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English version

Electronic invoicing - Part 3: Conformance Criteria for Interoperability between Electronic Invoicing Services

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties, the constitution of which is indicated in the foreword of this Workshop Agreement.

The formal process followed by the Workshop in the development of this Workshop Agreement has been endorsed by the National Members of CEN but neither the National Members of CEN nor the CEN-CENELEC Management Centre can be held accountable for the technical content of this CEN Workshop Agreement or possible conflicts with standards or legislation.

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Foreword

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties on 2012-02-15, the constitution of which was supported by CEN following the public call for participation made on 2010-02-26.

A list of the individuals and organizations which supported the technical consensus represented by the CEN Workshop Agreement is available to purchasers from the CEN-CENELEC Management Centre. The following organizations endorsed this document:

- AITI, Italy
- CEGEDIM, France
- Charles Bryant, consultant, UK
- Dr. Otto Mueller Consulting, Switzerland
- Hilti Corporation, Liechtenstein
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- STS Group, Belgium
- Trustweaver Sweden, Sweden
- Voxel Group, Spain
- xft GmbH, Germany

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The draft CWA was presented and discussed with industry representatives during two Open meetings, the first on September 22 and the other on December 12, 2011, both held in Brussels. The public comments period run from July 15th 2011 until September 15th 2011.

The final review/endorsement round for this CWA was started on 2012-04-04 and was successfully closed on 2012-04-16. The final text of this CWA was submitted to CEN for publication on 2012-04-18.

This CWA is part of a set of CWAs that has been prepared by Phase II and Phase III of CEN/WS e-Invoicing.

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Comments or suggestions from the users of the CEN Workshop Agreement are welcome and should be addressed to the CEN-CENELEC Management Centre.

1 Introduction

This CWA is published in the wake of three significant recent developments affecting electronic invoicing in Europe:

- In November 2009 the European Commission e-Invoicing Expert Group[11] published a set of Guidance Recommendations for Interoperability intended to guide stakeholders who make use of e-invoicing within the European Union. These recommendations form part of the proposed EEIF (European E-invoicing Framework) as set out in the Expert Group's Final Report.
- On July 13, 2010, the Council of the European Union adopted a new Directive that should simplify e-invoicing in Europe in the future. It is Directive 2010/45/EU[9] amending Directive 2006/112/EU. Three significant components of that Directive inform this CWA:
 - A. First, "business controls" have been elevated as a suitable means of proving the "authenticity" and "integrity" of the electronic invoices.
 - B. Second, the Directive adopts the general principle that electronic invoices and paper invoices should be treated equally, with no greater burdens imposed on one over the other form of invoice.
 - C. Third, EU member countries have until January 1, 2013 to adopt national legislation implementing this new directive. This CWA is published before that process is complete and therefore the authors cannot be certain whether new national variations – and legal barriers—will be introduced among member states when they adopt their own legislation.
- On December 2, 2010, the European Commission issued a communication titled "Reaping the benefits of Electronic Invoicing in Europe"[6], which calls for more action to accelerate adoption of e-invoicing in Europe. The Commission announced a goal that e-invoicing will be the "predominant" means of invoicing in Europe by 2020.

In the latter communication, the Commission requested CEN to develop a "Code of Practice" to be adopted by trading parties, service providers and public authorities to include a consistent terminology and a definition of roles and responsibilities of the distinct actors in the e-invoicing process. This CWA defines elements relating to interoperability between e-invoicing services that are included in that Code of Practice. The Code of Practice itself is the subject of a separate CWA 00005.

1.1 Background - Current market reality

Proliferation of standards and the lack of clear interoperability guidelines, as well as legal barriers, have acted as a hindrance to the uptake of e-business and e-invoicing by both SMEs and larger organizations. This is well illustrated in the Expert Group report and the Commission's "Reaping the Benefits" communication. It is valid as a starting point for this **CWA 16464-3: Conformance Criteria for Interoperability between Electronic Invoicing Services**.

1.2 Definition of Interoperability

CEN, in its 2002 CR "Health Informatics - Interoperability of healthcare multimedia report systems" has defined interoperability as: "a state which exists between two application entities when, with regard to a specific task, one application entity can accept data from the other and perform that task in

an appropriate and satisfactory manner without the need for extra operator intervention.” CEN Report CR 14300:2002.

