic) expressions.</p>		

			<p>NOTE 3 Where an entity as a member of a coded domain is allowed to have more than one ID code, i.e., as equivalent codes (possibly including names), one of these must be specified as the pivot ID code.</p> <p>EXAMPLE Common examples include: (1) the use of an ID code "0" (or "00", etc.), for "Other"; (2) the use of an ID code "9" (or "99") for "Not Applicable"; (3) the use of "8" (or "98") for "Not Known"; if required, (4) the pre-reservation of a series or set of ID codes for use for "user extensions".</p> <p>NOTE 4 A coded domain may contain ID codes pertaining to entities which are not members as peer entities, i.e., have the same properties and behaviours, such as ID codes which pertain to predefined conditions other than member entities. If this is the case, the rules governing such exceptions must be predefined and explicitly stated.</p> <p>NOTE 5 In UML modeling notation, an ID codes is viewed as an instance of an object class.</p>		
39	ISO/IEC 15944-1:2002 (3.26)	identification	rule-based process, explicitly stated, involving the use of one or more attributes, i.e., data elements, whose value (or combination of values) are used to identify uniquely the occurrence or existence of a specified	identification	processus basé sur des règles, énoncées explicitement, impliquant l'utilisation d'un ou plusieurs attributs, c-à-d. des éléments de données, dont la valeur (ou une combinaison de valeurs) sert à identifier de façon unique l'occurrence ou l'existence d'une entité

			entity		spécifiée.
40	ISO/IEC 15944-1:2002 (3.27)	identifiant (in business transaction)	<p>unambiguous, unique and a linguistically neutral value, resulting from the application of a rule-based identification process. Identifiers must be unique within the identification scheme of the issuing authority</p> <p>NOTE 1 Identifiers must be unique within the identification scheme of the issuing authority.</p> <p>NOTE 2 An identifier is a linguistically independent sequence of characters capable of uniquely and permanently identifying that with which it is associated {See ISO/FDIS 19135, (4.1.5)}</p>	identificateur (transaction d'affaires)	valeur non ambiguë et linguistiquement neutre, résultant de l'application d'un processus d'identification à base de règles. Les identificateurs doivent être uniques dans le système d'identification de l'autorité émettrice.
41	ISO/IEC 14662:2004 (4.1.2.2)]	Information Bundle (IB)	formal description of the semantics of the recorded information to be exchanged by Open-edi Parties playing roles in an Open-edi scenario	Faisceau d'informations (IB, Information Bundle)	description formelle de la valeur sémantique des informations enregistrées échangées entre partenaires d'EDI-ouvert jouant un rôle dans un scénario d'EDI-ouvert.
42	ISO/IEC 15944-1:2002 (3.33)	internal constraint	<p>constraint which forms part of the commitment(s) mutually agreed to among the parties to a business transaction</p> <p>NOTE Internal constraints are self-imposed. They provide a simplified view for modelling and re-use of scenario components of a business transaction for which there are no external constraints or restrictions to</p>	contrainte interne	<p>contrainte qui fait partie de l'engagement convenu mutuellement entre les parties d'une transaction d'affaires.</p> <p>Notes (deprecated field, move contents above please.)</p> <p>NOTE Les contraintes internes sont volontaires. Elles présentent une vue simplifiée de modélisation et de réutilisation des composantes de scénario d'une transaction</p>

			the nature of the conduct of a business transaction other than those mutually agreed to by the buyer and seller.		d'affaires sans contraintes ou restrictions externes quant à la conduite d'une transaction d'affaires autres que celles convenues mutuellement entre l'acheteur et le vendeur.
43	ISO/IEC 2nd FCD 15944-2:2005 (3.43)	International Registration Business Object Identifier (IRBOI)	internationally unique identifier for an OeRI NOTE IRBOIs are of the nature of a composite identifier.		
44	ISO/IEC 2nd FCD 15944-2:2005 (3.44)	International Standard Identifier	Identifier of the version of this part of ISO/IEC 15944 upon which attributes are based		
45	ISO/IEC 2nd FCD 15944-2:2005 (3.45)	item class	set of items with common properties NOTE Class is used in this context to refer to a set of instances, not the concept abstracted from that set of instances.		
46	ISO/IEC 2nd FCD 15944-2:2005 (3.46)	IT interface equivalent	computer processable identification of the unambiguous semantics of a scenario, scenario attribute and/or scenario component(s) pertaining to a commitment exchange in a business transaction which supports		

			<p>computational integrity</p> <p>NOTE 1 IT interface equivalents have the properties of identifiers (in business transaction) and are utilized to support semantic interoperability in commitment exchange.</p> <p>NOTE 2 The value of an IT interface equivalent at times is a composite identifier.</p> <p>NOTE 3 An IT interface equivalent as a composite identifier can consist of the identifier of a coded domain plus an ID code of that coded domain.</p> <p>NOTE 4 An IT interface equivalent is at times utilized as a semantic identifier.</p> <p>NOTE 5 An IT interface equivalent may have associated with it one or more Human Interface Equivalents (HIEs).</p> <p>NOTE 6 The value of an IT Interface is independent of its encoding in programming languages or APIs.</p>		
47	ISO/IEC 15944-5:200n (3.nnn)	jurisdictional domain	jurisdiction, recognized in law as a distinct legal and/or regulatory framework, which is a source of external constraints on Persons, their behaviour and the making of commitments among Persons including any aspect of a business		

			<p>transaction</p> <p>NOTE 1 The pivot jurisdictional domain is a United Nations (UN) recognized member state. From a legal and sovereignty perspective they are considered "peer" entities. Each UN member state, (a.k.a. country) may have sub-administrative divisions as recognized jurisdictional domains, (e.g., provinces, territories, cantons, länder, etc.), as decided by that UN member state.</p> <p>NOTE 2 Jurisdictional domains can combine to form new jurisdictional domains, (e.g., through bilateral, multilateral and/or international agreements).</p> <p>EXAMPLE Included here, for example, are the European Union (EU), NAFTA, WTO, WCO, ICAO, WHO, Red Cross, the ISO, the IEC, the ITU, etc.</p> <p>NOTE 3 Several levels and categories of jurisdictional domains may exist within a jurisdictional domain.</p> <p>NOTE 4 A jurisdictional domain may impact aspects of the commitment(s) made as part of a business transaction including those pertaining to the making, selling, transfer of goods, services and/or rights (and resulting liabilities) and associated information. This is independent of</p>		
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			<p>whether such interchange of commitments are conducted on a for-profit or not-for-profit basis and/or include monetary values.</p> <p>NOTE 5 Laws, regulations, directives, etc., issued by a jurisdictional domain are considered as parts of that jurisdictional domain and are the primary sources of external constraints on business transactions.</p>		
48	ISO/IEC 2nd FCD 15944-2:2005 (3.48)	jurisdictional domain identifier	ID code of a jurisdictional domain as recognized for use by peer jurisdictional domains within a system of mutual recognition		
49	ISO 5127-1:2001 (1.1.2.01)	language	<p>system of signs for communication, usually consisting of a vocabulary and rules.</p> <p>NOTE In this standard, language refers to natural languages or special languages, but not "programming languages" or "artificial languages"</p>		
50	ISO 639-2:1998 (3.2. adapted)	language code	<p>combination of characters used to represent a language or languages</p> <p>NOTE In this multipart ISO/IEC 15944 standard, the ISO 639-2/T (terminology) three alpha-code, shall</p>	codet de langue	<p>combinaison de caractères utilisées pour représenter une langue ou des langues.</p> <p>Notes (deprecated field, move contents above please.)</p>

			be used.		NOTE [French equivalent required 02.09.04]
51	ISO/IEC 2nd FCD 15944-2:2005 (3.51)	location	place, either physical or electronic, that can be defined as an address	emplacement	lieu, physique ou électronique, pouvant être défini par une adresse.
52	ISO 5217:2000 (1.1.2.02)	name	designation of an object by a linguistic expression	nom	désignation d'un objet par une unité linguistique.
53	ISO 5217:2000 (1.1.2.02)	natural language	language which is or was in active use in a community of people, and the rules of which are mainly deduced from the usage		
54	ISO/IEC 2nd FCD 15944-2:2005 (3.54)	OeRI language code	language code of the language used for the OeRI by the submitting organization		
55	ISO/IEC 2nd CD 15944-5:200n (3.nnn)	official language	external constraint in the form of a natural language specified by a jurisdictional domain for official use by Persons forming part of and/or subject to that jurisdictional domain for use in communication(s) either (1) within that jurisdictional domain; and/or, (2) among such Persons, where such communications are recorded information involving commitment(s) NOTE 1 Unless official language requirements state otherwise, Persons are free to choose their		

			<p>mutually acceptable natural language and/or special language for communications as well as exchange of commitments.</p> <p>NOTE 2 A jurisdictional domain decides whether or not it has an official language. If not, it will have a de facto language.</p> <p>NOTE 3 An official language(s) can be mandated for formal communications as well as provision of goods and services to Persons subject to that jurisdictional domain and for use in the legal and other conflict resolution system(s) of that jurisdictional domain, etc.</p> <p>NOTE 4 Where applicable, use of an official language may be required in the exercise of rights and obligations of individuals in that jurisdictional domain.</p> <p>NOTE 5 Where an official language of a jurisdictional domain has a controlled vocabulary of the nature of a terminology, it may well have the characteristics of a special language. In such cases, the terminology to be used must be specified.</p> <p>NOTE 6 For an official language, the writing system(s) to be used shall be specified, where the spoken use of a natural language has more than one writing system.</p>		
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			<p>EXAMPLE 1 The spoken language of use of an official language may at times have more than one writing system. For example, three writing systems exist for the Inuktitut language. Canada uses two of these writing systems, namely, a Latin-1 based (Roman), the other is syllabic-based. The third is used in Russia and is Cyrillic based.</p> <p>EXAMPLE 2 Another example is that of Norway which has two official writing systems, both Latin-1 based, namely, Bokmål (Dano-Norwegian) and Nynorsk (New Norwegian).</p> <p>NOTE 7 A jurisdictional domain may have more than one official language but these may or may not have equal status. EXAMPLE Canada has two official languages, Switzerland has three, while the Union of South Africa has eleven official languages.</p> <p>NOTE 8 The BOV requirement of the use of a specified language will place that requirement on any FSV supporting service.</p> <p>EXAMPLE A BOV requirement of Arabic, Chinese, Russian, Japanese, Korean, etc., as an official language requires the FSV support service to be able to handle the associated character sets.</p>		
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56	ISO/IEC 14662:1997 (4.1.1)	Open-edi Description Technique (OeDT)	specification method such as a Formal Description Technique, another methodology having the characteristics of a Formal Description Technique, or a combination of such techniques as needed to formally specify BOV concepts, in a computer processible form	Technique de description d'EDI-ouvert	méthode de spécification, technique de description formelle, ou toute autre technique ayant les caractéristiques d'une technique de description formelle, ou combinaison de ces techniques, permettant de spécifier formellement les concepts de la BOV sous forme calculable par un ordinateur.
57	ISO/IEC 2nd FCD 15944-2:2005 (3.57)	Open-edi register	information store or database maintained by an Open-edi Registry		
58	ISO/IEC 2nd FCD 15944-2:2005 (3.58)	Open-edi registration administration attribute	member of a set of attributes to uniquely identify an Open-edi scenario, Information Bundle, or Semantic Component and the relevant Person responsible for its maintenance		
59	ISO/IEC 2nd FCD 15944-2:2005 (3.59)	Open-edi Registration Authority (OeRA)	Person responsible for maintaining the register of OeROs and for the issuance of OeRO identifiers		
60	ISO/IEC 2nd FCD 15944-2:2005 (3.60)	Open-edi Registration Organization (OeRO)	Person qualified by the OeRA to assume the responsibility for the registration of scenario and scenario components		

