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Intelligent transport systems — Electronic information exchange to facilitate the movement of freight and its intermodal transfer — Governance rules to sustain electronic information exchange methods

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National foreword

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Intelligent transport systems — Electronic information exchange to facilitate the movement of freight and its intermodal transfer — Governance rules to sustain electronic information exchange methods

Systèmes intelligents de transport — Échange d'informations électroniques pour faciliter le mouvement du fret et son transfert intermodal — Règles de gouvernance pour soutenir les méthodes d'échange d'informations électroniques

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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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 204, *Intelligent transport systems*.

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Introduction

Electronic commerce offers new opportunities to improve the efficiency of business operations and to reduce costs associated with trade procedures, providing increased competitive advantages to the commercial actors ready to embrace new methods of work and trade. Emerging electronic commerce platforms and the use of the Internet provide users with a combination of technologies to communicate data, to contract electronically, as well as to manage new business processes leading to new business models.

Improved information sharing among supply chain partners is one of the key business objectives which enable the participants to improve their operational efficiency and optimize their enterprise resource allocations. Due to the existence of heterogeneous IT environments among supply chain partners, it is a challenge for the implementer to seamlessly integrate information from multiple data sources and in different data formats. Each data source is typically designed for a single, stand-alone purpose within an enterprise, not to be part of an integrated data collection. Thus, these disparate data repositories tend to be silos, independent of one another, and not working well together. Business entities wishing to engage with other business partners to facilitate certain standards of practice for information interchange will need to abide by certain rules, otherwise the efficiencies sought using the methodologies in this Technical Specification will be diminished.

Within this context, and within this Technical Specification, "governance" is defined as "rules, processes, and behaviour that affect the way in which powers are exercised…particularly as regards openness, participation, accountability, effectiveness, and coherence". As discussed in 5.2.5 of ISO/TS 24533, there needs to be a governance process to tie loose ends together and allow the supply chain partners to keep their data exchange standards viable and effective. Governance is key to this process of maintaining the structures that allow for a high degree of supply chain productivity and for holding together the community partnerships that make such an arrangement economically advantageous. A governance specification is critical to making the process described herein effective. There is an expectation that a Technical Specification on governance will provide the guidance that will keep the supply chain standards viable and useful for the community of users wishing to maximize their returns on investment.

Rules of governance are intended to maintain standards harmony and to be approved through international consensus by the International Standards Organization (ISO TC204) as umbrella guidance for the members who will adopt the methodologies of this Technical Specification and keep the necessary standards relevant to their purpose.

A governance model that is elevated to an International Technical Specification means those investing in the implementation of the methodologies and standards activities have some assurance of continuity, thereby promoting greater adoption and further leveraging investments, and use of the standards. The vision expressed by this Technical Specification is to allow trading business partners to operate in a seamless manner to get goods to the marketplace meeting the highest level of performance standards.

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Intelligent transport systems — Electronic information exchange to facilitate the movement of freight and its intermodal transfer — Governance rules to sustain electronic information exchange methods

1 Scope

This Technical Specification provides governance rules to be used for executing an organized process for business entities to connect to one another electronically for the conduct of electronic trade in a secure and open environment through a standardized framework for information exchange. This standardized framework includes the processes and process tools that will ease connections between trading partners, provide full visibility, and reduce the time goods spend in transit. Additionally, the application of these rules and attendant standards and technology applications are expected to allow business entities to engage their legacy systems without the cost of upgrades.

The processes and process tools include web services technologies to improve the operating efficiency, safety, and security of freight movement. These technologies are used for sharing information between supply chain partners in a commonly understood manner by capturing it only once and sharing it many times, and giving all partners the same view of the data.

A service-oriented architecture leverages the web services functionality and necessitates the requirement for data exchange standards. These tools hinge on the successful definition and adoption of data standards published in open and accessible forums. The advantages of using information technology tools are undeniable and their use is now widespread across industry. The freight transport and logistics industry is no exception with all businesses using e-business to some extent.

This Technical Specification does not address liability of any kind as this is considered within the domain of each participating party.

2 Normative references

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

ISO/TS 24533, *Intelligent transport systems — Electronic information exchange to facilitate the movement of freight and its intermodal transfer — Road transport information exchange methodology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/TS 24533:2012 and the following apply.

3.1
bill of lading
document which evidences a contract of the carriage and the taking over or loading of the goods by the carrier, and by which the carrier undertakes to deliver the goods against surrender of the document

[SOURCE: ISO/TS 24533:2012]

Note 1 to entry: A provision in the document that the goods are to be delivered to the order of a named person, or to order, or to bearer, constitutes such an undertaking. The document has the following functions:

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1) a receipt for goods, signed by a duly authorized person on behalf of the carriers;

2) a document of title to the goods described therein;

3) an evidence of the terms and conditions of carriage agreed upon between the two parties.

3.2
carrier
person or organization, who owns and/or operates a transport means, engaged in the transportation of passengers or property by land, rail, air, or water

[SOURCE: ISO/TS 24533:2012]

3.3
consignee
receiver
person or company to whom goods are shipped

[SOURCE: ISO/TS 24533:2012]

3.4
consignor
shipper
party which, by contract with a carrier, consigns or sends goods with the carrier, or has them conveyed by him

[SOURCE: ISO/TS 24533:2012]

3.5
customs broker
party who is licensed to enter and clear goods through customs

Note 1 to entry: The responsibilities of a broker include preparing the entry form and filing it; advising the importer on duties to be paid; advancing duties and other costs; and arranging for delivery to the importer.

