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Information technology — Business Operational View —

Part 20: Linking business operational view to functional Linking business operational view to functional service viewservice view

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

Partie 20: Vue opérationnelle d'affaires reliée à la vue de service fonctionnel

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, Subcommittee SC32, *Data management and interchange*.

ISO/IEC 15944-20 *Linking business operational view (BOV) to functional service view (FSV)* 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*

— *Part 6: Technical introduction to e-Business modelling [Technical Report]*

— *Part 7: eBusiness vocabulary*

— *Part 8: Identification of privacy protection requirements as external constraints on business transactions*

— *Part 9: Business transaction traceability framework for commitment exchange*

— *Part 10: IT-enabled coded domains as semantic components in business transactions*

The following part is under preparation:

— *Part 12: Privacy protection requirements on information life cycle management (ICLM) in EDI*

Introduction

ISO/IEC 14662 Open-edi Reference Model describes the conceptual architecture necessary for carrying out Open-edi. This architecture describes the need to have two separate and related views of the business activities. The first is the Business Operational View (BOV). The second is the Functional Service View (FSV). Figure 1 (Figure 1 from ISO/IEC 14662:2010) depicts the Open-edi environment (for definitions of the terms in Figure 1 see clause 3).

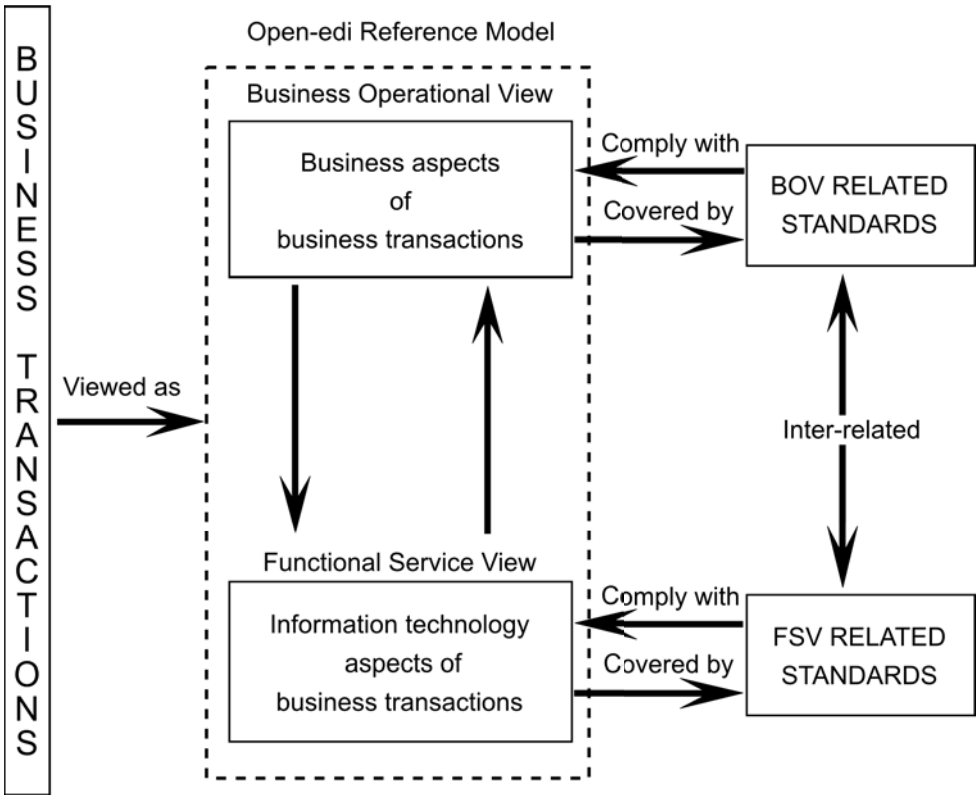

Figure 1 — Open-edi environment - relationships

An Open-edi Party (OeP) is involved in one or more Open-edi configurations, with each configuration executing Open-edi transactions corresponding to a given Open-edi scenario (OeS). The focus of executing these transactions is interoperability among Open-edi Support Entities (OeSEs) of OePs in an Open-edi community.

BOV-related standards address the business aspects of the transactions among OePs in a single Open-edi environment. Agreeing upon a given Open-edi scenario with one set of business partners does not necessarily address a different Open-edi scenario with another set of business partners.

FSV-related standards address the information technology aspects of the interactions among OePs. To accommodate a single OeP's participation in more than one community, grounding the information technology aspects on a suite of base FSV standards promotes interoperability. Doing so also promotes ease of adaptation among communities to specific needs mandated in a given community.

The Open-edi Reference Model (ISO/IEC 14662:2010, Clause 5.2) states the following regarding the Functional Service View (FSV):

> *Within the FSV, the interoperability addresses the interactions between the IT Systems supporting the Open-edi Parties. Interoperability implies that two or more IT systems, conforming to the standards*

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

related to the FSV, are able to co-operate and support the execution of business transactions that are in compliance with Open-edi scenarios. FSV-related standards address information technology interoperability aspects which are generic to business transactions.

The FSV identifies and models the generic functional capabilities of IT Systems which are needed to support the execution of Open-edi transactions. In addition, it provides the basic concepts which will allow the FSV-related standards to accommodate different configurations of organizations and IT systems to provide these functional capabilities.

A base FSV standard is a complete specification from which typically a subset of the specification, possibly also including an extension, is used in an Information Technology System (IT system). A base FSV standard is considered as the whole cloth from which the material for a given garment is cut.

The actual implemented subsets and extensions of base FSV standards for the Open-edi systems in an Open-edi community may not, themselves, be standardized. However, the base FSV standards on which they are derived are developed to promote ease-of-adaptation by implementers.

ISO/IEC 15944 Part 20 *Linking business operational view (BOV) to functional service view (FSV)* is a standard establishing the principles and qualities of these specifications to be standardized as base FSV standards. Also included is a formulation of the processes by which users implement the FSV standards in an Open-edi system for interoperability. These relationships are depicted in Figure 2.

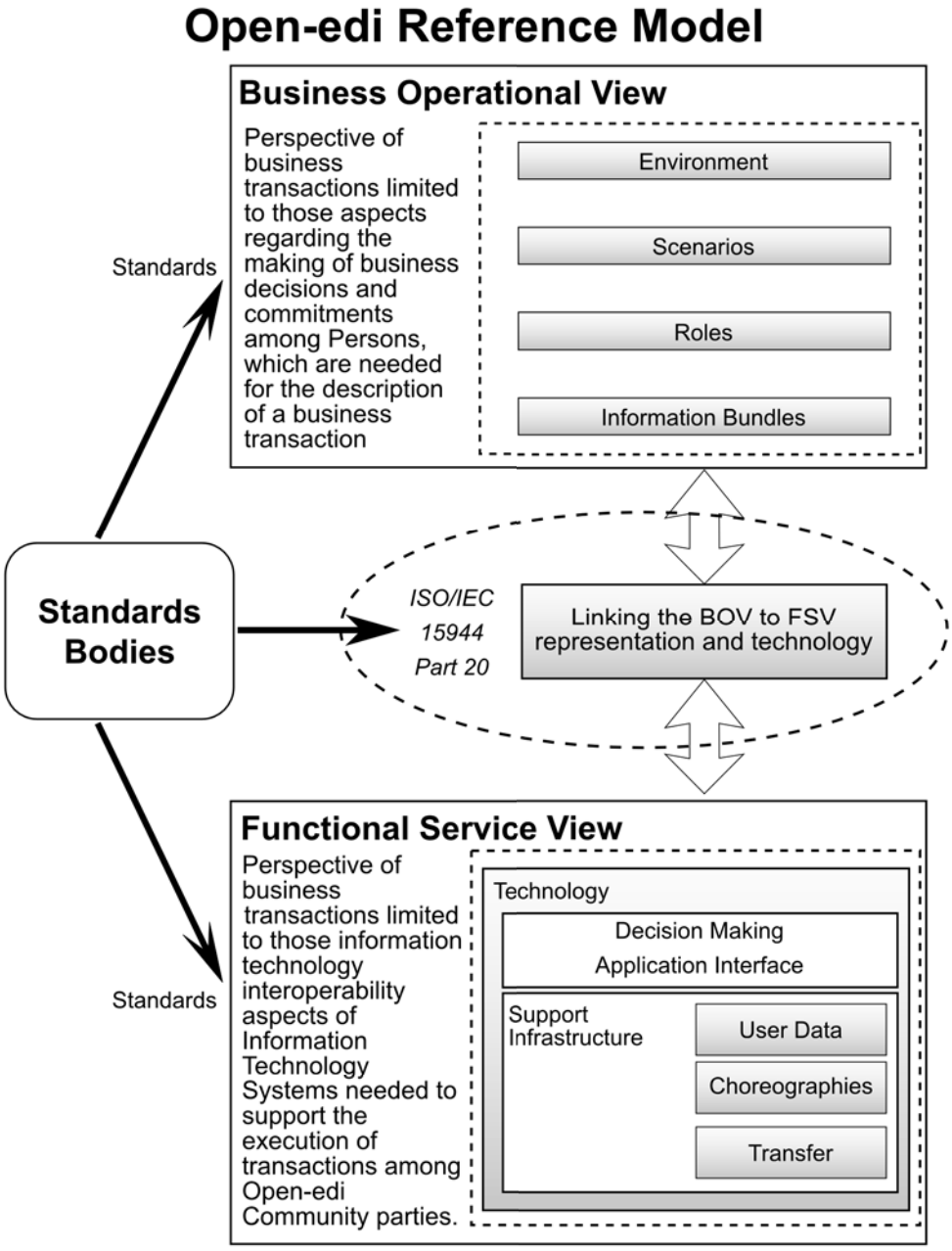

Figure 2 — Part 20 view of the Open-edi Reference Model

Thus, implementations of the FSV standards from base FSV standards promote interoperability among OePs within an Open-edi community, enhancing the adaptability needed for multiple configurations in which any given OeP participates. Moreover, some possible level of additional beneficial interoperability may end up existing between differing configurations, further enhancing the interoperability of an OeP within the larger business world.