61	ISO/IEC 2nd FCD 15944-2:2005 (3.61)	Open-edi Registration Organization address	physical and/or electronic address of the Open-edi Registration Organization NOTE A physical address includes a “pick-up” address such as a mailbox or such other location one can deliver to.		
62	ISO/IEC 2nd FCD 15944-2:2005 (3.62)	Open-edi Registration Organization Identifier (OeORI)	identifier assigned to an Open-edi Registration Organization		
63	ISO/IEC 2nd FCD 15944-2:2005 (3.63)	Open-edi Registration Organization name	designation for the Open-edi Registration Organization		
64	ISO/IEC 2nd FCD 15944-2:2005 (3.64)	Open-edi Registry (OeR)	information system for the registration of scenarios and scenario components		
65	ISO/IEC 2nd FCD 15944-2:2005 (3.65)	Open-edi Registry Item (OeRI)	recorded information within a registry relating to a specific Open-edi scenario or scenario components of a scenario including linkage information to a scenario content		

66	ISO/IEC 2nd FCD 15944-2:2005 (3.66)	Open-edi registry record	collection of recorded information for an OeRI		
67	ISO/IEC 14662:2004 (3.1.12)	Open-edi scenario (OeS)	a formal specification of a class of business transactions having the same business goal	scénario d'EDI-ouvert	spécification formelle d'une classe de transactions d'affaires partageant le même objectif d'affaires.
68	ISO/IEC 2nd FCD 15944-2:2005 (3.68)	Open-edi sponsoring authority	Person recognized in accordance with the requirements of this part of ISO/IEC 15944, to receive Open-edi Registration Organization applications for submission to an Open-edi Registration Authority		
69	ISO/IEC 6523-1:1998 (3.1)	organization	<p>unique framework of authority within which a person or persons act, or are designated to act, towards some purpose</p> <p>Notes (deprecated field, move contents above please.)</p> <p>NOTE The kinds of organizations covered by this International Standard include the following examples: EXAMPLE 1 An organization incorporated under law. EXAMPLE 2 An unincorporated organization or activity providing goods and/or services including: 1)partnerships; NOTE Les ty 2)social or other non-profit organizations or similar bodies in which ownership or control is vested in a group of individuals;</p>	organisation	<p>cadre unique d'autorité dans lequel une ou plusieurs personnes agissent ou sont désignées pour agir afin d'atteindre un certain but.</p> <p>Notes (deprecated field, move contents above please.)</p> <p>NOTE Les types d'organisations couverts par la présente partie de l'ISO/CEI 6523 comprennent par exemple les éléments suivants:EXEMPLE 1 Organisations constituées suivant des formes juridiques prévues par la loi.EXEMPLE 2 Autres organisations ou activités fournissant des biens et/ou des services, tels que 1)sociétés en participation; 2)organismes sociaux ou autres à but non lucratif dans lesquels le droit de propriété ou le contrôle est dévolu à un groupe de personnes; 3) entreprises individuelles; 4) administrations et organismes de l'état;EXEMPLE 3 Regroupements des</p>

			3)sole proprietorships 4)governmental bodies EXAMPLE 3 Groupings of the above types of organizations where there is a need to identify these in information interchange.		organisations des types ci-dessus, lorsqu'il est nécessaire de les identifier pour l'échange d'informations.
70	ISO/IEC 2nd FCD 15944-2:2005 (3.70)	organization address	the physical and/or electronic address of an organization NOTE A physical address includes a "pick-up" address such as a mailbox or such other location one can deliver to.		
71	ISO/IEC 11179-3: 2003, (3.3.94)	organization name	designation for the organization		
72	ISO/IEC 2nd FCD 15944-2:2005 (3.72)	origin	source (document, project, discipline or model) for the OeRI		
73	ISO/IEC 15944-1:2002 (3.47)	Person	entity, i.e., a natural or legal person, recognized by law as having legal rights and duties, able to make commitment(s), assume and fulfil resulting obligation(s), and able of being held accountable for its action(s) NOTE 1 Synonyms for "legal person" include "artificial person", "body corporate", etc., depending on the terminology used in competent	Personne	entité, c-à-d. une personne physique ou morale, reconnue par la loi comme ayant des droits et des devoirs, capable de faire des engagements, d'assumer et de remplir les obligations résultantes, et capable d'être tenue responsable de ses actions. Notes (deprecated field, move contents above please.) NOTE 1 Parmi les synonymes de «personne morale», on trouve «personne juridique»,

			<p>jurisdictions.</p> <p>NOTE 2 Person is capitalized to indicate that it is being utilized as formally defined in the standards and to differentiate it from its day-to-day use.</p> <p>NOTE 3 Minimum and common external constraints applicable to a business transaction often require one to differentiate among three common subtypes of Person, namely "individual", "organization", and "public administration".</p>		<p>«personne fictive», «corporation», etc., selon la terminologie utilisée par les juridictions compétentes. NOTE 2 « Personne » prend la majuscule pour indiquer que ce terme est utilisé tel que défini officiellement dans les normes et pur le différencier de son usage ordinaire. NOTE 3 Les exigences minima et communes applicables aux transactions d'affaires obligent souvent à faire une différence entre les trois sous-catégories communes de « Personne », notamment « individu », « organisation », « administration publique ».</p>
74	ISO/IEC 2nd FCD 15944-2:2005 (3.74)	physical address	address that is used/recognized by a postal authority and/or courier service to deliver information item(s), material object(s), or business object(s) to a Contact at either an actual address or a pick-up point address, (e.g., P.O. Box, rural route, etc.)	adresse physique	
75	ISO/IEC 2nd FCD 15944-5:2005 (3.075)	principle	<p>fundamental, primary assumption and quality which constitutes a source of action determining particular objectives or results</p> <p>NOTE 1 A principle is usually enforced by rules that affect its</p>	principe	hypothèse fondamentale et primaire, et qualité qui constitue une source d'action pour déterminer des objectifs ou des résultats particuliers.

			<p>boundaries.</p> <p>NOTE 2 A principle is usually supported through one or more rules.</p> <p>NOTE 3 A principle is usually part of a set of principles which together form a unified whole.</p> <p>EXAMPLE: Within a jurisdictional domain, examples of a set of principles include a charter, a constitution, etc.</p>		
76	ISO/IEC 15944-1:2002 (3.53)	process	a series of actions or events taking place in a defined manner leading to the accomplishment of an expected result	processus	série d'actions ou d'événements qui se produisent d'une manière définie et qui aboutissent à un résultat attendu.
77	ISO/IEC 15944-1:2002 (3.56)	recorded information	<p>information that is recorded on or in a medium irrespective of form, recording medium or technology utilized, and in a manner allowing for storage and retrieval</p> <p>NOTE 1 This is a generic definition and is independent of any ontology, (e.g., those of "facts" versus "data" versus "information" versus "intelligence" versus "knowledge", etc.).</p> <p>NOTE 2 Through the use of the term "information," all attributes of this term</p>	information enregistrée	<p>toute information enregistrée sur ou dans un support quelle que soit sa forme, le support de stockage ou la technologie utilisés, et de façon à permettre son stockage et son extraction.</p> <p>Notes (deprecated field, move contents above please.)</p> <p>NOTE 1 Cette définition est générique et indépendante de toute ontologie (par exemple le point de vue des «faits» par rapport aux «données», à «l'information», aux «renseignements», à la «connaissance», etc.</p> <p>NOTE 2 Dans l'utilisation du terme «information», tous les attributs de ce terme sont hérités dans cette définition. NOTE 3 Cette définition couvre les éléments suivants : (i)toute</p>

			are inherited in this definition. NOTE 3 This definition covers: (i) any form of recorded information, means of recording, and any medium on which information can be recorded; and, (ii) all types of recorded information including all data types, instructions or software, databases, etc.		forme d'information enregistrée, tout moyen d'enregistrement, et tout support sur lequel l'information peut être enregistrée; et, (ii) tous types d'information enregistrée, y compris tous les types de données, instructions ou logiciels, bases de données, etc.
78	ISO/IEC 2nd FCD 15944-2:2005 (3.78)	reference document	external document(s) containing relevant recorded information about the scenario or scenario component		
79	ISO/IEC 11179-3: 2003, (3.3.112)	reference document identifier	identifier of a reference document		
80	ISO/IEC 2nd FCD 15944-2:2005 (3.80)	reference document language code	language code(s) of the language(s) used in the reference document		
81	ISO/IEC 11179-3: 2003, (3.3.114)	reference document title	title(s) of the reference document NOTE A reference document may have more than one title depending on the languages in which it is produced		

82	ISO/IEC 11179-3: 2003, (3.3.115)	reference document type description	description of the type of reference document		
83	ISO/IEC 11179-3: 2003, (3.3.116)	reference organization	relationship between a reference document and an organization		
84	ISO/FDIS 19135, (4.1.9)	register	set of files containing identifiers assigned to items with descriptions of the associated items		
85	ISO/FDIS 19135, (4.1.10)	register manager	organization to which management of a register has been delegated by the register owner NOTE In the case of an ISO register, the register manager performs the functions of the registration authority specified in the ISO/IEC Directives.		
86	ISO/FDIS 19135, (4.1.11)	register owner	organization that establishes a register		
87	ISO/IEC 2nd FCD 15944-2:2005	registrar	representative of an Open-ed		

	(3.87)		Registration Organization		
88	ISO/IEC 2nd FCD 15944-2:2005 (3.88)	registrar Contact	Contact information associated with a registrar of an Open-edi registration organization		
89	ISO/IEC 2nd FCD 15944-2:2005 (3.89)	registration	rule-based process, explicitly stated, involving the use of one or more data elements, whose value (or combination of values) are used to identify uniquely the results of assigning an OeRI		
90	ISO/IEC 15944-1:2002 (3.57)	Registration Authority (RA)	Person responsible for the maintenance of one or more Registration Schemas including the assignment of a unique identifier for each recognized entity in a Registration Schema	organisme d'enregistrement	personne responsable du maintien d'un ou de plusieurs schémas d'enregistrement, y compris l'attribution d'un identificateur unique pour chaque entité reconnue d'un schéma d'enregistrement.
91	ISO/IEC 15944-1:2002 (3.58)	Registration Schema (RS)	formal definition of a set of rules governing the data fields for the description of an entity and the allowable contents of those fields, including the rules for the assignment of identifiers	schéma d'enregistrement , (RS)	définition officielle d'un ensemble de règles régissant les champs de données pour la description d'une entité ainsi que le contenu autorisé de ces champs, y-compris les règles d'attribution des identifiants.
92	ISO/IEC 2nd FCD 15944-2:2005 (3.92)	registration status	designation of the status in the registration administration of an OeRI		

93	ISO/FDIS 19135, (4.1.13)	registry	information system on which a register is maintained		
94	ISO/FDIS 19135, (4.1.14)	retirement	<p>declaration that a register item is no longer suitable for use in the production of new data</p> <p>NOTE The status of the retired item changes from 'valid' to 'retired'. A retired item is kept in the register to support the interpretation of data produced before its retirement.</p>		
95	ISO/IEC 14662:2004 (4.1.2.1)	role	specification which models an external intended behaviour (as allowed within a scenario) of an Open-edi Party	rôle	spécification qui modélise le comportement externe attendu d'un partenaire d'EDI-ouvert dans le cadre permis par un scénario.
96	ISO/IEC 2nd FCD 15944-2:2005 (3.96)	rule	<p>statement governing conduct, procedure, conditions and relations.</p> <p>NOTE 1 Rules specify conditions that must be complied with. These may include relations among objects and their attributes.</p> <p>NOTE 2 Rules are of a mandatory or conditional nature.</p> <p>NOTE 3 In Open-edi, rules formally specify the commitment(s) and role(s)</p>	règle	<p>énoncé régissant une conduite, une procédure, des conditions ou des rapports. NOTE 1 Les règles spécifient les rapports entre les objets et leurs attributs. NOTE 2 Les règles sont de nature obligatoire ou conditionnelle. NOTE 3 Les règles spécifient formellement les engagements et le(s) rôle(s) des parties concernées, et le(s) comportement(s) prévu(s) des parties concernées tels que perçus par d'autres parties concernées par des transactions (électroniques) d'affaires. Ces règles s'appliquent aux éléments suivants: -contenu des flux d'information sous forme de signification précise et traitable par</p>

