
**Business requirements for end-to-end
visibility of logistics flow**

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Foreword

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

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 ISO documents 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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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 Technical Committee ISO/TC 154, *Processes, data elements and documents in commerce, industry and administration*.

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

Visibility of logistics traffic flow and finding the precise logistics information in a simple and trusted way are very important for the logistics processes in international trade.

However, the logistics data to be obtained by the logistics operator is often provided by several logistics information service systems (LISS) and other logistics and/or trade parties. Although international standards (such as UN/EDIFACT) have existed for decades and many national and regional systems have been implemented based on such international standards, LISSs are often developed in isolation and fragmentation based on their individual business requirements; and this has led to many different and non-interoperable interpretations of standard messages. In order to realize the visibility of logistics traffic flow, data from different LISSs should be interchanged with each other by using a standardized method to establish an LISS network.

This document specifies three business requirements of a future LISS network. The purpose of including the network architecture in this document is to support the business requirements of data exchanges between different LISSs on the application layer. Existing international standards ([Annex B](#)) can be reused in a standardized way and any gaps filled by new international standards where identified. This document is an important reference and guideline to related logistics parties such as LISS providers, single window/SSP operators, logistics data providers and logistics data users.

Business requirements for end-to-end visibility of logistics flow

1 Scope

This document specifies three business requirements for the visibility of logistics traffic flow based on the use cases and gap analysis in [Annex A](#). It includes

- 1) LISS network architecture requirements,
- 2) visibility data interchange requirements between LISSs, and
- 3) visibility data interface and process requirements for an LISS network.

These three business requirements are described further in [Clause 6](#), [Clause 7](#) and [Clause 8](#) respectively.

Furthermore, [Clause 8](#) describes the requirement for a guideline for business participants and stakeholders in an LISS network such as logistics information service providers, single window/SSP operators, data providers and logistics data users.

This document does not include standardization

- 1) at the level of logistics devices (areas of standardisation covered by ISO/TC 104, ISO/TC 204),
- 2) for ships, navigation and marine technologies (areas of standardisation covered by ISO/TC 8), or
- 3) related to international data exchange such as standards developed, published and maintained by UN/CEFACT, GS1, WCO which are referenced as appropriate in this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

UN/CEFACT Multi Modal High-Level Business Requirements Specification (BRS)¹⁾

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

1) This high-level BRS describes the requirements for a generic reference data model supporting the trade and transport-related processes involved in the cross-border supply chain and covering, at a high-level, the involved business areas, the main parties and the information involved. It provides the framework for any cross-border transport-related business and government domains to specify their own specific information exchange requirements whilst complying with the overall processes and data structures. Reference: https://www.unece.org/fileadmin/DAM/cefact/brs/BRS_T_L-MMT.zip.