



BSI Standards Publication

Electronic invoicing

Part 3-3: Syntax binding for UN/CEFACT XML Industry Invoice D16B

National foreword

This Published Document is the UK implementation of CEN/TS 16931-3-3:2017.

The UK participation in its preparation was entrusted to Technical Committee IST/47/-/2, E-invoicing.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2017
Published by BSI Standards Limited 2017

ISBN 978 0 580 97967 5

ICS 35.240.63; 35.240.20

Compliance with a Published Document cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 November 2017.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

TECHNICAL SPECIFICATION
 SPÉCIFICATION TECHNIQUE
 TECHNISCHE SPEZIFIKATION

CEN/TS 16931-3-3

October 2017

ICS 35.240.20; 35.240.63

English Version

**Electronic invoicing - Part 3-3: Syntax binding for
 UN/CEFACT XML Industry Invoice D16B**

Facturation électronique - Partie 3-3 : Correspondance
 syntaxique pour les factures intersectorielles - Schéma
 XML D16B UN/CEFACT

Elektronische Rechnungsstellung - Teil 3-3: Umsetzung
 in die Syntax UN/CEFACT XML für Industry Invoice
 D16B

This Technical Specification (CEN/TS) was approved by CEN on 30 July 2017 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
 COMITÉ EUROPÉEN DE NORMALISATION
 EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents		Page
European foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Syntax binding to the UN/CEFACT Cross Industry Invoice	6
4.1	Introduction	6
4.2	Data types	7
4.3	Codes and identifiers	8
4.4	Mapping the Invoice model	8
4.5	Validation artefacts	74
5	Mismatches	74
5.1	Semantic level	74
5.2	Structural level	74
5.3	Cardinality level	74
Annex A (informative) Examples		75
A.1	Introduction	75
A.2	Invoice with multiple line items	75
A.3	IT equipment	95
A.4	Subscription	110
A.5	Domestic payment	114
A.6	Maximum content	121
A.7	Minimum content	135
A.8	Taxes	139
A.9	Electricity	145
A.10	Licenses	160
Bibliography		166

European foreword

This document (CEN/TS 16931-3-3:2017) has been prepared by Technical Committee CEN/TC 434 “Electronic invoicing”, the secretariat of which is held by NEN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2014/53/EU.

This document is part of a set of documents, consisting of:

- EN 16931-1:2017, *Electronic invoicing - Part 1: Semantic data model of the core elements of an electronic invoice*
- CEN/TS 16931-2:2017, *Electronic invoicing - Part 2: List of syntax bindings that comply with EN 16931-1*
- CEN/TS 16931-3-1:2017, *Electronic invoicing - Part 3 - 1: Methodology for syntax bindings of the core elements of an electronic invoice*
- CEN/TS 16931-3-2:2017, *Electronic invoicing - Part 3 - 2: Syntax binding for ISO/IEC 19845 (UBL 2.1) invoice and credit note*
- CEN/TS 16931-3-3:2017, *Electronic invoicing - Part 3 - 3: Syntax binding for UN/CEFACT XML Cross Industry Invoice D16B*
- CEN/TS 16931-3-4:2017, *Electronic invoicing - Part 3 - 4: Syntax binding for UN/EDIFACT INVOIC D16B*
- CEN/TR 16931-4:2017, *Electronic invoicing - Part 4: Guidelines on interoperability of electronic invoices at the transmission level*
- CEN/TR 16931-5:2017, *Electronic invoicing - Part 5: Guidelines on the use of sector or country extensions in conjunction with EN 16931-1, methodology to be applied in the real environment*
- CEN/TR 16931-6:2017, *Electronic invoicing - Part 6: Result of the test of EN 16931-1 with respect to its practical application for an end user*

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The European Commission estimates that "The mass adoption of e-invoicing within the EU would lead to significant economic benefits and it is estimated that moving from paper to e-invoices will generate savings of around EUR 240 billion over a six-year period"¹. Based on this recognition "The Commission wants to see e-invoicing become the predominant method of invoicing by 2020 in Europe."

As a means to achieve this goal, Directive 2014/55/EU [3] on electronic invoicing in public procurement aims at facilitating the use of electronic invoices by economic operators when supplying goods, works and services to the public administration (B2G), as well as the support for trading between economic operators themselves (B2B). In particular, it sets out the legal framework for the establishment and adoption of a European standard (EN) for the semantic data model of the core elements of an electronic invoice (EN 16931-1).

In line with Directive 2014/55/EU [3], and after publication of the reference to EN 16931-1 in the Official Journal of the European Union, all contracting public authorities and contracting entities in the EU will be obliged to receive and process an e-invoice as long as:

- it is in conformance with the semantic content as described in EN 16931-1;
- it is represented in any of the syntaxes identified in CEN/TS 16931-2, in accordance with the request referred to in paragraph 1 of article 3 of the Directive 2014/55/EU;
- it is in conformance with the appropriate mapping defined in the applicable subpart of CEN/TS 16931-3.

The semantic data model of the core elements of an electronic invoice – the core invoice model – as described in EN 16931-1 is based on the proposition that a limited, but sufficient set of information elements can be defined that supports generally applicable invoice-related functionalities.

This CEN Technical Specification EN/TS 16931-3-3 defines the binding of the core elements of the invoice to the Cross Industry Invoice of UN/CEFACT XML. Other subparts of this CEN Technical Specifications define the binding method (CEN/TS 16931-3-1) and map the core invoice model to other syntaxes such as ISO/IEC 19945 (UBL 2.1) (CEN/TS 16931-3-2) and ISO/IEC 9735 (UN/EDIFACT) (CEN/TS 16931-3-4).

By ensuring interoperability of electronic invoices, the European standard and its ancillary European standardisation deliverables will serve to remove market barriers and obstacles to trade deriving from the existence of different national rules and standards – and thus contribute to the goals set by the European Commission

¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0712:FIN:en:PDF>.

1 Scope

This CEN Technical Specification (TS) specifies the mapping between the semantic model of an electronic invoice, included in EN 16931-1 and the Cross Industry Invoice in the UN/CEFACT XML syntax. For each element in the semantic model (including sub-elements or supplementary components such as Identification scheme identifiers) it is defined which element in the syntax is to be used to contain its information contents. Any mismatches between semantics, format, cardinality or structure are indicated.

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.

EN 16931-1, *Electronic invoicing - Semantic data model of the core elements of an electronic invoice*

ISO 4217, *Codes for the representation of currencies*

3 Terms and definitions

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

3.1

electronic invoice

invoice that has been issued, transmitted and received in a structured electronic format which allows for its automatic and electronic processing

[SOURCE: Directive 2014/55/EU [i.1]]

3.2

semantic data model

structured set of logically interrelated information elements

3.3

information element

semantic concept that can be defined independent of any particular representation in a syntax

3.4

syntax

machine-readable language or dialect used to represent the information elements contained in an electronic document (e.g. an electronic invoice)

3.5

business term

label assigned to a given information element which is used as a primary reference

3.6

core invoice model

semantic data model of the Core elements of an electronic invoice