Technical manual e-fff

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1   Introduction

This manual is provided by the foundation Forum For the Future (FFF).
More information about Forum For the Future is available at www.forumforthefuture.be

Forum For the Future has established a charter (further named as "protocol") to promote the usage of electronic invoicing in Belgium.

This protocol brings five categories together:
- The software houses;
- The companies;
- The economic professions;
- The service providers;
- Public Administrations and Authorities

The protocol was signed at startup on December 2nd, 2011 by 26 stakeholders from the different categories.

2   Basic principles of the protocol

2.1   What is e-fff

2.1.1   In general

The purpose of the protocol is to establish an "exchange protocol (further named as e-fff)" that ensures maximization of the interoperability of the electronic invoice between the Belgian actors, for SMEs, in line with the development of the existing international standards . The aim is to create a market for electronic invoicing for SMEs (current volumes traded are in fact too small) and in the most user-friendly way.

The protocol is an "application protocol" and doesn't imply any rules about the sending or preserving of the electronic invoices.
The protocol is based upon the European standard UBL 2.0 accompanied by specific Belgian agreements. These Belgian specifications are agreed between the signatories of the protocol.

2.1.2   The e-fff label

Any category of the signatories who wishes to implement e-invoicing based upon the e-fff protocol is able to use the e-fff label after passing a testing process. This testing process does not imply any certification.

2.2   Who can use the e-fff

The Protocol is open (free).
Only a coordination achieved by the FFF Foundation in the framework of the protocol may allow the work of the signatories to be coordinated and disseminated.
The Protocol receives, under the leadership of the Foundation, an (e-fff) label, but does not include certification. The users of the label and the Protocol will commit themselves to abide by a charter, consisting of the commitment to the principles and recommendations to be. They undertake also to their mutual development to test with all other signatories to the protocol via a platform that cooperation strengthened. Work performed, exchange, control and cooperation between actors is based on the principle of a voluntary community.

3   Technical requirements

3.1   *European standard (UBL 2.0)*

Universal **B**usiness **L**anguage (UBL) is a library of standard electronic XML business documents such as purchase orders and invoices. UBL was developed by an OASIS Technical Committee with participation from a variety of industry data standards organizations. UBL is designed to plug directly into existing business, legal, auditing, and records management practices. It is designed to eliminate the re-keying of data in existing fax- and paper-based business correspondence and provide an entry point into electronic commerce for small and medium-sized businesses.

UBL is owned by OASIS and is currently available to all, with no royalty fees. The UBL library of business documents is a well-developed markup language with validators, authoring software, parsers and generators. UBL version 2.0 was approved as an OASIS Committee Specification in October 2006 and version 2.1 is under public review (as of 2012). Version 2.1 is fully backward compatible but adds 33 new document schemas.

UBL traces its origins back to the EDI standards and other derived XML standards. In version 2.0 there are 31 documents covering business needs in the phases of presale, ordering, delivery, invoicing and payment.

Source of above mentioned info: *wikipedia*

3.2   *Belgian (e-fff) agreements accompanying the protocol*

As described in the previous section, the UBL 2.0 standard is able to cover more than creating an electronic invoice. The signatories of the e-fff protocol have agreed to narrow the scope of the e-fff protocol and not to support all of the available fields that are available in the UBL 2.0 standard.

3.2.1   XML format and embedded pdf object

Every electronic invoice will be represented by one single xml file. Hence one e-invoice equals one xml file. The signatories of the e-fff protocol have additionally agreed to add an embedded pdf object of the invoice to the XML file.

3.2.2   Determination of the fields

The e-fff protocol also provides for both the main and the line details of the invoice, a list of fields to be used for reading and writing.

These fields are indicated as:
-   mandatory (listed in Annex 1 with code M)
-   optional (listed in Annex 1 with code X)**.**

Mandatory fields are necessary for the recognition of electronic invoicing.
Optional fields will necessarily be supported by the users of the protocol to the extent that the user has the appropriate module.

The **other fields** of the UBL 2.0 standard that are not listed as mandatory or optional in Annex 1, are not supported by the e-fff protocol.
The protocol supports about 200 fields of the 1.000 available fields in the UBL 2.0 standard. This involves that 800 fields are generally not included in the protocol e-fff for SME's but should however not preclude third parties to add, use and process these fields in parallel, without officially supported by the members of the e-fff community.

All fields are included in an Excel table (Annex 1) that describes the characteristics of each field and where appropriate reference to external standards (GS1, ISO lists etc..). If necessary, the fields are also commented on the implementation of the e-fff protocol.

3.2.3 Document type (invoice versus credit note)

Ubl Oasis recommends that the total document is always positive regardless of the type of document. Therefore, the total of a credit note should generate positive totals.

If the document type from the issuer application is an **invoice**
- InvoiceTypeCode = 380
- Although it is recommended by Ubl Oasis, the e-fff protocol have specifically agreed that the Total and Line Details retain their sign and can be positive or negative
- Invoices are normally positive, but could also be negative in the case of a negative invoice.

If the document type from the issuer application is a **credit note**
- InvoiceTypeCode = 381
- Although it is recommended by Ubl Oasis, the e-fff protocol have specifically agreed that the Total and Line Details retain their sign and can be positive or negative
- Credit notes are normally positive, but could also be negative in the case of a negative credit note.