			<p>of the parties involved, and the expected behaviour(s) of the parties involved as seen by other parties involved in (electronic) business transactions. Such rules are applied to: -content of the information flows in the form of precise and computer-processable meaning, i.e. the semantics of data; and, -the order and behaviour of the information flows themselves.</p> <p>NOTE 4 Rules must be clear and explicit enough to be understood by all parties to a business transaction. Rules also must be capable of being able to be specified using a using a Formal Description Technique(s) (FDTs).</p> <p>EXAMPLE A current and widely used FDT is "Unified Modelling Language (UML)".</p> <p>NOTE 5 Specification of rules in an Open-edi business transaction should be compliant with the requirements of ISO/IEC 15944-3 "Open-edi Description Techniques (OeDT)"</p>		<p>ordinateur, c-à-d. la sémantique des données; et, -l'ordre et le comportement des flux d'informaiton eux-mêmes.</p> <p>Notes (deprecated field, move contents above please.)</p> <p>NOTE 4 Les règles doivent être suffisamment claires et explicites pour être comprises par toutes les parties d'une transaction d'affaires. En même temps, les règles doivent pouvoir être spécifiées en utilisant une ou des technique(s) de description formelle(s) (FDT). EXEMPLE L'une des techniques de description formelles actuellement et couramment utilisées est l'UML (Langage de modélisation unifié ou Unified Modelling Language).NOTE 5 [translation required 03.06.03]</p>
97	ISO/IEC 2nd FCD 15944-2:2005 (3.97)	rulebase	<p>pre-established set of rules which interwork and which together form an autonomous whole</p> <p>NOTE 1 NOTE One considers a rulebase to be to rules as database is</p>		

			to data.		
98	ISO/IEC 14662:2004 (4.1.2.3)	scenario attribute	formal specification of information, relevant to an Open-edi scenario as a whole, which is neither specific to roles nor to Information Bundles	attribut de scénario	spécification formelle d'une information d'intérêt pour la globalité d'un scénario d'EDI-ouvert, qui ne ressortit spécifiquement ni aux rôles ni aux faisceaux d'informations.
99	ISO/IEC 2nd FCD 15944-2:2005 (3:99)	scenario component	one of the three fundamental elements of a scenario, namely role (as per Part 5), information bundle, and semantic component		
100	ISO/IEC 2nd FCD 15944-2:2005 (3.100)	scenario content	set of recorded information containing registry entry identifiers, labels and their associated definitions and related recorded information posted (or reposted) in any registry for business objects		
101	ISO/IEC 15944-5:200n (3.nn)	scenario specification attribute	any attribute of a scenario, role, information bundle, and/or semantic component.		
102	ISO/IEC 2nd FCD 15944-2:2005 (3.102)	SC identifier	unique, linguistically neutral, unambiguous, referencable identifier of a Semantic Component		
103	ISO/IEC 14662:2004	Semantic Component	unit of recorded information unambiguously defined in the context of the business goal of the business	Composant sémantique (SC, Semantic	unité d'information enregistrée définie de manière non ambiguë dans le contexte de l'objectif d'affaires de la transaction d'affaires.Un

	(4.1.2.2)	(SC)	transaction NOTE A SC may be atomic or composed of other SCs.	Component)	SC peut être atomique ou composé d'autres SC.
104	ISO/IEC 2nd FCD 15944-2:2005 (3.104)	Source Authority (SA)	<p>Person recognized by other Persons as the authoritative source for a set of constraints</p> <p>NOTE 1 A Person as a Source Authority for internal constraints may be an individual, organization, or public administration.</p> <p>NOTE 2 A Person as Source Authority for external constraints may be an organization or public administration.</p> <p>EXAMPLE In the field of air travel and transportation, IATA as a Source Authority, is an "organization," while ICAO as a Source Authority, is a "public administration".</p> <p>NOTE 3 A Person as an individual shall not be a Source Authority for external constraints.</p> <p>NOTE 4 Source Authorities are often the issuing authority for identifiers (or composite identifiers) for use in business transactions.</p> <p>NOTE 5 A Source Authority can undertake the role of Registration Authority or have this role undertaken</p>		

			<p>on its behalf by another Person.</p> <p>NOTE 6 Where the sets of constraints of a Source Authority control a coded domain, the SA has the role of a coded domain Source Authority.</p>		
105	ISO/IEC 15944-1:2002 (3.64)	standard	<p>documented agreement containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics, to ensure that materials, products, processes and services are fit for their purpose</p> <p>NOTE This is the generic definition of “standard” of the ISO and IEC (and now found in the ISO/IEC JTC1 Directives, Part 1, Section 2.5:1998) {See also ISO/IEC Guide 2: 1996 (1.7)} <>]</p>	norme	accord documenté contenant des spécifications techniques ou autres critères précis destinés à être utilisés systématiquement en tant que règles, lignes directrices ou définitions de caractéristiques pour assurer que des matériaux, produits, processus et services sont aptes à leur emploi.
106	ISO/IEC 2nd FCD 15944-2:2005 (3.106)	stewardship (of OeRI)	relationship of an OeRI, a Contact, and an organization involved in the stewardship of an OeRI		
107	ISO/IEC 2nd FCD 15944-2:2005 (3.107)	stewardship organization	unique framework of authority within which a Person or Persons act, or are designated to act in the stewardship of an OeRI		

108	ISO/IEC 2nd FCD 15944-2:2005 (3.108)	submission (of OeRI)	relationship of an OeRI, a Contact, and an organization involved in the submission of an OeRI		
109	ISO FDIS 19135:200n, (4.1.16)	submitting organization	organization authorised by a register owner to propose changes to the content of a register		
110	ISO FDIS 19135:200n, (4.1.18)	supersession	replacement of a register item by one or more new items NOTE The status of the replaced item changes from 'valid' to 'superseded.'		
111	ISO/IEC 15944-1:2002 (3.66)	unambiguous	the level of certainty and explicitness required in the completeness of the semantics of the recorded information interchanged appropriate to the goal of a business transaction	non-ambigu	niveau de certitude et d'explicité exigé dans la complétude de la sémantique d'une information enregistrée et échangée dans le but d'une transaction d'affaires.
112	ISO/IEC 2nd FCD 15944-2:2005 (3.112)	until date	date at which an OeRI is no longer effective in the registry		
113	ISO/IEC 2nd FCD 15944-2:2005	version identifier	unique number assigned to identify a version of an OeRI		

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1754 **Annex B (normative) Open-edi registration administration attributes**

1755 **B.1 Introduction**

1756 This annex presents a table that delineates the requirements for inclusion of Open-edi registration
1757 administration attributes in an Open-edi registry for OeRIs. Each row is an elementary attribute or a
1758 composite attribute.

1759 **B.2 Administration attributes**

1760 Table B-1 provides a summary of the attributes that are used for an OeRI. The first column is the
1761 administration attribute name. The indentation of the administration attribute name denotes the sublevel of
1762 the attribute. Elementary attributes that are mandatory are identified in the first column with an "*" in the far
1763 left side of the column. The second column is the definition of the administration attribute as stated in Clause
1764 3.¹⁰ The fourth column identifies the maximum number of occurrences for the administration attribute within
1765 its composite administration attribute. The fifth column specifies the datatype of the elementary administration
1766 attributes.

1767 The third column specifies the obligation and conditionality for the Open-edi registration administration
1768 attribute. The codes used are based on those found in the coded domain for "Codes Representing Presence-
1769 Type Attributes" as specified in Annex B (Normative) in ISO/IEC 15944-1:2001.

1770 -- "1" = mandatory. Mandatory administrative attributes are required for the OeRI, without exception.

1771 -- "2" = conditional. Conditional administration attributes are used subject to provisions being met that satisfy
1772 one or more rules about the OeRI.

1773 -- "3" = mandatory subject to conditional. Mandatory subject to conditional administration attributes are
1774 those that depend upon the implementation of an conditional attribute. They are required
1775 when the conditional administration attribute upon which they depend is implemented
1776 and referenced, including dependencies.

1777 -- "4" = optional. Optional administration attributes are subject to no conditions and are completely
1778 discretionary.

¹⁰ Extensive use has been made here of ISO/IEC 11179-3 and 11179-6 where applicable.

1779 Table B-1 — Open-edi administration attributes

Administration Attribute Name and Structure	Definition from this part of ISO/IEC 15944 Clause 3	Obligation / Condition	Maximum Occurrence	Datatype
OeRI	information within a registry relating to a specific business object including linkage information to a scenario content			
Open-edi Registry record	collection of information for an OeRI	1	one	
International Registration Business Object Identifier	internationally unique identifier for an OeRI	1	one	
International Standard Identifier	Identifier of the version of this part of ISO/IEC 15944 upon which attributes are based	1	one	
Open-edi Registration Organization identifier	identifier assigned to an Open-edi Registration Organization	1	one	
* business object identifier	unique identifier for an OeRI within an Open-edi Registration Organization	1	one	string
business object type	coded domain for the type of business object being registered, i.e., scenario, IB or SC	1	one	digit
scenario identifier	unique, linguistically neutral, unambiguous, referenceable identifier of an Open-edi scenario	2	one	string

Administration Attribute Name and Structure	Definition from this part of ISO/IEC 15944 Clause 3	Obligation / Condition	Maximum Occurrence	Datatype
IB identifier	unique, linguistically neutral, unambiguous, referencable identifier of an Information Bundle	2	one	string
SC identifier	unique, linguistically neutral, unambiguous, referencable identifier of a Semantic Component	2	one	string
* version identifier	unique number assigned to identify a version of an OeRI; default = 1.0	1	one	string
* registration status	designation of the status in the registration administration of an OeRI	1	one	string
* creation date	date the OeRI was created	1	one	Date
effective date	date an OeRI became/becomes available to registry users	4	one	Date
last change date	date the OeRI was last changed	4	one	Date
until date	date an OeRI is no longer effective in the registry	4	one	Date
administrative note	general note about the OeRI	4	one	string

Administration Attribute Name and Structure	Definition from this part of ISO/IEC 15944 Clause 3	Obligation / Condition	Maximum Occurrence	Datatype
change description	description of why and how the OeRI has been modified since the prior version of the OeRI	4	one	string
explanatory comment	descriptive comments about the OeRI	4	one	string
origin	source (document, project, discipline or model) for the OeRI	4	one	string
unresolved issue	problem that remains unresolved regarding proper documentation of the OeRI	4	one	string
Open-edi Registration Authority	body responsible for maintaining the register of OeROs and for the issuance of OeRO identifiers	1	one	
Open-edi Registration Organization	body qualified by the OeRA to assume the responsibility for the registration of scenario and scenario components	1		
* Open-edi Registration Organization name	designation for the Open-edi Registration Organization	1	one	string
Open-edi Registration Organization address	physical, electronic, postal or delivery address of the Open-edi Registration Organization	4	one	string

Administration Attribute Name and Structure	Definition from this part of ISO/IEC 15944 Clause 3	Obligation / Condition	Maximum Occurrence	Datatype
* Open-edi Registration Organization Identifier	identifier assigned to an Open-edi Registration Organization	1	one	string
registrar	representative of an Open-edi Registration Organization	1	one	
registrar Contact	Contact information associated with an Open-edi registration organization	1	one	
* registrar Contact name	name of the registrar contact	1	one	string
* registrar Contact information	information to enable a registrar Contact to be located or communicated with	1	one	string
registrar Contact title	name of the position held by the registrar contact	4	one	string
documentation language code	language code of the language used for documentation by the Open-edi Registration Organization	1	many	
jurisdictional domain identifier	ID code of a jurisdictional domain as recognized for use by peer jurisdictional domains within a system of mutual recognition	2	one	string

Administration Attribute Name and Structure	Definition from this part of ISO/IEC 15944 Clause 3	Obligation / Condition	Maximum Occurrence	Datatype
submission (of OeRI)	relationship of an OeRI, a Contact, and an Organization involved in the submission of an OeRI	1	one	
submission organization	unique framework of authority within which a person or persons act, or are designated to act in the submission of an OeRI	1		
* submission organization name	designation for the submitting organization	1	one	string
submission organization address	physical, electronic, postal or delivery address of the submitting organization	4	one	string
submission Contact	contact information associated with a submission organization	1	one	
* submission Contact name	name of the submission Contact	1	one	string
* submission Contact information	information to enable a submission Contact to be located or communicated with	1	one	string
submission Contact title	name of the position held by the submission Contact	4	one	string
stewardship (of OeRI)	relationship of an OeRI, a Contact, and an Organization involved in the stewardship of an OeRI	1		

