
**Information technology — Business
operational view —**

**Part 14:
Open-edi reference model and cloud
computing architecture**

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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.

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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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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

A list of all parts in the ISO/IEC 15944 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

0.1 Purpose and overview

Open-edi is defined in ISO/IEC 14662 as "electronic data interchange among multiple autonomous Persons to accomplish an explicit shared business goal according to Open-edi standards". Cloud computing is defined in ISO/IEC 17788 as "a paradigm for enabling network access to a scalable and elastic pool of shareable physical or virtual resources with self-service provisioning and administration on demand". There are many similarities and commonalities among the Open-edi reference model and cloud computing reference architecture.

ISO/IEC 15944 is a multipart eBusiness standard which is based on and focuses on the BOV perspective of the ISO/IEC 14662 Open-edi reference model. This document is intended to serve as a bridge among standards development involved in Open-edi and cloud computing.

The primary purpose of this document is to identify commonalities between:

- a) the ISO/IEC 14662 Open-edi reference model (and related ISO/IEC 15944 series); and,
- b) ISO/IEC 17789 (and related standards).

0.2 Link to ISO/IEC 14662 and ISO/IEC 15944 perspectives

0.2.1 ISO/IEC 14662 Open-edi reference model¹⁾

The ISO/IEC 14662, Open-edi reference model states the conceptual architecture necessary for carrying out electronic business transactions among autonomous parties. That architecture identifies and 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](#) (copied from ISO/IEC 14662) illustrates the Open-edi environment.

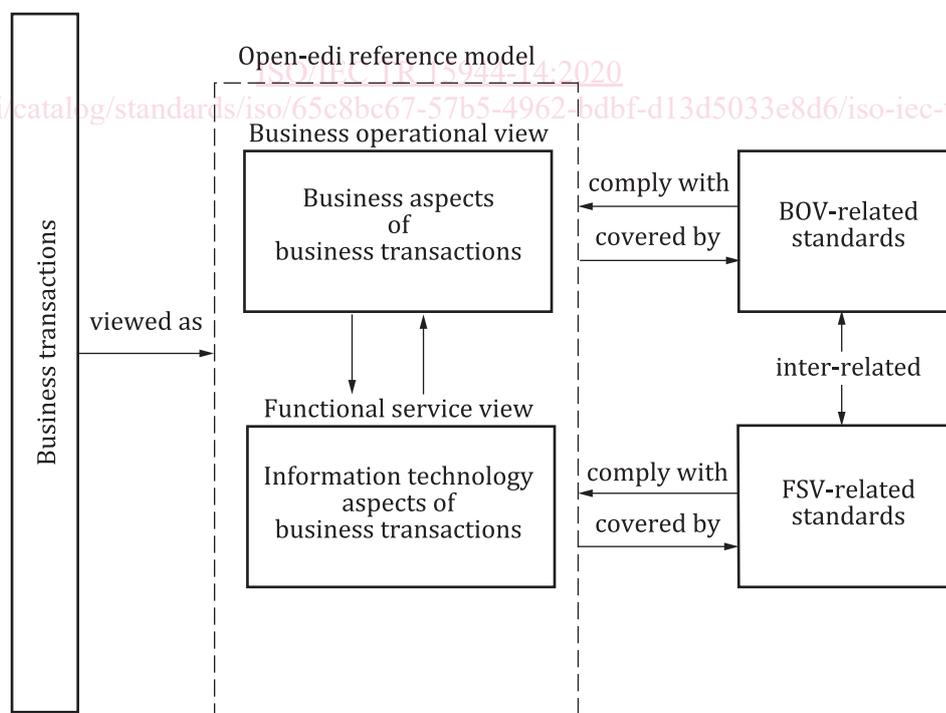


Figure 1 — Open-edi environment

1) The Memorandum of Understanding between ISO, IEC, ITU and UN/ECE (2000) concerning standardization in the field of electronic business is based on this *Model*. See https://www.unece.org/fileadmin/DAM/oes/MOU/2000/24March2000_IEC_ISO_ITU.pdf.

0.2.2 ISO/IEC 15944-1

ISO/IEC 15944-1 states the requirements of the BOV aspects of Open-edi in support of electronic business transactions. They are required to be 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 which apply to individuals, i.e., are rights of individuals, which are of a generic nature such as consumer protection, privacy protection, and accessibility (see further in ISO/IEC 15944-5:2008, 6.3);
- 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). One needs the ability to distinguish, the specification of scenarios, scenario components, and their semantics, in the context of making commitments, between:
 - a) the use of unique, unambiguous and linguistically neutral identifiers (often as composite identifiers) at the information technology interface level among the IT systems of participation parties on the one hand; and, on the other,
 - b) their multiple human interface equivalent (HIE) expressions in a presentation form appropriate to the Persons involved in the making of the resulting commitments.

