



European Committee for Standardization  
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CEN/ISSS WS/BII04

## **Invoice Only**

# **PROFILE DESCRIPTION**

**Business Domain:** Post award procurement

**Business Process:** Billing

**Document Identification:** CEN/ISSS WS/Profile BII04

**Version:** 1.0

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## Document Summary

This profile describes a process comprising only a supplier initiated electronic Invoice. It is intended to support use cases where the invoicing is electronic but where automation of matching it to other documents is not required. The Invoice is a self-contained document with respect to commercial and fiscal requirements.

It is not a primary objective of this profile to facilitate automatic order matching and/or cost allocation; the profile assumes limited or no procurement data content and limited or no aligned and synchronized identifiers in the system to match the transaction.

This profile may cover Invoice factoring arrangements but is not designed for self billing.

### **Contributors**

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# 1 Preamble

The CEN/ISSS Workshop on business interoperability interfaces for public procurement in Europe (CEN/ISSS WS/BII) was established in order to

- Identify and document the required business interoperability interfaces related to pan-European electronic transactions in public procurement expressed as a set of technical specifications, developed by taking due account of current and emerging UN/CEFACT standards in order to ensure global interoperability;
- Co-ordinate and provide support to pilot projects implementing the technical specifications in order to remove technical barriers preventing interoperability.

To facilitate implementation of electronic commerce in a standardized way, thereby enabling the development of standardized software solutions as well as efficient connections between business partners without case by case specification of the data interchange, the workshop agreed to document the required business interoperability interfaces as profile descriptions. The end goal is to reduce the cost of implementing electronic commerce to a level that is economical for small and medium size companies and institutions.

## 1.1 Profile description

A profile description is a technical specification describing

- the choreography of the business process(es) covered, i.e. a detailed description of the way the business partners collaborate to play their respective roles and share responsibilities to achieve mutually agreed goals with the support of their respective information systems,
- the electronic business transactions exchanged as part of the business process and the sequence in which these transactions are exchanged,
- the business rules governing the execution of that business process(es), its business collaborations and business transactions, as well as any constraints on information elements used in the transaction data models
- the information content of the electronic business transactions exchanged by pointing to a given data model for each of the business transactions.

As well as determining what business transactions are used, the profile restricts their content in terms of elements and the cardinality of elements. The key standardization aspect of the profile description is thus on the organisational and semantics interoperability levels rather than on syntax within the technical interoperability level. Consequently the business transactions within a profile can be structured based on different message standards/syntax as long it contains all the necessary data elements.

Although the profile descriptions and transaction data models provided by CEN BII will be neutral of syntax, the workshop has agreed to provide specifications of how its data models may be mapped to defined syntaxes. This is done in order provide the market with implementable specifications.

It should be noted that the profile description does not attempt to address issues related to topics such as:

- the actual transmission of the electronic messages,
- security and confidentiality of the message exchange,
- integrity, authentication and auditing of information content or
- the process of implementing a solution based on the profile description.

These issues have however been addressed by other deliverables of the CEN/ISSS WS/BII (see section 2 for reference to relevant documents).

The main focus of the profile description and the associated transaction data models is to address generally expressed business requirements applicable throughout the European market. Although the profile description and associated transaction data model are designed to meet generally expressed requirements, it is still the responsibility of the users to ensure that the actual business transactions exchanges meets all the legal, fiscal and commercial requirements relevant to their business.

## 2 References

### External documents

- UN/CEFACT Modelling Methodology (available at <http://www.untmg.org/specifications/>)
- UMM Meta Model – Foundation Module Version 1.0, Technical Specification, 2006-10-06
- UMM Meta Model – Base Module Version 1.0, Technical Specification, 2006-10-06
- UML (Unified Modelling Language), version 2.0
- UN/CEFACT ebXML Core Components Technical Specifications version 2.01 – ISO 15000-5
- UN/CEFACT Business Requirements Specification version 1.5 (CEFACT/ICG/005)

### Related publications from CEN/ISSS WS/BII:

- CWA xxxx-1: Profile Overview
- CWA xxxx-1, annex A: Glossary of terms
- CWA xxxx-1, annex B: Profile Architecture
- CWA xxxx-1, annex C: Controlled Vocabulary Approach
- CWA xxxx-2: UBL-UN/CEFACT convergence (WG2)
- CWA xxxx-3: Toolbox Requirements (WG3)
- CWA xxxx-4: Pilot Support (WG4)

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## 3 Business benefits and requirements

