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Peppol international invoice

- Part 1 - Framework

Draft stage

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Contents

1 Introduction

1.1 General

[SOURCE: PINT DRAFT 0.08]

The Peppol International Invoicing Model (PINT) is a semantic data model that defines a set of business terms in an invoice to be used in an international context. PINT also provides syntactic mapping to ISO/IEC 19845:2015 (UBL 2.1) and examples of how to define and use these data models in business processes.

The semantic definition of those business terms is shared between compliant users of the model.

1.2 Objective

[SOURCE: PINT DRAFT 0.08]

The objective of this specification is to define an invoice data model that enables international exchange of electronic invoices between domains in different parts of the world while at the same time enabling them to support regional requirements.

The primary objective of the international model is to develop a shared part that fosters interoperability. Enabling support for specific requirements will be attempted where possible but is secondary.

[SOURCE EN 16931-1 7.4 Documentation of core invoice usage specifications]

A CIUS shall always be documented with clear reference to the core invoice model. It may be documented either as changes only, or as a full specification. If documented as a full specification, it shall be clear in what way the specification differs from its underlying specification and represents a further specification within the core invoice model.

Core invoice usage specifications should be documented in an appropriate repository for retrieval and sharing. The availability of such a repository is expected to foster convergence over time.

Agreement between Buyers and Sellers on using a core invoice usage specification should be part of the commercial contract between them.

1.3 Peppol BIS Billing 3.0

[SOURCE: PINT DRAFT 0.08]

The Peppol BIS Billing 3.0 is a compliant CIUS on the EN 16931 European eInvoice standard. Consequently, those who can receive and process the Peppol BIS 3.0 are compliant to the Directive 2014/55 on eInvoicing in the European Public sector.

The EN 16931 eInvoicing standard is designed to support EN directives and legislation on invoicing, most importantly the EU Directive 112/2006 or VAT. As result the EN 16931 is in some areas too restrictive to be used by countries outside of the European Union. This is most relevant for tax related issues and payment means. In these the EN 16931 is focused on EU directives and the SEPA payment area, neither of which apply outside of the EU.

1.4 Peppol International Invoice (PINT)

[SOURCE: PINT DRAFT 0.08]

The design principle for the PINT is to follow the Peppol BIS Billing 3.0 as closely as possible, to take advantage of the investment by service providers and end-users to establish requirements and

implement solutions. Where necessary the PINT will extend the semantic definition of business terms in the data model or add business terms, to enable support for non-EU requirements.

Since the PINT is an extension on the Peppol BIS Billing 3.0 then the BIS Billing is by default a compliant restriction on the PINT. Electronic invoice specifications in other countries and regions must be compliant to the PINT model. **Figure 1** shows relationship among PINT and electronic invoice specifications in other countries and regions.

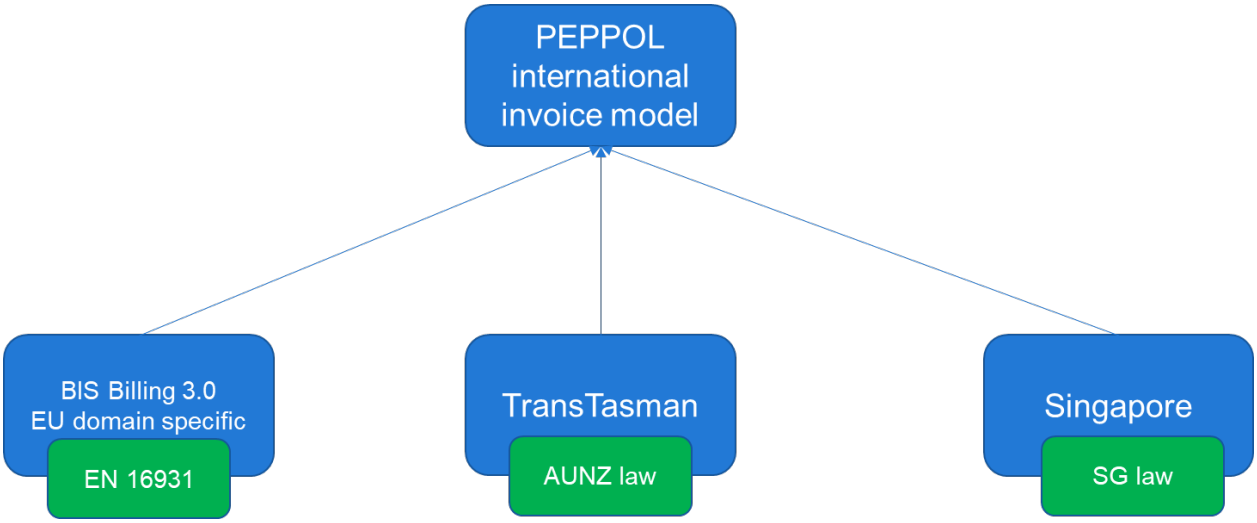

Figure 1— Peppol international invoice

2 Normative reference

[EIPA]

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.