[Figure 2](#) (copied from ISO/IEC 15944-1) shows an integrated view of these business operational requirements.

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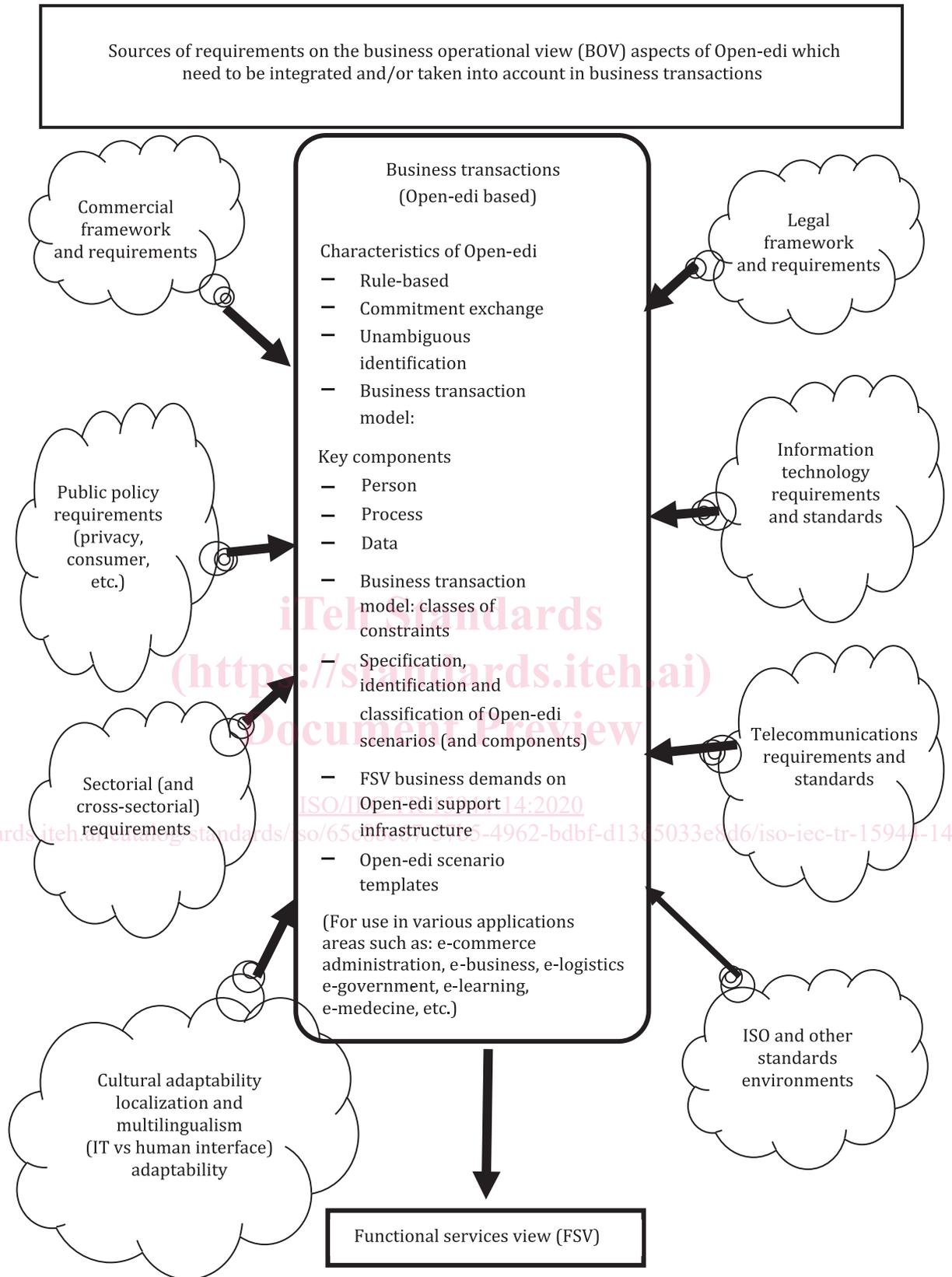


Figure 2 — Integrated view of business operational requirements

In electronic business transactions, whether undertaken on a for profit or not-for-profit basis, the key element is commitment exchange among Persons made through their decision-making applications (DMAs) of their information technology systems (IT systems) accessibility (see further