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Information technology — Business Operational View —

Part 5: Identification and referencing of requirements of jurisdictional domains as sources of external constraints

Technologies de l'information — Vue opérationnelle d'affaires —

Partie 5: Identification et référence des exigences de domaines juridictionnels en tant que sources de contraintes externes

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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Contents

Page

Index of Tables

Index of Figures

Foreword

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ISO/IEC 15944-5 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange*.

ISO/IEC 15944 consists of the following parts, under the general title *Information technology — Business Operational View*:

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

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

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

— *Part 5: Identification and referencing of requirements of jurisdictional domains as sources of external constraints*

The following parts are under preparation:

— *Part 6: Technical introduction of e-Business modelling*

— *Part 7: e-Business vocabulary*

0 Introduction

0.1 Purpose and overview

0.1.1 ISO/IEC 14662 "Open-edi Reference Model"

The ISO/IEC 14662 Open-edi Reference Model[1] provides the conceptual architecture necessary for carrying out electronic business transactions. That architecture describes the need to have two separate and related views of the business transaction. The first is the Business Operational View (BOV). The second is the Functional Service View (FSV). Figure 1, taken from ISO/IEC 14662:2004, illustrates the Open-edi environment. For definitions of the terms in Figure 1, see Clause 3.

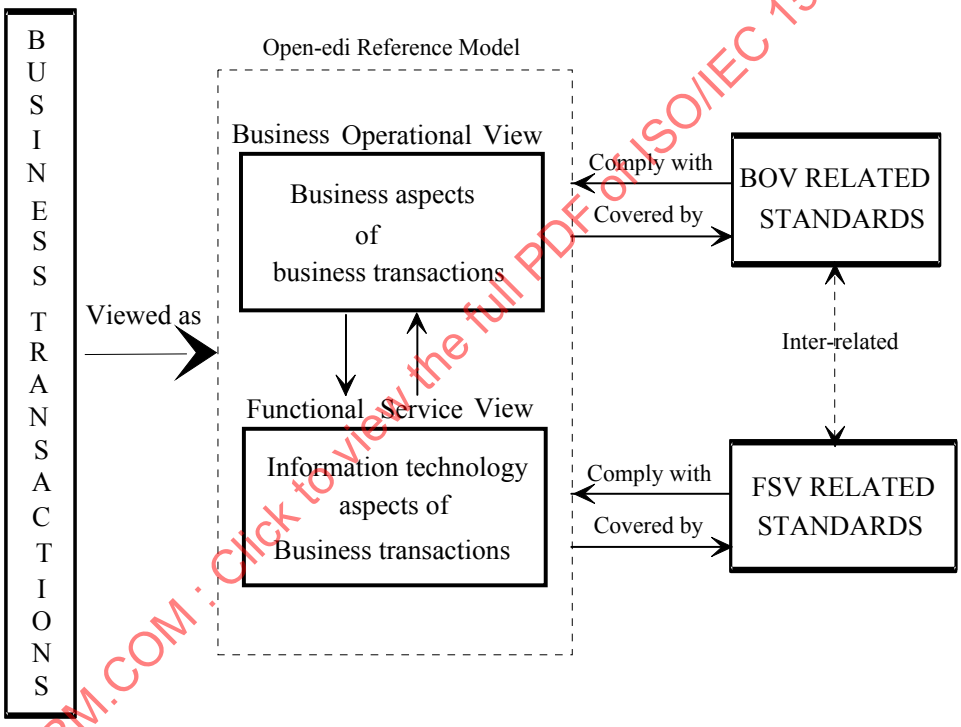

Figure 1 — Open-edi environment

ISO/IEC 14662:2004, Clause 5 contains the following text:

> "*The intention is that the sending, by an Open-edi Party, of information from a scenario, conforming to Open-edi standards, shall allow the acceptance and processing of that information in the context of that scenario by one or more Open-edi Parties by reference to the scenario and without the need for agreement. However, the legal requirements and/or liabilities resulting from the engagement of an organization in any Open-edi transaction may be conditioned by the competent legal environment(s)*

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[1] ISO/IEC 14662:2004, *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 and go to "Freely Available Documents".)

> *of the formation of a legal interchange agreement between the participating organizations. Open-edi Parties need to observe rule-based behaviour and possess the ability to make commitments in Open-edi, (e.g., business, operational, technical, legal, and/or audit perspectives)*".

In addition, ISO/IEC 14662:2004, Annex A contains a Figure A.1 "*Relationships of Open-edi standardization areas with other standards and import of the legal environment*". This part of ISO/IEC 15944 focuses on the legal environment from an Open-edi perspective and, as required, follow-up standards development in support of the "Open-edi Reference Model".

This part of ISO/IEC 15944 is thus directed at being able to identify and reference laws and regulations impacting scenarios and scenario components as external constraints. The primary source of such external constraints is jurisdictional domains.

In ISO/IEC 15944-1, constant reference is made and many rules are stated pertaining to the specification of external constraints when modelling business transactions through scenarios, scenario attributes and scenario components. These are consolidated in Annex B of this part of ISO/IEC 15944.

Finally, it is noted that the approach taken in ISO/IEC 15944-1:2002 in Clause 7 "*Guidelines for scoping Open-edi Scenarios*" is as stated in 7.1:

> "*The approach taken is that of identifying the most primitive common components of a business transaction and then moving from the general to the more detailed, the simplest aspects to the more complex, from no external constraints on a business transaction to those which incorporate external constraints, from no special requirements on functional services to specific requirements, and so on.*"

This part of ISO/IEC 15944 focuses on addressing the more simple, i.e. definable, aspects of external constraints for which the source is a jurisdictional domain. A useful characteristic of external constraints is that at the sectoral, national and international levels, etc. focal points and recognized authorities often already exist. The rules and common business practices in many sectoral areas are already known. Use of this standard (and related standards) will facilitate the transformation of these external constraints (business rules) into specified, registered and re-useable scenarios and scenario components.

0.1.2 ISO/IEC 15944-1 "Business Agreement Semantic Descriptive Techniques"

ISO/IEC 15944-1:2002 is the first part of a multipart BOV standard which focuses on the many requirements of the business operational view aspects of Open-edi in support of electronic business transactions. These requirements need to be integrated and taken into account in the development of business semantic descriptive techniques for modelling e-business transactions and components thereof as re-useable business objects. They include:

- commercial frameworks and associated requirements;
- legal frameworks and associated requirements;
- public policy requirements particularly those of a generic nature, such as consumer protection, privacy, accommodation of handicapped/disabled;
- requirements arising from the need to support cultural adaptability. This includes meeting localization and multilingual requirements (e.g. as may be required by a particular jurisdictional domain or desired to provide a good, service and/or right in a particular market. Here one needs the ability to distinguish the specification of scenarios, scenario components and their semantics in the context of making commitments between:

  (1) the use of unique, unambiguous and linguistically neutral identifiers (often as composite identifiers) at the information technology (IT) interface level among the IT systems of participation parties on the one hand; and, on the other,

  (2) their multiple human interface equivalent (HIE) expressions in a representation form appropriate to the Persons involved in the making of the resulting commitments.

Figure 2 provides an integrated view of these business operational requirements. Figure 2 is based on Figure 3 from ISO/IEC 15944-1:2002. Since the focus of this part of ISO/IEC 15944 is that of external constraints for which jurisdictional domains are the primary source, these have been highlighted here (in shaded form).

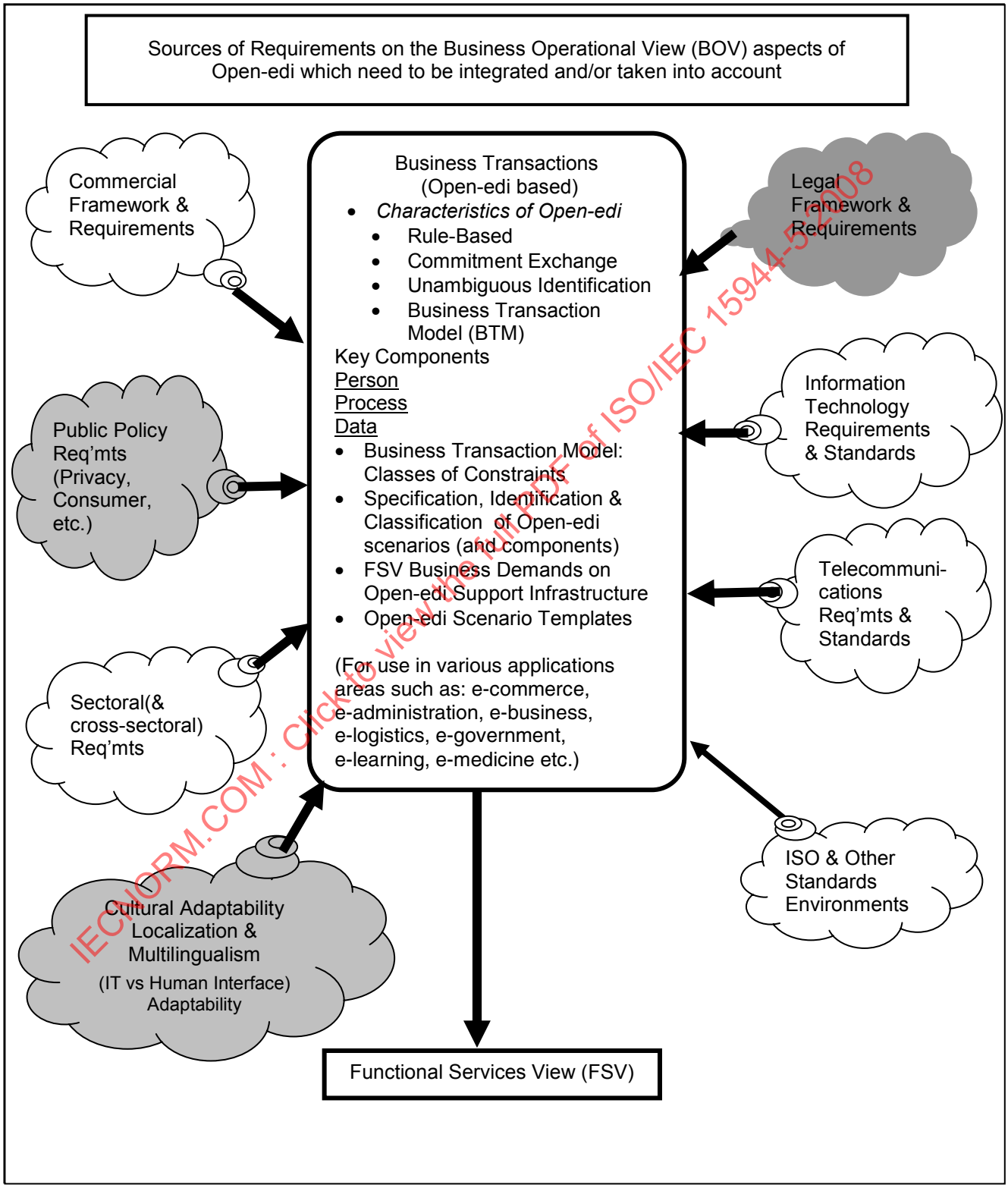

Figure 2 — Integrated View – Business Operational Requirements: External Constraints Focus

0.2 Use of "Person", "organization" and "party" in the context of business transactions and commitment exchange

In electronic business transactions, whether undertaken on a for-profit or not-for-profit basis, the key element of any type of business transaction is commitment exchange among Persons made among the Decision Making Applications (DMAs) of the Information Technology Systems (IT Systems)[2] acting on behalf of "Persons". "Persons" are the only entities able to make commitments[3]. Quoting from ISO/IEC 15944-1:2002, 0.4:

> *'When the ISO/IEC 14662 Open-edi Reference Model standard was being developed, the "Internet" and "WWW" were at an embryonic stage and their impact on private and public sector organizations was not fully understood. The Business Operational View (BOV) was therefore initially defined as:*
>
> > *"a perspective of business transactions limited to those aspects regarding the making of business decisions and commitments among organizations which are needed for the description of a business transaction".'*

The existing and widely-used ISO/IEC 6523 definition of "organization" was used in ISO/IEC 14662. The fact that today Open-edi through the Internet and WWW also involves "individuals" has now been taken into account in this standard. Further, ISO/IEC 14662:1997 did not define "commitment", nor the discrete properties and behaviours an entity must have to be capable of making a "commitment" as well as bridging legal and IT perspectives in the dematerialized world of the Internet.

During the development of ISO/IEC 15944-1, the term "commitment" was defined. At the same time it was recognized that in order to be able to make a commitment, the term "Open-edi Party" was not specific enough to satisfy scenario specifications when the legal aspects of commitment were considered. In many instances, commitments were noted as being actually among IT systems acting under the direction of those legally capable of making commitment, rather than the individuals in their own capacities. It was also recognized that in some jurisdictions a commitment could be made by "artificial" persons such as corporate bodies. Finally, it was recognized that there are occasions where agents act, either under the instruction of a principal or as a result of requirement(s) laid down by a jurisdiction, or where an individual is prevented by a relevant jurisdiction from being able to make a commitment.

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

There are three broad categories, i.e. sub-types, of Persons as players in Open-edi, namely:

(1) the Person as "individual";

(2) the Person as "organization"; and

(3) the Person as "public administration".

There are also three basic (or primitive) roles of Persons in business transactions, namely "buyer", "seller" and "regulator".

In modelling business transactions, jurisdictional domains prescribe their external constraints in the role of "regulator" and execute them as "public administration". See 5.4.

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2 See further 5.2 "*Functional Services View*" in ISO/IEC 14662:2004.

3 The text in this section is based on existing text in 0.3 of ISO/IEC 15944-1:2002 and ISO/IEC 14662:2004.

Very often the requirements of jurisdictional domains are specified through the use of sets of “Codes representing X...”. These sets of codes are created and maintained by Source Authorities via a rulebase with a resulting coded domain(s) in the form of a data element(s) whose permitted values represent predefined semantics and in a structured form, i.e. as a type of semantic component. As such, jurisdictional domains serve as Source Authorities for coded domains.

These three sub-types of Persons are also the possible Source Authorities for coded domains. On the whole, Source Authorities for coded domains are either “organizations” or “public administrations”.

Within this part of ISO/IEC 15944,

- the use of Person with a capital “P” represents Person as a defined term, i.e. as the entity within an Open-edi Party that carries the legal responsibility for making commitment(s);
- “individual”, “organization” and “public administration” are defined terms representing the three common sub-types of “Person”; and
- the words “person(s)” and/or “party(ies)” are used in their generic contexts independent of roles of “Person” as defined in ISO/IEC 14662:2004 and ISO/IEC 15944-1. A “party” to a business transaction has the properties and behaviours of a "Person".

0.3 Importance and role of terms and definitions

The ISO/IEC Directives Part 2 provide for “terms and definitions” as a “technical normative element”, necessary for the understanding of certain terms used in the document. A primary reason for having “terms and definitions” in a standard is because one cannot assume that there exists a common understanding, worldwide, for a specific concept. And even if one assumes that such an understanding exists, having such a common definition in Clause 3 serves to formally and explicitly affirm (re-affirm) such a common understanding, i.e. ensure that all parties concerned share this common understanding as stated through the text of the definitions in Clause 3.

A primary objective of ISO/IEC 15944 is to ensure that there is a common understanding of the Business Operational View (BOV) from commercial, legal, ITC, public policy and cross-sectoral perspectives. It is therefore important to ascertain and confirm that what is considered a “common understanding” in one of these domains is also so unambiguously understood and accepted in the others.

This subclause is included in each Part of ISO/IEC 15944 to emphasize that harmonized terms and definitions are essential to the continuity of the overall standard. Terms/definitions should be established as early as possible in the standards development process. Comments on any definition/term pair should address the question of changes needed to avoid possible misinterpretation. Definitions may need to be amended/improved as part of the harmonization of terms/definitions among the various parts of ISO/IEC 15944.

In order to minimize ambiguity in the terms and definitions introduced in Clause 3 of each part of ISO/IEC 15944, Canada has committed to develop French language equivalents for the same. Some terms and definitions may need to be amended/improved as part of developing the French language translation.

Annex A “*Consolidated list of terms and definitions with cultural adaptability: ISO English and ISO French language equivalency*” is derived from Clause 3 of each part of ISO/IEC 15944.[4] Annex A is repeated in each part of ISO/IEC 15944 as a convenient reference.

[4] Canada has committed to maintain this comprehensive list in a database as the reference file for Annex A. This Annex A reference file will ensure the consistency of terms and definitions among the various parts in the on-going harmonization effort.

0.4 Importance of the two classes of constraints of the Business Transaction Model (BTM)

The Business Transaction Model has two classes of constraints, namely:

(1) those which are "self-imposed" and agreed to as commitments among the parties themselves, i.e. "internal constraints"; and

(2) those which are imposed on the parties to a business transaction based on the nature of the good, service and/or rights exchanged, and the nature of the commitment made among the parties (including ability to make commitments, the location, etc.), i.e. "external constraints".

The focus of this part of ISO/IEC 15944 is on external constraints. Jurisdictional domains are the primary source of external constraints.[5]

ISO/IEC 15944-1:2002, 6.1.6 provides normative text for these two classes of constraints. It is included in this part of ISO/IEC 15944 as Annex C. In addition, Annex G provides examples of various ontologies that result when modelling business scenarios with (1) internal constraints only and (2) external constraints.

0.5 Standard based on rules and guidelines[6]

This standard is intended to be used within and outside of the ISO and IEC by diverse sets of users having different perspectives and needs (see Figure 2).

ISO states that a standard is a[7]

> "*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*".[8]

This BOV standard focuses on "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".

As stated in the Open-edi Reference Model and re-emphasized in ISO/IEC 15944-1, Open-edi is based on rules which are predefined and mutually agreed to. They are precise criteria and agreed upon requirements of business transactions representing common business operational practices and functional requirements.

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5 For business requirements of the Functional Service View and business demands on the Open-edi support infrastructure with respect to internal constraints, see further ISO/IEC 15944-1:2002, 6.5.2 "*Self-imposed constraints*". ISO/IEC 15944-4:2006 focuses on accounting and economic aspects of business transactions from an "internal constraints" perspective.

6 This introductory clause is primarily based on that found in ISO/IEC 15944-1:2002, 6.1.2 titled "*Standard based on rules and guidelines*".

7 This is the generic definition of "standard" of the ISO and IEC (and now found in the ISO/IEC JTC 1 Directives).

8 One can interpret "agreement" in a variety of ways. The ISO/IEC Guide 2:1996, 1.7 uses the term "consensus", which need not imply unanimity but rather "absence of sustained opposition to substantial issues…".

Clause 5 "*Characteristics of Open-edi*" in ISO/IEC 15944-1:2002 makes it clear that the BOV type of Open-edi standards are "rule-based" standards[9]. Of particular relevance here is the first key characteristic of Open-edi as stated in ISO/IEC 15944-1:2002, 5.1 "*Actions based upon following clear, predefined rules*". It is useful to quote some key normative text of ISO/IEC 15944-1 so that users of this part of ISO/IEC 15944 have a clear understanding of the nature and purpose of this BOV standard.

> *"Open-edi requires the use of clear and pre-defined rules, principles and guidelines. These rules formally specify the role(s) of the parties involved in Open-edi and the available expected behavior(s) of the parties as seen by other parties engaging in Open-edi. Open-edi rules are applied to:*
>
> - *the content of information flows, and*
> - *the order and behavior of information flows themselves.*
>
> *The combination of both of these provides a complete definition of the relationships among the parties since it requires them to achieve a common semantic understanding of the information exchanged. They must also have consistent generic procedural views on their interaction. Therefore, rule sets have to be agreed in advance and captured in Open-edi scenarios. This is a major component of the agreement required among parties."*

These rules also serve as a common set of understanding bridging the varied perspectives of the commercial framework, the legal framework, the information technology framework, standardizers, consumers, etc.[10]

In this part of ISO/IEC 15944, the common rules are sequentially enumerated and presented in **bold** font. Where guidelines are provided for a rule they are numbered sequentially after that rule and are shown in an italic font[11]. Choice of words in the rules, the guidelines, and the terms and definitions are governed by maximizing the ability to map, on the one hand, to all the sources of requirements of the day-to-day world of commitment pertaining to the BOV of any e-business transaction (e.g. commercial, legal, public policy, cultural adaptability, sectoral, etc. frameworks of the day-to-day world of business), and on the other hand, those pertaining to the FSV in support of BOV requirements (e.g. that of those providing information technology and communication services in support of commitment exchange of any kind and among all parties involved in a business transaction).

0.6 Use of "jurisdictional domain" and "jurisdiction" (and "country") in the context of business transactions and commitment exchange

Multiple definitions are currently in use for "jurisdiction". Some have legal status and others do not. Further, it is also a common practice to equate "jurisdiction" with "country". Yet at the same time, it is also a common practice to refer to provinces, länder, cantons, territories, municipalities, etc. as "jurisdictions" or to a court of law or international body as having jurisdiction, etc. In summary, "jurisdiction" is commonly utilized with many

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9 There are six key characteristics of Open-edi (as stated in ISO/IEC 15944-1:2002, Clause 5):

- actions based on following predefined rules;
- commitment of the parties involved;
- communications among parties are automated;
- parties control and maintain their states;
- parties act autonomously; and
- multiple transactions can be supported.

The six sub-clauses of Clause 5 in ISO/IEC 15944-1:2002 describe each of these six characteristics in more detail.

10 The working principle here is that of "coordinated autonomy", i.e. all parties are autonomous. Therefore, the extent to which they cooperate, agree on common needs, business rules, constraints, practices, etc., and reach agreement on the same in the form of precise rules, terms and definitions, etc. is a key influence on the creation of necessary standards as well as common scenarios, scenario attributes and scenario components.

11 For example, "*Guideline 5G2*" equals the second guideline under Rule 5.

different meanings in various contexts. Finally, there are differing "legal" definitions of "jurisdiction". Within this part of ISO/IEC 15944:

- the use of "jurisdictional domain" represents its use as a defined term; and
- the use of "jurisdiction(s)" and/or "country (ies)" represents their use in their generic contexts.

0.7 Use of "identifier" as "identifier (in business transactions)"[12]

ISO/IEC 15944-1:2002, 6.1.4 focuses on the requirement for the unambiguous identification of entities in business transactions. "Unambiguous" is a key issue in business transactions because states of ambiguity and uncertainty are not desired from commercial, legal, consumer and information technology perspectives. Issues of unambiguousness apply to all aspects of a business transaction and even more so to those which are EDI-based.

A key objective of ISO/IEC 15944 is to serve as a methodology and tool for the specification and unambiguous identification of Open-edi scenarios, scenario attributes and scenario components as re-useable elements, i.e. as re-useable business objects, in support of common business transactions. These and related objectives of interoperability and re-usability of Open-edi scenarios and scenario components for business transactions require their unambiguous identification.

ISO/IEC 15944-1:2002, 3.66 defines "unambiguous" as

> *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***

ISO/IEC 15944-1:2002, 3.27 defines "identifier (in business transaction)" as

> ***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*

Within this part of ISO/IEC 15944, "identifier" is used as a defined term as "identifier (in a business transaction)".[13]

0.8 Organization and description of this part of ISO/IEC 15944

This part of ISO/IEC 15944 provides the key concepts required for addressing the legal environment in developing the BOV of business transactions and scenarios which involve and are required to support external constraints.

Following the standard Clauses 0, 1, 2, 3 and 4, this part of ISO/IEC 15944 begins in Clause 5 with an exploration of the jurisdictional domain as a source of external constraint on the business process, both from the perspective of a Person and as a Public Administration. Clause 5 presents key constraints governing this part of ISO/IEC 15944 and does so through principles and rules. It utilizes the concept of "collaboration space" to identify and differentiate between modelling business transactions under (1) internal constraints only and (2) with external constraints being added, including the introduction of the role of the regulator. As pointed out in Clause 5, Public Administrations can be viewed as both Buyers and Sellers. However, they perform a very

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12 This is a summary of ISO/IEC 15944-1:2002, 6.1.4 "Business transaction: unambiguous identification of entities". See also ISO/IEC 15944-1:2002, Annex C "Unambiguous identification of entities in (electronic) business transactions", which provides the informative and explanatory text for the rules and definitions in 6.1.4.

13 Identifiers in business transactions can be simple or composite identifiers. This is dependent on (1) the rules governing "identifiers" as a rule-based process and (2) the "registration schema" utilized (as well as any permitted combinations of the same).

important role as Regulator within the context of their respective jurisdictions. It examines the bounds of these jurisdictions, from the traditional localized jurisdictions such as states to those of pivot jurisdictional domains as represented, for example, by agreements among UN member states.

Clause 6 examines a key element in business transactions, that of the use of language. Jurisdictions can identify and, in some cases, impose the use of language in a business transaction. In this regard, this part of ISO/IEC 15944 looks at the relationship of the constraint imposed by a jurisdictional domain on the choice of language used. It examines such terms as “natural language”, “official language” and their relationships with Human Interchange Equivalents (HIEs) between and among jurisdictions, business processes and Persons.

Public policy constraints are also examined and key requirements for their inclusion in external constraints are identified in Clause 6, especially where they may affect the modelling of Open-edi scenarios and the business transaction components of Persons, data and processes. In particular, there is a set of rules that govern the identification and categories of jurisdictional domains as individual states as well as sets of entities, both regional and international.

Clause 7 focuses on the identification of rules governing the formation and identification of jurisdictional domains. Clause 7 identifies the more primitive subtypes of jurisdictional domains and includes two approaches for the unambiguous identification of referencing of (subtypes of) jurisdictional domain.

This part of ISO/IEC 15944 (like ISO/IEC 15944-1 and ISO/IEC 15944-2) also provides checklists, through the use of templates in Clause 8, to guide the user through the mechanics of determining the source of the external constraint(s) where these are jurisdictional domains and determining the adequacy of the scenario specification as well as those of the scenario components.

At the end of this part of ISO/IEC 15944 are annexes that provide elaboration on the points raised in the main body. Annex A is a consolidated list of the terms used in this part of ISO/IEC 15944 in ISO English and ISO French. As stated in the main body of this part of ISO/IEC 15944, the issue of linguistics and the importance of identifying the correct interpretation across official languages is a key element.

Annex B identifies rules stated in ISO/IEC 15944-1 that are applicable to this part of ISO/IEC 15944. Annex C is common to parts 2, 4 and 5 of ISO/IEC 15944. Annex D presents default conventions for the unambiguous identification and interworking of country, language and currency codes in the modelling of business transactions from a commitment exchange and a jurisdictional domain requirements perspective. Annexes E, F, I, J and K provide information in support of Annex D as well as serving as real-world examples in support of the concepts, definitions and rules stated in Clauses 5, 6, 7 and 8. Annex G serves as an example of bridging between ISO/IEC 15944-4 and this part of ISO/IEC 15944.

Information technology — Business Operational View —

Part 5: Identification and referencing of requirements of jurisdictional domains as sources of external constraints

1 Scope

1.1 Statement of scope

The modelling of a business transaction through scenarios and scenario components is done by specifying the applicable constraints through explicitly stated rules. The Open-edi Reference Model identified two basic classes of constraints, namely "internal constraints" and "external constraints" (see further Annex G). ISO/IEC 15944-4 focuses on internal constraints with a specific focus on doing so from an economic ontology perspective.

External constraints apply to most business transactions.

Jurisdictional domains are the primary source of external constraints on a business transaction.

The primary purpose of this part of ISO/IEC 15944 is to address specific aspects of business semantic descriptive techniques in order to be able to support legal requirements in modelling business transactions, i.e. in the form of jurisdictional domains as sources of external constraints.

As such, this part of ISO/IEC 15944 addresses fundamental, i.e. more primitive, requirements of the legal environment, as represented through jurisdictional domains, on business transactions and also integrates the requirements of the information technology and telecommunications environments.

This part of ISO/IEC 15944 contains a methodology and tool for specifying common classes of external constraints through the construct of "jurisdictional domains". It does so, following the approach already taken by ISO/IEC 15944-1 and ISO/IEC 15944-2 through the use of explicitly stated rules, templates and Formal Description Techniques (FDTs).

At the same time, a set of external constraints of a jurisdictional domain lends itself to being modelled through scenarios and scenario components. For example, ISO/IEC 15944-1:2002, Annex I, 'Scenario descriptions using the Open-edi scenario template: "Telecommunications Operations Map" example' is a scenario of an external constraint of a jurisdictional domain, i.e. the USA, that provides a business process framework that provides the enterprise process required for a telecommunications service provider.

Other examples of external constraints which lend themselves to being modelled as scenarios and scenario components include the customer clearance process of the World Customs Organization (WCO), one or more of the INCOTERMs, etc.

In addition to the existing strategic directions of "portability" and "interoperability", the added strategic direction of ISO/IEC JTC 1 of "cultural adaptability" is also supported in this part of ISO/IEC 15944. Here, the fact that external constraints of jurisdictional domains are a primary factor in the choice of language and application of public policy are also addressed in this part of ISO/IEC 15944.

1.2 Exclusions

1.2.1 Mutual recognition of jurisdictional domain by other jurisdictional domains

Resolving the issue of recognition of a jurisdictional domain, of whatever nature, by other jurisdictional domains is outside the scope of this part of ISO/IEC 15944.

1.2.2 Formation of jurisdictional domains

A jurisdictional domain can and does create other jurisdictional domains within it [14].

Processes pertaining to the formation of a jurisdictional domain are outside the scope of this part of ISO/IEC 15944.

1.2.3 "Overlap" of and/or conflict among jurisdictional domains as sources of external constraints

A business transaction by its very nature involves an exchange of commitments among autonomous parties. Commitment is the making or accepting of a right, an obligation, liability or responsibility by a Person, whereas while a business transaction pertains to the transfer of a good, service and/or right among the Persons involved.

It is not an uncommon occurrence that, depending on the goal and nature of the business transaction, multiple external constraints apply originating from various jurisdictional domains. It is also a not uncommon occurrence that there is overlap among such sets of external constraints and/or conflict among them.

Resolving issues of this nature is outside the scope of this part of ISO/IEC 15944. However, the modelling of business transactions as scenarios and scenario components as re-useable business objects may well serve as a useful methodology for identifying specific overlaps and conflicts (thereby serving as a tool for their harmonization).

The application of business semantic descriptive techniques to laws, regulations, etc. of jurisdictional domains and their modelling of such sets of external constraints as scenarios and scenario components is an essential step to their application in a systematic manner to (electronic) business transactions (and especially e-government, e-commerce, e-education, etc.).

As such, the Open-edi business agreement descriptive techniques methodologies can serve as a tool in harmonization and simplification of external constraints arising from jurisdictional domains.

1.2.4 Artificial languages, programming languages, mark-up languages, etc.

This part of ISO/IEC 15944 includes clauses which focus on external constraints on business transactions which pertain to the use of a "natural language" and/or a "special language" for the human interface equivalents of the business semantics of the set of commitments comprising a business transaction modelled through scenarios and scenario components. A primary source of such external constraints is jurisdictional domains.

With respect to the use of language(s) to provide human interface equivalent values, the following are excluded from the scope of this part of ISO/IEC 15944:

- "artificial languages";
- "programming languages";[15]

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[14] For example, on 1 April 1999, the Canadian government through an Act of Parliament created the Territory of Nunavut out of the existing Northwest Territories.

[15] As stated in ISO/IEC 15944-1:2002, 6.1.1, the focus of ISO/IEC 15944 is the "WHATs", i.e. BOV aspects, and not the FSV aspects, including programming language(s) used for implementations.

- "hypertext languages";
- "indexing languages";[16]
- "mark-up languages".[17]

1.3 Aspects not currently addressed

This part of ISO/IEC 15944 does not currently support the following requirements:

- the differences in equality of use of official languages within a jurisdictional domain[18];
- the identification and mapping of legally recognized languages for a specific purpose or within a particular jurisdictional domain;
- the identification and registration of schemas involving the control and management of legally recognized personas and associated unique identifiers for the unambiguous identification of the role qualification of a Person in a specified context;
- the more detailed requirements of common public policy requirements of jurisdictional domains including consumer protection, privacy protection, individual accessibility and human rights;
- the more detailed requirements of records retention and other related information management requirements pertaining to commitment exchange among autonomous parties and subject to external constraints;
- the temporal schemas which are particular to a specific UN member state, a culture, a religion, etc. (even though they may have legal status and form part of the legal requirements of one or more jurisdictional domains);
- the identification and referencing of sources of external constraints which are not of the nature of a jurisdictional domain.

It is anticipated that some or all of these requirements will be addressed in future editions of this part of ISO/IEC 15944 or in companion standards or technical reports.

1.4 IT systems environment neutrality

This part of ISO/IEC 15944 neither assumes nor endorses any specific system environment, database management system, database design paradigm, system development methodology, data definition language, command language, system interface, user interface, syntax, computing platform or any technology required for implementation, i.e. it is information technology neutral. At the same time, this part of ISO/IEC 15944 maximizes an IT-enabled approach to its implementation and maximizes semantic interoperability.

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16 There may be requirements of a jurisdictional domain for the use of an "indexing language" as a specified vocabulary, a controlled terminology, etc. However, on the whole "indexing languages" are outside the scope of this part of ISO/IEC 15944.

17 This part of ISO/IEC 15944 is independent of, but maps to, any mark-up language which may be used as a syntax for its implementation, (SGML, HTML, XML, RELAX-NG, tML, ebXML, etc.).

18 This part of ISO/IEC 15944 focuses on the essential basic, i.e. primitive, aspect of jurisdictional domains as sources of external constraints. As such, it does not address differences in status that may exist among official languages within a jurisdictional domain. It is not uncommon that where a jurisdictional domain has three or more official languages not all these have equal status. For example, for use of some official language(s) in a jurisdictional domain, there could be criteria such as "where and when numbers warrant", "there is a significant demand for communication with and services from a public administration in that language", etc.

2 Normative references

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

The Normative References are divided into two parts:

- ISO/IEC, ISO and ITU
- Referenced Specifications [19]

2.1 ISO/IEC, ISO and ITU [20]

ISO 639-2:1998 (E/F), *Codes for the representations of names of languages — Part 2: Alpha-3 code/Codes pour la représentation des noms de langue — Partie 2: Code alpha-3*

ISO 1087-1:2000 (E/F), *Terminology work — Vocabulary — Part 1: Theory and application/Travaux terminologiques — Vocabulaire — Partie 1: Théorie et application*

ISO/IEC 2382 (all parts) (E/F), *Information technology — Vocabulary/Technologies de l'information — Vocabulaire*

ISO 2788:1986 (E/F), *Documentation — Guidelines for the establishment and development of monolingual thesauri/Documentation — Principes directeurs pour l'établissement et le développement de thésaurus monolingues*

ISO 3166-1 (E/F), *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes/Codes pour la représentation des noms de pays et de leur subdivisions — Partie 1: Codes de pays*

ISO 3166-2 (E/F), *Codes for the representation of names of countries and their subdivisions — Part 2: Country subdivision code/Codes pour la représentation des noms de pays et de leurs subdivisions — Partie 2: Code pour les subdivisions de pays*

ISO 3166-3:1999 (E/F), *Codes for the representation of names of countries and their subdivisions — Part 3: Code for formerly used names of countries/Codes pour la représentation des noms de pays et de leurs subdivisions — Partie 3: Code pour les noms de pays antérieurement utilisés*

ISO 4217:2001 (E/F), *Codes for the representation of currencies and funds/Codes pour la représentation des monnaies et types de fonds*

ISO 5127:2001 (E), *Information and documentation — Vocabulary*

ISO/IEC 5218:2004 (E/F), *Information technology — Codes for the representation of human sexes/ Technologies de l'information — Codes de représentation des sexes humains*

ISO 5964:1985 (E/F), *Documentation — Guidelines for the establishment and development of multilingual thesauri/Documentation — Principes directeurs pour l'établissement et le développement de thesaurus multilingues*

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[19] See further, ISO/IEC JTC 1 N 8024, "*The Normative Referencing of Specifications other than International Standards in JTC1 International Standards — Guidelines for JTC1 SCs*".

[20] For standards referenced for which both English and French versions are available, both the English and French language titles are provided. This is independent of whether the English and French language versions of the standard are published as a single document or as separate documents. For those standards which are available in English only, only the English language title is provided.

ISO/IEC 6523-1:1998 (E/F), *Information technology — Structure for the identification of organizations and organization parts — Part 1: Identification of organization identification schemes/Technologies de l'information — Structures pour l'identification des organisations et des parties d'organisations — Partie 1: Identification des systèmes d'identification d'organisations*

ISO/IEC 6523-2:1998 (E/F), *Information technology — Structure for the identification of organizations and organization parts — Part 2: Registration of organization identification schemes/Technologies de l'information — Structures pour l'identification des organisations et des parties d'organisations — Partie 2: Enregistrement des systèmes d'identification d'organisations*

ISO/IEC 7501-1:2005 (E), *Identification cards — Machine readable travel documents — Part 1: Machine readable passport*

ISO/IEC 7501-2:1997 (E), *Identification cards — Machine readable travel documents — Part 2: Machine readable visa*

ISO/IEC 7501-3:2005 (E), *Identification cards — Machine readable travel documents — Part 3: Machine readable official travel documents*

ISO/IEC 7812-1:2000 (E), *Identification cards — Identification of issuers — Part 1: Numbering system*

ISO/IEC 7812-2:2007 (E), *Identification cards — Identification of issuers — Part 2: Application and registration procedures*

ISO 8583-1:2003 (E), *Financial transaction card originated messages — Interchange message specifications — Part 1: Messages, data elements and code values*

ISO 8583-2:1998 (E/F), *Financial transaction card originated messages — Interchange message specifications — Part 2: Application and registration procedures for Institution Identification Codes (IIC)/ Messages initiés par cartes de transaction financière — Spécifications d'échange de messages — Partie 2: Procédures d'application et d'enregistrement pour codes d'identification d'institution (IIC)*

ISO 8583-3:2003 (E), *Financial transaction card originated messages — Interchange message specifications — Part 3: Maintenance procedures for messages, data elements and code values*

ISO 8601:2004 (E), *Data elements and interchange formats — Information interchange — Representation of dates and times*

ISO/IEC 9798-1:1997 (E), *Information technology — Security techniques — Entity authentication — Part 1: General*

ISO/IEC 11179-1:2004 (E), *Information technology — Metadata registries (MDR) — Part 1: Framework*

ISO/IEC 11179-3:2003 (E), *Information technology — Metadata Registries (MDR) — Part 3: Registry Metamodel and basic attributes*

ISO/IEC 14662:2004 (E), *Information technology — Open-edi reference model*

ISO/IEC TR 15285:1998 (E), *Information technology — An operational model for characters and glyphs*

ISO 15489-1:2001 (E/F), *Information and documentation — Records management — Part 1: General/ Information et documentation — «Records management» — Partie 1: Principes directeurs*

ISO/IEC 15944-1:2002 (E), *Information technology — Business agreement semantic descriptive techniques — Part 1: Operational aspects of Open-edi for implementation*

ISO/IEC 15944-2:2006 (E), *Information technology — Business Operational View — Part 2: Registration of scenarios and their components as business objects*

ISO/IEC 15944-4:2006 (E), *Information technology — Business Operational View — Part 4: Business transaction scenarios — Accounting and economic ontology*

ISO 19108:2002 (E), *Geographic information — Temporal schema*

ISO 19115:2003 (E), *Geographic information — Metadata*

ISO 19135:2005 (E), *Geographic information — Procedures for item registration*

ISO/IEC 19501:2005 (E), *Information technology — Open Distributed Processing — Unified Modeling Language (UML) Version 1.4.2* [21]

ITU-R TF.460-6, *Standard-frequency and time-signal emissions*

ITU-R TF.686-2, *Glossary and definitions of time and frequency terms*

2.2 Referenced specifications [22]

Basil Convention on the Control of Transborder Movement of Hazardous Wastes 1989+, United Nations (UN)

Charter of the United Nations (as signed 1945 and Amended 1965, 1968, and 1973+), United Nations (UN)

Constitution of the World Health Organization (WHO) International Health Regulations (1969)

Convention on the Law of the Sea (UNCLOS or LOS), 1982, United Nations (UN)

Convention for the Unification of Certain Rules for International Carriage by Air (Warsaw Convention), 1929+, International Civil Aviation Organization (ICAO)

General Agreement on Tariffs and Trade (GATT), 1947,1994+, Council for Trade in Goods (Goods Council), World Trade Organization (WTO)

Harmonized Commodity Description and Coding System (Harmonized System or HS System, 1983, and subsequent amendments), World Customs Council (WCO)

International Commercial Terms (INCOTERMS®), 2000, International Chamber of Commerce (ICC)

International Covenant on Economic, Social and Cultural Rights, 1966, United Nations (UN)

International Convention for the Safety of Life at Sea (SOLAS), 1974, International Maritime Organization (IMO)

International Maritime Dangerous Goods (IMDG) Code, 1974, International Maritime Organization (IMO)

International Labour Standards [23], 1919+, International Labour Organization (ILO)

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21 Through this part of ISO/IEC 15944, ISO/IEC 19501:2005 is simply referenced as “UML”.

22 This set of referenced specifications is not exhaustive but includes only those referenced in this document. The first or earliest date when these referenced specifications are published is provided. Many have had subsequent amendments. The Source Authority is also noted. Information on these referenced specifications, if not their full text (at times in several languages), is available from the Source Authority noted (often for free). One can use the titles provided as the basis for an Internet-based (Google) search to obtain these documents.

23 The International Labour Standards are also known as ILO Conventions which have the status of international treaties.

International Patent Classification (IPC), (Strasbourg Agreement of 1971), World Intellectual Property Organization (WIPO)

TRIPS — Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994, World Trade Organization (WTO)

Vienna Convention of the Law of Treaties, 1969, United Nations (UN)

3 Terms and definitions

3.1
address
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

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

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.

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).

[ISO/IEC 15944-2:2006 (3.1)]

3.2
agent
Person acting for another **Person** in a clearly specified capacity in the context of a **business transaction**

NOTE Excluded here are agents as "automatons" (or robots, bobots, etc.). In ISO/IEC 14662:2004, "automatons" are recognized and provided for but as part of the Functional Service View (FSV) where they are defined as an "Information Processing Domain (IPD)".

[ISO/IEC 15944-1:2002 (3.1)]

3.3
artificial language
language whose **rules** are explicitly established prior to its use

[ISO 5127:2001 (1.1.2.03)]

3.4
attribute
characteristic of an **object** or **entity**

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

3.5
authentication
provision of assurance of the claimed identity of an **entity**

[ISO/IEC 10181-2:1996 (3.3)]

3.6
authenticity
property that ensures that the identity of a subject or resource is the one claimed

NOTE Authenticity applies to entities such as users, **processes**, systems and information.

[ISO/IEC TR 13335-1:1996 (3.3), monolingual (English) only]

3.7
bilateral treaty
treaty made between two **jurisdictional domains**

NOTE An important point here is that there is no intention to bind both parties under international law.

3.8
business
series of **processes**, each having a clearly understood purpose, involving more than one **Person**, realised through the exchange of **recorded information** and directed towards some mutually agreed upon goal, extending over a period of time

[ISO/IEC 14662:2004 (3.1.2)]

3.9
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.

[ISO/IEC 15944-2:2006 (3.6)]

3.10
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**

[ISO/IEC 14662:2004 (3.1.3)]

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

[ISO/IEC 14662:2004 (3.1.4)]

3.12
business transaction identifier
BTI
identifier assigned by a **seller** or a **regulator** to an instantiated **business transaction** among the **Persons** involved

NOTE 1 The identifier assigned by the seller or regulator has the properties and behaviours of an "identifier (in a business transaction)".

NOTE 2 As an identifier (in a business transaction), a BTI serves as the unique common identifier for all Persons involved for the identification, referencing, retrieval of recorded information, etc., pertaining to the commitments made and the resulting actualization (and post-actualization) of the business transaction agreed to.

NOTE 3 A business transaction identifier can be assigned at any time during the planning, identification or negotiation phases but at least prior to the start or during the actualization phase.

NOTE 4 As and where required by the applicable jurisdictional domain(s), the recorded information associated with the business transaction identifier (BTI) may well require the seller to include other identifiers, (e.g., from a value-added good or service tax, etc., perspective) as assigned by the applicable jurisdictional domain(s).

3.13
buyer
Person who aims to get possession of a good, service and/or right through providing an acceptable equivalent value, usually in money, to the **Person** providing such a good, service and/or right

[ISO/IEC 15944-1:2002 (3.8)]

3.14
character
member of a set of elements that is used for the representation, **organization** or control of **data**

NOTE Characters may be categorized as follows:

- graphic character (e.g., digit, letter, ideogram, special character);
- control character (e.g., transmission control, character, format effector, code extension character, device control character).

[ISO/IEC 2382-4:1999 (04.01.01)]

3.15
characteristic
abstraction of a **property** of an **object** or of a set of **objects**

NOTE Characteristics are used for describing concepts.

[ISO 1087-1:2000 (3.2.4)]

3.16
character set
finite set of different **characters** that is complete for a given purpose

EXAMPLE The international reference version of the character set of ISO 646-1.

[ISO/IEC 2382-4:1999 (04.01.02)]

3.17
classification system
systematic **identification** and arrangement of **business** activities and/or **scenario components** into categories according to logically structured conventions, methods and procedural **rules** as specified in a classification schema

NOTE 1 The classification code or number often serves as a semantic identifier (SI) for which one or more human interface equivalents (HIEs) exist.

NOTE 2 The rules of a classification schema governing the operation of a classification system at times lead to the use of ID codes which have an intelligence built into them, (e.g., in the structure of the ID, the manner in which it can be parsed, etc.). Here the use of block-numeric numbering schemas is an often used convention.

3.18
code
data representation in different forms according to a pre-established set of **rules**

NOTE In this standard the “pre-established set of rules” are determined and enacted by a Source Authority and must be explicitly stated.

[ISO 639-2:1998 (3.1)]

3.19
code (in coded domain)
identifier, i.e., an **ID code**, assigned to an **entity** as member of a **coded domain** according to the pre-established set of **rules** governing that **coded domain**

3.20
coded domain
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**

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

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

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.

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

– one and/or more equivalent codes;

– one and/or more equivalent representations, especially those in the form of Human Interface Equivalent (HIE) (linguistic) expressions.

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

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.

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

NOTE 8 A coded domain may contain ID code which pertains 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.

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"; and/or, if required, (4) the pre-reservation of a series of ID codes for use of "user extensions".

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

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

[ISO/IEC 15944-2:2006 (3.13)]

3.21
coded Domain Registration Schema
cdRS
formal **definition** of both (1) the **data** fields contained in the **identification** and specification of an **entity** forming part of the members of a **coded domain** including the allowable contents of those fields and (2) the **rules** for the assignment of **identifiers**

3.22
coded domain Source Authority
cdSA
Person, usually an **organization**, as a **Source Authority** which sets the **rules** governing a **coded domain**

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

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.

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.

[ISO/IEC 15944-2:2006 (3.14)]

3.23
collaboration space
business activity space where an economic exchange of valued resources is viewed independently and not from the perspective of any **business** partner

NOTE In collaboration space, an individual partner's view of economic phenomena is de-emphasized. Thus, the common use business and accounting terms like purchase, sale, cash receipt, cash disbursement, raw materials, and finished goods is not allowed because they view resource flows from a participant's perspective.

[ISO/IEC 15944-4:2007 (3.12)]

3.24
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

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

3.25
composite identifier
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

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

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

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

– the ID of the overall identification/numbering schema, (e.g., ISO/IEC 6523, ISO/IEC 7812, ISO/IEC 7501, 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.

[ISO/IEC 15944-2:2006 (3.16)]

3.26
composite type
data type that has a **data** structure composed of the **data** structures of one or more **data** types and that has its own set of permissible operations

EXAMPLE A data type "complex number" may be composed of two "real number" data types.

NOTE The operations of a composite type may manipulate its occurrences as a unit or may manipulate portions of these occurrences.

[ISO/IEC 2382-17:1999 (17.05.10)]

3.27
computational integrity
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

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

[ISO/IEC 15944-2:2006 (3.17)]

3.28
computer program
data representing instructions or statements that, when executed in a **computer system**, causes the computer to perform a function

3.29
computer service
service which includes **data** processing and the storage or retrieval of **data**

3.30
computer system
device that, or a group of interconnected or related devices one or more of which,

a) contains **computer programs** or other **data**, and
b) pursuant to **computer programs**,
   (1) performs logic and control, and
   (2) may perform any other function

3.31
constraint
rule, explicitly stated, that prescribes, limits, governs or specifies any aspect of a **business transaction**

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.

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

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".

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

3.32
consumer
buyer who is an **individual** to whom **consumer protection** requirements are applied as a set of **external constraints** on a **business transaction**

NOTE 1 Consumer protection is a set of explicitly defined rights and obligations applicable as external constraints on a business transaction.

NOTE 2 The assumption is that a consumer protection applies only where a buyer in a business transaction is an individual. If this is not the case in a particular jurisdiction, such external constraints should be specified as part of scenario components as applicable.

NOTE 3 It is recognized that external constraints on a buyer of the nature of consumer protection may be peculiar to a specified jurisdiction.

[ISO/IEC 15944-1:2002 (3.12)]

3.33
consumer protection
set of **external constraints** of a **jurisdictional domain** as rights of a **consumer** and thus as obligations (and possible liabilities) of a **vendor** in a **business** transaction which apply to the good, service and/or right forming the **object** of the **business** transaction (including associated information management and interchange requirements including applicable (**sets of**) **recorded information**

NOTE 1 Jurisdictional domains may restrict the application of their consumer protection requirements as applicable only to individuals engaged in a business transaction of a commercial activity undertaken for personal, family or household purposes, i.e., they do not apply to natural persons in their role as "organization" or "organization Person".

NOTE 2 Jurisdictional domains may have particular consumer protection requirements which apply specifically to individuals who are considered to be a “child” or a “minor”, (e.g., those individuals who have not reached their thirteenth birthday).

NOTE 3 Some jurisdictional domains may have consumer protection requirements which are particular to the nature of the good, service and/or right being part of the goal of a business transaction.

3.34
controlled vocabulary
CV
vocabulary for which the entries, i.e. **definition**/**term** pairs, are controlled by a **Source Authority** based on a **rulebase** and **process** for addition/deletion of entries

NOTE 1 In a controlled vocabulary, there is a one-to-one relationship of definition and term.

EXAMPLE The contents “Clause 3, Definitions” in ISO/IEC standards are examples of controlled vocabularies with the entities being identified and referenced through their ID code, i.e., via their clause numbers.

NOTE 2 In a multilingual controlled vocabulary, the definition/term pairs in the languages utilized are deemed to be equivalent, i.e. with respect to their semantics.

NOTE 3 The rule base governing a controlled vocabulary may include a predefined concept system.

3.35
data
reinterpretable representation of information in a formalized manner suitable for communication, interpretation or processing

NOTE Data can be processed by humans or by automatic means.

[ISO/IEC 2382-1:1998 (01.01.02)]

3.36
data
〈business transaction〉 representations of **recorded information** that are being prepared or have been prepared in a form suitable for use in a **computer system**

[ISO/IEC 15944-1:2002 (3.14)]

3.37
data element
unit of **data** for which the **definition**, **identification**, representation and permissible values are specified by means of a set of **attributes**

[ISO/IEC 11179-1:2004 (3.3.8)]

3.38
data element
〈organization of data〉 unit of **data** that is considered in context to be indivisible

EXAMPLE The data element “age of a person” with values consisting of all combinations of 3 decimal digits.

NOTE Differs from the entry 17.06.02 in ISO/IEC 2382-17.

[ISO/IEC 2382-4:1999 (04.07.01)]

3.39
dataset
identifiable collection of **data**

NOTE A dataset may be a smaller grouping of data which, though limited by some constraint such as spatial extent or feature type, is located physically within a larger dataset. Theoretically, a dataset may be as small as a single feature or feature attribute contained within a larger dataset. A hardcopy map or chart may be considered a dataset.