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

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

EN 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*

CWA 5678 part 113, *BII Profile 21 – Statement*

ISO 8601:2004, *Data elements and interchange formats — Information interchange — Representation of dates and times*

ISO 4217 :2015*, Codes for the representation of currencies*

ISO 3166-1:2020*, Codes for the representation of names of countries and their subdivisions — Part 1: Country code*

ISO/IEC 6523-1:1998*, Information technology — Structure for the identification of organizations and organization parts — Part 1: Identification of organization identification schemes*

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

ISO/IEC 19845:2015 *Information technology — Universal business language version 2.1 (UBL v2.1)*

ISO/IEC 19757-3 :2020, *Information technology — Document Schema Definition Languages (DSDL) — Part 3: Rule-based validation using Schematron*

ISO/IEC Directives, Part 2 — *Rules for the structure and drafting of International Standards*

Extensible Markup Language (XML) 1.0 (Second Edition), *W3C Recommendation 6 October 2000*

XML Schema Part 1: Structures. Second Edition*. W3C Recommendation 28 October 2004*

XML Schema Part 2: Datatypes. Second Edition. *W3C Recommendation 28 October 2004*

XSL Transformations (XSLT) Version 1.0, *W3C Recommendation 16 November 1999*

XML Path Language (XPath) 2.0 (Second Edition), *W3C Recommendation 14 December 2010 (Link errors corrected 3 January 2011; Status updated October 2016)*

PINT Peppol international invoicing model Specification — POAC *DRAFT 0.08 2020-12-21 Final working group copy*

PEPPOL BIS Billing *OpenPEPPOL AISBL, Post-Award Coordinating Community Version 3.0.10 https://docs.peppol.eu/poacc/billing/3.0/bis/*

Japanese Peppol BIS Documentation *https://test-docs.peppol.eu/poacc/billing-japan/*

3 Terms and definitions

[SOURCE: PINT DRAFT 0.08 modified by EIPA]

3.1
semantic data model
structured set of logically interrelated information elements

[SOURCE: EN 16931-1,3.2]

3.2
business term
label assigned to a given information element which is used as a primary reference

[SOURCE: EN 16931-1,3.6]

3.3
electronic invoice
invoice that has been issued, transmitted, and received in a structured electronic format which allows for its automatic and electronic processing.

[SOURCE: EN 16931-1,3.1]

3.4
syntax
machine-readable language or dialect used to represent the information elements contained in an electronic document (e.g. an electronic invoice)

[SOURCE: EN 16931-1,3.5]

3.5
invoicing domain
a country or a region that share specific business and legal requirements

3.6
shared business term
business term which definition and rules are the same in all specifications that is compliant to the international invoicing model

3.7
aligned business term
business term that have a generalized definition that can be specialized (restricted) to support requirements in specific invoicing domains

3.8
distinct business term
business term that is added in specific invoicing domains

3.9
tax
tax that is applied to item at the time of sale, such as Value Added Tax (VAT), Goods and Service Tax (GST), Consumption tax, Sales tax

Note 1 to entry: the Peppol international invoice model supprts international tax that does not fall under Directive 2014/55/EU.

3.10
identifier
character string used to establish the identity of, and distinguish uniquely, one instance of an object within an identification scheme from all other objects within the same scheme

[SOURCE: EN 16931-1,3.9]

3.11
identification scheme
collection of identifiers applicable for a given type of object governed under a common set of rules

[SOURCE: EN 16931-1,3.10]

3.12
compliant
some or all features of the Peppol international invoice model are used, and all rules of the Peppol international invoice model are respected

Note 1 to entry: Changed core invoice model to the Peppol international invoice model.

[SOURCE: EN 16931-1, 3.11, modified – Note 1 to entry has been added.]

3.13
conformant
all rules of the Peppol international invoice model are respected, and some additional features not defined in the Peppol international invoice model are also used

Note 1 to entry: Changed core invoice model to the Peppol international invoice model.

[SOURCE: EN 16931-1, 3.12, modified – Note 1 to entry has been added.]

Nobu: ISO DP2 Clause 16 Terms and definition says "Terms shall in general be presented in their basic grammatical form., i.e. nouns in the singular, verbs in the infinitive. The definition shall be written in such a form that it can replace the term in its content. it shall not start with an article ("the", "a") nor end with a full stop. A definition shall not take the form of, or contain, a requirement"

4 Verbal form

[EIPA]

The user of the document shall be able to identify the requirements he/she is obliged to satisfy in order to claim conformance to a document. The user shall also be able to distinguish these requirements from other types of provision (recommendations, permissions, possibilities and capabilities).