Administration Attribute Name and Structure	Definition from this part of ISO/IEC 15944 Clause 3	Obligation / Condition	Maximum Occurrence	Datatype
stewardship organization	unique framework of authority within which a person or persons act, or are designated to act in the stewardship of an OeRI	1		
* stewardship organization name	designation for the stewardship organization	1	one	string
stewardship organization address	physical, electronic, postal or delivery address of the stewardship organization	4	one	string
stewardship Contact	contact information associated with a stewardship organization	1	one	
* stewardship Contact name	name of the stewardship Contact	1	one	string
* stewardship Contact information	information to enable a stewardship Contact to be located or communicated with	1	one	string
stewardship Contact title	name of the position held by the stewardship Contact	4	one	string
* OeRI language code	language code of the language used for the OeRI by the submitting organization	1	one	string
jurisdictional domain identifier	ID code of a jurisdictional domain as recognized for use by peer jurisdictional domains within a system of mutual recognition	2	one	string

Administration Attribute Name and Structure	Definition from this part of ISO/IEC 15944 Clause 3	Obligation / Condition	Maximum Occurrence	Datatype
reference document	external document(s) containing relevant information about the scenario or scenario component	1	many	
reference document identifier	identifier for the reference document	2	one	string
reference organization	relationship between a reference document and an organization	2	many	
reference organization name	designation for the reference organization	2	one	string
reference organization address	physical, electronic, postal or delivery address of the reference organization	4	one	string
reference document language code	language code of the language used in the reference document	4	many	
jurisdictional domain identifier	ID code of a jurisdictional domain as recognized for use by peer jurisdictional domains within a system of mutual recognition	2	one	string
reference document title	title of the reference document.	4	one	string
reference document type description	description of the type of reference document	4	one	string

NOTE 1

* - A mandatory elementary metadata

NOTE 2

1 – mandatory

Administration Attribute Name and Structure	Definition from this part of ISO/IEC 15944 Clause 3	Obligation / Condition	Maximum Occurrence	Datatype
attribute	2 – conditional 3 – mandatory subject to a conditional 4 – optional			

1780

1781 **Annex C (informative) Open-edi scoping and specification**
 1782 **attributes**

1783 Open-edi scoping attributes from ISO/IEC 15944-1 subclause 7.3, Template for specifying
 1784 scope of an Open-edi scenarioO, and specification attributes from ISO/IEC 15944-1
 1785 subclause 9.2.3, Consolidated template of attributes of Open-edi scenarios, roles and
 1786 Information Bundles, are repeated for convenience.

1787 Scenario scoping and specification attributes ensure that all the information required for the
 1788 **Business Operational View (BOV)** of an Open-edi Scenario, its components and all
 1789 attributes required to be specified, (and registered for re-use) are captured in a systematic
 1790 and explicit manner.

1791 Registration of classification concepts is optional, as determined by a Decision Code of 1, (= YES)
 1792 or 2 (= NO) in Template 7.3.2 of ISO/IEC 15944-1.

1793 **Rule 13:**

1794 **A classification concept shall be registered if its Decision Code is 1 in Template 7.3.2**
 1795 **of ISO/IEC 15944-1.**

1796 Registration of scenario specification attributes is optional, as determined by a Decision Code
 1797 of 1, (i.e., YES) or 2 (i.e., NO) in Template 9.2.3 of ISO/IEC 15944-1.

1798 **Rule 14:**

1799 **A scenario specification attribute shall be registered if its Decision Code is 1 in**
 1800 **Template 9.2.3 of ISO/IEC 15944-1.**

1801 Once the Decision Codes for scenario scoping and specification attributes of ISO/IEC 15944-
 1802 1 are determined, the scenario specification would then be formally expressed in an OeDT
 1803 according to OeDT requirements as prescribed in ISO/IEC 14662 and elaborated on in Part 3
 1804 of this multipart standard. The Open-edi Scenario Scoping ID TAGs and Open-edi Scenario
 1805 component **ID codes** of ISO/IEC 15944-1 shall be explicitly associated with the OeDT
 1806 artefacts.

1807

1808 Table C-1 Scenario Scope Attributes

IT-Interface		Linguistic Human-Interface Equivalents			Spare
Scope Tag ID Code (1)	Decision Code (2)	Name (English) (3)	Name (French) (4)	Name (Other) (5)	
1000		Business goal of business transaction- No external constraints ¹¹⁾			
1010		Business goal of business transaction includes external constraints ¹²⁾			
1040		Persons (no external constraint)			
1041		Persons: Individual <-> Individual			
1042		Persons: Individual <-> Organization ¹³⁾			
1043		Persons: Individual <-> Public Administration			
1044		Persons: Organization <-> Organizations ¹⁴⁾			
1045		Persons: Organization <-> Public Administration			
1046		Persons: Public Administration <-> Public Administration			

11) It is important in scoping an Open-edi Scenario to specify at the outset whether or not external constraints apply to the business transaction being modelled. If there are no external constraints, i.e., the only constraints are those which the buyer and seller mutually agree to, then such an Open-edi scenario can often serve as a generic re-useable 'lego' block in support of those Open-edi scenarios which do include external constraints.

12) The completion of ISO/IEC 18038 - *Information technology - Identification and Mapping of Various Categories of Jurisdictional Domains* will be of assistance in development of "standard" template attributes for identification of external constraints.

13) Often referred to as "B2C", i.e., as in "business to consumer". Here it is understood that a "consumer" is an "individual" and not an "organization".

14) Often referred to as "B2B" i.e., as in "business to business".

IT-Interface		Linguistic Human-Interface Equivalents			Spare
Scope Tag ID Code	Decision Code	Name (English)	Name (French)	Name (Other)	
(1)	(2)	(3)	(4)	(5)	(6)
1060		Bilateral Transaction Model			
1061		Mediated Business Transaction Model ¹⁵⁾			
1065		Defined Market Model			
1066		Undefined Market Model			
1070		Immediate Settlement Model			
1071		Separate Settlement Model			
		AGENTS AND THIRD PARTIES			
1110		Business Transaction allows for Agents¹⁶⁾			
1111		Buyer Agent			
1112		Seller Agent			
1130		Business Transaction allows for Third¹⁷⁾ Parties			
1131		By mutual agreement of buyer and seller (as internal constraints only)			
1132		external constraint(s) Mandated			
1200		PROCESS COMPONENT: All five sets of distinct activities covered.			
1210		Planning			

15) Primitive means business transaction to be modelled as an Open-scenario involves only buyers and sellers.

16) It is assumed that business rules and constraints relevant to the ability of the two primary parties (the seller and buyer), to be able to delegate all or part(s) of their role and associated commitment(s) to Agent(s) will be specified as part of "Role Attributes", see further below 8.4.2.5.

17) It is assumed that business rules and constraints pertaining to the ability of the two primary parties (the seller and buyer), to agree to delegate all or part(s) of their role(s) and associated commitment(s) to a "third party(ies)" will be specified as part of "Role Attributes", see further below 8.4.2.5.

IT-Interface		Linguistic Human-Interface Equivalents			Spare
Scope Tag ID Code	Decision Code	Name (English)	Name (French)	Name (Other)	
(1)	(2)	(3)	(4)	(5)	(6)
1215		Public information on goods/services provided by a seller			
1220		Public information on goods/services needed by buyer			
1225		Predefined/referencable Catalog			

IT-Interface		Linguistic Human-Interface Equivalents			Spare
Scope Tag ID Code	Decision Code	Name (English)	Name (French)	Name (Other)	
(1)	(2)	(3)	(4)	(5)	(6)
1230		Buyer initiated goods/service request			
1235		Seller initiated goods/service offer			
1240		Predefined Market Model			
1250		Identification			
1255		Identification for information exchange purposes only (e.g. an address) ¹⁸⁾			
1260		Identification of Person able to make commitment ¹⁹⁾			
1265		Identification of Person as "individual"			
1270		Identification of Person as "consumer"			
1300		Negotiation			
1305		Monetary Payment Involved			
1310		Immediate Settlement Model			
1315		Separate Settlement Model payment			
1350		Actualization			
1355		Immediate Settlement			
1360		Separate Settlement			
1400		Post-actualization			

18) A typical example here is an e-mail address or a P.O. box address.

19) This is usually required for the Negotiation step and certainly for Actualization.

IT-Interface		Linguistic Human-Interface Equivalents			Spare
Scope Tag ID Code	Decision Code	Name (English)	Name (French)	Name (Other)	
(1)	(2)	(3)	(4)	(5)	(6)
1405		Includes warranties			
1410		Includes records retention			
1415		Includes staying in contact with buyer (e.g., defect and recall notification)			
1500		DATA COMPONENT			
1505		Predefined and Structured, i.e., code sets			
1520		Data integrity of any IB			
1525		Retention /latency of any IBs			
1600		Business requirements on FSV – No external constraints²⁰⁾			
1610		Service: Information Bundle Integrity			
1615					
1620		Service: Confidentiality of IB contents			
1625		Service: Non-repudiation of receipt			
1630		Service: Proof of Time IB creation ²¹⁾			
1635		Service: Notarization of IBs			
1640		Service: Quality of Service (QoS)			
1700		EXTERNAL CONSTRAINTS²²⁾			

20) See further above 6.5.2.

21) Often referred to as time-stamping services.

1809 Table C-2 Scenario Specification Attributes

IT-Interface		Human-Interface Equivalents			Spare
Open-edi Scenario Component	Decision Code	Name (ISO English)	Name (ISO French)	Name (Other)	
ID Code					
(1)	(2)	(3)	(4)	(5)	(6)
2000		OPEN-EDI SCENARIO ATTRIBUTES			
2010		OeS Identifier			
2020		OeS Name(s)			

22) Addressee work on the issue of jurisdictions as it impacts specification of external constraints on business transactions (being able to identify and reference laws and regulations impacting scenarios and scenario components) addressed in ISO/IEC 18038 - Information technology - *Identification and Mapping of Various Categories of Jurisdictional Domains*".

IT-Interface		Human-Interface Equivalents			Spare
Open-edi Scenario Component ID Code (1)	Decision Code (2)	Name (ISO English) (3)	Name (ISO French) (4)	Name (Other) (5)	
2030		OeS Purpose			
2040		OeS Set of Roles OeS Business Requirements, Rules and Constraints			
2050		OeS Set of Information Bundles OeS Scenario Inheritance Identifier(s) and Cross-References			
2060		OeS Set of Requirements on Open-edi Parties			
2070		OeS Set of external constraints on Business Requirements, i.e., Laws and Regulations			
2080		OeS Inheritance Identifier(s) and Cross References			
2090		OeS Security Service Requirements			
2100		OeS Communication - Quality of Service Requirements			
2120		OeS Role Requirements and Constraints			
2130		OeS Dependency among Roles in a Scenario			
2140		OeS Dependency among Information Bundles in a Scenario			
2150		OeS Dependency among Semantic Components of different Information Bundles			
2500		OeS Demands on Open-edi Parties			
2600		OeS Demands on Open-edi Infrastructure			
3000		ROLE ATTRIBUTES			
3005		Role Identifier			
3010		Role Name(s)			
3015		Role Purpose			
3020		Role Business Goal(s)			

IT-Interface		Human-Interface Equivalents			Spare
Open-edi Scenario Component ID Code (1)	Decision Code (2)	Name (ISO English) (3)	Name (ISO French) (4)	Name (Other) (5)	
3025		Role Business Rules and Constraints			
3030		Role Inheritance Identifiers and Cross-References			
3035		Role external constraints on Business Requirements, i.e., Laws and Regulations			
3040		Role Security Service Requirements			
3045		Role Communications and Quality of Service Requirements			
3050		ROLE Demands on Open-edi Parties			
3060		Interoperability Demands among Roles			
3065		Role States			
3070		Role Transitions			
3075		Role Events			
3080		Role Actions			
3085		Role Internal Function			
3090		Role Demands on Open-edi Support Infrastructure			
4000		INFORMATION BUNDLE ATTRIBUTES			
4010		IB Identifier			
4020		IB Name(s)			
4030		IB Purpose			
4040		Business Rules Controlling Content of IBs			
4050		IB external constraints on Business Requirements, Governing Content of an IB, i.e., Laws and Regulations			
4060		IB contents			

IT-Interface		Human-Interface Equivalents			Spare
Open-edi Scenario Component ID Code (1)	Decision Code (2)	Name (ISO English) (3)	Name (ISO French) (4)	Name (Other) (5)	
4070		IB recorded information retention – business rules and constraints			
4080		IB recorded information retention – external constraints on business requirements, i.e., laws and regulations			
4085		IB time validity characteristics			
4090		Relationship of Semantic Components within an IB			
4100		IB security service requirements			
4200		IB information for interoperability			
4300		IB Demands on Open-edi Support Infrastructure			
5000		SEMANTIC COMPONENT ATTRIBUTES			
5010		SC Identifier			
5020		SC Name(s)			
5030		SC Definition			
5040		SC Security service requirements			

1811 **Annex D (informative) Scenario classification concepts**

1812 It is desired to be able to commence E-Commerce by simply choosing a particular one from
 1813 the standardized set of scenarios and applying it to the intended business transaction. In the
 1814 context, the standard Open-edi scenario is supposed to be a generic class of various specific
 1815 scenarios. In addition, if the generic scenario class were successfully obtained, it could
 1816 consist of a small number of mandatory attributes and many conditional and/or optional
 1817 attributes.