### 3.1 Business benefits

The main business benefits to be gained by implementation of this profile are:

| <b>Aspect</b>                | <b>Beneficiary</b> | <b>Benefit</b>  |
|------------------------------|--------------------|---|
| Automated Invoice Transfer   | Supplier           | Faster Invoice transfers.<br>Potential for shortened payment cycle and improved cash flow.  |
| Automated Invoice Processing | Customer           | Reduced requirement for manual intervention leads to fewer human keying errors.<br>Automatic invoice validation, accounting and approval.<br>Potential for systematic invoice processing.<br>Resource redeployment. |

### 3.2 Business requirements

1. The Supplier sends an electronic Invoice that can be received and processed by the Customer.
2. An Invoice containing VAT information must comply with VAT rules of the country where Supplier is registered.
3. The Invoice content enables the Customer's system to route the document to a specific person, department or unit within the organization; this may be required for authorization etc.
4. The Invoice content facilitates automatic validation of legal and tax values, tax accounting and payment.
5. Support for factored Invoices.

## 4 Profile detailed description

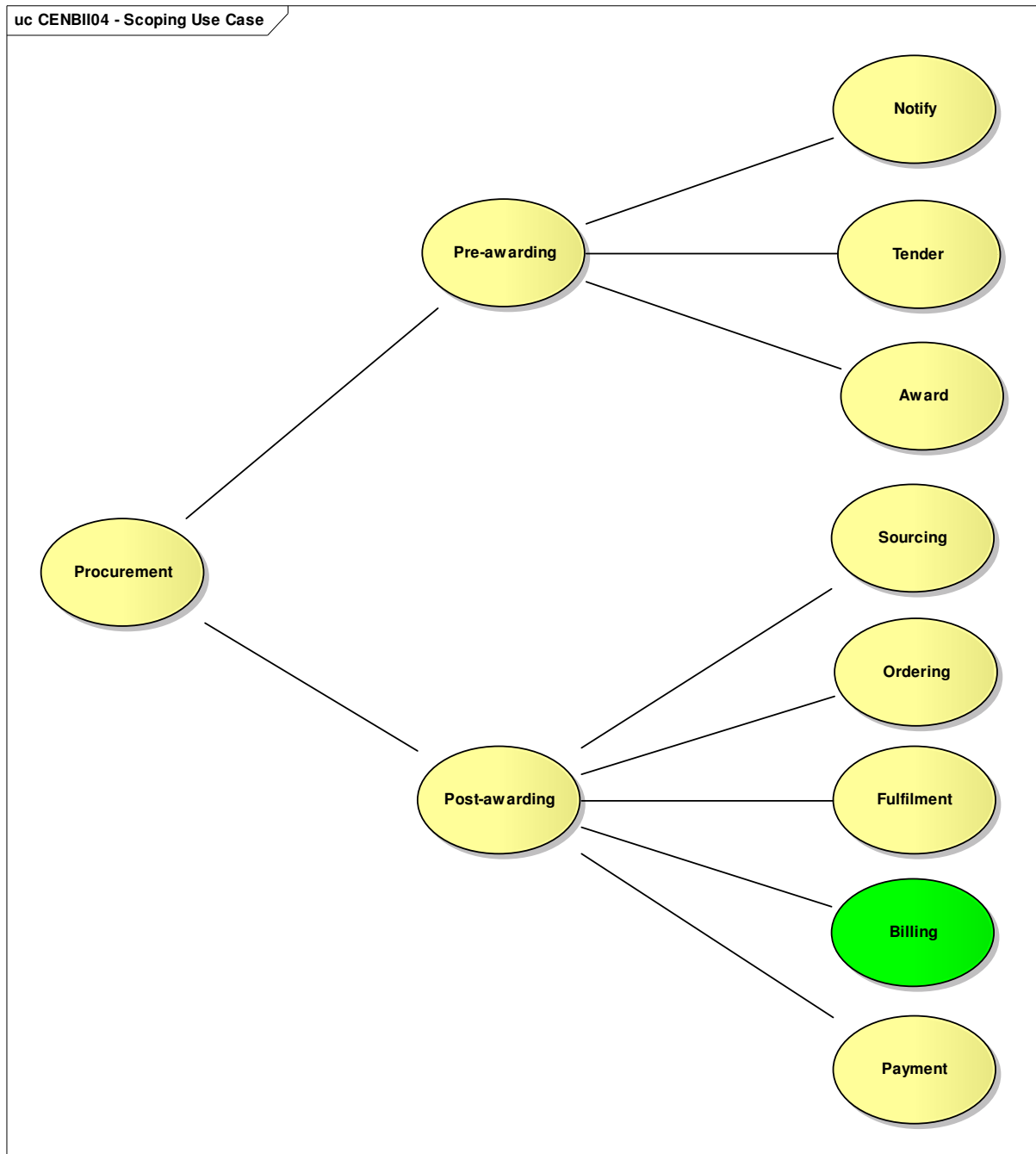
### 4.1 Context

The specification contained in this document is relevant within the following context:

| <b>Categories</b>       | <b>Description and Values</b>                                      |
|-------------------------|--|
| Business Process        | Billing.   |
| Product Classification  | All types of goods and services.                                   |
| Industry Classification | Buyer and Seller organisations in all sectors, public and private. |
| Geopolitical            | Europe.  |
| Official Constraint     | EU Directive 2006/112 (VAT directive)                              |
| System Capabilities     | None specific.   |

## 4.2 Business processes in scope

Procurement is a complex domain with several key processes, some of which are illustrated in the following figure.