[ISO 19115:2003 (4.2)]

3.40
dataset series
collection of **datasets** sharing the same product specification

[ISO 19115:2003 (4.3)]

3.41
Decision Making Application
DMA
model of that part of an **Open-edi system** that makes decisions corresponding to the **role**(s) that the **Open-edi Party** plays as well as the originating, receiving and managing **data** values contained in the instantiated **Information Bundles** which is not required to be visible to the other **Open-edi Parties**

[ISO/IEC 14662:2004 (4.2.1)]

3.42
de facto language
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**

NOTE 1 A de facto language of a jurisdictional domain is often established through long term use and custom.

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 have the same properties and behaviours as an official language.

3.43
definition
representation of a concept by a descriptive statement which serves to differentiate it from related concepts

[ISO/IEC 1087-1:2000 (3.3.1)]

3.44
designation
representation of a concept by a sign which denotes it

NOTE 1 In terminology work three types of designations are distinguished: symbols, appellations and terms.

NOTE 2 Adapted from ISO 1087-1:2000 (3.4.1).

3.45
distinguishing identifier
data that **unambiguously** distinguishes an **entity** in the **authentication** process

[ISO/IEC 10181-2:1996]

3.46
Electronic Data Interchange
EDI
automated exchange of any predefined and structured **data** for **business** purposes among information systems of two or more **Persons**

NOTE This definition includes all categories of electronic business transactions.

[ISO/IEC 14662:2004 (3.1.5)]

3.47
entity
concrete or abstract thing that exists, did exist, or might exist, including associations among these things

EXAMPLE A person, object, event, idea, process, etc.

NOTE An entity exists whether data about it are available or not.

[ISO/IEC 2382-17:1999 (17.02.05)]

3.48
entity authentication
corroboration that the **entity** is the one claimed

[ISO/IEC 9798-1:1997 (3.3.11); ISO/IEC 15944-1:2002 (3.21)]

3.49
exchange code set
set of **ID codes** identified in a **coded domain** as being suitable for information exchange as shareable **data**

EXAMPLE The 3 numeric, 2-alpha and 3-alpha code sets in ISO 3166-1.

3.50
external constraint
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**

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

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

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

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

EXAMPLE 1 Only a qualified medical doctor may issue a prescription for a controlled drug.

EXAMPLE 2 Only an accredited share dealer may place transactions on the New York Stock Exchange.

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

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.

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 exchanged, as a "record".

NOTE 6 A minimum external constraint applicable to a business transaction often requires one to differentiate whether the Person, i.e. 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”.

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

3.51
Formal Description Technique
FDT
specification method based on a description **language** using rigorous and **unambiguous rules** both with respect to developing expressions in the **language** (formal syntax) and interpreting the meaning of these expressions (formal semantics)

[ISO/IEC 14662:2004 (3.1.6)]

3.52
glyph
recognizable abstract graphic symbol which is independent of any specific design

[ISO/IEC 9541-1:1991; ISO/IEC TR 15285:1998 (3.5)]

3.53
Human Interface Equivalent
HIE
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

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

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 sectoral nature.

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

[ISO/IEC 15944-2:2006 (3.35)]

3.54
IB Identifier
unique, linguistically neutral, **unambiguous** referenceable **identifier** for an **Information Bundle**

[ISO/IEC 15944-2:2006 (3.36)]

3.55
ID Code
identifier assigned by the **coded domain Source Authority** (cdSA) to a member of a **coded domain** ID

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

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.

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.

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.

EXAMPLES (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".

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

[ISO/IEC 15944-2:2006 (3.37)]

3.56
identification
rule-based **process**, explicitly stated, involving the use of one or more **attributes**, i.e., **data elements**, whose values (or combination of values) are used to identify uniquely the occurrence or existence of a specified **entity**

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

3.57
identifier
〈business transaction〉 **unambiguous**, unique and linguistically neutral value resulting from the application of a **rule**-based **identification process**

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

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 19135:2005 (4.1.5).

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

3.58
indexing language
artificial language established to characterize the content or form of a document

3.59
individual
Person who is a human being, i.e. a natural person, who acts as a distinct indivisible **entity** or is considered as such

[ISO/IEC 15944-1:2002 (3.28)]

3.60
individual accessibility
set of **external constraints** of a **jurisdictional domain** as rights of an **individual** with disabilities to be able to utilize **IT systems** at the human, i.e. user, interface and the concomitant obligation of a **seller** to provide such adaptive technologies

NOTE 1 Although “accessibility” typically addresses users who have a disability, the concept is not limited to disability issues.

NOTE 2 Examples of disabilities in the form of functional and cognitive limitations include:

– people who are blind;
– people with low vision;
– people with colour blindness;
– people who are hard of hearing or deaf, i.e., are hearing impaired;
– people with physical disabilities;
– people with language or cognitive disabilities.

3.61
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**

[ISO/IEC 14662:2004 (4.1.2.2)]

3.62
Information Processing Domain
IPD
Information Technology System which includes at least either a **Decision Making Application** and/or one of the components of an **Open-edi Support Infrastructure**, and acts/executes on behalf of an **Open-edi Party** (either directly or under a delegated authority)

[ISO/IEC 14662:2004 (4.2.2)]

3.63
Information Technology System
IT System
set of one or more computers, associated software, peripherals, terminals, human operations, physical **processes**, information transfer means that form an autonomous whole, capable of performing information processing and/or information transfer

[ISO/IEC 14662:2004 (3.1.8)]

3.64
internal constraint
constraint which forms part of the **commitment**(s) mutually agreed to among the parties to a **business transaction**

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 the nature of the conduct of a business transaction other than those mutually agreed to by the buyer and seller.

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

3.65
IT-enablement
transformation of a current **standard** utilized in **business transactions** (e.g. **coded domains**) from a manual to computational perspective so as to be able to support **commitment** exchange and **computational integrity**

3.66
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 **computational integrity**

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

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

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.

NOTE 4 An IT interface equivalent is at times utilized as a semantic identifier.

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

NOTE 6 The value of an IT interface equivalent is independent of its encoding in programming languages or APIs.

[ISO/IEC 15944-2:2006 (3.45)]

3.67
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 transaction**

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.

NOTE 2 Jurisdictional domains can combine to form new jurisdictional domains, (e.g. through bilateral, multilateral and/or international treaties). Examples are the European Union (EU), NAFTA, WTO, WCO, ICAO, WHO, Red Cross, the ISO, the IEC, the ITU, etc.

NOTE 3 Several levels and categories of jurisdictional domains may exist within a jurisdictional domain.

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 whether such interchange of commitments is conducted on a for-profit or not-for-profit basis and/or includes monetary values.

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.

3.68
jurisdictional domain identifier
ID code of a **jurisdictional domain** as recognized for use by peer **jurisdictional domains** within a system of mutual recognition

[ISO/IEC 15944-2:2006 (3.47)]

3.69
language
system of signs for communication, usually consisting of a **vocabulary** and **rules**

NOTE In this standard, language refers to natural languages or special languages, but not "programming languages" or "artificial languages".

[ISO 5127:2001 (1.1.2.01)]

3.70
language code
combination of **characters** used to represent a **language** or **languages**

NOTE 1 In ISO/IEC 15944, the ISO 639-2/T (terminology) three alpha-code is used.

NOTE 2 Adapted from ISO 639-2:1998 (3.2).

3.71
legally recognized language
LRL
natural language which has status (other than an **official language** or **de facto language**) in a **jurisdictional domain** as stated in an act, regulation, or other legal instrument, which grants a community of people (or its **individuals**) the right to use that **natural language** in the context stipulated by the legal instrument(s)

NOTE 1 The LRL can be specified through either:
– the identification of a language by the name utilized; or,
– the identification of a people and thus their language(s).

NOTE 2 In addition to acts and regulations, legal instruments include self-government agreements, land claim settlements, court decisions, jurisprudence, etc.

3.72
legally recognized name
LRN
persona associated with a **role** of a **Person** recognized as having legal status and so recognized in a **jurisdictional domain** as accepted or assigned in compliance with the applicable **rules** of that **jurisdictional domain**, i.e. as governing the **coded domain** of which the **LRN** is a member

NOTE 1 A LRN may be of a general nature and thus be available for general use in commitment exchange or may arise from the application of a particular law, regulation, program or service of a jurisdictional domain and thus will have a specified use in commitment exchange.

NOTE 2 The process of the establishment of a LRN is usually accompanied by the assignment of a unique identifier.

NOTE 3 A LRN is usually a registry entry in a register established by the jurisdictional domain (usually by a specified public administration within that jurisdictional domain) for the purpose of applying the applicable rules and registering and recording LRNs (and possible accompanying unique identifiers accordingly).

NOTE 4 A Person may have more than one LRN (and associated LRN identifier).

3.73
list
ordered set of **data elements**

[ISO/IEC 2382-4:1999 (04.08.01)]

3.74
localization
pertaining to or concerned with anything that is not global and is bound through specified sets of **constraints** of:

a) a linguistic nature including natural and **special languages** and associated **multilingual** requirements;
b) jurisdictional nature, i.e., legal, regulatory, geopolitical, etc.;
c) a sectoral nature, i.e., industry sector, scientific, professional, etc.;
d) a human rights nature, i.e., privacy, disabled/handicapped persons, etc.;
e) consumer behaviour requirements; and/or,
f) safety or health requirements.

NOTE Within and among “locales”, interoperability and harmonization objectives also apply.

3.75
location
place, either physical or electronic, that can be defined as an **address**

[ISO/IEC 15944-2:2006 (3.50)]

3.76
medium
physical material which serves as a functional unit, in or on which information or **data** is normally recorded, in which information or **data** can be retained and carried, from which information or **data** can be retrieved, and which is non-volatile in nature

NOTE 1 This definition is independent of the nature of the material on which the information is recorded and/or the technology utilized to record the information, [e.g. paper, photographic (chemical), magnetic, optical, ICs (integrated circuits), as well as other categories no longer in common use such as vellum, parchment (and other animal skins), plastics (e.g. bakelite or vinyl), textiles (e.g. linen, canvas), metals, etc.].

NOTE 2 The inclusion of the “non-volatile in nature” attribute is to cover latency and records retention requirements.

NOTE 3 This definition of “medium” is independent of:

a) the form or format of recorded information;
b) the physical dimension and/or size; and,
c) any container or housing that is physically separate from material being housed and without which the medium can remain a functional unit.

NOTE 4 This definition of “medium” also captures and integrates the following key properties:

a) the property of medium as a material in or on which information or data can be recorded and retrieved;
b) the property of storage;
c) the property of physical carrier;
d) the property of physical manifestation, i.e., material;
e) the property of a functional unit; and,
f) the property of (some degree of) stability of the material in or on which the information or data is recorded.

[ISO/IEC 15944-1:2002 (3.34)]

3.77
metadata
data about **data** elements, including their **data** descriptions, and **data** about data ownership, access paths, access rights and data volatility

[ISO/IEC 2382-17:1999 (17.06.05)]

3.78
metadata entity
set of **metadata** elements describing the same aspect of **data**

NOTE 1 May contain one or more metadata entities.

NOTE 2 Equivalent to a class in UML terminology.

[ISO 19115:2003 (4.7)]

3.79
metadata section
subset of **metadata** which consists of a collection of related **metadata** entities and **metadata** elements

[ISO 19115:2003 (4.8)]

3.80
model
abstraction of some aspect of reality

[ISO 19115:2003 (4.9)]

3.81
multilateral treaty
treaty (or convention) that has the ambition to become universal (or near universal) and thus binds most of the international community by declaring general **rules** of law

EXAMPLE Law of the Sea, Law on Genocide.

NOTE 1 A multilateral treaty may have the goal of creating a regulatory regime of law for a particular area or major multilateral institution, i.e. Agreement Establishing the WTO, Kyoto Protocol, Safety of Life at Sea Convention.

NOTE 2 A multilateral treaty may allow for reservations or the treaty may be subject to many amendments which do not bind all parties or require all parties to undertake the same legal obligations, (e.g. the Berne and Paris conventions).

3.82
multilingualism
ability to support not only **character** sets specific to a (natural) **language** (or family of **languages**) and associated **rules** but also **localization** requirements, i.e. use of a **language** from **jurisdictional domain**, sectoral and/or **consumer** marketplace perspectives

3.83
name
designation of an **individual** concept by a linguistic expression

NOTE Adapted from ISO 1087-1:2000.

[ISO 5127:2001 (1.1.2.02)]

3.84
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

[ISO 5127:2001 (1.1.2.02)]

3.85
object
anything perceivable or conceivable.

NOTE Objects may be material (e.g. engine, a sheet of paper, a diamond), immaterial (e.g. conversion ratio, a project plan) or imagined (e.g. a unicorn).

[ISO 1087-1:2000 (3.1.1)]

3.86
object class
set of ideas, abstractions or things in the real world that can be identified with explicit boundaries and meaning and whose properties and behaviour follow the same **rules**

[ISO/IEC 11179-1:2004 (3.3.22)]

3.87
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)

a) within that **jurisdictional domain**; and/or,

b) 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 mutually acceptable natural language and/or special language for communications as well as exchange of commitments.

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

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.

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.

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.

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

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.

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).

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.

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

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.

3.88
Open-edi
electronic data interchange among multiple autonomous **Persons** to accomplish an explicit shared **business** goal according to Open-edi standards

[ISO/IEC 14662:2004 (3.1.9)]

3.89
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

[ISO/IEC 14662:2004 (4.1.1)]

3.90
Open-edi disposition
process governing the implementation of formally approved records retention, destruction (or expungement) or transfer of **recorded information** under the control of a **Person** which are documented in disposition authorities or similar instruments

NOTE Adapted from ISO 15489-1:2001 (3.9).

3.91
Open-edi Party
OeP
Person that participates in **Open-edi**

NOTE Often in ISO/IEC 15944 referred to generically as "party" or "parties" for any entity modelled as a Person as playing a role in Open-edi scenarios.

[ISO/IEC 14662:2004 (3.1.11)]

3.92
Open-edi Record Retention
OeRR
specification of a period of time that a **set of recorded information** must be kept by a **Person** in order to meet operational, legal, regulatory, fiscal or other requirements as specified in the **external constraints** (or **internal constraints**) applicable to a **Person** who is a party to a **business transaction**

3.93
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**

[ISO/IEC 15944-2:2006 (3.69)]

3.94
Open-edi scenario
OeS
formal specification of a class of **business transactions** having the same **business** goal

[ISO/IEC 14662:2004 (3.1.12)]

3.95
Open-edi Support Infrastructure
OeSI
model of the set of functional capabilities for **Open-edi systems** which, when taken together with the **Decision Making Applications**, allows **Open-edi Parties** to participate in **Open-edi transactions**

[ISO/IEC 14662:2004 (4.2.1)]

3.96
Open-edi system
information technology system which enables an **Open-edi Party** to participate in **Open-edi** transactions

[ISO/IEC 14662:2004 (4.2.1)]

3.97
organization
unique framework of authority within which a person or persons act, or are designated to act, towards some purpose

NOTE The kinds of organizations covered by ISO/IEC 15944 include the following:

a) an organization incorporated under law;
b) an unincorporated organization or activity providing goods and/or services including:
   1) partnerships,
   2) social or other non-profit organizations or similar bodies in which ownership or control is vested in a group of individuals,
   3) sole proprietorships,
   4) governmental bodies;
c) groupings of the above types of organizations where there is a need to identify these in information interchange.

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

3.98
organization part
department, service or other **entity** within an **organization** which needs to be identified for information interchange

[ISO/IEC 6523-1:1998 (3.2)]

3.99
organization Person
organization part which has the properties of a **Person** and thus is able to make **commitments** on behalf of that **organization**

NOTE 1 An organization can have one or more organization Persons.

NOTE 2 An organization Person is deemed to represent and act on behalf of the organization and to do so in a specified capacity.

NOTE 3 An organization Person can be a “natural person” such as an employee or officer of the organization.

NOTE 4 An organization Person can be a legal person, i.e., another organization.

[ISO/IEC 15944-1:2002 (3.46)]

3.100
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 to be 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 jurisdictions.

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.

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”.

[ISO/IEC 14662:2004 (3.1.14)]

3.101
Person authentication
provision of the assurance of a **recognized Person identity** (**rPi**) (sufficient for the purpose of the **business transaction**) by corroboration

[ISO/IEC 15944-1:2002 (3.48)]

3.102
persona
set of **data elements** and their values by which a **Person** wishes to be known and thus identified in a **business transaction**

[ISO/IEC 15944-1:2002 (3.51)]

3.103
personal information
information on or about an identifiable **individual** that is recorded in any form, including electronically or on paper

NOTE Some examples would be information about a person's religion, age, financial transactions, medical history, address or blood type.

3.104
pivot code set
set of **ID codes** in a **coded domain** which is made publicly known and available, and is the most stable, representing the defined semantics

NOTE 1 Most often it is the same as the **ID code.**

NOTE 2 The use of the pivot code set as distinguished from the ID code supports the requirement of a Source Authority to maintain internally and on a confidential basis the ID code of its members.

NOTE 3 At times a coded domain has more than one valid code set, (e.g. ISO 639, ISO 3166, etc.).

EXAMPLE In ISO 3166-1 the 3-digit numeric code is the pivot. The 2-alpha and 3-alpha code sets can change when the name of the entity referenced is changed by that entity.

3.105
pivot ID code
most stable **ID code** assigned to identify a member of a **coded domain** where more than one **ID code** may be assigned and/or associated with a member of that **coded domain**

EXAMPLE ISO 3166-1 contains three code sets:

– a three digit numeric code;
– a two alpha code;
– a three alpha code.

Here, the three digit numeric code serves as the pivot ID code. It is the most stable, remains the same even though the two alpha and/or three alpha codes may and do change.

3.106
plurilateral treaty
treaty among a defined set of **jurisdictional domains**

NOTE A plurilateral treaty restricts the jurisdictional domains which may become signatories generally on either:

– a geopolitical basis, (e.g. NAFTA, MECROSUR, European Union, etc.); or

– some other set of criteria which candidate members must meet and then whose membership must be approved by the existing membership, (e.g. WTO).

3.107
preferred term
term recommended by an authoritative body

[ISO 1087:1990 (5.6.1)]

3.108
principle
fundamental, primary assumption and quality which constitutes a source of action determining particular objectives or results

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

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

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

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

[ISO/IEC 15944-2:2006 (3.80)]

3.109
privacy protection
set of **external constraints** of a **jurisdictional domain** pertaining to **recorded information** on or about an identifiable **individual**, i.e. **personal information**, with respect to the creation, collection, management, retention, access and use and/or distribution of such **recorded information** about that **individual** including its accuracy, timeliness and relevancy

NOTE 1 Recorded information collected or created for a specific purpose on an identifiable individual, i.e. the explicitly shared goal of the business transaction involving an individual, must not be utilized for another purpose without the explicit and informed consent of the individual to whom the recorded information pertains.

NOTE 2 Privacy requirements include the right of an individual to be able to view the recorded information about him/her and to request corrections to the same in order to ensure that such recorded information is accurate and up-to-date.

NOTE 3 Where jurisdictional domains have legal requirements which override privacy protection requirements these must be specified, (e.g. national security, investigations by law enforcement agencies, etc.).

3.110
process
series of actions or events taking place in a defined manner leading to the accomplishment of an expected result

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

3.111
property
peculiarity common to all members of an **object class**

[ISO/IEC 11179-1:2004 (3.3.29)]

3.112
public administration
entity, i.e. a **Person**, which is an **organization** and has the added **attribute** of being authorized to act on behalf of a **regulator**

[ISO/IEC 15944-1:2002 (3.54)]

3.113
public policy
category of **external constraints** of a **jurisdictional domain** specified in the form of a right of an **individual** or a requirement of an **organization** and/or **public administration** with respect to an **individual** pertaining to any exchange of **commitments** among the parties concerned involving a good, service and/or right including information management and interchange requirements

NOTE 1 Public policy requirements may apply to any one, all or combinations of the fundamental activities comprising a business transaction, i.e. planning, identification, negotiation, actualization and post-actualization. {See further Clause 6.3 "Rules governing the process component" in ISO/IEC 15944-1:2002}.

NOTE 2 It is up to each jurisdictional domain to determine whether or not the age of an individual qualifies a public policy requirement [e.g. those which specifically apply to an individual under the age of thirteen as a "child", those which require an individual to have attained the age of adulthood (e.g. 18 years or 21 years of age)] of an individual to be able to make commitments of a certain nature.

NOTE 3 Jurisdictional domains may have consumer protection or privacy requirements which apply specifically to individuals who are considered to be "children", "minors", etc. (e.g. those who have not reached their 18th or 21st birthday according to the rules of the applicable jurisdictional domain).

3.114
recognized individual name
RIN
persona of an individual having the properties of a legally recognized name (LRN)

NOTE 1 On the whole, a persona presented by an individual should have a basis in law (or recognized jurisdictional domain) in order to be considered as the basis for a recognized individual name (RIN).

NOTE 2 An individual may have more than one RIN and more than one RIN at the same time.

NOTE 3 The establishment of a RIN is usually accompanied by the assignment of a unique identifier, i.e. by the jurisdictional domain (or public administration) which recognizes the persona as a RIN.

3.115
recognized Person identity
rPi
identity of a **Person**, i.e. **Person identity**, established to the extent necessary for a specific purpose in a **business transaction**

[ISO/IEC 15944-1:2002 (3.55)]

3.116
recorded information
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

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.).

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

NOTE 3 This definition covers:

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

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

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

3.117
register
set of files containing identifiers assigned to items with descriptions of the associated items

[ISO 19135:2005 (4.1.9)]

3.118
registration
rule-based **process**, explicitly stated, involving the use of one or more **data elements,** whose value (or combination of values) is used to identify uniquely the results of assigning an **OeRI**

[ISO/IEC 15944-2:2006 (3.94)]

3.119
Registration Authority
RA
Person responsible for the maintenance of one or more **Registration Schemas** (**RS**) including the assignment of a unique **identifier** for each recognized **entity** in a **Registration Schema** (**RS**)

[ISO/IEC 15944-1:2002 (3.57)]

3.120
Registration Authority Identifier
RAI
identifier assigned to a Registration Authority (RA)

[ISO/IEC 11179-1:2004 (3.3.32)]

3.121
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**

[ISO/IEC 15944-1:2002 (3.58)]

3.122
registry
information system on which a **register** is maintained

[ISO/IEC 19135:2005 (4.1.13)]

3.123
regulator
Person who has authority to prescribe **external constraints** which serve as **principles**, policies or **rules** governing or prescribing the behaviour of **Persons** involved in a **business transaction** as well as the provisioning of goods, services and/or rights interchanged

[ISO/IEC 15944-1:2002 (3.59)]

3.124
regulatory business transaction
RBT
class of **business transactions** for which the explicitly shared goal has been established and specified by a **jurisdictional domain**, as a **Person** in the **role** of a **regulator**

NOTE 1 A regulatory business transaction (RBT) can itself be modelled as a stand-alone business transaction and associated scenario(s). For example, the filing of a tax return, the making of a customs declaration, the request for and issuance of a license, the provision of a specified service of a public administration, a mandatory filing of any kind with a regulator, etc.

NOTE 2 A regulatory business transaction (modelled as a scenario) can form part of another business transaction.

NOTE 3 A RBT may apply to a seller only, a buyer only or both, as well as any combination of parties to a business transaction.

NOTE 4 A RBT may require or prohibit the use of an agent or third party.

NOTE 5 A regulatory business transaction (RBT) may be specific to the nature of the good, services and/or right forming part of a business transaction.

3.125
repertoire
specified set of **characters** that are represented in a coded **character** set

[ISO/IEC TR 15285:1998 (3.16)]

3.126
retention period
length of time for which **data** on a **data medium** is to be preserved

[ISO/IEC 2382-12:1988 (12.04.11)]

3.127
role
specification which models an external intended behaviour (as allowed within a scenario) of an **Open-edi Party**

[ISO/IEC 14662:2004 (4.1.2.1)]

3.128
rule
statement governing conduct, procedure, conditions and relations

NOTE 1 Rules specify conditions that must be complied with. These may include relations among objects and their attributes.

NOTE 2 Rules are of a mandatory or conditional nature.

NOTE 3 In Open-edi, rules formally specify the commitment(s) and role(s) 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-processible meaning, i.e. the semantics of data; and the order and behaviour of the information flows themselves.

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).

EXAMPLE A current and widely used FDT is “Unified Modelling Language (UML)”.

[ISO/IEC 15944-2:2006 (3.100)]

3.129
rulebase
pre-established set of **rules** which interwork and which together form an autonomous whole

NOTE One considers a rulebase to be to rules as database is to data.

[ISO/IEC 15944-2:2006 (3.101)]

3.130
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**

[ISO/IEC 14662:2004 (4.1.2.3)]

3.131
scenario component
one of the three fundamental elements of a scenario, namely **role**, **Information Bundle** and **Semantic Component**

[ISO/IEC 15944-2:2006 (3.103)]

3.132
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**

[ISO/IEC 15944-2:2006 (3.104)]

3.133
scenario specification attribute
attribute of a scenario, **role**, **Information Bundle** and/or **Semantic Component**

[ISO/IEC 15944-2 2006 (3.105)]

3.134
seller
Person who aims to hand over voluntarily or in response to a demand, a good, service and/or right to another **Person** and in return receives an acceptable equivalent value, usually in money, for the good, service and/or right provided

[ISO/IEC 15944-1:2002 (3.62)]

3.135
Semantic Component
SC
unit of **recorded information** unambiguously defined in the context of the **business** goal of the **business transaction**

NOTE A SC may be atomic or composed of other SCs.

[ISO/IEC 14662:2004 (4.1.2.2)]

3.136
semantic identifier
SI
IT interface identifier for a **semantic component** or other semantic for which (1) the associated context, applicable **rules** and/or possible uses as a semantic are predefined and structured and the **Source Authority** for the applicable **rulebase** is identified and (2) for which more than one or more **Human Interface Equivalents** (**HIEs**) exist

NOTE The identifier for a Semantic Component (SC), an Information Bundle (IB) and/or an ID Code for which one or more Human Interface Equivalents (HIEs) exist are considered to have the properties or behaviours of semantic identifiers.

3.137
set of recorded information
SRI
recorded information of an **organization** or **public administration**, which is under the control of the same and which is treated as a unit in its information life cycle

NOTE 1 A SRI can be a physical or digital document, a record, a file, etc., that can be read, perceived or heard by a person or computer system or similar device.

NOTE 2 A SRI is a unit of recorded information that is unambiguously defined in the context of the business goals of the organization, i.e. a semantic component.

NOTE 3 A SRI can be self-standing (atomic), or a SRI can consist of a bundling of two or more SRIs into another "new" SRI. Both types can exist simultaneously within the information management systems of an organization.

3.138
Source Authority
SA
Person recognized by other **Persons** as the authoritative source for a set of **constraints**

NOTE 1 A Person as a Source Authority for internal constraints may be an individual, organization or public administration.

NOTE 2 A Person as Source Authority for external constraints may be an organization or public administration.

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".

NOTE 3 A Person as an individual must not be a Source Authority for external constraints.

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

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

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.

[ISO/IEC 15944-2:2006 (3.108)]

3.139
special language
language for special purposes
LSP
language used in a subject field and characterized by the use of specific linguistic means of expression

NOTE The specific linguistic means of expression always include subject-specific terminology and phraseology, and also may cover stylistic or syntactic features.

[ISO 1087-1:2000 (3.1.3)]

3.140
standard
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

NOTE This is the generic definition of "standard" of the ISO and IEC [See also ISO/IEC Guide 2:2004 (3.2)]

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

3.141
term
designation of a defined concept in a **special language** by a linguistic expression

NOTE A term may consist of one or more words, i.e. simple term or complex term, or even contain symbols.

[ISO 1087:1990 (5.3.1.2)]

3.142
text
data in the form of **characters**, symbols, words, phrases, paragraphs, sentences, tables or other **character** arrangements intended to convey a meaning and whose interpretation is essentially based upon the reader's knowledge of some **natural language** or **artificial language**

EXAMPLE A business letter printed on paper or displayed on a screen.

[ISO/IEC 2382-23:1994 (23.01.01)]

3.143
third party
Person besides the two primarily concerned in a **business transaction** who is **agent** of neither and who fulfils a specified **role** or function as mutually agreed to by the two primary **Persons** or as a result of **external constraints**

NOTE It is understood that more than two Persons can at times be primary parties in a business transaction.

[ISO/IEC 15944-1:2002 (3.65)]

3.144
treaty
international agreement concluded among **jurisdictional domains** in written form and governed by international law

NOTE 1 On the whole a treaty is concluded among UN member states.

NOTE 2 Treaties among UN member states when coming into force are required to be transmitted to the Secretariat of the United Nations for registration or filing or recording as the case may be and for publication. {See further Article 80 of the Charter of the UN}.

NOTE 3 Treaties can also be entered into by jurisdictional domains other than UN member states, i.e. non-members such as international organizations and the rare sub-national units of federations which are constitutionally empowered to do so.

NOTE 4 A treaty can be embodied in a single instrument or in two or more related instruments and whatever its particular designations. However, each treaty is a single entity.

NOTE 5 Jurisdictional domains can make agreements which they do not mean to be legally binding such as for reasons of administrative convenience or expressions of political intent only [e.g. as a Memorandum of Understanding (MOU)].

NOTE 6 Adapted from the Vienna Convention on the Law of Treaties, 1(a).

3.145
truncated name
short form of a **name** or **persona** of a **Person** resulting from the application of a **rule**-based **truncation process**

3.146
truncated recognized name
TRN
truncated name, i.e. persona, of a Person which has the properties of a **legally recognized** name (**LRN**)

NOTE 1 Truncated recognized name(s) may be required for use in machine-readable travel documents (e.g. passports or visas), identity tokens, drivers' licenses, Medicare cards, etc.).

NOTE 2 The source of a truncated recognized name may be a legally recognized name (LRN).

3.147
truncation
rule-based **process**, explicitly stated, for shortening an existing **name** of an **entity** to fit within a predefined maximum length (of **characters**)

NOTE Truncation may be required for the use of names in IT systems, electronic data interchange (EDI), the use of labels in packaging, in the formation of a Person identity (Pi), etc.

3.148
unambiguous
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**

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

3.149
vendor
seller on whom **consumer protection** requirements are applied as a set of **external constraints** on a **business** transaction

NOTE 1 Consumer protection is a set of explicitly defined rights and obligations applicable as external constraints on a business transaction.

NOTE 2 It is recognized that external constraints on a seller of the nature of consumer protection may be peculiar to a specified jurisdiction.

[ISO/IEC 15944-1:2002 (3.67)]

3.150
vocabulary
terminological dictionary which contains **designations** and **definitions** for one or more specific subject fields

NOTE The vocabulary may be monolingual, bilingual or multilingual.

[ISO 1087-1:2000 (3.7.2)]

4 Symbols and abbreviations

API	Application Programming Interface
BOV	Business Operational View
BTI	Business Transaction Identifier
BTM	Business Transaction Model
cdRS	coded domain Registration Schema
cdSA	coded domain Source Authority
CV	controlled vocabulary
DMA	Decision Making Application
EC	European Community
EDI	Electronic Data Interchange
FDT	Formal Description Technique
FSV	Functional Service View
HIE	Human Interface Equivalent
HS	Harmonized Commodity Description and Coding System (Harmonized Subsystem or HS System) of the World Customs Organization (WCO)
IAEA	International Atomic Energy Authority
IATA	International Air Transport Association
IB	Information Bundle
ICAO	International Civil Aviation Organization
ICC	International Chamber of Commerce
IEC	International Electrotechnical Commission
ILO	International Labour Organization
IMO	International Maritime Organization
INCOTERMS	International Commercial Terms (of the ICC)
IPD	Information Processing Domain
ISO	International Organization for Standardization
IT System	Information Technology System
ITU	International Telecommunications Union
JTC1	Joint Technical Committee 1 “Information Technology” (of the ISO and IEC)
LSP	Language for Special Purposes
LRL	Legally Recognized Language
LRN	Legally Recognized Name
NAFTA	North American Free Trade Agreement
OeDT	Open-edi Descriptive Techniques
OeP	Open-edi Party
OeRI	Open-edi Registry Item
OeRR	Open-edi Records Retention
OeS	Open-edi scenario
OeSI	Open-edi Support Infrastructure
RA	Registration Authority
RAI	Registration Authority Identifier
RBT	Regulatory Business Transaction
RIN	Recognized Individual Name
rPi	recognized Person identity
RA	Registration Authority
RS	Registration Schema
SA	Source Authority
SC	Semantic Component
SI	Semantic Identifier
SRI	Set of Recorded Information
TRN	Truncated Recognized Name
UML	Unified Modelling Language
UN	United Nations
UNGA	United Nations General Assembly
UPC/EAN	Uniform Product Code/European Article Numbering
WCO	World Customs Organization
WIPO	World Intellectual Property Organization
WHO	World Health Organization
WTO	World Trade Organization

5 Fundamental principles and assumptions

5.1 Introduction

The Open-edi Reference Model identifies two basic classes of constraints, namely "internal constraints" and "external constraints"[24]. **This part of ISO/IEC 15944 focuses on "external constraints".** In so doing, it builds on Part 1 of this multipart standard (as well as ISO/IEC 14662:2004) which provides the fundamental principles and assumptions on which this part of ISO/IEC 15944 is based.

As stated in Clause 6.1.6 of ISO/IEC 15944-1:

> *The class of "internal constraints" has been derived to provide a simplified view of business transactions for which there are no external constraints or restrictions to the nature and conduct of the transaction. The only constraints are those mutually agreed to by the buyer and seller for the explicitly stated goal of the business transaction, i.e., they are self-imposed. This allows one to build scenarios and scenario components for referencing, registering and re-use as generic or base scenarios without having to include potential external constraints. The rules governing specification of Open-edi scenarios and their Components require that all applicable external constraints must be stated at the time of instantiation but need not exist at the time of registration.*
>
> *However, in most business transactions external constraints do apply, i.e., applicable laws and regulations. These range from taxation related regulation; health and safety or packaging and labelling requirements; ensuring that nature of the business transaction and/or the goods or services delivered do not comprise behaviour of a criminal nature.*

ISO/IEC 15944-1, Clause 6.5.3 "External Constraints" states:

> *"The majority of business transactions will be subject to constraints applied by outside parties such as regulators, i.e., external constraints. These external constraints may vary according to the nature of the business transaction, the role being played by one of the parties or the nature of the information being sent. Sources of such external constraints include:*
>
> *(a) national law;*
> *(b) national regulation;*
> *(c) trade body regulation;*
> *(d) codes of practice;*
> *(e) treaties;*
> *(f) international agreements;*
> *(g) memorandum of understanding;*
> *(h) international conventions;*
> *(i) international protocols;*
> *(j) international law."*

ISO/IEC 15944-5, Clause 6.1.3 continues by providing various examples of external constraints.

[24] See further below "Annex C (Normative) Business Transaction Model: Classes of Constraints"

5.2 Key constructs

5.2.1 Principles and rules [25]

Clause 5.2 in the ISO/IEC 14662:2004 "Open-edi Reference Model" states:

> *"Open-edi requires the use of clear and predefined principles, rules and guidelines. These rules formally specify the role(s) of the parties involved in Open-edi and the available expected behaviour(s) of the parties as seen by other parties engaging in Open-edi. Open-edi rules are applied to:*
>
> *- content of the information flows; and,*
> *- the order and behaviour of information flows themselves".*

For the purposes of business semantic description techniques and in the context of Open-edi requirements, "principle" is defined as:

> ***principle:*** *fundamental, primary assumption and quality which constitutes a source of action determining particular objectives or results*
>
> *NOTE 1 A principle is usually enforced by rules that affect its boundaries.*
>
> *NOTE 2 A principle is usually supported through one or more rules.*
>
> *NOTE 3 A principle is usually part of a set of principles which together form a unified whole.*
>
> *EXAMPLE: Within a jurisdictional domain, examples of a set of principles include a charter, a constitution, etc.*

and "rule" is defined as:

> ***rule:*** *statement governing conduct, procedure, conditions and relations*
>
> *NOTE 1 Rules specify conditions that must be complied with. These may include relations among objects and their attributes.*
>
> *NOTE 2 Rules are either mandatory or conditional.*
>
> *NOTE 3 In Open-edi, rules formally specify the commitment(s) and role(s) 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-processible meaning, i.e. the semantics of data; and,*
>
> *- the order and behaviour of the information flows themselves.*
>
> *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).*
>
> *EXAMPLE A current and widely used FDT is "Unified Modelling Language (UML)".*
>
> *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)".*

[25] For an insight into the rationale for the development of the definition for “principle” and “rule”, see JTC1/SC32/WG1 document N211R “What is a "Principle"? What is a "Rule"?: Need for Definitions”.

Another Open-edi principle which this part of ISO/IEC 15944 supports and which it is based, is that the key and distinguishing aspect of a business transaction is that it involves the exchange and making of "commitments" among the autonomous Persons which are parties to a business transaction.

Commitment is defined as:

> ***commitment:*** *the 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*

Rule 001:
In order for a commitment to be capable of enforcement, it shall have an identified and referenced jurisdictional domain.

It is a common practice for parties to a business transaction to mutually agree on the jurisdictional domain in which the business transaction is to take place, (e.g., as part of the planning or negotiation process), for example, financial aspects, (e.g., "tax havens"), and minimum external constraints, (e.g., "flags of convenience"), etc., are but two areas where the parties shall decide on the jurisdictional domain in which a business transaction is deemed to take place. As such, the referenced jurisdictional domain will also determine the nature and degree to which commitments made among the parties can be enforced.

Rule 002:
Unless a particular external constraint governing the commitment made requires that it be made in a specific jurisdictional domain, Persons are free to choose the jurisdictional domain in which the business transaction is (deemed) to take place

In the making of commitments, parties are generally free to choose the jurisdictional domain in which the business transaction takes place. Parties in making contracts do negotiate and agree on the jurisdictional domain whose laws are to govern the contract.

5.2.2 Collaboration space – internal constraints only

ISO/IEC 15944-4 of this multipart standard (titled "*Part 4: Business Transaction Scenarios – Accounting and Economic ontology*") introduces the concept of "collaboration space" defined as

> ***collaboration space: business*** *activity space where an economic exchange of valued resources is viewed independently and not from the perspective of any* ***business*** *partner*
>
> *NOTE In collaboration space, an individual partner's view of economic phenomena is de-emphasized. Thus, the common use business and accounting terms like purchase, sale, cash receipt, cash disbursement, raw materials, finished goods, etc. is not allowed because they view resource flows from a participant's perspective.*
>
> [ISO/IEC 15944-4:2007 (3.12)]

ISO/IEC 15944-4 focuses on collaboration space from an internal constraints perspective only. As such, it deals with the roles of a Person as a "buyer" and a "seller"[26] (and not "regulator") as illustrated in ISO/IEC 15944-4 by the following figure.[27]

[26] See further in ISO/IEC 15944-1:2002, Clause 6.2.4 "Person and Roles: Buyer and Seller".

[27] See further in ISO/IEC 15944-4:2007, Clause 0.3 Figure 3.

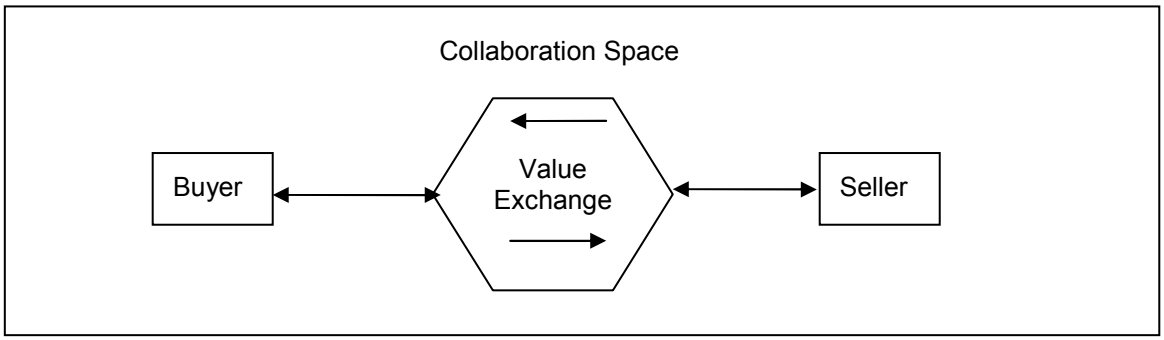

Figure 3 — Accounting and economic ontology (internal constraints only): Buyer, seller and common collaboration space (Graphic illustration)

At times, both the buyer and the seller may, by mutual consent, agree to use a "third party" , i.e., as a person who is the agent of neither and who fulfils a specified role or function as mutually agreed to by these two primary Persons.[28] As such, the buyer and seller in effect mutually agree that a specified part of their collaboration space (or a mutually agreed upon function) is to be managed by a third party. As such a "third party" in the context of modeling internal constraint aspects of a business transaction is deemed to be part of the collaboration space. This is illustrated in Figure 4 below.

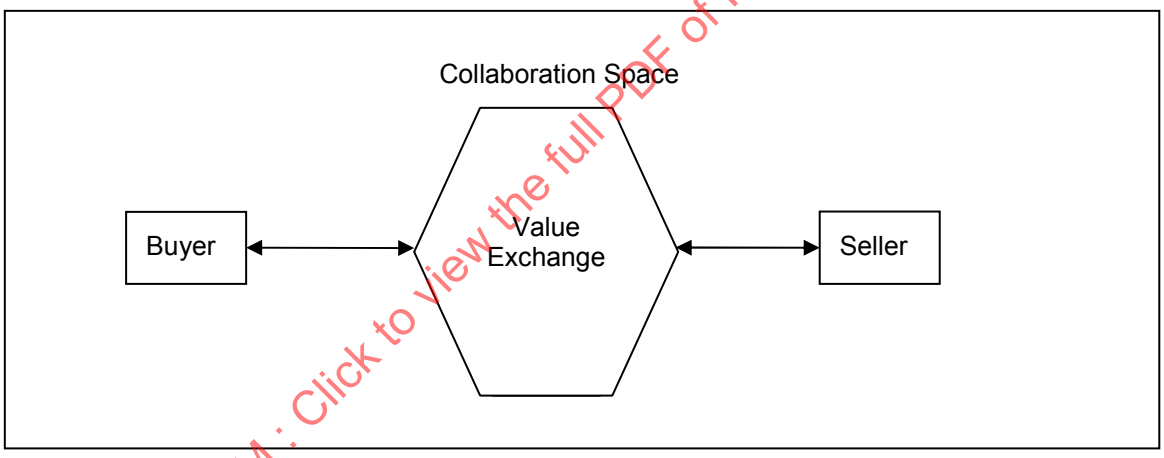

Figure 4 — Accounting and economic ontology (internal constraints only): Buyer, seller and common collaboration space with a third party (Graphic illustration)

5.2.3 Collaboration space - the role of "regulator" representing "external constraints"

Rule 003:
Depending on the nature of the goods, services or rights being provided (as the goal of the business transaction being modelled), applicable external constraints may specify and require the transaction to be enacted in a specified jurisdictional domain [29].

---

[28] For the definition of "third party", see Clause 3. On "third party", see further ISO/IEC 15944-1:2002, Clause 6.2.5 "Person *and delegation to "agent" and/or "third party"*, as well as additional information in Annex E, Clause E.7.3 "*Third parties*".

[29] For example, the sale of a house must be registered and take place in the jurisdictional domain where the property is located.

Rule 004:
Within a particular jurisdictional domain, it may be required to reference a specific act or regulation as well as require the participation (in some form) of a regulator.

In addition, to business transactions of certain natures being subject to external constraints and the commitments among the parties taking place in a particular jurisdictional domain, it is often the case that a third role in addition to that of a buyer and a seller is required in a business transaction in order to ensure that applicable external constraints are complied with, i.e. that of a "regulator".

ISO/IEC 15944-1, Clause 6.2.6 titled "*Person and external constraints: the "regulator*" introduced the role of "**regulator**" of a Person as in a business transaction. "Regulator" is one of the three (primitive) sub-types of roles of Person in a business transaction. The other two are "buyer" and "seller". However, it is the role of regulator which comes into play when any of the parties modelled in a business transaction and/or the good, service and/or right forming the goal of the business transaction is governed by an external constraint. As such one now has a "regulator" as a third role player governing a collaboration space as is illustrated in Figure 5 below.

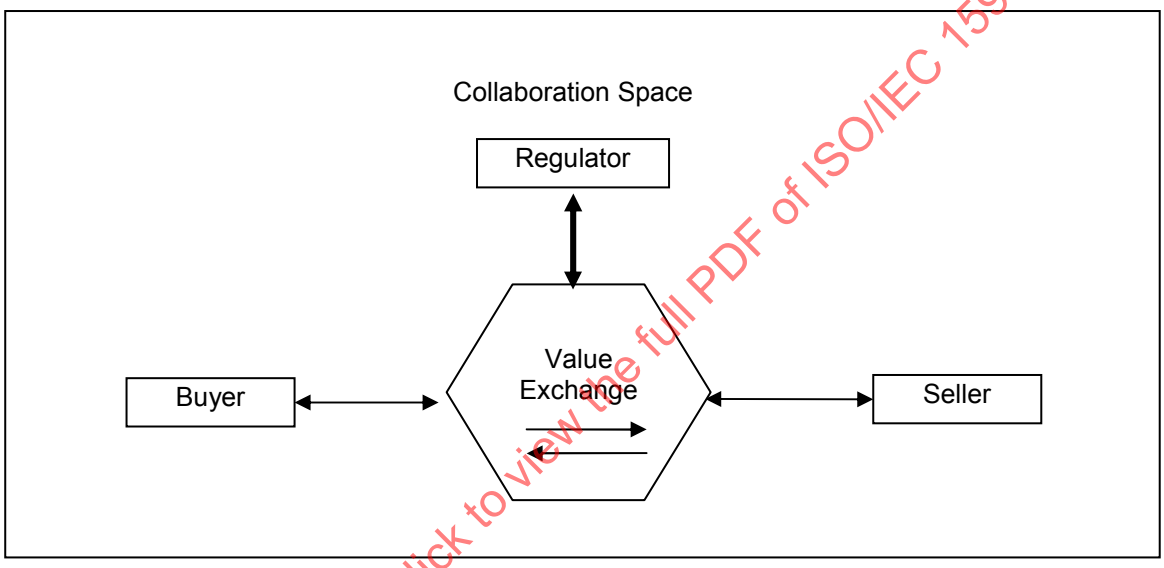

Figure 5 — Illustration of accounting and economic ontology with external constraints: Common collaboration space — Buyer, seller and regulator (Graphic illustration)

Rule 005:
For any business transaction (or part thereof) which involves external constraint(s), the role of regulator(s) shall be included and modelled as part of the scenario and scenario components.

"Regulator" is one of the three (primitive) sub-types of roles of Person in a business transaction. The role of regulator comes into play when any of the parties modelled in a business transaction and/or the good, service and/or right forming the goal of the business transaction is governed by an external constraint.

At times, the nature of the role of a regulator, representing external constraints governing a particular aspect of a collaboration space of a business transaction is akin to that of an "imposed" third party, (e.g. as a notary, a land title registry, etc.) The following Figure 6 illustrates this condition.

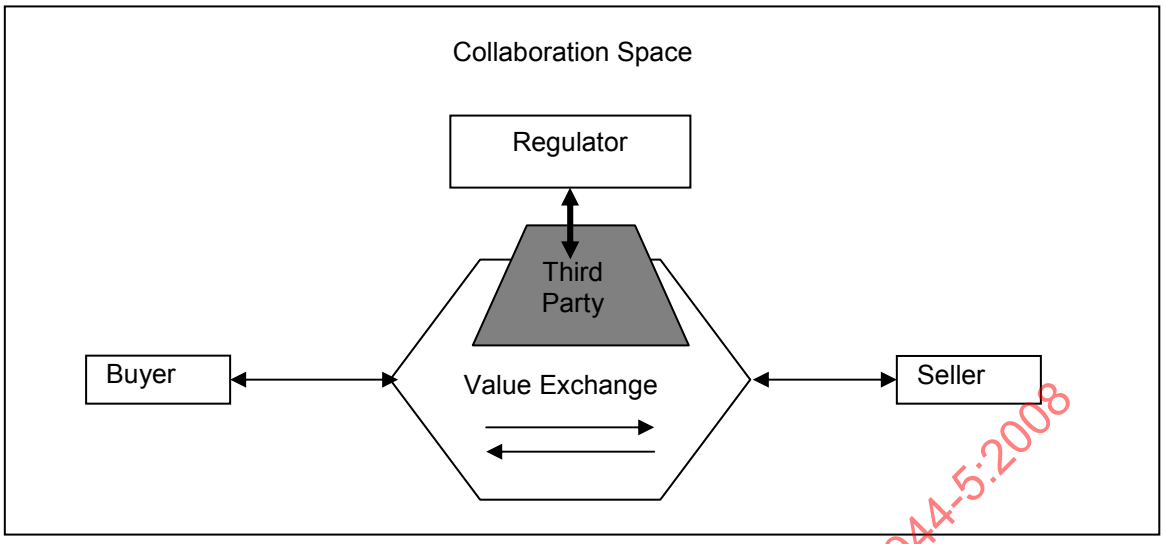

Figure 6 — Accounting and economic ontology with external constraints: Common Collaboration Space — Buyer, Seller and Regulator utilizing a Third Party (Graphic Illustration)

5.3 Jurisdictional domain as a source of external constraints

Rule 006:
The primary source of a regulator having the authority to prescribe external constraints is that of the nature of a jurisdictional domain.

The most frequent and prominent type of regulator having the authority to prescribe external constraints on business transactions, i.e., as a primitive, is that of the nature of a jurisdictional domain".

A “jurisdictional domain” is defined as:

> ***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 transaction***
>
> *NOTE 1 The pivot jurisdictional domain is a United Nations (UN) recognized (or candidate) member state. 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.*
>
> *NOTE 2 Several levels and categories of jurisdictional domains may exist within a jurisdictional domain.*
>
> *NOTE 3 Jurisdictional domains can combine to form new jurisdictional domains, (e.g., through bilateral, multilateral and/or international agreements).*
>
> *EXAMPLE Included here, for example, are the European Union (EU), NAFTA, WTO, WCO, ICAO, WHO, Red Cross, the ISO, the IEC, the ITU, etc.*
>
> *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, and transfer of goods, services and/or rights (and resulting liabilities) and associated information. This is independent of whether such interchanges of commitments are conducted on a for-profit or not-for-profit basis and/or include monetary values.*

5.4 Jurisdictional domains as "Persons" and “public administrations"

Rule 007:
A jurisdictional domain has the properties and behaviours of a Person.

In business transaction modelling, a jurisdictional domain has the properties and behaviours of a Person. This means that where required it may be modelled as a role player, i.e. as a regulator, and thus, a source or recipient of Information Bundles, a source of the (prescribed) contents of a Semantic Component, etc. in an Open-edi scenario.

Rule 008:
When modelling a business transaction, where one includes external constraints, it is necessary to differentiate among the three common sub-types of Person, namely "individual", "organization" and "public administration". A jurisdictional domain shall be modelled as a "public administration".

When modelling a business transaction, or a part thereof, as a scenario or scenario component from an internal constraints perspective only, the two roles of a Person are those of buyer and seller. The primary focus here is that one party, i.e. the seller, has something of value (e.g. as an “economic resource” as defined in ISO/IEC 15944-4) which another party, i.e. the buyer in modelling all or parts of a business transaction from an internal constraints perspective only, wishes to acquire by providing to the seller a mutually acceptable value in return. As such, the only criteria is that of the buyer being able to provide an acceptable compensatory value and no sub-typing of Person is required (or should even be considered) in modelling all or parts of a business transaction from an internal constraints perspective only.

It is the introduction of external constraints which requires the introduction of the three primitive sub-types of Person, namely that of “individual”, “organization” and “public administration” as well as that of the third role of a Person in a business transaction of “regulator”, i.e., in addition to those of buyer and seller.

Figure 7 provides an integrated view from a jurisdictional domain perspective of (1) the two classes of constraints (of ISO/IEC 14662 and ISO/IEC 15944-1); (2) the three (primitive) roles of a Person (as introduced and defined in ISO/IEC 15944-1); and, (3) the three (primitive) sub-types of Person (as introduced in ISO/IEC 15944-1).

