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Electronic Public Procurement - Ordering - Part 2: Transactions

Elektronisches öffentliches Beschaffungswesen - Bestellung - Teil 2: Transaktionen

Passation électronique des marchés publics - Gestion des commandes - Partie 2 :
Transactions

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Electronic Public Procurement - Ordering - Part 2: Transactions

Passation électronique des marchés publics - Gestion
des commandes - Partie 2 : Transactions

Elektronisches öffentliches Beschaffungswesen -
Bestellung - Teil 2: Transaktionen

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If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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European foreword

This document (prEN 17016-2:2024) has been prepared by the Technical Committee CEN/TC 440 "Electronic public procurement", the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document falls under a CEN-CENELEC pilot on derivative use (as approved by the CEN/CA (Administrative Board) through decision 37/2019). For more information about the implementation of derivative use in CEN/TC 440, see [here](#).

This document is part of a series of multi-part documents prepared, or under preparation, by CEN/TC 440:

- 17011-series: eProcurement Architecture, providing a set of specifications outlining different aspects of the eProcurement architecture for Business Interoperability Specifications.
- 17014-series: Pre-Award Business Interoperability Specifications, providing a set of specifications outlining business choreography, transaction, syntax binding specifications and guidelines required to support the Pre-Award phase in Public Procurement.
- 17015-series: eCatalogue Business Interoperability Specifications, providing a set of specifications outlining business choreography, transaction, syntax binding specifications and guidelines required to support the catalogue process.
- 17016-series: eOrdering Business Interoperability Specifications, providing a set of specifications outlining business choreography, transaction, syntax binding specifications and guidelines required to support the ordering process.
- 17017-series: eFulfilment Business Interoperability Specifications, providing a set of specifications outlining business choreography, transaction, syntax binding specifications and guidelines required to support the fulfilment process.

The terms "shall", "shall not", "should", "should not", "may", "can" and "cannot" are interpreted according to Clause 7 of the CEN-CENELEC Internal Regulations Part 3¹.

¹ <https://boss.cen.eu/reference-material/refdocs/pages/>

Introduction

Derivative use pilot

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Intended use of this publication

This document has been developed for any organization looking for guidance on the implementation and use of electronic procurement deliverables as well as for organizations developing or implementing software applications related to electronic procurement, such as software providers, business entities and national authorities. These software applications should be in conformance with this publication.

Parts of the document to which derivative use apply

Each subclause which falls under derivative use will be clearly marked with a note. The degree to which the specific content can be modified is defined in CEN/TS 17011-3:², *Electronic Public Procurement — Architecture — Part 3: Customization Guideline*.

Annex A provides an overview of the line number references to all subclauses of the publication which fall under derivative use.

Use of ePO ontology

This document uses the ePO ontology, owned by the European Union, available here (<https://github.com/OP-TED/ePO>) and licensed under a CC BY 4.0 licence.

² Under preparation. Current stage: FprCEN/TS 17011-3:2024.

1 Scope

This document describes the transaction information requirements of the transactions used in the collaborations described in EN 17016-1:2024, *Electronic Public Procurement — Ordering — Part 1: Choreographies*. For each transaction are specified the transaction business requirements, the transaction information data model containing definitions of terms, usage descriptions and cardinality of the information elements and the transaction business rules.

This document describes the following transactions:

- 1) Order;
- 2) Order Change;
- 3) Order Cancellation;
- 4) Order Response Simple
- 5) Order Confirmation;
- 6) Order Rejection;
- 7) Order Response;
- 8) Order Change Confirmation;
- 9) Order Change Rejection;
- 10) Order Cancellation Confirmation;
- 11) Order Cancellation Rejection;
- 12) Order Agreement.

The identifier of this transactions document is EN 17016-2:20XX.

How to claim compliance to a transaction is specified in Clause 6.

How to claim conformance to a transaction is also specified in Clause 6.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

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

3.1

agent

person, organization, or system that acts in procurement or has the power to act in procurement

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3.2

business process

sequence or network of activities and collaborations between two or more agents

3.3

business process variant

specification of a business process belonging to a choreography

Note 1 to entry: Different variants may support different electronic information exchange or collaborations. Agents may publicly advertise their capability to support one or more variants in an automated fashion.

3.4

choreography

set of business processes having the same goals

3.5

collaboration

interaction between two or more agents that result in the exchange of data between the agents involved as part of a business process

3.6

role

part played by an agent in a particular business process, including its responsibilities (options and obligations) to perform certain activities and collaborations in that business process

Note 1 to entry: The role is used to show the division of labour and responsibility amongst the agents involved in the process or within the organization of an agent.