The Invoice Only profile covers the business processes as highlighted in the above figure.

## 4.3 The actors involved in this profile are

The following business partners participate in this profile, acting in the roles as defined below.

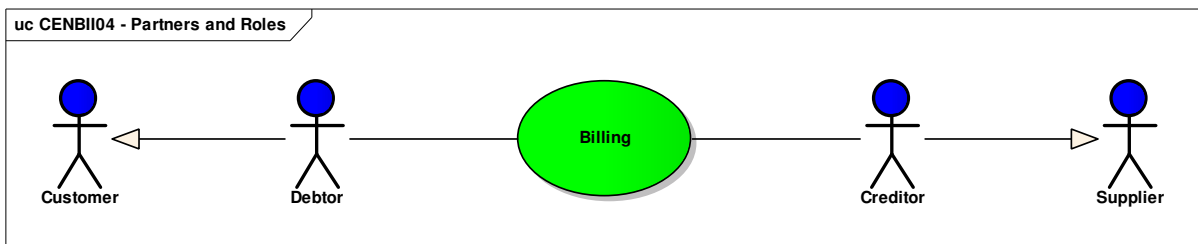
| Business partners | Description |
|-------------------|-------------|
|-------------------|-------------|



|          |  |
|----------|--|
| Customer | The customer is the legal person or organization who is in demand of a product or service.<br><br>Examples of customer roles: buyer, consignee, debtor, contracting authority. |
| Supplier | The supplier is the legal person or organization who provides a product or service.<br><br>Examples of supplier roles: seller, consignor, creditor, economic operator.         |

| Party    | Role/actor | Description   |
|----------|------------|---|
| Supplier | Creditor   | One to whom a debt is owed. The Party that claims the payment and is responsible for resolving billing issues and arranging settlement. The Party that sends the Invoice.<br><br>Also known as Invoice Issuer, Accounts Receivable, Seller. |
| Customer | Debtor     | One who owes debt. The Party responsible for making settlement relating to a purchase.<br><br>The Party that receives the Invoice.<br><br>Also known as Invoicee, Accounts Payable, Buyer.  |

The following diagram links the business processes to the roles performed by the Business Partners.

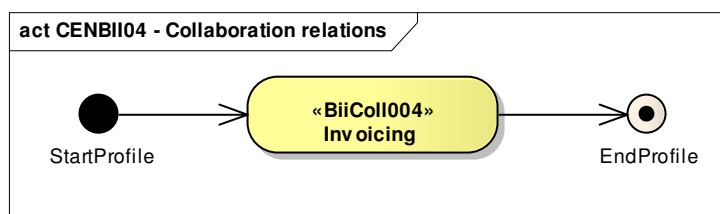


## 4.4 Choreography of business collaborations

Each business process in scope contains within itself one or more business collaborations:

| Business Process | Business Collaboration(s) | Collaboration ID |
|------------------|---------------------------|------------------|
| Billing          | Invoicing                 | BiiColl004       |

The following diagram shows the relationships (i.e. links) between the collaborations of each business process implemented by the profile. The choreography of business collaborations defines the sequence of interactions when the profile is run within its context. Each sequence of interactions can be understood as a run-time scenario.



|                 |  |
|-----------------|--|
| Description     | <p>The business process involves the Supplier and the Customer in the roles of Debtor and Creditor.</p> <p>The Creditor creates an Invoice that claims a payment for goods or services, and sends the Invoice to the Debtor.</p> <p>Upon receiving the Invoice the Debtor processes it but any response to the Creditor is handled with external processes that are not defined in this profile.</p> |
| Pre-conditions  | <p>The Debtor and the Creditor have identified each other and a contract between the two or an Order exists.</p> <p>The Debtor has agreed to accept electronic Invoices that use this profile.</p>   |
| Post-conditions | The Debtor has received an invoice.  |
| Remarks         | Invoice disputes or rejections are handled externally.   |

#### 4.4.1 Profile business rules

##### 4.4.1.1 Process rules

1. If documents make references to contracts such as framework agreements, those contracts supersede the document content.

##### 4.4.1.2 Information constraints

- None identified.