NOTE Because this part deals with the bridging of BOV standards to FSV standards it contains no "rules" as found in other parts of ISO/IEC 15944.

Information Technology — Business Operational View —

Part 20:
Linking business operational view to functional service view

1 Scope

1.1 Statement of scope

ISO/IEC 15944-20 specifies the properties of Base Functional Specification View (FSV) Standards in order to best meet the requirements of the Business Operational View (BOV) with interoperable implementations. Base FSV standards exhibiting these properties support business transactions beyond those that are in compliance with Open-edi scenarios (OeS). Additional beneficial business transactions may also be supported between a given IT system and IT system(s) outside of the Open-edi scenarios for which they were designed.

These base FSV standards address those aspects of interoperability between IT systems used among Parties of the Open-edi Community participating in the scenario. Examples of such standards include the choreography of interchanges among systems, and the foundational structure and syntax used to express Information Bundles (IB) in the interchanges.

1.2 Exclusions

ISO/IEC 15944-20 does not specify the properties of FSV implementations related to the interfaces of the Open-edi support infrastructure (OeSI) to the technology of the Information Processing Domain (IPD) in which they are being used. Those are the interfaces of the services offered to Decision Making Applications (DMA), and to the inter-working of the Open-edi support entities (OeSE) of the OeSI. How these OeSEs interact are self-contained within a Party's IPD and have no interworking relationship with those OeSEs of other IT system(s) in the scenario.

The Open-edi Reference Model (ISO/IEC 14662:2010, Clause 0.3) observes the following regarding interoperability:

Only the external behaviour of Open-edi Parties affects the interoperability of Open-edi Systems.

2 Terms and definitions

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

2.1
base FSV standard
Functional Service View standard from which a systematic derivation of some kind is implemented in an *Open-edi scenario*

2.2
business
series of processes, each having a clearly understood purpose, involving more than one *Person*, realised through the exchange of information and directed towards some mutually agreed upon goal, extending over a period of time

[ISO/IEC 14662:2010, 3.2]

2.3
Business Operational View
BOV
perspective of *business transaction*s limited to those aspects regarding the making of business decisions and commitments among *Person*s, which are needed for the description of a *business transaction*

[ISO/IEC 14662:2010, 3.3]

2.4
business transaction
predefined set of activities and/or processes of *Person*s 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 *Person*s although some of the recognition might be implicit

[ISO/IEC 14662:2010, 3.4]

2.5
choreography

instantiation of an *Open-edi scenario* in accordance with the rules governing the roles and *Information Bundle*s of that scenario, whose elements interact in a non-directed fashion with each autonomous member knowing and following an observable predefined pattern of behavior for the entire (global) instantiation

NOTE There can be more than one choreography serving as an instantiation of an Open-edi scenario.

[adapted from ISO/IEC TR 30102:2012, 2.1.3]

2.6
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 15944-1:2011, 3.24]

2.7
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 originating, receiving and managing data values contained in instantiated *Information Bundle*s, which is not required to be visible to the other *Open-edi Party*(ies)

[ISO/IEC 14662:2010, 3.7]

2.8
eBusiness
business transaction, involving the making of commitments, in a defined collaboration space, among *Person*s using their *Information Technology System*, according to *Open-edi Standard*s

NOTE 1 eBusiness can be conducted on both a for-profit and not-for-profit basis.

NOTE 2 A key distinguishing aspect of eBusiness is that it involves the making of commitment(s) of any kind among the Persons in support of a mutually agreed upon goal, involving their IT systems, and doing so through the use of EDI (using a variety of communication networks including the Internet).

NOTE 3 eBusiness includes various application areas such as e-commerce, e-administration, e-logistics, e-government, e-medicine, e-learning, etc.

NOTE 4 The equivalent French language term for “eBusiness” is always presented in its plural form.

[ISO/IEC 15944-7:2009, 3.6]

2.9
Electronic Data Interchange
EDI
automated exchange of any predefined and structured data for *business* purposes among information systems of two or more *Person*s

NOTE This definition includes all categories of electronic business transactions.

[ISO/IEC 14662:2010, 3.8]

2.10
Functional Service View
FSV
perspective of *business transaction*s limited to those information technology interoperability aspects of *Information Technology System*s needed to support the execution of *Open-edi transaction*s

[ISO/IEC 14662:2010, 3.10]

2.11
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 14662:2010, 3.11]

2.12
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* (or both), and acts/executes on behalf of an *Open-edi Party* (either directly or under a delegated authority)

[ISO/IEC 14662:2010, 3.12]

2.13
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 14662:2010, 3.13]

2.14
Open-edi
Electronic Data Interchange among multiple autonomous *Person*s to accomplish an explicit shared *business* goal according to *Open-edi Standard*s

[ISO/IEC 14662:2010, 3.14]

2.15
Open-edi community
defined group of *Open-edi Parties* engaged in business transactions which shares one or more *Open-edi scenario*s

2.16
Open-edi community configuration
specified *Open-edi configuration* used within an *Open-edi community* by its *Open-edi Parties* in their associated *Information Processing Domain*s, which can execute *Open-edi transaction*s corresponding to shared *Open-edi scenario*

2.17
Open-edi configuration
formal specification of an operational configuration of *Open-edi Parties* and their associated *Information Processing Domain*s, which can execute *Open-edi transaction*s corresponding to a given *Open-edi scenario*

[ISO/IEC 14662:2010, 3.15]

2.18
Open-edi Control Information
OeCI
information exchanged among *Open-edi Support Entities* to co-ordinate their operation

NOTE Based on ISO/IEC 14662:2010 (D.1)

2.19
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 *Business Operational View* concepts, in a computer processable form

[ISO/IEC 14662:2010, 3.16]

2.20
Open-edi Party
OeP
Person that participates in *Open-edi*

NOTE Often referred to generically in this and other eBusiness standards (e.g. other parts of this ISO/IEC 15944 multipart "eBusiness" standard) as "party" or "parties" for any entity modelled as a Person as playing a role in Open-edi scenarios.

[ISO/IEC 14662:2010, 3.17]

2.21
Open-edi Profile
technical specification of properties of a *business transaction* forming part of commitment among *Open-edi Parties* in an *Open-edi community*

2.22
Open-edi scenario
OeS
formal specification of a class of *business transaction*s having the same *business* goal

[ISO/IEC 14662:2010, 3.18]

2.23
Open-edi Standard
standard that complies with the Open-edi Reference Model

[ISO/IEC 14662:2010, 3.19]

2.24
Open-edi Support Entity
OeSE
functional component of the *Open-edi Support Infrastructure* used to model a subset of generic functional capabilities

NOTE 1 The identification of such a subset of functional capabilities should take into account the possibility that the corresponding *Open-edi Support Entity* may be implemented in a different *Open-edi system*

NOTE 2 Based on ISO/IEC 14662:2010 (D.1)

2.25
Open-edi Support Entity Interface
OeSEI
set of specifications that allows access to the services the *Open-edi Support Entity* provides

NOTE Based on ISO/IEC 14662:2010 (D.1)

2.26
Open-edi Support Entity Protocol
OeSEP
set of *rule*s and data formats (semantic and syntactic) which models the interaction among peer *Open-edi Support Entities*

NOTE 1 The purpose of the Open-edi Support Entity Protocol is to ensure the interoperability of implementations of Open-edi Support Entities which are operated by different organizations.

NOTE 2 Open-edi Support Entity Protocol includes specification of Open-edi Control Information and possibly Open-edi User Data.

NOTE 3 Based on ISO/IEC 14662:2010 (D.1)

2.27
Open-edi Support Infrastructure
OeSI
model of the set of functional capabilities for *Open-edi system*s which, when taken together with the *Decision Making Application*s, allows *Open-edi Parties* to participate in *Open-edi transaction*s

[ISO/IEC 14662:2010, 3.20]

2.28
Open-edi Support Organization
OeSO
organization, acting on behalf of an *Open-edi Party*(ies) to provide necessary support enabling execution of *Decision Making Application*s, allows *Open-edi Parties* to participate in *Open-edi transaction*s

[ISO/IEC 14662:2010, 3.21]

2.29
Open-edi system
Information Technology System which enables an *Open-edi Party* to participate in *Open-edi transaction*

[ISO/IEC 14662:2010, 3.22]

2.30
Open-edi transaction
business transaction that is in compliance with an *Open-edi scenario*

[ISO/IEC 14662:2010, 3.23]

2.31
Open-edi User Data
OeUD
instance of *Information Bundle*s or components of *Information Bundle*s (as *Semantic Components*)

NOTE Based on ISO/IEC 14662:2010 (D.1)

2.32
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 sub-types of Person, namely "individual", "organization", and "public administration".