Another definition of interoperability defines it as “the ability of information and communication technology (ICT) systems and of business processes they support to exchange data and to enable the sharing of information and knowledge.” European Interoperability Framework for Pan European e-Government Services, EIF 1:0.

Interoperability is, however, a broad term. As the Expert Group pointed out, interoperability involves three levels of interaction:

1. Business and organizational interoperability
2. Process interoperability
3. Technical interoperability

While recognizing there are several layers of interoperability, the scope for interoperability addressed in this document is limited to the area of transmission and processing between service providers acting for the trading parties in relation to the transmission and processing e-invoices and other electronic business documents as depicted in the diagram below:

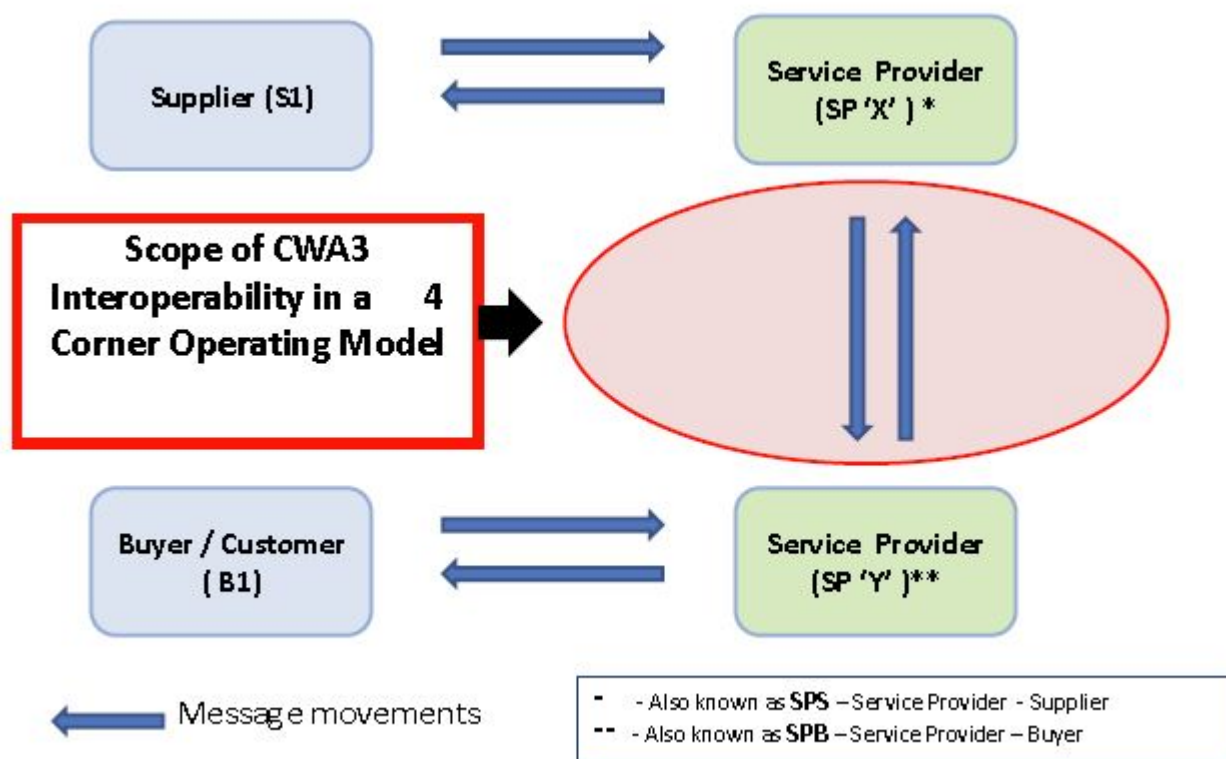


Figure 1

1.3 Objectives and Scope of this CWA

The scope of **CWA 16464-3: Conformance criteria for interoperability across e-business services** is very specific within the working framework of the CEN/WS e-invoicing Phase 3, namely to foster interoperability across e-Invoicing Services.

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This CWA is intended for the use of providers of e-invoicing services to their customers. However it also has implications for, and will be of value to trading parties, both buyers and sellers. Trading parties often engage service and solution providers to implement electronic invoicing. While such services currently are readily available for trading parties within a Member State, it will be increasingly important to identify service providers, who provide compliant and interoperable electronic invoicing services that are ready to be used widely across Europe and globally.

