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WORKSHOP

AGREEMENT

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Recommendation to allow coded identifiers as an alternative to the current unstructured clear text identifications

EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This CWA is part of a set of CWAs which has been prepared by the CEN/ISSS Workshop on Interoperability of Electronic Invoices in the European Community, with the view to supporting the effective implementation of the related Council Directive 2001/115/EC of 20 December 2001, with a view to simplifying, modernising and harmonising the conditions laid down for invoicing in respect of Value Added Tax, as well as regulations on electronic signatures and EDI. The set of CWA is as follows:

- Commission Recommendation 1994/820/EC October 1994, proposed revision with the requirements of Directive 2001/115/EC, present day e-Commerce practices and revised definition of EDI Electronic Data Interchange
- The list of invoice content details expressed as UN/CEFACT Core Components
- Recommendation to allow coded identifiers as an alternative to the current unstructured clear text identifications.
- A standardised set of codes with definitions to replace plain text clauses in eInvoice messages.
- Survey of VAT Data Element usage in the Member States and the use of codes for VAT Exemptions.
- eInvoices and digital signatures.
- Storage of Electronic Invoices.
- Guidelines for e-Invoicing service providers.
- eInvoice Reference Model for EU VAT purposes specification

An executive summary of these CWAs is available at:

ftp://ftp.cenorm.be/PUBLIC/e-Invoicing/CWA/Executive_Summary.pdf

This document relates to the use of coded identification of Parties, Goods and Services in electronic invoices.

The final review/endorsement round for this CWA was successfully closed on 12 June 2006.

This CEN Workshop Agreement is publicly available as a reference document from the National Members of CEN: AENOR, AFNOR, ASRO, BSI, CSNI, CYS, DIN, DS, ELOT, EVS, IBN, IPQ, IST, LVS, LST, MSA, MSZT, NEN, NSAI, ON, PKN, SEE, SIS, SIST, SFS, SN, SNV, SUTN and UNI.

Introduction

The eInvoicing Focus Group report indicated that a problem of interoperability could arise in relation to certain sections dealing with the data content required for VAT, namely that relating to the identification of Parties, Goods and Services. The relevant part of the texts taken from the Directive, are given below;

- the **full name and address of the taxable person and of his customer**

- the quantity and **nature of the goods supplied** or the **extent and nature of the services rendered**

The text of the Directive is specific; it requires that these identifiers be provided in a descriptive form, whilst eBusiness principles, including EDI, recommend the use of coded identifiers coupled with the use of associated code look-up tables, to provide the descriptive information.

On this particular issue, information received from the survey of the Member States (see CWA: Survey of VAT Data Element usage in the Member States and the use of codes for VAT Exemptions) places the Member States in one of two groups:

- Several Member States permit the use of coded identifiers, provided that look up tables are available when required for inspection - these are countries where eBusiness has been in widespread use since the 1980's

- Member States that have not had such a long experience in eBusiness have responded that they do not permit the use of coded identifiers in place of clear text

In the supply chain, electronic data exchanges (e.g. order to invoice, data exchanged between trading partners and service providers…etc) use coded identifiers and efficient data processing in the related application systems, to avoid the need for manual intervention. Clear text may be used to complement coded identifiers, but this requires manual intervention in order to process.

With regard to the uniqueness of coded identifiers, this is achieved within their context, through the agencies that are responsible for the code sets themselves -

e.g. the use of Dun and Bradstreet (DUNS) coded identifiers for parties,

GS1 GLN (Global Location Number) for parties, and

GTIN (Global Trade Item Number) for products (goods)

Individual identifiers used in these coding conventions are unique. The document date also ensures that the unique identifier referred to is appropriate to the document, for a period in excess of that required by EU Member States.

The differences between the situations in countries which allow the use of coded identifiers in place of textual values and those which do not may cause interoperability problems in cross border invoicing. For example, an invoice provided by a trading party from a Member State which allows the use of coded identifiers will cause difficulties for a trading party in a Member State which does not allow the use of coded identifiers, because the invoice will not comply with the requirements of a Member State's which does not allow the use of coded identifiers.

To address this situation, the CEN eInvoice Workshop Agreement is proposing two recommendations:

a) An extension to the relevant clauses in the existing Directive, given below in bold, to be anticipated and taken into account at the next revision of the 6th VAT Directive.