1818 Although such a standardization idea for Open-edi scenarios seems to be a straightforward
 1819 solution, it is likely to be difficult to distinguish a particular scenario from the others. In
 1820 particular, the scenario description with many conditional attributes may be so complex that
 1821 the semantics could not be clearly compiled even if an excellent OeDT is employed. In
 1822 addition, for those scenarios having the same attributes but with slightly different domains and
 1823 the combinatorial, it is not evident whether they all have to be interpreted as single scenario
 1824 type or not. Even if each scenario could be formally identified, having a unique identifier,
 1825 many scenarios that are actually identical for semantics may be redundantly registered as
 1826 standard scenarios. The more confusion expands the more difficulty of discrimination
 1827 increases.

1828 One of the effective solutions to avoid the confusion is to establish a classification scheme
 1829 based on well-defined criteria, which may reduce the complexity of conditional attributes as
 1830 much as possible.

1831 **D.1 Classification idea of Open-edi Scenarios**

1832 The classification for Open-edi scenarios should meet the following requirements:

- 1833 — **Simplicity:** the classification is plainly and unambiguously defined.
- 1834 — **Selectivity:** the classification is disjoint and non-redundant.
- 1835 — **Inclusiveness:** the classification is an all-inclusive of Open-edi scenarios.
- 1836 — **Stability:** the classification is stable for the environmental changes.
- 1837 — **Reality:** the classification is realistic for the real business world.

1838 According to the requirements mentioned above, the classification scheme should be
 1839 conceived from the fundamentals of business transactions in the real world such as market,
 1840 party, merchandise and payment, not being tied to the existing classification ideas. For the
 1841 purpose, the following three factors are considered as the typical example of key concepts for
 1842 the classification of Open-edi scenarios. This classification approach could be extensively
 1843 applied to complex scenarios in real business world when additional classification factors are
 1844 taken into account.

1845 **D.1.1 Market Type on business boundary**

1846 In the real business world, the typical E-Commerce transactions consist of the following
 1847 business processes.

- 1848 — A buyer finds a relevant seller(s) through the network by using a certain services
 1849 and/or tools, such as a portal site and/or a search engine.

- 1850 — The buyer negotiates the business terms and conditions with the seller(s).
- 1851 — The buyer receives the merchandise and pays the amount of price to the seller(s)
1852 according to the business terms and conditions.

1853 Although the business transaction mentioned above does not explicitly describe the market
1854 environment, in the real business world, many business transactions are performed through
1855 the relevant markets. For example, in a typical case of financial transactions, which mainly
1856 trades a value and/or credit with other persons without the physical delivery of cash or
1857 security, the financial markets have significant roles in the business transactions. In such a
1858 well-defined market, the buyers and sellers could be free from the individual negotiation
1859 efforts of the principal terms and conditions for their business transactions. They would
1860 participate in the defined market, accepting the principle terms and conditions at the
1861 registration in advance.

1862 Other scenario context, such as authentication procedure, may be also greatly changed
1863 depending on whether the defined market exists or not. It seems to be much easier to discuss
1864 the classification of Open-edi scenarios if the market type, defined or unbounded, is taken into
1865 account. The market type is particularly meaningful in identifying the boundary of business
1866 transaction such as the trigger and completion terms.

1867 **D.1.2 Settlement Type in business process**

1868 From the viewpoint of a business process, another consideration is that the delivery of
1869 merchandise and payment are simultaneously settled through the network, or separately
1870 performed through different channels. In the case of simultaneous settlement, the business
1871 transaction could be immediately completed if the merchandise and the payment are both
1872 valid and acceptable for all of the participants. On the other hand, if the delivery and payment
1873 are separately performed through different channels respectively, the business transaction
1874 could not be completed until their acceptance and settlement would be confirmed at a later
1875 time.

1876 In order to bridge the time difference and/or spatial gap of the delivery and payment, the
1877 concrete identification of the business transaction and the authentication of either or both of
1878 participants are required for establishing the credit and debit relationship among them
1879 relevant to the business transaction. It also implies the difference of scenario constructs
1880 depending on the settlement type.

1881 **D.1.3 Participation Type of role (business party)**

1882 Regarding the role of Open-edi, the participation type, direct or mediated is meaningfully
1883 distinguished. In many cases, a business transaction is completed when the delivery and
1884 settlement are both confirmed between the buyer and seller. However, in some cases of
1885 business transactions, such as a real estate transaction through an escrow company, the
1886 third participant other than the buyer and seller is involved in the business transaction. In that
1887 case, the transaction is completed only when the escrow has confirmed the delivery and
1888 settlement according to the terms and conditions of the specific business transaction. Each
1889 participation type may have its own scenario construct respectively.

1890 **D.2 Trade model based on the classification ideas**

1891 The simplest business process shown in Fig.D.2-1 is the basic trade model, from which we
1892 start the discussion of trade models derived from the classification ideas mentioned in D.2.1.

1893

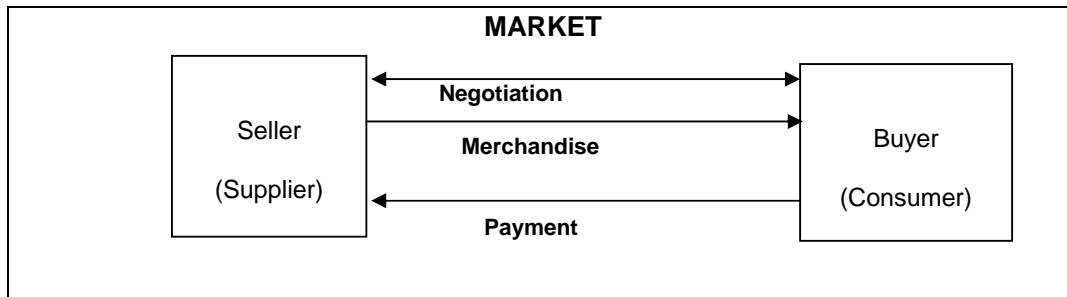
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1896

1897

1898



1899

Fig. D.1 Basic Trade Model

1900 The brief description of this Basic Trade Model is as follows:

1901 **Beginning of Trade:** either, or both buyer and seller find the negotiable counter party by
1902 appropriate approaches in a market.

1903 **Trade Scenario:** either or both buyer and seller show explicitly or implicitly an acceptable
1904 counter party, and negotiate the terms and conditions of the business
1905 transaction. In general, the way of acceptance of a particular scenario may be a part of the
1906 terms and conditions.

1907 **Completion of Trade:** the trade will complete when both the delivery of merchandise and
1908 payment are successfully finished.

1909 **Authentication of Participants:** For the confirmation of the settlement of credit and/or debit
1910 between the buyer and seller, the authentication of buyer or seller is mandatory in the case
1911 that the payment or delivery is performed later than the agreement. If both delivery and
1912 payment are performed later than the agreement, the authentication of both participants is
1913 mandatory. On the contrary, if the delivery and payment are simultaneously and immediately
1914 performed as well as the agreement, no authentication is required.

1915 D.2.1 Trade model by Market Type

1916 Two trade models are derived from the classification of the market type.

1917 **Open Market Model:**

1918 a trade model, conforming to the description of Basic Trade Model, which is performed in
1919 unbounded market under the Open-edi environment

1920 In this trade model, the buyer and seller begin the business transaction from seeking their
1921 counter party by appropriate services and/or tools such as a portal site and search engine.
1922 The business scenario to be applied to the transaction is decided upon the individual case.
1923 The buyer or seller may simply accept the scenario proposed by the counter party, or they are
1924 mutually negotiating.

1925 In order to save the negotiation efforts, it is possible that the buyer or seller is seeking the
1926 counterpart specifying a specific scenario in the search criteria at the beginning of the
1927 business transaction. However, generally speaking, this type of business scenario should
1928 explicitly or implicitly include, as a part of scenario, the negotiation process of the terms and
1929 conditions. Thus, the Unbounded Trade Model necessarily requires the coincident agreement
1930 of scenario acceptance and the contents of terms and conditions under the scenario
1931 acceptance.

- 1932 **Closed Market Model:**
 1933 a trade model where buyer(s) and seller(s) accept the entry terms of market in advance and
 1934 then commence the actual business transaction in the market under the Open-edi
 1935 environment.
- 1936 **Market administrator ;**
 1937 a role that is responsible for the administration of defined market for Open-edi transactions.
- 1938 The market administrator may be a buyer, seller or the third party. In any case, the scenario
 1939 type to be applied to this trade model is explicitly established by the market administrator. The
 1940 buyer and seller participate in the market through an explicit or implicit registration procedure
 1941 in advance. There may be two types of registration scheme; i.e. an explicit registration is
 1942 required for either of buyer or seller while the other implicitly participates in the market, or the
 1943 explicit registration is required for both.
- 1944 The significance of the Closed Market Model is that the business scenario applied to the
 1945 market is defined at the individual market. It makes the buyers and sellers free from the
 1946 negotiation efforts of principal terms and conditions to be applied for the individual transaction.
 1947 In this trade model, although the authentication of buyer and/or seller is not necessarily
 1948 required, it may not be excluded that the registration procedure of market requires the
 1949 authentication of participants in advance. The authentication at registration could save the
 1950 repeating efforts in the individual business transactions.
- 1951 **D.2.2 Trade model by Settlement Type**
- 1952 Two trade models are derived from the classification of the settlement type.
- 1953 **Immediate Settlement Model:**
 1954 a trade model where the entire business transaction process, i.e. planning, identification,
 1955 negotiation, actualization (delivery and payment), is completed in real-time under the Open-edi
 1956 environment.
- 1957 One of the typical cases is downloading a software product or music from the vendor site, and
 1958 paying with e-money or debit account. This trade model is almost equivalent to a casual
 1959 procurement of merchandise, which is done by cash at a store on the street. The procurement
 1960 can be completed at the moment when it has been confirmed that the merchandise is
 1961 acceptable for the buyer and the payment is valid for the seller. The identification of
 1962 transaction and/or authentication of buyer and/or seller are not required. Rather, from the
 1963 viewpoint of privacy protection, such a trade model should not be excluded from the Open-edi
 1964 environment.
- 1965 **Separate Settlement Model:**
 1966 a trade model where the business transaction is performed under the Open-edi environment,
 1967 and where the delivery of merchandise and/or payment are separated from the agreement
 1968 process.
- 1969 In this trade model, a special consideration should be taken on the scenario construct to
 1970 bridge the time difference and/or spatial gap among agreement, delivery and payment.
- 1971 In this trade model, at the first, an explicit identification of the transaction is required for
 1972 mapping the agreement to the delivery and/or payment performed separately. Secondary, the
 1973 authentication of buyer and/or seller is required to confirm the relationship of credit and debit
 1974 among participants that is kept through the transaction process from agreement to delivery
 1975 and payment. Thirdly, the transition of transaction status should be identified to be able to
 1976 track the completion of individual activities through the transaction process.