3.6
forwarding instructions
document issued to a forwarder, giving instructions regarding the action to be taken for the forwarding of goods described therein

Note 1 to entry: Forwarding instructions are used by any party who gives instructions for the transportation services required for a consignment of goods to any party who is contracted to provide the transportation services. The parties who issue this document are commonly referred to as the shipper or consignor, while the parties who receive this document are forwarders, carriers and shipping agents. This document can also be issued by a forwarder or shipping agent in its capacity as a shipper. This document can be used to arrange for the transportation (1) of different types of goods or cargoes; (2) whether containerized or non-containerized; (3) through different modes of transport including multi-modal; and (4) from any origin to any destination.

3.7
freight forwarder
party arranging the carriage of goods including connected services and/or associated formalities on behalf of a consignor or consignee

[SOURCE: ISO/TS 24533:2012]

3.8
Freight-X
Freight information-eXchange
consolidated global exchange of freight information

Note 1 to entry: Some examples include the “Electronic Freight Management” (EFM) program in the US as well as the “eFreight” program and its affiliates in Europe.

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3.9
Freight-X communities
Freight-X participants
Freight-X user communities
communities of organizations who have formally agreed to collaborate to operate using the principles defined in this Technical Specification by joining a Freight-X consortium

3.10
Freight-X community provider
organization who implement mechanisms for managing demand and supply of available Freight-X services supporting freight transportation management operations

3.11
Freight-X consortium
organizations who have formally agreed to form a formal association which has established rules and governance procedures to collaborate to operate using the principles defined in this Technical Specification

3.12
Freight-X community provider agreement
formal agreement by Freight-X community provider in respect of representation rights, access to specifications and services, data and document provision, specification, management, and access and maintenance

3.13
Freight-X governance
Freight-X governing body
system through which national and international freight communities' demand for and supply of electronic business services to support freight operations is directed and controlled

3.14
Freight-X message profile
specification of how one or more Freight-X business processes are executed by specifying the Freight-X business rules governing its business collaborations and the information content (message profile) of the electronic business transactions exchanged

3.15
Freight-X service
web service created specifically to address business processes related to electronic freight management

Note 1 to entry: Examples include receive order, confirm booking, and obtain status.

3.16
Freight-X specifications
explicit set of requirements to be satisfied by Freight-X

3.17
friends of the shipment
collection of parties whose role in a particular shipment has been established and documented in the Freight-X registry enabling access to the shipment information

3.18
level of service
measure to determine the effectiveness of elements of the Freight-X transportation infrastructure

3.19
logistic service provider
party providing logistic services such as warehousing, repacking products, distribution, and assembly (i.e. third party logistic provider, container freight station)

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3.20
message profile
content of the electronic business transactions exchanged described with an aim to function as part of a formal agreement

3.21
packing list
document stating the distribution of goods in individual packages, such as shipping document issued by shipper to carrier, customs and consignee serving the purposes of identifying detail information of package count, products count, measurement of each package, and weight of each package

3.22
small and medium-size enterprise
any entity engaged in an economic activity, irrespective of its legal form, that is characterized by number of employees, annual turnover, and/or annual balance sheet which falls below established limits

Note 1 to entry: Within European Union, fewer than 250 persons, annual turnover not exceeding 50 million euros and annual balance not exceeding 43 million euros. (Commission recommendation of 6 May 2003 concerning the definition of micro, small, and medium-sized enterprise.) Reference: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:124:0036:0041:EN:PDF

3.23
terminal operator
party with operational responsibilities at origin or destination nodes for freight transport journeys (i.e. overseeing the unloading of goods, checking the quantity of goods against the manifest, transferring of the goods, checking documents, authorizing a carrier to pick up goods)

3.24
transport service buyer
party who gives instructions for the transportation services required for a consignment of goods

3.25
transport service provider
party who is contracted to provide the transportation services (i.e. freight forwarder)

3.26
transport status document
document issued on individual specific request or through an agreed status reporting procedure by a freight forwarder (also known as the transport service provider) to communicate to the consignee or consignor (also known as the transport service buyer) or notify party the status of shipments that are currently under the freight forwarder's management

3.27
waybill
document issued by the party who provides the physical transportation services to the party who gives instructions for the transportation services (i.e. shipper, consignor)

Note 1 to entry: A waybill states the details of the transportation, charges, and terms and conditions under which the transportation service is provided. Unlike a bill of lading, a waybill is not negotiable and cannot be assigned to a third party transport document describing a shipment. It is issued by the party who undertakes to provide transportation services or undertakes to arrange for their provision to the party who gives instructions for the transportation services (i.e. shipper, consignor). It states the instructions for the beneficiary and can contain the details of the transportation, charges, and terms and conditions under which the transportation service is provided.

4 Symbols and abbreviated terms

ABIE	Aggregate business information entity
ACC	Aggregate core component

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