[ISO/IEC 14662:2010, 3.24]

2.33
role
specification which models an external intended behaviour (as allowed within a scenario) of an *Open-edi Party*.

[ISO/IEC 14662:2010, 3.25]

2.34
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-processable meaning, i.e. the semantics of data;

— 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 Formal Description Technique(s) (FDTs).

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

[ISO/IEC 15944-2:2006, 3.101]

2.35
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 14662:2010, 3.27]

2.36
transfer
act of using the *Transfer Infrastructure* to effect the interchange of *Information Bundle*s in a *business transaction*

2.37
Transfer Infrastructure
TI
complete set of functional capabilities offering interconnection services

NOTE 1 The TI allows Open-edi Support Entities and Decision Making Applications to inter-work without concern to their location (location transparency).

NOTE 2 Based on ISO/IEC 14662:2010 (D.1)

2.38
Transfer Infrastructure Interface
set of specifications that allows *Open-edi Support Entities* to access the interconnection services the *Transfer Infrastructure* provides

NOTE 1 The TI Interface promotes the independence of OeSEs from the structure of underlying interconnection services and their functionality and protocols.

NOTE 2 The use of current available standards for interconnection services will be maximized. The TI allows OeSEs and DMAs to inter-work without concern to their location (location transparency).

NOTE 3 Based on ISO/IEC 14662:2010 (D.1)

3 Symbols and abbreviations

BOV	Business Operational View
DMA	Decision Making Application
EDI	Electronic Data Interchange
FSV	Functional Service View
IB	Information Bundle
ICT	Information and Communications Technology
IT System	Information Technology System
IPD	Information Processing Domain
IT	Information Technology
OeCI	Open-edi Control Information
OeDT	Open-edi Description Technique
OeP	Open-edi Party
OeS	Open-edi Scenario
OeSE	Open-edi Support Entity
OeSEP	Open-edi Support Entity Protocol
OeSI	Open-edi Support Infrastructure
OeSO	Open-edi Support Organization
OeUD	Open-edi User Data
SC	Semantic Component
TI	Transfer Infrastructure

4 The Business Operational View of eBusiness Interoperability

Each Open-edi Party (OeP) engaged in business transactions has its own Open-edi IT system(s) satisfying their respective business requirements for a common Business Operational View (BOV). In each such

2) *ISO/IEC 15944-1:2011 Information technology - Business Operational View - Part 1: Operational aspects of Open-edi for implementation/Technologies de l'information - Vue opérationnelle d'affaires - Parti 1: Aspects opérationnels de l'Edi ouvert*

system the Information Processing Domain (IPD) executes Open-edi transactions corresponding to all Open-edi scenarios adopted by the Open-edi Community of Open-edi Parties. Each IPD employs a Decision Making Application (DMA) that implements the BOV. Thus, the BOV of two OePs interoperate at an organizational level to satisfy the configuration.

This Open-edi Standard perspective of business transactions is limited to those aspects regarding the making or accepting of commitments among Persons, needed for the description of a business transaction.

The description of a business transaction is realized using an Open-edi Description Technique (OeDT).

5 The Functional Service View of eBusiness Interoperability

5.1 Overview

The Functional Service View (FSV) of Open-edi IT systems governs the information and communication technologies (ICT) employed to enable technical interoperability among OePs of an Open-edi Community engaged in business transactions. Practices undertaken in the Business Operational View provide for flexibility in implementation at this interoperable level.

This Open-edi Standard perspective of business transactions is limited to those information technology aspects of IT systems needed to support the execution of a business transaction with the use of interactions. Note that both external constraints imposed on IT systems and internal constraints demanded within IT systems impact on the application of FSV-related standards. An example of an external constraint is the transfer syntax used to express the set of recorded information reflecting an information bundle. An example of an internal constraint is the need to perform a number of interactions grouped as a batch process, rather than performing individual interactions in real time.

5.2 Technology within IT systems

Within a given IT system, the technology implementing the Decision Making Application (DMA) interface of the BOV to the FSV is isolated from that of other IT system(s) in the Open-edi Community. A primary reason is that the DMA activities and processing focusses on decision-taking and commitment-making on behalf of an Open-edi party (with associated fiduciary, legal, accountability, etc. requirements). Similarly, the Open-edi Support Entity Protocol (OeSEP) methods implementing the Open-edi Support Entity Interfaces (OeSEI) by which the Open-edi Support Entities (OeSE) of a given support infrastructure interact among themselves and the DMA also are disconnected from those methods implemented by other IT system(s). The implementations of these internal interactions do not impact on the technical interoperability among IT systems.

5.3 Interoperability among IT systems

The interactions among the DMAs of two or more IT systems must interoperate at a concrete level of 1) syntax, 2) interaction and 3) transfer to effect electronic data interchange (EDI). Otherwise, the IPDs will not fulfill the requirements of the configuration. The independent DMAs of the interoperating IT systems achieve this by interfacing with their respective independent Open-edi Support Entity (OeSE). As such, two or more OeSEs interoperate in fulfilling the business transactions of the scenario by exchanging user data in interactions.

Base FSV standards implemented by each OeSE independently for their respective DMA form the basis of interoperability among OePs. The properties of the FSV-related standards chosen for the OeSEs reflect how interoperable IPDs can be. Clause 6 Linking the BOV to FSV representation and technology introduces

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pour application. Clause 5.3. The English and French versions of this ISO/IEC standard are publicly available. {See <http://www.jtc1.org>}

3) Ref. *ISO/IEC 15944-8 Information technology — Business Operational View — Part 8: Identification of privacy protection requirements as external constraints on business transactions/Technologies de l'information — Vue opérationnelle d'affaires — Partie 8: Identification des exigences de protection de la vie privée en tant que contraintes externes sur les transactions d'affaires Annex C (normative) Business Transaction Model (BTM): Classes of constraints* Annex C. The English version of this ISO/IEC standard is publicly available. {See <http://www.jtc1.org>}

the principles of interoperable properties needed of FSV-related standards. The more that FSV-related standards are implemented in an OeSE, the more interoperable that OeSE is with other OeSEs.

5.4 Benefit of using FSV standards

OePs do not necessarily function in an isolated world of the single Open-edi Community of users adopting a given Open-edi configuration. Being a part of two or more Open-edi Communities may require an OeP to act among two or more different Open-edi configurations. The effort to implement the IT standards supporting an additional configuration is reduced when all configurations are grounded on the same suite of Base FSV Standards. Additionally, when common base FSV standards are used for specific implementations across configurations, an OeP may find itself in a situation of successfully engaging in business transactions with another OeP outside of any given shared Open-edi configuration. This is depicted in Figure 3.

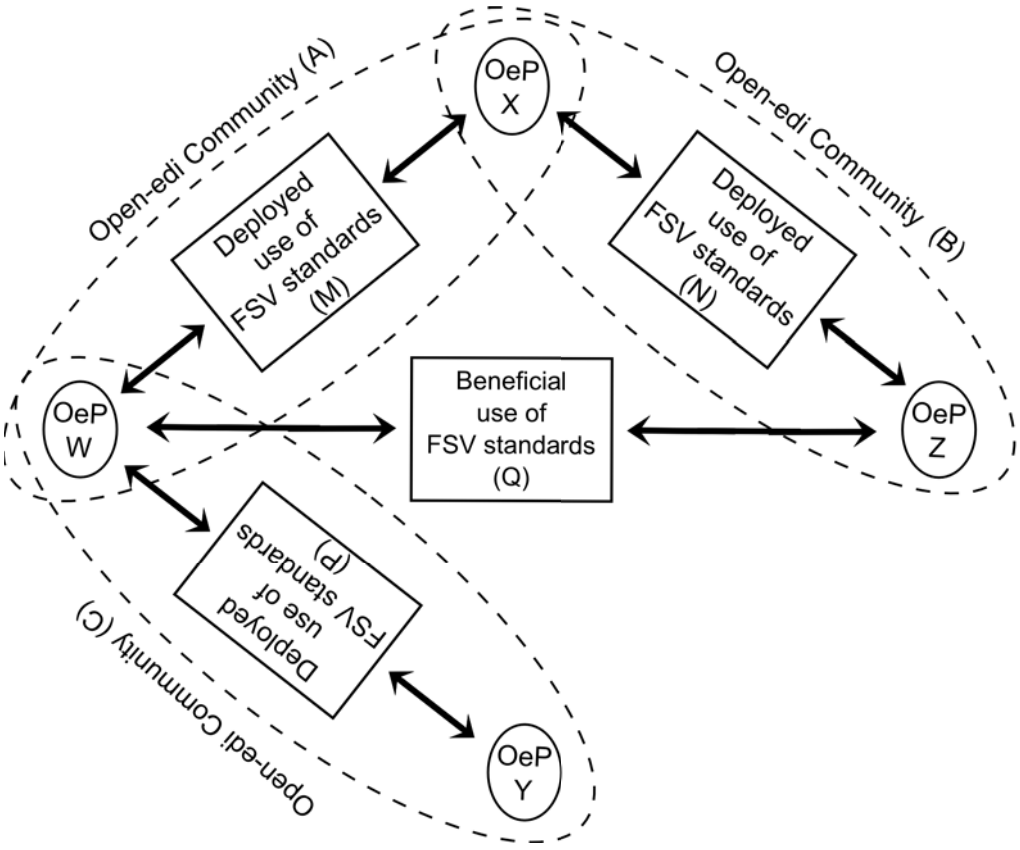

Figure 3 — Business relationships inside and outside Open-edi configurations

The following text explains Figure 3.