Person	**Roles in (Electronic) Business Transaction**		
	Buyer	Seller	Regulator
Internal Constraints Only			
Person (roles)	YES	YES	Not applicable
External Constraints			
Person – Individual	YES	NO (YES)[30)]	NO[31]
Person – Organization	YES	YES	NO[32]
Person – Public Administration	YES	YES	YES

Figure 7 — Integrated View of (1) two classes of constraints, (2) the three (primitive) roles of a Person and (3) three sub-types of Person

30) From an IT standards perspective, (e.g., ISO/IEC 6523), an unincorporated activity providing a good, service, and/or right is deemed to be an organization. However, there may be legal requirements in a jurisdictional domain, where a "natural person" in the role of a seller is deemed to be an "individual" and not an “organization”. It is up to such jurisdictional domains to resolve how such an approach is harmonized with any Privacy/Data Protection requirements.

31 At times a regulator may “outsource” a regulatory role or function to an individual. However, in such cases the individual is deemed to be an agent of a regulator. See further ISO/IEC 15944-1:2002, Clause 8.4 “*Rules for Specification of Open-edi roles and role attributes*” with respect to whether a role may or may note be delegated

32 Idem.

Rule 009:
A jurisdictional domain may consist of two or more other jurisdictional domains.

The definition of "public administration" is essentially that of the combination or "binding", of the definitions of "regulator" and "organization". Organizations are free to combine and form any "unique framework of authority" as they see fit and thus form an (new) organization. Similarly, two or more jurisdictional domains are free, according to the principles and rules which govern them, to join into the formation of a new jurisdictional domain(s), i.e., "framework(s) of authority". A very prevalent example here are UN member states forming new jurisdictional domains for the framework of authority within which these Persons act, or are designated to act, towards some purpose which is established via a treaty.

5.5 UN member states as "pivot" jurisdictional domains

Rule 010:
The most primitive jurisdictional domain is a member state of the United Nations.

In order for an entity to be a Person, it must have the property of being "recognized by law". In order for a jurisdictional domain to have "the authority to prescribe external constraints", it must have a source for authority which is recognized (in law).

In the context of the Business Transaction Model (BTM), and from a world-wide perspective, the most primitive form of jurisdictional domain is deemed to be a member state of the United Nations.

Principles governing membership status are stated in "Chapter II, Membership" of the Charter of the United Nations. The rules governing admission of membership in the United Nations are those of the Security Council which recommends addition of new members to the General Assembly. The UN also has rules for the suspension of rights and privileges of its membership as well as expulsions. Annex E (Informative) "*Codes Representing UN member states and Their Official Languages*" presents a coded domain including UN member states as well as the date at which they obtained this status.

Rule 011:
UN recognized member states are deemed to be the pivot jurisdictional domains as sources of external constraints.

Multiple categories and combinations of jurisdictional domains exist[33]. For the purpose of identifying and referencing the requirements of jurisdictional domains as sources of external constraints, these are considered to be:

(1) a jurisdictional domain consisting of a single UN recognized member state;
(2) various sub-levels and types of jurisdictional domains within and/or created by a UN member state. (In many cases these are not homogeneous in nature);
(3) various combinations of UN member states (as per Vienna Convention on the Law of Treaties)[34]; and/or,
(4) various combinations of jurisdictional domains as sub-types of UN member states concerned and permitted by the same. (For example, several provinces of Canada and states of the United States forming a common "jurisdictional domain" for a specified purpose, i.e. as part of an administrative agreement.).

[33] See further below Clauses 7.3.1 and 7.3.2.

[34] See Annex H (Informative) *Levels of Regulatory Regimes*

Rule 012:
A jurisdictional domain as a UN member state is free to create various sub-levels, i.e., more granular, jurisdictional domains of a geopolitical nature.

The most common example here is that of UN member states creating geopolitical based sub-divisions as distinct jurisdictional domains, (e.g., provinces, länder, territories, states, etc.)[35] Not all of these may have the same power to prescribe external constraints. Often one or more of these sub-divisions has a legal status different from the others. A sub-division of a UN member state as a jurisdictional domain may, in turn, also create new sub-divisions of its jurisdictional domain as jurisdictional domains, (e.g., municipalities, counties, parishes, townships, etc.).

Rule 013:
A jurisdictional domain as a UN member state is free to join with other peer members in establishing new jurisdictional domains.

The most common example here is that of UN member states forming new jurisdictional domains in accordance with the rules of the Vienna Convention on the Law of Treaties. The combination of the application of these rules and the registering of the treaty with the United Nations results in the establishment of a new recognized jurisdictional domain. It also results in all the signatory jurisdictional domains being identified. The title of UN treaty which governs the jurisdictional domain often also serves as the title of the jurisdictional domain so created.

Rule 014:
Jurisdictional domains which are of a geopolitical nature but not UN member states are free to form new jurisdictional domains according to the rules which apply to the formation of such a new jurisdictional domain. If so, the legal instrument underlying this new jurisdictional domain shall be referenced.

The formation of a new jurisdictional domain (e.g., through a treaty) often leads to the creation of new sets of external constraints.

5.6 Jurisdictional domains as "peers"

Rule 015:
For the purposes of specifying (and modelling) external constraints for which the sources are jurisdictional domains, such jurisdictional domains are considered to be "peers" unless stated otherwise.

From a legal environment perspective, all UN member states are considered to be "peers", i.e., as Persons, which have equal rights and duties, ability to make commitments, ability to be held accountable, etc. They are "sovereign" in their own domain. From a modelling perspective, all UN member states are members of the same object class, i.e. the UN where as entities as members of this “club”, their properties and behaviours follow the same rules.

UN member states as jurisdictional domains are considered to be "peer" entities at that level or category. However, whether or not a UN-member has any internal sub-divisions, i.e., parts, is for each UN member to decide, i.e., whether they are designated as cantons, provinces, states, federal district, länder, etc.. Further, it is also for each UN member state to decide and specify whether its sub-divisions all have equal status or not, i.e. are "peer" entities or not, within its jurisdictional domain[36].

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35 The international standard which provides a facility for UN member states to register their first level administration sub-divisions is ISO 3166-2:1998 "*Codes for the representations of countries and their subdivisions — Part 2: Country subdivision code*". Note: This standard is currently being revised by ISO TC46. A DIS document for the next edition was issued on 2005-09-09 with the ballot closing on 2006-02-09. Changes proposed in this DIS do not impact this standard.

36 In some UN-member states, all its administrative sub-divisions as jurisdictional domains have equal legal status i.e. are “peers”. Other U.N. member states may have administrative sub-divisions as jurisdictional domains with different, if not varying, legal status.

5.7 Identification and mapping of external constraints to business transactions, scenarios and their components as business objects

Based on the requirements of ISO/IEC 14662:2004 "Open-edi Reference Model" and those of ISO/IEC 15944-1 and ISO/IEC 15944-2, the following rules apply to the identification and mapping of external constraints to business transaction scenarios and scenario components as business objects.

Rule 016:
An external constraint may specify the "explicitly shared goal" of a business transaction as a whole.

Irrespective of internal constraints which two or more Persons as buyers and sellers may agree to as their "explicitly shared goal" of a business transaction, requirements of an external constraints nature exist where a Person in the role of a "regulator" specifies (1) the explicitly shared goal of a business transaction; and, (2) mandates the execution of such business transactions, i.e., they are "regulatory business transactions (RBT). For example the filing of a tax return, the request for a permit or a license, the clearance of goods through customs, etc. specifies the “explicitly shared goal” of the parties to a business transaction. {See also Annex I in ISO/IEC 15944-1:2002 which provides a scenario of the enterprise processes required for a telecommunications service provider based on a specific regulatory requirement of the United States as a jurisdictional domain.}

Based on these criteria as well as other rules already stated above, a “regulatory business transaction (RBT)”, is defined as,

> ***regulatory business transaction (RBT):*** *class of* ***business transactions*** *for which the explicitly shared goal has been established and specified by a* ***jurisdictional domain****, as a* ***Person*** *in the* ***role*** *of a* ***regulator***
>
> *NOTE 1 A regulatory business transaction (RBT) can itself be modelled as a stand-alone business transaction and associated scenario(s). For example, the filing of a tax return, the making of a customs declaration, the request for and issuance of a license, the provision of a specified service of a public administration, a mandatory filing of any kind with a regulator, etc.*
>
> *NOTE 2 A regulatory business transaction (modelled as a scenario) can form part of another business transaction.*
>
> *NOTE 3 A RBT may apply to a seller only, a buyer only or both, as well as any combination of parties to a business transaction.*
>
> *NOTE 4 A RBT may require or prohibit the use of an agent or third party.*
>
> *NOTE 5 A regulatory business transaction (RBT) may be specific to the nature of the good, services and/or right forming part of a business transaction.*

Consequently, the modelling, identification and registration of a specified regulatory business transaction (RBT) can apply:

(1) to the business transaction as a whole;

Examples include the paying of taxes, filing requirements (primarily organizations), license, permits, registration in relation to use of services provided by regulators or the provisioning of goods, services and/or rights as a "seller" and/or acquiring the same as a "buyer".

(2) to the particular scenario component, role, information bundle (IB), or semantic component (SC) or any combination of the same.

Examples here include those already identified in Clause 7 and the templates in ISO/IEC 15944-1:2002 as attributes of scenario and scenario components. They include qualification on role, notarization (and other mandated third parties), security services, records retention requirements on IBs or SCs, etc.

6 Principal requirements of jurisdictional domains

6.1 Introduction

This standard focuses on the identification of the principal common requirements of jurisdictional domains as the primary sources of external constraints. As such, this part of ISO/IEC 15944, like the other Parts of ISO/IEC 15944, focuses on the fundamental, i.e., more primitive requirements, of the legal environment as represented through jurisdictional domains as sources of external constraints. Requirements which have already identified include:

- the need to specify an official, language (or "de facto" or "legally recognized language (LRN)") (see further below 6.2.19);
- the ability to support public policy requirements, (e.g., consumer protection, privacy protection, individual accessibility, human rights, etc.);
- the need to utilize a specified identification system, for the unambiguous identification of entities, objects, etc., in a business transaction;
- the use of a specified classification system in a business transaction depending on the nature of the good, service and/or right which is part of the scenario (or scenario component of) being modelled; and,
- the need to determine the specific requirements of jurisdictional domains on any of the components of a business transaction, i.e., the Person, process and data components, (and with respect to the latter, records management, state changes, the requirements of business transaction identifiers, etc.

6.2 Jurisdictional domains and official languages

6.2.1 Introduction - choice of use of language (in a business transaction)

Rule 017:
It is vital that all parties to a business transaction have a complete and unambiguous understanding, i.e., level of certainty and explicitness required, to ensure that the commitments being entered into are fully and completely understood and agreed upon by all the parties involved.

Here the choice of the language to be utilized in formalizing the commitments made is a key factor, if not the crucial factor, in ensuring that the semantics the conditions and commitments of the business transaction entered into by all the parties, i.e., as "Persons", are fully understood and agreed to.

The existing ISO definitions for **"language"**, **"natural language"** and **"special language"** (see Clause 3) are applicable to this part of ISO/IEC 15944. Users of this standard are requested to familiarize themselves with these definitions.

Many sectors have, through custom and usage, developed a special language. Use of such a special language minimizes ambiguity in the semantics of the recorded information utilized to make commitments among the parties concerned. A key hallmark of a special language is that it has a recognized distinct controlled vocabulary (or special dictionary) which specifies terms used and defines their meaning.

Examples of "special languages" include the controlled vocabularies of "specialized agencies" of the UN system as (a jurisdictional domain) utilizing special language(s) and controlled vocabulary(ies) to ensure required unambiguity in semantics from a worldwide perspective and context, (e.g., the ILO, ICAO, IMO, WHO, WCO, etc). {See further, Clause 6.2.7 below}

Rule 018:
Persons, whether as "individuals" or as "organization Persons" acting on behalf of their organization or public administration (on whose behalf they are qualified and authorized as role players to make commitments), must agree to the language(s) to be utilized in a business transaction, i.e., by all the parties involved, in order to ensure that the semantics of the commitments being entered into are completely understood by all parties involved.

Consequently, choice of use of language is very important in order to ensure unambiguity in the semantics of the recorded information exchanged among autonomous Persons in a business transaction particularly with respect to the commitments being made.

Rule 019:
Choice of use of language(s) is governed by three primary factors:

(1) seller, i.e., supplier choice;
(2) buyer, i.e., user, demands; and/or;
(3) regulator, i.e., requirements of a jurisdictional domain.

Choice of language(s) is governed by the primary factors; namely:

(1) seller, i.e., supplier choice

It is up to sellers in providing a good, service and/or right to decide which natural language(s) they wish to utilize in the provision of such a good, service and/or right, i.e., depending on the nature of the good, service, and/or right being offered by a seller and the (primary) markets targeted by the seller.

As such, sellers are free to decide the use of language(s) in which they wish to offer their goods, services and/or rights. Here, from a supplier perspective, decision on choice of language use is driven by the nature of the markets to which such offerings are targeted [37].

It is common practice for a supplier to offer a good, service and/or right in multiple languages. Here the product offered on the whole remains the same, only the information provided about it, i.e., the languages utilized to provide information for product labelling, terms and conditions, warranties, etc., change. That is, the semantics essentially remain the same, only the languages in which they are expressed from a human interface perspective change, i.e., as human interchange equivalents (HIEs). {See further below Clause 6.2.5}

(2) buyer, i.e., user demands

Buyers are free to decide which language to use in obtaining a good, service and/or right. Choice of language of a buyer is generally restricted to those languages in which the buyer is capable of using to making commitments. At times a buyer may obtain the services of an "agent" to bridge differences in use of language between the seller and buyer in a business transaction.

[Note: Where the "buyer" is an "individual", requirements of a consumer protection nature may dictate choice of language. If so, these are to be considered an external constraint of a jurisdictional domain].

Here combinations of seller choice and buyer demands can be modelled and specified as internal constraints [38] with respect to choice of language(s), this can be predefined or be left as negotiable.

Rule 020:
In business transactions which are modelled and registered as scenarios and scenario components which involve internal constraints only, the parties involved are free to choose and decide among themselves the natural language(s) to be used for the recorded information in a business transaction.

Guideline 020G1:
In modelling business transactions which involve internal constraints only, it is advisable that the parties concerned choose a combination of: (1) a natural language; and, (2) its use in a designated jurisdictional domain, i.e., as identified in Annex E and formulated using the default conventions stated in Annex D.

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37 For some reasons as to why taking a multilingual approach from the outset is good business, see Knoppers, J.V.Th. *Global electronic commerce through localization and multilingualism*. Computer Standards & Interfaces, 20(1996):101-109

38 From an internal constraints perspective only, choice of language here is considered a "private" contractual decision among the parties to a business transaction.

Rule 021:
In modelling a business transaction which involves internal constraints only, it is advisable that parties concerned use the 3-alpha language code(s) as stated in ISO 639-2/T code set for the identification of the language(s) to be used and/or supported.

On the whole, parties to a business transaction are free to choose and decide among themselves the language(s) to be used for the recorded information, i.e., in the form of scenarios, scenario attributes, information bundles and semantic components. This can be a natural language or a special language, (e.g., as may be appropriate in a specific industry sector, technical area, scientific discipline, etc.). As such, choice of language (in modelling scenarios pertaining to buyer and seller only) is an internal constraint".

(3) regulator, i.e., requirements of a jurisdictional domain

Depending on the nature of the good, service and/or right forming the goal of the business transaction, requirements of a jurisdictional domain can specify the language to be used. The jurisdictional domain of the location where a business transaction takes place or is deemed to take place[39] may also specify the language to be utilized. {See further Clause 6.2+}

The modelling of a business transaction through scenario(s) and scenario components can focus on those involving internal constraints only. However, most business transactions are subject to one or more external constraints. The most common ones here are choice of jurisdictional domain and choice of language(s) as governed by applicable external constraints.

The Clauses which follow focus on choice of language(s) and use of a language(s) as governed by external constraints, the sources of which are jurisdictional domains.

6.2.2 Jurisdictional domain as an external constraint on choice of language(s)

Internal constraints are self-imposed rules, i.e. those which parties to a business transaction negotiate and agree to among themselves. This includes the choice of language in which the commitments are made and the business transaction actualized. As such one can model business scenarios and scenario components, identify, register and re-use them in whatever language one chooses.

However, any combination of:

- seller, i.e., supplier, choice and requirements of jurisdictional domains;
- buyer, i.e., user, choice and requirements and jurisdictional domain; and/or,
- supplier choices, buyer demands and requirements of jurisdictional domains

requires the incorporation and ability to support the demands of external constraints. This is especially so with respect to use of natural language(s) in the modelling, specification, registration and re-use of scenarios, scenario attributes and scenario components, i.e., roles, information bundles (IBs) and their semantic components (SCs) as business objects.

Rule 022:
In business transactions which are modelled (and registered) as scenarios and scenario components, i.e., as business objects, which involve external constraints, one shall specify the official language(s) to be supported based on the requirements of the jurisdictional domain(s) which is the source(s) for these external constraints.

[39] The phrase “deemed to take place” covers business transactions of the nature where a buyer in one jurisdictional domain and a seller in another jurisdictional domain together decide to conduct/enact the business transaction in another, third, jurisdictional domain.

Rule 023:
In modelling a business transaction (or parts thereof) and registering them as re-useable business objects involving external constraints, these shall be modelled in a manner which supports the language requirements, including a multilingual approach, of the source of such external constraint(s), (e.g., jurisdictional domain(s)).

Guideline 023G1:
It is recommended that support for multiple languages in business transactions be modelled at the architectural (or lowest structural level).

Key concepts, constructs, methodologies, etc., in this multipart standard already support such an approach through use of "identifiers", ID codes, semantic identifiers, etc. to identify and represent the relevant entities, semantics, etc., and then making provision for multiple human interface equivalents (HIEs)[40]. {See further Clause 6.2.5 below}

Rule 024:
A jurisdictional domain has either an official language(s) or a de facto language.

Rule 025:
It is for a jurisdictional domain to decide whether or not it has an official language. If not, it will have a de facto language.

Guideline 025G1:
Each sub-level, (e.g., administrative sub-division) in a jurisdictional domain which is a UN member state, may have an official language(s) in addition to those of the jurisdictional domain of which it is a component part.

Where a jurisdictional domain is a UN member state, i.e., of a geopolitical nature, it often has "administrative sub-divisions often known as "provinces, cantons, states, territories, etc.". These administrative sub-divisions do at times have competencies of an external constraint nature which make provision for these and administrative sub-divisions to have other, i.e., additional, official languages than the jurisdictional domain of which they are part.

For example, in Canada, the Territory of Nunavut has Inuktitut as third official language, i.e. in addition to those of English and French which are official languages throughout Canada. {See further Clauses 6.2.3 and 6.2.4 below}

Where a jurisdictional domain has no official language, it has a "de facto language". For example, the United States has no "official language" as such, but has (American) English as its de facto language. {See further Clause 6.2.4 below}

Rule 026:
A law or regulation of a jurisdictional domain may require the use of or the ability to support a specific language within a particular context, i.e., as a "legally recognized language (LRN)".

This rule addresses use of or support for a language requirement within a very specified context of a particular law or regulation. {See further Clause 6.2.5 below}

[40] This guideline is based on the fact that if one designs a system or application to function in one language only, i.e., at its basic architectural and structural design levels, it will be very resource intensive and costly to re-design, retrofit, etc., the system or application to function in two or more languages. It is much less costly and robust to design a system or application to be able to support multilingual capability, i.e., via Human Interface Equivalents (HIEs) at the outset.

6.2.3 What is an "official language?" [41]

In the Clauses above, key aspects pertaining to "language" were brought forward relevant Open-edi terms/definitions. Within the scope and context of the Open-edi Reference Model, business semantic description techniques and particularly that of ISO/IEC 15944-5, the focus is that of a natural language as a system of communication in use in a "community of people".

Integrating two sets of concepts, i.e., "natural language" and "Open-edi" in the context of "jurisdictional domain", i.e., ISO/IEC 15944-5, the definition for "official language" is as follows:

> ***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 mutually acceptable natural language and/or special language for communications as well as exchange of commitments.*
>
> *NOTE 2 A jurisdictional domain decides whether or not it has an official language. If not, it will have a de facto language.*
>
> *NOTE 3 An official language(s) can be mandated for formal communications as well as provision of goods, 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.*
>
> *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.*
>
> *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.*
>
> *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.*
>
> *EXAMPLE 1 The spoken language of use of an official language may at times have more than one writing system. For example, two writing systems exist for the Inuktitut language, namely, one Latin-1 based (Roman), the other is syllabic-based. Another example is that of Norway which has two official writing systems both Latin-1 based namely "Bokmål (Dano-Norwegian) and Nynorsk (New Norwegian).*
>
> *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.*
>
> *NOTE 8 The BOV requirement of the use of a specified language will place that requirement on any FSV supporting service.*
>
> *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.*

Similarly, international organizations of the nature of a jurisdictional domain also have an official language(s)[42].

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[41] See further document JTC1/SC32/WG1 N210R M. Janice Pereira and Jake V. Knoppers "Languages and Jurisdiction: "Natural", "Special", "Official", "Artificial", "Indexing", "Programming," etc.

[42] For example, the official languages of the UN are Arabic, Chinese, English, French, Russian and Spanish. The official languages of the ISO are English, French, and Russian. On the other hand, the official language of the International Civil Aviation Organization (ICAO) is English (only).

Rule 027:
Where a jurisdictional domain has more than one official language, Persons as suppliers shall be capable of communicating with buyers (particularly as individuals) in any one of the official languages of that jurisdictional domain.

From a business transaction perspective, a key role of an official language is to ensure that in the making of the commitments among the participating parties that the commitment can be enforced should a dispute arise. The legal system, courts and other arbitration or dispute resolution mechanisms of a jurisdictional domain function in the official languages of that jurisdictional domain. Another role of an official language is to ensure that parties making a commitment among themselves, (e.g., as formulated in a business transaction), that all parties use the same language.

Further, where the nature of the business transaction being modelled is one which involves external constraints, suppliers must be capable of communicating with the regulator(s) of the jurisdictional domain(s) involved in one of the official languages of these jurisdictional domains.

Guideline 027G1:
Where a jurisdictional domain has two or more official languages they may or may not have equal status[43]***.***

It is not uncommon that where a jurisdictional domain has two or more official languages that not all these have equal status. For example, for use of some official language(s) in a jurisdictional domain, there could be criteria such as "where and when numbers warrant", "there is a significant demand for communication with and services from a public administration in that language", etc. Another example is where the use of one of the official languages may have dominance over the other(s).

However, from an e-business perspective, it is most likely that here the public administration in question in its Internet-based site/service will be providing information in all its official languages.

6.2.4 What is a "de facto language"?

Some jurisdictional domains do not have a specified official language(s). However, the institutions of such a jurisdictional domain do use a natural language for communications among Persons and administration of justice, provision of public services, etc. Here a particular language has been in common use for a very long time with custom and practice dictating the language of use for that jurisdictional domain for many years (if not for one or more centuries). Consequently, the jurisdictional domain has never felt it necessary to formally declare its language of use as its "official language". Such a common language of use in a jurisdictional domain is assumed to be its "de facto language".

The definition for "de facto language" is:

> ***de facto language:*** ***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***
>
> *NOTE 1 A de facto language of a jurisdictional domain is often established through long term use and custom.*
>
> *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 have the same properties and behaviours of an official language.*

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43 This Guideline is here to alert suppliers to this fact as well as those who model business transactions as business objects. Part 5 focuses on the essential basic, i.e. primitive, aspects of jurisdictional domains as sources of external constraints. As such this edition of ISO/IEC 15944-5 does not address differences in use that may exist among official languages within a jurisdictional domain.

Rule 028:
A jurisdictional domain may have either one or more official languages and, if not, may have only one "de facto language".

A de facto language of a jurisdictional domain achieves its "legal status" through long time use and custom. This is not an uncommon feature, in jurisdictional domains whose legal system is that of a "common law" nature. However, a jurisdictional domain can not have more that one de facto language since such a condition would require it to legally recognize the two (or more) de facto languages as having equal status. Such recognition in law of equal status of two (or more) de facto languages in that jurisdictional domain would make the same as having the status of "official languages". Annex E is constructed based on this rule.

6.2.5 What is a "legally recognized language (LRL)"?

The official language(s) (or de facto language(s)) of a UN member state (or a sub-division thereof) serves as a common external constraint on the modelling and instantiations of business transactions within that jurisdictional domain as a whole [44]. However, within a jurisdictional domain, there may exist acts, regulations, legal instruments, etc., which contain requirements or rights of a linguistic nature, i.e., for languages other than those already identified as an official language(s) in that jurisdictional domain [45]. These are languages which have legal recognition in a specific context, for a specific purpose, and/or for a specified geographic territory within a jurisdictional domain.

One key factor here is the increasing trend by jurisdictional domains to "legally" recognize the fact that peoples or "nations" within their jurisdictional domain do have linguistic rights, i.e., the right to use their language generally or within a specific context.

It is also not an uncommon occurrence that such peoples and their language(s) encompass the geopolitical boundaries of two or more jurisdictional domains. However, whether or not one or more or even all of the jurisdictional domains where such a people live declare the language of a people to be a legally recognized language is outside the scope of this standard.

A "legally recognized language (LRL)" is defined as:

> ***legally recognized language (LRL)**: **natural language** which has status (other than an **official language** or **de facto language**) in a **jurisdictional domain** as stated in an act, regulation, or other legal instrument, which grants a community of people (or its **individual**s) the right to use that **natural language** in the context stipulated by the legal instrument(s)*
>
> *NOTE The LRL can be specified through either:*
>
> *- the identification of a language by the name utilized; or,*
> *- the identification of a people and thus their language(s).*
>
> *EXAMPLE In addition to acts and regulations, legal instruments also include self-government agreements, land claim settlements, court decisions, jurisprudence, etc.*

Examples of legally recognized languages can be found in countries which have peoples of an indigenous, aboriginal, native, etc., nature whose rights have not been extinguished (including those of a linguistic nature) and are increasingly being recognized in the geopolitical jurisdictional domains of which they are now part [46].

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[44] This 1st edition of Part 5 focuses on the key essential aspects, i.e. primitives, only. The LRL concept is introduced here as the stakeholder sub-type for linguistic requirements within a jurisdictional domain which are of a particular, i.e. non-general, nature versus those of "official language" and "de facto language" which are of a general nature within a jurisdictional domain.

[45] Examples here include education/school acts, heritage or culture acts, self-government agreements, language for use at the municipal level, etc

[46] These include present day UN member states which formerly were "colonies", (e.g., Australia, Canada, New Zealand, etc.), or those who have addressed or are addressing "minority rights" of peoples within their jurisdictional domains. For a detailed case study, see M.J. Pereira and J.V.Th. Knoppers "*Initial Draft Strategy for Support of Linguistic Requirements of Canada's First Nations and Aboriginal Peoples in International Standards and e-Learning".* Prepared for E-Learning Marketplace Strategy (ELMS), Industry Canada, October, 2004.

6.2.6 Gender and official languages

Rule 029:
In order to be able to specify the gender of a noun or term used as may be required based on the official (or de facto) language utilized, the set of "Codes Representing Gender in Natural Languages" shall be used in the modelling of a business transaction and registration of any related business object.

Rule 030:
Where the official language (or de facto language) of a jurisdictional domain has no gender this shall be stated.

Many natural languages have "gender" as part of their grammar while others do not. English, for example, does not. Knowing the gender of nouns as words, terms, "names", etc., is often needed to ensure unambiguity in the interoperability of semantics among different languages from both IT interface and human interface perspectives. At times, also, specification of gender of the term or noun is important to ensure unambiguity in the semantics of the semantic component(s) and information bundle(s) interchanged among parties in making commitments in a business transaction.

Further, in those natural languages where gender is an essential component, the gender of the noun governs not only the meaning but also the representation of the associated/relevant words in the noun phrase[47] In addition, the gender of the noun may also impact the representation of the associated verb phrases. Therefore, knowing the gender of the noun is important in the use of official languages. {See further Annex K for some examples of how the semantics change for the same “noun” depending on its gender}

It is a fact that standards both (1) use existing natural language words in different contexts and thus with different meanings, i.e., semantics; and, (2) in standards development work new terms are often coined/invented and may thus not be readily found in standard dictionaries. Consequently, it is important to be able to specify the gender of each term (noun), label, etc., where gender is a crucial element in the use of a natural language especially where such a natural language(s) is used as an "official language" in specifying external constraints and/or the formulation and establishment of a coded domain.

With respect to grammatical gender, the three (most) common found in natural languages are: neuter, masculine, or feminine. Since these have different “names” in various languages, ID codes are utilized to represent them.

Gender is also language specific, i.e., a noun in one natural language may have one gender code, and the equivalent noun in another language may have a different gender code.

It is deemed important to note the gender of nouns at the human interface because (1) gender determines the use of "linkage words" «mots liens», and (2) the correct representation and thus understanding and meaning, i.e., semantics, of such nouns or noun phrases in their daily use.

The coding scheme presented here incorporates present international conventions and is presented below as "Coded Domain 01" of ISO/IEC 15944-5 and is titled "Codes Representing Gender in Natural Languages"[48].

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47 In French, the words used to state gender of a noun such as “le”, “la”, “un une”, etc. are known as “mots liens”, literally “binding words” – used to bind/connect the semantic or meaning of the word used to represent the semantic to which they are attached. Here if the binding word or «mot lien» serves to designate the gender and changes the semantic of the word change (see further Annex K).

48 This “Coded Domain 01” has been utilized and applied in Annex A to the English and French terms of all the definitions in the matrix in Annex A.6. Since English grammar rules do not have gender, the ID code used for English is “09” = “Not Applicable”

ISO/IEC 15944-5:01 Codes Representing Grammatical Gender in Natural Languages					
IT Interface			Human Interface Equivalent: Linguistic –Written Form		
Coded Domain ID	Table ID	ID Code	ISO English	ISO French	ISO Spanish
15944-5	01	00	unknown	inconnu	desconocido
15944-5	01	01	masculine	masculin	masculino
15944-5	01	02	feminine	féminin	feminino
15944-5	01	03	neuter	neutre	neutro
15944-5	01	99	not applicable	sans objet	no aplica

Table 1 — ISO/IEC 15944-5:01 Codes representing gender in natural languages

NOTE It is likely that official, de facto, or legally recognized, languages do have other gender codes in addition to those specified in this coded domain. If and when these are required, these other gender codes can be added either as a Technical Corrigenda to this standard or in its next edition.

6.2.7 Official languages and human interchange equivalents (HIEs) of semantic components

From an IT interface as well as an IT interoperability perspective, in business transactions, one needs unique, unambiguous and linguistically-neutral identifiers for scenarios and scenario components, i.e., as a business object identifier (as stated in ISO/IEC 15944-1:2002). These required properties and behaviours for unambiguous identification and use of identifiers for use in (electronic) business transactions were addressed in ISO/IEC 15944-1:2002.[49] The resulting definition for an identifier (in a business transaction) also applies in this part of ISO/IEC 15944.

From a jurisdictional domain perspective, it is important that persons making the commitments in a business transaction are able to have a complete understanding of the semantic(s) of the commitments being entered into by the parties to a business transaction.

As already stated in ISO/IEC 15944-1 to this standard, each scenario and scenario component, (e.g., scenario attribute, role, and information bundle, including its semantic components), must have a unique, language neutral and unambiguous identifier. The same principle applies in ISO/IEC 15944-2 which focuses on their registration as business objects for access and re-use by requiring each registered business object to have a business object identifier.

Here from a jurisdictional domain and international trade perspective, it is a long established and recognized practice to utilize unique and unambiguous identifiers to identify the one or more (if not all) the entities, (e.g., things as Persons, objects, events, processes, etc.), in a business transaction. It is also a common practice that these identifiers are utilized in electronic data interchange (EDI) among the parties to a business transaction, i.e., as IT-interface equivalents.

[49] For summary of the factors which were taken into consideration in the development of the rules, criteria, and definitions in ISO/IEC 15944-1:2002. See further its,

- Annex C (Informative) Unambiguous identification of entities in (electronic) business transactions; and,
- Annex D (Informative) Existing standards for the unambiguous identification of persons in business transactions (organizations and individuals) and some common policy and implementation considerations.

An “IT-interface equivalent” is defined as:

> ***IT-interface equivalent: computer processible 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* ***computational integrity***
>
> *NOTE 1 IT interface equivalents have the properties of identifiers (in business transaction) and are utilized to support semantic interoperability in commitment exchange.*
>
> *NOTE 2 The value of an IT interface equivalent at times is a composite identifier.*
>
> *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.*
>
> *NOTE 4 An IT interface equivalent is at times utilized as a semantic identifier.*
>
> *NOTE 5 An IT interface equivalent may have associated with it one or more Human Interface Equivalents (HIEs).*
>
> *NOTE 6 The value of an IT Interface is independent of its encoding in programming languages or APIs.*

Further, from a commitment making perspective of the Persons involved each IT-interface equivalent has at least one and likely several “human interface equivalents (HIEs)”. In addition, from an external constraints perspective, a jurisdictional domain will require that a specified language(s) be utilized.

"Human interface equivalent" (HIE) is defined as:

> ***Human Interface Equivalent (HIE)****: 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*
>
> *NOTE 1 Human interface equivalents can be linguistic or non-linguistic in nature, but their semantics remain the same although their representations may vary.*
>
> *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 sectoral nature.*
>
> *NOTE 3 Human interface equivalents include representations in various forms or formats, (e.g., in addition to written text those of an audio, symbol (and icon) nature, glyphs, image, etc.)*

Rule 031:
Where a jurisdictional domain has more than one official language, human interface equivalents (HIEs) are required in each official language in order to ensure unambiguity in the semantics of the commitments made.[50]

[50] For a pragmatic implementation of this rule and the use of HIEs, see, Annex A in ISO/IEC 5218:2004 “Codes representing the human sexes” titled “Annex A (Informative) — Codes for the representation of the human sexes supporting (linguistic) cultural adaptability / Annexe A (Informative) — Codes pour la représentation des sexes humains supportant l’adaptabilité culturelle (linguistique)”, and especially Table2/Tableau 2 Human interface equivalents (linguistic) for Codes for the representation of human sexes: “Examples of countries and their official language(s)/Équivalents interface humaine (linguistiques) des Codes pour la représentation des sexes humains: Exemples de pays et leur(s) langue(s) officielle(s)” Note that the ISO/IEC has made ISO/IEC 5818 a “freely available” document. {See further <http://www.jtc1.org>. This in part is in recognition of the value of Annex A in this standard as a practical example for addressing cultural adaptability and multilingual requirements. Part of this Annex A of ISO/IEC 5218 has been incorporated in Annex F of this standard.

Rule 032:
It is up to a jurisdictional domain to establish HIEs in its official language(s) where these are part of the specification and implementation of external constraints.

This is usually done through the creation of an official dictionary or a controlled vocabulary (CV), the issuance of handbooks, etc., by that jurisdictional domain. Also (large) international organizations {See Clause 6.2.9 below} often provide HIEs for terms and definitions in all their official languages[51].

6.2.8 UN member states and their official (or de facto) languages

A key attribute of a jurisdictional domain is that it predefines and specifies the language (s) in which it acts and communicates in any matter of a legal nature but also with respect to any commitments its makes, services it provides, rights it grants, etc. with any Person within its domain, i.e. as its official language(s). This is especially so for UN member states. Where a UN member state does not have an official language(s), it has a de facto language.

A key aspect of a business transaction, which sets it apart from any information exchanges in general, is that it involves the making of commitments among the parties involves. A commitment in turn is that it must be capable of enforcement in a jurisdictional domain. Any such enforcement action will need to take place in the official language(s) of the jurisdictional domain in which it is being enforced.

Thus, it is important to know what the official language(s) are (or de facto language) is of a jurisdictional domain in order to determine which apply as external constraints when modeling and instantiating a modelled business transaction, i.e. as an Open-edi scenario or any scenario component. This information is provided in "*Annex E (Informative) Codes Representing UN member states and their Official (or de facto) Language(s)*"

With respect to jurisdictional domains and their official languages, one needs to take into account that for many languages there may be a variant form in use of the same natural language. Arabic, English, French, German, Portuguese, Spanish, Russian, etc. are but some of the major examples. Jurisdictional domains may systematically decide which words form part of their official language and which representation form of such words, etc. This means that HIEs for and IT-interface equivalent for an ID code may well be different among various jurisdictional domains which have the same natural language as their official language. (The same may also apply to use of a de facto language in a UN member state.[52])

These variances in the use of the same natural language in different jurisdictional domains are significant enough to cause ambiguities generally as well as in business transaction particularly and especially within and among the supporting IT-systems of the parties to business transactions which are international in nature (There may be other localization issues as well). In order to minimize ambiguities in the modelling and/or instantiation of scenarios and scenario components, it is necessary to be able to specify the jurisdictional domain and the official (or de facto language) through the use of a common (default) convention.

Rule 033
In order to ensure unambiguity in the use of a natural language in business transactions it is necessary to specify the jurisdictional domain for the varied forms of that natural language to be utilized using common standard default conventions for the unambiguous identification, interworkings and referencing of combinations of codes representing countries, language and currencies.

This rule applies especially to the modelling and use of semantic components (SCs) to be utilized as part of information bundles (IBs).

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51 For example the official languages of the United Nations are Arabic, Chinese, English, French, Russian and Spanish; the INCOTERMs of the ICC have authorized equivalencies in 31+ languages; the ITU works in 3 language English, French and Spanish, etc.

52 For example, The USA has no official language but uses English as its de facto language. It however, uses an American version of the English language based on Webster's Dictionary instead of the general English based on the Oxford Dictionary (OED).

Rule 034:
In modelling a business transaction through scenarios and scenario components which involve external constraints and for which the Source Authority is a UN member state (or an administrative sub-division of the same), it is advisable that all parties concerned use the 3-digit numeric country code[53] plus the 3-alpha language code, and in this order.

In support of these requirements and rules stated above (and elsewhere addressing related issues), this standard provides a number of systematic solutions as default conventions to be used in the modelling of business transactions and for use in business transactions. These are presented in Annex D (Normative) *Unambiguous Semantic Components and Jurisdictional Domains: Standard Default Conventions for the Identification, Interworking and referencing of Combination of Codes representing Countries, Language and Currencies*[54].

6.2.9 International organizations and official languages

International organizations often have the status of a jurisdictional domain, particularly those in the public sector. A primary example is the case where those international organizations are established as a result of treaties among UN member states. UN member states by being treaty members, i.e. signatories, to the document establishing an international organization bind themselves, i.e. commit themselves, to the principles and rules of the international organization. These can include the use of the official language(s) of the international organization taking precedence over the official languages of the jurisdictional domains who are signatories to that treaty. Even international organizations in the private sector can have this characteristic (e.g. the International Chamber of Commerce (ICC) and its INCOTERMS.

The most common example of international "public administration" is UN "specialized agencies". Each of these has one or more official languages. They at times also specify one (or more of these) as their daily "working" languages. Another example is entities of the nature of the World Trade Organization (WTO), the World Customs Organization (WCO), etc. and other non-UN system organizations that function as jurisdictional domains.

Rule 035:
The official language of a treaty-based international organization recognized as having primary competence in a specific sector can override the official language requirements of the jurisdictional domains of UN member states.

UN member states as signatories to an internationally recognized treaty and thus having the force of law from a global, i.e. worldwide, application perspective commit themselves, as signatory parties, to have the principles and rules of such a treaty-based international organization as taking precedence over the principles and rules governing their own jurisdictional domains.

For example, in the sector of civil aviation, the International Civil Aviation Organization (ICAO)[55] has been designated and recognized as the world-wide Source Authority (SA) including being the "coded domain Source Authority" for many coded domains. The one "official language" of ICAO is "ICAO English"[56]. This means that all the definitions and terms for use in communications, navigation and surveillance (CNS) for civil aviation world-wide, particularly for any international flights among all jurisdictional domains shall be conducted in "ICAO English".

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53 The Source Authority for the 3-digit country codes in the United Nations. They are then utilized in the development and maintenance of ISO 3166-1. See further Annex E.

54 One of these default conventions has been applied in Annex E (Informative) "*Codes representing UN member states and their official (or de facto) languages*".

55 See further the ICAO website at <www.icao.org>.

56 "ICAO English" is in parentheses here to indicate that it represents a particular use of the English language as a "special language" with respect to definitions and associated terms as an official language of ICAO in the context of "civil aviation", i.e., as stated and defined in official ICAO documents.

Rule 036:
In modelling a business transaction (or parts thereof) as scenarios and scenario components, and registering them as re-useable business objects involving internal constraints, these should be modelled in a manner which supports the language(s) of the source authority(ies) referenced and utilized in such referenced specifications.

An example here is the International Chamber of Commerce (ICC) which is a private sector organization. The ICC is the Source Authority for the "International Commercial Terms" (INCOTERMS). INCOTERMS are widely used in domestic and international business transactions. These INCOTERMS have been made available in over 31 languages. Here the unique 3-alpha code for each INCOTERM serves as the IT-interface equivalent to the multiple human interface equivalents (HIEs).

6.3 Jurisdictional domains and public policy requirements

6.3.1 Introduction

Increasingly jurisdictional domains require those providing a good, service and/or right in making such offers, and those executing resulting (electronic) business transactions, to comply with generic horizontal requirements of the nature of rights pertaining to natural persons in their role as individuals. Clause 0.2 and Figure 3 in ISO/IEC 15944-1:2002 identified these as "public policy" requirements "particularly" those of a generic nature such as consumer protection, privacy, etc.

In addition, Clause 6.2.8 in ISO/IEC 15944-1:2002 titled "Person and external constraints: constraints: consumer and vendor" already introduced "consumer protection" as a minimum external constraint which needs to be taken into account in modelling business transactions doing so in a limited, i.e., primitive manner.

There are other external constraints of a horizontal generic "public policy" nature which need to be taken into account in modelling business transactions. These include privacy, special needs, etc. As per Clause 6.1.6 "Business transaction model: Classes of constraints" (in ISO/IEC 15944-1:2002), these form part of the category of "External Constraints: Public Administration" (as identified in Figure 8 in ISO/IEC 15944-1).

This Clause 6.3 focuses on some of the most basic categories of public policy as minimum external constraints that need to be taken into account in modelling (electronic) business transactions which involve, i.e., pertain to, "individuals" as "buyers". Those already identified include:

- consumer protection;
- privacy;
- accessibility; and,
- human rights.

As such one distinct category of external constraints for which the source is a jurisdictional domain is that of "public policy" which is defined as:

> ***public policy:*** *category of* ***external constraints*** *of a* ***jurisdictional domain*** *specified in the form of a right of an* ***individual*** *or a requirement of an* ***organization*** *and/or* ***public administration*** *with respect to an* ***individual*** *pertaining to any exchange of* ***commitments*** *among the parties concerned involving a good, service and/or right including information management and interchange requirements*
>
> *NOTE 1 Public policy requirements may apply to any one, all or combinations of the fundamental activities comprising a business transaction, i.e., planning, identification, negotiation, actualization and post-actualization. {See further Clause 6.3 "Rules governing the process component" in ISO/IEC 15944-1:2002}.*
>
> *NOTE 2 It is up to each jurisdictional domain to determine whether or not the age of an individual qualifies a public policy requirement, (e.g., those which specifically apply to an individual under the age of thirteen (13) as a "child", those which require an individual to have attained the age of adulthood, (e.g., 18 years or 21 years of age) of an individual to be able to make commitments of a certain nature.*
>
> *NOTE 3 Jurisdictional domains may have consumer protection or privacy requirements which apply specifically to individuals who are considered to be "children", "minors", etc.(e.g. those who have not reached their 18th or 21st birthday according to the rules of the applicable jurisdictional domain).*

The four sub-clauses which follow on the minimal external constraints of this nature do so in a primitive, i.e., limited manner. It is outside the scope of this part of ISO/IEC 15944 to address and specify external constraints on a business transaction of the nature of "consumer protection", "privacy", "accessibility", etc., in detail. The sole purpose of this clause is to ensure that when one uses this standard to model business transactions or parts of business transactions as reusable business objects in the form of scenarios and scenario components, one is able to identify under "external constraints" in the template provided in Clause 8 requirements of a "public policy" nature.

6.3.2 Person and external constraints: consumer protection [57]

In modelling (electronic) business transactions, a common minimum external constraint that needs to be taken into account is that commonly known as "consumer protection".

Rule 037:
A common set of external constraints of a jurisdictional domain on a business transaction, where the buyer is an individual, are those of a consumer protection nature [58].

"Consumer" and "vendor" have already been defined in ISO/IEC 15944-1:2002 {For text, see above Clause 3.32 and 3.149 respectively for the text of the definitions}.

Based on these definitions, "consumer protection" is defined as:

> ***consumer protection:*** *set of* ***external constraints*** *of a* ***jurisdictional domain*** *as rights of a* ***consumer*** *and thus as obligations (and possible liabilities) of a* ***vendor*** *in a* ***business transaction*** *which apply to the good, service and/or right forming the object of the* ***business transaction*** *(including associated information management and interchange requirements including applicable (****sets of****) recorded information)*
>
> *NOTE 1 Jurisdictional domains may restrict the application of their consumer protection requirements as applicable only to individuals engaged in a business transaction of a commercial activity undertaken for personal, family or household purposes, i.e., they do not apply to natural persons in their role as "organization" or "organization Person".*
>
> *NOTE 2 Jurisdictional domains may have particular consumer protection requirements which apply specifically to individuals who are considered to be a "child" or a "minor", (e.g., those individuals who have not reached their thirteenth (13) birthdays).*
>
> *NOTE 3 Some jurisdictional domains may have consumer protection requirements which are particular to the nature of the good, service and/or right being part of the goal of a business transaction.*

Rule 038:
Where the buyer is an individual, the seller shall ascertain that the individual has the age qualification required by the jurisdictional domain to be able to be involved in and make commitments pertaining to the good, service and/or right being offered in the proposed business transaction.

Guideline 038G1
A seller shall take the required precautions to ensure that it does not communicate inappropriate information, engage in monetary transactions or in the making of any commitments with children (without the verifiable consent of their parents or guardians) as may be required by the jurisdictional domain of the buyer.

This rule and guideline captures common consumer protection requirements pertaining to sales in general as well as to particular goods or services to children and minors.

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57 Clause 6.3.2 builds on and utilizes Clause 6.2.8 "Person and external constraints: Consumer and vendor" of ISO/IEC 15944-1:2002

58 This is a restatement of "Rule 38" in ISO/IEC 15944-1:2002.

Rule 039:
A seller shall ensure that where it intends to sell a good, service and/or right to a buyer as an individual that consumer protection requirements of the applicable jurisdictional domain of the buyer are supported.

These consumer protection requirements include the provision of “complete” information, the use of language of the individual, terms of contract formation and fulfilment, privacy of the on-line information, security of the personal information and payment, procedures for redress, stop to unsolicited e-mail, etc.

6.3.3 Privacy protection

In modelling (electronic) business transactions, a common minimum external constraint that needs to be taken into account is that commonly known as "privacy" requirements (or in some jurisdictional domains as "data protection"). In this standard, the term "privacy protection" is used to identify this category of public policy requirements. Privacy protection requirements apply to any business transaction in which an individual is one of the participating parties.

Rule 040:
A common set of external constraints of a jurisdictional domain on a business transaction, where the buyer is an individual, are those of a privacy protection nature.

In this standard "privacy protection" is defined as:

> ***privacy protection:*** *set of* ***external constraints*** *of a* ***jurisdictional domain*** *pertaining to (a set of)* ***recorded information*** *on or about an identifiable* ***individual*** *i.e.,* ***personal information****, with respect to the creation, collection, management, retention, access and use and/or distribution of such* ***recorded information*** *about that* ***individual*** *including its accuracy, timeliness, and relevancy*
>
> *NOTE 1 Recorded information collected or created for a specific purpose on an identifiable individual, i.e., the explicitly shared goal of the business transaction involving an individual, shall not be utilized for another purpose without the explicit and informed consent of the individual to whom the recorded information pertains.*
>
> *NOTE 2 Privacy requirements include the right of an individual to be able to view the recorded information about him/her and to request corrections to the same in order to ensure that such recorded information is accurate and up-to-date.*
>
> *NOTE 3 Where jurisdictional domains have legal requirements which override privacy protection requirements these must be specified, (e.g., national security, investigations by law enforcement agencies, etc.).*

It is noted that from a supplier perspective, privacy protection requirements can be summarized as maintaining recorded information about an identifiable individual which is as timely, accurate, and relevant as possible, is utilized only for its original purpose and not for any other purpose (unless consented to by the individual concerned), and that any such recorded information which does not meet these requirements is expunged, unless there are other external constraints of a jurisdictional domain nature which override such privacy protection requirements, (e.g., law enforcement, national security, etc.). Key privacy principles include (1) accountability, (2) identified purpose, (3) informed consent, (4) limiting collection, (5) limiting use, disclosure and retention, (6) accuracy, (7) safeguards, (8) openness of privacy policy, (9) individual access to their personal information, (10) challenging compliance, (11) transborder data flow controls, and likely others.

Guideline 040G1:
Where a jurisdictional domain differentiates in criteria for privacy protection with respect to a natural person in its role as an "individual" or an "organization Person," this needs to be specified.

Guideline 040G2:
Where a jurisdictional domain has privacy protection requirements as a set of external constraints which are applicable to a specific sector (public versus private, per industry sector, etc.), or type of business transaction, this needs to be specified.

6.3.4 Individual accessibility

A third increasingly common minimum external constraint of a public policy nature that needs to be taken into account in modelling (electronic) business transactions through re-useable business objects, are those which are categorized as accessibility requirements in the form of either (1) rights of individuals in their use of information technologies at the human interface; and/or (2) those providing goods or service in general or in particular ensure that the provisioning of the same does not discriminate against or provide for participation by "non-typical" users, i.e. those persons with an impairment or disability of some kinds, who require some form of adaptive semantics and technologies to participate in a business transaction, i.e. "individual accessibility". Here "accessibility" pertains to ensuring that goods or services being provided in (electronic) business transactions that, in the making of the commitments of the parties, the IT systems utilized are capable of supporting people with impairments or disabilities.

Jurisdictional domains often specify human accessibility requirements as being (1) of a generic nature and applicable irrespective of the goals of a business transaction and the commitments being entered into among the participating parties, (e.g., as part of basic human rights, as part of its constitution, etc.); and/or (2) as applicable to a particular sector, (e.g., e-government, education, etc.). Particular human accessibility requirements also exist at the UN member state's sub-division level, (e.g., a state, province, länder, etc.), at the regional level, (e.g., the European Union) [59].

Here disabilities can be of either a functional or cognitive nature.

"Individual accessibility" is defined as:

> ***individual accessibility:*** *set of* ***external constraints*** *of a* ***jurisdictional domain*** *as rights of an* ***individual*** *with disabilities to be able to utilize* ***IT systems*** *at the human, i.e., user, interface and the concomitant obligation of a seller to provide such adaptive technologies*
>
> *NOTE Although "accessibility" typically addresses users who have a disability, the concept is not limited to disability issues.*

Examples of disabilities in the form of functional and cognitive limitations include:

- *people who are blind;*
- *people with low vision;*
- *people with colour blindness;*
- *people who are hard of hearing or deaf, i.e., are hearing impaired;*
- *people with physical disabilities;*
- *people with language or cognitive disabilities.*

[59] The United Nations has an "*Overview of International Frameworks for Disability Legislation*" available at <<http://www.un.org/esa/socdev/enable/disother.htm>>.

It is noted that language and cognitive disabilities are very difficult to specify and thus model as human interface requirements[60], but often it is possible to do so. They include mental retardation, lack of short term memory, dyslexia, dyscalculia, dysgraphia, auditory and perceptual disabilities, cognitive disorganization, and visual perceptual disabilities.[61]

Nevertheless, unless a human disability (ies) of an individual is of the nature where the jurisdictional domain considers or declares the individual to be "incompetent", i.e., not able to make a commitment as a party to a business transaction, from an external constraints perspective, there is a need to be able to support human accessibility requirements.

As such in the development of human interface equivalents (HIEs) for an ID code or a semantic identifier, these must also include those HIEs of a nature to ensure individual accessibility[62].