- The full name and address **and / or a unique coded identification** of the taxable person and of his customer;

- The quantity and nature, **as a coded identifier and / or description,** of the goods supplied or the extent and nature, **as a coded identifier and / or description,** of the services rendered; provided that both parties to the exchange of tax documents are aware of the significance of the coded values and translations of the coded values are available at both ends of the exchange for audit/tax inspection purposes.

b) That ‘Best practice procedures’ be made available to assist in developing applications, both for business and for VAT administrations, that reflect the requirements of the VAT Directive and the eBusiness applications of today, taking the issue of coded identifiers into consideration, especially for cross border trade.

1 Scope

The scope of the current document is limited to the recommendation brought forward from the eInvoicing Focus Group report relating to the use of coded identifiers, as an alternative to the current unstructured clear text identifications of parties and the identification of goods or services description, as stated in the EU Directive on invoicing 2001/115/EC.

The present document establishes the reasoning for the use of coded identifiers and gives guidance on how it may be implemented with good practice in Member States where this concept may not have yet been introduced.

The current CWA takes into account the responses generated and processed in the CWA Survey of VAT Data Element usage in the Member States and the use of codes for VAT Exemptions..

2 References

The following international definition and implementation documents developed by international eBusiness user groups for the implementation of electronic invoice messages demonstrate the importance of using Coded Identifiers in the eBusiness supply chain:

- Report and recommendations of CEN/ISSS e-Invoicing Focus Group on Standards and Developments on invoicing relating to the VAT Directive 2001/115/EC
- Automotive industry global invoice message
- EAN International EANCOM Standard (GS1)
- IDA e-Procurement protocol XML schemas initiative e-Ordering and e-Invoicing Working document Version 2.0 October 2004 http://xml.coverpages.org/IDA-OrderInvoice18083.pdf
- EDIFICE Billing definition and procedures http://repository.edifice.org/billing-bim.aspx
- CEN/ISSS CWA Survey of VAT Data Element usage in the Member States and the use of codes for VAT Exemptions

3 Definitions, symbols and abbreviations

3.1 Abbreviations

EDIFICE	EDI group for the Electronics industry in Europe
FIATA	Trade association representing freight forwarding and logistics firms
GS1	Global Standard 1
IATA	International Air Transport Association
ODETTE	Organization Data Exchange Teletransmission Europe (Automotive industry)
SIREN	Unique identifier of an enterprise in France

4 Issues in Question

4.1 Background

Task 1.3 refers to data requirements given in the VAT Directive 2001/115/EC, article 4, relating to the identification of organisations in an invoice and identification of product or service being invoiced. The relevant texts, extracted from the Directive, are given below and the relevant parts are given in bold.

- the full name and address of the taxable person and of his customer;

- the quantity and **nature of the goods supplied** or the extent and **nature of the services rendered**;

In eBusiness transactions, including EDI, trading partners, both in the private and public sector use coded value identifiers. These identifiers are issued by recognised national or international organisations, or mutually agreed by the trading partners. In certain sectors, such as the steel industry, there are mutually agreed procedures for identifying goods by their specifications, e.g. dimensions and characteristics of the goods.

4.2 Problem statement

It is recognised that, in the case of inspections by tax administrations, details of “Parties”, “Goods” or “Services” and other data may need to be presented unambiguously, in clear form, in relation to the invoices under scrutiny. However, for efficiency and accuracy in the processing of eBusiness transactions, major trade and industry invoicing applications use coded identifiers to identify parties, goods and services, as these codes are normally used as the processing keys in computer application systems. In contrast, the use of textual names, addresses and goods descriptions in electronically exchanged tax documents is inefficient, complex and susceptible to errors.

From responses received in the survey from Member States on the data required in an invoice (see Task 1.5), there is a clear difference between Member States where eBusiness has been used for many years (commencing in 1990 or earlier) and other Member States where eBusiness development is more recent.

