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Buy-Ship-Pay reference data model —

Part 1:
Business requirements specification (BRS)

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Foreword

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This document was prepared by the United Nations Economic Commission for Europe (UNECE) - United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) [as "Buy-Ship-Pay Reference Data Model" (v1.0, Approved by UN/CEFACT Bureau on 13 August 2019)] and drafted in accordance with its editorial rules. It was assigned to Technical Committee ISO/TC 154, *Processes, data elements and documents in commerce, industry and administration*, and adopted under the "fast-track procedure".

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.

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Introduction

The UN/CEFACT BUY-SHIP-PAY Reference Data Model (BSP-RDM) bridges two domains within the International Supply Chain Programme Development Area (PDA), namely the Transport and Logistics Domain and the Supply Chain and Procurement Domain, providing a unifying framework, consolidating the constituent data models of these two domains by addressing any overlaps between the concepts used in their different contexts.

UN/CEFACT has been working on Reference Data Models (RDMs) for International Supply Chains and Multi-Modal Transport. These two RDMs share a same base of components from the UN Core Component Library (UN CCL), which are interlinked but used differently due to differences in context and semantics between the international sales and transport contracts, information exchanges and business practices.

In the concept of RDM, as outlined by the UN/CEFACT White Paper on RDM approved in April 2017, these are complete and focused subsets specific to the needs of a particular domain. The context messages are then subset data exchange structures definitions of the RDMs.

For maintenance purposes, if the current two RDMs are developed separately, any changes in one will require changes to the other. A higher level RDM as the Buy-Ship-Pay (BSP) thereby facilitates their use and maintenance.

Therefore, the goal is to create an intermediate subset of the UN CCL focusing on the shared aspects across the international supply chain and transport-logistics chains. This document is expected to benefit modelers and developers for Collaborative Information Exchanges by facilitating an intermediate subset of the UN CCL, which both the International Supply Chain RDM and the Multi-Modal Transport RDM are based on.

The UN/CEFACT international standardisation process delivers and is composed of three (3) parts:

— Part 1: Business Requirement Specification (BRS)

— Part 2: Core Components Business Document Assembly (CCBDA) Data Model

— Part 3: Syntax

This document is the first part of the BSP RDM standardisation set of outputs. The objective of this document is to describe the requirements for a generic Reference Data Model (RDM), generalizing the concepts of the Multi-Modal Transport Reference Data Model (MMT-RDM) and the Supply Chain Reference Data Model (SCRDM), leading to the development, publishing and improving the maintenance of a Business Standard, which can be applied by country and regional administrations and industries.

Therefore, the BSP-RDM in combination with the UN/CEFACT International Supply Chain Reference Model (ISCRM) BRS describes a generic reference data model and provides a framework to accommodate the requirements of:

a) cross-border supply chain trade related transactions, including government domain needs for their own specific information exchanges;

b) supporting the transport-related processes involved in the cross-border supply chain and covering the involved business areas at a high-level, the main parties and the information involved;

whilst complying to and fostering the adoption of the overall processes and data structures as these have been developed in UN/CEFACT.

Hence, the BSP-RDM provides the definitions of contextualized trade and transport-related data exchange structures mapping paper documents which can be integrated into end-to-end software solutions for Traders, Carriers, Freight Forwarders, Agents, Banks, Customs, Other Governmental Authorities etc.

The BSP-RDM project (of UN/CEFACT) follows the practice of all referenced projects, adopting a holistic approach to develop a reference data mode. This model is based on the widely used UN/CEFACT Core Component Library (CCL), which is also used by other standards such as GS1. The BSP-RDM project aims to bring together the data exchange requirements of international multimodal transport processes,

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including related trade, insurance, customs and other regulatory documentation requirements based on the integration of trade facilitation and e-Business best practices.

Derivative information exchange specifications can be developed to support the requirements of conventional UN/CEFACT data exchange structure formats for UN-aligned paper documents, UN/EDIFACT or UN/CEFACT XML messages, and information exchanges to support web-based processes such as those required for Single Windows implementations.

The UN/CEFACT BSP-RDM framework will be used to generate Business Standard(s) which will include paper and electronic document structures as data exchanges which have been derived from the BSP-RDM. Derivation from this reference data model ensures that each BSP paper or electronic document data structures specification is an individual implementation of a methodology which follows the aligned concepts described in UNECE Recommendation 1, the UN Layout Key (UNLK).

This ensures that trading partners can choose the type of data exchanges technology that best meets their business requirements and technology capabilities and also provides a migration path for the adoption of new technologies.

Further, the BSP-RDM accommodates the additional requirements generated by contemporary integration approaches, which deploy RESTful APIs and JSON-LD data exchanges and specifications, these to be accounted in the follow-up phase of the Requirements Specifications Mappings (RSMs) following the UN/CEFACT CCBDA process, and the generation of the message definitions.

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Buy-Ship-Pay reference data model —

Part 1:
Business requirements specification (BRS)

1 Scope

The scope and limitations of the business processes described in this document have been developed to enable the application of the Buy-Ship-Pay business standard for implementations of national, regional, trade sector or modal specific cross-border scenarios.

NOTE Only the high-level process descriptions are referenced in this document in order that the detailed process analysis of the subset scenarios can provide the detailed process requirements in further individual Business Requirements Specifications (BRSs).

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 Transport (MMT) Reference Data Model

UN/CEFACT Supply Chain Reference Data Model (SCRDM)

UN/CEFACT International Freight Forwarding BRS

UN/CEFACT Modelling Methodology (UMM) v2.0

ISO 15000-5:2014, *Electronic Business Extensible Markup Language (ebXML) — Part 5: Core Components Specification (CCS)*

UN/CEFACT Core Component Library D18B

ISO 7372, *Trade data interchange — Trade data elements directory*

UN/CEFACT TBG1- BRS Cross Industry – Supply Chain - Invoice Process - CEFACT/Forum/2006/… – Revision 1.1

UN/CEFACT Integrated Track and Trace Multi Modal Transport BRS

UN/CEFACT Smart Containers BRS

3 Terms and definitions

No terms and definitions are listed in this document.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

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