6.3.5 Human rights

The three primitive public policy requirements identified above have as a common thread that they apply to Persons in their role as an individual engaged as a "buyer" (or "consumer") in a business transaction. There are other public policy requirements which may need to be supported of a "human rights" nature in modelling a business transaction. Here in the context of "cultural adaptability" as the third strategic direction of ISO/IEC JTC1 for its standards development[63], other public policy requirements which may need to be incorporated into the specification and re-use of business objects include:

- the UN "Universal Declaration of Human Rights" (1948);
- the UN "Universal Declaration of Rights of Persons belonging to National or Ethnic, Religious and Linguistic Minorities";
- the UN "Universal Declaration of Cultural Diversity" (Paris, November, 2001); and,
- International Covenant on Economic, Social and Cultural Rights 1966, United Nations (UN).

6.4 Jurisdictional domains and identification systems

It is a common requirement for a jurisdictional domain to require that a specific identification system to be utilized with respect to the identification of the good(s), service(s), and/or right(s) forming an explicitly shared goal of the business transaction being modelled.

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60 Here Annex A in ISO/IEC 5218:2004 “Codes representing the human sexes” titled “ Annex A (Informative) — Codes for the representation of the human sexes supporting (linguistic) cultural adaptability/Annexe A (Informative) — Codes de représentation des sexes humains supportant l’adaptabilité culturelle (linguistique)”.

61 See further the US National Institute of Neurological Disorders and Stroh resources on dyslexia at <http://www.ninds.nih.gov/healthandmedical/disorders/dyslexiadoc.htm. See also the "*IMS Guidelines for Developing Accessible Learning Applications*", Version 1.0 White Paper, 2002-06-22 (publicly available via http://www.ims.org) as well as other IMS documents containing very useful information and IT systems specifications for individual accessibility requirements from an “e-learning” perspective. {http://imsglobal.org/accessibility}. This IMS work is being progressed as a multipart international standard through JTC1/SC36 as ISO/IEC 24751, *Individualized Adaptability and Accessibility in E-learning, Education and Training*, of which the first three parts are at the FCD ballot stage as of spring, 2006

Part 1: Framework and Reference Model

Part 2: “AccesForAll” Personal Needs and Preferences for Digital Delivery

Part 3: “AccesForAll” Digital Resource Description

Documentation on this standards development work is available at the JTC1/SC36 site at <http://www.jtc1sc36.org>.

62 Table 1 in Annex A of ISO/IEC 5218:2004 provides an example of an IT-enabled approach to supporting individual accessibility. It has been reproduced in Annex D.

63 The other two strategic directions of ISO/IEC JTC1 for standards development are "portability" and "interoperability".

Rule 041:
When an external constraint of a jurisdictional domain requires use of a specific identification system with respect to a recognized Person identity (rPi) and/or with respect to a good, service and/or right, pertaining to the business transaction being modelled as scenarios and scenario components as re-useable business objects, such modelling shall be done in a manner which supports the requirement of the identification system referenced.[64]

Guideline 041G1:
Wherever possible, existing international standards for identification of Persons, i.e., as individuals, organizations and/or public administrations (including those of "organization Person") should be utilized.

Such key standards for the unambiguous identification of Persons include ISO/IEC 6523, ISO/IEC 7501 and ISO/IEC 7812[65].

Guideline 041G2:
Where the information bundles (IBs) or semantic components (SCs) pertain to a material or virtual object, existing standards in use for identification of the same should be utilized and specified.

Examples here include the international standards of ISO/IEC JTC1/SC31 "Automatic identification and data capture techniques" pertaining to the ubiquitous use of bar codes (such as found in the ISO/IEC 15416, 15417, 15418, 15419, 15420, 15921, 15923, 15924, 19526, 15934, 15438, 15459, 18000 series, etc., standards)[66].

Many, if not most, of the identifiers for the components in a business transaction are of the nature of a "composite identifier". A "composite identifier" is defined as:

> ***composite identifier: 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 inter-working are* ***rule****-based*
>
> *NOTE 1 dentifiers (in business transactions) are for the most part composite identifiers.*
>
> *NOTE 2 The rules governing the structure and working of a composite identifier should be specified.*
>
> *NOTE 3 Most widely used composite identifiers consist of the combinations of:*
>
> - *the ID of the overall identification/numbering schema, (e.g., ISO/IEC 6523, ISO/IEC 7812, ISO/IEC 7501, 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.*

64 On rules governing "recognized Person Itentity (rPI)", see Clause 6.2.3, "Person – identity and authentication", in ISO/IEC 15944-1:2002.

65 See further in ISO/IEC 15944-1:2002, its Annex D (Informative), "Unambiguous identification of entities in (electronic) business transactions".

66 The example provided is illustrative only. There are standards for the unambiguous identification of digital objects in standards of ISO/IEC JTC1 SC02, SC17, SC27, SC29, SC31, SC32, SC35, SC36 and SC37, as well as in the form of written and multimedia materials of ISO TC46, (e.g., ISBNs, ISSNs, etc.), TC68, TC104, TC154, TC201, TC211, TC215.

6.5 Jurisdictional domains and classification systems

With regards to classification systems, a key characteristic of jurisdictional domains is that:

(1) where they are geopolitical nature and issue laws, regulations, codes, etc., the implementation of such external constraints includes a particular perspective on the real world and from that perspective, a jurisdictional domain develops predefined and structured a classification system, and such a classification system is then to be utilized whenever that particular external constraint applies to the business transaction;

(2) where laws, regulations, etc. as external constraints are focused and established with respect to goods, services and/or right, by subject or discipline, etc., they, almost invariably, have a classification system for the domain which they govern and to which their rulebase applies.

For the purposes of this standard, “classification system” is defined as:

> ***classification system:*** *systematic* ***identification*** *and arrangement of* ***business*** *activities and/or* ***scenario components*** *into categories according to logically structured conventions, methods and procedural* ***rules*** *as specified in a classification schema*
>
> *NOTE 1 The classification code or number often serves as a semantic identifier (SI) for which one or more human interface equivalents (HIEs) exist.*
>
> *NOTE 2 The rules of a classification schema governing the operation of a classification system at times lead to the use of ID codes which have an intelligence built into them, (e.g., in the structure of the ID, the manner in which it can be parsed, etc. Here the use of block-numeric numbering schemas is an often used convention.*
>
> [adapted from ISO 15489-1:2001 (3.5)]

Rule 042:
Where an external constraint of a jurisdictional domain requires the use of a specific classification system and the same forms part of the business transaction being modelled, or as an identifiable and registered scenario component, i.e., as a re-useable business object, this shall be done in a manner which supports the requirements of the classification system being referenced.

Rule 043:
Where a classification system uses identifiers for each distinct entry,[67] (with the associated semantics in that classification system), such identifiers (or "composite identifiers") shall be utilized as well as their structure in modelling a scenario or scenario component.

In a classification system, the identifier for each distinct entry is often of the nature of a "composite" identifier representing a block-numeric coding approach, a hierarchical approach, etc. The use of such composite identifiers is very prevalent where the Source Authority as a jurisdictional domain (or private sector organization) has more than one official (or working) language. Here the (composite) identifier of a classification system (considered in e-business to be a Registration Schema) forms part of the IT interface equivalent with which are associated HIEs in multiple languages.

The same real world entity can and often is "classified" and assigned different identifiers in various classification systems. The ID of a real world entity in one classification system may well not be appropriate for use in another context.

[67] It is assumed that a classification system utilizes a unique (composite) identifier for each entry in that classification system. It is also assumed that where the classification system utilizes more than one language that it provides the HIEs for that entry in each of the languages it supports.

For example, Annex I provides an example of the classification of a real world object, i.e., a "potato" as classified in the context of the WCO's "Harmonized System Nomenclature". Within the context of another classification system perspective, (e.g., agriculture, environment, etc.), the same "potato" may well be assigned a different (composite) identifier because a different classification scheme applies[68].

6.6 Jurisdictional domains and the components of a business transaction

6.6.1 6.6.1 Introduction

Clauses 6.2 through 6.5 above identified principal requirements of jurisdictional domains with respect to these primary components of a business transaction. They identify some of the more common, i.e., primitive, types of requirements which jurisdictional domains impose on (electronic) business transactions depending on the nature of the parties involved, and the goal of the business transaction in terms of the good, services and/or right being exchanged.

Clause 6 in ISO/IEC 15944-1:2002 introduced three primary components of a business transaction; namely:

- the Person Component;
- the Process Component; and,
- the Data Component.

On the whole, external constraints are specified in writing particularly where their source is a jurisdictional domain. Jurisdictional domains as the primary source of external constraints prescribe, limit, govern or specify any aspect of a business transaction including:

- any aspect of the Person Component;
- any aspect of the Process Component; and/or,
- any aspect of the Data Component

and modelling the same as re-useable business objects in scenarios, scenario components and/or or scenario attributes.

6.6.2 Person component

6.6.2.1 Introduction

Clause 6.2.2 in ISO/IEC 15944-1 provided definitions and rules for *"Person, personae, identification and person signature"*. Clause 6.2.3 provided the definitions and rules for *"Person - identity and authentication"*. The purpose of this Clause in ISO/IEC 15944-5 is to build on these rules and definitions from an external constraints requirements perspective.

It does so by focusing on two key areas where the requirements of jurisdictional domain as a key source of external constraints on:

- the specification of a role qualification of a Person in a business transaction; and,
- the formation, use of registration and/or recognition of personae of Persons.

6.6.2.2 Role qualification of a Person

The Open-edi Reference Model and especially ISO/IEC 15944-1 of this multipart standard in its Clause 8.4 "Rules for the specification of Open-edi roles and rule attributes" noted the need to be able to support role qualification of a Person.

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68 There is a very close linkage between classification systems and ISO standards for the construction of a thesaurus. It is recommended that users of this standard familiarize themselves with the following two standards; namely (1) ISO 2788; and, (2) ISO 5964. {See further Clause 2 "Normative References"}

Here from an internal constraints perspective, buyers and sellers are free to specify any role qualification on the parties to be involved in a business transaction. Examples here include the use of an agent, a third party, whether one only deals with wholesalers, with buyers in a specified geographic area, or even in a specified jurisdictional domain, etc.

However, it is a common occurrence for jurisdictional domains to state external constraints which govern, if not prescribe, a role qualification(s) for Persons as parties to a business transaction.

Rule 044:
Any external constraint of a jurisdictional domain which governs, limits or qualifies a Person, a Person sub-type, any role qualification, etc., with respect to a business transaction of a particular nature shall be specified unambiguously and in a manner so as to be able to be modelled using an OeDT.

The application and implementation of this rule will result in scenarios and scenario components for which role qualifications are predefined.

Here it is noted that the rules which govern the external constraints of a jurisdictional domain may very well specify the nature and source of the recognized Person identity (rPi). For example, where a business transaction involves or requires the participation of a "professional", it is assumed that the party involved is a bona fide member of that profession in that jurisdictional domain thus having a rPi from a recognized Source Authority. Often such role qualifications are known as "licensed Persons", (e.g., physicians, custom brokers, transporters, notaries, property or real estate agents, licensed brokers, etc.)[69].

6.6.2.3 Personae as legally recognized names (LRNs)

In modelling business transactions involving internal constraints only, buyers and sellers are free to choose and negotiate the nature of the Person identities, especially the persona utilized. From a seller's perspective, the buyer can even be "Mickey mouse"[70] (as long as the payment for the good or services is secure, i.e., like a cash payment).

The two Clauses 6.2.2 and 6.2.3 in ISO/IEC 15944-1:2002 recognized that a Person can have multiple personae[71], i.e., name representations, and associated identifiers for use in the context of different business transactions and their governing rules. As such, a Person can and does have multiple "Person identities", i.e., unique combinations of a persona and an identifier. When utilized in a business transaction, a Person identity becomes a "recognized Person identity (rPi)", basically because such an activity is based on commitments made among the parties involved.

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69 See further in ISO/IEC 15944-1:2002 Clause 8.4 "Rules for specification of Open-edi roles and role attributes", and Clause 10.2 "Requirements in OeDTs for roles".

70 On "anonymity", see further in ISO/IEC 15944-1:2002 Clause D.5.2 "Anonymity" in Annex D titled "Existing standards for the unambiguous identification of Persons in business transactions (organizations and individuals) and some common policy and implementation considerations". In addition, one can purchase a "prepaid value card" (magnetic stripe or "chip" based) and utilize it in the role of "buyer" in an e-business transaction having the specified good or service delivered to any location anywhere in the world as specified via a (physical or electronic) address.

71 While "organizations" and "public administrations (as sub-types of Person) are limited by external constraints with respect to the variant personae they can use, no such constraints apply to individuals in the number of variant personae they can and do utilize in electronic business transactions. An increasing trend of individuals in utilizing the Internet is that of: (1) utilizing pseudonyms; and, (2) utilizing numbers to represent their phonetic alphabet base equivalents, (e.g., "4" = for) or Latin-1 characters as abbreviations for their meaning, (e.g., "U" = "you", "R" = "are, etc.).

Further, since many Internet-based services allow one to register and use their services for free (in large part because they are based on "advertising" driven business models), the variant forms of personae that a single individual may and does use on the Internet can be numerous. Here an increasing trend is that of the use by individuals of pseudonyms, i.e., a personae of a "fictional" nature, which may well have no link or bear any resemblance to any variant form of their actual name, i.e., they are not based on one (or more) of any of their existing legally recognized names (LRNs).

A common requirement of jurisdictional domains is that it imposes rules as external constraints on the formation and assignment of personae, i.e., names of a Person, as well as use of the same in specified contexts and roles.

It is a common requirement in business transactions for the parties involved to utilize a persona which is recognized as having a legal status of some kind. Further, external constraints of a jurisdictional domain often specify and require the use of a specified persona of a Person which has a legal status of some kind and is recognized as such by all parties concerned in a business transaction, i.e., is a "legally recognized name" (LRN), defined as follows:

> ***legally recognized name (LRN):*** ***persona*** *associated with a* ***role*** *of a* ***Person*** *recognized as having legal status and so recognized in a* ***jurisdictional domain*** *as accepted or assigned in compliance with the* ***rules*** *applicable of that* ***jurisdictional domain****, i.e., as governing the* ***coded domain*** *of which the* ***LRN*** *is a member*
>
> *NOTE 1 A LRN may be of a general nature and thus be available for general use in commitment exchange or may arise from the application of a particular law, regulation, program or service of a jurisdictional domain and thus will have a specified use in commitment exchange.*
>
> *NOTE 2 The process of the establishment of a LRN is usually accompanied by the assignment of a unique identifier.*
>
> *NOTE 3 A LRN is usually a registry entry in a register established by the jurisdictional domain (usually by a specified public administration within that jurisdictional domain) for the purpose of applying the applicable rules and registering and recording LRNs (and possible accompanying unique identifiers accordingly).*
>
> *NOTE 4 A Person may have more than one LRN (and associated LRN identifier).*

Rule 045:
A LRN may have both a long, i.e., complete, persona, or a short, i.e., truncated, persona.

The rules of a specific act or regulation of a jurisdictional domain governing the registration of a LRN often place little or no restriction on the number of characters, i.e., length, for that persona of a Person. (These at times are referred to as the long form and short form). However, IT-systems may require or set limits on the length of the persona of a Person it is able to support[72]. Such short forms are commonly referred to as a "truncated name". Where this is the case, rules exist for truncation of names in the applicable act or regulation. International standards with truncated names also have rules for truncation. A prime and most relevant example here is ISO/IEC 7501-3 which has detailed rules and examples for the truncation of names of individuals[73].

Rule 046:
The formation of a LRN of an incorporated organization, i.e., a legal person, is governed by the rules of the jurisdictional domain in which it is incorporated, registered and recognized as such.

Guideline 046G1:
When a jurisdictional domain agrees to establish a legal person, it usually assigns a unique identifier, i.e., ID code, for that entity as a mandatory element of such an identification process as part of the Registration Schema (RS) of it being the Registration Authority (RA).

---

72 A prime example is the maximum length of the name of a Person identity card. {See for example, the applicable rules here of ISO/IEC 7812:2000 *"Identification cards — Identification of issuers"*. For a brief summary of this standard in an e-business context, see Annex D.4.2.3 "(Global) Unambiguous identification of "Buyers and Sellers in ISO/IEC 7812" in ISO/IEC 15944-1:2002.

73 See further the multipart ISO/IEC 7501 standard *"Identification cards - Machine readable travel documents"*. For a brief summary of the multipart ISO/IEC 7501 standard in an e-business context, see Annex D.4.2.4 *"(Global) Unambiguous Identification of individuals — ISO/IEC 7501"* in ISO/IEC 15944-1:2002.

Guideline 046G2:
Where the jurisdictional domain has more than one official language, an incorporated organization may have equivalent LRN in each official language, i.e., as multiple HIEs, associated with its single identifier.

On the whole, the name of an incorporated entity, i.e., legal person, is unique within the jurisdictional domain within which it is registered and officially recognized. Corporate names can consist of characters, numbers or may be combinations of the same. Another type of LRN of an organization can be a trademark which at times is also utilized as a persona of the trademark holder.

Rule 047:
The establishment and representation of name(s) of a public administration, i.e., its personae, is determined by the jurisdictional domain of which it is part.

Guideline 047G1:
A public administration of a jurisdictional domain may or may not have a unique identifier of the nature of an ID Code within its Registration Schema (RS).

Guideline 047G2:
If the jurisdictional domain has more than one official language, the public administration may have equivalent LRNs in each official language.

Guideline 047G3:
A public administration may have both a long, i.e., complete, formal LRN as well as a short form LRN.

ISO 3166-1 provides an example of both the "official name" and the "short form" name of countries, the Source Authority for which is the Statistical Division of the UN (as approved by the UN Security Council).

Rule 048:
The personae of an individual shall include at least one LRN in order to confirm the existence of that individual as a "natural person", i.e., the birth certificate name (or a similar name)[74].

Rule 049:
The establishment and representation of an individual, i.e., its personae, is determined by the role and context of that individual within a jurisdictional domain, i.e., as controlled by a regulator and the associated public administration.

Guideline 049G1:
Each public administration, acting on behalf of a regulator, may and does have different rules as to which personae it will accept as being a legally recognized name for an individual and registered as such in the specific context and associated rulebase which it administers.

Guideline 049G2:
An individual, may and likely will have multiple and at times quite different LRN and associated different unique identifiers.

Examples here include differences among a birth name, currently common use name, a change in surname (due to marriage or legal name change), etc. A transliteration of an individual's birth name from one language into another language especially where different scripts are involved.

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74 While the common foundation document for the registration of the existence of an individual is the birth certificate, procedures exist for the establishment of a LRN for adopted children, foundlings, etc.

6.6.2.4 Truncation of a persona

In many, if not most, jurisdictional domains, there is no legal limit on the length, i.e., characters, of the persona by which a Person wishes to be known and thus identified by in a business transaction. At times, depending on the culture, naming convention of the jurisdictional domain, the need to provide a distinctive name (from a marketing perspective along with an acronym), the name of a Person (as individual, organization and/or public administration) may be very short or very long. Both the long form and short form may be legally recognized names (LRNs). For example, a legally recognized name for an incorporated Person as an organization may have both a formally registered (long) corporate name as well as a short corporate name (at times trademarked)[75].

However, in the application and implementation of a business transaction especially those involving the use of EDI and/or IT systems, it is necessary (and often required by the ISO standards utilized)[76] to place a restriction or limit on the number of characters which are permitted to be utilized for a persona.

As such, "truncation" is defined as:

> ***truncation***: ***rule-base process***, *explicitly stated, for shortening an existing* ***name*** *of an* ***entity*** *to fit within a predefined maximum length (of characters)*
>
> *NOTE Truncation may be required for the use of names in IT systems, electronic data interchange (EDI), the use of labels in packaging, in the formation of a Person identity (PI), etc.*

The application of a truncation process to a name of a Person is defined as:

> ***truncated name****: short form of a* ***name*** *or* ***persona*** *of a* ***Person*** *resulting from the application of a* ***rule-based truncation process***

Not all truncated names or persona representations are recognized from a jurisdictional domain perspective (even though they may well be from an internal constraints perspective). Consequently, it is necessary to qualify a truncated persona of a Person from an external constraints perspective as required by one or more "jurisdictional domains, i.e., as a "truncated recognized name" which is defined as:

> ***truncated recognized name (TRN): truncated name****, i.e.,* ***persona****, of a* ***Person*** *which has the properties of a* ***legally recognized name (LRN)***
>
> *NOTE 1 Truncated recognized name(s) may be required for use in machine-readable travel documents, (e.g., passports or visas), identity tokens, drivers' licenses, Medicare cards, etc.).*
>
> *NOTE 2 The source of a truncated recognized name may be a legally recognized name.*

In many jurisdictional domains there are no legal limits on the length of the registered birth name of an individual. Even if the birth name restricted to 200 characters or less in some jurisdictional domains, truncation of such a persona may still be required for an individual with respect to the provisioning a service or right by a jurisdictional domain.

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75 For example, a long name of "International Business Machines Inc." and a short (trademarked) name of IBM®; or a long name of "Information Management Services Inc." and a short trademarked name of "INFOMAN®".

76 Truncation of names is often mandatory in the issuance of identification cards or tokens such as in the issuance of pasports, debit/credit cards, driver's licenses, etc. Two key standards of particular relevance are those for the identification of Persons (organization and individuals) in business transactions. They are the ISO/IEC 7501, three-part standard titled "Identification cards – Machine readable travel documents"; and the ISO/IEC 7812, two-part standard tiled "Identification cards –Identifications of issuers.

For the complete titles and dates of these standards, see Clause 2 above. See also "Annex D (informative) Existing standards for the unambiguous identification of Persons in business transactions…" in ISO/IEC 15944-1:2002.

6.6.3 Process component[77]

In the context of a business transaction, a "process" is defined as:

> **process:** a series of actions or events taking place in a defined manner leading to the accomplishment of an expected result
>
> [ISO/IEC 15944-1:2002 (3.53)]

In ISO/IEC 15944-1:2002, there are five activities:

- Planning
- Identification
- Negotiation
- Actualization, and
- Post-Actualization

Rule 050:
Conceptually a business transaction can be considered to be constructed from a set of fundamental activities. They are planning, identification, negotiation, actualization and post-actualization.

These five basic sets of activities integrate existing well-known and widely used business models which take the perspective of the seller, the perspective of buyer and that of a combined buyer-seller view as well as that of contract formation. Also incorporated in this standard is the approach of "early loose couplings" and "late bindings". The five phases capture common external constraints of the nature of privacy/data protection, consumer protection and similar legal/regulatory requirements as external constraints on business transactions.[78]

Rule 051:
The five fundamental activities may take place in any order.

For example, data that is related to post-actualization aspects, (e.g., warranties, consumer protection requirements, etc.), may well be made available as part of the planning phase or the negotiation phase.

Rule 052:
A Person may terminate a business transaction by any agreed method of conclusion.

Agreed methods may include deciding not to respond, failing to respond within an agreed time period, not sending appropriate information for the next possible entries to the scenario, arriving at a stated termination point in the scenario. A common example here is that of one of the parties deciding not to respond at a specific step during a business process, (e.g., a time out).

Rule 053:
The five fundamental sets of activities may be completed in a single continuous interactive dialogue or through multiple sets of interactions among buyer and seller and possibly involve agents or third parties as well.

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[77] This Clause and its rules summarize essential aspects of the Process Component stated in Clause 6.3 in ISO/IEC 15944-1:2002. For process aspect pertaining to state transitions, see Part 4 and Clause 6.6.4.5 below.

[78] ISO/IEC 15944-1, Annex F "Business Transaction Model: Process Component" provides informative and explanatory text.

6.6.4 Data component

6.6.4.1 General

There are many categories of external constraints of jurisdictional domains which govern the management of sets of recorded information not only within an organization or public administration, but especially in information interchange among Persons. In this standard, we utilize the construct and concept of a “set of recorded information (SRI)” to serve as a neutral bridge or construct:

- between information management policies, organization of recorded information under the control of a Person from an internal behaviour perspective and that which it interchanges as an Open-edi party with other parties involved in a business transaction; and,
- between the requirements of a jurisdictional domain on a Person, which is subject to the same with respect to the management, access, and/or use of the recorded information under the control of that Person.

In this context, a “set of recorded information (SRI)” is defined as:

> ***set of recorded information (SRI): recorded information*** *of an* ***organization*** *or* ***public administration****, which is under the control of the same and which is treated as a unit in its information life cycle*
>
> *NOTE 1 A SRI can be a physical or digital document, a record, a file, etc., that can be read, perceived or heard by a person or computer system or similar device.*
>
> *NOTE 2 A SRI is a unit of recorded information that is unambiguously defined in the context of the business goals of the organization, i.e., a semantic component.*
>
> *NOTE 3 A SRI can be self-standing (atomic), or a SRI can consist of a bundling of two or more SRIs into another SRI. Both types can exist simultaneously within the information management systems of an organization.*

An example of a set of recorded information here would be all the Information Bundles (IBs) (and their Semantic Components (SCs)) forming part of the recorded information exchanged among the parties to a business transaction. Another example would be that combination of IBs (and their SCs) required for audit control, for evidentiary purposes or as specified in a particular legislative or regulatory requirement.

Many of these information management and interchange requirements arising from external constraints are already identified under Clause 6.5.3 "External Constraints" in ISO/IEC 15944-1:2002. These include confidentiality, integrity, use of notaries or third parties, specified presentations, etc.

One such external constraint of an information management and interchange nature which is noted several times and as an attribute of Open-edi scenarios and that of scenario components is that of "records retention"[79].

6.6.4.2 Record retention

As stated in ISO/IEC 15944-1:2002 records retention requirements need to be specified:

- in the scoping of an Open-edi scenario, (e.g., as a Post-actualization requirement, or a Data Component requirement);
- as an attribute of an Information Bundle, (e.g., for specifying internal constraints). {See ISO/IEC 15944-1 Clause 8.5.2.8 and Rule 140; and, for external constraints, see ISO/IEC 15944-1, Clause 8.5.2.9 and Rule 141}.

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79 Another common requirement is that of security services. Here many ISO/IEC and ITU standards already exist of a FSV nature which facilitates the specification and implementation of the same based on BOV requirements.

A very common external constraint of jurisdictional domains is that of requiring Persons to retain for a specified period of time sets of recorded information on their activities particularly those which involve the making of commitments with other parties, (e.g., in a business transaction). As stated in ISO/IEC 15944-1:2002 (p.53) *"there may be retention requirements for a specified time period for defined sets of recorded information, i.e., as one or more predefined groupings of Information Bundles"*.

Further, a common requirement of external constraints of a public policy nature is that they mandate records retention (and deletion) requirements, (e.g., consumer protection, privacy protection, etc.).

In order to bridge legal, operational, public policy and IT perspectives, records retention is defined in an Open-edi context[80] as:

> ***Open-edi records retention (OeRR):*** *specification of a period of time that a* ***set of recorded information*** *must be kept by a* ***Person*** *in order to meet operational, legal, regulatory, fiscal or other requirements as specified in the* ***external constraints*** *(or* ***internal constraints****) applicable to a* ***Person*** *who is a party to a* ***business transaction***

It is important to be able to specify which of the parties to a business transaction is responsible for retention of IBs or the complete set of recorded information. Records retention requirements of jurisdictional domains have conditions. The basic options here are identified in the following coded domain.

ISO/IEC 15944-5:02 Codes Representing Specification of Records Retention Responsibility				
IT Interface			**Human Interface Equivalent: Linguistic – Written Form**	
Source Authority ID	**Coded Domain ID**	**ID Code**	**ISO English**	**ISO French**
15944-5	02	00	other	autre
15944-5	02	01	seller is responsible	
15944-5	02	02	buyer is responsible	
15944-5	02	03	seller and buyer are both responsible	
15944-5	02	04	buyer shall specify to seller what IB to retain, (e.g., order number, transaction number, etc.)	
15944-5	02	05	seller and buyer shall use a common third party, (e.g., a notary)	
15944-5	02	06	regulator is responsible	
15944-5	02	07	regulator and seller are responsible	
15944-5	02	08	regulator and buyer are responsible	
15944-5	02	09	regulator, buyer and seller are all responsible	

80 Multiple definitions exist for "records retention" within a single jurisdictional domain as well as among jurisdictional domains, professional organizations, etc. In order to differentiate the concept of "records retention" within the context of e-business, e-government, etc., a unique label or term has been invented/coined, i.e. that of "Open-edi records retention (OeRR).

ISO/IEC 15944-5:02 Codes Representing Specification of Records Retention Responsibility				
IT Interface			Human Interface Equivalent: Linguistic – Written Form	
Source Authority ID	Coded Domain ID	ID Code	ISO English	ISO French
15944-5	02	10	regulator mandates the involvement of a (role) qualified or designated third party, i.e., on behalf of seller, buyer and regulator.	
15944-5	02	98	not known	inconnu
15944-5	02	99	not applicable	sans objet

Table 2 — ISO/IEC 15944-5:02 Codes Representing Specification of Records Retention Responsibility

NOTE Should there be a requirement for additional conditions for the specification of records retention responsibilities these can be added via a Technical Corrigenda to this standard or in the next edition of this standard.

On the whole, the greater and specific the external constraint governing the nature of the good, service or right being transacted the more extensive and specific the records retention requirements, (e.g., a business transaction involving radioactive isotopes (for medical purposes) requires records retention of a much more detail nature than that for aspirin).

The reverse of records retention is "disposition". Disposition is an authorized action to remove, i.e., alienate, a set of recorded information, from under the control of a Person and thereby extinguishing ownership and accountability. In the context of this standard, “Open-edi disposition” is defined as:

> ***Open-edi disposition:*** ***process*** *governing the implementation of formally approved records retention, destruction (or expungement) or transfer of* ***recorded information*** *under the control of a* ***Person*** *which are documented in disposition authorities or similar instruments*
>
> *[adapted from ISO 15489-1:2001 (3.9)]*

There are basically a limited number of disposal actions. These are identified in the following coded domain.

ISO/IEC 15944-5:03 Codes Representing Disposition of Recorded Information				
IT Interface			Human Interface Equivalent: Linguistic – Written Form	
Source Authority ID	Coded Domain ID	ID Code	ISO English	ISO French
15944-5	03	00	other	autre
15944-5	03	01	destruction or expungement	
15944-5	03	02	transfer to another organization	
15944-5	03	03	transfer to an archive (for historical and research purposes)	
15944-5	03	04	do not destroy, maintain and conserve as a permanent SRI	
15944-5	03	98	not known	inconnu
15944-5	03	99	not applicable[81]	sans objet

Table 3 — ISO/IEC 15944-5:03 Codes representing disposition of recorded information

81 This would apply to recorded information deemed to be transitory or ephemeral which can be discarded anytime.

NOTE Should there be a requirement for additional conditions for the specification of records retention responsibilities these can be added via a Technical Corrigenda to this standard or in the next edition of this standard.

It is a common external constraint of jurisdictional domains that a Person is required to retain sets of recorded information for a specified period of time. This is even more so where the recorded information pertains to a business transaction (and particularly where the buyer is an individual).

External constraints of a records retention nature have requirements which specify (1) when a retention requirement is to start, i.e., a limited number of triggers; and, (2) then a specified (minimum) retention period. On the whole, records retention requirements are triggered by an action or event. The basic conditions here from an external constraints perspective for "retention triggers" are limited. The most common ones are presented in the following coded domain.

ISO/IEC 15944-5:04 Codes Representing Retention Triggers				
IT Interface			Human Interface Equivalent: Linguistic – Written Form	
Source Authority ID	Coded Domain ID	ID Code	ISO English	ISO French
15944-5	04	00	other	autre
15944-5	04	01	start required retention period at date/time recorded information was received, created or collected	
15944-5	04	02	start required retention period from date of last action or use	
15944-5	04	03	start retention period at end of calendar year	
15944-5	04	04	start retention period at end of fiscal year	
15944-5	04	98	not known	inconnu
15944-5	04	99	not applicable [82]	sans objet

Table 4 — ISO/IEC 15944-5:04 Codes representing retention triggers

NOTE Should there be a requirement for additional conditions for the specification of records retention responsibilities these can be added via a Technical Corrigenda to this standard or in the next edition of this standard.

6.6.4.3 State Changes

A key characteristic of Open-edi is that "**parties control and maintain their states**". {See Clause 5.4, ISO/IEC 15944-1:2002}. As such, it is important to know whether or not the value of an Information Bundle (IB) (or one of its Semantic Components (SCs) interchanged among parties to a business transaction is allowed to be changed during any stage in the process component. **Knowing whether or not state changes are allowed for a specific IB or SC is important for the management of state description and automated change management of the state machines of the parties involved in an electronic business transaction.**

This is a requirement which also exists in modelling business transactions involving internal constraints only. However, those which exist here are likely to be a sub-set of those which arise from external constraints.

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[82] This would apply to recorded information deemed to be ephemeral or transitory in nature and thus would (likely) also have an ID code of 99 under Coded Domain 15944-5:03.

A related issue is that of "What happens to recorded information which existed prior to a state change being made"? It is important for parties to a business transaction to know this. In summary, two attributes are required to specify state change of data. They are:

- number of state changes allowed, if any; and,
- store change type.

The inter-working of these two attributes, i.e., as codes in two coded domains, covers the various combinations of state changes in the data value for each IB and SC as well as what actions are required with respect to both "new" and "old" data including those required for information life cycle management (ILCM) within an organization, audit trains, evidentiary requirements and any external constraints of this nature of jurisdictional domains.

ISO/IEC 15944-5:05 Codes for Specifying State Changes Allowed for the Values of Information Bundles and Semantic Components				
IT Interface			Human Interface Equivalent: Linguistic – Written Form	
Source Authority ID	Coded Domain ID	ID Code	ISO English	ISO French
15944-5	05	00	no state change allowed (default)	
15944-5	05	01	one state change allowed	
15944-5	05	02	two state changes allowed	
15944-5	05	03	three state changes allowed	
15944-5	05	04	four state changes allowed	
15944-5	05	05	five state changes allowed	
15944-5	05	06	six state changes allowed	
15944-5	05	07	seven state changes allowed	
15944-5	05	08	eight state changes allowed	
15944-5	05	09	no limit on the number of state changes allowed	

Table 5 — ISO/IEC 15944-5:05 Codes for specifying state changes allowed for the values of Information Bundles and Semantic Components

NOTE Should there be a requirement for additional conditions for the specification of records retention responsibilities these can be added via a Technical Corrigenda to this standard or in the next edition of this standard.

An example of use of Code "0" would be the transaction record ID number as the business transaction identifier (BTI), {See further Clause 6.6.4.4 below} i.e., the unique ID number assigned by the seller to an instantiated business transaction. Codes "1", "2", "3", etc., are used to deal with IBs and SCs pertaining to location information, (e.g., physical or electronic addresses), price and terms negotiations, the buyer changing its decision on a choice of options, etc.

An example of an IB (or SC) having a Code "09" with respect to state changes would be in item tracking in a logistics system, (e.g., the seller provides to a buyer a facility to access the seller or logistic provider system to track the movement of an item to be delivered to the buyer).

Rule 054:
An instantiated business transaction shall have one or more IB or SC for which no state changes are permitted. One of these is to serve as the transaction ID number, i.e., a business transaction identifier (BTI), for the instantiated business transaction.

Guideline 054G1:
It is advised that in modelling scenarios, scenario attributes roles, information bundles and scenario components that one set the state change code to "00" wherever applicable.

This Guideline serves to ensure that all parties to a business transaction agree to and have knowledge of permitted state change to the value of an IB or SC.

If a state change is permitted to the original data value of the IB (or its associated SCs) interchanged among the Persons involved, it is necessary to specify in the business object being modelled the store change type permitted. The most common, i.e., primitive, store change types are stated in the coded domain for "Codes Representing Store Change Type".

ISO/IEC 15944-5:06 Codes Representing Store Change Type for Information Bundles and Semantic Components				
IT Interface			**Human Interface Equivalent: Linguistic – Written Form**	
Source Authority	**Coded Domain ID**	**ID Code**	**ISO English**	**ISO French**
15944-5	06	00	others	autre
15944-5	06	01	store new data value and (expunge previous data value)	
15944-5	06	02	store new data value, expunge previous value with date/time stamp when state change occurred	
15944-5	06	11	store new data value and previous data value only	
15944-5	06	12	store new data value and previous data value only and add a date/time stamp	
15944-5	06	21	store new data value and "nn" previous values maintaining a sequence number of all state changes. here "nn" must be specified	
15944-5	06	22	store new data value and "nn" previous values maintaining a date/time stamp for each state change. here "nn" must be specified	
15944-5	06	31	store new data value and all changes maintaining a sequence number of all state changes	
15944-5	06	32	store new data value and all changes, maintain a date/time stamp for each state change	
15944-5	06	99	not applicable, i.e., no state change allowed	

Table 6 — ISO/IEC 15944-5:06 Codes representing store change type for Information Bundles and Semantic Components

NOTE Should there be a requirement for additional conditions for the specification of records retention responsibilities these can be added via a Technical Corrigenda to this standard or in the next edition of this standard.

One notes that a code "99" here works in tandem with a Code "00" in the previous Coded Domain. Use of a Code "01" or "02" means that having the previous value only is sufficient. This is often the case for change in location, (e.g., for physical or electronic address information). The use of the other codes links to ensuring record of decision, audit trails, evidentiary requirements and other external constraints which may apply due to the nature of the business transaction.

6.6.4.4 Business transaction identifier (BTI)

This standard makes the assumptions that:

1. any business transaction involving the making of commitments among two or more Persons requires the specification and support of one or more records retention requirements the source of which is an external constraint(s) of a jurisdictional domain(s);
2. that any number of IBs (and SCs) will be interchanged among the parties to a business transaction;
3. that when the negotiation phase of a business process is completed and before the actualization phase starts in a business, one has a complete and unique "binding" among the parties involved;
4. that at this point in the process a unique identifier is assigned to the business transaction among the parties to the business transaction, where in modelling
   - internal constraints only, that the seller assigns the business transaction identifier (even though the buyer may have provided a purchase order or similar identification and ID for authorization purposes); and,
   - external constraints, the regulator assigns the business transaction identifier which is either a new identifier or utilizes its existing case file identifier.

Further, in most cases the Person providing the business transaction identifier also provides a "print-out", in hard copy or soft copy form, of the essential set of recorded information for that instantiated business transaction record number. While it may be that from an internal constraints perspective that there are cases where this is not required among the parties concerned, (e.g., cash only, "all sales are final", barter, etc.), from an external constraints perspective, it is (on the whole) mandatory that an instantiated business transaction between a buyer and seller be assigned a unique and unambiguous identifier by the seller, (e.g., principally for taxation purposes of various kinds). Further, from an internal constraints requirements perspective, any business transaction which involves a post-actualization phase, (e.g., return policy, warranties, etc.), also requires the assignment of a unique ID number for that business transaction[83].

As such, a "business transaction identifier" (BTI) is defined as follows:

> ***business transaction identifier (BTI): identifier*** *assigned by a* ***seller*** *or a* ***regulator*** *to an instantiated* ***business transaction*** *among the* ***Persons*** *involved*
>
> *NOTE 1 The identifier assigned by the seller or regulator shall have the properties and behaviours of an "identifier (in a business transaction)".*
>
> *NOTE 2 As an identifier (in a business transaction), a BTI serves as the unique common identifier for all Persons involved for the identification, referencing, retrieval of recorded information, etc., pertaining to the commitments made and the resulting actualization (and post-actualization) of the business transaction agreed to.*
>
> *NOTE 3 A business transaction identifier can be assigned at any time during the planning, identification or negotiation phases but shall be assigned at least prior to the start or during the actualization phase.*
>
> *NOTE 4 As and where required by the applicable jurisdictional domain(s), the recorded information associated with the business transaction identifier (BTI) may well require the seller to include other identifiers, (e.g., from a value-added good or service tax, etc., perspective) as assigned by the applicable jurisdictional domain(s).*

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83 For example, where a buyer purchases a product as a gift to someone else, the recipient person is likely required to provide the "bill of sale" with its transaction record ID for purposes of return, exercise of warranty, etc.

6.6.4.5 Date/time referencing

Unambiguous date and time referencing, a.k.a. as "temporal referencing", has always been an important aspect in the recording of the commitment exchanges among all parties to a business transaction. Unambiguity in specification of temporal referencing has become even more important in the world of e-business where "time" has become as important as "date". In some types of business transaction involving trading and commercial transactions via on-line exchanges (e.g. stock exchanges, future markets, derivatives, currency hedging, etc.), the level of granularity, i.e. detail or precision, in temporal referencing has become very high.

Further, timers, triggers, events, state changes, transitions, etc. already having been recognized as key aspects of the Open-edi Reference Model and the modeling of business transactions through scenarios and scenario components[84]. In addition, many of the external constraints for which the source is a jurisdictional domain also have requirements of a temporal referencing/specification nature. Examples include:

- a specific date/time for a mandatory filing (of whatever nature) by Persons in general or sup-types of Persons in particular (e.g. as "individuals", organizations, and/public administrations);
- a specified date/time interval pertaining to the retention (and availability) of record information pertaining to a business transaction generally and/or from specific public policy requirements (e.g. consumer protection, privacy protection, etc.). {See further above Clause 6.3 and 6.6.4.2};
- specifying the "legal" dates/times in which a business transaction can take place or binding commitments can be made, a.k.a. known as "business days", "business hours", etc.;
- the specification of a particular time period during which actions related to a business transaction must be able to take place, (e.g. those of a post-actualization nature re voiding of a business transaction, return of merchandise, etc.);
- the specification of a time period which, if no action is taken pertaining to a business transaction, anything deemed; (1) to have value, (2) to be of the nature of a right or obligation, or, (3) any other aspect of a commitment exchange is deemed to become null and void (with no right of redress or ability to take further action, etc., a.k.a. "statute of limitations".

Historically, temporal referencing and specification has been and continues to be based on a temporal schema basically consisting of combination of a "date calendar[85]" and a "time clock". A temporal schema may have:

(1) a calendar with dates expressed in combinations of recurring date notations as cycles (and sub-cycles) at one or more levels of granularity, usually expressed as calendar year, calendar month and calendar day of month, and/or,

(2) a time "clock" as either a cyclical or continuous timekeeping system with recurring time intervals (e.g. a "24 hour" clock, a "GPS clock", etc.) and various levels of granularity reflecting the degree of specificity required.

In any case, whether (1) only, (2) only, or (1) and (2) above, a temporal schema is rule-based. The interworkings and application of the rules governing a temporal schema specify how it is to be referenced, represented, etc. in order to ensure the required degree of certainty, i.e. unambiguousness, in its application and use including in business transaction (as well as any business transaction model captured and specified in the form of scenarios and scenario components).

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[84] On the importance of temporal referencing in business transactions see, the ISO/IEC 14662:2004 "Open-edi reference Model", Annex C (informative) Example formal description techniques for modeling role behaviour"; and, the ISO/IEC 15944-1:2002 standard, Clauses 8.4.5 Role States, Clause 8.4.6 Role Transitions, Clause 8.4.7 Role Events , etc.

[85] See further ISO 19108:2002, Annex D (informative) "*Description of calendars*". It provides a very useful summary and examples of different types of calendars.

Many temporal schemas are in existence and use world-wide. Some have the same "time clock" notation (e.g. the 24 hour clock –irrespective of whether the start of day time is the same) but with different calendars, others have differing time clocks only[86]. This 1st edition of this part of ISO/IEC 15944 focuses on the more primitive requirements of external constraints, for which the primary source of such external constraints are jurisdictional domains. As such, those temporal schemas which are particular to a specific UN member state, a culture, a religion, etc. are currently not addressed in this part of ISO/IEC 15944 (even though they may well have legal status and form part of the legal requirements of one or more jurisdictional domains).[87]

At present the two most common temporal schemas in use world-wide for date/ time referencing and representations of dates and times are:

(1) the representation of dates and times based on the Gregorian Calendar (with this Gregorian calendar forming the basis for ISO 8601:2004[88]; and,

(2) the referencing and specification of time based on Coordinated Universal Time (UTC)[89].

Rule 055:
In the modelling of a business transaction, through a scenario and scenario components, and/or registering them as referenceable and reusable business objects, one shall specify the temporal schema, i.e., date/time referencing system, if one is utilized as well as the level of granularity supported.

Note one can model a business transaction through a series of processes which are event, action, etc. based, i.e., as a series of steps which take place after specified conditions (or states) are fulfilled. However, any instantiation of a scenario takes places in the real world and in real time.

Rule 056:
Any calendar, date/time referenced, etc., identified and referenced shall be one based on (or linkable to) an ISO 8601 or ISO 19108[90] and conformant[91] to the requirements of either one of these two standards.

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86 Here ISO 19108:2002 provides a very useful text in its Clause 5.3.2 "Calendars and clocks". It states,

"Calendars and clocks are both based on interval scales. A calendar is a discrete temporal reference system that provides a basis for defining temporal position to the resolutions of one day. A clock provides a basis for defining temporal position within a day. A clock must be used with a calendar in order to provide a complete description of a temporal position within a specific day…"

87 Examples here include
the day/time notation for a 24 hour clock day, i.e. when a day finishes and the next day starts;
the legally authorized "business days" in any UN member state (and/or its administrative subdivisions) and the conversely its "holy days" during which legally binding commitments cannot be made or transacted,
calendars in use based on a religious framework and having legal status in one or more jurisdictional domains;
those which apply to a specific industry sector or type of business activity; or,
many combinations of the same.

88 See ISO 8601:2004 (3rd ed.) "Data elements and interchange formats – Information interchange – Representation of dates and times" (English only).

89 Coordinated Universal Time (UTC) is a time scale maintained by the Bureau International et measures/International Bureau of Weights and Measures <http://www.bipm.fr> and the International Earth Rotation Service (ERS) <http://hpiers.obspm.fr> that forms the basis of a coordinated dissemination of standard frequencies and time signals. (Ref: ISO 19108:2002 *Geographic information — Temporal schema* (available in English only). See also ITU-R TF. 460-6 *Standard Frequency and time-signal emissions* (2002-02) and ITU-R TF.686 Glossary *and definitions of time and frequency terms* (2002-02) <http://itu.int/itudoc/itu-r/rec/tf/index.html>.

Basically the UTC is a stable frequency or rate which is used to count seconds. These seconds are then accumulated to form minutes, hours, days and years.

UTC provides the basis of "civil time" which serves as a legal time reference in most countries.

Greenwich Mean Time (GMT) is internationally replaced by UTC although UTC is often incorrectly referred to as GMT.

Rule 057:
Where the Gregorian calendar is utilized, the ISO 8601 compliant representation of

(1) a date in a YYYY-MM-DD format[92]; and,
(2) a time of day in an hh:mm:ss format[93],

shall be used.

Rule 058:
Where from an IT-system perspective and/or financial system needs perspective, a "GPS calendar clock[94]" or an "atomic clock[95]" is to be utilized, this shall be specified.

In order to avoid confusion, as to the exact date/time when a commitment is made or a business transaction concluded among parties involved on a world-wide basis, the GPS clock is often used as a common reference among all the parties concerned. From such a common date/time reference, parties can generate equivalent date/time references which map to that of their jurisdictional domain and local time. This is especially so for business transactions which take place on-line and are actualized in real-time with transfer of goods, services, an/or rights being finalized among the participating parties with immediate settlement and payment where a very high degree of granularity is required in date/time referencing. Example of the need for a high level of granularity in date/time referencing include financial services[96], stock exchanges, commodity markets, futures markets, derivatives, etc.

90 The focus of ISO 19108 is on standard concepts needed to describe the temporal characteristics of geographic information as they are abstracted from the real world. There is increased use of geospatial data within many disciplines and sector of economic activity. This is especially so in e-logistics applications of e-business, business process that incorporate both time and space in the movement/transfer of goods or rights from seller to buyer, etc.

91 ISO 19108 contains an Annex A "*Abstract Test Suite*" to ensure that an application schema is able to meet the requirements of its standard, i.e. for temporal reference systems.

92 See further Clause 4.1 "*Date*" in ISO 8601.

93 See further Clause 4.2, "*Time of day*" in ISO 8601.

94 The Global Positioning System (GPS) is a radio-navigation system that is available. GPS signals are broadcast for a constellation of 24 (or more) earth orbiting satellites and their earth stations. The GPS signals are derived from the atomic frequency standards on board of each satellite; they are widely used as a reference for time synchronization and frequency calibration. The GPS is funded and controlled by the US Department of Defense (DoD). From a standards perspective see further the NIST site at <http://tf.nist.gov/timefreq/gpstrac.htm>. From an educational perspective, including, how UTC is derived from GPS, see further <http://www.colorado.edu/geography/gcraft/notes/gps/gps_f.html>.

95 For more on this and the time/frequency service of NIST see <http://nist.time.gov/>.

96 See for example the multipart ISO 8583 standard "Financial transaction card originated messages — Interchange message specifications — Messages initiés par cartes de transaction financière — Spécifications d'échange de messages".

7 Rules governing the formation and identification of jurisdictional domains[97]

7.1 Introduction

The purpose of Clause 7 is to provide a mapping of the nature, structure and requirement of the international legal system of the UN member states serving as a primary source for external constraints governing most business transactions, as well as the modelling of the same through scenarios and scenario components. It does so by addressing the fundamental, i.e., more primitive, requirements of the legal environment, as requested by jurisdictional domains, in business transactions. These include the following categories of jurisdictional domains:

- as single entities, i.e., as UN member states;
- as entities resulting from international treaties, including those of the nature of,
  - a bilateral treaty
  - a plurilateral treaty
  - a multilateral treaty (or convention);
- as a supranational organization;
- as an international organization;
- as a regional entity;
- as a sub-type of a UN member state

In addition to, and based on the above, Clause 7 concludes with two approaches for the unambiguous identification and referencing of jurisdictional domains.

Rule 059:
The basic rules for the formation and identification of jurisdictional domains are governed by the Charter of the United Nations and more specifically by the Vienna Convention on the Law of Treaties.[98]

The normative and guiding document here is the United Nations Charter Article 102. The Vienna Convention on the Law of Treaties (Vienna Convention) is relevant as this convention defines a treaty for the purposes of the Secretariat of the UN.

Apart from Article 102 and the Vienna Convention the rules governing the formation and identification of jurisdictional domains as stated in the following documents govern: UNGA Resolutions (beginning with UNGARes 97/1) adopting the "Regulations to give effect to article 102 of the Charter of the UN" which govern the registration system and duties of states and the Secretary General of the UN. These, in turn, are interpreted by various "Notes Verbales" issued by the Legal Counsel to the Secretary General. Further, relevant documents are the Repertory of Practice of the United Nations Organs and the United Nations Treaty

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97 When this standardization project commenced, it seemed likely that work on categories or levels of jurisdictional domains by experts in international law was nearing completion. This has proved not to be the case. Consequently, work on former Clause 8 "Levels of International Regulatory Regimes" and associated Annex L, (as found in the 2nd CD & FCD versions) has been converted into an Annex H (Informative*): "Levels of International Regulatory Regimes*". Those requiring further and more detailed information on this subject, can consult the publications noted in Annex L (Informative) Bibliograpy,which were utilized in support of the development of this document. The assistance provided by Prof. Armand de Mestral in the development of this Clause 7 and Annex H is appreciated. (He is the holder of the Jean Monet Chair in the Law of International Economic Integration, and Co-Director of the Institute of European Studies, McGill University and Université de Montréal).

98 See further "Charter of the United Nations" (as signed 1945 and amended 1965, 1968, and 1973) available at <<http://www.un.org/aboutun/charter/>> and the "Vienna Convention on the Law of Treaties" (as signed 1945 and amended 1965, 1968, and 1973) available at <http://www.un.org/law/ilc/texts/treaties.htm>.

Section Handbook, both of which set out the practice of the UN Secretariat article by article. These documents are available online at the UN website.[99]

7.2 As single entities - UN member states

This clause focuses on scenarios and scenario components incorporating external constraints at the UN member state level, i.e., incorporating external constraints only of a single jurisdictional domain, (e.g., Australia, Canada, China, Finland, Germany, Japan, Korea, UK, USA, etc.)[100].