It is essential to follow rules for the use of verbal forms so that a clear distinction can be made between requirements, recommendations, permissions, possibilities and capabilities. To avoid risk of misinterpretation, verbal forms that are not defined in ISO/IEC Directives, Part 2 Clause 7 Verbal forms for expressions of provisions shall not be used for the expression of provisions.

Table 1 lists these preferred verbal forms defined in ISO/IEC Directives, Part 2.

Table 1 — Verbal forms for provision

Type of provision	Preferred verbal form
Requirement	shall, shall not
Recommendation	should, should not
Permission	may, may not
Possibility and capability	can, cannot
External constraint	must

5 Design

5.1 Overview

[SOURCE: PINT DRAFT 0.08]

5.1.1 General

[SOURCE: PINT DRAFT 0.08]

The Peppol International invoice is specified in three layers that enable interoperability while at same time provide flexibility to support specific requirements. **Figure 2** shows three layers for interoperability.

- Shared layer enables global interoperability.
- Aligned layer enables globally aligned support for domain specific requirements.
- Distinct layer enables non-aligned support for domain specific requirements.

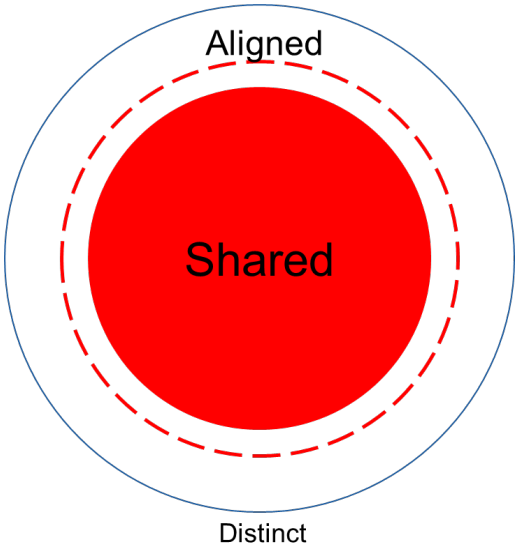

Figure 2 — Three layers for interoperability

5.1.2 Shared layer

[SOURCE: PINT DRAFT 0.08]

The shared layer of the semantic data model is the key for interoperability. It is intended to enable exchange of invoices across invoicing domains in a way that they can be processed automatically by the receiver, although it does not necessarily support all the requirements of the sender. The main characteristics of the shared content are the following:

- It is defined and used in the same way in all invoicing domains.
    - It may neither be restricted nor extended.
- It applies common rules to the content which must be followed by all.
- It is enough for basic automation such as:
    - Reading data into ERP system.
    - Booking into accounts.

- Order to invoice matching.

— Shared business term types

The main types of business terms that are shared are the following.

- Invoice meta data
- Information about the trading parties
- Information about the items and prices.
- The line and total amounts of the invoice.
- References

5.1.3 **Aligned layer**

[SOURCE: PINT DRAFT 0.08]

The aligned layer of the semantic data model is defined in a generalized way that can then be specialized in each invoicing domain by restricting it definition. The main characteristics of the aligned content are:

- It is defined in general terms but is expected to be given a more specialized definition in different invoicing domains by being restricted.
- It can be understood in general terms by all domains.
- It contains no business rules, but rules can be added as part of its specialization.
- The generalized definition of the requirements is not aimed to support automation of processing although some automation may be achieved.
- Automation in processing can be achieved through the specialization of the aligned business term.

— Aligned business terms types.

The main types of business terms that are aligned are the following.

- Tax information.
- Payment instructions.

5.1.4 **Distinct layer**

[SOURCE: PINT DRAFT 0.08]

The model recognizes that some invoicing domains may, for different reasons, require business terms that are not part of the PINT model.

- The distinct content may not necessarily be understood by a receiver in a different invoicing domain.

— Content that may require distinct business terms.

- invoice domain specific legislation and practices.
- sectoral legislation and practices.

5.2 Comparison to EN 16931

[SOURCE: PINT DRAFT 0.08]

5.2.1 **General**

[SOURCE: PINT DRAFT 0.08]

The EN 16931 eInvoicing standard has 3 main design components.

— Core invoice data model that defines a certain set of invoice business terms, their semantic definitions and rules.
— Core Invoice User Specification (CIUS). Allows restricting the semantics and rules of the core invoice business terms.
— Extension methodology. Allows extending the semantics and the rules of the core invoice business terms and, or to add business terms to the invoice.