- Several Member States permit the use of coded identifiers, provided that look up tables are available when required for inspection - these are countries such as the UK, Austria, Denmark, Netherlands, where eBusiness has been in widespread use since the 1980’s

- Member States that have not had such a long experience in eBusiness have responded that they do not permit the use of coded identifiers in place of the clear text

Taking the Automotive industry as an example, vehicle parts, assemblies and subassemblies are identified uniquely by coded identifiers that have been developed by the manufacturers and these are available throughout their application systems and described in detail in the ‘Bill of materials’ application. These coded identifiers are used in the exchange of orders, delivery instructions, despatch advices and invoice messages with suppliers and service providers. The coded identifiers may be used to extract the details of the trading partners, buyers and suppliers, and the description and details of the ‘goods’, in clear form, as may be required for presenting invoices in human readable form.

Requiring the exchange of the name and address of the trading partners and the description of the goods or service, in text form, is considered to be a retrograde step for business, trade and industry. Large investments have already been made by these groups to eliminate text from electronic trade transactions and replace it with secure coded identifiers. Although the added space required to accommodate text names and addresses and product descriptions within an individual invoice is not excessive, the storage space required to store a very large number of invoices (possibly millions per year for some companies), over a period of up to 10 years in some Member States, will be very great. The larger volume of data stored may also cause problems for the searching of documents, by companies, especially for SMEs.

Finally, problems of interoperability may arise for cross-border invoicing, due to the differences between the situations in Member States which permit the use of coded identifiers and Member States which do not permit the use of coded identifiers. For example, a trading party from a Member State, that allows the use of coded identifiers, will cause difficulties for a trading party in a Member State that does not allow the use of

coded identifiers because the invoice will not comply with the requirements of the Member State that does not allow the use of coded identifiers.

4.3 Use of coded identifiers and their advantages

One of the basic principles in eBusiness applications is the emphasis on the use of coded identifiers and codes, in preference to the use of their clear text equivalents - e.g. Currency codes instead of currency names, VAT number instead of the name and address of the VAT registered party, coded goods identifiers in place of the name and description and coded party identifier in place of the party's name and address.

Electronic message specification and implementation guidelines (MIGs), whilst giving the option to use both coded identifiers and their equivalent clear text, recommend implementers to use only the coded values. Both the supplier and customer or their agents should be able to provide, on request from official administrations, the clear text equivalents of the coded parties' names and addresses and the coded name and description of the goods or services that are identified in the transaction.

In addition to storing the electronic invoices, both the customer and supplier validate and maintain the directories that provide the look up tables for translating the coded identifiers into the name and address of the parties concerned and the description of the goods and service.

The use of coded values for identifiers and other coded data elements, in lieu of the clear text in the invoice and other related transactions, provides tangible benefits to the trading partners as well as for tax administrations . The major advantages include:
- Reduction/elimination of errors in invoice transactions
- Improved efficiency of processing and in the cross-checking of data - e.g. invoice with purchase order, despatch advice, product catalogue, etc..
- Improved tracking and traceability of data and goods in the supply chain, particularly for critical situations such as health/medical sector applications
- Improved accuracy of information - descriptions of goods and services may change over time, whilst codes remain more stable and can be converted to the appropriate textual description and related data through the use of look up tables
- Provides the opportunity for the translation of standard coded values into different languages
- Ensures the same consistent understanding of data and information between the sender and receiver of the transactions
- …etc

4.4 Uniqueness of coded identifiers

The uniqueness of coded identifiers is ensured in several ways. One of the preferred ways is the use of 'Code list responsible agencies' which ensures that the coded identifiers for parties, goods and services used in exchanges are unique within their universe of discourse. For example, in the worldwide trade and distribution sector, GS1 (previously known as EAN International) is the responsible agency for coded identifiers for parties, goods and services, , ensuring global uniqueness in the trade and distribution sector - its easily-recognisable 'bar coded identifiers' are to be seen on packaging on groceries, drugs in hospital, appliances, etc.. The coded identifiers available in the invoice, or other message, correspond to those on the physical item, e.g. a packet of cigarettes.

In other applications, such as the manufacturing sector, the manufacturers develop their coded identifiers for components, assemblies and sub assemblies as part of product development, including identifications required through engineering changes. The uniqueness of these coded identifiers is therefore ensured by the manufacturer and / or the supplier, within their universe of discourse. In eBusiness exchanges such as EDI, this is indicated clearly in the messages and the universe of discourse is bounded by the two parties, e.g. the customer and the supplier. The use of supplier and customer code lists is common in manufacturing industry, e.g. automotive, electronics, white goods, etc..