Three Open-edi Communities of users are shown labeled (A), (B) and (C), each with different Open-edi configurations. Community (A) uses a particular deployment of FSV standards, labeled (M), while community (B) uses the deployment labeled (N) and community (C) uses the deployment labeled (P).

The OeP labeled (W) is a member of the community labeled (A) and the community labeled (C). The OeP labeled (X) is a member of the community labeled (A) and the community labeled (B). The OeP labeled (Y) is only a member of the community labeled (C). The OeP labeled (Z) is only a member of the community labeled (B).

The additional beneficial use of FSV-standards, labeled (Q), may be realized between the OeP labeled (W) and the OeP labeled (Z). The likelihood of being so enabled is enhanced when the Base FSV Standards are the same across configurations.

The facilities of FSV-related specifications are chosen to support the deployment of business transactions for a particular configuration. Differing configurations may utilize different facilities of the Base FSV Standards available. Nevertheless, all configurations following the interoperability principles of linking the

BOV to the FSV that are built on base FSV standards share common mandated components and may share some optional components. These shared components may be able to be exploited in an additional beneficial transaction among parties who do not share any particular configuration.

NOTE Business rules and other properties of the BOV may, of course, preclude using FSV-standards in such an ad-hoc fashion as a additional beneficial transaction.

An example of such an additional beneficial transaction could materialize in the transportation domain. The Open-edi Communities of air transport, road transport and marine transport would each have their own Open-edi Configuration with their own implementation of Base FSV Standards. Nevertheless, interoperability among members of two different Open-edi Communities is promoted by the commonality mandated in the base FSV standards. This may realize benefits in addition to the ones expected from within each individual Open-edi Configuration.

5.5 Functional components of IT systems

Figure 4 (Figure D-1 from ISO/IEC 14662:2010) depicts the relationship between the DMA and the OeSE, and between the OeSE and the Transfer Infrastructure (TI). Each column represents an Open-edi System and its inter-working relationships at each layer. The objective of DMAs (top layer) is to make business decisions. In order to conduct business transactions, DMAs will exchange information (logical exchanges). These interactions are accomplished when DMAs request services from the OeSEs through the OeSE Interface using the OeSE Protocol. The OeSE Protocol includes the Open-edi Control Information (OeCI) and Open-edi User Data (OeUD).

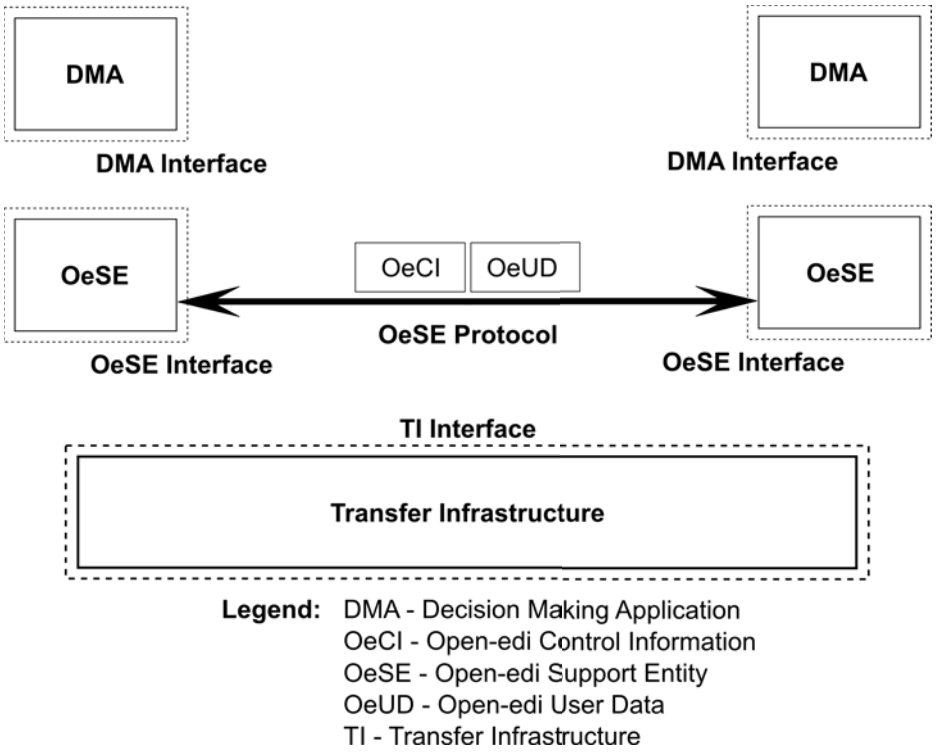

Figure 4 — Relationships between functional components

Figure 5 (Figure D.3 from ISO/IEC 14662:2010) shows possible relationships among the functional components of two representative Open-edi Systems. The goal of these relationships is to support the interaction among DMAs of the Open-edi Parties. For this interaction, DMAs use, through their DMA Interface, the services of OeSEs and the TI. The OeSEs provide value added services to DMAs via consistent OeSE interfaces. Each OeSE may inter-work with DMAs, other OeSEs and the TI. The interconnection service is provided by the TI. OeSEs interact with each other via the OeSE Protocol over the TI. The primary responsibility of the TI is to provide reliable interconnection services.

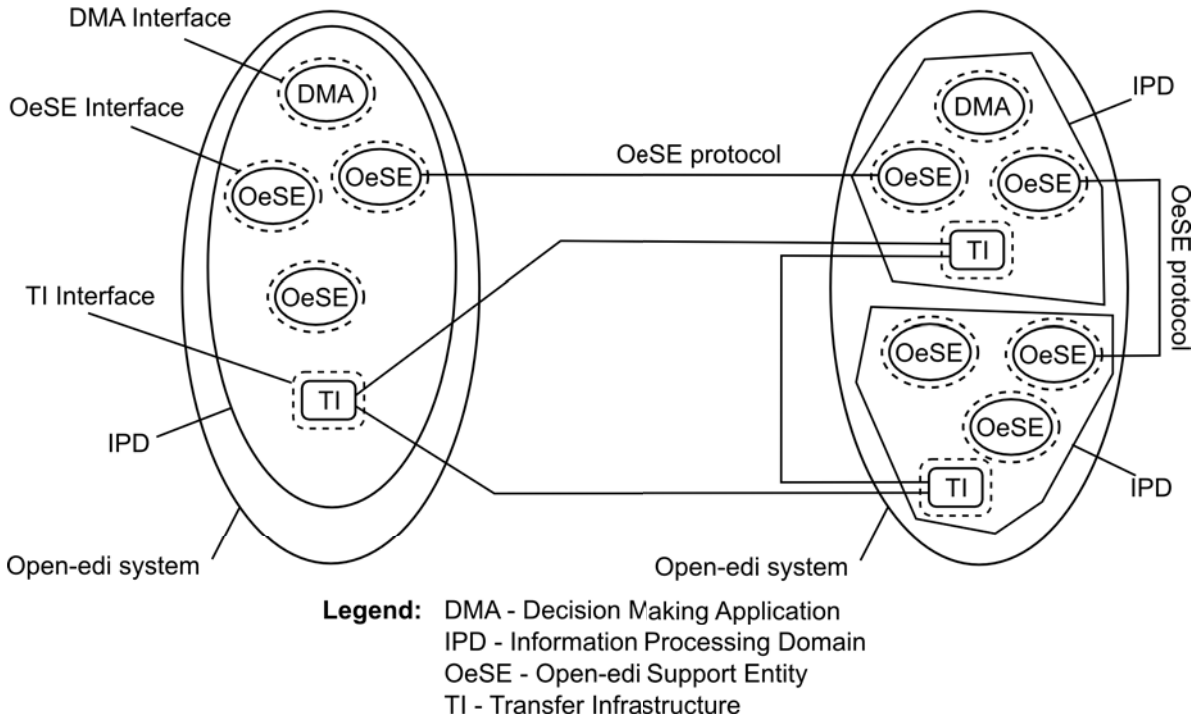

Figure 5 — Open-edi system relationships

As described in clause 5.2 Technology within IT systems, the interfaces between the DMA and the OeSE and its components of transfer (the transfer infrastructure), interaction (protocols) and syntax (structure and representation) are orthogonal to the interoperability among IT systems. The transfer infrastructure interface satisfies the requests of the OeSE. The OeSE interface satisfies the requests of each other OeSE. The DMA interface satisfies the requests of the DMA made on the OeSE.