The PINT is a modification on this design where the core invoice data model is divided into two parts. The shared part which may not be restricted or extended, and the aligned part that may be restricted but not extended. **Figure 3** shows comparison to EN 16931.

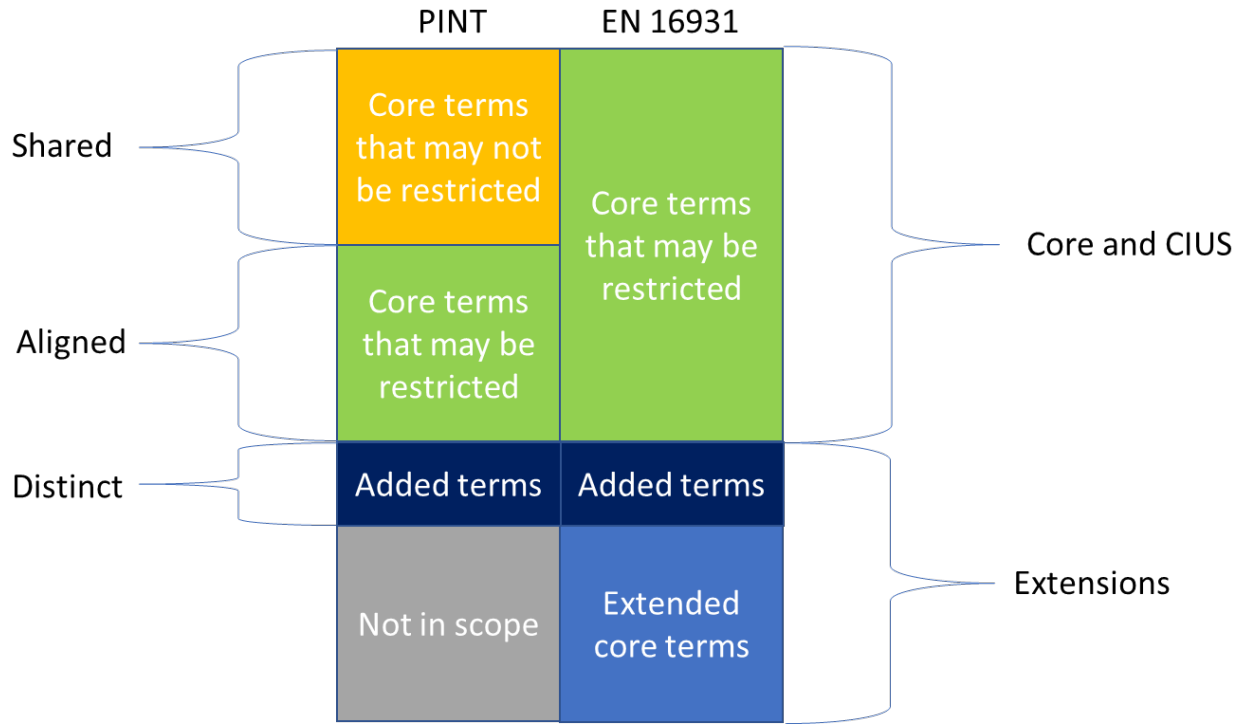

Figure 3 — PINT and EN 16931

5.2.2 Type of changes

[SOURCE: PINT DRAFT 0.08]

The CIUS and Extension mythologies of the EN 16931 eInvoicing standard provide a list of the changes1 that can be made to the core business terms. **Table 2** shows these types of changes and how they apply to the PINT.

Table 2 — Types of changes

EN 16391 eInvoicing standard	Allowed in PINT		
	for shared	for aligned	as distinct
Changes allowed in a CUIS			
Mark a conditional business terms not to be used	no	yes	–
Make semantic definition of a business term narrower	no	yes	–

1 As defined in EN 16931, for CIUS see chapter 7 of EN 16931-1 and for Extension see EN 16931-5.

EN 16391 eInvoicing standard	Allowed in PINT		
	for shared	for aligned	as distinct
Add synonyms (in English or in other languages)	yes	yes	–
Add explanatory text to a business term (e.g. on how it applies in specific use cases.)	yes	yes	–
Make a conditional business term a mandatory one (0..x – > 1..x)	no	yes	–
Decrease the number of repetitions allowed for a business term. (x..n – > x..1)	no	yes	–
Change semantic data type of a business term from string to some other data type (e.g. instead of giving a date as string it can be given as structured date)	no	yes	–
Remove one of multiple defined code lists allowed for a code element	no	yes	–
Mark some defined code values as not allowed	no	yes	–
Add new non-conflicting business rule for existing element(s)	no	yes	–
Make an existing business rule more restrictive	no	yes	–
Restrict text or byte array length	no	yes	–
Require a defined structured for values	no	yes	–
Restrict the number of allowed fraction digits	no	yes	–
Changes allowed in an Extension			
Add new business terms	n/a	n/a	yes
Widen the semantic definition of a business term	no	no	–
Increase number of repetitions for a business term (x..1 – > x..n)	no	no	–
Add a new code list to a code element	no	no	–
Add codes to a defined code list	no	no	–
Remove an existing Business Rule	no	no	–
Make an existing business rule less restrictive	no	no	–
Increase element length	no	no	–
Change structure definition of values	no	no	–
Increase allowed fraction digits	no	no	–