3.7

state

set of options and obligations of the participating agents at a defined step in a business process to perform specific activities and collaborations

Note 1 to entry: Additional information: an activity of an agent or a collaboration may cause the transition of one state to another in a predefined set of next steps.

3.8

transaction

content of data exchanged or shared between the agents in a collaboration

Note 1 to entry: A transaction is the atomic unit that leads to a synchronized state in the information systems of collaborating agents. It is the basic building block to define the choreography between agents. When an agent recognizes an event that changes the state of a business object within a business process, it uses a transaction to synchronize with the collaborating agent. A transaction therefore changes the state of a business process. It carries the intention of the initiating agent and is represented by a data structure that is defined by a data model. The exchange of a transaction may alter legal obligations between business partners.

4 Positioning in EIRA (European Interoperability Reference Architecture)

EIRA (European Interoperability Reference Architecture) provides a reference model that enables architects to position the IOP (InterOPerability) specifications. This document provides a domain-specific IOP specification to which any SBB (Solution Building Block) implementing the ABB (Architecture Building Block) should be compliant to. The positioning of this document in the EIRA context is specified in Table 1.

IoP specifications provide a valuable source of information to formulate requirements during architecture development and solution development. By identifying architectural building blocks through a common terminology, it:

- helps the reuse of cross domain building blocks such as e.g. eSignature Verification and Validation Service, and eTimestamp Creation Service;
- helps the synchronization with European solutions such as CEF eDelivery; and
- will provide guidance in using them to provide the prescribed capability enabling, thus managing and rationalizing IT portfolios.

Table 1 — Positioning in EIRA

EIRA ID	Title	Domain	Interface	Scope	Modality
EN 17016-2:20XX	Electronic Public Procurement - Ordering - Transactions	Procurement	Machine /Customer Machine /Supplier	<ul style="list-style-type: none"> • eProcurement extension of ABB176 Organizational Interoperability Specification • eProcurement extension of ABB170 Exchange of Business Information • eProcurement extension of ABB16 Business Rule 	Endorsing

5 Collaborations and Transactions

5.1 Transactions involved in Ordering choreography

Table 2 lists the transactions and the collaborations in which they are used³.

³ See EN 17016-1:2024, *Electronic Public Procurement – Ordering – Part 1: Choreographies*, Clause 6.

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Table 2 — Roles, capabilities, basic collaborations and transactions per variant

Role	Capability	Collaboration ID	Collaboration	Transaction ID	Transaction	Variant							
						A	B	C	D	E	F	G	H
Buyer	Send Order	BC-17016-1:2024-1	Buyer sends Order	T-17016-2:20XX-1	Order	M	M	M	M	M	M	M	
Seller	Receive Order	BC-17016-1:2024-1	Buyer sends Order	T-17016-2:20XX-1	Order	M	M	M	M	M	M	M	
Buyer	Change an Order	BC-17016-1:2024-2	Buyer changes Order	T-17016-2:20XX-2	Order Change		M		M		M	M	
Seller	Receive an Order Change	BC-17016-1:2024-2	Buyer changes Order	T-17016-2:20XX-2	Order Change		M		M		M	M	
Buyer	Cancel an Order	BC-17016-1:2024-3	Buyer cancels Order	T-17016-2:20XX-3	Order Cancellation		M		M		M	M	
Seller	Receive an Order Cancellation	BC-17016-1:2024-3	Buyer cancels Order	T-17016-2:20XX-3	Order Cancellation		M		M		M	M	
Seller	Acknowledge an Order	BC-17016-1:2024-4	Seller acknowledges Order	T-17016-2:20XX-4	Order Response Simple					M	M		
Buyer	Receive an Order Response Simple	BC-17016-1:2024-4	Seller acknowledges Order	T-17016-2:20XX-4	Order Response Simple					M	M		
Seller	Accept an Order without changes	BC-17016-1:2024-5	Seller confirms Order	T-17016-2:20XX-5	Order Confirmation			M	M	M	M	M	
Buyer	Receive an Order Confirmation	BC-17016-1:2024-5	Seller confirms Order	T-17016-2:20XX-5	Order Confirmation			M	M	M	M	M	
Seller	Reject an Order	BC-17016-1:2024-6	Seller rejects Order	T-17016-2:20XX-6	Order Rejection			M	M	M	M	M	
Buyer	Receive an Order Rejection	BC-17016-1:2024-6	Seller rejects Order	T-17016-2:20XX-6	Order Rejection			M	M	M	M	M	
Seller	Accept changes to an Order	BC-17016-1:2024-7	Seller confirms Order Change	T-17016-2:20XX-8	Order Change Confirmation				M		M	M	
Buyer	Receive an Order Change Confirmation	BC-17016-1:2024-7	Seller confirms Order Change	T-17016-2:20XX-8	Order Change Confirmation				M		M	M	