Rule 060:
UN member states as peer jurisdictional domains are to be referenced by their 3-digit numeric code as stated by the UN statistical system[101].

Rule 061:
Where the 3-digit numeric code of a UN member state is to be utilized in conjunction with, i.e. required to interwork with (1) a code representing an official (or de facto) language of that jurisdictional domain; (2) a code representing a currency recognized for use in that jurisdictional domain; and/or, (3) both (1) and (2), one shall use the standard default conventions for the identification, interworking and referencing of combinations of codes representing countries, languages and currencies as provided in Annex D[102]**.**

Currently different coding schemes exist for the identification of countries including the use of 2-alpha and 3-alpha code sets. At the same time 3-alpha code sets are also utilized to represent languages and currencies while 2-alph code sets are also use to represent languages. An unambiguous and systematic approach is needed when the codes sets representing UN member states, their language(s) and currency(ies) need to interwork in business transaction. {See further below Clause 7.8.2}. As such, one can model business transactions, pertaining to a UN member state, as Open-edi scenarios and scenario components, and then register, and reference them as business objects for use in a specified UN member state[103].

Quite often, the external constraints of a specific e-business protocol in one jurisdictional domain have much in common with those of other jurisdictional domains. As such, buyers or sellers as well as e-business service providers are free to use a scenario and scenario components developed as re-useable business objects in one jurisdictional domain as the base for the development of Open-edi scenarios and scenario components in another jurisdictional domain.

The use of the 3-digit numerical code (given pursuant to Article 8 of the regulations to give effect to Article 102 of the Charter of the United Nations) is appropriate but it must be remembered that treaties are also made by entities other than UN member states, i.e., non members, international organizations and the rare sub-national units of federations which are constitutionally empowered to do so.

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99 UN documents of the nature referenced in Clause 7 are freely available (in several languages) via the UN Documentation Center at http://www.un.org/documents.

100 See further Annex E (Informative) which identifies all UN member states which are the primary jurisdictional domains.

101 See further Annex E (Informative) which provides the 3-digit numeric codes for UN member states as defined by the UN Statistical System. For a listing of UN member states in alphabetical order of their short English language names, see the information provided by the UN Statistical Division at <http://unstats.un.org/unsd/methods/m49/m49alpha.htm>

102 For the current official or de facto languages of each UN member state, see further Annex E (Informative) "Codes Representing UN member states and Their Official (or "de facto") Languages".

103 For an example, see Annex I (Informative) in ISO/IEC 15944-1:2002. The title of this Annex I is *Scenario descriptions using the Open-edi scenario template: "Telecommunications Operations Map" example"*. It models a USA regulatory requirement for a telecommunications service provider.

7.3 Jurisdictional domains resulting from international treaties

7.3.1 Treaties as jurisdictional domains and their registration[104]

One key result of a formally registered and legally binding treaty is that it forms a new jurisdictional domain and thus an identifiable and referenceable source of external constraints.

UN member states as Person are free to establish binding agreements among themselves with other UN member states. This is known as establishing "treaties". Taking into account the UN definition of “treaty”, international law practices and the context of this standard, “treaty” is defined as:

> ***treaty:*** *international agreement concluded among* ***jurisdictional domains*** *in written form and governed by international law*
>
> *NOTE 1 Virtually all treaties are concluded among UN member states*[105]*.*
>
> *NOTE 2 Treaties among UN member states when coming into force are required to be transmitted to the Secretariat of the United Nations for registration or filing or recording as the case may be and for publication. {See further Article 80 of the Charter of the UN}.*
>
> *NOTE 3 Treaties can also be entered into by jurisdictional domains other than UN member states, i.e. non-members such as international organizations and the rare sub-national units of federations which are constitutionally empowered to do so.*
>
> *NOTE 4 A treaty can be embodied in a single instrument or in two or more related instruments and whatever its particular designations. However, each treaty is a single entity.*
>
> *NOTE 5 Jurisdictional domains can make agreements which they do not mean to be legally binding such as for reasons of administrative convenience or expressions of political intent only, (e.g., such as a Memorandum of Understanding (MOU)).*
>
> [adapted from the Charter of the UN and the Vienna Convention on the Law of Treaties]

The definition of a treaty is very broad. It is, in essence, a public, not a private, act and covers every agreement which is intended to be created and which actually creates rights and obligations in international law. The designation (treaty, convention, exchange of letters, protocol, statute, agreement, concordat, bilateral, regional, plurilateral, multilateral, etc.), is absolutely immaterial in determining whether it fits the category. All are treaties.

It is important to note that international law focuses on the existence of a treaty obligation under international law. It is not concerned with how a treaty is made binding in each domestic legal system. This varies greatly from one legal system to another and is fundamental to determining whether the treaty creates law in the domestic legal system of its own force or whether the appropriate steps have been taken to give legal effect to the treaty in the domestic system of each jurisdictional domain, i.e., within each of the jurisdictional domains that are signatories to the treaty. The first edition of this ISO/IEC standards set out here, focuses on the treaty in international law not on the treaty in the domestic legal system.

Rule 062:
As a general rule, in order to make a treaty (bilateral, plurilateral or multilateral), the parties must possess the capacity to make treaties and have the intention to bind themselves at international law. These include:

- **Conventions making or codifying international law, (e.g., Vienna Convention on the Law of treaties, Convention on Diplomatic and Consular Relations, Law of the Sea);**

---

[104] See further Clause 7.8.3 below on the registration of treaties.

[105] Non-UN member states, such as Switzerland before it joined the United Nations and the Holy See, are also empowered to conclude treaties.

- **Conventions creating regimes of private law, (e.g., Berne or Paris Conventions);**
- **Conventions creating international organizations, (e.g., WHO Constitution, Statute of the International Labour Organization, WIPO Convention); and,**
- **Conventions creating organizations and creating normative standards (UN Charter, Chicago Convention).**

7.3.2 Bilateral treaties

Rule 063:
Two jurisdictional domains, of whatever category, can bind themselves in a bilateral treaty, to form a new common jurisdictional domain, either generally or as pertaining to a specified set of goods, services and/or rights.

Basically, a "bilateral treaty" is a "between" and not an "among" relationship of jurisdictional domains who consider themselves to be "peers". A bilateral treaty is simply a treaty made by two (2) parties[106].

Taking into account the UN identification and registration requirements, a “bilateral treaty” is defined as:

> ***bilateral treaty:*** ***treaty*** *made between two* ***jurisdictional domains****.*
>
> *NOTE An important point here is that there is no intention to bind both parties under international law.While the written form of a bilateral treaty is governed by international law, a bilateral treaty by itself is not considered part of “international law”*

Bilateral treaties can exist among any level or category of sets of jurisdictional domain who consider themselves as being "peers" including:

- between UN member states;
- between a UN member state and an international organization
- where they are constitutionally empowered to do so, between administrative sub-divisions within a UN member state, (e.g., among provinces, territories, states, länder, cantons, etc.), as jurisdictional domains within a UN member state;
- where they are constitutionally empowered to do so, between administrative sub-division of two different UN member states. [Examples here include agreements between Canadian provinces and American (USA) states]; and,
- between two international organizations recognized as jurisdictional domains.

Bilateral treaties between peer jurisdictional domains may well serve as sources of external constraints on business transactions include those referred to as "Exchange of Letters", "Memorandum of Understanding (MOU)", etc. International organizations can make treaties between themselves. Most such treaties deal with administrative cooperation.

It is probable that not all agreements between subdivisions of two different federal states could be treaties. The starting assumption is that subdivisions of UN member states are not capable of treaty making. A treaty made between two such subdivisions may be constitutionally binding under the law of the federation in question but it is not an international treaty. It is an inter-provincial agreement not an international treaty.

Only if the Constitution of the federation in question allows treaty making (for limited purposes this can happen in Germany, Switzerland, the Former Soviet Union, Belgian Regions and Cultural Communities). But in other countries such as Canada, Australia or the United States this cannot happen. In the USA it is constitutionally

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106 The significance of the “between and not among” distinction may be significant for the ISO (e.g. for modeling purposes) but in international law it does not seem to be legally significant.

prohibited[107]. Thus, if the sub-divisions have the constitutional capacity, they may make treaties in some areas, usually subject to central government scrutiny. There may be some increase in this activity but it remains marginal on the international scene as UN member state actors are already too numerous to allow many more.

7.3.3 Plurilateral treaties

Rule 064:
Three or more jurisdictional domains, of whatever category, can bind themselves via a plurilateral treaty to form a new jurisdictional domain, either generally or as pertaining to a specified set of goods, services and/or rights.

Such a legally binding agreement, which also serves as a single common source of external constraints is known as a "plurilateral treaty".

Basically, a "plurilateral treaty" is one among jurisdictional domains who consider themselves to be "peers".

A plurilateral treaty is defined as follows:

> ***plurilateral treaty:*** ***treaty*** *among a defined set of* ***jurisdictional domains***
>
> *NOTE A plurilateral treaty restricts the jurisdictional domains which may become signatories generally on either:*
>
> - *a geopolitical basis, (e.g., NAFTA, MECROSUR, European Union, etc.); or*
> - *some other set of criteria which candidate members must meet and whose membership must then be approved by the existing membership, (e.g., WTO).*

Plurilateral treaties can exist among any level or category of jurisdictional domains as "peers" including:

- among UN member states;

  A prime example here is the North American Free Trade Agreement (NAFTA) as well as its "environment" and "labour" sub-agreements;
- where constitutionally permitted, among administrative sub-divisions within a UN member state;
- where constitutionally permitted, among administrative sub-divisions of three different UN member states; and,
- among three or more international organizations.

Plurilateral treaties among peer jurisdictional domains may well serve as sources of external constraints on business transactions and the modelling and registration of the same as business objects.

The expression and concept of "plurilateral" has limited usage. It is used principally in trade law and refers to certain agreements under the aegis of the WTO to which UN member may bind themselves but which they are not bound to accept by virtue of their membership in the WTO, (e.g., the Agreement on Bovine Meat).

The key distinction in international usage between a plurilateral treaty and a multilateral treaty is that multilateral generally implies the ambition to become universal or near universal whereas a plurilateral treaty does not.

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[107] Canadian provinces and US states cannot make treaties but they can sign administrative agreements with each other if their federal governments permit it.

7.3.4 Multilateral treaties (or conventions)

Rule 065:
Three or more jurisdictional domains can bind themselves via a multilateral treaty to form a new jurisdictional domain either generally or as pertaining to a specified set of goods, services an/or rights.

Such a legally binding agreement, which most often has the purpose of becoming universal or global in nature (depending on the number of signatory UN member states) also serves as a single common source of external constraints is known as a “multilateral treaty”.

A “multilateral treaty” is defined as:

> ***multilateral treaty***: ***treaty*** *(or convention) that has the ambition to become universal (or near universal) and thus bind most of the international community by declaring general rules of law, or by creating general regulatory regimes*
>
> *EXAMPLES Law of the Sea, Law on Genocide.*
>
> *NOTE 1 A multilateral treaty may have the goal of creating a regulatory regime of law for a particular area or major multilateral institution, i.e., Agreement Establishing the WTO, Kyoto Protocol, Safety of Life at Sea Convention.*
>
> *NOTE 2 A multilateral treaty may allow for reservations or the treaty may be subject to many amendments which do not bind all parties or require all parties to undertake the same legal obligations, (e.g., the Berne and Paris conventions).*

A multilateral treaty or convention is a treaty that has ambitions to bind most of the international community by declaring general rules of law (e.g., Law of the Sea, Genocide) or by creating a regulatory regime of law for a particular area or a major multilateral institution (e.g., Agreement Establishing the WTO, Kyoto Protocol, Safety of Life at Sea Convention). Under normal circumstances, it can be assumed that all parties undertake the same legal obligations. However, if reservations are possible or if the treaty has been subject to many amendments which do not bind all parties, (e.g., Berne and Paris Conventions) this may not be the case.

7.4 As a supranational organization

There is a new category. The word supranational is sometimes confused with international. It is in fact much more, as it implies a capacity to act upon its members to make decisions and laws which are binding, even without the consent of the member state. The only real example today is the European Union (EU). The EU has been described as a new legal order neither domestic nor international. But it has the capacity to make laws which are the equal of laws made by member states, and has the capacity to bind itself to bilateral, plurilateral and multilateral treaties.

7.5 As an international organization

Jurisdictional domains as an "international entity" pertain to "international agreements" according to the Vienna Convention. Under the Vienna Convention [1.1] the term “intergovernmental organization” is considered to be a synonym for “international organization”.

There is no difference in the effect of legal regimes created by a specialized agency of the UN and rules inherent in or produced by other intergovernmental organizations. One can certainly classify by function, by range and scope of powers by capacity to bind members etc. but this is a complex task and one must be sure of the purpose before undertaking it.

An international organization having the properties and behaviours of a jurisdictional domain and recognized as such by UN member states often serves as the primary source of external constraints. Examples include the ILO, ICAO, IMO, ITU, WCO, WIPO, World Bank, WTO, etc. (see further Clause 2.2, “Referenced specifications”, and Annex H (informative), “Levels of international regimes”).

7.6 As a regional entity

The concept and term "regional entity" and "regional treaty" is used in various contexts and at different levels. There are indeed many regional treaties but there is absolutely nothing special about these agreements as treaties. Legally they are no different from bilateral or multilateral treaties and may be indistinguishable from plurilateral treaties. They are most often used on issues of economic integration or environmental cooperation. The expression "regional" is used to denote a treaty binding all or some UN member states situated in the same region. Examples of jurisdictional domains as regional entities which serve as sources of external constraints for their signatory UN member states include NAFTA, MECROSUR[108], etc.

7.7 As sub-types of a UN member state

Each UN member can sub-type its jurisdictional domains on a function/accountability basis either mirroring the approach of the UN system or not. As set out above, while a UN member state may have whatever subdivisions it wishes (states, provinces, cantons, counties, regions, municipalities, territories, etc.), from the treaty-making perspective the only question is whether they have treaty-making capacity under their constitution and whether other members of the international community, i.e. UN member states, are prepared to enter into binding treaties or non-binding agreements with them.

A further issue is whether international law and diplomatic practice allow these entities to play a role on the international scene. Some organizations (La francophonie, UNESCO) allow the limited participation of sub-federal and sub-national units. But this is exceptional and is not yet generalized or automatic. Other organizations (WTO) reject the presence of sub-national units even in negotiations. It is often *sui generis* and the result of special diplomatic arrangement.

A special case is the result of the particular relationship of the European Union and its member states. Some organizations (WTO) allow both the EU and its member states to be full members but others still resist and would force the EU and its members to make their election. In the WTO, the EU Commission speaks exclusively for its member states and they cannot speak against it.

7.8 Unambiguous identification and referencing of jurisdictional domains

7.8.1 Introduction

Jurisdictional domains are identified and referenced in one of two basic ways; namely:

- jurisdictional domains as UN member states including administrative sub-divisions of UN member states, i.e., as parts of whatever nature, legal status, and assigned competencies or powers to enter into agreements or arrangements with other jurisdictional domains; or,
- jurisdictional domains resulting from legally binding treaties be they bilateral, plurilateral, or multilateral, in accordance with Article 102 of the Charter of the United Nations, the Vienna Convention of the Law of Treaties and UNGA Resolution 97/1.

7.8.2 Unambiguous identification and referencing UN member states including their administrative sub-divisions

Various schemas for coded domains exist and are in use for the identification of UN member states. Many are in use[109]. Further the official short and long name of each UN member state, as recognized by the UN, is unique both in the official language(s) of the UN member as well as in the official language(s) of that UN member state[110].

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108 MECROSUR is the acronym (for what started as a free trade agreement (FTA)) among a number of South American UN member states. Its current members, and associate members, include: Argentina, Bolivia, Chili, Columbia, Ecuador, Paruguay, Peru, Venuzuala and Uruguay. For more information, as to how and where MECROSUR as a regional entity is a source of external constraints on business transactions within it as a jurisdictional domain, see http://mecrosur.int.

109 See Annex D (Normative) below for some examples on the use of such coded domains.

110 See Annex E (Informative) below for the official UN names of each of its member states.

The UN Statistical Division has as part of its mandate that of assigning a unique and stable identifier to each UN member state, i.e. as a 3-digit numeric code.[111] Further upon resolutions of the UN General Assembly (UNGA), the UN Statistical Division assigns a new 3-digit code to a geopolitical entity (e.g. as a prospective member of the UN, Palestine and the Western Sahara being two recent examples). International standards use these UN 3-digit ID codes and it is this UN ID code which is subsequently included in the ISO 3166-1 standard.

It is important to note that these 3-digit numeric codes do not change even though the short and long names of the country may change (along with their associated 2- and 3-alpha codes. Further from a jurisdictional domain perspective, the UN 3-digit ID code follows the "legal Person" and remains with it, even though the boundaries of the geopolitical entity may change.

Rule 066
In order to ensure unambiguous identification in referencing UN member states, the 3-digit numeric codes of the UN Statistical Division representing the UN member state shall be utilized as its primary identifier[112].

UN member states often have one or more levels of administrative subdivisions. Often these "sub-jurisdictional domains" are not homogenous in nature. Further, the ability to serve as sources of external constraints of the administrative sub-divisions varies[113].

Guideline 066G1
For the identification of administrative sub-divisions of UN member states, one can consult ISO 3166-2 but with respect to their legal status this information should be obtained from the UN Ambassador or the government of the UN member itself[114].

7.8.3 Unambiguous identification and referencing of jurisdictional domains resulting from legally binding treaties

Rule 067:
Treaties when entered into force shall be transmitted to the Secretariat of the United Nations for registration or filing or recording as the case may be and for publication.

A treaty is a single entity. Each treaty has its own UN number. This may mislead those expecting that all related treaties should come under the same number. Only direct amendments to a single treaty will be recorded under that treaty and continue to come under the same number. Many agreements amending a treaty or adding substantially to it will be labelled under a new and totally unrelated number. (e.g., the 2 Geneva Protocols on the Law of War). For the purposes of registration they are new documents and therefore get new ID numbers.

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111 The UN Statistical Division also has unique identifiers for many types of geopolitical entities which are not UN member states but this is the result more of "historical accumulation" and reflecting of the geopolitical world when the UN was established. Example are listed in the entries in the matrices in Annex E while Annex J contains a list of non-UN member states which do have a UN Statistical Division maintained 3-digit ID code and are also listed in ISO 3166-1 (some also again in ISO 3166-2).

112 See also Annex E (Informative). ISO 3166-1 is harmonized with the UN Statistical Division, i.e. when the UN Statistical Division ads a 3-digit ID code or changes the short or long name of a UN member state, ISO 3166-1 is amended accordingly.

113 See for example, those of former colonial powers such as England or France. For a recent case study on the USA and all its varied subtypes of administrative subdivisions, see the *Report on Multiple USA FIP Standards for "Codes Representing Administrative Subdivisions of the USA":Analysis And Recommendations*, NIST, 2002.

114 Addressing this and related issues is of a nature of a level of granularity which goes beyond the focus on the more primitive aspects of this 1st edition.

Some treaties (e.g., the Agreement Establishing the WTO) come with the obligation to obey a group of subordinate agreements, i.e., the WTO "Covered Agreements", which are not deemed to be separate treaties. But in other cases, states as members of an international organization, and bound by the convention creating it, will not be bound by subsequent treaties made under the aegis of that organization. These subsequent treaties will carry separate and different numbers in the UN Treaty Series (UNTS).

Registration and publication are certain to happen (except for those exempt from publication, explained below). The actual date of publication in the United Nations Treaty Series may be long after the date of registration as publication does not occur until the treaty has received sufficient ratifications to enter into force. Filing and recording relate to those treaties which the Secretariat does not have to publish, as these treaties are binding upon non-UN members or are exempted by the Regulations from the necessity of publication. Some categories of bilateral treaties have, since 1978, been exempted from the obligation to publish. But not from the duty to register and receive a UNTS number. This is done essentially for reasons of cost and convenience. It makes some sense in a paper-driven world where the UNTS is published as a book and publication delays are considerable. If the UNTS existed essentially online it would made less sense. The categories are:

- assistance and cooperation agreements;
- agreements on the organization of conferences, and,
- agreements that are to be published in some other fashion by the UN or a Specialized Agency.

Rule 068:
Only one UN member state is required to register and having done so all other parties to the treaty are thereby discharged from the same duty.

The UN Secretariat has issued complex instructions as to the manner of registration. Today, registration must occur in both paper and electronic form. The official text in all language versions must be filed with the UN Secretariat. If no English or French version exists, an official translation in one of those languages must be filed with the UN. The UN registration number is given as a function of the time and date of filing as received by the UN Secretariat. The only exception to this happening is when there is doubt as to the true nature of the instrument and the UN Secretariat needs time to determine whether it is actually within its definition of a treaty.

Rule 069:
Each "treaty" (or equivalent) registered with the UN Secretariat is assigned a unique identifier, i.e., the UNTS number, in accordance with the rules governing this Registration Schema (RS) of the UN.

For example the Vienna Convention on the Law of Treaties is registered as "No 18232"[115], (on "3 May, 1969).

The obligation to file occurs only when the treaty enters into force, i.e., when it becomes legally binding. This will be immediately on signing or exchange of instruments of ratification, for a bilateral agreement, but may only occur long after signature in the case of a multilateral treaty, which usually only enter into force after a given number (often 60) states have ratified. This is a source of serious inconvenience for those seeking to plan and to know about the impact of a multilateral treaty, as it will not be officially published in the UN Treaty Series (UNTS) for a long period of time. Those wishing to know of its terms have then to rely on unofficial sources or request information from a government or international organization.[116]

115 As signed 1969, vol. 1155 U.N.T.S p. 331, In force 1980) and available at <http://www.un.org/law/ilc/texts/treaties.htm>.

116 A long period of time can lapse before a registered treaty is published. During that time the UN Secretariat is required to furnish information about the treaty, often against payment of the cost of transmitting the information.

Guideline 069G1:
Even when published under its UNTS number, the UNTS document only gives the official text. It does not assist in determining whether there have been amendments or how many UN member states are currently bound by it.[117]

Registration and publication and information as to the UN member states who are parties to a treaty do not necessarily always give a complete sense of the obligations assumed by states. It is possible that Reservations have been registered by UN member states against certain obligations of the treaty.

Guideline 069G2:
Some treaties, (e.g., the Law of the Sea Convention) explicitly forbid reservations while others implicitly render them impossible (e.g., the Genocide Convention)[118]***.***

Knowledge of one treaty number does not give any sense of the numbers of related treaties. The UN Secretariat issues online descriptions of groups of related treaties (e.g., terrorism, law of the sea, human rights) but they all have separate UNTS numbers.

In addition, to international treaties registered as treaties with the UN, jurisdictional domains be they UN member states or administrative sub-divisions of UN member states can make legally binding commitments with states and among themselves in the form of a new "framework of authority", many categories of which have the properties and behaviours of jurisdictional domain.

UN member states and other governmental entities can make agreements which they do not mean to be legally binding for reasons of administrative convenience. The expression generally used is Memorandum of Understanding (NB NOT Exchange of Letters). The essence of such understandings is that they are not binding but are expressions of political intent only.

The UN Secretariat can register Unilateral Statements or Commitments. UN member states have the capacity to bind themselves unilaterally and hence such commitments can be treated like treaties.

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[117] This information must be sought from the UN Secretariat which receives the information or from the Depositary state or organization. In some cases the UN is itself the Depositary. It is the duty of the Depositary to keep a full register of all pertinent information on that treaty but on that treaty only, and not upon related treaties in the same field.

[118] Information on reservations and the acceptance or rejection of reservations by other parties is available from the UN Secretariat once the treaty is registered or from the Depositary.

8 Template for the identification of external constraints of jurisdictional domains[119]

8.1 Introduction and basic principles

The approach taken for Clause 8 is the same as that for ISO/IEC 15944-1 of this multipart standard (as well as that taken in ISO/IEC 15944-2).

This Clause builds on the structure developed in Clauses 1 through 7. Together with the rules contained in these clauses, it provides the user with the rules for the specification of Open-edi scenarios, Open-edi scenario attributes and attributes of scenario components, i.e., roles, information bundles (IBs) and semantic components (SCs). The purpose of this template, like the others, is to capture in a systematic, i.e., coded form, their aspects.

8.2 Template structure and contents

Open-edi scoping attributes from ISO/IEC 15944-1 sub clause 7.3, *"Template for specifying scope of an Open-edi scenario, and specification attributes"*, from ISO/IEC 15944-1 subclause 8.2.3, *"Consolidated template of attributes of Open-edi scenarios, roles and Information Bundles"*, are repeated for convenience.

Rule 070:
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 internal 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.

Scenario scoping and specification attributes ensure that all the information required for the **Business Operational View (BOV)** of an Open-edi scenario, its components and all attributes required to be specified, (and registered for re-use) are captured in a systematic and explicit manner. They are captured at the scenario scoping level as "scenario scoping attributes[120]" and at the scenario level itself as "attributes of Open-edi scenarios, roles and Information bundles"[121].

Development of scoping of scenarios, the development of scenario components, etc. requires the use of these templates and ensuring that for each of the attributes listed in the templates one enters a Decision Code as specific in ISO/IEC 15944-1, Clause 7.3.1 and with its rules summarized here as follows:

1) Decision Code (Col.2) must be specified, i.e. it shall not have a "blank" or "null" value
2) The two valid Decision Codes are,
   - applies = 1 (Yes)
   - does not apply = 2 (No)

Once the Decision Codes for scenario scoping and specification attributes of ISO/IEC 15944-1 are determined, the scenario specification would then be formally expressed in an OeDT according to OeDT requirements as prescribed in ISO/IEC 14662:2004 and elaborated on in ISO/IEC 15944-3 of this multipart standard. The Open-edi Scenario Scoping ID Tags and Open-edi Scenario component **ID codes** of ISO/IEC 15944-1 shall be explicitly associated with the OeDT artefacts. This having been done also permits for the registration of scenarios and scenario components as identifiable and re-useable business objects. (See further ISO/IEC 15944-2:2006 titled "*Part 2: registration of scenarios and their components as business objects*").

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119 This Clause is based on and similar in structure to Clauses 7, 8 and 9 in ISO/IEC 15944-1:2002.

120 See further ISO/IEC 15944-1:2002, Clause 7.3 "Template for specifying scope of an Open-edi Scenario".

121 See further ISO/IEC 15944-1:2002, Clause 9.2.3 "*Consolidated Template of attributes of Open-edi scenarios, roles and Information Bundles*". (Included here also are attributes of Semantic Components (SCs)).

The two templates which follow are those taken from ISO/IEC 15944-1:2002 as found in its 7.3.2 and its Clause 9.2.3. **The attributes which have been added are those resulting from the identification of requirements of jurisdictional domains as sources of external constraints, i.e. Clauses 5, 6 and 7 of this document and the rules it contains**. These are in addition, to rules already stated in ISO/IEC 15944-1:2002 which pertain to external constraints {See further, in this document, Annex B.3 "*Consolidated List of Rules in ISO/IEC 15944-1:2002 pertaining to External Constraints"*}.

Attributes which have been added to these two templates resulting from the requirements of this part of ISO/IEC 15944-5 have been indicated with an asterisk (*) and inserted in the existing templates of ISO/IEC 15944-1.

8.3 Template for specifying the scope of an open-edi scenario

IT-Interface		Linguistic Human-Interface Equivalents			
Scope Tag ID Code (1)	**Decision Code** (2)	**Name (English)** (3)	**Name (French)** (4)	**Name (Other)** (5)	**Spare** (6)
1000		**BUSINESS GOAL OF BUSINESS TRANSACTION-** **NO EXTERNAL CONSTRAINTS**			
1010		**Business goal of business transaction includes external constraints**			
1040		Persons (no external constraint)			
1041		Persons: Individual <-> Individual			
1042		Persons: Individual <-> Organization[122]			
1043		Persons: Individual <-> Public Administration			
1044		Persons: Organization <-> Organizations[123]			
1045		Persons: Organization <-> Public Administration			
1046		Persons: Public Administration <-> Public Administration			
1060		Bilateral Transaction Model			
1061		Mediated Business Transaction Model			
1065		Defined Market Model			
1066		Undefined Market Model			
1070		Immediate Settlement Model			
1071		Separate Settlement Model			
1080		EXTERNAL CONSTRAINTS AND PUBLIC POLICY			

[122] 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".

[123] 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)
1081*		External constraints of a (general) public policy nature apply			
1082*		External constraints of a consumer protection nature are supported			
1083*		External constraints of a privacy protection nature are supported			
1084*		External constraints of an "individual accessibility" nature are supported			
1085*		External constraints of a human rights nature are supported			
1100		AGENTS AND THIRD PARTIES			
1110		**Business Transaction allows for Agents**[124]			
1111		Buyer Agent			
1112		Seller Agent			
1130		**Business Transaction allows for Third Parties**[125]			
1131		By mutual agreement of buyer and seller (as **internal constraints** only)			
1132		external constraint(s)			
1150*		**External Constraints and agents**			
1151*		External constraints require a buyer to use an agent			
1152*		External constraints require a seller to use an agent			
1160		EXTERNAL CONSTRAINTS AND THIRD PARTY			
1161*		External constraints require participation of a qualified third party			
1170		EXTERNAL CONSTRAINTS AND REGULATOR			
1171*		External constraints require direct participation of a regulator			

[124] 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 Clause 8.4.2.5 in Part 1.

[125] 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 Clause 8.4.2.5 in Part 1.

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)
1172*		External constraints allow for a third party to act on behalf of a regulator, i.e. interacting with both buyer and seller			
1173*		External constraints allow for an agent to act on behalf of the regulator			
1180		DATE/TIME REFERENCING[126]			
1181*		Applicable Calendar Specified			
1182*		Applicable Clock (and level of granularity) specified			
1200		PROCESS COMPONENT: All five sets of distinct activities covered.			
1210		PLANNING			
1215		Public information on goods/services provided by a seller			
1220		Public information on goods/services needed by buyer			
1225		Predefined/referenceable Catalogue			
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)[127]			
1260		Identification of Person able to make commitment[128]			
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			

126 For applicable rules, see above Clause 6.6.4.5.

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

128 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)
1350		ACTUALIZATION			
1355		Immediate Settlement			
1360		Separate Settlement			
1400		POST-ACTUALIZATION			
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			
1530*		SPECIFICATION OF RECORDS RETENTION RESPONSIBILIY[129] (in support of internal and/or external constraints)			
1540*		SPECIFICATION OF DISPOSITION OF RECORDED INFORMATION[130]			
1541*		Specification of disposition of recorded information from an internal constraints perspective			
1542*		Specification of disposition of recorded information from an external constraints (jurisdictional domain requirements) perspective			
1550*		SPECIFICATION OF RETENTION TRIGGERS[131]			
1560*		SPECIFICATION OF STATE CHANGES[132]			

[129] If applicable, i.e. as applying to the set of recorded information pertaining to the business transaction as a whole, utilize Coded Domain "ISO/IEC 15944-5:02 Codes representing Specification of Records Retention Responsibility". See also Clause 6.6.4.2 above.

[130] If applicable, i.e. as applying to the set of recorded information pertaining to the business transaction as a whole, utilize Codes Domain "ISO/IEC 15944-5:03 Codes Representing Disposition Of Recorded Information". See also Clause 6.6.4.2 above.

[131] If applicable, i.e. as applying to the set of recorded information pertaining to the business transaction as a whole, utilize Coded Domain "ISO/IEC 15944-5:04 Codes Representing Retention Triggers". See also Clause 6.6.4.2 above.

[132] If applicable, i.e. as applying to the set of recorded information pertaining to the business transaction as a whole, utilize Coded Domain "ISO/IEC 15944-5:06 Codes store change type for Information Bundles and semantic comonents". See also Clause 6.6.4.3 above.

IT-Interface		Linguistic Human-Interface Equivalents			Spare
Scope Tag ID Code (1)	Decision Code (2)	Name (English) (3)	Name (French) (4)	Name (Other) (5)	(6)
1570		SPECIFICATION OF STORE CHANGE TYPE[133]			
1600		Business requirements on FSV – No external constraints[134]			
1610		Service: Information Bundle Integrity			
1620		Service: Confidentiality of IB contents			
1625		Service: Non-repudiation of receipt			
1630		Service: Proof of Time IB creation[135]			
1635		Service: Notarization of IBs			
1640		Service: Quality of Service (QoS)			
1700		EXTERNAL CONSTRAINTS			

8.4 Consolidated template of attributes of Open-edi scenarios, roles and information bundles[136]

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

133 If applicable, i.e. as applying to the set of recorded information pertaining to the business transaction as a whole, utilize Coded Domain "ISO/IEC 15944-1:05 Codes for specifying state changes allowed for IBs and SCs". See also Clause 6.6.4.3 above.

134 See further Clause 6.5.2. in ISO/IEC 15944-1:2002.

135 Often referred to as time-stamping services. See further Clause 6.6.4.5, "Date/Time Referencing".

136 This template is based that found in Clause 9.2.3 in ISO/IEC 15944-1:2002.

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)	(6)
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)			
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			

IT-Interface		Human-Interface Equivalents			Spare
Open-edi Scenario Component ID Code (1)	Deci-sion Code (2)	Name (ISO English) (3)	Name (ISO French) (4)	Name (Other) (5)	(6)
4060		IB contents			
4070*		IB recorded information retention – business rules and constraints[137]			
4080*		IB recorded information retention – external constraints on business requirements, i.e., laws and regulations[138]			
4081*		IB specification of disposition[139]			
4082*		IB specification of retention triggers[140]			
4083*		IB specification of state changes[141]			
4084*		IB specification of store change types[142]			
4085		IB time validity characteristics[143]			
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			
5081*		IB specification of disposition[144]			

[137] If applicable, i.e. as applying to an IB in a scenario or related to a role being modeled, utilize Coded Domain "ISO/IEC 15944-5:02 Codes Representing Specification of Records Retention Responsibility". See also Clause 6.6.4.2 above.

[138] Idem.

[139] If applicable, i.e. as applying to an IB in a scenario or related to a role being modeled, utilize Coded Domain "ISO/IEC 15944-5:03 Codes Representing Disposition Of Recorded Information". See also Clause 6.6.4.2 above.

[140] If applicable, i.e. as applying to an IB in a scenario or related to a role being modeled, utilize Coded Domain "ISO/IEC 15944-5:04 Codes Representing Retention Triggers". See also Clause 6.6.4.2 above.

[141] If applicable, i.e. as applying to an IB in a scenario or related to a role being modeled, utilize Coded Domain "ISO/IEC 15944-5:05 Codes representing State Changes Allowed form the Values of Information Bundles and Semantic Components". See also Clause 6.6.4.3 above.

[142] If applicable, i.e. as applying to an IB in a scenario or related to a role being modeled, utilize Coded Domain "ISO/IEC 15944-5:06 Codes Representing Store Change Type". See also Clause 6.6.4.2 above.

[143] If applicable, apply rules of Clause 6.6.4.5, "Date/Time Referencing".

[144] If applicable, i.e. as applying to a SC of an IB being modeled, utilize Coded Domain "ISO/IEC 15944-5:03 Codes Representing Disposition Of Recorded Information". See also Clause 6.6.4.2 above.

IT-Interface		Human-Interface Equivalents			Spare
Open-edi Scenario Component ID Code (1)	Deci-sion Code (2)	Name (ISO English) (3)	Name (ISO French) (4)	Name (Other) (5)	(6)
5082*		IB specification of retention triggers[145]			
5083*		IB specification of state changes[146]			
5084*		IB specification of store change types[147]			

[145] If applicable, i.e. as applying to a SC of an IB being modeled, utilize Coded Domain "ISO/IEC 15944-5:04 Codes Representing Retention Triggers". See also Clause 6.6.4.2 above.

[146] If applicable, i.e. as applying to a SC of an IB being modeled, utilize Coded Domain "ISO/IEC 15944-5:05 Codes representing State Changes Allowed from the Values of Information Bundles and Semantic Components". See also Clause 6.6.4.3 above.

[147] If applicable, i.e. as applying to a SC of an IB being modeled, utilize Coded Domain "ISO/IEC 15944-5:06 Codes representing Store Change Type". See also Clause 6.6.4.3 above.

Annex A
(normative)

Consolidated list of terms and definitions with cultural adaptability: ISO English and ISO French language equivalency[148]

A.1 Introduction

This standard maximizes the use of existing standards where and whenever possible including relevant and applicable existing terms and definitions. This Annex A contains the consolidated list of the ISO English and ISO French language paired terms and definitions used in this standard including those terms and definitions introduced in this standard. The source is Clause 3 "Definitions" of this part of ISO/IEC 15944.

A.2 ISO English and ISO French

This standard recognizes that the use of English and French, as natural languages, is not uniform or harmonized globally, as this is the nature of any "natural" language. Not only are there different variations in spellings of the "same words" in the English language (and in some cases in the French language) but also the same semantic may well be written differently, in one variation of usage of the English and/or French language. Other examples include use of Arabic, German, Portuguese, Russian, Spanish, etc., as natural languages in different jurisdictional domains at various levels, including those of provinces, states, cantons, länder, etc.

It should also be noted that different jurisdictional domains may have an official variant of a language as stated through their official dictionaries, terminology bureaus, etc. In addition to the dynamic nature of all languages, English and French as noted above, have many variations including not only the spelling and meaning (semantics) of words, but also the choice of words.

Consequently, the terms "ISO English" and "ISO French" are utilized here to indicate ISO specialized use of English and French as natural languages in the specific context of international standardization, i.e., as a "special language". In addition, ISO standards contain terms and words which are not found in dictionaries. **As such the variant use of the English and French language in this standard is referred to as "ISO English" and "ISO French"** (both here in this Annex A for this part of ISO/IEC 15944 as well as in the other Parts of this ISO/IEC 15944)[149].

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[148] The Annex A is based on the approach taken for this multipart standard established in "Annex A (Normative)" as found in Part 1 of ISO/IEC 15944-1:2002.

[149] Annex A in ISO/IEC 5218:2004 takes a similar approach.

A.3 Cultural adaptability and quality control

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

Because terms and definitions are an essential part of a standard, this Annex A serves to support the "cultural adaptability" aspects of standards as required by ISO/IEC JTC1. Its purpose is to ensure that if, for whatever reason, an ISO/IEC JTC1 standard is developed in one ISO/IEC "official" language only, at the minimum, the terms and definitions are made available in more than one language.

The key benefit in the translation of terms and definitions (and presenting them in matrix form) is that such work at providing bilingual/multilingual equivalency:

- adds a level of a "quality control check" in that establishing an equivalency in another language ferrets out "hidden" ambiguities in the source language. Often it is only in the translation that ambiguities in the meaning, i.e., semantics, of the term/definition are discovered. Ensuring bilingual/multilingual equivalency of terms/definition should thus be considered akin to a minimum "ISO 9000-like" quality control check[150];
- recognizes that in languages, other than English, the gender of the term is important as the same word, i.e. character string, may have a completely different meaning depending on its gender[151];
- enhances the widespread adoption and use of standards world-wide. This is especially relevant to users of this standard who include various industry sectors, different legal perspectives, policy makers and consumer representatives, other standards developers, IT hardware and service providers, etc.; and,
- takes an IT-enabled approach and one which promotes interoperability from both an IT and human interface[152] perspectives. This is that an essential aspect of this approach is to utilize the unique and unambiguous composite identifier of each term/definition pair (as per ISO/IEC JTC1 Directives for identifying a definition in Clause 3) as the ID code with which are associated multiple bilingual/multilingual textual equivalent representations.

A.4 List of terms in French alphabetical order

Generally, within a standard, the Clause 3 terms and definitions are presented in alphabetical order and assigned Clause 3.nn ID numbers accordingly. The Consolidated Matrix of terms and definitions presented below does the same.

In order to facilitate the identification of the terms in the French language the following list presents them in French alphabetical order along with their English language equivalents in a table of three column where

Column	Use
1	the ID number assigned to the term/definition pair in Clause 3
2	the Term - French
3	the Term - English

150 No ISO 9000-type standards exist pertaining to the quality, integrity and unambiguity of the "data" or "data element" itself, let alone unambiguity in its semantics.

151 See further Clause 6.2.6 "Gender and Official Languages", in ISO/IEC 15944-5:2006. and the examples provided.

152 See further the definitions for "IT-interface equivalent" and "Human Interface Equivalent (HIE)".

Annex A.4 List of terms in French alphabetical order		
Clause 3 Number (1)	**Term – French (2)**	**Term-English (3)**
3.60	accessibilité individuelle	individual accessibility
3.13	acheteur	buyer
3.114	administration publique	public administration
3.01	adresse	address
3.08	affaires	business
3.86	ajout OeRI	OeRI addition
3.41	Application à pouvoir de décision (DMA, Decision Making Application)	Decision Making Application (DMA)
3.94	article d'enregistement d'EDI ouvert (OeRI)	Open-edi Registry Item (OeRI)
3.04	attribut	attribute
3.130	attribut de scénario	scenario attribute
3.133	attribut de specification de scénario	scenario specification attribute
3.06	authenticité	authenticity
3.05	authentification	authentication
3.104	authentification d'une Personne	Person authentication
3.48	authentification de l'entité	entity authentication
3.123	autorité de réglementation	regulator
3.138	Autorité de source (AS)	Source Authority (SA)
3.22	Autorité de source du domaine codé (cdSA)	coded domain Source Authority (cdSA)
3.129	base de règles	rulebase
3.14	caractère	character
3.15	caractère	characteristic
3.85	classe d'objets	object class
3.18	code	code
3.19	code (dans un domaine code)	code (in coded domain)
3.55	code ID	ID Code
3.106	code ID pivot	pivot ID code
3.69	codet de langue	language code
3.135	Composant sémantique (SC, Semantic Component)	Semantic Component (SC)
3.131	composante de scénario	scenario component
3.31	consommateur	consumer
3.33	Contact	Contact
3.132	contenu de scénario	scenario content
3.30	contrainte	constraint
3.50	contrainte externe	external constraint
3.64	contrainte interne	internal constraint

Annex A.4 List of terms in French alphabetical order		
Clause 3 Number (1)	**Term – French (2)**	**Term-English (3)**
3.43	définition	definition
3.44	designation	designation
3.91	disposition d'EDI-ouvert	Open-edi disposition
3.20	domaine codé	coded domain
3.62	Domaine de traitement de l'information (IPD, Information Processing Domain)	Information Processing Domain (IPD)
3.67	domaine juridictionnel	jurisdictional domain
3.35	donnée	data
3.36	donnée (dans une transaction d'affaires)	data (in a business transaction)
3.46	Echange de Données Informatisé (EDI, Electronic Data Interchange)	Electronic Data Interchange (EDI)
3.89	EDI-ouvert	Open-edi
3.37	élément de données	data element
3.38	élément de données (en organisation de données)	data element (in organization of data)
3.74	emplacement	location
3.23	engagement	commitment
3.137	ensemble d'information enregistrée (EIE)	set of recorded information (SRI)
3.49	ensemble de codes d'échange	exchange code set
3.105	ensemble de codes pivots	pivot code set
3.39	ensemble de données	dataset
3.47	entité	entity
3.77	entité de métadonnée	metadata entity
3.53	Équivalent d'interface humaine (ÉIH)	Human Interface Equivalent (HIE)
3.66	équivalent d'interface TI	IT interface equivalent
3.61	Faisceau d'informations (IB, Information Bundle)	Information Bundle (IB)
3.149	fournisseur	vendor
3.52	glyphe	glyph
3.65	habilitation TI	IT-enablement
3.87	harmonisation OeRI	OeRI harmonization
3.121	Idendificateur d'Autorité d'enregistrement (RAI)	Registration Authority Identifier (RAI)
3.57	identificateur (transaction d'affaires)	identifier (in business transaction)
3.24	identificateur composite	composite identifier
3.12	identificateur de transaction d'affaires (BTI, business transaction identifier)	business transaction identifier (BTI)
3.45	identificateur distinctif	distinguishing identifier

Annex A.4 List of terms in French alphabetical order		
Clause 3 Number (1)	**Term – French (2)**	**Term-English (3)**
3.54	Identificateur IB	IB Identifier
3.136	identificateur sémantique (SI, semantic identifier)	semantic identifier (SI)
3.56	identification	identification
3.117	identité d'une Personne reconnue, (rPi)	recognized Person identity (rPi)
3.59	individu	individual
3.118	information enregistrée	recorded information
3.96	Infrastructure de support d'EDI-ouvert (OeSI, Open-edi Support Infrastructure)	Open-edi Support Infrastructure (OeSI)
3.26	intégrité informatique	computational integrity
3.16	jeu de caractères	character set
3.03	langage artificiel	artificial language
3.58	langage d'indexation	indexing language
3.83	langage naturel	natural language
3.68	langue	language
3.42	langue de facto	de facto language
3.139	langue de spécialité	special language
3.88	langue officielle	official language
3.70	langue reconnue légalement (LRL, legally recognized language)	legally recognized language (LRL)
3.72	liste	list
3.73	localisation	localization
3.02	mandataire	agent
3.76	métadonnée	metadata
3.79	modèle	model
3.81	multilinguisme	multilingualism
3.82	nom	name
3.116	nom d'un individu reconnu (NIR)	recognized individual name (RIN)
3.71	nom légalement reconnu (NLR)	legally recognized name (LRN)
3.146	nom reconnu tronqué (NRT)	truncated recognized name (TRN)
3.145	nom tronqué	truncated name
3.148	non-ambigu	unambiguous
3.140	norme	standard
3.84	objet	object
3.09	objet d'affaires	business object
3.29	ordinateur	computer system
3.98	organisation	organization

Annex A.4 List of terms in French alphabetical order		
Clause 3 Number (1)	**Term – French (2)**	**Term-English (3)**
3.120	organisme d'enregistrement	Registration Authority (RA)
3.92	Partenaire d'EDI-ouvert (OeP, Open-edi Party)	Open-edi Party (OeP)
3.99	partie d'organisation	organization part
3.126	période de rétention	retention period
3.102	persona	persona
3.101	Personne	Person
3.100	Personne d'organisation	organization Person
3.115	politique publique	public policy
3.109	principe	principle
3.111	processus	process
3.27	programme d'ordinateur	computer program
3.113	propriété	property
3.112	propriété	property
3.110	protection de la vie privée	privacy protection
3.32	protection du consommateur	consumer protection
3.119	registre	register
3.128	règle	rule
3.103	renseignements personnels	personal information
3.125	répertoire	repertoire
3.93	Rétention d'enregistrement d'EDI-ouvert (OeRR, Open-edi Record Retention)	Open-edi Record Retention (OeRR)
3.127	rôle	role
3.95	scénario d'EDI-ouvert	Open-edi scenario (OeS)
3.122	schéma d'enregistrement, (RS)	Registration Schema (RS)
3.21	Schéma d'enregistrement du domaine codé (cdRS))	coded Domain Registration Schema (cdRS)
3.78	section de métadonnée	metadata section
3.40	série de données	dataset series
3.28	service d'ordinateur	computer service
3.75	support	medium
3.97	Système d'EDI-ouvert	Open-edi system
3.63	système d'information (IT System)	Information Technology System (IT System)
3.17	système de classification	classification system
3.90	Technique de description d'EDI-ouvert	Open-edi Description Technique (OeDT)
3.51	Technique de description formelle (FDT, Formal description Technique)	Formal Description Technique (FDT)
3.141	terme	term

Annex A.4 List of terms in French alphabetical order		
Clause 3 Number (1)	**Term – French (2)**	**Term-English (3)**
3.108	terme privilégie	preferred term
3.142	texte	text
3.143	tierce partie	third party
3.144	traité	treaty
3.07	traité bilatéral	bilateral treaty
3.80	traité multilatéral	multilateral treaty
3.107	traité plurilatéral	plurilateral treaty
3.11	transaction d'affaires	business transaction
3.124	transaction d'affaires réglementaire (RBT)	regulatory business transaction (RBT)
3.147	troncation	truncation
3.25	type composite	composite type
3.134	vendeur	seller
3.150	vocabulaire	vocabulary
3.34	vocabulaire contrôlé (CV, controlled vocabulary)	controlled vocabulary (CV)
3.10	Vue opérationnelle des affaires (BOV, Business Operational View)	Business Operational View (BOV)

A.5 Organization of Annex A[153], "Consolidated matrix of terms and definitions"

The terms/definitions are organized in matrix form in alphabetical order (English language) as found in Clause 3.

The columns in the matrix are as follows:

Col. No.	Use
1	ID as per this part of ISO/IEC 15944-5 as stated in its Clause 3, i.e., as the "nnn" in "3.nnn".
2	Source. International standard referenced or ISO/IEC 15944-5
3	ISO English Language - Term
4	Gender of the ISO English Language Term+
5	ISO English Language - Definition
6	ISO French Language – Term*
7	Gender of the French Language Term+
8	ISO French Language – Definition*

[153] One should consider Annex A: (1) to be a matrix-based approach to the English and French elements already found in any part of the ISO/IEC 2382 *Information technology-Vocabulary standard*; (2) as an approach which is expandable for multilingual purposes; and, (3) a necessary component in being able to reference any standard cited.

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

+ The codes representing gender of terms in natural languages are those based on ISO/IEC 15944-5:2006, Clause 6.2.6 titled "*Gender and Official Languages*" which means that for, as stated in coded domain, "15944-5:2006:01", titled, "Codes Representing Gender in Natural Languages".

ISO English, in Column 4, the gender code = "09" since the English language does not have gender in its grammar; and,

ISO French, in Column 7, the possible gender codes are "01 = masculine/masculine", "02 = feminine/feminine; or "03 = neuter/neutre".

* Use of an asterisk (*) in Columns 6 indicates that the ISO standard referenced (other than ISO/IEC 19544-5 or in another part of ISO/IEC 15944) in Column (2) does not have an ISO French language version. For these terms and definitions, ISO/IEC 15944 is providing the ISO French language equivalent.