5.3 Compliance

[SOURCE: PINT DRAFT 0.08]

5.3.1 General

[SOURCE: PINT DRAFT 0.08]

Compliance to the Peppol international invoicing model is measured on three levels.

- Compliance of the specialized implementation of the model.
- Compliance of the receiving and sending parties.

- Compliance of the document instance.

5.3.2 Compliance of the specialized implementations.

[SOURCE: PINT DRAFT 0.08]

A specialized specification that is compliant to the Peppol International Invoicing model shall only include rules that result in an invoice instance that is compliant with the Peppol International model when validated by the model's PINT artefacts alone. The documentation of the specification shall fulfil the following requirements.

- the specification shall clearly state what business functions and/or legal requirements it is intended to support.
- the specification shall clearly state its issuer and responsible 'governor';
- the specification shall clearly state in what way it differs from the Peppol International Invoicing model, either by documenting the difference only or by specifically pointing out what the differences are.
- any resulting invoice document instance shall be compliant to Peppol International Model.
- the specification and, when relevant, its version shall be uniquely identifiable both for referencing and for identification in processing; (specification id)
- the specification shall state its underlying specifications (the Peppol International model as well as other specifications that it may build upon);
- the syntax binding of a specification shall follow the syntax binding methodology defined in CEN/TS 16931-3-1.

5.3.3 Compliance of sending and receiving party

[SOURCE: PINT DRAFT 0.08]

- A sending party may claim compliance to the Peppol International model if they send invoices that comply with the rules of the Peppol International Invoice when applied without any specialized rules even if that document may at the same time comply with any set of specialized rules.
- A receiving party may only claim compliance to the Peppol international model if they accept all invoices that comply with the rules of the Peppol International Invoice when applied without any specialized rules. This means that they shall be able to receive any specialized implementation of the Peppol international model.

5.3.4 Compliance of an invoice document instance

[SOURCE: PINT DRAFT 0.08]

- An invoice document instance is compliant to the PINT model if it respects all rules as they are defined for the shared part.

5.3.5 Comparison to EN

[SOURCE: PINT DRAFT 0.08]

The compliance to the EN 16931 eInvoicing standard is measured against the CIUS, in other words, a receiver who is able to receive an process a restricted version (CIUS) of the EN 16931 is compliant to the standard. In comparison the compliance of the PINT is measured against the shared layer without any restrictions.

6 EN 16931 difference

[SOURCE: PINT DRAFT 0.08]

To provide for invoice domain specific requirement outside of the EU as well as in anticipation of potential changes in an amendment to the EN16931 the PINT semantic data model differs from the EN16931 in the following way. All business terms that differ between the PINT and the EN belong to the aligned part of the PINT model to enable restricting them for EN compliant specifications.

Table 3 lists EN 16931 difference.

Table 3 — EN 16931 difference [SOURCE: PINT DRAFT 0.08]

ID	Level	Card.	Business Term	Description	Semantic Datatype	Difference
ibt-168	1	0..1	Invoice issue time	The time of day when an invoice was issued	Time	Added
ibt-016	1	0..n	Despatch advice reference	An identifier of a referenced despatch advice.	Document Reference	Cardinality from 0..1
ibg-16	1	0..n	PAYMENT INSTRUCTIONS	A group of business terms providing information about the payment.	Business term Group	Cardinality from 0..1
ibt-083	2	0..n	Remittance information	A textual value used for payment routing or to establish a link between the payment and the Invoice.	Text	Cardinality from 0..1. Definition extended.
ibt-083-1	3	0..1	Scheme identifier	The identification of the identification scheme. As example ABA	Code	Added
ibt-084-1	3	0..1	Scheme identifier	The identification of the identification scheme. As example IBAN	Code	Added
ibg-34	3	0..1	ADDRESS	The address of the financial institution or its branch that holds the payment account.	Business term Group	Added
ibt-169	4	0..1	Account address line 1	The main address line in an address.	Text	Added
ibt-170	4	0..1	Account address line 2	An additional address line in an address that can be used to give further details supplementing the main line.	Text	Added
ibt-171	4	0..1	Account city	The common name of the city, town or village, where the account address is located.	Text	Added
ibt-172	4	0..1	Account post code	The identifier for an addressable group of properties according to the relevant postal service.	Text	Added