1977 **D.2.3 Trade model by Participation Type**

1978 Two trade models are derived from the classification of the participation type.

1979 **Bilateral Trade Model:**

1980 a trade model where buyer(s) and seller(s) are directly involved in the business transaction
1981 without any involvement of any intermediary party.

1982 In this trade model, the business relationship is basically closed between the two parties. The
1983 transaction is completed when the credit and/or debit settled between the buyer and seller.

1984 **Mediated (Multilateral) Trade Model:**

1985 a trade model where a third party mediates a specified role(s) or function(s) as mutually
1986 agreed to by the buyer(s) and seller(s) for a certain business transaction.

1987 One of the typical transactions is the business transaction of real estate that an Escrow
1988 company mediates the buyer and seller. In this trade model, the role of the third party may
1989 have many variations. The transaction scenario is required to explicitly denote the role and
1990 responsibility of the third party participating to the business transaction. And, the business
1991 transaction should also satisfy the terms and conditions for the completion, which are relevant
1992 to the third party, not only the settlement of the debit/credit between the buyer and seller.

1993 **D.3 Classification of Open-edi Scenarios**

1994 The classification concepts mentioned in the previous section, Market Type, Payment Type
1995 and Participation Type are mutually disjoint. Applying each of them to an axis of three
1996 dimensions, the classification of Open-edi scenarios is obtained such that the requirement of
1997 scenario constructs is summarized in Table D.2-1.

1998

1999 **Table D.2-1 Scenario Classification and Constructs**

Class	Classification Concepts			Scenario Construct
	Market	Settlement	Participation	
O-I-B	Open	Immediate	Bilateral	-Basic Bilateral Trade Scenario
O-I-M	Open	Immediate	Mediated	-Basic Mediated Trade Scenario
O-S-B	Open	Separate	Bilateral	-Bilateral Agreement Scenario -Separate Delivery Scenario -Separate Payment Scenario -Authentication Scenario
O-S-M	Open	Separate	Mediated	-Mediated Agreement Scenario -Separate Delivery Scenario -Separate Payment Scenario -Authentication Scenario

C-I-B	Closed	Immediate	Bilateral	-Membership Registration Scenario -Defined Bilateral Trade Scenario
C-I-M	Closed	Immediate	Mediated	-Membership Registration Scenario -Defined Mediated Trade Scenario
C-S-B	Closed	Separate	Bilateral	-Membership Registration Scenario -Defined Bilateral Agreement Scenario -Separate Delivery Scenario -Separate Payment Scenario -Defined Authentication Scenario
C-S-M	Closed	Separate	Mediated	-Membership Registration Scenario -Defined Mediated Agreement Scenario -Separate Delivery Scenario -Separate Payment Scenario -Defined Authentication Scenario

2000

2001 O-I-B Class:

2002 a scenario class of business transactions, which is attributed by Open Market, Immediate
2003 Settlement and Bilateral Participation.

2004 This scenario class consists of single Basic Bilateral Trade Scenario that is conforming to the
2005 Basic Trade Model under the Open-edi environment.

2006 O-I-M Class:

2007 a scenario class of business transactions, which is attributed by Open Market, Immediate
2008 Settlement and Mediated Participation.

2009 This scenario class consists of single Basic Mediated Trade Scenario, which is a complete set
2010 of mediated trade processes under the Open-edi environment.

2011 O-S-B Class:

2012 a scenario class of business transactions, which is attributed by Open Market, Separate
2013 Settlement and Bilateral Participation.

2014 This scenario class consists of the following four components: Bilateral Agreement Scenario,
2015 Separate Delivery Scenario, Separate Payment Scenario and Authentication Scenario.

2016 O-S-M Class:

2017 a scenario class of business transactions, which is attributed by Open Market, Separate
2018 Settlement and Mediated Participation.

2019 This scenario class consists of the following four components: Mediated Agreement Scenario,
2020 Separate Delivery Scenario, Separate Payment Scenario and Authentication Scenario.

2021 C-I-B Class:

2022 a scenario class of business transactions, which is attributed by Closed Market, Immediate
2023 Settlement and Bilateral Participation.

2024 This scenario class consists of the following two components: Membership Registration
2025 Scenario and Closed Bilateral Trade Scenario.

2026 **C-I-M Class:**
2027 a scenario class of business transactions, which is attributed by Closed Market, Immediate
2028 Settlement and Mediated Participation.

2029 This scenario class consists of the following two components: Membership Registration
2030 Scenario and Closed Mediated Trade Scenario.

2031 **C-S-B Class:**
2032 a scenario class of business transactions, which is attributed by Closed Market, Separate
2033 Settlement and Bilateral Participation.

2034 This scenario class consists of the following five components: Membership Registration
2035 Scenario, Closed Bilateral Agreement Scenario, Separate Delivery Scenario, Separate
2036 Payment Scenario and Closed Authentication Scenario.

2037 **C-S-M Class:**
2038 a scenario class of business transactions, which is attributed by Closed Market, Separate
2039 Settlement and Mediated Participation.

2040 This scenario class consists of the following five components: Membership Registration
2041 Scenario, Closed Mediated Agreement Scenario, Separate Delivery Scenario, Separate
2042 Payment Scenario and Closed Authentication Scenario.

2043 **D.3.1 Scenario components**

2044 As mentioned in Table D.2-1, the scenario components are quite different depending on
2045 scenario classes. Those scenario components are described as follows:

2046 **Basic Bilateral Trade Scenario:**

2047 This scenario includes all processes of a transaction to begin and complete a Basic Bilateral
2048 Trade.

2049 At the beginning of trade, either or both the buyer and seller find the negotiable counter party,
2050 by appropriate approaches.

2051 Then, either or both the buyer and seller show explicitly or implicitly an acceptable scenario to
2052 the counterpart, and negotiate the terms and conditions of business transaction. The way of
2053 acceptance of a particular scenario may be a part of the terms and conditions.

2054 The trade will complete when both the delivery of merchandise and payment are
2055 coincidentally and successfully finished.

2056 No authentication of buyer and seller is required because the delivery and payment are
2057 simultaneously and immediately performed as well as the agreement of transaction.

2058 **Basic Mediated Trade Scenario:**

2059 This scenario includes all processes of a transaction to begin and complete a Basic Mediated
2060 Trade.

2061 At the beginning of trade, either or both the buyer and seller find the negotiable counter party
2062 by appropriate approaches or through an appropriate mediator.

2063 Then, either or both the buyer and seller show explicitly or implicitly an acceptable scenario to
 2064 the counterpart, and negotiate the terms and conditions of business transaction under the
 2065 mediation of mediator(s). The way of acceptance of a particular scenario may be a part of the
 2066 terms and conditions.

2067 The trade will complete when both the delivery of merchandise and payment are
 2068 coincidentally and successfully finished and confirmed by the participants according to the
 2069 terms and conditions agreed upon the business transaction.

2070 No authentication of buyer and seller may be required because the delivery and payment are
 2071 simultaneously and immediately performed as well as the agreement of transaction. The
 2072 mediator is required a certain authentication to qualify the ability of mediation. The
 2073 qualification depends on the role of mediator.

2074 **Closed Bilateral Trade Scenario:**

2075 This scenario is the core of C-I-B scenario and includes all processes of a transaction to
 2076 begin and complete a Closed Bilateral Trade of which the principal terms and conditions the
 2077 participants accepted in advance.

2078 Before participating to the trade, the buyer and/or seller are required to make a membership
 2079 registration to the defined market and to accept the principal terms and conditions of trade.

2080 Either or both the buyer and seller begin the individual transaction according to the direction
 2081 provided by the market administrator.

2082 The trade will complete when both the delivery of merchandise and payment are
 2083 coincidentally and successfully finished and confirmed by the participants according to the
 2084 terms and conditions defined in the market and/or agreed upon the business transaction.

2085 The qualification of membership is required for the participants. But no authentication of buyer
 2086 and seller may be required because the delivery and payment are simultaneously and
 2087 immediately performed as well as the agreement of transaction.

2088 **Closed Mediated Trade Scenario:**

2089 This scenario is the core of C-I-M scenario and includes all processes of a transaction to
 2090 begin and complete a Closed Mediated Trade of which the principal terms and conditions the
 2091 participants accepted in advance.

2092 Before participating to the trade, the buyer, seller and/or mediator are required to make a
 2093 membership registration to the defined market and to accept the principal terms and
 2094 conditions of trade.

2095 Either or both the buyer and seller begin and negotiate the individual transaction under the
 2096 mediation of an appropriate mediator according to the direction provided by the market
 2097 administrator.

2098 The trade will complete when both the delivery of merchandise and payment are
 2099 coincidentally and successfully finished and confirmed by the participants according to the
 2100 terms and conditions defined in the market and/or agreed upon the business transaction.

2101 The qualification of membership is required for the participants. But no authentication of buyer
 2102 and seller may be required because the delivery and payment are simultaneously and
 2103 immediately performed as well as the agreement of transaction.

2104 **Bilateral Agreement Scenario:**

2105 This scenario is the agreement part of O-S-B scenario, which precedes the delivery of
2106 merchandise and/or payment of the transaction.

2107 At the beginning, either or both the buyer and seller find the negotiable counter party, by
2108 appropriate approaches. Then, either or both of them show explicitly or implicitly an
2109 acceptable scenario to the counter party, and negotiate the terms and conditions of business
2110 transaction. The way of acceptance of a particular scenario may be a part of the terms and
2111 conditions.

2112 In the agreement, it is explicitly described that the delivery and/or payment are separately
2113 performed later. A unique identification of the transaction is required for mapping the
2114 agreement to the delivery and/or payment performed separately. And, the identification
2115 should be unique in the global scope because the open market could not have a well-defined
2116 boundary.

2117 The transaction will complete when both the delivery and payment are successfully finished
2118 and confirmed by the participants according to the Separate Delivery Scenario and Separate
2119 Payment Scenario.

2120 **Closed Bilateral Agreement Scenario:**

2121 This scenario is the agreement part of C-S-B scenario, which precedes the delivery of
2122 merchandise and/or payment of the transaction.

2123 Before participating to the trade, the buyer and/or seller are required to make a membership
2124 registration to the specific market and to accept the principal terms and conditions of trade.

2125 Either or both the buyer and seller begin the individual transaction according to the direction
2126 provided by the market administrator.

2127 In the agreement, it is explicitly described that the delivery and/or payment are separately
2128 performed later. A unique identification of the transaction is required for mapping the
2129 agreement to the delivery and/or payment performed separately. And, the identification
2130 should be unique in the market boundary.

2131 The transaction will complete when both the delivery and payment are successfully finished
2132 and confirmed by the participants according to the terms and conditions defined in the market
2133 and/or to the Separate Delivery Scenario and Separate Payment Scenario.

2134 **Mediated Agreement Scenario:**

2135 This scenario is the agreement part of O-S-M scenario, which precedes the delivery of
2136 merchandise and/or payment of the transaction.

2137 Either or both the buyer and seller begin and negotiate the individual transaction under the
2138 mediation of an appropriate mediator according to the direction provided by the market
2139 administrator.

2140 The trade will complete when both the delivery and payment are and successfully finished
2141 and confirmed by the participants according to the Separate Delivery Scenario and Separate
2142 Payment Scenario.

2143 In the agreement, it is explicitly described that the delivery and/or payment are separately
2144 performed later. In addition, a unique identification of the transaction is required for mapping
2145 the agreement to the delivery and/or payment performed separately. And, the identification
2146 should be unique in the global scope because the open market could not have a well-defined
2147 boundary.

2148 The transaction will complete when both the delivery and payment are successfully finished
 2149 and confirmed by the participants according to the Separate Delivery Scenario and Separate
 2150 Payment Scenario.

2151 **Closed Mediated Agreement Scenario:**

2152 This scenario is the agreement part of C-S-M scenario, which precedes the delivery of
 2153 merchandise and/or payment of the transaction.

2154 Either or both the buyer and seller begin and negotiate the individual transaction under the
 2155 mediation of an appropriate mediator according to the direction provided by the market
 2156 administrator.

2157 In the agreement, it is explicitly described that the delivery and/or payment are separately
 2158 performed later. A unique identification of the transaction is required for mapping the
 2159 agreement to the delivery and/or payment performed separately. And, the identification
 2160 should be unique in the market boundary.