A.6 Consolidated Matrix of ISO/IEC 15944-4 Terms and Definitions in English and French

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	ISO/IEC 15944-2:2006 (3.1)	address	09	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 NOTE 1 An address can be specified as either a physical address and/or electronic address. 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. 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).	adresse	02	ensemble **d'éléments de données** servant à préciser **l'emplacement** où on peut envoyer ou recevoir un article d'**information enregistrée**, un **objet d'affaires,** un objet matériel, et/ou une (ou des) personne (s) NOTE 1 Une adresse peut être spécifiée comme étant physique et/ou électronique. NOTE 2 Dans l'identification, le référencement et l'extraction des objets d'affaires enregistrés, il est nécessaire d'énoncer si l'information enregistrée pertinente est disponible à la fois sous formes physiques et virtuelles. NOTE 3 Dans le contexte de l'EDI-ouvert, un « article d'information enregistrée » est modélisé et enregistré comme scénario d'EDI-ouvert (OeS), Faisceau d'information (IB) ou Composante sémantique (SC).
2	ISO/IEC 15944-1:2002 (3.1)	agent	09	**Person** acting for another **Person** in a clearly specified capacity in the context of a **business transaction** NOTE Excluded here are agents as "automatons" (or robots, bobots, etc.). In ISO/IEC 14662:2004, "automatons" are recognized and provided for but as part of the Functional Service View (FSV) where they are defined as an "Information Processing Domain (IPD)".	mandataire	01	**Personne** agissant au nom d'une autre **Personne** à titre précis dans le contexte d'une **transaction d'affaires** NOTE Sont exclus les mandataires tels que les «automates» (ou les robots, bobots, etc.). Dans la norme ISO/CEI 14662:2004, les «automates» sont pris en compte et prévus, mais à titre de Vue de services fonctionnels (FSV), où ils sont définis comme «domaine de traitement de l'information (IPD)».
3	ISO 5127 (1.1.2.03)	artificial language	09	**language** whose rules are explicitly established prior to its use	langage artificiel	01	**langage** dont les règles sont établies explicitement avant son utilisation
4	ISO/IEC 11179-3:2003 (3.1.3)	attribute	09	characteristic of an **object** or **entity**	attribut*	01	caractéristique d'un **objet** ou d'une **entité**

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
5	ISO/IEC 10181-2:1996	authentic-ation	09	provision of assurance of the claimed identity of an **entity**	authentifi-cation*	02	attestation de l'identité revendiquée par une **entité**
6	ISO/IEC TR 13335-1:1996 (3.3) monolingual (English) only	authenticity	09	property that ensures that the identity of a subject or resource is the one claimed NOTE Authenticity applies to entities such as users, processes, systems and information.	authenti-cité*	02	propriété assurant que l'identité d'un sujet ou d'une ressource est celle qui est prétendue NOTE L'authenticité s'applique à des entités telles que des utilisateurs, des processus, des systèmes et des informations.
7	ISO/IEC 15944-5:2007 (3.7)	bilateral treaty	09	**treaty** made between two jurisdictional domains NOTE An important point here is that there is no intention to bind both parties under international law.	traité bilatéral	01	**traité** conclu entre deux **domaines juridictionnels** NOTE Il est important de mentionner que ce n'est pas dans l'intention de lier les deux parties par une loi internationale.
8	ISO/IEC 14662:2004 (3.1.2)	business	09	series of **processes**, each having a clearly understood purpose, involving more than one **Person**, realised through the exchange of **recorded information** and directed towards some mutually agreed upon goal, extending over a period of time	affaires	01	série de **processus**, ayant chacun une finalité clairement définie, impliquant plus d'une **Personne**, réalisés par échange **d'informations enregistrée** et tendant à l'accomplissement d'un objectif accepté par accord mutuel pour une certaine période de temps
9	ISO/IEC 15944-2:2006 (3.6)	business object	09	**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	01	**scénario d'EDI-ouvert** ou **composante de scénario** d'une **transaction d'affaires** identifié, spécifié, référençable, enregistré et réutilisable de façon **non-ambigüe** NOTE En tant qu'«objet», un «objet d'affaires» n'existe que dans le contexte d'une transaction d'affaires.
10	ISO/IEC 14662:2004 (3.1.3)	Business Operational View (BOV)	09	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 opéra-tionnelle des affaires (BOV, Business Operational View)	02	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**

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
11	ISO/IEC 14662:2004 (3.1.4)	business transaction	09	predefined set of activities and/or **processes** of **Persons** which is initiated by a **Person** to accomplish an explicitly shared **business** goal and terminated upon recognition of one of the agreed conclusions by all the involved **Persons** although some of the recognition may be implicit	transaction d'affaires	02	ensemble prédéterminé d'activités et/ou de **processus** menés par des **Personnes,** qui est déclenché par une **Personne** qui vise à atteindre dans les **affaires** un but expressément partagé, et qui est terminé lorsque est reconnue une des conclusions convenues par toutes les **Personnes** prenantes, bien que cette reconnaissance puisse être partiellement implicite
12	ISO/IEC 15944-5:2007 (3.12)	business transaction identifier (BTI)	09	**identifier** assigned by a **seller** or a **regulator** to an instantiated **business transaction** among the **Persons** involved NOTE 1 The identifier assigned by the seller or regulator has the properties and behaviours of an "identifier (in a business transaction)". NOTE 2 As an identifier (in a business transaction), a BTI serves as the unique common identifier for all Persons involved for the identification, referencing, retrieval of recorded information, etc., pertaining to the commitments made and the resulting actualization (and post-actualization) of the business transaction agreed to. NOTE 3 A business transaction identifier can be assigned at any time during the planning, identification or negotiation phases but at least prior to the start or during the actualization phase. NOTE 4 As and where required by the applicable jurisdictional domain(s), the recorded information associated with the business transaction identifier (BTI) may well require the seller to include other identifiers, (e.g., from a value-added good or service tax, etc., perspective) as assigned by the applicable jurisdictional domain(s).	identifi-cateur de transaction d'affaires (ITA) (BTI, business transaction identifier)	01	**identificateur** attribué par un **vendeur** ou une **autorité de réglementation** à une **transaction d'affaires** instanciée entre les **Personnes** concernées NOTE 1 L'identificateur attribué par le vendeur ou l'autorité de réglementation a les propriétés et le comportement d'un «identificateur (dans une transaction d'affaires». NOTE 2 En tant qu'identificateur (dans une transaction d'affaires), un ITA sert d'identificateur commun unique pour toutes les Personnes concernées quant à l'identification, le référencement, l'extraction d'information enregistrée, etc., relatifs aux engagements pris et à l'actualisation (et postactualisation) résultante de la transaction d'affaires conclue. NOTE 3 Un identificateur de transaction d'affaires peut être attribué à n'importe quel moment durant les phases de planification, d'identification ou de négociation, mais doit être attribué au moins avant le début ou durant la phase d'actualisation. NOTE 4 Selon les besoins et le lieu du (des) domaine(s) juridictionnel(s) applicable(s), l'information enregistrée rattachée à l'identificateur de transaction d'affaires (ITA) peut obliger le vendeur d'inclure tous les autres identificateurs (par ex. une taxe sur le produit ou service de valeur ajoutée, etc.) attribués par le(s) domaine(s) juridictionnel(s) applicable(s).

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
13	ISO/IEC 15944-1:2002 (3.8)	buyer	09	**Person** who aims to get possession of a good, service and/or right through providing an acceptable equivalent value, usually in money, to the **Person** providing such a good, service and/or right	acheteur	01	**Personne** désirant acquérir un bien, service et/ou droit en fournissant une valeur équivalente acceptable, généralement de l'argent, à la **Personne** qui offre ce bien, service et/ou droit
14	ISO/IEC 2382-4:1999 (04.01.01)	character	09	member of a set of elements that is used for the representation, organization or control of data NOTE Characters may be categorized as follows: - graphic character: (e.g., digit, letter, ideogram, special character); - control character: (e.g., transmission control character, format effector, code extension character, device control character).	caractère	01	élément d'un ensemble employé pour constituer, représenter ou gérer des données NOTE Les caractères peuvent être classés comme suit: - caractère graphique: (par ex. chiffre, lettre, idéogramme, caractère spécial); - caractère de commande: (par ex. caractère de commande de transmission, caractere de mise en page, caractère de changement de code, caractère de service).
15	ISO 1087-1:2000 (3.2.4)	charact-eristic	09	abstraction of a property of an **object** or of a set of **objects** NOTE Characteristics are used for describing concepts.	caractère	01	propriété abstraite d'un **objet** ou d'un ensemble d'**objets** NOTE Les caractères servent à décrire les concepts.
16	ISO/IEC 2382-4:1999 (04.01.02)	character set	09	finite set of different **characters** that is complete for a given purpose EXAMPLE The international reference version of the character set of ISO/IEC 10646-1.	jeu de caractères	01	ensemble fini de différents **caractères** considéré comme complet à des fins déterminiées EXEMPLE La version internationale de référence du jeu de caractères de la norme ISO/CEI 10646-1.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
17	ISO/IEC 15944-5:2007 (3.17)	classific-ation system	09	systematic identification and arrangement of business activities and/or **scenario components** into categories according to logically structured conventions, methods and procedural rules as specified in a classification schema NOTE 1 The classification code or number often serves as a semantic identifier (SI) for which one or more human interface equivalents (HIEs) exist. NOTE 2 The rules of a classification schema governing the operation of a classification system at times lead to the use of ID codes which have an intelligence built into them, (e.g., in the structure of the ID, the manner in which it can be parsed, etc.). Here the use of block-numeric numbering schemas is an often used convention.	système de classifi-cation	01	identification et arrangement systématiques des activités d'affaires et/ou des **composantes de scénario** en catégories selon des conventions, des méthodes et des règles de procédure structurées logiquement, telles que spécifiées dans un schéma de classification NOTE 1 Le code ou numéro de classification sert souvent d'identificateur sémantique (SI) pour lequel existent un ou plusieurs équivalents d'interface humaine (HIEs). NOTE 2 Les règles d'un schéma de classification régissant l'exploitation d'un système de classification mènent parfois à l'utilisation de codes ID à intelligence intégrée (par ex. dans la structure de l'ID, la manière dont il peut être parsé, etc.) En ce cas, on utilise souvent des schémas de numérotation numérique par bloc comme convention.
18	ISO 639-2:1998 (3.1)	code	09	**data** representation in different forms according to a pre-established set of **rules** NOTE In this standard, the "pre-established set of rules" are determined and enacted by a Source Authority and must be explicitly stated.	code	01	représentation de **données** sous différentes formes, selon un ensemble de **règles** préétablies NOTE Dans cette norme, l' «ensemble de règles préétablies» est déterminé et mis en vigueur par une Autorité de source et doit être énoncé explicitement.
19	ISO/IEC 15944-5:2007 (3:019)	code (in coded domain)	09	an **identifier**, i.e. an **ID code**, assigned to an **entity** as member of a **coded domain** according to the pre-established set of **rules** governing that **coded domain**	code (dans un domaine code)	01	**identificateur**, c.-à.-d. **code ID**, attribué à une **entité** en tant que membre d'un **domaine codé** conformément au ensemble de **règles** régissant ce **domaine codé**

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Term ID.	**Source**	**Term**	**G**	**Definition**	**Term**	**G**	**Definition**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
20	ISO/IEC 15944-2:2006 (3.13)	coded domain	09	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** NOTE 1 The rules governing the assignment of an ID code to members of a coded domain reside with its Source Authority and form part of the Coded Domain Registration Schema of the Source Authority. NOTE 2 Source Authorities which are jurisdictional domains are the primary source of coded domains. 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. NOTE 4 Associated with a code in a coded domain can be: - one or more equivalent codes; and/or, - one or more equivalent representations, especially those in the form of Human Interface Equivalent (HIE) (linguistic) expressions. NOTE 5 In a coded domain the rules for assignment and structuring of the ID codes must be specified. 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.	domaine codé	01	domaine pour lequel (1) les limites sont définies et explicitement énoncées comme **base de règles** de **l'Autorité de source d'un domaine codé**, et (2) chaque **entité** se qualifiant comme membre de ce domaine est identifiée grâce à l'attribution **d'un code ID** unique conformément au **Schéma d'enregistrement** applicable de cette **Autorité de source** NOTE 1 Les règles régissant l'attribution d'un code ID aux membres d'un domaine codé résident dans son Autorité de source et font partie du Schéma d'enregistrement du domaine codé de l'Autorité de source. NOTE 2 Les Autorités de source qui sont des domaines juridictionnels sont la source primaire des domaines codés. NOTE 3 Un domaine codé est un ensemble de données pour lequel le contenu des valeurs des éléments de données est prédéterminé et défini conformément à la base de règles de son Autorité de source et, à ce titre, à une sémantique prédéfinie. NOTE 4 Peuvent être associés à un code dans un domaine codé: - un ou plusieurs codes équivalents; et/ou, - une ou plusieurs représentations équivalentes, surtout celles qui sont sous forme d'expressions d'Équivalents d'interface humaine (EIH) (linguistique). NOTE 5 Dans un domaine codé, les règles d'attribution et de structuration des codes ID doivent être spécifiées. NOTE 6 Lorsqu'on permet à une identité à titre de membre d'un domaine codé d'avoir, c.-à-d. de se voir attribué, plus d'un code d'identité, c.-à-d. des codes ID équivalents (pouvant inclure des noms), l'un de ces codes doit être spécifié à titre de code ID pivot.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				NOTE 7 A coded domain in turn can consist of two or more coded domains, i.e., through the application of the inheritance principle of object classes. 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. 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"; and/or, if required, (4) the pre-reservation of a series of ID codes for use of "user extensions". NOTE 9 In object methodology, entities which are members of a coded domain are referred to as instances of a class. EXAMPLE In UML modelling notation, an ID code is viewed as an instance of an object class.			NOTE 7 Un domaine codé peut à son tour se composer de plusieurs domaines codés grâce à l'application du principe d'héritage des classes d'objet. NOTE 8 Un domaine codé peut contenir un code ID relatif à des conditions prédéfinies autres que la qualification d'appartenance des entités du domaine codé. De plus, les règles régissant un domaine codé peuvent ou non contenir des extensions utilisateur. EXEMPLE Exemples courants: (1) l'utilisation du code d'identité «0» (ou «00», etc.) pour «Autres», (2) l'utilisation du code d'identité «9» (ou «99», etc.) pour «Sans objet»; (3) l'utilisation du code d'identité «8» (ou «98») pour «Inconnu»; et/ou, si nécessaire, (4) la pré-réservation d'une série de codes d'identité pour l'utilisation «d'extensions utilisateur». NOTE 9 Dans la méthodologie objet, les entités membres d'un domaine codé s'appellent «nstances d'une classe». EXEMPLE Dans la notation modélisée UML, un code ID est considéré comme une instance de classe d'objet.
21	ISO/IEC 15944-5:2007 (3.21)	coded Domain Registration Schema (cdRS)	09	formal **definition** of both (1) the data fields contained in the **identification** and specification of an **entity** forming part of the members a **coded domain** including the allowable contents of those fields, and (2) the **rules** for the assignment of **identifiers**	Schéma d'enregistrement du domaine codé (cdRS)	01	**définition** formelle à la fois des (1) champs de données contenus dans l'**identification** et la spécification d'une **entité** faisant partie des membres d'un **domaine codé**, (y compris les contenus permis de ces champs); et (2) **règles** d'attribution des **identificateurs**

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
22	ISO/IEC 15944-2:2006 (3.14)	coded domain Source Authority (cdSA)	09	**Person**, usually an organization, as a **Source Authority** which sets the **rules** governing a **coded domain** NOTE 1 Source Authority is a role of a Person and for widely used coded domains the coded domain Source Authority is often a jurisdictional domain. 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. 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.	Autorité de source du domaine codé (cdSA)	02	**Personne**, habituellement une **organisation**, qui établit les **règles** régissant un **domaine codé** en tant qu'**Autorité de source** NOTE 1 L'Autorité de source est un rôle d'une Personne et, pour les domaines codés largement utilisés, l'Autorité de source du domaine codé est souvent un domaine juridictionnel. NOTE 2 Des secteurs spécifiques (par ex. le domaine bancaire, les transports, la géomatique, l'agriculture, etc.) peuvent avoir une (des) Autorité(s) de source du domaine codé dont les domaines codés sont utilisés dans d'autres secteurs. NOTE 3 Une Autorité de source du domaine codé fonctionne aussi habituellement comme Autorité d'enregistrement, mais peut utiliser un agent, c.-à.-d. une autre Personne, pour exécuter la fonction d'enregistrement à sa place.
23	ISO/IEC 15944-4:2007 (3.12)	collaboration space	09	**business** activity space where an **economic exchange** of valued resources is viewed independently and not from the perspective of any business partner NOTE In collaboration space, an individual partner's view of economic phenomena is de-emphasized. Thus, the common use business and accounting terms like purchase, sale, cash receipt, cash disbursement, raw materials, finished goods, etc. is not allowed because they view resource flows from a participant's perspective.	espace de collaboration	01	espace d'activité d'**affaires** dans lequel un **échange économique** de ressources valorisées est considéré indépendamment et non du point de vue de tout partenaire d'affaires NOTE Dans l'espace de collaboration, la perspective qu'un partenaire individuel a d'un phénomène économique est désaccentuée. Ainsi, les termes d'affaires et de comptabilité communément utilisés tels que achat, vente, reçu de caisse, décaissement, matières premières, produits finis, etc. ne sont pas autorisés à être utilisés car ils considèrent les flux de ressources du point de vue d'un participant.
24	ISO/IEC 15944-1:2002 (3.9)	commitment	09	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	01	création ou acceptation d'un droit, d'une obligation, d'une dette ou d'une responsabilité par une **Personne** qui est apte à son application dans la **domaine juridictionnel** dans laquelle l'**engagement** est pris

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25	ISO/IEC 15944-2:2006 (3.16)	composite identifier	09	**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 NOTE 1 Identifiers (in business transactions) are for the most part composite identifiers. NOTE 2 The rules governing the structure and working of a composite identifier should be specified. NOTE 3 Most widely used composite identifiers consist of the combinations of: - the ID of the overall identification/numbering schema, (e.g., ISO/IEC 6523, ISO/IEC 7812, ISO/IEC 7501, 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.	identifi-cateur composite	01	**identificateur** (dans une **transaction d'affaires**) fonctionnant comme **identificateur** simple et unique comprenant un ou plusieurs **identificateurs** et/ou un ou plusieurs **éléments de données**, dont les interconnexions sont basées sur des **règles** NOTE 1 Les identificateurs (dans les transactions d'affaires) sont pour la plupart des identificateurs composites. NOTE 2 Les règles régissant la structure et le fonctionnement d'un identificateur composite doivent être spécifiées. NOTE 3 Les identificateurs composites les plus communément utilisés se composent de combinaisons - de l'identité (ID) du schéma d'identification/numérotation global (par ex. ISO/CEI 6523, ISO/CEI 7812, ISO/CEI 7501, UPC/EAN, UIT-T E.164, etc.), qui est souvent assumé; - de l'identité(ID) de l'organisation émettrice (souvent basé sur un schéma de numérotation numérique par blocs); et, - de l'identité(ID) des entités faisant partie de membres du domaine codé de chaque organisation émettrice.
26	ISO/IEC 2382-17:1999 (17.05.10)	composite type	09	**data** type that has a **data** structure composed of the **data** structures of one or more data types and that has its own set of permissible operations EXAMPLE A data type "complex number" may be composed of two "real number" data types. NOTE The operations of a composite type may manipulate its occurrences as a unit or may manipulate portions of these occurrences.	type composite	01	type de **données** dont la structure est composée des structures de **données** d'un ou plusieurs types de **données** et qui dispose de son propre ensemble d'opérations permises EXEMPLE Le type de données «nombre complexe» peut être composé de deux types de donneés «nombre réel». NOTE Le type de données «nombre complexe» peut être composé de deux types de données «nombre réel».

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
27	ISO/IEC 15944-2:2006 (3.18)	comput-ational integrity	09	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 NOTE Open-edi standards have been designed to be able to support computational integrity requirements especially from a registration and re-use of business objects perspectives.	intégrité compu-tationnelle	02	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 NOTE Les normes de l'EDI-ouvert ont été conçues pour pouvoir appuyer les exigences en matière d'intégrité computationnelle, particulièrement dans des perspectives d'enregistrement et de réutilisation des objets d'affaires.
28	ISO/IEC 15944-5:2007 (3.28)	computer program	09	**data** representing instructions or statements that, when executed in a **computer system**, causes the computer to perform a function	programme d'ordinateur	01	ensemble de **données** qui représentent des instructions ou des relevés et qui, lorsque traités par **l'ordinateur**, lui font remplir une fonction
29	ISO/IEC 15944-5:2007 (3.29)	computer service	09	service which includes data processing and the storage or retrieval of **data**	service d'ordinateur	01	service qui s'entend notamment du traitement des données de même que de la mémorisation et du recouvrement ou du relevé des **données**
30	ISO/IEC 15944-5:2007 (3.30)	computer system	09	device that, or a group of interconnected or related devices one or more of which, a) contains computer programs or other data, and b) pursuant to computer programs, 1) performs logic and control, and 2) may perform any other function	ordinateur	01	dispositif ou ensemble de dispositifs connectés ou reliés les uns aux autres, dont l'un ou plusieurs d'entre eux: a) contiennent des programmes d'ordinateur ou d'autres données, b) conformément à des programmes d'ordinateur, 1) soit exécutent des fonctions logiques et de commande, 2) soit peuvent exécuter toute autre fonction

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
31	ISO/IEC 15944-1:2002 (3.11)	constraint	09	**rule**, explicitly stated, that prescribes, limits, governs or specifies any aspect of a **business transaction** 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. NOTE 2 For constraints to be registered for implementation in Open-edi, they must have unique and unambiguous identifiers. 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".	contrainte	02	**règle**, énoncée explicitement, qui prescrit, limite, régit ou spécifie tout aspect d'une **transaction d'affaires** 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».
32	ISO/IEC 15944-1:2002 (3.12)	consumer	09	**buyer** who is an **individual** to whom **consumer protection** requirements are applied as a set of **external constraints** on a **business transaction** NOTE 1 Consumer protection is a set of explicitly defined rights and obligations applicable as external constraints on a business transaction. NOTE 2 The assumption is that a consumer protection applies only where a buyer in a business transaction is an individual. If this is not the case in a particular jurisdiction, such external constraints should be specified as part of scenario components as applicable. NOTE 3 It is recognized that external constraints on a buyer of the nature of consumer protection may be peculiar to a specified jurisdiction.	consom-mateur	01	**acheteur**, en tant qu'**individu**, auquel s'appliquent des exigences de protection des consommateurs comme ensemble de **contraintes externes** sur une **transaction d'affaires** NOTE 1 La protection des consommateurs est un ensemble de droits et d'obligations définis explicitement et qui s'appliquent à titre de contraintes externes à une transaction d'affaires. NOTE 2 Le postulat est que la protection des consommateurs s'applique uniquement lorsqu'un acheteur dans une transaction d'affaires est un individu. Si ce n'est pas le cas dans une juridiction particulière, il convient de spécifier ces contraintes externes comme faisant partie de composantes de scénarios selon le cas. NOTE 3 On reconnaît que les contraintes externes de protection des consommateurs exercées sur un acheteur peuvent relever d'une juridiction particulière.

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
33	ISO/IEC 15944-5:2007 (3.33)	consumer protection	09	set of **external constraints** of a **jurisdictional domain** as rights of a **consumer** and thus as obligations (and possible liabilities) of a **vendor** in a **business transaction** which apply to the good, service and/or right forming the object of the **business transaction** (including associated information management and interchange requirements including applicable **(sets of) recorded information**) NOTE 1 Jurisdictional domains may restrict the application of their consumer protection requirements as applicable only to individuals engaged in a business transaction of a commercial activity undertaken for personal, family or household purposes, i.e., they do not apply to natural persons in their role as "organization" or "organization Person". NOTE 2 Jurisdictional domains may have particular consumer protection requirements which apply specifically to individuals who are considered to be a "child" or a “minor”, (e.g., those individuals who have not reached their thirteenth birthday). NOTE 3 Some jurisdictional domains may have consumer protection requirements which are particular to the nature of the good, service and/or right being part of the goal of a business transaction.	protection du consom-mateur	02	ensemble de **contraintes externes** d’un **domaine juridictionnel** comme droits d’un **consommateur** et ainsi comme obligations (et responsabilités éventuelles) d’un **fournisseur** dans une **transaction d’affaires** qui s’applique au bien, au service et/ou droit faisant l’objet de la **transaction d’affaires** (y compris les exigences en matière de gestion et l’échange de l’information qui s’y rattachent, dont l’(ou **l’ensemble des) information enregistrée** applicable NOTE 1 Des domaines juridictionnels peuvent restreindre l’application de leurs exigences en matière de protection du consommateur comme applicables uniquement aux individus participant à une transaction d’affaires de nature commerciale entreprise à des fins personnelles, familiales ou domestiques, c.-à.-d. qu’ils ne s’appliquent pas aux personnes physiques dans leur rôle d’«organisation» ou de «Personne d’organisation». NOTE 2 Des domaines juridictionnels peuvent avoir des exigences particulières en matière de protection du consommateur qui s’appliquent spécifiquement à un individu considérés comme un «enfant» ou un «mineur» (par ex. les individus n’ayant pas encore atteint leur treizième anniversaire de naissance). NOTE 3 Certains domaines juridictionnels peuvent avoir des exigences en matière de protection du consommateur propres à la nature du bien, du service, et/ou du droit faisant l’objet d’une transaction d’affaires.
34	ISO/IEC 15944-5:2007 (3.34)	controlled vocabulary (CV)	09	**vocabulary** for which the entries, i.e., definition/term pairs, are controlled by a **Source Authority** based on a **rulebase** and process for addition/deletion of entries NOTE 1 In a controlled vocabulary, there is a one-to-one relationship of definition and term.	vocabulaire contrôlé (CV, controlled vocabulary)	01	**vocabulaire** dont les entrées, c.-à.-d. les paires de termes et définitions, sont contrôlées par une **Autorité de source** fondée sur une **base de règles** et un processus pour ajouter et supprimer des entrées NOTE 1 Dans un vocabulaire contrôlé, une relation bijective existe entre le terme et sa définition.

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				EXAMPLE The contents "Clause 3 Definitions" in ISO/IEC standards are examples of controlled vocabularies with the entities being identified and referenced through their ID code, i.e., via their clause numbers. NOTE 2 In a multilingual controlled vocabulary, the definition/term pairs in the languages utilized are deemed to be equivalent, i.e. with respect to their semantics. NOTE 3 The rule base governing a controlled vocabulary may include a predefined concept system.			EXEMPLE Le contenu «Définitions de la Clause 3» des normes ISO/CEI sont des exemples de vocabulaires contrôlés dont les entités sont identifiées et référencées grâce à leur code ID, c.-à.-d. leur numéro de clause. NOTE 2 Dans un vocabulaire contrôlé multilingue, les paires de termes/définitions des langues utilisées sont jugées sémantiquement équivalentes. NOTE 3 La base de règles régissant un vocabulaire contrôlé peut inclure un système de concepts prédéfini.
35	ISO/IEC 2382-1:1998 (01.01.02)	data	09	reinterpretable representation of information in a formalized manner suitable for communication, interpretation, or processing NOTE Data can be processed by humans or by automatic means.	donnée	02	représentation réinterprétable d'une information sous une forme conventionnelle convenant à la communication, à l'interprétation. NOTE Les données peuvent être traitées par des moyens humains ou automatiques.
36	ISO/IEC 15944-1:2002 (3.14)	data ⟨business transaction⟩	09	representations of **recorded information** that are being prepared or have been prepared in a form suitable for use in a **computer system**	donnée ⟨transaction d'affaires⟩	02	représentations d'**informations enregistrées** qui sont préparées ou l'ont été de façon à pouvoir être traitée par un **ordinateur**
37	ISO/IEC 11179-1:2004 (3.3.8)	data element	09	unit of data for which the **definition**, **identification**, representation and Permissible Values are specified by means of a set of **attributes**	élément de données*	01	unité d'information dont la **définition**, l'**identification**, la représentation et les valeurs autorisées sont spécifiées au moyen d'un ensemble d'**attributs**
38	ISO/IEC 2382-4:1999 (04.07.01)	data element ⟨organiz-ation of data⟩	09	unit of **data** that is considered in context to be indivisible EXAMPLE The data element "age of a person" with values consisting of all combinations of 3 decimal digits. NOTE Differs from the entry 17.06.02 in ISO/IEC 2382-17.	élément de données ⟨organi-sation de données⟩	01	**donnée** considée comme indivisible dans un certain contexte EXEMPLE L'élément de donnée «âge d'une personne» dont les valeurs se composent de toutes les combinaisons de trois chiffres décimaux. NOTE Diffère de l'entrée 17.06.02 dans l'ISO/CEI 2382-17.

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Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
39	ISO 19115:2003 (4.2)	dataset	09	identifiable collection of **data** NOTE A dataset may be a smaller grouping of data which, though limited by some constraint such as spatial extent or feature type, is located physically within a larger dataset. Theoretically, a dataset may be as small as a single feature or feature attribute contained within a larger dataset. A hardcopy map or chart may be considered a dataset.	ensemble de données*	01	collecte de **données** identifiables NOTE Un ensemble de données peut être un groupement plus petit données qui, bien que limité par certaines contraintes telles que l'étendue spatiale ou le type de caractéristique, est situé physiquement dans un ensemble de données plus étendu. En théorie, un ensemble de données peut être aussi petit qu'une caractéristique unique ou un attribut de caractéristique contenu dans un ensemble de données plus étendu.
40	ISO 19115:2003 (4.3)	dataset series	09	collection of **datasets** sharing the same product specification	série de données*	02	collecte de **ensemble de données** partageant la même spécification de produit
41	ISO/IEC 14662:2004 (4.2.1)	Decision Making Application (DMA)	09	**model** of that part of an **Open-edi system** that makes decisions corresponding to the **role(s)** that the **Open-edi Party** plays as well as the originating, receiving and managing **data** values contained in the instantiated **information bundles** which is not required to be visible to the other **Open-edi Parties**	Application à pouvoir de décision (DMA, Decision Making Application)	02	**modèle** de la partie d'un **système d'EDI-ouvert** qui prend les décisions correspondant au rôle ou aux **rôles** que joue **le partenaire d'EDI-ouvert**; elle est aussi source, récepteur et gestionnaire des valeurs des **données** contenues dans les instances de **faisceaux d'informations**; elle n'a pas à être rendue visible au(x) autre(s) **partenaire(s) d'EDI-ouvert**
42	ISO/IEC 15944-5:2007 (3.42)	de facto language	09	**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** NOTE 1 A de facto language of a jurisdictional domain is often established through long term use and custom. 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 have the same properties and behaviours as an official language.	langue de facto	01	**langage naturel** utilise dans un **domaine juridictionnel** qui a les propriétés et comportement d'une **langue officielle** dans ce **domaine juridictionnel** sans avoir été formellement déclaré comme telle par ce **domaine juridictionnel** NOTE 1 Une langue de facto d'un domaine juridictionnel est souvent établie à travers un usage et des coutumes à long terme. NOTE 2 Sauf énoncé explicite contraire et aux fins de modélisation d'une transaction d'affaires à travers un (ou des) scénario(s), attribut(s) de scénario et/ou composantes de scénario, une langue de facto d'un domaine juridictionnel est suppose avoir les mêmes propriétés et comportements qu'une langue officielle.

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Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
43	ISO/IEC 1087-1:2000 (3.3.1)	definition	09	representation of a concept by a descriptive statement which serves to differentiate it from related concepts	définition	02	représentation d'un concept par un énoncé descriptif permettant de la différencier des concepts associés
44	ISO 1087-1:2000 (3.4.1 adapted)	designation	09	representation of a concept by a sign which denotes it NOTE In terminology work, three types of designations are distinquished: symbols, appellations (a.k.a names), and terms.	désignation	02	representation d'un concept par un signe qui le dénomme NOTE Dans le travail terminologique, on distinque trois types de désignation: les symbols, les appellations (c.-à-d. des noms) et les termes.
45	ISO/IEC 10181-2:1996	distingu-ishing identifier	09	**data** that **unambiguously** distinguishes an entity in the **authentication** process	identifi-cateur distinctif*	01	**données** qui différencie **sans ambiguïté** une entité dans le processus **d'authentification**
46	ISO/IEC 14662:2004 (3.1.5)	Electronic Data Interchange (EDI)	09	automated exchange of any predefined and structured **data** for business purposes among information systems of two or more **Persons** NOTE This definition includes all categories of electronic business transactions.	Echange de Données Informatisé (EDI, Electronic Data Inter-change)	01	échange automatisé de **données** structurées et prédéfinies pour traiter des affaires entre les systèmes d'information de deux ou plusieurs **Personnes** NOTE Cette definition inclut toutes les categories de transactions d'affaires électroniques.
47	ISO/IEC 2382-17:1999 (17.02.05)	entity	09	concrete or abstract thing that exists, did exist, or might exist, including associations among these things EXAMPLE A person, object, event, idea, process, etc. NOTE An entity exists whether data about it are available or not.	entité	02	objet ou association d'objets, concret ou abstrait, existant, ayant existé ou pouvant exister EXEMPLE Personne, événement, idée, processus, etc. NOTE Une entité existe que l'on dispose de données à son sujet ou non.
48	ISO/IEC 9798-1:1997 (3.3.11); ISO/IEC 15944-1:2002 (3.21)	entity authentic-ation	09	corroboration that the **entity** is the one claimed	authentifi-cation de l'entité*	02	corroboration que l'**entité** est bien celle qui est revendiquée

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Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
49	ISO/IEC 15944-5:2007 (3.49)	exchange code set	09	set of **ID codes** identified in a **coded domain** as being suitable for information exchange as shareable **data** EXAMPLE The 3 numeric, 2-alpha and 3-alpha code sets in ISO 3166-1.	ensemble de codes d'échange	01	ensemble de **codes ID** identifié dans un **domaine codé** comme convenant à l'échange d'information en tant que données partageables EXEMPLE L'ensemble des 3 codes numériques, alphabétiques à 2 lettres et alphabétiques à 3 lettres, dans l'ISO 3166-1.
50	ISO/IEC 15944-1:2002 (3.23)	external constraint	09	**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** NOTE 1 Normally external constraints are created by law, regulation, orders, treaties, conventions or similar instruments. NOTE 2 Other sources of external constraints are those of a sectoral nature, those which pertain to a particular jurisdiction or a mutually agreed to common business conventions, (e.g., INCOTERMS, exchanges, etc.). NOTE 3 External constraints can apply to the nature of the good, service and/or right provided in a business transaction. NOTE 4 External constraints can demand that a party to a business transaction meet specific requirements of a particular role. EXAMPLE 1 Only a qualified medical doctor may issue a prescription for a controlled drug. EXAMPLE 2 Only an accredited share dealer may place transactions on the New York Stock Exchange. EXAMPLE 3 Hazardous wastes may only be conveyed by a licensed enterprise.	contrainte externe	02	**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** NOTE 1 Normalement, les contraintes externes découlent des lois, règlements, décrets, traités, conventions, ou autres instruments semblables. NOTE 2 D'autres sources de contraintes externes sont de nature sectorielle, qui relèvent d'une juridiction particulière, ou de conventions d'affaires convenues mutuellement, (par ex. INCOTERMS, les échanges, etc.). NOTE 3 Des contraintes externes peuvent s'exercer sur la nature des biens, des services, et/ou au droit accordé dans une transaction d'affaires. NOTE 4 Des contraintes externes peuvent exiger qu'une partie dans une transaction d'affaires réponde aux exigences spécifiques d'un rôle. EXEMPLE 1 Seul un médecin diplômé peut prescrire une ordonnance pour un médicament contrôlé. EXEMPLE 2 Seul un courtier en actions accrédité peut effectuer des transactions à la bourse de New York. EXEMPLE 3 Seule une entreprise attitrée peut transporter des déchets dangereux.

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Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				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. 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 exchanged, as a "record". NOTE 6 A minimum external constraint applicable to a business transaction often requires one to differentiate whether the Person, i.e. 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".			NOTE 5 Lorsque les faisceaux d'information, y compris leurs composantes sémantiques, d'une transaction d'affaires constituent l'ensemble d'une transaction d'affaires (par ex. à des fins juridiques ou comptables), toutes les contraintes doivent être enregistrées. EXEMPLE Il peut exister une exigence légale ou comptable de conserver la totalité des documents enregistrés relatifs à une transaction d'affaires, c.-à-d. les faisceaux d'information échangés, comme un «enregistrement». NOTE 6 Une contrainte externe minimum applicable à une transaction d'affaires exige souvent de distinguer si une Personne, c.-à-d. une partie dans une transaction d'affaires, est un «individu», une «organisation» ou une «administration publique». Par ex., les droits de protection de la vie privée ne s'appliquent qu'à une Personne en tant qu'«individu»
51	ISO/IEC 14662:2004 (3.1.6)	Formal Description Technique (FDT)	09	specification method based on a description language using rigorous and unambiguous rules both with respect to developing expressions in the language (formal syntax) and interpreting the meaning of these expressions (formal semantics)	Technique de description formelle (FDT, Formal description Technique)	02	méthode de spécification fondée sur un langage de spécification faisant appel à des règles rigoureuses et non ambiguës tant pour le développement d'expressions dans le langage (syntaxe formelle) que pour l'interprétation de la signification de ces expressions (sémantique formelle)
52	ISO/IEC 9541-1:1991; ISO/IEC TR 15285:1998 (3.5)	glyph	09	recognizable abstract graphic symbol which is independent of any specific design	glyphe	01	symbole graphique abstrait reconnaissable qui est indépendant de toute conception spécifique

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Term ID.	**Source**	**Term**	**G**	**Definition**	**Term**	**G**	**Definition**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
53	ISO/IEC 15944-2:2006 (3.35)	Human Interface Equivalent (HIE)	09	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 NOTE 1 Human interface equivalents can be linguistic or non-linguistic in nature but their semantics remains the same although their representations may vary. 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 sectoral nature. NOTE 3 Human Interface Equivalents include representations in various forms or formats, (e.g., in addition to written text those of an audio, symbol (and icon) nature, glyphs, image, etc.).	Équivalent d'Interface humaine (HIE) (HIE, Human Interface Equivalent)	01	représentation de la sémantique **non-ambigüe** et **habilitée TI** d'un **équivalent interface TI** (dans une **transaction d'affaires**), souvent le **code ID** d'un **domaine codé** (ou d'un **identificateur composite**), d'une manière formalisée qui convient à la communication et qui est compréhensible par les humains NOTE 1 Les Équivalents d'Interface humaine peuvent être de nature linguistique on non, mais leur sémantique reste la même bien que leurs représentations puissent varier. NOTE 2 Dans la plupart des cas, il y aura des représentations d' Équivalents d'Interface humaine multiples selon les besoins pour répondre aux exigences en matière de localisation, c.-à.d. ceux de nature linguistique, juridictionnelle et/ou sectorielle. NOTE 3 Les Équivalents d'Interface humaine comprennent les représentations sous formes et formats différents (par ex. en plus du texte écrit, l'audio, les symboles, les icônes, les glyphes, les images, etc.).
54	ISO/IEC 5944-2:2006 (3.36)	IB Identifier	09	unique, linguistically neutral, **unambiguous** referenceable **identifier** for an **Information Bundle**	Identifi-cateur IB	01	**identificateur** d'un **Faisceau d'informations** unique, linguistiquement neutre et référençable de façon **non-ambigüe**

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
55	ISO/IEC 15944-2:2006 (3.37)	ID Code	09	**identifier** assigned by the **coded domain Source Authority (cdSA)** to a member of a **coded domain** ID NOTE 1 ID codes must be unique within the Registration Schema of that coded domain. 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. 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. 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. EXAMPLES (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”; and/or, if required, (4) the pre-reservation of a series or set of ID codes for use for "user extensions". NOTE 5 In UML modeling notation, an ID code is viewed as an instance of an object class.	code ID	01	**identificateur** attribué par l’**Autorité de source du domaine codé (cdSA)** à un membre d’une ID **de domaine codé** NOTE 1 Les codes ID doivent être uniques dans le Schéma d’enregistrement de ce domaine codé. NOTE 2 On peut rattacher à un code ID dans un domaine codé: un ou plusieurs codes équivalents, une ou plusieurs représentations équivalentes; en particulier ceux et celles qui sont sous forme d’expressions (linguistiques) équivalentes humaines. NOTE 3 Lorsque l’on permet à une entité en tant que membre d’un domaine codé d’avoir plus d’un code ID, c.-à.-d. comme codes équivalents, l’un de ces codes doit être spécifié comme code ID pivot. NOTE 4 Un domaine codé peut contenir des codes ID relatifs aux entités qui ne sont pas membres à titre d’entités paires, c.-à.-d. ont les mêmes propriétés et comportements, tels que les codes ID relatifs à des conditions prédéfinies autres que celles des entités membres. Dans ce cas, les règles régissant de telles exceptions doivent être prédéfinies et énoncées explicitement. EXEMPLES (1) l’utilisation d’un code ID «0» (ou «00», etc.) pour «Autres»; (2) l’utilisation d’un code ID «9» (ou «99») pour «Sans objet»; (3) l’utilisation du «8» (ou «88») pour «non connu»; et/ou, si nécessaire, (4) la pré-réservation d’une série ou d’ensemble de codes ID pour usage dans les «extensions utilisateur». NOTE 5 Dans la notation de modélisation UML, un code ID est considéré comme instance de classe d’objet.
56	ISO/IEC 15944-1:2002 (3.26)	identific-ation	09	**rule**-based process, explicitly stated, involving the use of one or more **attributes**, i.e., **data elements**, whose values (or combination of values) are used to identify uniquely the occurrence or existence of a specified **entity**	identifi-cation	02	processus basé sur des **règles**, énoncées explicitement impliquant l'utilisation d'un ou plusieurs **attributs**, c-à-d. d'**éléments de données**, dont la valeur (ou une combinaison de valeurs) sert à identifier de façon unique l'occurrence ou l'existence d'une

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
							entité spécifée.
57	ISO/IEC 15944-1:2002 (3.27)	identifier ⟨business transaction⟩	09	**unambiguous**, unique and linguistically neutral value resulting from the application of a **rule**-based **identification** process. NOTE 1 Identifiers must be unique within the identification scheme of the issuing authority. 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 19135, (4.1.5).	identifi-cateur ⟨transaction d'affaires⟩	01	valeur **non-ambiguë** et linguistiquement neutre, résultant de l'application d'un processus d'**identification** à base de **règles**. NOTE 1 Les identificateurs doivent être uniques dans le système d'identification de l'autorité émettrice. NOTE 2 Un identificateur est une séquence de caractères linguistiquement indépendante capable d'identifier de façon unique et permanente ce à quoi il est associé. Voir l'ISO 19135, (4.1.5).
58		indexing language	09	**artificial language** established to characterize the content or form of a document.	langage d'indexation	01	**langage artificiel** établi pour caractériser le contenu ou la forme d'un document
59	ISO/IEC 15944-1:2002 (3.28)	individual	09	**Person** who is a human being, i.e. a natural person, who acts as a distinct indivisible entity or is considered as such	individu	01	**Personne** qui est un être humain, c-à-d. une personne physique, qui agit à titre d'entité indivisible distincte ou qui est considérée comme telle
60	ISO/IEC 15944-5:2007 (3.60)	individual accessibility	09	set of **external constraints** of a **jurisdictional domain** as rights of an **individual** with a disability(ies) to be able to utilize **IT systems** at the human, i.e. user, interface and the concomitant obligation of a **seller** to provide such adaptive technologies NOTE 1 Although "accessibility" typically addresses users who have a disability, the concept is not limited to disability issues. NOTE 2 Examples of disabilities in the form of functional and cognitive limitations include: - people who are blind; - people with low vision - people with colour blindness; - people who are hard of hearing or deaf, i.e., are hearing impaired; - people with physical disabilities; - people with language or cognitive disabilities.	accessibilité individuelle	02	ensemble de **contraintes externes** d'un **domaine juridictionnel** comme droits d'un **individu** atteint de déficience d'être capable d'utiliser des **systèmes TI** au niveau de l'interface humaine, c.-à.-d. utilisateur, et l'obligation concomitante d'un **vendeur** d'offrir ce type de technologies adaptatives NOTE 1 Bien que l'« accessibilité » s'adresse typiquement aux utilisateurs qui ont une déficience, le concept ne se limite pas aux questions de déficience. NOTE 2 Comme exemples de déficiences sous formes de limitations fonctionnelles et cognitives, on trouve: - les personnes aveugles; - les personnes à basse vision; - les personnes atteintes d'achromatopsie; - les personnes sourdes ou ayant une déficience auditive; - les personnes atteintes de déficience physique; - les personnes atteintes de déficience linguistique ou cognitive.

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
61	ISO/IEC 14662:2004 (4.1.2.2)]	Information Bundle (IB)	09	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'infor-mations (IB, Information Bundle)	01	description formelle de la valeur sémantique des **informations enregistrées** échangées entre **partenaires d'EDI-ouvert** jouant un **rôle** dans un **scénario d'EDI-ouvert**
62	ISO/IEC 14662:2004 (4.2.2)	Information Processing Domain (IPD)	09	**Information Technology System** which includes at least either a **Decision Making Application** and/or one of the components of an **Open-edi Support Infrastructure**, and acts/executes on behalf of an **Open-edi Party** (either directly or under a delegated authority)	Domaine de traitement de l'information (IPD, Information Processing Domain)	01	**système d'information** comprenant au moins une **Application à pouvoir (DMA)** de décision ou un des composants de **l'infrastructure de support d'EDI-ouvert** ou les deux, agissant ou fonctionnant au nom d'un **partenaire d'EDI-ouvert** (directement ou par délégation d'autorité)
63	ISO/IEC 14662:2004 (3.1.8)	Information Technology System (IT System)	09	set of one or more computers, associated software, peripherals, terminals, human operations, physical processes, information transfer means that form an autonomous whole, capable of performing information processing and/or information transfer	système d'infor-mation (IT System)	01	ensemble constitué d'un ou de plusieurs ordinateurs, avec leurs logiciels associés, de périphériques, de terminaux, d'opérateurs humains, de processus physiques et de moyens de transfert d'information, formant un tout autonome capable de traiter l'information et/ou de la transmettre
64	ISO/IEC 15944-1:2002 (3.33)	internal constraint	09	**constraint** which forms part of the **commitment(s)** mutually agreed to among the parties to a **business transaction** 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 the nature of the conduct of a business transaction other than those mutually agreed to by the buyer and seller.	contrainte interne	02	**contrainte** qui fait partie de l'**engagement** convenu mutuellement entre les parties d'une **transaction d'affaires** NOTE Les contraintes internes sont volontaires. Elles présentent une vue simplifiée de modélisation et de réutilisation des composantes de scénario d'une transaction 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.

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Term ID.	**Source**	**Term**	**G**	**Definition**	**Term**	**G**	**Definition**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
65	ISO/IEC 15944-5:2007 (3.65)	IT-enablement	09	transformation of a current **standard** utilized in **business transactions**, (e.g., **coded domains**) from a manual to computational perspective so as to be able to support **commitment** exchange and **computational integrity**	habilitation TI	02	transformation des **normes** actuelles utilisées dans le **transaction d'affaires** (par exemple, les **domaines codés**) de mode manuel en mode informatique, afin de pouvoir assurer un échange d'**engagements** et une **intégrité informatique**
66	ISO/IEC 15944-2:2006 (3.45)	IT-interface equivalent	09	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 **computational integrity** NOTE 1 IT interface equivalents have the properties of identifiers (in business transaction) and are utilized to support semantic interoperability in commitment exchange. NOTE 2 The value of an IT interface equivalent at times is a composite identifier. 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. NOTE 4 An IT interface equivalent is at times utilized as a semantic identifier. NOTE 5 An IT interface equivalent may have associated with it one or more Human Interface Equivalents (HIEs). NOTE 6 The value of an IT interface equivalent is independent of its encoding in programming languages or APIs.	équivalent d'interface TI	01	**identification** informatisable des sémantiques **non-ambigües** d'un scénario, d'un **attribut de scénario** et/ou de **composante(s) de scénario** concernant un échange d'**engagements** dans une **transaction d'affaires** qui soutient l'**intégrité computationnelle** NOTE 1 Les équivalents d'interface IT ont les propriétés d'identificateurs (dans une transaction d'affaires) et sont utilisés pour soutenir l'interopérabilité sémantique dans l'échange d'engagements. NOTE 2 La valeur d'un équivalent d'interface IT est parfois un identificateur composite. NOTE 3 Un équivalent d'interface IT en tant qu'identificateur composite peut se composer de l'identificateur d'un domaine codé plus un code ID de ce domaine codé. NOTE 4 Un équivalent d'interface IT est parfois utilisé comme identificateur sémantique. NOTE 5 Un équivalent d'interface IT peut être rattaché à un ou plusieurs Équivalents d'interface humaine (HIE). NOTE 6 La valeur d'un équivalent d'interface IT est indépendante de son codage dans les langages de programmation ou des API.

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Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
67	ISO/IEC 15944-5:2007 (3.67)	jurisdic-tional domain	09	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 transaction** 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. NOTE 2 Jurisdictional domains can combine to form new jurisdictional domains (e.g. through bilateral, multilateral and/or international treaties). Examples are the European Union (EU), NAFTA, WTO, WCO, ICAO, WHO, Red Cross, the ISO, the IEC, the ITU, etc. NOTE 3 Several levels and categories of jurisdictional domains may exist within a jurisdictional domain. 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 whether such interchange of commitments are conducted on a for-profit or not-for-profit basis and/or include monetary values. 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.	domaine juridiction-nel	01	juridiction, reconnue par la loi comme cadre légal distinct et/ou de réglementation, qui est une source de **contraintes externes** pour les **Personnes**, leur comportement et la prise d'**engagements** entre les **Personnes**, y compris tout aspect d'une **transaction d'affaires** NOTE 1 Le domaine juridictionnel pivot est un état membre reconnu par les Nations unies (ONU). Dans une perspective juridique et de souveraineté, tous les états sont considérés comme des entités «paires». Chaque état membre de l'ONU (alias pays) peut avoir des subdivisions administratives comme domaines juridictionnels reconnus (par ex. provinces, territoires, cantons, länder, etc.), tel que décidé par cet état membre de l'ONU. NOTE 2 Des domaines juridictionnels peuvent être combinés pour former de nouveaux domaines juridictionnels (par ex., grâce à des traités bilatéraux, multilatéraux et/ou internationaux). Des exemples en sont l'Union européenne (UE), l'ALENA, l'OMC, l'OMD, l'OACI, l'OMS, la Croix-rouge, l'ISO, la CEI, l'UIT, etc. NOTES 3 Plusieurs niveaux et catégories de domaines juridictionnels peuvent exister à l'intérieur d'un domaine juridictionnel. NOTE 4 Un domaine juridictionnel peut avoir des répercussions sur des aspects des engagements pris dans le cadre de transactions d'affaires, y compris celles qui ont trait à la fabrication, la dispensation, la vente et le transfert de biens, de services et/ou de droits (et des responsabilités qui en résultent), et l'information connexe. Ceci indépendamment du fait que de tels échanges d'engagements peuvent s'effectuer dans un (ou sans) but lucratif et/ou inclure des valeurs monétaires. NOTE 5 Les lois, règlements, directives, etc., promulgués par un domaine juridictionnel sont considérés comme faisant partie de ce domaine juridictionnel et sont les sources principales de contraintes externes exercées sur les transactions d'affaires.