ID	Level	Card.	Business Term	Description	Semantic Datatype	Difference
ibt-173	4	0..1	Account country subdivision	The subdivision of a country.	Text	Added
ibt-174	4	0..1	Account address line 3	An additional address line in an address that can be used to give further details supplementing the main line.	Text	Added
ibt-175	4	0..1	Account country code	A code that identifies the country.	Code	Added
ibg-33	1	0..n	INVOICE TERMS	Information about the terms that apply to the settlement of the invoice amount.	Business term Group	Added as Business term Group
ibt-020	2	0..1	Payment terms	A textual description of the payment terms that apply to the amount due for payment (Including description of possible penalties).	Text	Cardinality to 0..n via Business term Group
ibt-178	2	0..1	Payment Instructions ID	An identifier for the payment instructions.		Added
ibt-187	2	0..1	Terms payment instructions ID	The payment instructions that apply to these payment terms.		Added
ibt-176	2	0..1	Terms amount	The payment amount that these terms apply to.	Amount	Added
ibt-177	2	0..1	Terms instalment due date	The date before end of which the terms amount shall be settled.	Date	Added
ibg-35	1	0..n	Paid amounts	Paid amount	Amount	Added
ibt-179	2	0..1	Payment identifier	An identifier that references the payment, such as bank transfer identifier.	Identifier	Added
ibt-180	2	1..1	Paid amount	The amount of the payment in the invoice currency.	Amount	Added
ibt-181	2	0..1	The date when the paid amount is debited to the invoice.	The date when the prepaid amount was received by the seller.	Date	Added
ibt-182	2	0..1	Payment type	The type of the payment.	Code	Added
ibt-183	2	0..1	Order reference	An identifier for a referenced purchase order, issued by the Buyer.	Document Reference	Added
ibt-184	2	0..1	Despatch advice reference	An identifier for a referenced despatch advice.	Document Reference	Added

ID	Level	Card.	Business Term	Description	Semantic Datatype	Difference
ibg-30	2	1..n	LINE TAX INFORMATION	A group of business terms providing information about the TAX applicable for the goods and services invoiced on the Invoice line.	Group	Cardinality from 1..1
ibt-166	3	0..1	Unit TAX	A TAX amount that applied to each item unit.	Amount	Added
ibt-185	3	0..1	TAX exemption reason text	A textual statement of the reason why the line amount is exempted from TAX or why no TAX is being charged	Code	Added
ibt-186	3	0..1	TAX exemption reason code	A coded statement of the reason for why the line amount is exempted from TAX.	Text	Added
ibt-167	3	0..1	Tax Scheme	A code indicating the type of tax	Scheme	Added

7 Interoperability

[SOURCE: PINT DRAFT 0.08]

7.1 General

The premises for global interoperability are:

- A receiving party that can receive and process a document that is based on a given specification can also receive and process any document that is based on a restricted version of that specification.
- A sending party needs to comply to legal requirements of the country where they are registered.
- A sending party who operates in a legal or sectoral domain can, by using any specification that enforces the rules of that domain while being compliant to the Peppol International invoicing model, send an invoice based on that specification to any receiver who can receive the Peppol International Invoicing model.

When validating the outgoing message, the sender uses the validation artefacts that are relevant for the specification that they are using. When receiving the incoming message, the receiver bases their validation on the specification identifier in the message. If they cannot validate using the complete specification identifier because the messages come from a different jurisdiction or sector, the receiver must validate using the next level up, ending up using only with the rules defined in the international model.

7.2 Sending an invoice

A sender who is sending a PINT compliant invoice will prepare that invoice according to the invoice specification that complies with legal requirements and conventions in their invoicing domain. By doing so that sender will follow the specification of the shared content in the PINT as well as the specialized specifications for the aligned content of the PINT as defined in their invoicing domain. That sender may also apply some distinct content as relevant.

The invoice content shall identify specifically what specification and validations were used the preparing the invoice by providing the relevant customization identifier.

When sending the sender shall validate with the invoice domain specific validation artefacts and only send if the invoice passes all validation rules.

The sender may send this invoice to receivers who are either within their invoice domain or are in another invoice domain. Consequently, the sender does not need to know the invoice domain of the receiver.

The sender's expectations towards the receiver are the following:

If the sender is aware (e.g., through the lookup of their receiving capabilities) that the receiver is capable of processing according to the invoice domain specific specification that the invoice follows they can expect the receiver to process the invoice in full as specified.