2161 The transaction will complete when both the delivery and payment are successfully finished
 2162 and confirmed by the participants according to the terms and conditions defined in the market
 2163 and/or to the Separate Delivery Scenario and Separate Payment Scenario.

2164 **Separate Delivery Scenario:**

2165 This scenario is the delivery part of O-S-B, O-S-M, C-S-B and C-S-M scenarios, which is
 2166 separately performed after the agreement of transaction.

2167 When the delivery of merchandize is separately performed from the agreement of the
 2168 transaction, the specific terms and conditions of delivery should be explicitly described. The
 2169 delivery status should be explained in the scenario, as the completion of delivery is a
 2170 mandatory factor for the completion of the transaction as a whole.

2171 Furthermore, the delivery scenario should keep a stable reference to the precedent
 2172 agreement scenario to denote the relationship between the separated activities of a
 2173 transaction.

2174 **Separate Payment Scenario:**

2175 This scenario is the payment part of O-S-B, O-S-M, C-S-B and C-S-M scenarios, which is
 2176 separately performed after the agreement of transaction.

2177 When the payment is separately performed after the agreement of the transaction, the
 2178 payment scenario is required to explicitly describe the specific terms and conditions of
 2179 payment.

2180 The payment status should also be explained in the scenario, as the completion of payment is
 2181 a mandatory factor for the completion of the transaction as a whole.

2182 Furthermore, the payment scenario should keep a stable reference to the precedent
 2183 agreement scenario to denote the relationship between the separated activities of a
 2184 transaction.

2185 **Authentication Scenario:**

2186 This scenario is the authentication part of O-S-B and O-S-M scenarios, which identifies and
 2187 confirms the agreement and/or the participants relevant to the transaction.

2188 When the delivery of merchandise and/or payment is separately performed after the
 2189 agreement of the transaction, the authentication scenario is required to explicitly identify and
 2190 confirm the credit and debit relationship between participants involved in the transaction. The
 2191 identification should be unique in the global scope because the open market could not have a
 2192 well-defined boundary.

2193 The authentication scenario should also keep a stable reference to the relevant agreement
 2194 scenario to denote the relationship among the transaction, the agreement and/or the
 2195 participants.

2196 **Closed Authentication Scenario:**

2197 This scenario is the authentication part of C-S-B and C-S-M scenarios, which identifies and
 2198 confirms the agreement and/or the participants relevant to the transaction.

2199 When the delivery of merchandise and/or payment is separately performed after the
 2200 agreement of the transaction, the authentication scenario is required to explicitly identify and
 2201 confirm the credit and debit relationship between participants involved in the transaction.

2202 The market administrator provides the authentication scheme of the market. The identification
 2203 should be unique in the market boundary.

2204 The authentication scenario should also keep a stable reference to the relevant agreement
 2205 scenario to denote the relationship among the transaction, the agreement and/or the
 2206 participants.

2207 **D.3.2 Assumption for scenario classification**

2208 For the simplicity of discussion, this scenario classification idea has many assumptions. In the
 2209 real business world, those assumptions should be further compiled to reflect the practical
 2210 aspects of business transactions.

2211 **Continuous Transaction:**

2212 a series of transactions of which the terms and conditions are constant.

2213 No discrimination is supposed between a continuous transaction and a spot transaction. The
 2214 continuous transaction is considered as a repetition of spot transactions of which the terms
 2215 and conditions are constant or only a variable part is changing.

2216 **Services Transaction:**

2217 a business transaction where services are procured.

2218 The business transaction of services is assumed to be basically same as of goods even if it
 2219 may have different attributes relevant to the delivery procedure and the status confirmation.

2220 **Auction Transaction:**

2221 a business transaction relevant to auction.

2222 An auction transaction is supposed to be a variation of mediated transaction, which requires
 2223 the competitive participation of two or more buyers for a sale of merchandise.

2224 **Bidding Transaction:**

2225 a business transactions relevant to biddingt.

2226 A bidding transaction is supposed to be a variation of bilateral transaction, which requires the
 2227 competitive participation of two or more sellers for a procurement of merchandise.

2228 **Credit Payment Transaction:**

2229 a business transaction that is settled by a credit card or debit card.

2230 A transaction settled by a credit card requires a provision of credit and the authentication of
2231 buyer. Thus the transaction type is differed from the transaction by cash, and is supposed to
2232 be a kind of Separate Payment Model.

2233 **Regulatory Constraints:**

2234 Actual business transactions may have many types of regulatory constraints than the
2235 normative rules explicitly or implicitly involved in the transactions. Each of them is partially or
2236 entirely applied to a specific market type, participant type, merchandise type, delivery type
2237 and/or payment type. In addition, some of them are particularly effective in a certain country
2238 or region and/or in a certain period. However, the scenario classification is considered to be
2239 independent from the regulatory constraints.

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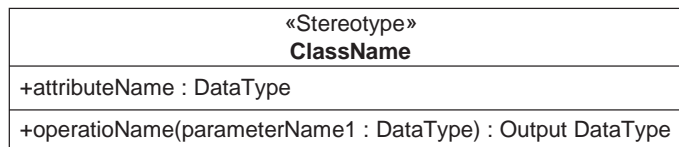
Annex E (informative)

UML Notation

?245

?246 E.1 Introduction

?247 This annex provides a brief description of UML notation as specified in ISO/IEC 19501-1 and ISO/TS 19103,
?248 and as used in the UML diagrams in this International Standard.



?249

?250

Figure A.1 — UML Class

?251 E.2 Class

?252 A UML class (Figure E.1) represents a concept within the system being modelled. It is a description of a set of
?253 objects that share the same attributes, operations, methods, relationships, and semantics. A class is drawn as
?254 a solid-outline rectangle with three compartments separated by horizontal lines. The top name compartment
?255 holds the class name and other general properties of the class (including stereotype); the middle list
?256 compartment holds a list of attributes; the bottom list compartment holds a list of operations. The attribute and
?257 operation compartments may be suppressed to simplify a diagram. Suppression does not indicate that there
?258 are no attributes or operations.

?259 **NOTE** This International Standard does not specify any operations or methods.

?260 ISO/TS 19103 specifies that a class name shall include no blank spaces and that individual words in the name
?261 shall begin with capital letters.

?262 E.3 Stereotype

?263 Stereotypes extend the semantics, but not the structure of pre-existing types and classes. A stereotype is
?264 used to classify (or mark) other UML elements so that they behave as if they were instances of new "virtual"
?265 metamodel classes whose form is based on existing "base" classes. A stereotype may introduce additional
?266 values, additional constraints. All model elements that are classified by a particular stereotype receive these
?267 values and constraints.

?268 Class level stereotypes used in this International Standard include:

- ?269 a) <<DataType>> specified in ISO/IEC 19501, is a descriptor of a set of values that lack identity
?270 (independent existence and the possibility of side effects). Data types include primitive predefined
?271 types and user-definable types. A DataType is thus a class with few or no operations whose primary
?272 purpose is to hold the abstract state of another class for transmittal, storage, encoding, or persistent
?273 storage.

- 2274 b) <<Enumeration>> specified in ISO/IEC 19501, is a data type whose instances form a list of named
 2275 literal values. Both the enumeration name and its literal values are declared. Enumeration means a
 2276 short list of well-understood potential values within a class. Classic examples are Boolean that has
 2277 only 2 (or 3) potential values TRUE, FALSE (and NULL). Most enumerations will be encoded as a
 2278 sequential set of Integers, unless specified otherwise. The actual encoding is normally only of use to
 2279 programming language compilers.
- 2280 c) <<CodeList>>, specified in ISO/TS 19103, is a flexible enumeration that uses string values through a
 2281 binding of the Dictionary type key and returns values as string types; e.g. Dictionary (String, String). A
 2282 CodeList is useful for expressing a long list of potential values. If the elements of the list are
 2283 completely known, an Enumeration shall be used; if only the likely values of the elements are known,
 2284 a codeList shall be used. Enumerated code lists may be encoded according to a standard, such as
 2285 ISO 3166-1. CodeLists are more likely to have their values exposed to the user, and are therefore
 2286 often mnemonic. Different implementations are likely to use different encoding schemes (with
 2287 translation tables to other encoding schemes available).

2288 E.4 Attribute

2289 An attribute represents a characteristic common to the objects of a class. An attribute is specified by a text
 2290 string that can be parsed into elements that describe the properties of the attribute:

2291 *visibility name [multiplicity]: type-expression = initial-value*

2292 where:

2293 *visibility* may be public (indicated by "+") or private (indicated by "-").

2294 *name* is a character string. ISO/TS 19103 specifies that an attribute name shall include no blank spaces,
 2295 that it shall begin with a lower case letter, and that individual words in the name, following the first word,
 2296 shall begin with upper case letters.

2297 *multiplicity* specifies the number of values that an instance of a class may have for a given attribute. The
 2298 notation is explained in D.10. When multiplicity of an attribute is not shown in a diagram, it has the default
 2299 value of 1.

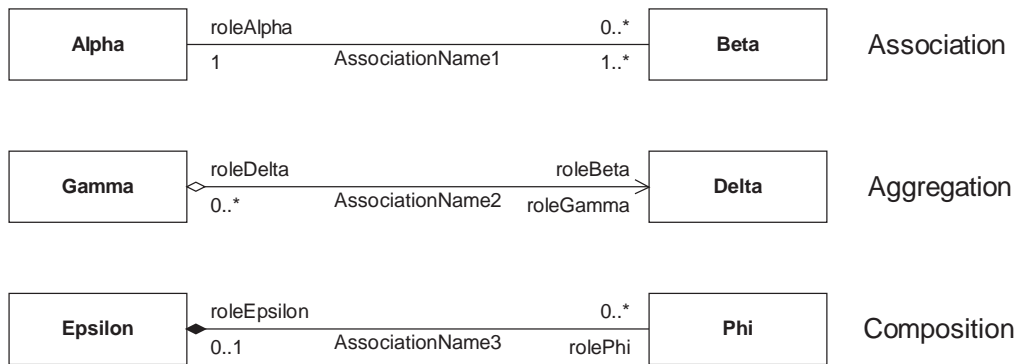
2300 *type-expression* identifies the data type of the attribute.

2301 *initial value*, if present, specifies a default value for the attribute.

2302 E.5 Association

2303 An association (Figure B.2) is a semantic relationship between classes that specifies connections between
 2304 their instances. An association is drawn as a solid line connecting two class rectangles. An association may
 2305 have a name, represented as a character string placed near the line, but not close to either end. ISO/TS
 2306 19103 specifies that an association name shall include no blank spaces and that individual words in the name
 2307 shall begin with upper case letters. The association ends are adorned with information pertinent to the class at
 2308 that end of the association, including multiplicity and role name.

309



310

311

Figure A.2 — UML Associations

312 E.6 Role name

313 A role name adorning an association end specifies behaviour of the class at that end with respect to the class
 314 at the other end of the association. In Figure E.2, roleAlpha describes the role that the class named Alpha has
 315 with respect to the class named Beta. A role name is represented as a character string. ISO/TS 19103
 316 specifies that a role name shall include no blank spaces, that it shall begin with a lower case letter, and that
 317 individual words in the name, following the first word, shall begin with upper case letters.

318 E.7 Navigability

319 An arrow attached to the end of an association path indicates that navigation is supported toward the class
 320 attached to the arrow. In other words, information held in that class is accessible from the class at the other
 321 end of the association. Arrows may be attached to zero, one, or two ends of the path. This International
 322 Standard follows the practice of showing arrows only in the case of association paths that are navigable in
 323 only one direction. All other associations are assumed to be navigable in both directions. In Figure B.2,
 324 AssociationName2 is navigable from Gamma to Delta, but not in the opposite direction.