The concrete implementations of the transfer infrastructure for transfer, the protocol (including Open-edi Control Information (OeCI)) for interaction, and the representation (the Open-edi User Data (OeUD) are the commonly-defined and commonly-accepted aspects of interoperability among IT systems.

6 Linking the BOV to FSV representation and technology

Figure 6, excerpted from Figure 2, depicts three main components of the Open-edi Support Infrastructure: the user data, the choreographies and the transfer.

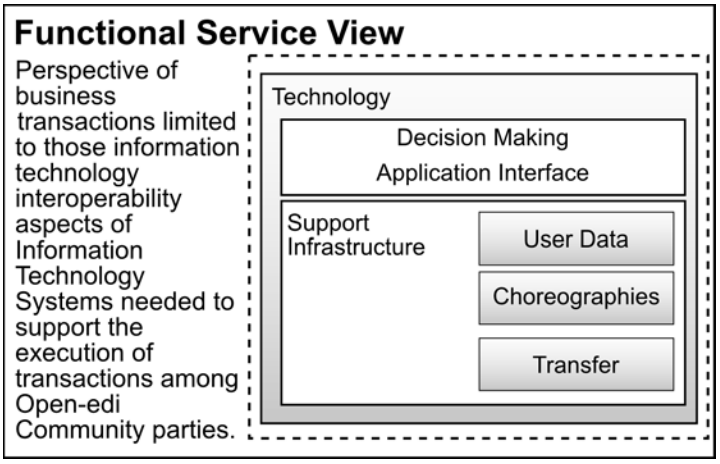

Figure 6 — FSV perspective of the Open-edi Reference Model

The user data expressed in the transfer syntax of the information bundles used in a given set of recorded information should accommodate the BOV information model requirements. The principles governing

interoperable specifications in this area should accommodate omitting optional constructs of a standard base definition of a generic transfer syntax that are not required. They should also accommodate supplementing additional non-standard constructs on top of a standard base definition that are needed to satisfy the information required by the community that is not realized in the adopted standard. Without such flexibility, the integrity of the sets of recorded information among systems may have limited reliability.

The choreography of the protocol is the ordered exchange of sets of recorded information accommodating the BOV process model requirements and activity model requirements. The principles governing interoperable specifications in this area must accommodate the omission of irrelevant components of the sets of recorded information and the addition of customized components to the sets of recorded information needed to satisfy finer-grained requirements of the Open-edi Community that are not in the base definitions. Further elaboration of choreography is depicted in Figure 25 of ISO/IEC 15944-1:2011.

The transfer is performed on the transfer infrastructure connecting two parties in which their transactions are interchanged. The principles governing interoperable specifications in this area must accommodate the impacts of interruptions or outside influences causing possible loss or duplication of sets of recorded information. These principles implement the environment component of the BOV.

Not shown in the diagram are the implementation requirements respecting that there are operational details among community members. Such business requirements evolve over time with more explicit descriptions or new requirements. Existing Open-edi scenarios need to accommodate additional features and functionality declared by the community. As communities increase in size it becomes untenable to require wholesale instantaneous conversion of all members of the community to a new version of an Open-edi scenario with new versions of representation and technology. Migration strategies will effect situations in which portions of the community have implemented a newer version of the scenario than other portions. Principles of version interoperability promote successful interaction among Parties implementing different versions of the Open-edi scenario.

7 User data interoperability

7.1 Overview

The user data FSV standards supporting the syntax and content of information bundles as sets of recorded information exchanged between two Open-edi Parties must reflect the flexibility needed to accommodate the business requirements of the Open-edi community. The application of constraints against the model (syntax structure) and values (content) of the documents that serialize the information bundles as sets of recorded information is depicted in Figure 7.

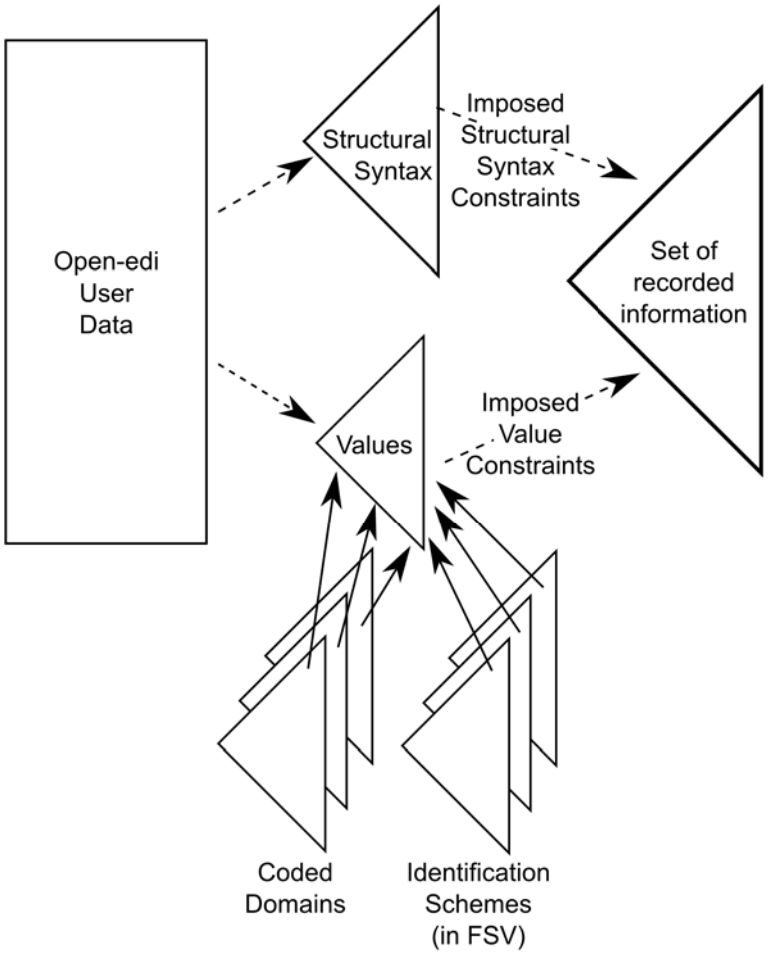

Figure 7 — Constraints on user data

The diagram distinguishes two perspectives of Open-edi User Data. The structural syntax is the nature by which the information bundle is expressed in a set of recorded information. The values are the predefined values (coded domains) or value coding methods (identification schemes) that constrain some items in the information bundle.

7.2 User data syntax constraints

In Figure 7 the arrow labeled "Imposed Structure Constraints" depicts application of user data syntax constraints of the set of recorded information for a document.

A base FSV standard for syntax is a standard specifying for each set of recorded information a core of constructs mandatory in all transfer syntaxes of the given information bundle. This promotes the benefit of being able to use the set of recorded information in business contexts outside of the Open-edi Configuration for which it is specified.

The base syntax standard should also specify a suite of optional constructs of basic business concepts of likely wide adoption across Open-edi Configurations. The larger the suite of available constructs, the larger the candidate user base of the standardized structures. Each Configuration may choose a transfer syntax with a different subset of the optional constructs based on the different needs of each configuration.

These properties of the base syntax are depicted in Figure 8.

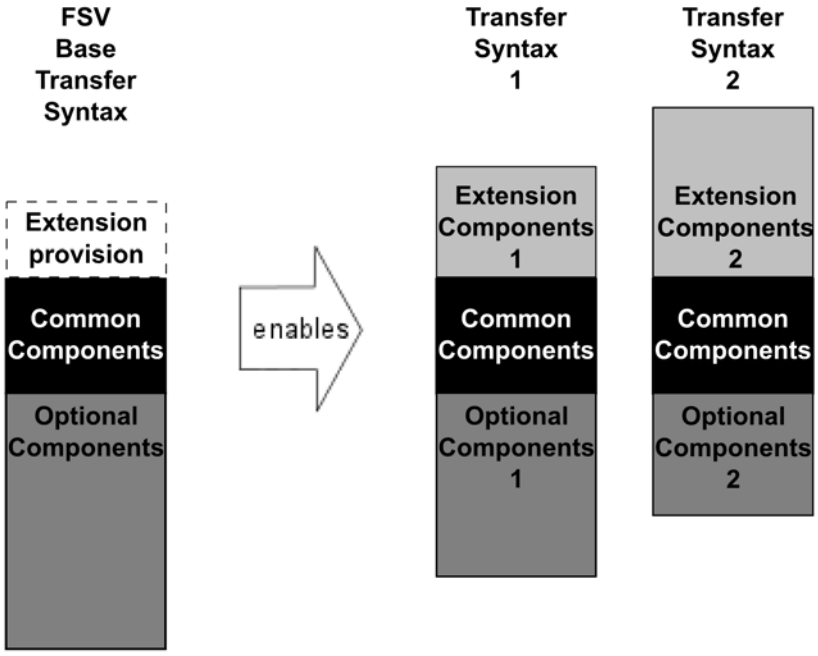

Figure 8 — Base FSV standard for syntax

Also shown in Figure 8 is the provision in the base FSV standard for syntax standard for the Open-edi Community to define an extension of the structure (and contents) of an Information Bundle (IB). Such an extension accommodates a Community requirement for information bundles with content not found in the base definition. Only the provision of extensions needs to be defined in the base syntax, though this is also a suitable location for the definition in the base syntax of non-business information structures anticipated to be of broad interest across Open-edi Communities.

