FINVOICE 3.0 IMPLEMENTATION GUIDELINES

Version 2.5

5 March 2025

FINANCE FINLAND

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FINVOICE IMPLEMENTATION GUIDELINES

Version history

June 2018	Version 1.0
30 Sep 2020	Version 2.0: Updated to match current schema and data elements. Section 10.4 "Grounds for Invoices Exempt from VAT" amended. English version updated to include all previous updates to the Finnish version.
1 Dec 2020	Version 2.1. 10.5 Inserted explanations to INV05 and INV08. 10.5 Inserted guidelines on how to mark secure invoices.
17 Dec 2020	9.4 Reverted percentage decimal limit back to max three. 10.7 Refined the use case of Cancel code due to some banks supporting its use also to consumer invoices.
19 Dec 2023	Corrected character set from examples saying it should be UTF-8 instead of ISO-8859-15.
25 Sep 2024	Corrected namespace and schemalocation URLs in FinvoiceAck examples. 10.4 Fixed the link to CEF page.
5 Mar 2025	10.5 Changed the explanation of INV05 to be in line with the current legislation allowing to send the collect notes by electronic means.

1   Finvoice electronic invoice

The Finvoice message can be used for invoicing and for other business messages, such as quotations, orders, order confirmations, price lists, etc. Due to easy adoption, it is suitable for invoicing between companies of all sizes and for consumer invoicing.

Finvoice is defined using XML syntax. XML enables the invoice to be represented both in a form understood by the application and, using a browser, in a form corresponding to a paper invoice. The browser representation of an invoice may be printed as a hard copy and processed in the traditional way.

The first version of the Finvoice message was released in 2003. Finvoice versions are backwards compatible. Maximum data element lengths are specified as of version 1.2.

Version 2.0 was released in 2012. Its main changes relate to the introduction of direct payment and to the transfer of attachments in the forwarding service.

Version 3.0 accommodates the EU E-invoicing Directive 2014/55. The Finnish Standards Association SFS has created a semantic model for e-invoices that conforms to the directive. National formats must adhere to the definitions of the SFS model if they are to be used in public administration. The model is available at the SFS webstore. The Finvoice standard has been updated to comply with the SFS model.

A comparison document of Finvoice 3.0 and TEAPPSXML 3.0 is available at finvoice.info (http://www.finanssiala.fi/finvoice/dokumentit/Finvoice_TEAPPSXML_mapping.pdf). Additional implementation guidelines for invoices sent to the public administration have also been published.

The finvoice.info website also provides specific invoicing guidelines for different industries and a guide on using Finvoice messages as e-receipts.

2   General description of the Finvoice forwarding service

The Finvoice electronic invoice implementation guidelines and the DTD, XSD, and XSL files required for formal verification of the invoices are freely available on the Finance Finland website at finvoice.info.

The terms used in these implementation guidelines are defined in the document "Description and Terms and Conditions of the Finvoice Forwarding Service".

All Finvoice messages must adhere to the Finvoice schema. The software provider is responsible for ensuring that the software produces valid e-invoices. The schema has been used since version 1.3. The invoice must have a reference to the XSD.

Version 1.3:   <Finvoice Version="1.3"
          xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xsi:noNamespaceSchemaLocation="Finvoice.xsd">

Version 2.0:   <Finvoice Version="2.0"
          xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xsi:noNamespaceSchemaLocation="Finvoice.xsd">

Version 2.01: <Finvoice Version="2.01"
          xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xsi:noNamespaceSchemaLocation="Finvoice2.01.xsd">

Version 3.0:   <Finvoice Version="3.0"
          xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xsi:noNamespaceSchemaLocation="Finvoice3.0.xsd">

Material that does not comply with the scheme will be rejected.

Finvoice and e-invoice are trademarks registered by Finance Finland (FFI) that can be used only when the forwarding service complies with the valid Finvoice forwarding service description and terms and conditions for all parts. E-invoice refers to Finvoice invoices for consumers. FFI owns the copyright to the descriptions and terms and conditions of the Finvoice forwarding service.

The use of the Finvoice forwarding service requires that both the Sender and the Receiver have signed an agreement on the Finvoice forwarding service with their service provider. Consumers agree with their service provider on the reception of e-invoices to the online bank or payment service.

The seller will generate an invoice corresponding to the description together with transmission frames and send it to the buyer via its service provider.

The buyer transfers the invoice information to its own systems or views the invoice in a browser. The invoice may be printed and processed in the traditional way.

Another customer that uses the Finvoice forwarding service can be identified on the basis of the service provider code related to the address. In this case, this code is the service provider's own BIC code. Both parties have signed an agreement on the Finvoice forwarding service with their service provider and agreed on the same service terms and conditions.