325 E.8 Aggregation

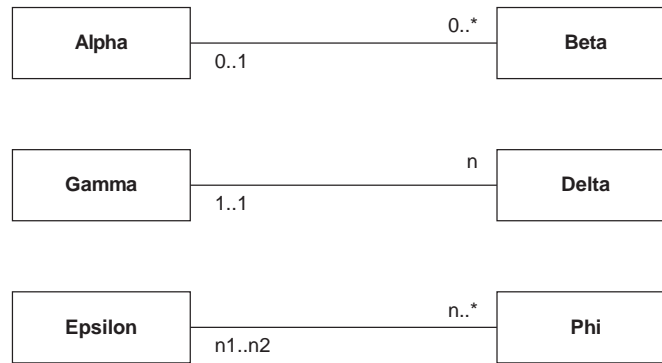
326 Associations may be used to show aggregation or composition relationships between classes. An open
 327 diamond on an association end indicates that the class at that end of the association is an aggregate of
 328 instances of the class at the other end of the association. For example, the class named Gamma, in Figure
 329 E.2, is an aggregate of zero or more instances of the class named Delta. Aggregation is considered a weak
 330 form of composition. The members of an aggregation can exist independently of the aggregation, and can be
 331 members of more than one aggregation.

332 E.9 Composition

333 A closed diamond on an association end indicates that the class at that end of the association is composed of
 334 instances of the class at the other end of the association. For example, the class named Epsilon in Figure E.2
 335 is composed of zero or more instances of the class named Phi. Members of a composite cannot exit
 336 independently of the composite class, nor can they be members of more than one composite class.

2337 **E.10 Multiplicity**

2338 Multiplicity specifies the number of instances of a class that may be associated with a class at the other end of
 2339 the association.



2340

2341 **Figure A.3 — UML Multiplicity**

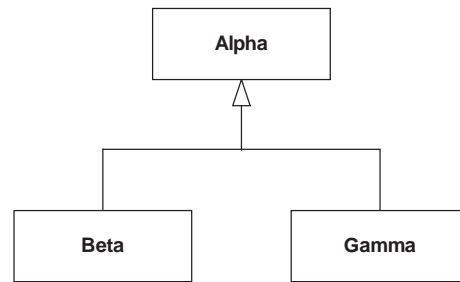
2342 The values shown in E.3 are all valid. They have the following meanings:

- 2343 - zero or one instance of Alpha may be associated with one instance of Beta;
- 2344 - zero or more instances of Beta may be associated with one instance of Alpha;
- 2345 - one and only one instance of Gamma may be associated with one instance of Delta;
- 2346 - n being an integer number, n and only n instances of Delta may be associated with one instance of
 2347 Gamma;
- 2348 - $n1$ and $n2$ being integer numbers, with $n2 > n1$, the number of instances of Epsilon that may be
 2349 associated with an instance of Phi may be within the range $n1$ to $n2$;
- 2350 - n being an integer number, n or more instances of Phi may be associated with one instance of Epsilon.

2351 **E.11 Generalization**

2352 ISO/IEC 19501 defines generalization (Figure E.4) as a taxonomic relationship between a more general
 2353 element and a more specific element. The more specific element is fully consistent with the more general
 2354 element and contains additional information. An instance of the more specific element may be used where the
 2355 more general element is allowed. Generalization is shown as a solid-line path from the child (the more specific
 2356 element, such as a subclass) to the parent (the more general element, such as a superclass), with a large
 2357 hollow triangle at the end of the path where it meets the more general element. Figure E.4 shows two
 2358 generalization relationships.

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Figure A.4 — UML Generalization

362 E.12 Derived elements

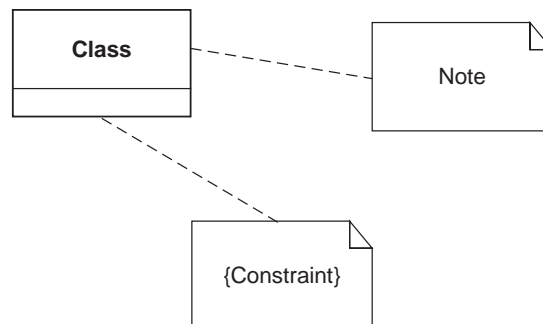
363 A derived element, such as an attribute or a rolename, is one whose value can be computed from another
 364 element, but is shown for clarity even though it adds no semantic information. A derived element is indicated
 365 by a slash ("/") in front of its name.

366 E.13 Note

367 A note (Figure E.5) contains textual information. It is shown as a rectangle with a "bent corner" in the upper
 368 right corner, attached to zero or more model elements by a dashed line. Notes may be used to contain
 369 comments or constraints.

370 E.14 Constraint

371 A constraint specifies a semantic condition or restriction. Although ISO/IEC 19501 specifies an Object
 372 Constraint Language for writing constraints, a constraint may be written using any formal notation, or a natural
 373 language. A constraint is shown as a text string in braces ("{ }"). It is placed near the element to which it
 374 applies. If the notation for an element is a text string (such as an attribute), the constraint string may follow the
 375 element text string in braces. A constraint included as an element in a list applies to all subsequent elements
 376 in the list, down to the next constraint element or the end of the list.



377

378

Figure A.5 — Note and constraint

2379 **Annex F (Informative) Business Transaction Model (BTM): two classes of**
2380 **constraints**

2381 Business transactions are modelled for registering, reference and re-use as scenarios and scenario components.
2382 Business semantic descriptive techniques are used to identify and specify the key components of a business
2383 transaction, i.e., as business objects.

2384 The Business Transaction Model (BTM), as stated in Clause 6.1.5 of ISO/IEC 15944-1, has three required
2385 components namely "Person", "Process", and "Data. These three fundamental components of the Business
2386 Transaction Model are presented graphically in Figure E-1²³

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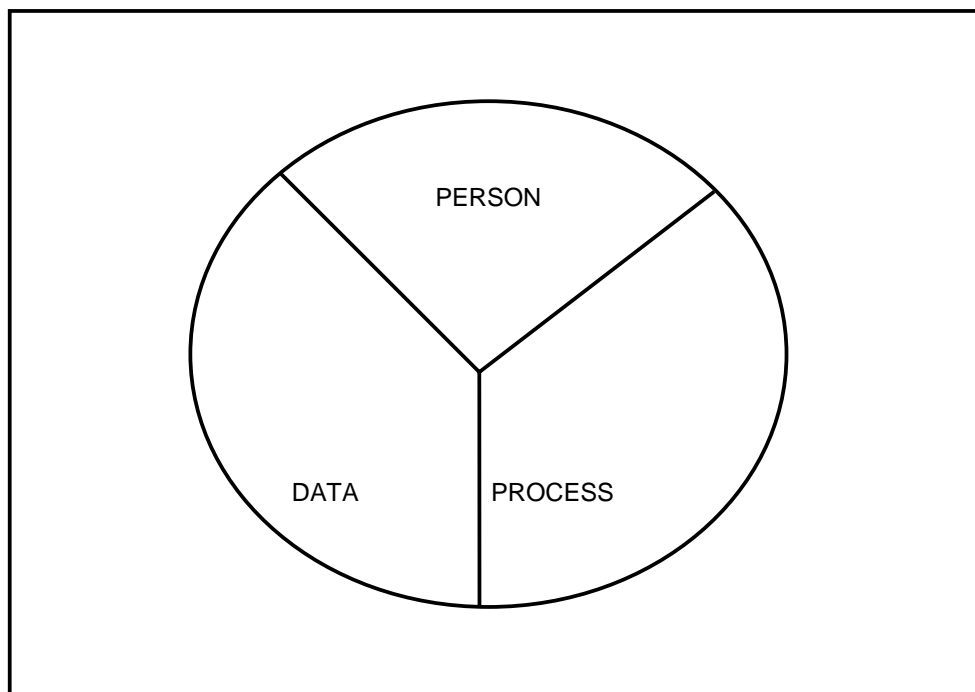
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Figure F.1 - Business Transaction Model - Fundamental Elements (Graphic Illustration)

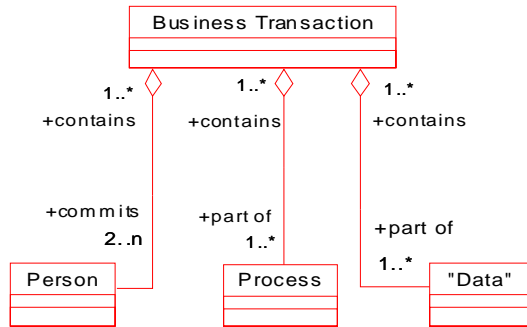
²³In ISO/IEC 15944-1:2002 for these three fundamental elements, the essential BOV aspects of the business transaction model, along with associated rules, definitions and terms as well as other attributes are stated in the following clauses:

- (1) Clause 6.2 "Rules governing the Person Component" (and further Annex E);
- (2) Clause 6.3 "Rules governing the Process Component" (and further Annex F); and,
- (3) Clause 6.4 "Rules governing the Data Component" (and further Annex G).

Using UML as a Formal Description Technique, yields the following UML-based representation of the Business Transaction Model and is presented as Figure E-2²⁴.

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2403



2404

2405 **Figure F.2 – UML-based Representation of Figure E-1 – Business Transaction Model – Fundamental**
 2406 **Components**

2407

2408 The business transaction model focuses on and addresses the essential needs of commitment exchange among
 2409 autonomous parties, i.e., the ability of Persons as parties to a business transaction being able to make
 2410 commitments and to do so while maximizing the use of automated methods. This is in addition to existing
 2411 standards which pertain to various aspects of information exchange only.²⁵

2412 As such, what sets Open-edi (or e-business) apart from information exchange in general are six (6)
 2413 characteristics²⁶. They are:

- 2414 - actions based upon following clear, predefined rules;
- 2415 - commitments of the parties involved;
- 2416 - commitments among the parties are automated;
- 2417 - parties control and maintain their states;
- 2418 - parties act autonomously; and,
- 2419 - multiple simultaneous transactions can be supported.

2420 Electronic business transactions therefore require:

²⁴ This UML-based representation incorporates the rules governing the interworking of these three fundamental components as specified in ISO/IEC 15944-1:2002.

²⁵ It is important that users of this Part 5 of ISO/IEC 15944 familiarize themselves with Part 1, Clause 6.3.1 titled "*Business transactions commitment exchange added to information exchange*" including the rules and definitions/terms, i.e. "Person", and "commitment" as well as its normative text.

²⁶ See further in ISO/IEC 15944-1:2002 Clause 5 "Characteristics of Open-edi". Each of these six (6) characteristics is described in more detail in ISO/IEC 15944-1:2002 Clause 5 "Characteristics of Open-edi".

- 2421 - a clearly understood purpose, mutually agreed upon goal(s) explicitness and unambiguity;
- 2422 - pre-definable set(s) of activities and/or processes, pre-definable and structured data;
- 2423 - commitments among Persons being established through electronic data interchange;
- 2424 - computational integrity and related characteristics; and,
- 2425 - the above being specifiable through Open-edi Description Technique(s) (OeDTs) (as the use of a
2426 Formal Description Technique(s) in support of modelling e-business), and executable through
2427 information technology systems for use in real world actualizations.
- 2428 These and related requirements of electronic business transactions are specified in the form of "constraints".
- 2429 "Constraint" has already been defined as:
- 2430 **constraint:** *a rule, explicitly stated, that prescribes, limits, governs or specifies any aspect of a **business***
2431 **transaction.**
- 2432 *NOTE 1 Constraints are specified as rules forming part of components of Open-edi scenarios, i.e., as*
2433 *scenario attributes, roles, and/or information bundles.*
- 2434 *NOTE 2 For constraints to be registered for implementation in Open-edi, they must have unique and*
2435 *unambiguous identifiers.*
- 2436 *NOTE 3 A constraint may be agreed to among parties (condition of contract) and is therefore considered an*
2437 *"internal constraint". Or a constraint may be imposed on parties, (e.g., laws, regulations, etc.), and is therefore*
2438 *considered an "external constraint". [ISO/IEC 15944-1:2002:3.11]*
- 2439 The Business Transaction Model has two classes of constraints; namely:
- 2440 (1) those which are "self-imposed" and agreed to as commitments among the parties themselves, i.e., "internal
2441 constraints"; and,
- 2442 (2) those which are imposed on the parties to a business transaction based on the nature of the good, service
2443 and/or rights exchanged, the nature of the commitment made among the parties (including ability to make
2444 commitments, the location, etc.), i.e., "external constraints".

2445 These two basic classes of constraints on business transactions are illustrated here in Figure E-3.

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2447 **Figure F-3 — Business Transaction Model: Classes of Constraints**

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