The transfer syntax combination used by an Open-edi Community of the core definition (that being the set of mandatory items of the IB), a subset of optional definitions (those being the optional items of the IB) and an extension of additional definitions (those being the augmented items of the IB) is considered a customization of the base FSV syntax. A Community may define multiple customizations of the same base syntax for use in multiple choreographies, or even at different steps of a given choreography.

An important property of the extension provision is that any extensions defined by a Community should not violate any document constraints imposed by a schema validating the core and optional constructs used by another Community.

Furthermore, where possible, the approach to defining constructs should be based on specifications such as ISO TS 15000-5 ebXML Core Components.

7.3 User data value constraints

In Figure 7 the arrow labeled "Imposed Value Constraints" depicts application of user data value constraints of the set of recorded information for a document.

FSV standards for value constraints on user data should exhibit properties that allow for the specification of the constraints and for the specification of the application of the constraints. These standards should be separate from the syntax standards in order to provide for flexibility to meet the requirements of the BOV.

At the abstract level of the structural syntax, component values in actual documents found within the structure can be varied and infinite. The components are the atomic values that are organized by the document structures. These atomic values are constrained only by the data type properties of the component's syntax.

A standardized structural syntax may not impose any constraints on atomic values. For example a coded value and a text value may both be without limits in their lengths, and thus their values. In an actual deployment defined by an Open-edi Community, all parties can agree on constraints on some or all of the atomic values in their use of the standard syntax.

One common approach is to define sets of permitted values by treating the information bundle item as a coded domain and expressing the enumerations of valid values as code lists. Another common approach is to impose a limit to the length of a value by imposing a maximum data lengths.

FSV standards for the application of such constraints against user data should provide for combining multiple constraints against a single information item. For example, when an information item is constrained by the union of values from a subset of a standard code list with the values of a Party's own code list or lists. For another example, an information item is constrained to be, say, 10 characters long and comprised entirely of alphabetic characters.

FSV standards for constraints expressed as code lists should provide for:

— list-level metadata identifying the list as a whole;

— value-level metadata associated with each of the enumerated values; and

— instance-level metadata found in user data associating a list with an information item containing a value from that list.

FSV standards for constraints expressed as limitations should provide for detailed value analysis and reporting.

8 Choreography interoperability

A choreography is a detailed description of the way the business partners collaborate to play their respective roles and share responsibilities to achieve mutually agreed goals with the support of their respective information systems. It is the realization of a Business Scenario.

A business transaction is the basic building block to define choreography between authorized roles. If an authorized role recognizes an event that changes the state of the DMA, it initiates a business transaction to synchronize with the collaborating authorized role.

The choreography FSV standards supporting the protocol of sets of recorded information among two or more Open-edi Parties must reflect the flexibility needed to accommodate the business requirements of the Open-edi Community. The shape of a typical FSV base choreography is depicted in Figure 9 (adapted from Figure C.2 from ISO/IEC 14662:2010) showing the ordered sequence of information bundle exchanges among Open-edi Support Entities.

4) *Information technology -- Business Operational View -- Part 10: IT-enabled coded domains as semantic components in business transactions*

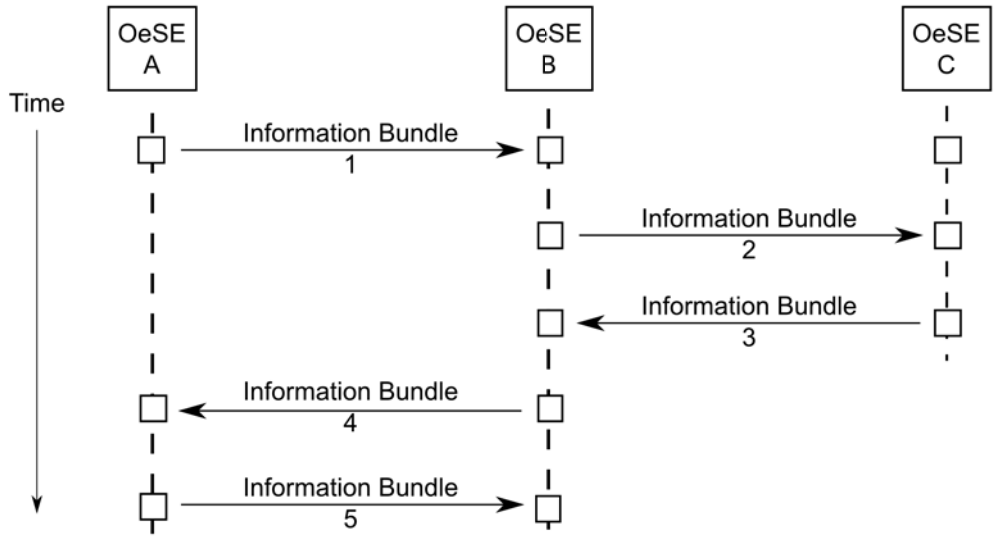

Figure 9 — FSV Base Choreography Exchange Depiction

The same exchange can be depicted as a UML diagram with "swim lanes" as in Figure 10.

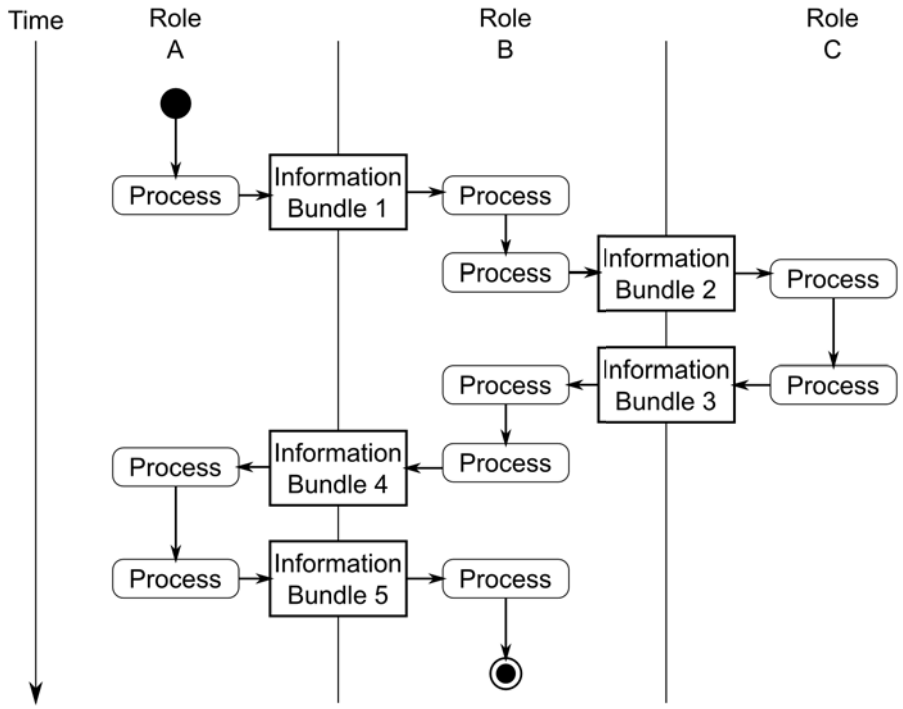

Figure 10 — FSV Base Choreography UML Depiction

Different profiles of the business practices determined in the BOV are reflected in different choreographies of the exchange of sets of recorded information implemented in the FSV. Moreover, these profiles may reflect the need for different information bundles of a given document exchanged in separate choreographies.

The FSV standards should be flexible to accommodate the selection of a subset of the choreography that matches requirements of the BOV. Such a standard should also accommodate the specification of additional sets of recorded information required of the BOV but not available in the standard choreography. Implementations of the FSV standards must not only accept the basic and extension sets of recorded information defined by the base and deployed FSV, but also must gracefully tolerate the unexpected set encountered in an exchange.

Within Open-edi a business transaction represents the function expressed (e.g. an order acceptance, an order rejection) by the exchange of a set of recorded information (e.g. an order response) between two Open-edi Parties, or more precisely between two roles. The actual requirements for data content in each business transaction are defined in one or more information bundle models.

An Open-edi Profile is a technical specification describing:

— the choreography of the business scenarios;

— the constraints and rules governing the execution of these business scenarios; and

— the information bundles pertaining to the business transaction.

In order to support the exchange of information bundles pertaining to a business transaction in an open and interoperable manner, the Open-edi Profile will be described with an aim to function as a commitment among Open-edi Parties in an Open-edi Community. This is done in order to lower one of the main barriers to the efficient and effective implementation of open-edi; the need to entering in to bilateral agreements with each open-edi Party. By providing precise and detailed profiles an organisation implementing a profile can claim conformance to it. By doing so the organisation is committed to all aspects of the profile and thus limiting the need for further bilateral agreements. A profile engages the use of one or more Information Bundles in order to define the allowed semantic components (SC), i.e., contents, of the Information Bundles, interchanged in accordance with the Open-edi scenarios supported. Each Information Bundle contains several components, possibly constrained by one or more constraints. Each component is defined within the Information Bundle in order to meet one or more stated Business Requirements relevant for one or more Open-edi Profile(s).