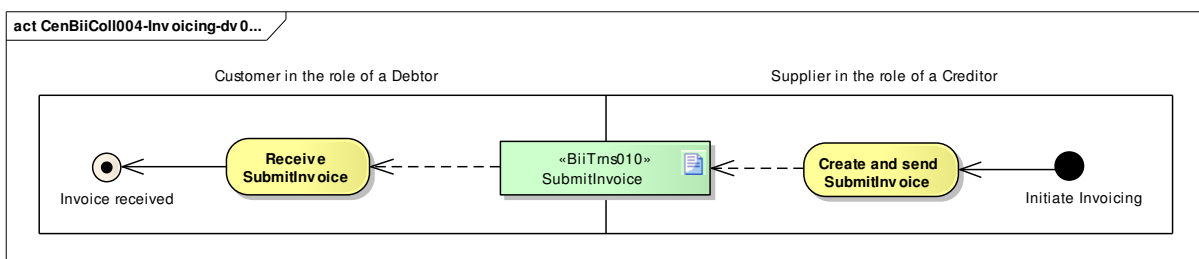
### 4.5 Business Collaboration(s) detailed description

#### 4.5.1 Invoicing collaboration

##### 4.5.1.1 Overview

| Categories        | Description and Values  |
|-------------------|---|
| Collaboration ID  | BiiColl004  |
| Description       | The collaboration is used to deliver an Invoice from a Creditor to a Debtor. It does not require the Debtor to produce any business level response. |
| Pre condition     | None.   |
| Post condition(s) | The Debtor has received an Invoice  |
| Transactions      | SubmitInvoice - BiiTrns010  |
| Roles             | Creditor<br>Debtor  |

##### 4.5.1.2 Diagram



### 4.5.1.3 Activity description

| Role     | Activity                         | Description  |
|----------|----------------------------------|--|
| Creditor | Create and send<br>SubmitInvoice | The Creditor creates and sends an Invoice to the Debtor. |
| Debtor   | Receive<br>SubmitInvoice         | The Debtor receives the Invoice.                         |

### 4.5.1.4 Collaboration business rules

#### 4.5.1.4.1 Process rules

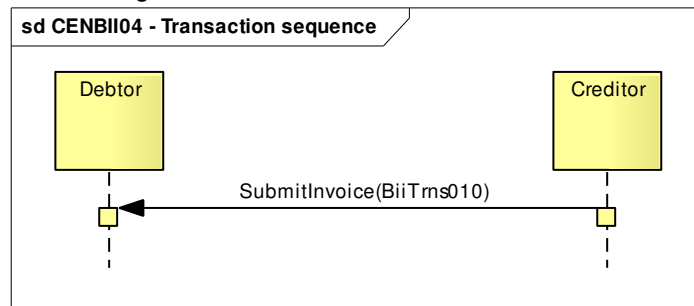
1. The invoice must comply with the commercial and fiscal requirements of the country where the Supplier is registered.
2. An electronic Invoice represents a legal claim for payment.
3. Payment means and terms stated at document level must apply to all invoice lines.
4. Accounting details stated at document level must apply to all invoice lines.
5. Tax information stated at document level must apply to all invoice lines.
6. Stated pre-payments must apply to the invoice as a whole.

#### 4.5.1.4.2 Information constraints

Information constraints relevant to this collaboration are captured in the referenced transaction data model(s).

## 4.6 Transaction(s) detailed description

The figure below identifies the electronic messages exchanged as part of this process and the sequence in which these documents are exchanged.



### 4.6.1 Transaction data models

| Transaction   | Trns ID    | Data Model | Data model ID, Core - Full      |
|---------------|------------|------------|---------------------------------|
| SubmitInvoice | BiiTrns010 | Invoice    | BiiCoreTrdm010 - BiiFullTrdm010 |

Each of the identified transactions is elaborated in the following chapters.

### 4.6.2 SubmitInvoice transaction

| Categories    | Description and Values   |
|---------------|--|
| Identifier    | BiiTrns010   |
| Description   | A structured electronic business document claiming payment for goods or services supplied under conditions agreed between the Supplier and the Customer. In most cases this document describes the actual financial commitment of goods or services ordered from the Supplier. |
| Partner Types | Customer<br>Supplier   |

| <b>Categories</b>  | <b>Description and Values</b>         |
|--------------------|---------------------------------------|
| Authorized Roles   | Creditor<br>Debtor                    |
| Legal Implications | See business rules below.             |
| Initial Event      | Create and send invoice.              |
| Terminal event     | Receive Invoice.                      |
| Scope              | Invoicing for any goods and services. |
| Boundary           | None                                  |
| Constraints        | See business rules below              |

#### 4.6.2.1 Transaction business rules

1. An invoice containing VAT information must comply with VAT rules of the country where supplier is registered. If supplier and buyer are registered within the same country, the invoice must comply with the commercial and fiscal requirements of that country.