This CWA forms one of three CWA's designed to promote interoperability across such services:

- **CWA 16464-1: Addressing and Routing**
- **CWA 16464-2: Model Interoperability Agreement for Transmission and Processing of Electronic Invoices and other Business Documents**
- **CWA 16464-3: Conformance Criteria for Interoperability between Electronic Invoicing Services**

2. Conformance Criteria for Interoperability between E-invoicing Service Providers

These conformance criteria are proposed as a set of related statements of good practice with which providers of e-invoicing services are called upon to conform. They are referenced in and are compatible with the Code of Practice promulgated by CEN (CWA 16460)

2.1 Conformance Criteria 1:

All market participants providing E-Invoicing Services and other e-Business Services should use and conform to agreed terminology or generally used expressions in the field of electronic invoicing and the market for electronic invoicing services. For this purpose, the glossary attached to CWA 16463 Code of Practice is recommended for use and further development.

The consistent use of a generally accepted glossary of terms will aid market development, improve the customer experience, and facilitate industry cooperation. The referenced glossary was created by the e-Invoicing Workshop Phase 3, and includes terms from CEN E-invoicing Phase 2, the Expert Group and relevant Directives.

Further consolidation with terms developed by other organizations and groups such as:

- CEN BII Workshops, 1 & 2[1]
- CEN e-Invoicing Message User Guidelines project (MUG1)[2]
- UN/CEFACT [19]
- ISO TC 68
- PEPPOL Pan-European Public Procurement On-Line project[18]

To ensure that market participants are helped to conform to agreed terminology in e-Invoicing in Europe across the different sectors, industry, trade, finance and public procurement, the group recommends that the European Multi-Stakeholder Forum should be given responsibility for the governance of the terminology and the glossary, as it develops and should encourage relevant parties to participate in the enrichment and maintenance of the e-Invoicing glossary of terms.

2.2 Conformance Criteria 2:

All market participants providing E-Invoicing Services and other e-Business Services should facilitate their customers' compliance with legal and regulatory provisions using the most efficient and cost effective methodologies possible.

This Conformance Criteria applies to e-invoicing services, which are designed to be compliant with legislative rules on e-Invoicing and applicable VAT regulations. This recognises that the trading parties have responsibilities for their own compliance. A service offering purely 'electronic transport' for e-invoices and other electronic documents should incorporate those provisions that strengthen their ability to support compliant e-invoicing.

A service will make such arrangements with other services, which it or a trading party may employ, to ensure that such support for legal compliance is maintained throughout the end-to-end transaction chain, for example: compliant arrangements for Electronic Data Interchange (EDI) (including structured xml documents) and archiving/storage. Where format conversion is undertaken, this should not impact legal compliance and validity.

A service is encouraged to provide trading parties with support for the implementation of control measures for audit purposes that are 'proportionate' to their individual circumstances and encompasses a range of choices to support all e-invoicing modalities and those to be permitted under the new VAT Directive[9].

E-Invoicing and e-Business Services should consider using and conforming to the CEN E-Invoicing Compliance Guidelines[4] and its associated Compliance Matrix once they are published by CEN and as they may evolve by industry consensus. The recommended practices are set out in the E-Invoicing Compliance Guidelines and are referenced as [].

2.3 Conformance Criteria 3:

All market participants providing E-Invoicing Services and other e-Business Services entering interoperability agreements with each other should use and promote the final form of the Model Interoperability Agreement as attached to this CWA¹, or a substantially similar agreement. Such interoperability agreements between service providers will include, inter alia, a trusted framework that protects the interests of trading parties, especially small and medium-sized businesses and consumers.

The Model Interoperability Agreement with its included Description of Services as developed by the CEN Workshop (WS/e-Inv3) is attached to this CWA and contains the following features:

- The Model Interoperability Agreement is intended for use among services operating in a 'four corner' model. The agreement and its clauses are intended to be technology neutral, so as to encourage maximum adoption in all circumstances. It is believed that fair and consistent terms and conditions regarding services such as those contained in this Model Interoperability Agreement, will best promote interoperability and therefore the wide adoption of electronic invoicing.
- The Model Interoperability Agreement includes a Description of Services section containing a number of technical and operating provisions. The section describes the technical conformance criteria for interoperability to be considered and agreed upon for the connectivity between network service providers in the interchange of electronic Invoices and other electronic Business Documents on behalf their customers. The Description of Service should be completed and agreed upon by service providers to describe how they will establish an interconnection between their respective systems, as well as to specify the agreed properties, protocols and formats of messages and their payload, e.g. e-Invoices and other electronic business documents.