If the sender is aware that the receiver is not capable of processing according to the eInvoice domain specific specification that the invoice follows or is not aware of what the receiver's receiving capabilities are other than that the receiver is PINT compliant then the sender can expect the receiver to process as follows.

- Shared business terms can be expected to be processed exactly as defined in the PINT.
- Aligned business terms can be expected to be processed only according to their generalized definitions in the PINT.

- Distinct content can be expected to be ignored.

7.3 Receiving an invoice

When processing an incoming invoice, the receiver can check the customization identifier in the invoice and based on that continue as follows.

If that customization identifier is for the same invoicing domain as the receiver's they can proceed with validating the invoice and processing as follows

- Shared business terms shall be processed exactly as defined in the PINT.
- Aligned business terms shall be processed according to its specialized definitions.
- Distinct business terms shall be processed according to its definitions.

If the customization identifier is not the same as supported by the receiver, they can proceed with validating the invoice with the shared PINT specification only and process it as follows.

- Shared business term shall be processed exactly as defined in the PINT.
- Aligned business terms may be processed according to their generalized definitions in the PINT.
- Distinct content may be ignored.

7.4 Peppol network interoperability

7.4.1 General

The PINT data model contains a Specification identifier (ibt-024) that is mapped to the UBL syntax element cbc:CustomizationID.

This term identifies the specification that an invoice document complies with and plays a key role in facilitating interoperability of the international invoice model.

The identifier is hierarchical from left to right so that any further restriction is identified with its own added id as follows.

```
pint#compliant#specialization1#compliant#specialization2
```

Where:

pint is the identifier for the international invoicing model.

#compliant# indicates that the restricted specialization, which identification follows is compliant to all rules specified in the underlying specification. The term both defines the relationship between the different specifications, reading from right to left, and acts as a separator between the different specifications.

specialization identifies a specialization that has been applied as a restriction to the PINT. A specialization can only restrict the PINT model.

Each identifier has at least three components separated by a colon

- governing entities urn to facilitate uniqueness.
- a unique name or id for the specification
- the major and minor version of the specification

The PINT specification ID (customizationID) is the following

```
urn:peppol.org:pint:3.0
```

Following are examples of the how the specification id is applied in current Peppol invoice domains

7.4.2 Examples

7.4.2.1 Europe

Peppol BIS Billing 3.0 is a European specialization of the International invoicing model which must be compliant to the EN 16931 standard for eInvoicing. As such it is a compliant CIUS to the EN.

Current Peppol BIS Billing 3.0 specification ID:

```
urn:fdc:peppol.eu:2017:poacc:billing:3.0
```

When modified to the PINT it is the following:

```
urn:peppol.org:pint:3.0#compliant#en16931-2017:billing:3.0
```

7.4.2.2 Japan

The Japanese invoice specification is a compliant specialization of the international invoicing model.

The PINT compliant specification IDs are as follows:

Japanese standard invoice and credit note

```
urn:peppol:pint:billing-3.0@jp:peppol-1
```

Japanese summarised invoice and credit note

```
urn:peppol:pint:billing-3.0@jp:peppol-1@jp:suminvpt1-1
```

Debit Note

```
urn:peppol:pint:debitnote-3.0@jp:peppol-1
```

7.4.2.3 Singapore

The Singapore invoice specification is a compliant specialization of the international invoicing model but it does not comply to the EN 16931 European eInvoicing standard. The relevant identifiers are as follows

Current Singapore Billing 3.0 specification ID:

```
urn:fdc:peppol.eu:2017:poacc:billing:international:sg:3.0
```

The PINT compliant specification ID will be:

```
urn:peppol.org:pint:3.0#compliant#sg:billing:3.0
```

7.4.2.4 AUNZ

The AUNZ invoice specification is a compliant specialization of the international invoicing model but it does not comply to the EN 16931 European eInvoicing standard. The relevant identifiers are as follows

Current AUNZ Billing 3.0 specification ID:

```
urn:fdc:peppol.eu:2017:poacc:billing:international:aunz:3.0
```

The full specification identifier in the invoice instance is thus:

```
urn:peppol.org:pint:3.0#compliant#aunz:billing:3.0
```

7.4.3 SMP receiving capabilities

To support the use of the PINT in the Peppol network a new document identifier scheme has been specified. The identifier scheme differs from the current BUSDOX id scheme as follows.

- The structure of the id supports the hierarchical structure of the PINT.
- A wildcard variable is allowed when registering receiving capabilities.