3.2.4 Invoice lines

3.2.4.1 Header of the invoice (or credit note) versus line details

There are **no specific agreements** to ensure a **match** between the total in the header of the invoice (or credit note) and the line details **concerning VAT amounts and discounts**, mainly because this is by rounding theoretically impossible.
The receiver has the responsibility to prevent the possible inconsistency that may arise in this way. Although this control is not mandatory, this seems to be a useful control to be set up in the software. Deviations between line details and header only apply to amounts, not to other parts of the block TaxTotal, eg the VAT codes used in the line details must also appear in the header and vice versa. It is **specifically agreed** that the total of the **taxable amounts** in the header of the invoice (or credit note) should **match** the totalization of the taxable amounts in the line details.
A possible control based on the tag "LineCountNumeric" was proposed (control between the value of that tag and the effective number of line details), but this is not mandatory.

3.2.4.2 Rounding / number format

Amounts are mentioned with the number of decimals that match the currency code.
(e.g. EUR = 2 decimals)

3.2.5 Tax codes

International codes specified by UN/EDIFACT (United Nations Directories for Electronic Data Interchange for Administration, Commerce and Transport) are used to preserve the international interoperability. These codes are accompanied by additional Belgian VAT codes on which the members of the e-fff protocol committed to add these to the e-fff invoice and agreed upon the mapping towards the international codes.
A list of the international codes, see http://www.unece.org/trade/untdid/d07a/tred/tred5305.htm

The codes and mapping are as follows:

Code	Code description	Details
A	Mixed tax rate	Code specifying that the rate is based on mixed tax.
AA	Lower rate	Tax rate is lower than standard rate.
AB	Exempt for resale	A tax category code indicating the item is tax exempt when the item is bought for future resale.
AC	Value Added Tax (VAT) not now due for payment	A code to indicate that the Value Added Tax (VAT) amount which is due on the current invoice is to be paid on receipt of a separate VAT payment request.
AD	Value Added Tax (VAT) due from a previous invoice	A code to indicate that the Value Added Tax (VAT) amount of a previous invoice is to be paid.
B	Transferred (VAT)	VAT not to be paid to the issuer of the invoice but directly to relevant tax authority.
C	Duty paid by supplier	Duty associated with shipment of goods is paid by the supplier; customer receives goods with duty paid.
E	Exempt from tax	Code specifying that taxes are not applicable.
G	Free export item, tax not charged	Code specifying that the item is free export and taxes are not charged.
H	Higher rate	Code specifying a higher rate of duty or tax or fee.
O	Services outside scope of tax	Code specifying that taxes are not applicable to the services
S	Standard rate	Code specifying the standard rate.
Z	Zero rated goods	Code specifying that the goods are at a zero rate.

Description	TaxCategoryCode	VAT section	UN/EDIFACT
0%	00	00	Z
6%	01	01	AA
12%	02	02	AA
21%	03	03	S
Contractor (Medecontractant/Cocontractant)	45	45	B
Sundries excluded from VTA (Diversen na BTW/Divers hors TVA)	NA	NA	E
Margin (Marge/Marge)	MA		S or AA
0% Clause 44 (Artikel 44/Article 44)	00/44	00	E
ICD Goods (ICL Goederen/LIC Marchandises)	46/GO	46	G
ICD Manufacturing cost (ICL Maakloon/LICTravail à façon)	47/TO	47	G
ICD Assembly (ICL Montage/LIC Montage)	47/AS	47	G
ICD Distance (ICL Afstand/LIC Distance)	47/DI	47	G
ICD Services (ICL Diensten/LIC Services)	47/SE	47	G
ICD Triangle a-B-c (ICL Driehoek a-B-c/LIC Triangle a-B-c)	46/TR	46	G
ICD Services B2B (ICL B2B Diensten/LIC Services B2B)	44	44	G
Export non E.U. (Export niet E.G./Export non C.E.)	47/EX	47	G
Indirect export (Onrechtstreekse uitvoer/Export indirect)	47/EI	47	G
Export via E.U. (Export via E.G./Export via C.E.)	47/EE	47	G
Standard exchange (Standaardruil/Echange standard)	03/SE	03	S

3.2.6   Financial (payment) discounts

The tag "PaymentTerms\Amount" is agreed upon to be used for mentioning the amount of financial discounts related to the payment of the invoice. This tag is not mandatory.

3.2.7   XML file naming

The e-fff community recommends to use the following file naming:
efff_BE0123456789_AlphaNumericCharactersFreeOfChoice.xml
The company number mentioned above (BE0123456789) is the company number of the issuer.
It is recommended to use the item number of the test case in the XML file naming when transmitting sample files for testing purposes. (see Testing procedures)

3.2.8   Validations

There are no extra validations.

3.3   Sample files

Sample files can be requested at sabine@forumforthefuture.be. Download from the website will be available soon.

3.4   Testing procedures

Anyone who wishes to test their sample XML files can submit these files by mail to sabine@forumforthefuture.be who will distribute these files to the e-fff Community. It is recommended to submit as many different types available (invoices with or without detail lines, credit notes, different tax types, currency, discounts etc..). Test cases are available in which specific situations are being listed. These test cases were set up for easy and transparent comparison. It is recommended to use the amounts and situations from the cases to submit sample files.
After validation of the e-fff Community, the submitter gains compatibility and will be mentioned on the e-fff website.

4   XML schemes

The references to the XML schemes will be made available at www.e-fff.be

5   Versioning

Draft version 1.00

6   Annexes

6.1   Annex 1: UBL Fields & comments