Role	Capability	Collaboration ID	Collaboration	Transaction ID	Transaction	Variant							
						A	B	C	D	E	F	G	H
Seller	Reject changes to an Order	BC-17016-1:2024-8	Seller rejects Order Change	T-17016-2:20XX-9	Order Change Rejection				M		M	M	
Buyer	Receive an Order Change Rejection	BC-17016-1:2024-8	Seller rejects Order Change	T-17016-2:20XX-9	Order Change Rejection				M		M	M	
Seller	Accept an Order Cancellation	BC-17016-1:2024-9	Seller confirms Order Cancellation	T-17016-2:20XX-10	Order Cancellation Confirmation				M		M	M	
Buyer	Receive Order Cancellation Confirmation	BC-17016-1:2024-9	Seller confirms Order Cancellation	T-17016-2:20XX-10	Order Cancellation Confirmation				M		M	M	
Seller	Reject an Order cancellation	BC-17016-1:2024-10	Seller rejects Order Cancellation	T-17016-2:20XX-11	Order Cancellation Rejection				M		M	M	
Buyer	Receive an Order Cancellation Rejection	BC-17016-1:2024-10	Seller rejects Order Cancellation	T-17016-2:20XX-11	Order Cancellation Rejection				M		M	M	
Seller	Accept an Order partially or with changes	BC-17016-1:2024-11	Seller accepts Order partially or with changes	T-17016-2:20XX-7	Order Response					M	M	M	
Buyer	Receive an Order Response	BC-17016-1:2024-11	Seller accepts Order partially or with changes	T-17016-2:20XX-7	Order Response					M	M	M	
Seller	Change a confirmed Order	BC-17016-1:2024-12	Seller changes Order	T-17016-2:20XX-7	Order Response					M	M	M	
Buyer	Receive an Order Change	BC-17016-1:2024-12	Seller changes Order	T-17016-2:20XX-7	Order Response					M	M	M	
Buyer	Accept an Order Response	BC-17016-1:2024-13	Buyer confirms Order Response	T-17016-2:20XX-8	Order Change Confirmation						M	M	

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Role	Capability	Collaboration ID	Collaboration	Transaction ID	Transaction	Variant							
						A	B	C	D	E	F	G	H
Seller	Receive an Order Response Confirmation	BC-17016-1:2024-13	Buyer confirms Order Response	T-17016-2:20XX-8	Order Change Confirmation						M	M	
Buyer	Reject an Order Response	BC-17016-1:2024-14	Buyer rejects Order Response	T-17016-2:20XX-9	Order Change Rejection						M	M	
Seller	Receive an Order Response Rejection	BC-17016-1:2024-14	Buyer rejects Order Response	T-17016-2:20XX-9	Order Change Rejection						M	M	
Buyer	Accept changes to an Order	BC-17016-1:2024-15	Buyer confirms Order Change	T-17016-2:20XX-8	Order Change Confirmation						M	M	
Seller	Receive an Order Change Confirmation	BC-17016-1:2024-15	Buyer confirms Order Change	T-17016-2:20XX-8	Order Change Confirmation						M	M	
Buyer	Reject changes to an Order	BC-17016-1:2024-16	Buyer rejects Order Change	T-17016-2:20XX-9	Order Change Rejection						M	M	
Seller	Receive an Order Change Rejection	BC-17016-1:2024-16	Buyer rejects Order Change	T-17016-2:20XX-9	Order Change Rejection						M	M	
Seller	Send Order Agreement	BC-17016-1:2024-17	Seller sends Order Agreement	T-17016-2:20XX-12	Order Agreement								M
Buyer	Receive Order Agreement	BC-17016-1:2024-17	Seller sends Order Agreement	T-17016-2:20XX-12	Order Agreement								M

Key
M Mandatory for the capability in the variant.

5.2 Transaction identifiers

Table 3 specifies the identifier of the transactions described in this document.