Included in the Model Interoperability Agreement are provisions for the protection of customers including: no commercial or other re-use of handled data for benefit of service provider(s), except as permitted by the customer with respect to the customer's own data; protection of a trading party's data under all applicable data protection legislation; confidentiality undertakings by service providers and their subcontractors; transparency and clear information to be provided by service providers to their customers when describing their services and procedures; and security certification. These protective provisions should be included in any substantially similar agreement entered into to support interoperability.

2.4 Conformance Criteria 4:

All market participants providing E-Invoicing Services and other e-Business Services should support the use of open and royalty-free standards promulgated by international standards organizations for invoice content and data formats as they become accepted by the market

This criterion refers to standards for invoice content (required business information or dataset) and for the data format (method of organizing electronic data in an electronic document).

Standards for invoice content should support the mandatory data elements, a good selection of additional optional data elements and support for the compliance needs of users in relation to VAT and other regulatory requirements.

At the present time, there is no universal standard for invoice content. This is due to the differing needs of industries, geographies and jurisdictions, as well as the existence of legacy systems. These differing needs and historical circumstances have resulted in a huge variety of content standards, and datasets tailored to specific requirements. Indeed it is not realistic to contemplate the development of a universal invoice content standard or data set and indeed this absence of an universal standard is not a barrier to e-invoicing adoption. However, a greater degree of targeted standardization will assist market development as described below.

Currently the varying invoice content standards and datasets referenced above are derived from many varying data dictionaries and data models. Ideally, an open and royalty free single semantic data model agreed at a global level, such as UN/CEFACT Cross Industry Invoice (CII), could be used to provide the foundation of all these varying invoice content and data set requirements. All compilers of invoice content and datasets would refer to the same semantic data model in order to meet their specific needs. Indeed such an approach can and is being used to develop a core invoice subset ([CWA 16356-1, -2 and -3](#) : Guide for a European CORE INVOICE data model with UN/CEFACT CII Implementation Guideline and the Financial Invoice V01 developed using ISO 20022).

Likewise, a set of open and royalty free naming and design rules (also available from UN/CEFACT) could provide the basis of data format standards, and the convergence towards a universal data format standard would become feasible.

These targeted standardization efforts covering both invoice content / datasets and data formats as described above will happen if encouraged by market participants who are urged to involve themselves in and to support such processes of convergence and adoption.

In the meantime, service providers are encouraged to use such content standards and data formats, (preferably open content standards and data formats) as they require to meet their customers' needs and to undertake the necessary conversions between them. It is also recognized that the adoption of standards in a network industry is often propelled by their first use in an interoperable network between service providers and large users. Over time such standards and preferably a universal standard are likely to become embedded in software and systems used by the wider community of users.

2.5 Conformance Criteria 5:

All market participants providing E-Invoicing Services and other e-Business Services should use and support open and royalty-free technology standards for connectivity and messaging between platforms in order to achieve the objectives of interoperability.

To ensure the objectives of interoperability, one of the conformance criteria on e-Services Providers' is the requirement of implementing 'open information technology standards for connectivity and messaging between platforms serving for the exchange of e-Invoices and other business documents. Open standards help support open systems that provide connectivity to applications implemented for e-Invoicing services and with the trading partners' ERP systems.

Use of such open technology standards in connection with archiving e-Invoices and e-Business documents, will permit regulatory investigations by authorities to take place via standard routines that would make them available for the legally required term as well as guaranteeing upgrading to neutral and agnostic technologies in the future, e.g. cloud computing.

2.6 Conformance Criteria 6:

E-Invoicing Services should over time adopt practices that foster convergence for the addressing and routing of e-invoice and related messages containing electronic business documents. This should include addressing and routing solutions that may be used without regard as to whether the trading parties have elected to use a service provider or not. See separate position paper as CWA 16464-1.

The attached review paper on Addressing and Routing CWA 16464-1 sets out a number of principles and areas for further work in the direction of convergence.