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
68	ISO/IEC 15944-2:2006 (3.47)	jurisdic-tional domain identifier	09	**ID code** of a **jurisdictional domain** as recognized for use by peer **jurisdictional domains** within a system of mutual recognition	identifi-cateur de domaine juridiction-nel	01	**code ID** d'un **domaine juridictionnel** reconnu pour utilisation par des **domaines juridictionnels** pairs dans un système de reconnaissance mutuelle
69	ISO 5127-1:2001 (1.1.2.01)	language	09	system of signs for communication, usually consisting of a **vocabulary** and **rules** NOTE In this standard, language refers to natural languages or special languages, but not "programming languages" or "artificial languages".	langue	02	système de signes de communication compose habituellement d'un **vocabulaire** et de **règles** NOTE Dans la présente nome, la langue se réfère aux langues naturelles ou aux langues de spécialité, mais pas aux «langages de programmation» ou «langages artificiels».
70	ISO 639-2:1998 (3.2. adapted)	language code	09	combination of **characters** used to represent a **language** or **languages** NOTE In ISO/IEC 15944, the ISO 639-2/T (terminology) three alpha-code is used.	code de langue	01	combinaison de **caractères** utilisées pour représenter une **langue** ou des **langues**. NOTE Dans l'ISO/CEI 15944, le code alpha trois de l'ISO 639-2/T (terminologie) est utilisé.
71	ISO/IEC 15944-5:2007 (3.71)	legally recognized language (LRL)	09	**natural language** which has status (other than an **official language** or **de facto language**) in **a jurisdictional domain** as stated in an act, regulation, or other legal instrument, which grants a community of people (or its individuals) the right to use that **natural language** in the context stipulated by the legal instrument(s) NOTE 1 The LRL can be specified through either: - the identification of a language by the name utilized; or, - the identification of a people and thus their language(s). NOTE 2 In addition to acts and regulations, legal instruments include self-government agreements, land claim settlements, court decisions, jurisprudence, etc.	langue reconnue légalement (LRL, legally recognized language)	02	**langage naturel** ayant le statut (autre que celui de **langue officielle** ou de **langue de facto**) dans un **domaine juridictionnel** tel qu'énoncé dans une loi, un règlement ou tout autre instrument légal, qui accorde à une communauté de personnes (ou à ses individus) le droit d'utiliser ce **langage naturel** dans le contexte stipulé par l'(ou les) instrument(s) léga(ux) NOTE 1 La langue reconnue légalement peut être spécifiée - soit par l'identification d'une langue par son nom utilisé; - soit par l'identification d'un peuple et ainsi de sa (ou ses) langue(s). NOTE 2 En plus des lois et règlements, les instruments légaux comprennent les ententes d'autonomie gouvernementale, les règlements en matière de revendication territoriale, les décisions de tribunal, la jurisprudence, etc.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
72	ISO/IEC 15944-5:2007 (3.72)	legally recognized name (LRN)	09	**persona** associated with a **role** of a **Person** recognized as having legal status and so recognized in a **jurisdictional domain** as accepted or assigned in compliance with the applicable **rules** of that **jurisdictional domain**, i.e. as governing the **coded domain** of which the LRN is a member NOTE 1 A LRN may be of a general nature and thus be available for general use in commitment exchange or may arise from the application of a particular law, regulation, program or service of a jurisdictional domain and thus will have a specified use in commitment exchange. NOTE 2 The process of the establishment of a LRN is usually accompanied by the assignment of a unique identifier. NOTE 3 A LRN is usually a registry entry in a register established by the jurisdictional domain (usually by a specified public administration within that jurisdictional domain) for the purpose of applying the applicable rules and registering and recording LRNs (and possible accompanying unique identifiers accordingly). NOTE 4 A Person may have more than one LRN (and associated LRN identifier).	nom légalement reconnu (LRN, legally recognized name)	01	**personne** rattachée au **rôle** d'une **Personne** reconnue comme ayant un statut légal et ainsi reconnue dans un **domaine juridictionnel** comme acceptée ou attribuée conformément aux **règles** applicables de ce **domaine juridictionnel**, c.-à.-d. celles régissant le **domaine codé** dont le NLR est membre NOTE 1 Un NLR peut être de nature générale et ainsi être disponible pour usage général dans l'échange d'engagements ou peut découler de l'application d'une loi, d'un règlement, d'un programme ou d'un service particulier d'un domaine juridictionnel et ainsi avoir un usage spécifié dans l'échange d'engagements. NOTE 2 Ce processus d'établissement d'un NLR s'accompagne habituellement de l'attribution d'un identificateur unique. NOTE 3 Un NLR est habituellement une entrée de registre dans un registre établi par le domaine juridictionnel (habituellement par une administration publique spécifiée dans ce domaine juridictionnel) aux fins d'application des règles applicables et de l'enregistrement et de l'inscription des NLR (et par conséquent de leurs identificateurs uniques possibles les accompagnant). NOTE 4 Une Personne peut avoir plus d'un NLR (et identificateur NLR connexe).
73	ISO/IEC 2382-4:1999 (04.08.01)	list	09	ordered set of **data elements**	liste	02	ensemble **d'éléments de données** dont l'ordre est défini

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
74	ISO/IEC 15944-5:2007 (3.74)	localization	09	pertaining to or concerned with anything that is not global and is bound through specified sets of **constraints** of: a) a linguistic nature including natural and special languages and associated multilingual requirements; b) jurisdictional nature, i.e., legal, regulatory, geopolitical, etc.; c) a sectoral nature, i.e., industry sector, scientific, professional, etc.; d) a human rights nature, i.e., privacy, disabled/handicapped persons etc., e) consumer behaviour requirements; and/or, f) safety or health requirements. NOTE Within and among "locales", interoperability and harmonization objectives also apply.	localisation	02	se rapportant à ou concernant tout ce qui n'est pas mondial et est lié par une série de **contraints** particuliers: a) une nature linguistique comprenant les langues naturelles et spéciales ainsi que les exigences multilingues connexes; b) une nature juridique, par exemple légale, de réglementation, géopolitique, etc.; c) une nature sectorielle, par exemple le secteur industriel, scientifique, professionnel, etc.; d) une nature des droits de la personne, par exemple le respect de la vie privée, les handicapés, etc.; e) les exigences en matière de comportement des consommateurs; et/ou f) les exigences en matière de sécurité et de santé. NOTE Des objectifs d'interopérabilité et d'harmonisation s'appliquent également à la localisation.
75	ISO/IEC 15944-2:2006 (3.50)	location	09	place, either physical or electronic, that can be defined as an **address**	emplace-ment	01	lieu, physique ou électronique, pouvant être défini par une **adresse**
76	ISO/IEC 15944-1:2002 (3.34)	medium	09	physical material which serves as a functional unit, in or on which information or **data** is normally recorded, in which information or **data** can be retained and carried, from which information or **data** can be retrieved, and which is non-volatile in nature NOTE 1 This definition is independent of the nature of the material on which the information is recorded and/or the technology utilized to record the information, [e.g., paper, photographic, (chemical), magnetic, optical, ICs (integrated circuits), as well as other categories no longer in common use such as vellum, parchment (and other animal skins), plastics (e.g., bakelite or vinyl), textiles (e.g., linen, canvas), metals, etc.].	support	01	matériel physique qui sert d'unité fonctionnelle, et dans lequel ou sur lequel l'information ou les **données** sont normalement stockées, dans lequel de l'information ou des **données** peuvent être retenues et transportées, à partir duquel de l'information ou des **données** peuvent être extraites, et qui est non-volatile par nature NOTE 1 Cette définition est indépendante de la nature matérielle sur laquelle l'information est enregistrée et/ou de la technologie utilisée pour enregistrer l'information [par exemple du papier, des supports photographiques (chimiques), magnétiques, optiques, des circuits imprimés, ainsi que d'autres catégories qui ne sont plus utilisées de façon courante telles que le vélin, le parchemin (et autres peaux animales), les plastiques (par exemple la bakélite ou le vinyl), les textiles (par exemple le lin et la toile), les métaux,

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Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				NOTE 2 The inclusion of the "non-volatile in nature" attribute is to cover latency and records retention requirements. NOTE 3 This definition of "medium" is independent of: a) form or format of recorded information; b) physical dimension and/or size; and, c) any container or housing that is physically separate from material being housed and without which the medium can remain a functional unit. NOTE 4 This definition of "medium" also captures and integrates the following key properties: a) the property of medium as a material in or on which information or data can be recorded and retrieved; b) the property of storage; c) the property of physical carrier; d) the property of physical manifestation, i.e., material; e) the property of a functional unit; and, f) the property of (some degree of) stability of the material in or on which the information or data is recorded.			etc.]. NOTE 2 L'inclusion de l'attribut «nature non-volatile» couvre les exigences en matière de latence et de rétention des dossiers. NOTE 3 La définition de «support» est indépendante des éléments suivants: a) la forme ou le format de l'information enregistrée; b) la dimension physique et/ou la taille; et, c) tout conteneur ou boîtier qui est séparé physiquement du matériel logé et sans lequel le support peut demeurer une unité fonctionnelle. NOTE 4 La définition de «support» reflète et intègre aussi les propriétés clés suivantes: a) propriété du support comme matériel dans ou sur lequel de l'information ou des données peuvent être stockées et extraites; b) la propriété du stockage; c) la propriété du porteur physique; d) la propriété de la manifestation physique, par exemple le matériel; e) la propriété d'une unité fonctionnelle; et, f) la propriété (jusqu'à un certain degré) de la stabilité du matériel dans ou sur lequel l'information ou les données sont stockées.
77	ISO/IEC 2382-17:1999 (17.06.05)	metadata	09	**data** about **data elements**, including their data descriptions, and **data** about data ownership, access paths, access rights and data volatility	méta-donnée	02	**donnée** au sujet **d'élément de données**, y compris leurs descriptions de données, ou **donnée** au sujet de la propriéte des données, des chemins d'accès, des droits d'accès et de la volatilité des données
78	ISO 19115:2003 (4.7)	metadata entity	09	set of **metadata** elements describing the same aspect of data NOTE 1 May contain one or more metadata entities. NOTE 2 Equivalent to a class in UML terminology.	entité de méta-donnée*	02	ensemble d'**éléments de métadonnée** décrivant le même aspect de donnée NOTE 1 Peut contenir une ou plusieurs entité de métadonnée. NOTE 2 Équivalent à une classe dans la terminologie UML.

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Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
79	ISO 19115:2003 (4.8)	metadata section	09	subset of **metadata** which consists of a collection of related metadata entities and metadata elements	section de méta-donnée*	02	sous-ensemble de **métadonnées** qui consiste en une collecte d'entités de métadonnée et d'éléments de métadonnée connexes
80	ISO 19115:2003 (4.9)	model	09	abstraction of some aspect of reality	Modèle*	01	abstraction de certains aspects de la réalité
81	ISO/IEC 15944-5:2007 (3.81)	multilateral treaty	09	**treaty** (or convention) that has the ambition to become universal (or near universal) and thus bind most of the international community by declaring general rules of law, or by creating general regulatory regimes EXAMPLE Law of the Sea, Law on Genocide. NOTE 1 A multilateral treaty may have the goal of creating a regulatory regime of law for a particular area or major multilateral institution, (e.g., Agreement Establishing the WTO, Kyoto Protocol, Safety of Life at Sea Convention). NOTE 2 A multilateral treaty may allow for reservations or the treaty may be subject to many amendments which do not bind all parties or require all parties to undertake the same legal obligations, (e.g., the Berne and Paris conventions).	traité multilatéral	01	**traité** (on convention) destiné à devenir universel (ou quasi-universel) et ainsi à lier la majorité de la communauté internationale en déclarant des règles de droit, ou en créant des régimes de réglementation généraux EXEMPLE Droit de la mer, loi sur les génocides. NOTE 1 Un traité multilatéral peut avoir comme objectif de créer un régime de droit de réglementation dans un domaine particulier ou pour des grands organismes multilatéraux, (par ex. l'Accord instituant l'OMC, le Protocole de Kyoto, la Convention sur la sauvegarde de la vie humaine en mer). NOTE 2 Un traité multilatéral peut autoriser certaines réserves ou il peut faire l'objet de plusieurs modifications qui ne lient pas toutes les parties ou exigent que toutes les parties respectent les mêmes obligations légales (par ex. les conventions de Berne et de Paris).
82	ISO/IEC 15944-5:2007 (3.82)	multi-lingualism	09	ability to support not only **character sets** specific to a **(natural) language** (or family of **languages**) and associated **rules** but also **localization** requirements, i.e., use of a language from **jurisdictional domain,** sectoral and/or consumer marketplace perspectives	multi-linguisme	01	capacité de supporter non seulement **les jeux de caractères** particuliers à une **langue (naturelle)** (ou une famille de **langues**) ainsi que les **règles** connexes, mais aussi les exigences en matière de **localisation**, par ex. l'utilisation d'une langue dans une perspective de **domaine juridictionnel**, sectorielle et/ou de marché du consommateur
83	ISO 5127:2001 (1.1.2.02)	name	09	**designation** of an **object** by a linguistic expression	nom	01	**désignation** d'un **objet** par une unité linguistique

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Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
84	ISO 5127:2001 (1.1.2.02)	natural language	09	**language** which is or was in active use in a community of people, and the **rules** of which are mainly deduced from the usage	langage naturel	01	**langage** qui est ou était pratiqué dans une communauté de personnes et **règles** qui sont essentiellement déduites de son usage
85	ISO 1087-1:2000 (3.1.1)	object	09	anything perceivable or conceivable NOTE Objects may be material (e.g. engine, a sheet of paper, a diamond), immaterial (e.g. conversion ratio, a project plan) or imagined (e.g. a unicorn).	objet	01	tout ce qui peut être perçu ou conçu NOTE Les objets peuvent être matériels (par exemple un moteur, une feuille de papier, un diamant), immatériels (par exemple un rapport de conversion, un plan de projet) ou imaginaires (par exemple une licorne).
86	ISO/IEC 11179-1:2004 (3.3.22)	object class	09	set of ideas, abstractions or things in the real world that can be identified with explicit boundaries and meaning and whose properties and behavior follow the same rules	classe d'objets*	02	ensemble d'idées, d'abstractions ou de choses du monde réel qui peuvent être identifiées avec des limites et une signification explicites et dont les propriétés et le comportement suivent les mêmes règles
87	ISO/IEC 15944-5:2007 (3.87)	official language	09	**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) a) within that **jurisdictional domain**; and/or, b) 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 mutually acceptable natural language and/or special language for communications as well as exchange of commitments. NOTE 2 A jurisdictional domain decides whether or not it has an official language. If not, it will have a de facto language.	langue officielle	02	**contrainte externe** sous forme de **langage naturel** spécifié par un **domaine juridictionnel** pour usage officiel par des **Personnes** faisant partie ou sujettes de ce **domaine juridictionnel** dans la (ou les) communication(s) a) soit à l'intérieur de ce **domaine juridictionnel**, b) soit entre ces **Personnes**, lorsque ces communications sont une **information enregistrée** impliquant un (ou des) **engagement(s)** NOTE 1 Sauf exigence contraire concernant une langue officielle, les Personnes sont libres de choisir leur langage naturel mutuellement acceptable et/ou leur langue de spécialité dans les communications et l'échange d'engagements. NOTE 2 Un domaine juridictionnel décide s'il dispose d'une langue officielle. Dans le cas contraire, il disposera d'une langue de facto.

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				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. 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. 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. NOTE 6 For an official language, the writing system(s) to be used must be specified, where the spoken use of a natural language has more than one writing system. 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. 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). 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.			NOTE 3 Une (ou des) langue(s) officielle(s) peut (ou peuvent) être exigée(s) dans les communications officielles et la disposition de biens et de services aux Personnes sujettes de ce domaine juridictionnel et dans le(s) système(s) juridique(s) et autre(s) système(s) de résolution de conflit de ce domaine juridictionnel, etc. NOTE 4 S'il y a lieu, l'utilisation d'une langue officielle peut être exigée dans l'exercice de droits et d'obligations des individus de ce domaine juridictionnel. NOTE 5 Lorsqu'une langue officielle d'un domaine juridictionnel dispose d'un vocabulaire contrôlé de la nature d'une terminologie, elle peut très bien avoir les caractéristiques d'une langue de spécialité. Dans de tels cas, la terminologie à utiliser doit être spécifiée. NOTE 6 En ce qui concerne une langue officielle, il faut spécifier le(s) système(s) d'écriture à utiliser lorsque l'usage parlé d'un langage naturel a plus d'un système d'écriture. EXEMPLE 1 La langue parlée d'une langue officielle peut parfois avoir plus d'un système d'écriture. L'Inuktitut, par ex., a trois systèmes d'écriture. Le Canada utilise deux de ces systèmes d'écriture, notamment l'alphabet latin-1 (romain) et l'alphabet syllabique. Le troisième est utilisé en Russie et est basé sur des caractères cyrilliques. EXEMPLE 2 Un autre exemple est celui de la Norvège qui a deux systèmes d'écriture officiels, tous les deux basés sur l'alphabet latin-1: le Bokmål (Dano-Norvégien) et le Nynorsk (Nouveau Norvégien). NOTE 7 Un domaine juridictionnel peut avoir plusieurs langues officielles; celles-ci peuvent avoir ou non un statut identique. EXEMPLE Le Canada a deux langues officielles, la Suisse trois et l'Afrique du Sud onze. NOTE 8 L'exigence BOV concernant l'usage d'une langue officielle spécifique s'applique également à tout service de soutien FSV.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				NOTE 8 The BOV requirement of the use of a specified official language will place that requirement on any FSV supporting service. 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.			EXEMPLE Une exigence BOV pour l'arabe, le chinois, le russe, le japonais, le coréen, etc. comme langue officielle exige que le service de soutien FSV soit capable de soutenir les jeux de caractères associés.
88	ISO/IEC 14662:2004 (3.1.9)	Open-edi	09	**electronic data interchange** among multiple autonomous **Persons** to accomplish an explicit shared business goal according to Open-edi standards	EDI-ouvert	01	**échange de données informatisé** par application des normes d'EDI-ouvert entre plusieurs **Personnes** autonomes visant un objectif d'affaires explicitement partagé
89	ISO/IEC 14662:2004 (4.1.1)	Open-edi Description Technique (OeDT)	09	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 (OeDT, Open-edi Description Technique)	02	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
90	ISO/IEC 15944-5:2007 (3.90)	Open-edi disposition	09	**process** governing the implementation of formally approved **records retention**, destruction (or expungement) or transfer of **recorded information** under the control of a **Person** which are documented in disposition authorities or similar instruments NOTE Adapted from ISO 15489-1:2001 (3.9).	disposition d'EDI-ouvert	02	**processus** gouvernant l'application d'une **rétention d'enregistrement** formellement approuvée, la destruction (ou radiation) ou le transfert d'**information enregistrée** sous le contrôle d'une **Personne** qui sont documentés dans des autorités de disposition ou instruments semblables NOTE Adapté de l'ISO 15489-1:2001 (3.9).
91	ISO/IEC 14662:2004 (3.1.11)	Open-edi Party (OeP)	09	**Person** that participates in **Open-edi** NOTE Often in ISO/IEC 15944 referred to generically as "party" or "parties" for any entity modelled as a Person as playing a role in Open-edi scenarios.	Partenaire d'EDI-ouvert (OeP, Open-edi Party)	01	Personne participant à l'EDI-ouvert NOTE Dans l'ISO/CEI 15944, souvent mentionnée de façon générique comme «partie» ou «parties» pour toute entité modélisée comme une Personne jouant un rôle dans les scénarios d'EDI-ouvert.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
92	ISO/IEC 15944-5:2007 (3.92)	Open-edi Record Retention (OeRR)	09	specification of a period of time that a **set of recorded information** must be kept by a **Person** in order to meet operational, legal, regulatory, fiscal or other requirements as specified in the **external constraints** (or **internal constraints**) applicable to a **Person** who is a party to a **business transaction**	Rétention d'enregis-trement d'EDI-ouvert (OeRR, Open-edi Record Retention)	02	spécification d'une période de temps pendant laquelle un **ensemble d'informations enregistrées** doit être conserve par une **Personne** afin de répondre à des exigences opérationnelles, légales, de réglementation, fiscales ou autres, tel que spécifié dans les **contraintes externes** (ou les **contraintes internes**) applicables à une **Personne** faisant partie d'une **transaction d'affaires**
93	ISO/IEC 15944-2:2006 (3.69)	Open-edi Registry Item (OeRI)	09	**recorded information** within a **registry** relating to a specific **Open-edi scenario** or **scenario components** of a scenario including linkage to a **scenario content**	article d'enregis-trement d'EDI-ouvert (OeRI)	01	information **enregistrée** dans un **registre** se rapportant à un **scénario d'EDI ouvert** spécifique ou à des **composantes de scénario** d'un **scénario**, y compris l'information reliée à un **contenu de scénario**
94	ISO/IEC 14662:2004 (3.1.12)	Open-edi scenario (OeS)	09	formal specification of a class of **business transactions** having the same **business** goal	scénario d'EDI-ouvert	01	spécification formelle d'une classe de **transactions d'affaires** partageant le même objectif d'**affaires**
95	ISO/IEC 14662:2004 (4.2.1)	Open-edi Support Infra-structure (OeSI)	09	**model** of the set of functional capabilities for **Open-edi systems** which, when taken together with the **Decision Making Applications (DMAs),** allows **Open-edi Parties** to participate in **Open-edi transactions**	Infra-structure de support d'EDI-ouvert (OeSI, Open-edi Support Infra-structure)	02	**modèle** de l'ensemble des capacités fonctionnelles des **systèmes d'EDI-ouvert** qui, lorsqu'elles sont associées aux **applications à pouvoir de décision (DMA),** permettent aux **partenaires d'EDI-ouvert** de participer à des **transactions d'EDI-ouvert**
96	ISO/IEC 14662:2004 (4.2.1)	Open-edi system	09	**Information Technology System (IT system)** which enables an **Open-edi Party** to participate in **Open-edi** transactions	Système d'EDI-ouvert	01	**système d'information (IT system)** permettant à un **partenaire d'EDI-ouvert** de prendre part à des transactions d'**EDI-ouvert**

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Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
97	ISO/IEC 6523-1:1998 (3.1)	organiz-ation	09	unique framework of authority within which a person or persons act, or are designated to act, towards some purpose NOTE The kinds of organizations covered by ISO/IEC 15944 include the following examples: a) an organization incorporated under law; b) an unincorporated organization or activity providing goods and/or services including 1) partnerships, 2) social or other non-profit organizations or similar bodies in which ownership or control is vested in a group of individuals, 3) sole proprietorships, 4) governmental bodies; c) groupings of the above types of organizations where there is a need to identify these in information interchange.	organi-sation	02	cadre unique d'autorité dans lequel une ou plusieurs personnes agissent ou sont désignées pour agir afin d'atteindre un certain but NOTE Les types d'organisations couverts par l'ISO/CEI 15944 comprennent par exemple les éléments suivants: a) organisations constituées suivant des formes juridiques prévues par la loi; b) 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; c) regroupements des organisations des types ci-dessus, lorsqu'il est nécessaire de les identifier pour l'échange d'informations.
98	ISO/IEC 6523-1:1998 (3.2)	organiz-ation part	09	department, service or other entity within an **organization** which needs to be identified for information interchange	partie d'organi-sation	02	département, service ou autre entité au sein d'une **organisation**, qu'il est nécessaire d'identifier pour l'échange d'informations
99	ISO/IEC 15944-1:2002 (3.46)	organiz-ation Person	09	**organization part** which has the properties of a **Person** and thus is able to make **commitments** on behalf of that **organization** NOTE 1 An organization can have one or more organization Persons. NOTE 2 An organization Person is deemed to represent and act on behalf of the organization and to do so in a specified capacity. NOTE 3 An organization Person can be a "natural person" such as an employee or officer of the organization.	Personne d'organi-sation	02	**partie d'organisation** qui a les propriétés d'une **Personne** et est ainsi capable de prendre des engagements au nom de cette **organisation** NOTE 1 Une organisation peut avoir une ou plusieurs Personnes d'organisation. NOTE 2 Une Personne d'organisation est considérée représenter une organisation et agir en son nom, et ce à titre de capacité spécifiée. NOTE 3 Une Personne d'organisation peut être une «personne physique» telle qu'un employé ou un agent de l'organisation.

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Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				NOTE 4 An organization Person can be a legal person, i.e. another organization.			NOTE 4 Une Personne d'organisation peut être une personne morale, c.à-d. une autre organisation.
100	ISO/IEC 15944-1:2002 (3.47)	Person	09	**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 to be 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 jurisdictions. 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. 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".	Personne	02	**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 NOTE 1 Parmi les synonymes de «personne morale», on trouve «personne juridique», «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».
101	ISO/IEC 15944-1:2002 (3.48)	Person authentic-ation	09	provision of the assurance of a **recognized Person identity (rPi)** (sufficient for the purpose of the **business transaction**) by corroboration.	authentifi-cation d'une Personne	02	don de l'assurance de l'**identité d'une Personne reconnue (rPi)** (suffisante aux fins de la **transaction d'affaires**) par corroboration
102	ISO/IEC 15944-1:2002 (3.51)	persona	09	set of **data elements** and their values by which a **Person** wishes to be known and thus identified in a **business transaction**	persona	02	série d'**éléments de données** et leurs valeurs selon lesquelles une **Personne** désire être connue et ainsi identifiée dans une **transaction d'affaires**
103	ISO/IEC 15944-5:2007 (3.103)	personal information	09	information on or about an identifiable **individual** that is recorded in any form, including electronically or on paper NOTE Some examples would be recorded information about an individual's religion, age, financial transactions, medical history, address, or blood type.	renseigne-ments personnels	01	renseignement au sujet d'un **individu** identifiable, qui est enregistré sous une forme quelconque, y compris électroniquement ou sur papier NOTE Cela comprend, par exemple, l'information enregistréee à propos de la religion, de l'âge, des opérations financières, du passé médical, de l'adresse ou du groupe sanguin de quelqu'un.

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Term ID.	**Source**	**Term**	**G**	**Definition**	**Term**	**G**	**Definition**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
104	ISO/IEC 15944-5:2007 (3.104)	pivot code set	09	set of **ID codes** in a **coded domain** which is made publicly known and available, and is the most stable, representing the defined semantics NOTE 1 Most often it is the same as the **ID code**. NOTE 2 The use of the pivot code set as distinguished from the ID code supports the requirement of a Source Authority to maintain internally and on a confidential basis the ID code of its members. NOTE 3 At times a coded domain has more than one valid code set, (e.g., ISO 639, ISO 3166, etc.). EXAMPLE In ISO 3166-1 the 3-digit numeric code is the pivot. The 2-alpha and 3-alpha code sets can change when the name of the entity referenced is changed by that entity.	ensemble de codes pivots	01	ensemble de **codes ID** dans un **domaine codé** qui est rendu public et disponible, et qui est le plus stable représentant la sémantique définie NOTE 1 Le plus souvent, c'est le même que le **code ID**. NOTE 2 L'utilisation de l'ensemble de codes pivots différent du code ID appuie les exigences d'une Autorité de source pour conserver à l'interne et confidentiellement le code ID de ses membres. NOTE 3 Parfois, un domaine codé a plus d'un ensemble de codes valides (par ex. l'ISO 639, l'ISO 3166, etc.) EXEMPLE Dans l'ISO 3166-1, le code numérique à 3 chiffres est le code pivot. L'ensemble des codes alphabétique à 2 lettres et alphabétique à 3 lettres peut changer lorsque le nom de l'entité référencée est changé par cette entité.
105	ISO/IEC 15944-5:2007 (3.105)	pivot ID code	09	most stable **ID code** assigned to identify a member of a **coded domain** where more than one **ID code** may be assigned and/or associated with a member of that **coded domain** EXAMPLE ISO 3166-1 contains three code sets: – a three digit numeric code; – a two alpha code; – a three alpha code. Here, the three digit numeric code serves as the pivot code. It is the most stable, remains the same even though the two alpha and/or three alpha codes may and do change.	code ID pivot	01	**code ID** le plus stable attribué pour identifier un membre d'un **domaine codé** lorsque plusieurs **codes ID** peuvent être attribués et/ou rattachés à un membre de ce **domaine codé** EXEMPLE L'ISO 3166-1 contient trois ensembles de codes: – un code numérique à trois chiffres; – un code alphabétique à deux lettres; – un code alphabétique à trois lettres. Dans ce cas, le code numérique à trois chiffres sert de code pivot. C'est le plus stable, il reste le même, même si les codes alphabétiques à deux et trois lettres peuvent changer (comme cela se produit).

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Term ID.	**Source**	**Term**	**G**	**Definition**	**Term**	**G**	**Definition**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
106	ISO/IEC 15944-5:2007 (3.106)	plurilateral treaty	09	**treaty** among a defined set of **jurisdictional domains** NOTE A plurilateral treaty restricts the jurisdictional domains which may become signatories generally on either: – a geopolitical basis, (e.g. NAFTA, Mecrosur, European Union, etc.); or – some other set of criteria which candidate members must meet and then whose membership must then be approved by the existing membership, (e.g. WTO).	traité plurilatéral	01	**traité** entre un ensemble défini de **domaines juridictionnels** NOTE Un traité plurilatéral restreint les domaines juridictionnels qui peuvent être signataires généralement – soit sur une base géopolitique (par ex. l'ALENA, le Mecrosur, l'Union européenne, etc.); – soit lorsque existent d'autres ensembles de critères que les membres candidats doivent respecter et que leur adhésion doit être approuvée par les membres existants (par ex. l'OMC).
107	ISO 1087:1990 (5.6.1)	preferred term	09	term recommended by an authoritative body	terme privilégié	01	terme recommandé par un organisme qui fait autorité
108	ISO/IEC 15944-2:2006 (3.80)	principle	09	fundamental, primary assumption and quality which constitutes a source of action determining particular objectives or results NOTE 1 A principle is usually enforced by rules that affect its boundaries. NOTE 2 A principle is usually supported through one or more rules. NOTE 3 A principle is usually part of a set of principles which together form a unified whole. EXAMPLE Within a jurisdictional domain, examples of a set of principles include a charter, a constitution, etc.	principe	01	hypothèse fondamentale et primaire, et qualité qui constitue une source d'action pour déterminer des objectifs ou des résultats particuliers. NOTE 1 Un principe est habituellement mis en vigueur par des règles qui touchent ses limites. NOTE 2 Un principe est habituellement soutenu par une ou plusieurs règles. NOTE 3 Un principe fait habituellement partie d'un ensemble de principes qui ensemble forment un tout unifié. EXEMPLE Dans un domaine juridictionnel, une charte, une constitution, etc., sont des exemples d'un ensemble de principes.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
109	ISO/IEC 15944-5:2007 (3.109)	privacy protection	09	set of **external constraints** of a **jurisdictional domain** pertaining to **recorded information** on or about an identifiable **individual**, i.e., **personal information**, with respect to the creation, collection, management, retention, access and use and/or distribution of such recorded information about that **individual** including its accuracy, timeliness, and relevancy NOTE 1 Recorded information collected or created for a specific purpose on an identifiable individual, i.e., the explicitly shared goal of the business transaction involving an individual, must not be utilized for another purpose without the explicit and informed consent of the individual to whom the recorded information pertains. NOTE 2 Privacy requirements include the right of an individual to be able to view the recorded information about him/her and to request corrections to the same in order to ensure that such recorded information is accurate and up-to-date. NOTE 3 Where jurisdictional domains have legal requirements which override privacy protection requirements, these must be specified, (e.g., national security, investigations by law enforcement agencies, etc.).	protection de la vie privée	02	ensemble de **contraintes externes** exercées sur un **domaine juridictionnel** relatives à l'**information enregistrée** ou à propos d'un **individu** identifiable, c.-à.-d. de l'**information personnelle**, en ce qui concerne la création, la collecte, la gestion, la rétention, l'accès et l'utilisation et/ou la distribution d'une telle information enregistrée relative à cet **individu**, y compris son exactitude, son opportunité et sa pertinence NOTE 1 L'information enregistrée recueillie ou créée dans un but spécifique concernant un individu identifiable (c.-à.-d. le but partagé et explicite de la transaction d'affaires concernant un individu) ne peut être utilisée dans un autre but sans le consentement explicite et informé de l'individu auquel l'information enregistrée se rapporte. NOTE 2 Les exigences en matière de vie privée incluent le droit d'un individu de pouvoir examiner l'information enregistrée le (ou la) concernant, et de demander d'y apporter des corrections afin de s'assurer que l'information enregistrée est exacte et à jour. NOTE 3 Lorsque des domaines juridictionnels ont des exigences légales qui ont préséance sur les exigences en matière de protection de la vie privée (par ex. la sécurité nationale, les enquêtes policières, etc.), ils doivent être spécifiés.
110	ISO/IEC 15944-1:2002 (3.53)	process	09	series of actions or events taking place in a defined manner leading to the accomplishment of an expected result	processus	01	série d'actions ou d'événements qui se produisent d'une manière définie et qui aboutissent à un résultat attendu
111	ISO/IEC 11179-1:2004 (3.3.29)	property	09	peculiarity common to all members of an **object class**	propriété	02	particularité commune à tous les membres d'une **classe d'objets**

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
112	ISO/IEC 15944-1:2002 (3.54)	public administr-ation	09	an **entity**, i.e., a **Person**, which is an **organization** and has the added attribute of being authorized to act on behalf of a **regulator**	adminis-tration publique	02	**entité**, c.-à-d. une **Personne**, qui est une **organisation** et a l'attribut supplémentaire d'être autorisé à agir au nom d'une **autorité de réglementation**
113	ISO/IEC 15944-5:2007 (3.113)	public policy	09	category of **external constraints** of a **jurisdictional domain** specified in the form of a right of an **individual** or a requirement of an **organization** and/or **public administration** with respect to an **individual** pertaining to any exchange of **commitments** among the parties concerned involving a good, service and/or right including information management and interchange requirements NOTE 1 Public policy requirements may apply to any one, all or combinations of the fundamental activities comprising a business transaction, i.e., planning, identification, negotiation, actualization and post-actualization. {See further Clause 6.3 "Rules governing the process component" in ISO/IEC 15944-1:2002}. NOTE 2 It is up to each jurisdictional domain to determine whether or not the age of an individual qualifies a public policy requirement [e.g., those which specifically apply to an individual under the age of thirteen as a "child", those which require an individual to have attained the age of adulthood, (e.g., 18 years or 21 years of age)] of an individual to be able to make commitments of a certain nature. NOTE 3 Jurisdictional domains may have consumer protection or privacy requirements which apply specifically to individuals who are considered to be “children”, “minors”, etc.(e.g. those who have not reached their 18th or 21st birthday according to the rules of the applicable jurisdictional domain).	politique publique	02	catégorie de **contraintes externes** d’un **domaine juridictionnel** spécifié sous la forme d’un droit d’un **individu** ou d’une exigence exercée sur une **organisation** et/ou une **administration publique** en ce qui concerne un **individu** relatif à tout échange d’**engagements** entre les parties concernées à propos d’un bien, d’un service et/ou d’un droit, y compris les exigences en matière de gestion de l’information et d’échange NOTE 1 Des exigences en matière de politique publique peuvent s’appliquer à l’une ou à toutes les combinaisons des activités fondamentales touchant une transaction d’affaires, c.-à.-d. la planification, l’identification, la négociation, l’actualisation et la post-actualisation {Voir plus loin la Clause 6.3 «Règles régissant la composante de processus» dans l’ISO/IEC 15944-1:2002}. NOTE 2 Il appartient à chaque domaine juridictionnel de déterminer si l’âge d’un individu qualifie une exigence en matière de politique publique [par ex. celles qui s’appliquent spécifiquement à un individu de moins de treize ans en tant qu’« enfant », celles qui exigent qu’un individu ait atteint l’âge adulte, (par ex. 18 ou 21 ans)], pour qu’un individu soit en mesure de prendre un engagement d’une certaine nature. NOTE 3 Des domaines juridictionnels peuvent avoir des exigences en matière de protection du consommateur ou de la vie privée qui s’appliquent spécifiquement à des individus qui sont considérés comme des «enfants» ou des «mineurs», etc. (c.-à.-d. ceux qui n’ont pas encore atteint leur 18è ou 21è anniversaire de naissance conformément aux règles du domaine juridictionnel applicable).

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
114	ISO/IEC 15944-5:2007 (3.114)	recognized individual name (RIN)	09	**persona** of an individual having the properties of a **legally recognized name (LRN)** NOTE 1 On the whole, a persona presented by an individual should have a basis in law (or recognized jurisdictional domain) in order to be considered as the basis for a recognized individual name (RIN). NOTE 2 An individual may have more than one RIN and more than one RIN at the same time. NOTE 3 The establishment of a RIN is usually accompanied by the assignment of a unique identifier, i.e. by the jurisdictional domain (or public administration) which recognizes the persona as a RIN.	nom individuel reconnu (RIN, recognized individual name)	01	**persona** d'un **individu** ayant les propriétés d'un **nom reconnu légalement (LRN)** NOTE 1 En définitive, une persona présentée par un individu doit avoir une base légale (ou un domaine juridictionnel reconnu) pour être considérée comme base d'un nom individuel reconnu (RIN). NOTE 2 Un individu peut avoir plus d'un LRN ou plus d'un nom individuel reconnu en même temps. NOTE 3 L'établissement d'un nom individuel reconnu s'accompagne généralement de l'attribution d'un identificateur unique par le domaine juridictionnel (ou l'administration publique) qui reconnaît la persona comme nom individuel reconnu.
115	ISO/IEC 15944-1:2002 (3.55)	recognized Person identity (rPi)	09	the identity of a **Person**, i.e., **Person identity**, established to the extent necessary for a specific purpose in a **business transaction**	identité d'une Personne reconnue, (rPi)	02	**entité**, c.-à-d. une **Personne**, qui est une **organisation** et qui a l'attribut supplémentaire d'être autorisée à agir au nom d'une **autorité de réglementation**

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Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
116	ISO/IEC 15944-1:2002 (3.56)	recorded information	09	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 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.). NOTE 2 Through the use of the term "information," all attributes of this term are inherited in this definition. NOTE 3 This definition covers: a) any form of recorded information, means of recording, and any medium on which information can be recorded; and, b) all types of recorded information including all data types, instructions or software, databases, etc.	information enregistrée	02	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 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.). 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 élément suivants: a) toute forme d'information enregistrée, tout moyen d'enregistrement, et tout support sur lequel l'information peut être enregistrée; et, b) tous types d'information enregistrée, y compris tous les types de données, instructions ou logiciels, bases de données, etc.
117	ISO 19135:2005 (4.1.9)	register	09	set of files containing identifiers assigned to items with descriptions of the associated items	register*	01	ensemble de fichiers contenant des identificateurs attribués à des articles avec une description des articles qui s'y rattachent
118	ISO/IEC 15944-2:2006 (3.94)	registration	09	**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**	enregistre-ment	01	**processus** à base de **règles**, énoncé explicitement, impliquant l'utilisation d'un ou de plusieurs **éléments de données**, dont la valeur (ou la combinaison de valeurs) sert à identifier uniquement les résultats de l'attribution d'un **OeRI**
119	ISO/IEC 15944-1:2002 (3.57)	Registration Authority (RA)	09	**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**	Autorité d'enregistre ment (RA)	02	**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**

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
120	ISO/IEC 11179-1:2004 (3.3.32)	Registration Authority Identifier (RAI)	09	**identifier** assigned to a registration authority (RA)	Identifi-cateur d'Autorité d'enregistrement (RAI)	02	**identificateur** attribué à une autorité d'enregistrement (RA)
121	ISO/IEC 15944-1:2002 (3.58)	Registration Schema (RS)	09	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)	01	**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**
122	ISO/IEC 19135:2005 (4.1.13)	registry	09	Information system on which a **register** is maintained	registre*	01	système d'information sur lequel est maintenu un **registre**
123	ISO/IEC 15944-1:2002 (3.59)	regulator	09	**Person** who has authority to prescribe **external constraints** which serve as **principles**, policies or **rules** governing or prescribing the behaviour of **Persons** involved in a **business transaction** as well as the provisioning of goods, services and/or rights interchanged	autorité de réglemen-tation	02	**Personne** autorisée à prescrire des **contraintes externes** qui servent de **principes**, de politiques ou de **règles** régissant ou prescrivant le comportement des **Personnes** concernées par une **transaction d'affaire**, ainsi que la fourniture des biens, services et/ou droits échangés
124	ISO/IEC 15944-5:2007 (3.124)	regulatory business transaction (RBT)	09	class of **business transactions** for which the explicitly shared goal has been established and specified by a **jurisdictional domain**, as a **Person** in the **role** of a **regulator** NOTE 1 A regulatory business transaction (RBT) can itself be modelled as a stand-alone business transaction and associated scenario(s). For example, the filing of a tax return, the making of a customs declaration, the request for and issuance of a license, the provision of a specified service of a public administration, a mandatory filing of any kind with a regulator, etc. NOTE 2 A regulatory business transaction (modelled as a scenario) can form part of another business transaction.	transaction d'affaires réglemen-taire (RBT)	02	classe de **transaction d'affaires** pour laquelle l'objectif partagé explicitement a été établi et spécifié par un **domaine juridictionnel**, à titre de **Personne** dans le **rôle** d'une **autorité de réglementation** NOTE 1 Une transaction d'affaires réglementaire (RBT) peut elle-même être modélisée comme transaction d'affaires autonome, et comme scénarios connexes. Par exemple, une déclaration de revenu, une déclaration de douane, une demande de délivrance de permis, une disposition d'un service spécifique d'une administration publique, une déclaration obligatoire de toute nature auprès d'une autorité de réglementation, etc. NOTE 2 Une transaction d'affaires réglementaire (modélisée comme scénario) peut faire partie d'une autre transaction d'affaires.

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				NOTE 3 A RBT may apply to a seller only, a buyer only or both, as well as any combination of parties to a business transaction. NOTE 4 A RBT may require or prohibit the use of an agent or third party. NOTE 5 A regulatory business transaction (RBT) may be specific to the nature of the good, services and/or right forming part of a business transaction			NOTE 3 Une transaction d'affaires réglementaire peut ne s'appliquer qu'à un vendeur, un acheteur, ou au deux, ainsi qu'à n'importe quelle combinaison de parties dans une transaction d'affaires. NOTE 4 Une transaction d'affaires réglementaire peut exiger ou prohiber l'utilisation d'un agent ou d'un tiers de confiance. NOTE 5 Une transaction d'affaires réglementaire (RBT) peut être spécifique à la nature du bien, des services et/ou du droit faisant partie d'une transaction d'affaires.
125	ISO/IEC TR 15285:1998 (3.16)	repertoire	09	specified set of **characters** that are represented in a coded character set	répertoire	01	jeu de **caractères** spécifiés qui sont représentés dans un jeu de caractères codés
126	ISO/IEC 2382-12:1988 (12.04.11)	retention period	09	length of time for which data on a data medium is to be preserved	période de rétention	02	durée pendant laquelle des données enregistrées sur un support de données doivent être conservées.
127	ISO/IEC 14662:2004 (4.1.2.1)	role	09	specification which models an external intended behaviour (as allowed within a **scenario**) of an **Open-edi Party**	rôle	01	spécification qui modélise le comportement externe attendu d'un **partenaire d'EDI-ouvert** dans le cadre permis par un **scénario**
128	ISO/IEC 15944-2:2006 (3.100)	rule	09	statement governing conduct, procedure, conditions and relations NOTE 1 Rules specify conditions that must be complied with. These may include relations among objects and their attributes. NOTE 2 Rules are of a mandatory or conditional nature. NOTE 3 In Open-edi, rules formally specify the commitment(s) and role(s) 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.	règle	02	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 ordinateur, c-à-d. la sémantique des données; et, -l'ordre et le comportement des flux d'informaiton eux-mêmes.

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				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). EXAMPLE A current and widely used FDT is "Unified Modelling Language (UML)".			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 spécifiees 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).
129	ISO/IEC 15944-2:2006 (3.101)	rulebase	09	pre-established set of **rules** which interwork and which together form an autonomous whole NOTE One considers a rulebase to be to rules as database is to data.	base de règles	02	ensemble pré-établi de **règles** qui s'appliquent en concordance et qui ensemble forment un tout autonome NOTE On considère qu'une base de règles est aux règles ce qu'une base de données est aux données.
130	ISO/IEC 14662:2004 (4.1.2.3)	scenario attribute	09	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	01	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**
131	ISO/IEC 15944-2:2006 (3.103)	scenario component	09	one of the three fundamental elements of a **scenario**, namely **role, Information Bundle**, and **Semantic Component**	compo-sante de scénario	02	l'un des trois éléments fondamentaux d'un **scénario**, nommément le **rôle**, le **faisceau d'informations**, et la **composante sémantique**
132	ISO/IEC 15944-2:2006 (3.104)	scenario content	09	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**	contenu de scénario	01	ensemble d'**information enregistrée** contenant les **identificateurs** d'entrée de **registre**, les labels, leurs **définitions** connexes, et l'**information enregistrée** connexe publiée (ou republiée) dans tout **registre** d'**objets d'affaires**
133	ISO/IEC 15944-2 2006 (3.105)	scenario specific-ation attribute	09	**attribute** of a scenario, **role**, **Information Bundle**, and/or **Semantic Component**	attribut de specifi-cation de scénario	01	tout attribut d'un **scénario**, d'un **rôle**, d'un **faisceau d'informations**, et/ou d'une **composante sémantique**

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
134	ISO/IEC 15944-1:2002 (3.62)	seller	09	**Person** who aims to hand over voluntarily or in response to a demand, a good, service and/or right to another **Person** and in return receives an acceptable equivalent value, usually in money, for the good, service and/or right provided	vendeur	01	**Personne** qui vise à fournir, volontairement ou suite à une demande, un bien, un service et/ou un droit à une autre **Personne**, et qui reçoit en retour une valeur équivalente acceptable, habituellement en argent
135	ISO/IEC 14662:2004 (4.1.2.2)	Semantic Component (SC)	09	unit of **recorded information unambiguously** defined in the context of the business goal of **the business transaction** NOTE A SC may be atomic or composed of other SCs.	Composant sémantique (SC, Semantic Comp-onent)	01	unité d'**information enregistrée** définie de manière **non ambiguë** dans le contexte de l'objectif d'**affaires** de la **transaction d'affaires** NOTE Un SC peut être atomique ou composé d'autres SC.
136	ISO/IEC 15944-5:2007 (3.136)	semantic identifier (SI)	09	**IT-interface identifier** for a **semantic component** or other semantic for which (1) the associated context, applicable **rules** and/or possible uses as a semantic are predefined and structured and the **Source Authority** for the applicable **rulebase** is identified and (2) more than one or more **Human Interface Equivalents (HIEs)** exist NOTE The identifier for a Semantic Component (SC), an Information Bundle (IB) and/or an ID Code for which one or more Human Interface Equivalents (HIEs) exist are considered to have the properties or behaviours of semantic identifiers.	identifi-cateur sémantique (SI, semantic identifier)	01	**identificateur d'interface TI** d'une composante sémantique ou d'une autre sémantique pour lequel (1) le contexte qui s'y rattache, les **règles** applicables et/ou les utilisations possibles comme sémantique sont prédéfinies et structurées, et **l'Autorité de source** de la **base de règles** applicable est identifiée, et (2) existe un ou plusieurs **Équivalents d'Interface humaine (HIEs)** NOTE L'identificateur d'une Composante sémantique (SC), d'un Faisceau d'informations (IB) et/ou d'un Code ID pour lequel un ou plusieurs Équivalents d'Interface humaine (HIEs) sont considérés comme ayant les propriétés ou les comportements d'identificateurs sémantiques.

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Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
137	ISO/IEC 15944-5:2007 (3.137)	set of recorded information (SRI)	09	**recorded information** of an **organization** or **public administration**, which is under the control of the same and which is treated as a unit in its information life cycle NOTE 1 A SRI can be a physical or digital document, a record, a file, etc., that can be read, perceived or heard by a person or computer system or similar device. NOTE 2 A SRI is a unit of recorded information that is unambiguously defined in the context of the business goals of the organization, i.e., a semantic component. NOTE 3 A SRI can be self-standing (atomic), or a SRI can consist of a bundling of two or more SRIs into another "new" SRI. Both types can exist simultaneously within the information management systems of an organization.	ensemble d'information enregistrée (EIE)	01	**informations enregistrées** relatives à une **organisation** ou à une **administration publique** qui en assure le contrôle et qui sont traitées comme une unité pour ce qui a trait au cycle de vie NOTE 1 Un EIE peut être un enregistrement ou un document physique ou numérique, un dossier, un fichier, etc., qui peut être lu, perçu ou entendu par une personne, un système informatique ou un dispositif semblable. NOTE 2 Un EIE est une unité d'information enregistrée qui est définie sans ambiguïté dans le contexte des objectifs d'affaires de l'organisation, c.-à.-d. une composante sémantique. NOTE 3 Un EIE peut être une unité autonome (atomique). Il peut s'agir de deux EIE ou plus regroupés dans un «nouvel» EIE. Les deux types d'EIE peuvent exister simultanément dans les systèmes de gestion de l'information d'une organisation.
138	ISO/IEC 15944-2:2006 (3.108)	Source Authority (SA)	09	**Person** recognized by other **Persons** as the authoritative source for a set of **constraints** NOTE 1 A Person as a Source Authority for internal constraints may be an individual, organization, or public administration. NOTE 2 A Person as Source Authority for external constraints may be an organization or public administration. 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". NOTE 3 A Person as an individual must not be a Source Authority for external constraints. NOTE 4 Source Authorities are often the issuing authority for identifiers (or composite identifiers) for use in business transactions.	Autorité de source (AS)	02	**Personne** reconnue par d'autres **Personnes** comme source faisant autorité pour un ensemble de **contraintes** NOTE 1 Une personne comme Autorité de source pour des contraintes internes peut être un individu, une organisation ou une administration publique. NOTE 2 Une personne comme Autorité de source pour des contraintes externes peut être une organisation ou une administration publique. EXEMPLE Dans le domaine du transport aérien, l'IATA, comme Autorité de source, est une «organisation», tandis que l'OACI en tant qu'Autorité de source est une «administration publique». NOTE 3 Une Personne en tant qu'individu ne peut être une Autorité de source pour des contraintes externes. NOTE 4 Les Autorités de source sont souvent les autorités émettrices des identificateurs (ou des identificateurs composites) à utiliser dans les transactions d'affaires.

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				NOTE 5 A Source Authority can undertake the role of Registration Authority or have this role undertaken on its behalf by another Person. 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.			NOTE 5 Une Autorité de source peut jouer le rôle d'un organisme d'enregistrement ou faire jouer ce rôle à sa place par une autre Personne. NOTE 6 Lorsque l'ensemble de contraintes d'une Autorité de source contrôle un domaine codé, l'AS joue le rôle d'Autorité de source d'un domaine codé.
139	ISO 1087-1:2000 (3.1.3)	special language, language for special purposes (LSP)	09	**language** used in a subject field and characterized by the use of specific linguistic means of expression NOTE The specific linguistic means of expression always include subject-specific terminology and phraseology and also may cover stylistic or syntactic features.	langue de spécialité	02	**langue** spécialisée utilisée dans un domaine et caractérisée par l'utilisation de moyens d'expression linguistique spécifiés NOTE Les moyens d'expression linguistique spécifies incluent toujours une terminologie et une phraséologie propres au domaine et peuvent également couvrir des tournures stylistiques ou syntaxiques.
140	ISO/IEC 15944-1:2002 (3.64)	standard	09	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 NOTE This is the generic definition of "standard" of the ISO and IEC [See also ISO/IEC Guide 2:2004 (3.2)]	norme	02	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 NOTE Cette définition est la définition «normalisée» par l'ISO et la CEI [voir aussi le Guide ISO/CEI 2:2004 (3.2)]
141	ISO 1087:1990 (5.3.1.2)	term	09	**designation** of a defined concept in a **special language** by a linguistic expression NOTE A term may consist of one or more words, i.e. simple term or complex term, or even contain symbols.	terme	01	**désignation** au moyen d'une unité linguistique d'une notion définie dans une **langue de spécialité** NOTE Un terme peut être constitué d'un ou de plusieurs mots (c.-à-d. terme simple ou terme complexe) et même de symboles.

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
142	ISO/IEC 2382-23:1994 (23.01.01)	text	09	data in the form of characters, symbols, words, phrases, paragraphs, sentences, tables or other character arrangements intended to convey a meaning and whose interpretation is essentially based upon the reader's knowledge of some natural language or artificial language EXAMPLE A business letter printed on paper or displayed on a screen.	texte	01	données sous forme de caractères, de symboles, de mots, d'expressions, de paragraphes, de phrases, de tableaux ou d'autre arrangements de caractères, ayant une signification particulière, dont l'interprétation dépend essentiellement de la connaissance de la part du lecteur d'un langage naturel ou d'un langage artificiel EXEMPLE Une lettre commerciale imprimée sur papier ou affichée à l'écran.
143	ISO/IEC 15944-1:2002 (3.65)	third party	09	**Person** besides the two primarily concerned in a **business transaction** who is **agent** of neither and who fulfils a specified role or function as mutually agreed to by the two primary **Persons** or as a result of **external constraints** NOTE It is understood that more than two Persons can at times be primary parties in a business transaction.	tierce partie	02	**Personne**, autre que les deux **Personnes** concernées en premier lieu par une **transaction d'affaires** et qui n'est le **mandataire** d'aucune d'elles, et qui joue un rôle ou remplit une fonction spécifés, selon l'accord mutuel des deux **Personnes** concernées en premier lieu, ou le résultat de **contraintes externes** NOTE Il est entendu que plus de deux Personnes peuvent parfois être les parties de première part dans une transaction d'affaires.
144	ISO/IEC 15944-5:2007 (3.125)	treaty	09	international agreement concluded among **jurisdictional domains** in written form and governed by international law NOTE 1 Virtually all treaties are concluded among UN member states. NOTE 2 Treaties among UN member states when coming into force are required to be transmitted to the Secretariat of the United Nations for registration or filing or recording as the case may be and for publication. {See further Article 80 of the Charter of the UN}. NOTE 3 Treaties can also be entered into by jurisdictional domains other than UN member states, i.e. non-members such as international organizations and the rare sub-national units of federations which are constitutionally empowered to do so.	traité	01	accord international conclu par écrit entre des **domaines juridictionnels** et régi par le droit international NOTE 1 Virtuellement, tous les traités sont conclus entre des états membres de l'ONU. NOTE 2 Les traités entre les états membres de l'ONU, lorsqu'ils entrent en vigueur, doivent être transmis au Secrétariat des nations unies pour être enregistrés et classés ou déposés selon le cas, et publiés. {Voir plus loin l'Article 80 de la Charte de l'ONU} NOTE 3 Les traits peuvent également être conclus entre des domaines juridictionnels autres que les états membres de l'ONU par ex. des organisations internationales et les rares organismes fédérés infranationaux qui en ont constitutionnellement le pouvoir.