9 Transfer interoperability

9.1 Overview

Interoperability as it applies the transfer of sets of recorded information relates to providing the required level of trust among the parties to the exchange. This involves three aspects:

1) identification of Parties;

2) assuring the integrity of information bundles; and

3) reliability of exchanges.

Collectively these are used to address the required levels of information security such as:

— confidentiality;

— integrity;

— accessibility;

— authenticity; and

— non-repudiation.

9.2 Identification of parties

These properties of FSV standards address BOV requirements for confidentiality and authenticity of the sender and recipient of the sets of recorded information, such as:

— verifying the identification of legitimate parties and services for exchanges; and

— verifying the identification of schemes, registries, service agreements and commercial contracts.

9.3 Assuring the integrity of information bundles

These properties of FSV standards address requirements for integrity and authenticity of the information within the sets of recorded information (e.g. at times referred to as a document, a message, etc.), such as:

— information bundle validation, such as:

  — electronic signatures;

  — schema validation; and

  — value validation

— process validation, such as implementing auditable processes.

9.4 Reliability of exchanges

These properties of FSV standards address requirements for robustness, integrity, accessibility and non-repudiation by the transfer infrastructure, such as:

— tolerance of the unexpected;

— performance;

— dropped information bundles (addressed using techniques such as timeouts and message counting);

— duplicated information bundles (addressed using techniques including the reliable redundant delivery of duplicate messages (idempotent delivery)); and

— scalability.

10 FSV implementation requirements

10.1 Operational requirements

FSV standards implemented in an Open-edi Support Interface should address operational requirements among Open-edi Community members, such as:

— compliance;

— maintenance; and

— integrity.

10.2 Version interoperability

10.2.1 Overview

FSV standards should be applied with a consideration for interoperability within an Open-edi Community where not all Parties in the community have the same version of implementation. Homogenous networks of implementations provide no challenges for version interoperability. Heterogeneous networks of different implementation levels of Open-edi Support Infrastructure must accommodate interchange.

10.2.2 Backward-compatible exchanges and expressions

Version interoperability requirements impose the following structural constraints when specifying new versions of FSV standards implementing user data, choreographies or transfer infrastructure:

— newer systems must add only optional components to existing definitions of older systems

  — those added optional components may, themselves, have mandatory components

— newer systems must accommodate missing information received from older systems without penalty

10.2.3 Forward-compatible processes

Version interoperability requirements impose the following structural constraints on older versions of FSV standards implementing user data, choreographies or transfer infrastructure:

— older systems must tolerate receiving unexpected components without changing their behaviour

  — older system must prune or ignore components that are unrecognized

11 Conformance statement

There is no conformance statement for this part.

Annex A
(normative)

Consolidated list of terms and definitions with cultural adaptability: ISO English and ISO French language equivalency

A.1 Introduction

This Annex A contains only those new concepts and their definitions introduced in this part of ISO/IEC 15944, i.e. as ISO English and ISO French language HIEs.

A.2 ISO English and ISO French

This part of ISO/IEC 15944 recognizes that the use of English and French as natural languages is not uniform or harmonized globally. Consequently, the terms "ISO English" and "ISO French" are used here to indicate the ISO's specialized use of English and French as natural languages in the specific context of international standardization, i.e., as a "special language".

A.3 Cultural adaptability and quality control

ISO/IEC JTC1 has "cultural adaptability" as the third strategic direction which all standards development work should support. This Annex serves to support the "cultural adaptability" aspects of standards as required by ISO/IEC JTC1. Another key of translating terms and definitions is that such work in providing bilingual/multilingual equivalency should be considered a "quality control check" in that establishing an equivalency in another language ferrets out "hidden" ambiguities in the source language.

A.4 Organization of Annex A - Consolidated list in matrix form

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

Table A.1 — Columns in Table A.2

Col. No.	Use
	IT-Interface - Identification
1	Clause 3 ID (ID definition as per ISO/IEC 15944-12 Clause 3)
2	Source in ISO/IEC 15944-20.
	Human Interface Equivalent (HIE) Components
3	ISO English Language - Term
4	Gender of ISO English Language Term+
5	ISO English Language - Definition
6	ISO French Language - Term
7	Gender of the ISO French language Term+
8	ISO French Language - Definition

5) This annex 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.

+ The codes representing gender of terms in natural languages are those found in Clause 6.2.6 in *ISO/IEC 15944-5 "Gender, and official, de facto, or LRL languages"*, Table 1 - ISO/IEC 15944-5:01 *"Codes representing gender and official languages"*.

Table A.2 — List of terms and definitions with cultural adaptability of: ISO English and ISO French language equivalency

IT-Interface		Human Interface Equivalent (HIE) Components					
Identification		ISO English			ISO French		
eBus. Vocab. ID	Source Ref. ID	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
295	2.1	base FSV standard	99	*Functional Service View* standard from which a systematic derivation of some kind is implemented in an *Open-edi scenario*	norme FSV de base	02	norme relative à la *Vue fonctionnelle des services* dont on applique une sorte de dérivation systématique à un *scénario d'EDI-ouvert*
296	2.5	choreography	99	instantiation of an *Open-edi scenario* in accordance with the *rule*s governing the *role*s and *Information Bundle*s of that *scenario* NOTE There can be more than one choreography serving as an instantiation of an Open-edi scenario.	chorégraphie	02	instanciation d'un *scénario d'EDI-ouvert* conforme aux *règles* gouvernant les *rôles* et les *faisceaux d'information* de ce *scénario* NOTE Plus d'une sorte de chorégraphie peut exister comme instanciation de scénario d'EDI-ouvert
297	2.15	Open-edi community	99	defined group of *Open-edi Parties* engaged in *business transactions* which shares one or more *Open-edi scenario*s	communauté d'EDI-ouvert	02	groupe défini des *Parties d'EDI-ouvert* engagées dans des *transactions d'affaires* et qui partage un ou plusieurs *scénario(s) d'EDI-ouvert*
298	2.16	Open-edi community configuration	99	specified *Open-edi configuration* used within an *Open-edi community* by its *Open-edi Parties* in their associated *Information Processing Domain*s, which can execute *Open-edi transaction*s corresponding to shared *Open-edi scenario*	configuration de la communauté d'EDI-ouvert	02	*configuration d'EDI-ouvert* spécifiée et utilisée dans une *communauté d'EDI-ouvert* par ses *Parties d'EDI-ouvert* dans leurs *Domaines de traitement de l'information*, et qui peut exécuter des *transactions d'EDI-ouvert* correspondant à un (ou des) *scénario(s) d'EDI-ouvert*
299	2.18	Open-edi Control Information	99	information exchanged among *Open-edi Support Entities* to co-ordinate their operation NOTE Based on ISO/IEC 14662:2010 (D.1)	Information de contrôle d'EDI-ouvert (OeCI)	02	information échangée entre les *Entités d'EDI-ouvert* pour coordonner leur exploitation NOTE Basé sur l'ISO/CEI 14662:2010 (D.1)

Table A.2 *(continued)*

IT-Interface		Human Interface Equivalent (HIE) Components					
Identification		ISO English			ISO French		
eBus. Vocab. ID	Source Ref. ID	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
300	2.21	Open-edi Profile	99	technical specification of properties of a *business transaction* forming part of commitment among *Open-edi Parties* in an *Open-edi community*	Profil d'EDI-ouvert	01	spécification technique des propriétés d'une *transaction d'affaires* faisant partie de l'engagement entre des *parties d'EDI-ouvert* dans une *communauté d'EDI-ouvert*
301	2.24	Open-edi Support Entity (OeSE)	99	functional component of the *Open-edi Support Infrastructure* used to model a subset of generic functional capabilities NOTE 1 The identification of such a subset of functional capabilities should take into account the possibility that the corresponding *Open-edi Support Entity* may be implemented in a different *Open-edi system* NOTE 2 Based on ISO/IEC 14662:2010 (D.1)	Entité de soutien d'EDI-ouvert (OeSE)	02	composant fonctionnel de *l'infrastructure de soutien d'EDI-ouvert* utilisé pour modéliser un sous ensemble de capacités fonctionnelles générales NOTE 1 L'identification d'un tel sous ensemble de capacités fonctionnelles devrait tenir compte de la possibilité que l'Entité de soutien d'EDI-ouvert puisse s'appliquer dans un système d'EDI-ouvert différent. NOTE 2 Basé sur l'ISO/CEI 14662:2010 (D.1)
302	2.25	Open-edi Support Entity Interface (OeSEI)	99	set of specifications that allows access to the services the provides NOTE Based on ISO/IEC 14662:2010 (D.1)	Interface d'entité de soutien d'EDI-ouvert (OeSEI)	02	ensemble des spécifications donnant accès aux services qu'offre *l'entité de soutien d'EDI-ouvert* NOTE Basé sur l'ISO/CEI 14662:2010 (D.1)
303	2.26	Open-edi Support Entity Protocol	99	set of *rule*s and data formats (semantic and syntactic) which models the interaction among peer *Open-edi Support Entities* NOTE 1 The purpose of the Open-edi Support Entity Protocol is to ensure the interoperability of implementations of Open-edi Support Entities which are operated by different organizations.	Protocole d'entité de soutien d'EDI-ouvert (OeSEP)	01	ensemble de *règles* et de formats de données, définis en syntaxe et en sémantique, modélisant l'interaction entre *entités de soutien d'EDI-ouvert* homologues NOTE 1 Le but du Protocole d'entité de soutien d'EDI-ouvert est d'assurer l'interopérabilité des applications d'entités de soutien d'EDI-ouvert