This way of working is not limited to the private sector, but is also widely used in the public sector. Code list responsible agencies such as Dun and Bradstreet, GS1, etc. are recommended and, in some cases, the use of coded identifiers are a pre-requisite for doing business in the public sector.

A list of several of these organizations is given in the annex, section 5..

Examples of party identifiers:
- Identifiers issued by public authorities, e.g. SIREN, VAT administrations, ..
- Identifiers issued by international organizations, e.g. GLN Global Location Number by GS1, DUNS s number by Dun and Bradstreet , IATA, …
- Identifiers mutually agreed by the trading partners, e.g. Supplier's party identifier, buyer's party identifier,

Example of identifiers for goods and services:
- Identifiers issued by international organizations, e.g. GTIN Global Trade Item Number, Digital Object Identifiers, IATA and FIATA air and freight services identifiers ,
- Identifiers issued by public authorities, National Health Service, National Drug Code, etc..
- Identifiers mutually agreed by trading partners

4.5 Recommendations

The CEN eInvoice Workshop is proposing two recommendations

4.5.1 Extension to clauses

The CEN eInvoice Workshop is recommending an extension to the relevant clauses in question, given below in bold, to be anticipated and taken into account at the next revision of the VAT Directive.

- The full name and address **and / or a unique coded identification** of the taxable person; where necessary the taxable person's tax representative; and of his customer;

- The quantity and nature, **as a coded identifier and / or description,** of the goods supplied or the extent and nature, **as a coded identifier and / or description,** of the services rendered;

The CEN eInvoice Workshop recognises that the Directive itself may not be amended in the shorter term – it therefore suggests that, if the above recommendation passes through the various approval steps and procedures, the facility to use coded identifiers be notified on the relevant Europa website, for the benefit of European trade/industry and tax administrations alike.

4.5.2 Best practice procedures

The CEN eInvoice Workshop is recommending that 'Best practice procedures' be made available to assist in developing applications, both for traders and VAT administration, that reflect the requirements of the VAT Directive and the eBusiness applications of today, taking the issue of coded identifiers into consideration, especially for cross border trade.

4.6 Annex 1 List of organizations responsible for issuing codes

Party Identifiers

SIREN	number identifying the organisation
SIRET	number identifying the establishment
VAT	National VAT administrations
GLN	Global Location Number issued by GS1 national member organization
DUNS	Organization number issued by Dun and Bradstreet
IATA	International Air Transport Association
FIATA	International Federation of Freight Forwarders Associations
Others	

Identifiers of Goods and Services

DOI	Digital object identifiers
FIATA	International Federation of Freight Forwarders Associations

GTIN Global Trade Item Number (GS1)
HIBC The Health Industry Bar Code
IATA International Air Transport Association
ISBN International Standard Book Number System for Books
PII Publisher Item Identifier
SICI The Serial Item and Contribution Identifier
Others