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				NOTE 4 A treaty can be embodied in a single instrument or in two or more related instruments and whatever its particular designations. However, each treaty is a single entity. NOTE 5 Jurisdictional domains can make agreements which they do not mean to be legally binding such as for reasons of administrative convenience or expressions of political intent only, (e.g., as a Memorandum of Understanding (MOU). NOTE 6 Adapted from the Vienna Convention on the Law of Treaties, 1(a).			NOTE 4 Un traité peut être concrétisé en un seul instrument ou en plusieurs instruments lies et quelles que soient ses appellations particulières. Chaque traité, cependant, est une entité unique. NOTE 5 Des domaines juridictionnels peuvent conclure des accords qu'ils n'ont pas l'intention de rendre légalement obligatoires pour des raisons de commodité administrative ou pour exprimer une intention politique uniquement (par ex. comme dans le cas d'un protocole d'entente). NOTE 6 Adapté de la Convention de Vienne sur le droit des traités, 1(a).
145	ISO/IEC 15944-5:2007 (3.145)	truncated name	09	short form of a **name** or **persona** of a **Person** resulting from the application of a **rule**-based **truncation** process	nom tronqué	01	forme abrégée du **nom** ou **persona** d'un **Personne** résultant de l'application d'un processus de **troncation** à base de **règle**
146	ISO/IEC 15944-5:2007 (3.146)	truncated recognized name (TRN)	09	**truncated name**, i.e., **persona**, of a **Person** which has the properties of a **legally recognized name (LRN)** NOTE 1 Truncated recognized name(s) may be required for use in machine-readable travel documents, (e.g., passports or visas), identity tokens, drivers' licenses, medicare cards, etc.). NOTE 2 The source of a truncated recognized name may be a legally recognized name (LRN).	nom reconnu tronqué (NRT)	01	**nom tronqué**, c.-à.-d. **persona** d'une **Personne** qui a les propriétés d'un **nom légalement reconnu (NLR)** NOTE 1 Un (ou des) nom(s) reconnu(s) tronqué(s) peut(peuvent) être exigé(s) dans l'utilisation des documents de voyage lisibles optiquement (par ex. passeports ou visas, jetons d'identité, permis de conduire, cartes d'assurance-maladie, etc.). NOTE 2 La source d'un nom reconnu tronqué peut être un nom légalement reconnu.
147	ISO/IEC 15944-5:2007 (3.147)	truncation	09	**rule-based process**, explicitly stated, for shortening an existing **name** of an **entity** to fit within a predefined maximum length (of characters) NOTE Truncation may be required for the use of names in IT systems; electronic data interchange (EDI), the use of labels in packaging, in the formation of a Person identity (Pi), a recognized Person identity (rPi), etc.	troncation	02	**processus** à **base de règles**, énoncé explicitement, pour raccourcir le **nom** existant d'une **entité** de façon à ne pas dépasser une longueur de caractères maximum prédéfinie NOTE Une troncation peut s'avérer nécessaire pour l'utilisation de noms dans les systèmes TI, l'échange de données informatisées (EDI), les étiquettes d'emballage, la formation de l'identité d'une personne (Pi), l'identité d'une personne reconnue (iPr), etc.

Identification		ISO English			ISO French		
Term ID.	Source	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
148	ISO/IEC 15944-1:2002 (3.66)	unamb-iguous	09	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	02	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**
149	ISO/IEC 15944-1:2002 (3.67)	vendor	09	**seller** on whom **consumer protection** requirements are applied as a set of **external constraints** on a **business transaction** NOTE 1 Consumer protection is a set of explicitly defined rights and obligations applicable as external constraints on a business transaction. NOTE 2 It is recognized that external constraints on a seller of the nature of consumer protection may be peculiar to a specified jurisdiction.	fournisseur	01	**vendeur** auquel s'appliquent des exigences de **protection des consommateurs** comme ensemble de **contraintes externes** sur une **transaction d'affaires** NOTE 1 La protection des consommateurs est un ensemble de droits et d'obligations explicitement définis, et qui s'appliquent comme contraintes externes à une transaction d'affaires. NOTE 2 On reconnaît que les contraintes externes, telles que la protection des consommateurs, exercées sur un vendeur, peuvent relever d'une juridiction particulière.
150	ISO 1087-1:2000 (3.7.2)	vocabulary	09	terminological dictionary which contains **designations** and **definitions** for one or more specific subject fields NOTE The vocabulary may be monolingual, bilingual or multilingual.	vocabulaire	01	dictionnaire terminologique contenant des **désignations** et des **définitions** tirées d'un ou plusieurs domaines particuliers NOTE Un vocabulaire peut être unilingue, bilingue ou multilingue.

Annex B
(normative)

Consolidated set of rules of ISO/IEC 15944-1:2002 governing business transactions, their scoping and specification as Open-edi scenarios and their components of particular relevance to "external constraints"

B.1 Introduction

The purpose of Annex B is to provide a consolidated presentation of all the rules in ISO/IEC 15944-1 for the scoping and specification of Open-edi scenarios and their components which pertain to external constraints. Jurisdictional domains are the primary source of external constraints. This part of ISO/IEC 15944 addresses in an integrated manner the requirements arising from these rules in Part 1 pertaining to specifying external constraints insofar as for these the sources are of the nature of jurisdictional domains.

[Note: Only the Rules themselves are presented here. For related text, as well as associated Guidelines, where applicable, see the relevant Clauses in ISO/IEC 15944-1:2002 as identified in the matrix below].

B.2 Organization of Annex B: consolidated list in matrix form

The rules and associated references are presented in matrix form. The rules are presented in the numeric order in which they are presented in ISO/IEC 15944-1:2002. The columns in the matrix are as follows:

Col. No	Use
1	Number of Rule as per ISO/IEC 15944-1:2002
2	Clause ID in ISO/IEC 15944-1:2002 of which the Rule is part
3	Rule Statement as per ISO/IEC 15944-1:2002 [Note: Only text of the Rule itself is presented. For associated guidelines, requirements and text, see the relevant clauses in ISO/IEC 15944-1:2002. It is a for free, publicly available standard.]

B.3 Consolidated list of rules in ISO/IEC 15944-1:2002 pertaining to external constraints

Rule No.	Clause ID	Rule Statement
(1)	(2)	(3)
3	6.1.3	In (electronic) business transactions, all commitments shall be stated explicitly and unambiguously and be understood by all Persons involved in a business transaction.
13	6.2.2	The level of unambiguity, i.e., certainty/reliability of a persona and resulting identification of the Person identity used by a Person shall be appropriate to the goal of the business transaction.
15	6.2.2	Business transactions having different goals may allow a Person to use the same persona and its associated identification schema (including resulting identifiers), while others may prohibit this.
27	6.2.4	Unless bound by external constraints, "buyers" and "sellers" as Persons are free to undertake any business transaction involving any good, service, and/or right they mutually agree to.
28	6.2.4	External constraints governing rules and practices of "buyers" and "sellers" in business transactions apply either to Persons (undifferentiated) or distinguish among "individuals", "organizations", and "public administrations".
29	6.2.5	Rights or obligations arising from commitments in a business transaction shall be fulfilled either directly by the Person as the end entity or by an agent acting on its behalf.
30	6.2.5	The ability to delegate a role to an agent shall be explicitly stated. If constraints must be satisfied before such delegation can take place they shall be explicitly stated.
31	6.2.5	Where delegation of a role cannot take place this shall be explicitly stated.
32	6.2.5	A business transaction takes place between two Persons. Other Persons, i.e., third parties, may fulfil specified role(s) or functions(s) on mutual agreement or as a result of external constraints.
33	6.2.6	External constraints exist on the provisioning of goods and services and the behaviour of Persons as players in business transactions including those provided via electronic commerce.
34	6.2.7	From a minimal external constraints perspective, the three basic subtypes of Persons as role players in any business scenario are: A. individual, B. organization, and C. public administration.
35	6.2.7	A legal (or artificial) Person consists of one or more natural persons and/or one or more other legal persons. A unifying term and common concept used internationally is the standard term "organization" as the collective common term for all the different ways legal (or artificial) persons can be composed and be recognized in various jurisdictions.
38	6.2.8	From a minimal external constraints perspective, a common set of constraints on a business transaction where the buyer is an individual are those of a consumer protection nature.
39	6.3.1	Conceptually a business transaction can be considered to be constructed from a set of fundamental activities. They are planning, identification, negotiation, actualization and post-actualization.

Rule No.	Clause ID	Rule Statement
(1)	(2)	(3)
40	6.3.1	The five fundamental activities may take place in any order.
44	6.4.1	Electronic business transactions require "recorded information".
47	6.4.2	The definition of "data", and related information technology terms and definitions found in this standard shall able to be mapped into legal frameworks.
48	6.4.2	Standards development work in support of electronic business transactions shall incorporate and support data granularity requirements. The level of granularity reflects the degree of detail appropriate to the level of certainty required in the data being interchanged among the parties participating in a business transaction.
49	6.5.1	Open-edi scenarios and Information Bundles shall therefore be capable of reflecting constraints to be applied which may be as a result of: - commitments among parties, i.e., as internal constraints; - external constraints.
50	7.2	The requirement for an Open-edi scenario to incorporate external constraints on a business transaction shall be stated at the outset.
51	7.2	It is necessary to state whether the Open-edi Parties in the business transaction being modelled are (a) Persons in general, i.e., undifferentiated; or (b) differentiated among categories of Persons, i.e., subtypes, as individuals, organizations and public administration.
57	7.2	If the business transaction being modelled through an Open-edi scenario incorporates external constraints which impact FSV demands on Open-edi Support Infrastructure (OeSI), these shall be specified.
66	8.3.2.4	The set of Roles applicable to the scenario shall be specified and referenced through their Role Identifiers.
67	8.3.2.4	One shall state which roles are mandatory, conditional, or mandatory subject to a conditional.
68	8.3.2.4	Where applicable, constraints on the same Open-edi Party playing more than one of the roles in the set of roles applicable to the OeS shall be specified
70	8.3.2.5	If applicable, one should state which IBs are mandatory, conditional, or mandatory subject to a conditional.
71	8.3.2.5	Where applicable, constraints on IBs pertaining to roles in the OeS shall be specified.
72	8.3.2.6	The business requirements, rules and practices applicable at the scenario level shall be specified. This specification shall be stated at a level of detail to ensure that there is no ambiguity in the commitments among Open-edi Parties at the scenario level.
73	8.3.2.6	Business constraints, if any at the scenario level, pertaining to Open-edi Parties and scenario components shall be specified. All of these shall be accounted for in scenario components, i.e., roles and/or Information Bundles.
74	8.3.2.7	Requirements or constraints arising from applicable laws or regulations at the scenario level shall be explicitly stated including the source jurisdictions.
75	8.3.2.7	Where multiple laws and regulations apply at the scenario level, the constraints applicable shall be integrated.
101	8.4.2.5	Constraints, if any, on an Open-edi Party being able to play a role shall be specified.

Rule No.	Clause ID	Rule Statement
(1)	(2)	(3)
103	8.4.2.7	Any external constraints arising from laws or regulations to any aspect of the role and its attributes shall be identified and stated including the reference/source of the applicable law or regulation, i.e., qualifications for a role, prescribed behaviour, restrictions on the delegation of a role, etc.
135	8.5.2.4	Any business rules controlling content of an IB shall be identified and the nature and functioning of these rules explicitly stated. The source of such business rules shall also be referenced.
136	8.5.2.5	Any external constraints arising from laws and regulations governing the content of an IB shall be identified, the requirements explicitly stated and the source referenced.
137	8.5.2.5	Any IB created to meet a requirement of external constraints of the nature of laws and regulations should be so identified, the contents of the IB explicitly defined, at the level of granularity required, and the source law/regulation referenced.
140	8.5.2.8	Requirements for retention of recorded information for an IB, if any, shall be specified as well as which OePs involved in the associated role(s) have the primary responsibility for retaining this recorded information
141	8.5.2.9	Requirements arising from laws or regulations for the retention of recorded information applicable to the IB, if any, shall be explicitly stated and the source(s) referenced.
146	8.5.5.1	A Semantic Component can be a single (simple) data element, a composite data element, or a data structure (e.g., a set of data elements which interwork in order to ensure semantic completeness and ensure the required unambiguousness).
147	8.5.5.1	A Semantic Component shall be a component of at least one Information Bundle when exchanged among Open-edi Parties.
153	8.5.5.2.2	A SC name is the designation of the SC ID by a linguistic expression. More than one SC name as equivalent linguistic expressions may be associated with an SC ID, (e.g., as "aliases").

Annex C
(normative)

BusinessTransaction Model (BTM): classes of constraints

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

The Business Transaction Model (BTM), as stated in Clause 6.1.5 of ISO/IEC 15944-1, has three required components namely "Person", "Process", and "Data. These three fundamental components of the Business Transaction Model are presented graphically in Figure 8 [154].

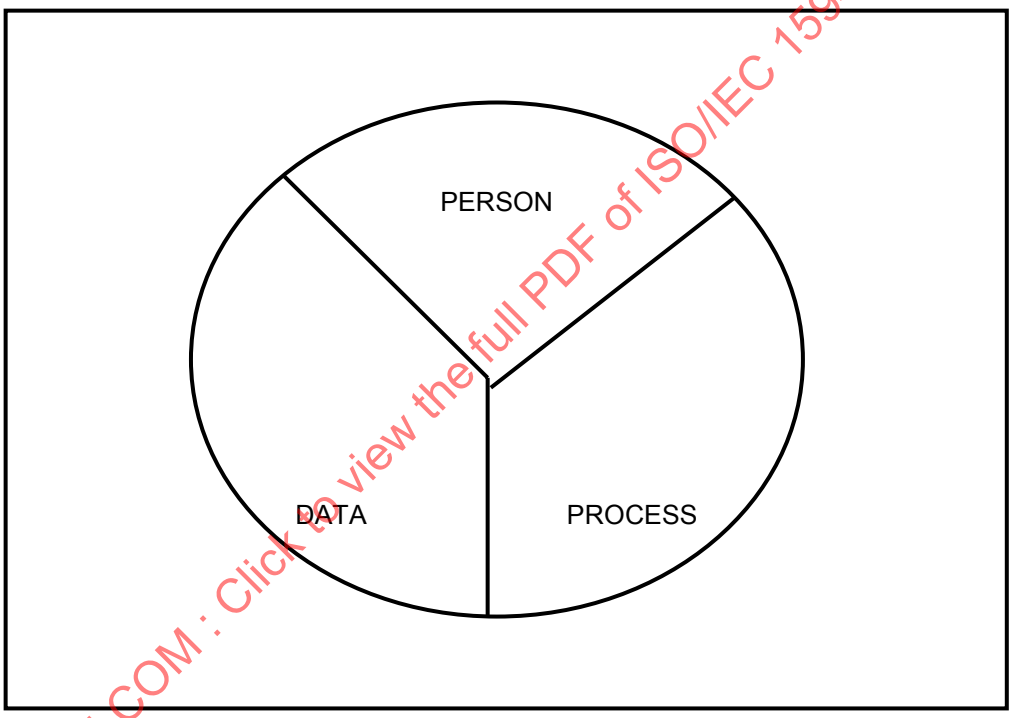

Figure 8 — Business Transaction Model — Fundamental elements (Graphic illustration)

[154] In 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 9 [155].

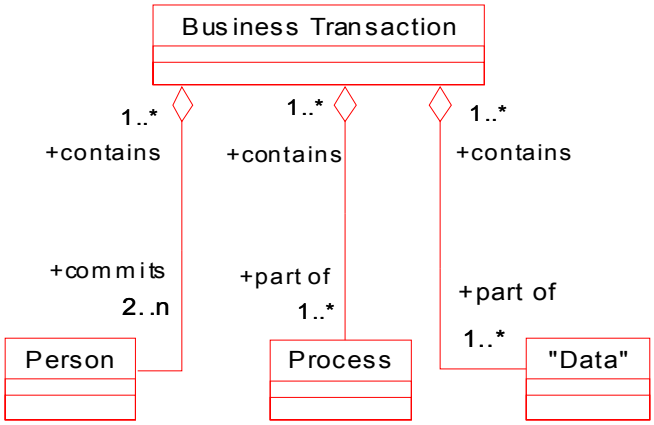

Figure 9 — UML-based Representation of Figure 8 — Business Transaction Model

The business transaction model focuses on and addresses the essential needs of commitment exchange among autonomous parties, i.e., the ability of Persons as parties to a business transaction being able to make commitments and to do so while maximizing the use of automated methods. This is in addition to existing standards which pertain to various aspects of information exchange only. [156]

As such, what sets Open-edi (or e-business) apart from information exchange in general are six (6) characteristics[157]. They are:

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

Electronic business transactions therefore require:

(1) a clearly understood purpose, mutually agreed upon goal(s) explicitness and unambiguity;

(2) pre-definable set(s) of activities and/or processes, pre-definable and structured data;

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

[156] It is important that users of this part 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.

[157] 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".

(3) commitments among Persons being established through electronic data interchange;

(4) computational integrity and related characteristics; and,

(5) the above being specifiable through Open-edi Description Technique(s) (OeDTs) (as the use of a Formal Description Technique(s) in support of modelling e-business), and executable through information technology systems for use in real world actualizations.

These and related requirements of electronic business transactions are specified in the form of "constraints".

"Constraint" has already been defined as:

> ***constraint:*** ***rule****, explicitly stated, that prescribes, limits, governs or specifies any aspect of a* ***business transaction****.*
>
> *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.*
>
> *NOTE 2 For constraints to be registered for implementation in Open-edi, they must have unique and unambiguous identifiers.*
>
> *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".* [ISO/IEC 15944-1:2002:3.11]

The Business Transaction Model has two classes of constraints; namely,

(1) those which are "self-imposed" and agreed to as commitments among the parties themselves, i.e., "**internal constraints**"; and,

(2) those which are imposed on the parties to a business transaction based on the nature of the good, service and/or rights exchanged, the nature of the commitment made among the parties (including ability to make commitments, the location, etc.), i.e., "**external constraints**".

They are defined as follows:

> ***internal constraint***
> *a* ***constraint*** *which forms part of the* ***commitment****(s) mutually agreed to among the parties to a* ***business transaction***
>
> *NOTE Internal constraints are self-imposed. They provide a simplified view for modeling and re-use of scenario components of a business transaction for which there are no external constraints or restrictions to the nature of the conduct of a business transaction other than those mutually agreed to by the buyer and seller.*
>
> ***external constraint***
> *a* ***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***
>
> *NOTE 1 Primary sources of external constraints are created by law, regulation, orders, treaties, conventions or similar instruments.*
>
> *NOTE 2 Other sources of external constraints include those of a sectoral nature, those which pertain to a particular jurisdiction or a mutually agreed to common business conventions, (e.g., INCOTERMS, exchanges, etc.).*
>
> *NOTE 3 External constraints can apply to the nature of the good, service and/or right provided in a business transaction.*

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

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

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

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

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

(For example, there may be a legal or audit requirement to maintain the complete set of recorded information pertaining to a business transaction (the Information Bundles exchanged), as a "record".)

NOTE 6 A minimum external constraint that is often applicable to a business transaction 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".)

The class of "internal constraints" has been derived to provide a simplified view of business transactions for which there are no external constraints or restrictions to the nature and conduct of the transaction. The only constraints are those mutually agreed to by the buyer and seller for the explicitly stated goal of the business transaction, i.e., they are self-imposed. This allows one to build scenarios and scenario components for referencing, registering and re-use as generic or base scenarios without having to include potential external constraints. The rules governing specification of Open-edi scenarios and their Components require that all applicable external constraints must be stated at the time of instantiation but need not exist at the time of registration. {See further, Clause 9 in ISO/IEC 15944-1:2002 and its Annex I}.

However, in most business transactions external constraints do apply, i.e., applicable laws and regulations. These range from taxation related regulation; health and safety or packaging and labelling requirements; ensuring that nature of the business transaction and/or the goods or services delivered do not comprise behaviour of a criminal nature. Whilst laws and regulations exist within and among jurisdictions and are the primary source of "external constraints" on Business Transactions, categorization and specification of sub-classes of external constraints is outside the scope of this standard.

External constraints exist which are horizontal in nature. These are the common and generic rules for business transactions, (e.g., privacy/data protection, consumer policy, uniform commercial codes, etc.).

The imposition of these horizontal external constraints on business transactions is exemplified by the introduction of a third type of role in a business transaction, namely that of “regulator” as a third sub-type of Person as a player in a business transaction representing "public administration".

External constraints of a horizontal and common nature are constraints imposed by regulators (and enacted through public administrations) which apply regardless of the type of business or sector within which the business occurs. This categorization allows one to build scenarios and scenario components for referencing, registering and re-use of specific common sets of external constraints. These can then be combined with scenarios which focus on internal constraints for building application use scenarios.

There are also external constraints that are of a sectoral nature. In addition, some external constraints can be common to two or more sectors and supported through common standards. Sectoral constraints are found in telecommunications, transportation and delivery, financial/banking, import/export restrictions specific to a good or service, inter-or intra-state trade, and so on. Where a sector imposes specific ways of conducting business transactions within itself and with other sectors, such sector specific constraints and conditions must be identified and specified where applicable, as part of specification of scenarios and scenario components.[158)]

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158 A useful characteristic of external constraints is that at the sectorial level, national and international focal points, and recognized authorities often already exist. The rules and common business practices in many sectorial areas are already known. Use of this standard (and related standards) will facilitate the transformation of these external constraints (business rules) into specified, registered and re-useable scenarios and scenario components.

This allows one to build scenarios and scenario components for referencing, registering and reuse of sets of sectoral external constraints such as “customs clearance”, “transport of dangerous goods”[159], etc. These two basic classes of constraints on business transactions are illustrated below in Figure 8: Business Transaction Model: Classes of Constraints.

These two basic classes of constraints on business transactions are illustrated here in Figure 10.

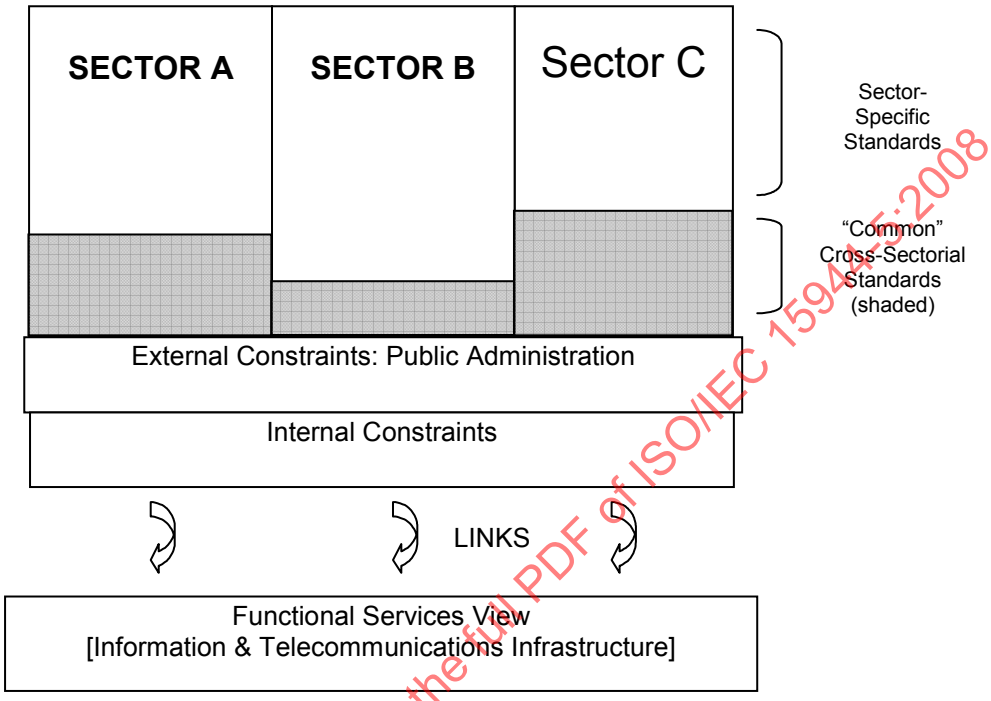

Figure 10 — Business Transaction Model: Classes of constraints

159 Note: There are also requirements for establishing common rules for interchanges between as well as among sectors. These rules are normally imposed by a particular sector on the others. For example, the banking sector may impose certain rules for the exchange of financial information between itself and other sectors. Sometimes the rules are established to enhance or facilitate services of a particular sector with others. The transportation sector is a good example. It establishes business rules in conjunction with other sectors for the transport and handling of specialty goods, (e.g., radioactive materials, live animals, etc.).

Annex D
(normative)

Unambiguous semantic components and jurisdictional domains: Standard default convention for the identification, interworking and referencing of combinations of codes representing countries, languages, and currencies

D.1 Introduction

This Annex identifies and summarizes the issues involved and provides a recommended solution for the unambiguous identification and systematic interworking of codes representing "countries", "languages", and "currencies". As such, it addresses not only some of the issues pertaining to "locale identifier" and "language identifier" {See JTC1 N6866}, but especially current needs of e-business and jurisdictional domains. This Annex and solution focuses on the "semantic" aspects of the issues identified and not the delimiter aspects which are yet to be resolved.

It is stated and emphasized that the issue here is not of these code sets themselves but one of where one needs to utilize more that one in tandem with another, i.e. their interworking and doing so in an unambiguous, systematic and IT-enabled manner. The existing sets of codes representing countries, languages and currencies as found in the ISO 3166, 639 and 4217 can continue to be used as they are.

Common practices and conventions in the use of IT system evolve as IT technologies evolve and their use in applications becomes more diverse and global. Often these common practices and conventions were developed within the then existing IT and economic constraints. A prime example is that known as the “Y2K” problem, i.e., the mid-twentieth century decision to represent Gregorian calendar year values as “YY” and not “YYYY”, i.e. the “19” of “1967” was not captured , only the “67” of this value was captured.

Similarly, it was the development of ISO/IEC 10646, the PC and the emergence of the Internet in 1990, which made it possible to conduct business on a global basis and in whatever language while doing so in an efficient and cost-effective manner. One result was the identification of several issues of a “Y2K” nature. This Annex D and this part of ISO/IEC 15944 addresses one set of such issues.

In its work on e-business standards development, i.e. via the multipart ISO/IEC 15944 standard, ISO/IEC JTC1/SC32/WG1 e-Business noted that three of the most common semantic components (SCs) identified and re-used in business transactions of any kind were those ID codes for the identification of countries, currencies and languages as well as the unambiguous interworking among the same.

However, many equally valid code sets exist for countries, currencies and languages, all of which are in use in various applications world-wide (e.g. in the most common standards used ISO 3166-1 and ISO 639 each contain three(3) different equivalent code sets while ISO 4217 contains two equivalent code sets). At the same time these three standards use 2- and 3-alpha codes in both upper and lower case. But these 2- and 3-alpha code sets are not mutually exclusive, i.e. unique, and, as such, the order in which they are presented and the specific code set chosen leads to ambiguities in EDI in general and especially among autonomous parties and their heterogeneous IT systems when engaging in e-business transactions, in a global context {See further JTC1 N7335 for some examples}.

The 3-alpha codes for countries, languages and currencies overlap and are not mutually exclusive or unique. This causes confusion especially when use of various combinations of these code sets is required. Further, ISO 639-2 has two different 3-alpha code sets, i.e., a "2/T" and a "2/B". This is significant in that their difference in language codes includes countries such as China, France, Germany, the Netherlands and others. The

2-alpha codes for languages and countries overlap and are not mutually exclusive or unique. This too causes confusion when used especially in combinations [160].

ISO/IEC JTC1 also recognized this being an issue (along with the related issue on the use of various conventions for the use of "delimiters") and stated so at its November, 2002 Plenary Meeting in its Resolution #39 [161].

As a result JTC1/SC32/WG1 assumed this task, with its experts undertaking detailed analyses of codes sets representing countries, languages and currencies. This Annex D is based on the results and approach taken in e-business standards development [162].

In addition, and especially from a jurisdictional domain requirements perspective, it is important to note that:

1) many of the entities listed with a "country code" in ISO 3166-1 are not really "countries" i.e. they are not UN member states. Nearly 20% of the entities listed in ISO 3166-1 are not "countries {See further "Annex J (Informative) Non-UN Member entities Listed in ISO 3166-1"}. ISO 3166-1 acknowledges this and states so in its standard. However, many users mistakenly assume that they can use ISO 3166-1 coded domain "as is" in commitment exchange and business transactions in a world-wide context; and,

2) a majority of the languages listed in the code set of the coded domain for ISO 639-2/T are not languages of the status of being recognized as "official language(s) by a jurisdictional domain, or utilized a the de facto language in those jurisdictional domain which does not have an official language. This is not surprising given that there are at least 4000-5000 known or is use languages around the world. Here ISO 639-2/T places not legal or jurisdictional aspects on the languages which it registers and assigns a code to.

Consequently, given the above facts plus the existence of multiple equivalent code sets, there is a need,

1) to identify, not only that subset of entities listed in ISO 3166-1 which are UN member states but to do so in an unambiguous manner; and,

2) to identify which of the language listed in ISO 639-2/T have a legal status and in which country as well as a convention for establishing the same.

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[160] For detailed information on such overlaps (duplication) in use of ID codes, see further ISO/IEC JTC1 N7335 and, in particular its following Annexes,

Annex C.3- List of Natural Languages having different ISO 639-2 Alpha-3 Codes

Annex D - List of Overlapping 2-alpha Country Codes and 2-alpha Language Codes

Annex E – Multiple Human Interface Equivalents (Linguistic) for Codes Representing…": Country Code Examples.

[161] See ISO/IEC JTC1 N6927 "Resolutions Adopted at the 17th Meeting of ISO/IEC JTC 1, 21-25 October 2002 in Sophia Antipolis, France" and its Resolution #39 titled "Resolution 39 - SC 32/SC 36 Topics in Internationalization and Localization" which states,

> *JTC 1 notes the request from SC 36 as contained in document JTC 1 N 6866 concerning locale identifiers. JTC 1 understands that SC 32/WG 1 is willing to assume this task subject to availability of resources.*
>
> JTC 1 notes that ISO/IEC 15897 should be considered during this effort.

[162] See ISO/IEC JTC1 N7335 "Response to JTC1 Sophia Resolution #39: Development of a Solution for the Unambiguous Identification and Interworking of Codes Representing Countries, Languages, and Currencies (prepared on behalf of SC32/WG1)". The extensive work here undertaken by M. Janice Pereira is much appreciated.

D.2 Purpose

The purpose and focus of Annex D is to provide common default conventions for specifying in an unambiguous manner the identification and interworking of two or three codes taken from the code sets for countries, languages and currencies primarily for use in,

1) the modelling of business transaction through scenarios and scenario components as well their registration as business objects for re-use; and,

2) for general use in EDI- based applications where two or more of the country, language and/or currency code sets have to interwork in unambiguous manner in support of commitment exchange of any kind among autonomous parties.

This is not a problem where **only one** of these codes needs to be/is utilized in support of an instantiated business transaction (e.g. in stand-alone applications), within a closed system or network, within a defined market, etc. However in many business transactions and particularly those involving two or more jurisdictional domains, especially in international trade and transport, two of these, if not all three of these code sets need to be used and interwork simultaneously.

In addition the two and three alpha codes used for the identification of countries, languages and currencies are not unique. Further, the two alpha codes of ISO 639-1 increasingly represent less and less of the languages in use, i.e. they represent only 42 % of the languages in use.

In a nutshell, the issues and problems arise when in a business transaction (or any application), one utilizes two or more of these three coded sets together to state a requirement of semantic component in an unambiguous manner.

D.3 Exclusions to Annex D

ISO/IEC JTC1 also identified as an internationalization and localization issue, the need for a single harmonized approach for "locale identifiers, i.e. between the "delimiters" used in "locale identifiers" as found in

(1) ISO/IEC 9945-1 (POSIX, Part 1); and,
(2) IETF RFC 3066 (a revision of RFC 1766) [163].

The development of a harmonized approach to the specification of a common "delimiter" for locale identifiers is outside the scope of this Annex.

This Annex D (and this part of ISO/IEC 15944) focuses on the "semantic" and "syntax" aspects of the issues identified and not that the development of a common representation of "delimiters" which are yet to be resolved.

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[163] The two most relevant specifications which contain "patterns" two different types of "delimiters" for locale identifiers are:

- ISO/IEC 9945-1 (POSIX, Part 1) specifies a locale identifier, using the pattern **{language code} + underscore character + {country code}.** UNIX and Java systems use this format.
- IETF RFC 3066 (a revision of RFC 1766) specifies a language identifier, using the pattern **{language code} + hyphen character + {country code}**.

{See further document ISO/IEC JTC1 N7335}

D.4 Current issues and approach taken

D.4.1 Summary of nature of issues pertaining to interworking of codes representing countries, languages, and currencies

The general issue pertains to of being able to ensure unambiguous identification and interworking of combinations of codes representing "countries", "languages" and "currencies"[164]. This pertains not only to ISO/IEC (but also other international entities such as IETF, W3C, etc.) There is a need to develop one or more common default conventions for referencing combinations of the multiple "standard" codes sets, for the identification of countries, languages and currencies, not only from an IT functional services perspective but especially from a business operational view perspective (BOV) in all forms of international e-business areas of application (e.g. e-commerce, e-administration, e-medicine, e-logistics, e-government, etc.).

The issue arises when one needs to use more of these code sets together given the fact that for ISO 639 and ISO 3166 each, several code sets exist.

In this context, the issue of resolving of whether to use a **underscore** or **hyphen** as a "delimiter" is less important that being able to, in an unambiguous manner, to support combinations of ISO 3166-1 and ISO 3166-2 codes sets representing entities as jurisdictional domains and then their "official languages" and/or currencies as well as that of the ISO 4217 currency code set[165]. {See further Sections 3.6, 3.7 and 4.0 in J1N7335}.

Here given the emergence of Internet and e-business, it is the country which qualifies the use of a language (even the use of the same language such as the 20+official variants of English, the many variants of use of German, Spanish, Arabic, Portuguese, etc.) in specific jurisdictional domains. Thus from an e-business and legal perspective, i.e. that from an external constraints perspective, the order of should be that of providing the identification of the jurisdictional domain first, i.e. ISO 3166-1 (and 3166-2 codes as applicable) and then second the identification of the applicable language(s), i.e. ISO 639-2/T codes; and/or currency codes, i.e. ISO 4217.

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164 With respect to "country codes", "language codes" and "currency codes", it is recognized that:

- "country codes", i.e., ISO 3166-1, ISO 3166-2, ISO 3166-3, etc., that this multipart standard is the responsibility of ISO TC 46/WG2;
- "language codes", i.e., ISO 639-1, ISO 639-2, etc., that this multipart standard is the responsibility of ISO TC37/SC2; and,
- "currency codes", i.e., ISO 4217, that this is the responsibility of ISO TC68.

Note 1: The solution proposed for the unambiguous interworking of combinations of codes representing countries (and their administrative subdivisions), languages and/or currencies (in the context of a global economy, and jurisdictional requirements) does not require changes/modifications to existing code sets for these three standards.

Note 2: The three strategic directions of JTC1 for its standards development work are "portability", "interoperability", and "cultural adaptability". The proposed solution not only supports these three strategic directions of JTC1 for "information exchange" purposes but also addresses the requirements of "commitment" exchange of e-business.

Note 3: In a 30 September, 2003 Press Release (Ref: 871), the ISO reaffirmed its free-of-charge policy for use of its country, currency, and language codes. See http://www.iso.ch/iso/en/comcentre/pressreleases/2003/Ref871.htm

165 See further Sections 3.6, 3.7 and 4.0 in the document of ISO/IEC JTC1 N7335.

D.4.1.1 ISO 3166-1 “Country Codes"

At present, three (3) "equivalent" different ISO 3166-1 code sets are in use for the identification of names of "countries" and other geopolitical entities, etc.; namely:

- a 3-digit numeric code. [Source = United Nations]
- a 3-alpha code. [Source = United Nations]
- a 2-alpha code. [Source = ISO 3166-1].

Here the alpha codes are often represented in both lower and UPPER case although ISO 3166-1 specifies UPPER CASE[166]. Of these three code sets, the 3-digit numeric code is the most stable. The 2-alpha and 3-alpha codes of ISO 3166-1 can and do change at the request of the country concerned either because a country decided to change its name designation(s) or prefers to use another alpha code designation[167] but with the 3-numeric code staying the same. Further, the use of the 3-numeric code set has other advantages such providing language independence. For example, a country can have multiple equivalent valid (official name representations, i.e. as human interface equivalents, for its 3-numeric code. {See further Annex E in J1N7335 for some examples}.

Neither ISO 639 nor ISO 4217 have a "numeric" code set. In addition, the financial services sector already uses the 3-digit numeric code for countries in financial transactions.[168]

ISO 3166-1 states, in Clause 5.5 "Specification for use" that:

> *"When applying this part of ISO 3166, users should clearly state which of the three codes they are using. If a code element from this part of ISO 3166 is used in combination with other characters for special purposes, it is strongly recommended that the choice and function of any such additional character be specified".*

Consequently, this standard adopts the ISO 3166-1, 3-digit numeric as its default convention for referencing codes representing countries.

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166 ISO 3166-1:1997 (E/F) states in Clause 5.2 "Construction of the alpha-2 code", and we quote:

> *"The alpha-2 code uses combinations in upper case of two letters of the 26-character Roman alphabet (ignoring diacritic signs) from the range AA to ZZ".*

The most widespread use of the ISO 3166-1 2-alpha code in lower case is as part of the top level domain in Internet (ICANN) domain names.

Clause 5.3 "Construction of the alpha 3-Code" states, and again we quote:

> *"This part of ISO 3166 also provides an alphabetic 3-character (alpha 3) code, based on the alpha-2 code, and using combinations, in upper case, of three letters of the 26-character Roman alphabet (ignoring diacritic signs) from the range AAA to ZZZ, for use in cases where a specific need has been identified.*
>
> *NOTE 3 - Attention is drawn to the fact that other 3-letter codes exist".*

167 For UN member states, changes in names must be approved by the Security Council to be recognized. {See further document JTC1/SC32 N0535 "Approach to Development of the new ISO/IEC 18038 "Identification and Mapping of Various Categories of Jurisdictional Domains". [Note: "18038" is now "15944-5"]. Also, document 32N0535 contains an Annex B titled "Identification and Mapping of "Countries" as Jurisdictions on a Peer-to-Peer Basis".

168 For this and other reasons in financial transactions, the 3-digit ISO 3166-1 code set is used. See further ISO 8583-1:2003 "Financial transaction card originated messages - Interchange message specifications – Part 1: Messages, data elements and code values”.

D.4.1.2 ISO 639-2 "Language Codes"

With respect to "language codes," the 2-alpha code set is no longer adequate to meet global requirements. ISO TC37/SC2, the committee responsible, recognized this and responded, in 1998 by introducing ISO 639-2:1998 *Codes for the representations of names of languages — Part 2: Alpha-3 code/Codes pour la représentation des noms de langue — Partie 2: Code alpha-3*.

ISO 639-2 has two 3-alpha code sets for the representation of names of languages, namely:

(1) one for terminology applications, i.e., ISO 639-2/T; and,
(2) one for bibliographic applications, i.e., ISO 639-2/B.

They are the same except for **twenty-five languages that have a variant code**. The problem here is that these include codes for major languages such as Chinese, French and German. {See further Annex C in ISO/IEC J1N7335}.

As a result ISO 639 has three sets of codes for the representation of names of languages; namely:

(3) a 2-alpha code [Source = ISO 639-1]]
(4) a 3-alpha code - bibliographic [Source = ISO 639-2/B]
(5) a 3-alpha code - terminology [Source = ISO 639-2/T]

Codes representing names of languages are presented in lower case[169] (although conventions for some user applications use UPPER case).

One therefore needs a "default" convention for referencing codes representing "languages".

The default chosen by JTC1/SC32/WG1 "Open-edi" (or e-business) and JTC1/SC32/WG2 "Metadata" in their standards development work is "ISO 639-2/T", i.e., the 3-alpha code for terminology applications.

Consequently, this standard adopts as its default convention the "ISO 639-2/T" 3-alpha code lower case as its default convention for referencing codes representing languages.

D.4.1.3 ISO 4217 "Currency Codes"

ISO 4217 has two sets of codes for the representation for currencies and funds; namely:

- 3-alpha; and,
- 3-numeric.

The 3-alpha codes are represented in UPPER case only in ISO 4217:2001 and is the most widely used especially in the banking/financial services sector. The numeric currency code is derived, where possible, from the United Nations standard Country or Area Code. Additional codes to meet special requirements are

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[169] With respect to the 2-alpha code, ISO 639-1:2001 states in Clause 4.4 "Form of the language identifiers", and we quote:

> *"The language identifiers consist of the following 26 letters of the Latin alphabet in lower case: a, b, c, d, e, f, g, h,i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x y, z. No diacritical marks or modified characters are used. Implementers should be aware that these identifiers are not intended to be an abbreviation for the language, but to serve as a device to identify a given language. The language identifiers are derived from the language name. Each identifier is based on the indigenous name of the language or the preference of the communities using the language".*

And with respect to the 3-alpha codes, ISO 639-2:1998 states in Clause 4.1 "Form of the language codes", and we quote:

> *"The language codes consist of three Latin-alphabet characters in lowercase [sic]. No diacritical marks or modified characters are used. Implementers should be aware that these codes are not intended to be an abbreviation for the language, but to serve as a device to identify a given language or group of languages. The language codes are derived from the language name."*

allocated as necessary from within the user-assigned range of codes 950 to 998. Thus for many countries their 3-digit currency code is not the same. The introduction of the "euro" (EUR) has greatly increased this number [170].

This means that many countries use the same currency (code) as their official currency.

As such, **the 3-alpha code set UPPER case is the most widely used and avoids confusion with country codes**.

Consequently, this standard adopts as its default convention the use of the "ISO 4217, 3-alpha UPPER case code set as part of its default convention for referencing codes representing currencies.

D.4.2 Principles governing approach taken

The principles governing the approach taken in this Annex D (and in this part of ISO/IEC 15944 (and it's other Parts as well) include (in no particular order),

- applicable and relevant sub-sets of ID codes stated in ISO 639, ISO 3166 and ISO 4219 serve as the basis for this standard and e-business applications;
- the solution proposed for the unambiguous interworking of combinations of codes representing countries (and their administrative subdivisions), languages and/or currencies (in the context of a global economy, and jurisdictional requirements) does not require changes/modifications to existing code sets for these three standards;
- the three strategic directions of JTC1 for its standards development work are "portability", "interoperability", and "cultural adaptability". The proposed solution not only supports these three strategic directions of JTC1 for "information exchange" purposes but also addresses the requirements of "commitment" exchange of e-business.
- it is up to the ISO committees responsible for ISO 639, ISO 3166 and ISO 4219 to decide to revise or add an attribute for an existing member in the coded domain for which they are responsible, and/or, add or delete member in these coded domains;
- in modelling business transactions, it is possible to develop scenarios and scenario components of a nature which are independent of or do not require the identification of specific jurisdictional domains, languages and/or currencies (e.g. when dealing with internal constraints only);
- not all business transactions require the unambiguous identification, use and interworking of two or more code sets pertaining to "countries, languages and/or currencies".

D.5 Common default conventions

D.5.1 Default convention #1 for the unambiguous identification and referencing of combinations of codes representing countries, languages and currencies

The common default convention #1 to identify and reference countries, languages and currencies codes where two or more of these have to interwork together is of identifying and referencing,

- **countries via their ISO 3166-1 3-digit numeric code, i.e., as "nnn";**

[170] See further Table A.1 Currency and Funds Code in ISO 4217:2001 (E/F).

- **languages via their ISO 639-2/T 3-alpha code using the lower case, i.e., as "aaa"; and,**

- **currencies via their ISO 4217 3-alpha code using upper case, i.e., as "AAA".**

This standard default convention for the unambiguous identification and references of codes representing the names of countries, languages, and currencies allows any combination of these three code sets to be specified in a semantically complete and interoperable manner.

It is recognized that associated with each of these codes are multiple equally valid (if not official) name representations. {See further Annex E, J1N7335}. The adoption of a common default convention as proposed here will not only provide a systematic, pragmatic, cost-effective and efficient approach in support of "cultural adaptability", but will also support the global requirements of e-business and commitment exchange.

D.5.2 Default convention #2 for the ordering of codes representing countries, languages and currencies

In the context of being able to specify user requirements, i.e., as "locales", and the requirements of e-business and jurisdictional domains (including those which are legal in nature)... Here the use of a natural language is conditioned by the country or jurisdictional domain in which it is used. Thus, the default convention where both country code and language code are used should be that of:

(1) if both country code and language code are used their order is:

{country code} + {language code}

(2) where the geopolitical entity or jurisdictional domain of the user environment, also require the identification of an administrative sub-division of a UN member state, the applicable ID code from the ISO 3166-2 code set is to be utilized in conjunction with the ISO 3166-1 country code as:

{ISO 31661 ID code – ISO 3166-2 ID Code} + {language code}

Default convention #2 as applied to combination of “country codes” and currency codes are likewise to be ordered as:

{country code} + {currency code}.

D.6 Application of default convention #1 for identifying codes representing countries, languages and currencies with default convention #2 for ordering them

The application of the proposed default conventions #1 and #2 provide for unique combinations which also support interoperability requirements from both IT and semantic perspectives as well as those of e-business and jurisdictional domains. Thus a unique combination of:

(1) country and (official) language is identified and referenced as "**nnn:aaa**"24;

(2) country and currency as "**nnn:AAA**".

Should one wish not to use the default ordering convention #2 then: language code + country code would be "aaa:nnn". However, a common, horizontal generic default convention or standard for the unambiguous ordering and identification of codes representing countries, languages and currencies will not only: (1) ensure semantic completeness and interoperability required in support of e-business and jurisdictional domains; but also, (2) serve as a standard "pivot" from which one can map to legacy systems, local usage conventions, sectoral applications, etc., use of various syntaxes (including ASN.1, UN/EDIFACT, HTML, XML, etc.).

Annex E
(informative)

Codes representing UN member states and their official (or de facto) languages

E.1 Introduction to Annex E

This Annex E provides a set of codes, i.e. ID codes, as composite identifiers, for

1. each UN member state, providing an ID code for which the UN is the coded domain Source Authority (and which is repeated in ISO 3166-1); and,

2. the ISO 639-2/T language code(s) representing the official language(s) or de facto language of that UN member state or where a UN Member State does not have an officially declared language, its "de facto" language.

This Annex E identifies those jurisdictional domains which are of the category of **member states of the United Nations (UN)**. As such, they are, and are recognized as "peer jurisdictional domains".[171] It is accurate and up-to-date as of the date of this standard[172].

The source for the component parts of this Annex C is official information as provided by the UN. The UN has provided permission to reprint its 3-digit numeric and 3-digit alpha codes in ISO/IEC 15944-5.[173] The English and French (short) names of the UN member states are also those as provided by the UN[174].

The need for a coded domain such as that presented in this Annex E arises from:

- the fact that even though ISO 3166-1 presents "codes that represent the names of countries, dependencies and other areas of particular geopolitical interests on the basis of list of country names obtained from the United nations", it is a fact that ISO 3166-1 contains many entries for entities which are not "countries of the United nations", i.e. they are not UN member states. As such ISO 3166-1 contains in its set of permissible values, identification codes and name representation of many entities

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171 The Holy See, (a.k.a. Vatican), is a "non-member state" and is therefore not included. Until Switzerland became a UN member on 2002-09-10, it had a similar status as the Holy See.

172 The ISO/IEC JTC1 has decided to make the ISO/IEC 15944 multipart standard available for free, i.e., via its website <http://www.jtc1.org> under "Freely Available Documents". ISO/IEC 15944-1:2002 has already been posted. This facilitates posting amendments/changes to this Annex C resulting from changes in membership in the UN.

173 The three-digit numeric and three-digit alpha codes are from Standard Country or Area Codes for Statistical Use, United Nations publication, Series M, No. 49, Rev. 4., Sales No. M.,98.XVII.9 (multilingual: English, French, Spanish, Russian, Chinese, Arabic), (c) 1999 United Nations, New York, all rights reserved, reprinted with permission of the United Nations (see also www.un.org.Depts/unsd). These codes have been developed for statistical purposes and do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The United Nations is not responsible for any use of these codes in the present publication, nor for errors, omissions or changes". "Member country names are given at the United Nations Internet site, www.un.org, which you may cite for that purpose". [Personal correspondence, Robert Johnston Statistics Division, UN, New York. (2000-10-24).]

In addition, the ISO, in a press release dated 30 September, 2003, reaffirmed its free-of-charge policy use of its country, currency and language codes.

174 ISO 3166-1 is the Source Authority for the 2-alpha code. It is not utilized in this Annex.

which are not "countries" although users of ISO 3166-1 (mistakenly) believe they are[175]. {For all the details, see further Annex J below. See also ISO/IEC JTC1/SC32 document N0535, Annex B[176]};

- the fact that from a business transaction perspective, one needs to be able to identify and support external constraints of a jurisdictional domain and especially those of a linguistic nature particularly in making commitments among autonomous parties, (e.g., product labelling, contract formation, material safety data sheets, consumer protection, Internet-based web services, etc.);

- the fact that ISO 639-2[177] contains codes for names of languages which: (1) either are no longer in daily use in business transactions; and/or, (2) not recognized as a "valid language" for use in commitment exchange, including product labelling, contract formation, public administration (including the courts), etc., i.e. only a subset of the languages and their codes found in ISO 639-2 serve as official or de facto languages of UN member states; and,

- the fact that ISO 639-2 not only contains two code sets but also variant name representations of languages. Further, these name representations of languages are from a bibliographic and/or terminological perspective. They may not be the same as the "official" names of that language in a specific jurisdictional domain.

Consequently, many of the "codes for names representing languages" found in ISO 639-2 do not and cannot serve as either "official" or "de facto" languages of UN member states. These issues were addressed and resolved through SC32/WG1 N0210R, which was adopted by SC32/WG1. The resulting solution has been incorporated in to this Annex E[178].

In short, the building blocks of Annex E are,

- only those entities which are recognized members of the UN with their 3 digit ID code, date that they became a member of the UN as well as their "short names" in English and French (as provided by the UN itself). From an ISO perspective, these entities are also subset of all those entities listed in ISO 3166-1; and,

- a subset of all those languages listed in ISO 639-2/T, i.e., only those languages which are stated as official languages of UN member states (or serve as their de facto language)

- As such this Annex E uses parts of these existing standards to provide unique combinations of "countries' and their official languages doing so from a jurisdictional domain perspective, i.e. that of UN member states as peer entities.

Finally, UN member states at times not only have more than one official language but a single language may have more than one written form. (e.g., Norway which has as its official language "Norwegian" but having two official written languages for the same. Each of these two official written languages of Norway has their own unique ISO 639-2/T language codes, i.e. "nob" and "nno". This is in addition to the existing ""nor" code for the

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175 The list of entities with their codes, names, etc., as enumerated in *ISO 3166-1:1997 "Codes for the representation of countries and their subdivisions — Part 1: Country Codes"* contains entries for many entities, i.e., 20%, which while being of the nature of a jurisdictional domain of some type, are not UN member states and thus not "countries". This list and the jurisdictional status of these "non countries" in ISO 3166-1 has been prepared as Annex J (Informative) titled "Coded Domain for Non-UN Member States Listed in ISO 3166-1:1997. At present ISO 3166-1 contains entries for forty-nine (49) entities which are not UN member states.

176 See JTC1/SC32 document N 535 titled "Approach to Development of the New ISO/IEC 18038 *Identification and Mapping of Various Categories of Jurisdictional Domains* [2000-10-02]." This document is publicly available from the JTC1/SC32 website <http:www.jtc1sc32.org/> [Note the ISO/IEC 18038 project was integrated into the 15944 multipart standard as this part of ISO/IEC 15944].

177 ISO TC37 and ISO TC46 are jointly responsible for the ISO 639 series of standards.

178 See also document JTC1/SC32 N0696 titled *"Working Draft ISO/IEC WD 18038 Identification and Mapping of Various Categories of Jurisdictional Domains"*. ("18038" was the former standard project ID for what is now ISO/IEC 15944-5).