Table A.2 *(continued)*

IT-Interface		Human Interface Equivalent (HIE) Components					
Identification		ISO English			ISO French		
eBus. Vocab. ID	Source Ref. ID	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				NOTE 2 *Open-edi Support Entity Protocol* includes specification of *Open-edi Control Information* and possibly *Open-edi User Data*. NOTE 3 Based on ISO/IEC 14662:2010 (D.1)			exploitées par des organisations différentes. NOTE 2 Le Protocole d'entité de soutien d'EDI-ouvert inclut la spécification de l'information sur le Contrôle d'EDI-ouvert et possiblement les Données utilisateur de l'EDI-ouvert. NOTE 3 Basé sur l'ISO/CEI 14662:2010 (D.1)
304	2.31	Open-edi User Data	99	instance of *Information Bundle*s or components of *Information Bundle*s (as *Semantic Component*s)	Données d'utilisateur d'EDI-ouvert (OeUD)	02	occurrences de *Faisceaux d'informations* ou de composants de *Faisceaux d'informations* (sous forme de *Composants sémantiques*)
305	2.36	transfer	99	act of using the *Transfer Infrastructure* to effect the interchange of *Information Bundle*s in a *business transaction*	transfert	01	action d'utiliser *l'Infrastructure de transfert* pour effectuer l'échange des *Faisceaux d'information* dans une *transaction d'affaires*
306	2.37	Transfer Infrastructure	99	complete set of functional capabilities offering interconnection services NOTE 1 The TI allows Open-edi Support Entities and Decision Making Applications to inter-work without concern to their location (location transparency). NOTE 2 Based on ISO/IEC 14662:2010 (D.1)	Infrastructure d'échange (TI)	02	ensemble complet des capacités fonctionnelles concourant aux services d'interconnexion NOTE 1 La TI permet aux entités de soutien d'EDI-ouvert et aux Applications de prise de décision d'interfonctionner sans se soucier de leur emplacement (transparence d'emplacement). NOTE 2 Basé sur l'ISO/CEI 14662:2010 (D.1)
307	2.38	Transfer Infrastructure Interface	99	set of specifications that allows *Open-edi Support Entities* to access the interconnection	Interface de l'infrastructure de transfert	02	ensemble des spécifications donnant aux *entités de soutien d'EDI-ouvert* accès aux services d'interconnexion

Table A.2 *(continued)*

IT-Interface		Human Interface Equivalent (HIE) Components					
Identification		ISO English			ISO French		
eBus. Vocab. ID	Source Ref. ID	Term	G	Definition	Term	G	Definition
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				services the *Transfer Infrastructure* provides NOTE 1 The TI Interface promotes the independence of OeSEs from the structure of underlying interconnection services and their functionality and protocols. NOTE 2 The use of current available standards for interconnection services will be maximized. The TI allows OeSEs and DMAs to inter-work without concern to their location (location transparency). NOTE 3 Based on ISO/IEC 14662:2010 (D.1)			qu'offre *l'infrastructure de transfert* NOTE 1 L'interface TI promeut l'indépendance des OeSEs de la structure des services d'interconnexion sous-jacents et de leurs protocoles de fonctionnalité. NOTE 2 L'utilisation des normes actuellement disponibles sur les services d'interconnexion sera maximisée. La TI permet aux OeSEs et aux DMAs d'interfonctionner sans se soucier de leur emplacement (transparence d'emplacement. NOTE 3 Basé sur l'ISO/CEI 14662:2010 (D.1)

Annex B
(informative)

eBusiness interoperability

The enabling role of Open-edi Reference Model, depicted in Figure 2, in eBusiness interoperability is depicted in Figure B.1. An interoperability framework implemented among Open-edi Parties in an Open-edi Community is enabled by the application of BOV- and FSV-related standards. Organizational interoperability brings into alignment organizational activities and processes. Semantic interoperability brings into alignment the precise meaning of exchanged information. The content of this information and these processes is mapped to the user data, choreography and transfer aspects providing technical interoperability among parties interacting among the community.

In Figure B.1 these are the standards shown in the "Support Infrastructure" box that are implementing the "enables" arrow, thus enabling technical interoperability among IT systems.

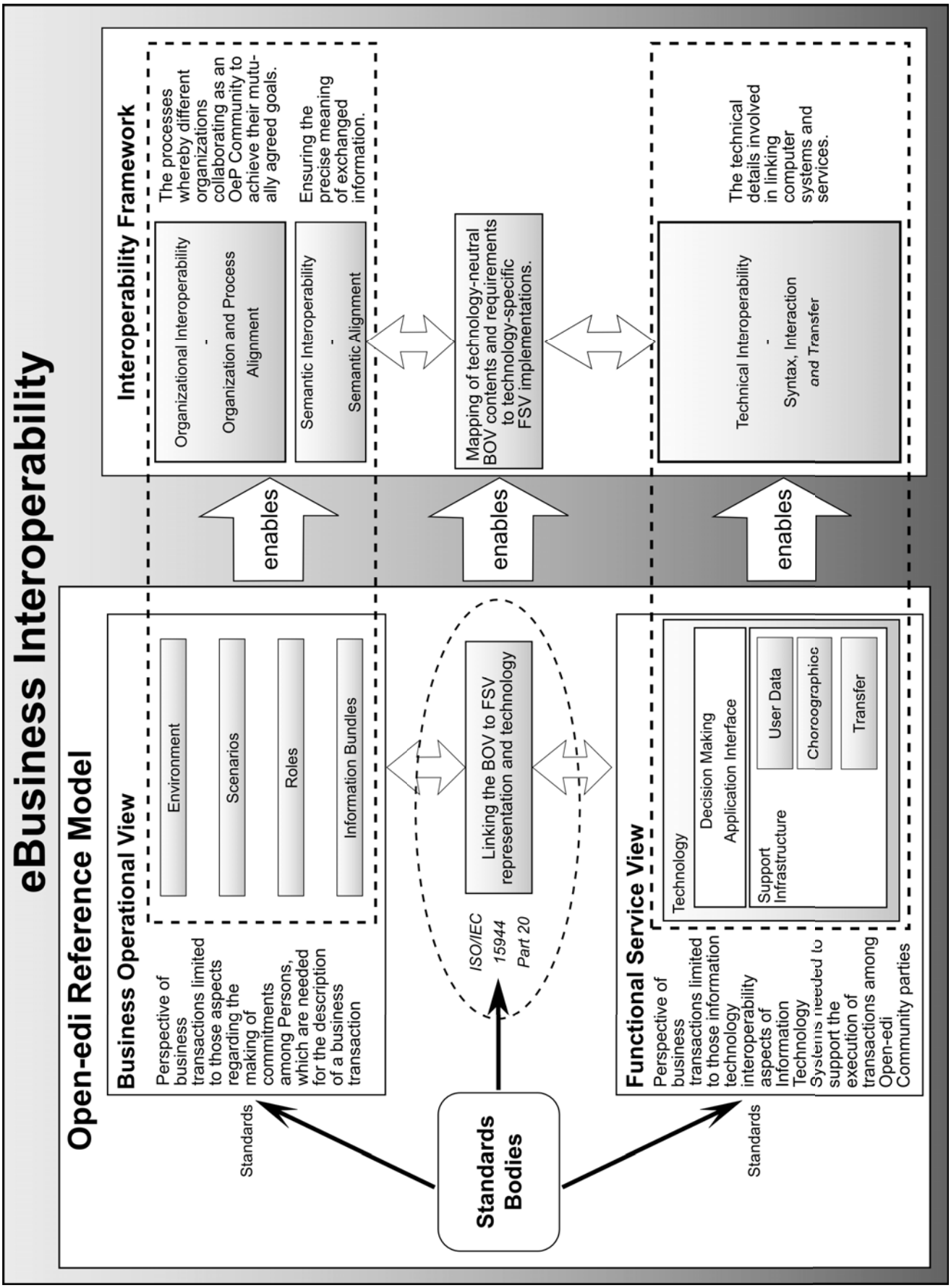

Figure B.1 — eBusiness Interoperability

Bibliography

[1] ISO/IEC 14662:2010, *Information technology — Open-edi reference model*

[2] ISO/IEC 15944-1:2011, *Information technology — Business Operational View — Part 1: Operational aspects of Open-edi for implementation*

[3] ISO/IEC 15944-7, *Information technology — Business Operational View — Part 7: eBusiness vocabulary*

[4] ISO/IEC 15944-8:2012, *Information technology — Business Operational View — Part 8: Identification of privacy protection requirements as external constraints on business transactions/Technologies de l'information — Vue opérationnelle d'affaires — Partie 8: Identification des exigences de protection de la vie privée en tant que contraintes externes sur les transactions d'affaires*

[5] ISO/IEC 15944-10:2013, *Information technology — Business Operational View — Part 10: IT-enabled coded domains as semantic components in business transactions*

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