4.7 Annex 2 Example messages

EDI Invoice Message based on GS1 Definition

UNH+ME000001+INVOIC:D:01B:UN:EAN010'	Message header
BGM+380+IN432097'	Commercial invoice number IN432097
DTM+137:20020308:102'	Message date 8th March 2002
PAI+::42'	Instructions to pay in bank account
RFF+ON:ORD9523'	Purchase order invoiced number ORD9523
DTM+171:20020212:102'	Reference date 12th February 2002
RFF+PL:PL99523'	Price list reference number PL99523
DTM+171:20020101:102'	Reference date 1st January 2002
RFF+DQ:53662'	Reference delivery note number 53662
DTM+171:20020215:102'	Reference date 15th February 2002
NAD+BY+5412345000013::9'	**Buyer identified by GLN 5412345000013**
RFF+VA:4146023'	VAT reference number of the buyer 4146023
NAD+SU+4012345500004::9'	**Supplier identified by GLN 4012345500004**
RFF+VA:VR12345'	VAT reference number of the supplier VR12345
NAD+DP+5412345678908::9'	Delivery party identified by GLN 5412345678908
CUX+2:EUR:4'	Reference currency is Euros
PAT+1++5:3:M:2'	Payment terms 2 months after date of invoice
PAT+22++5:3:D:10'	Payment discount for payment 10 days after date of invoice
PCD+12:2.5:13'	Percentage information for the allowances or charges 2.5 %
ALC+C++6++FC'	Charges to be paid by customer
MOA+23:120'	Monetary amount for the charge 120 EUR to be added
TAX+7+VAT+++:::19+S'	Type of tax is value added tax at 19 %
MOA+124:22.80'	Tax monetary amount 22.80 EUR
LIN+1++4000862141404:SRV'	**Line item 1 identified by GTIN 4000862141404**
QTY+47:40'	Invoiced quantity 40
MOA+203:2160'	Line item amount 2.160 EUR
PRI+AAB:60:CA'	Gross calculation price of 60 which does not include any allowance or charges, from the catalogue.
TAX+7+VAT+++:::21+S'	Type of tax for the line item is value added tax 21%
MOA+124:453.60'	Tax monetary amount 453.60 EUR
ALC+A'	Allowances
PCD+1:10'	Percentage information for the allowances 10 %
LIN+2++5412345111115:SRV'	Line item 2 identified by GTIN 5412345111115
QTY+46:5'	Delivered quantity 5
QTY+47:12.65:KGM'	Invoiced quantity 12.65 Kg.
MOA+203:2530'	Line item amount 2.530 EUR
PRI+AAA:200:CA::1:KGM'	Net price of 200 per Kg from the catalogue, this price includes allowances and charges
TAX+7+VAT+++:::19+S'	Type of tax for the line item is value added tax 19 %
MOA+124:480.70'	Tax monetary amount 480.70 EUR
UNS+S'	To separate the detail section from the summary section
CNT+2:2'	Total number of line items 2
MOA+86:5767.10'	Message total monetary amount 5.767,10 EUR
MOA+79:4690'	Message total line items amount 4.690 EUR
MOA+129:5767.10'	Total amount subject to payment discount 5.767.10

	EUR
MOA+125:4810'	Message total taxable amount 4.810 EUR
MOA+176:957.10'	Message total amount 957,10 EUR
MOA+131:120'	Total charges/allowances 120 EUR
TAX+7+VAT+++:::19+S'	Type of tax for the total message is value added tax 19 %
MOA+124:503.50'	Tax monetary amount 503.50 EUR
TAX+7+VAT+++:::21+S'	Type of tax for the total message is value added tax 21%
MOA+124:453.60'	Tax monetary amount 453.60 EUR
ALC+C++++FC'	Freight charge
MOA+131:120'	Total charges 120 EUR
UNT+53+ME000001'	Total number of segments in the message equals 53

Example of an EDIFICE Invoice message

UNH+32477+INVOIC:D:97A:UN:EDIN03'	Message header
BGM+380+710264754'	Invoice document number 710264754
DTM+137:20050404:102'	Invoice date 4 April 2004
NAD+BY+01707::92'	BY Buyer code 01707, 92 Assigned by buyer or buyer's agent
NAD+SE+989120::91'	SE Seller code 980120 91 Assigned by seller or seller's agent
RFF+VA:NL005476604B62'	VAT number of the seller NL005476604B62
NAD+DP+LG01::92'	DP Delivery Party code LG01 92 Assigned by the buyer or agent
CUX+2:EUR:4'	Reference currency is the Euro
LIN+1++12345:BP::92'	Product 12345 identified by the buyers product code
PIA+1+789012:VP::91'	Additional product identification 789012 using the Vendor code
QTY+47:450:PCE'	Invoice quantity 450 pieces
ALI+TH'	Additional line information
MOA+203:1102.01'	Monetary line amount 1102
PRI+AAB:244.89:CT::100:PCE'	Gross contract price of 244.89 per 100 pieces
RFF+AAK:01056186'	Despatch advice number 01056186
RFF+ON:XXXXXX:1'	Buyers order reference number
RFF+LI::1'	Line item reference 1
RFF+IV:710264754'	Invoice number reference assigned by the seller
UNS+S'	To separate the details section from the summary sction
MOA+86:1102.01'	Message total amount of 1102.01
MOA+79:1102.01'	Total amount of the line items is 1102.01
TAX+7+VAT++++Z'	Zero rated VAT
MOA+176:0'	Message total duty/tax/fee amount is 0
UNT+24+32477'	Total number of segments in the message are 24