This allows a receiver to register the following receiving capability:

urn:peppol.org:pint:3.0#compliant#*

This means that this receiver will receive all invoices that have a documentID that matches up to the wildcard without having to register each of them as a receiving capability. As example:

```
urn:peppol.org:pint:3.0#compliant#en16931-2017:billing:3.0
```



```
urn:peppol.org:pint:3.0#compliant#sg-imda:billing:3.0
urn:peppol.org:pint:3.0#compliant#aunz:billing:3.0
```

Details on the Peppol network document identifier scheme are given in the relevant specification published by OpenPeppol EDEC.

8 Technical requirements

[SOURCE: PINT DRAFT 0.08]

8.1 Syntax binding

The PINT is implemented through the Oasis UBL syntax using document type Invoice and document type Credit Note depending on the business use case.

The syntax version support of the PINT is for the earliest syntax version that includes all the elements that are used for mapping the shared and aligned business terms in the PINT. An invoice domain specific specification may map distinct business terms to syntax elements that only exist in later versions of UBL but may not modify the syntax mapping of the shared and aligned business terms.

An invoice receiver who has implemented an invoice domain specification that uses an earlier UBL version will nevertheless accept an invoice that uses a later UBL version but may ignore any distinct business terms including those that may use syntax elements only existing in the later version.

The Peppol international invoicing model mapping to the UBL syntax is based on version 2.1 and uses the same mapping as BIS Billing 3.0. These syntax mappings are according to the CEN/TS 16931 part 3-2 for all business terms that are adopted from the EN. The mapping of additional business terms follows the ISO/IEC 19845:2015 (UBL 2.1) syntax binding methodology defined in CEN/TS 16931 – part 3-1 as applicable.

8.2 Validation

8.2.1 General

The validation of an invoice is carried out in steps as shown in **Figure 4**.

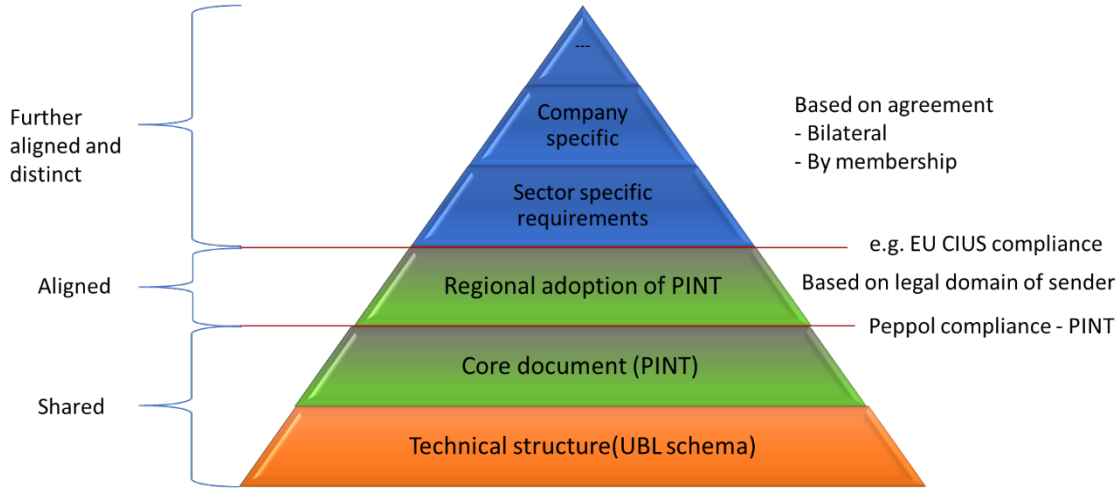

Figure 4 — Technical structure

8.2.2 Technical structure

Validation of technical structure of the invoice message includes the following

- Verify XML well-formedness (e.g. all tags are closed)
- Tag names and attributes shall be correctly written and follow the UBL sequence.
- All UBL mandatory elements shall be present.
- The element's contents shall be according to the element's type definition in UBL.

The UBL syntax validation shall use the latest published UBL version to allow for distinct business terms (refer to section on Syntax binding).

8.2.3 PINT validation

The PINT validation only applies the specification and rules that are defined for its shared and aligned business terms, this includes but is not limited to the following:

- Valid codes for currencies, countries, tax etc.
- Mandatory elements according to PINT.
- Logical correlations between information element, i.e., that start date is lower than or equal to end date, calculations give the correct result etc.

8.2.4 Aligned Invoice domain rules.

Applies rules that have been added as part of the domain specific specialization.

8.2.5 Further aligned and distinct rules.

Applies rules that have been defined for industry sectors or by bilateral agreement.

Bibliography

[1] ISO #####-#, *General title — Part #: Title of part*

[2] ISO #####-##:20##, *General title — Part ##: Title of part*