2.7 Conformance Criteria 7:

No requirement, whether explicit or implicit, should be placed on trading parties to use either a two, three or four party model and trading parties should remain free to select the model most appropriate for that trading party's business.

In order to ensure maximum uptake of electronic invoicing, businesses should be able to implement the solution that best suits their and their trading partner's circumstances, without a perception that the expense of deploying a particular service or solution is necessary either due to technological reasons or for legal compliance. It is important that businesses may choose the electronic invoicing technology, business control frameworks and processes that best fit their unique circumstances. If a business agrees to participate in a three-corner or four-corner model with service providers, the decision should be based on the business value being added to its own business from that choice, and not because of a fear of losing business or incurring penalties if it does not make the choice.

3 References

- [1]. CEN BII, 1 & 2
http://www.cen.eu/CEN/sectors/sectors/iss/activity/Pages/ws_bii.aspx
- [2]. CEN e-Invoicing Message User Guidelines (MUG1)
<http://www.cen.eu/cen/Sectors/Sectors/ISS/Activity/Documents/MUG%20Project%20Plan%20V1.3.pdf>
- [3]. CR 14300, *Health Informatics - Interoperability of healthcare multimedia report systems*
- [4]. CWA 16460, *Good Practice: e-Invoicing Compliance Guidelines*
- [5]. CWA 16463, *Code of Practice for Electronic Invoicing in the European Union*
- [6]. Commission issued a communication titled "Reaping the benefits of Electronic Invoicing in Europe", <http://www.epractice.eu/en/library/5274975>
- [7]. CWA 16036, *Cyber-Identity - Unique Identification Systems For Organizations and Parts Thereof*
http://www.cen.eu/CEN/sectors/sectors/iss/activity/Pages/ws_cyberid.aspx
- [8]. CWA 16050, *A framework for the emerging network infrastructure of elnvoice service providers throughout Europe* <ftp://ftp.cenorm.be/PUBLIC/CWAs/e-InV2/CWA%2016050.pdf>

- [9]. Directive 2010/45/EU amending Directive 2006/112/EU. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:072:0001:0002:EN:PDF>
- [10]. European Interoperability Framework for Pan European eGovernment Services, EIF 1:0. <http://ec.europa.eu/idabc/en/document/3761/5845.html>
- [11]. Final Report of the Expert Group on E-Invoicing http://ec.europa.eu/internal_market/consultations/docs/2009/e-invoicing/report_en.pdf
- [12]. E-Invoice Alliance Germany <http://www.e-invoice-alliance.com/>
- [13]. Hub Alliance <http://www.huballiance.org/>
- [14]. IDABC EIF (European Interoperability framework), <http://ec.europa.eu/idabc/en/document/2319/5644.html>
- [15]. ISO/IEC 6523, *Information technology - Structure for the identification of organizations and organization parts*
http://www.iso.org/iso/catalogue_detail?csnumber=25773
http://en.wikipedia.org/wiki/ISO_6523
- [16]. ISO 20022, *Financial services*
http://www.iso20022.org/UNIFI_trade_services_messages.page
- [17]. OASIS ebCore Party Id Type Technical Specification Version 1.0
<http://docs.oasis-open.org/ebcore/PartyIdType/v1.0/CD03/PartyIdType-1.0.html>
- [18]. PEPPOL Pan-European Public Procurement On-Line
http://www.peppol.eu/About_PEPPOL
- [19]. UN/CEFACT Cross Industry Invoice
http://www.unece.org/press/pr2007/07trade_p02e.htm

4. Definitions and Abbreviations

4.1 Definitions

See Glossary attached to Code of Practice. Also see Section 4 of Model Interoperability Agreement.

4.2 Abbreviations

CEN BII	Business Interoperability Interfaces for Public procurement in Europe
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DUNS number	The DUNS number is a unique nine-character number that identifies your organization. It is a tool of the federal government to track.
GS1 Global	The Global language of business
GS1 GLN	GS1 Global Location Number
MIA	Model Interoperability Agreement for Transmission and Processing of Electronic Invoices and other Business Documents
MUG	CEN e-Invoicing Message User Guidelines (MUG1)
ODETTE	Organization Data Exchange Tele Transmission Europe
PEPPOL	Pan-European Public Procurement Online
SME	Small and Medium Enterprise