3   New data elements in Finvoice version 3.0

In version 3.0, new or revised data elements are marked in yellow in the Finvoice 3.0 data list. Most of the changes are based on the requirements of the SFS semantic model of an electronic invoice (SFS-EN16931-1). These are added as optional elements. The Finvoice 3.0 implementation guidelines are general principles, and the descriptions of specific data elements must be checked on the data list.

The SFS-EN16931-1 standard is made to match the requirements of the EU Directive 2014/55/EU. The standard is available at the Finnish Standards Association webstore. It should be noted that SFS-EN 16931-1:2017 also contains the following attachments mentioned in the Directive.

- CEN/TS 16931-2:2017:en Electronic invoicing. Part 2: List of syntaxes that comply with EN 16931-1
- CEN/TS 16931-3-1:2017:en Electronic invoicing. Part 3-1: Methodology for syntax bindings of the core elements of an electronic invoice
  - FprCEN/TS 16931-3-2 Electronic invoicing - Part 3-2: Syntax binding for ISO/IEC 19845 (UBL 2.1) invoice and credit note
  - FprCEN/TS 16931-3-3 Electronic invoicing - Part 3-3: Syntax binding for UN/CEFACT XML Industry Invoice D16B
  - FprCEN/TS 16931-3-4 Electronic invoicing - Part 3-4: Syntax binding for UN/EDIFACT INVOIC D16B
  - ISO 15000-5:2014 Electronic Business Extensible Markup Language (ebXML) -- Part 5: Core Components Specification (CCS)
- CEN/TR 16931-4:2017:en Electronic invoicing. Part 4: Guidelines on interoperability of electronic invoices at the transmission level
- CEN/TR 16931-5:2017:en 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

The Finvoice data list includes correspondence with SFS-EN 16931-1 Business Term (BT) definitions.

Requirements of public administration to the Finvoice 3.0 description are available on the website of the Finnish State Treasury (http://www.valtiokonttori.fi/).

4   Consumer's e-invoice

A consumer e-invoice is a Finvoice e-invoice that consumers receive in their online bank or web payment service.

The Sender informs customers, using an online bank or web payment service, of the Sender's invoicer information by means of a FinvoiceSenderInfo message. On the basis of the message, the service provider makes the information available for the Customer in the online bank or web payment service. The customer's address information will be forwarded to the Sender by means of a FinvoiceReceiverInfo message.

The message description of the notification service (FinvoiceSenderInfo, FinvoiceReceiverInfo and ReceiverProposal), technical files, and the consumer communication material related to the consumer e-invoice are freely available on the FFI website at www.finvoice.info.

5 Direct payment
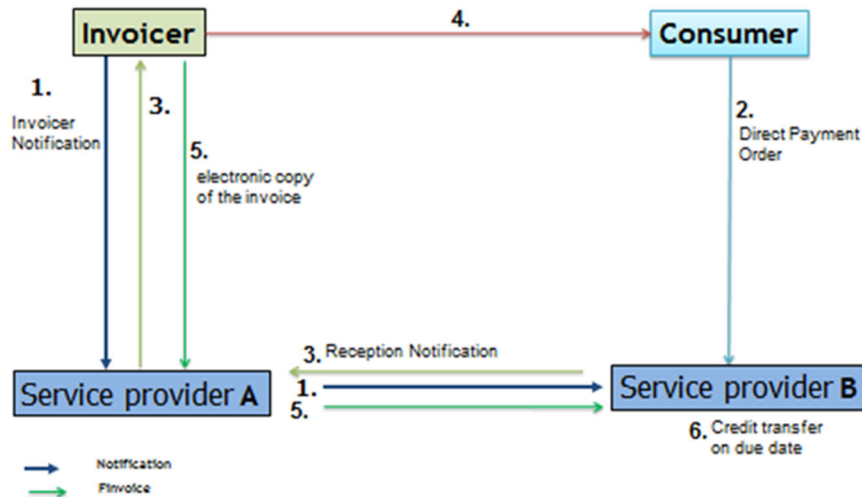
1. Invoicer sends an Invoicer Notification, which states that the Invoicer provides e-invoice and direct payment as invoicing formats.
2. Consumer customer makes a direct payment order with their service provider, who then forms a Reception Notification to the Invoicer on the basis of the direct payment order.
3. The Reception Notification is forwarded to the Invoicer, and contains the information that the customer wants to use direct payment.
4. The Invoicer sends the invoice to the consumer customer in the agreed manner.
5. The Invoicer sends an electronic copy of the invoice in the Finvoice format.
6. The payer's service provider effects the credit transfer on the basis of the invoice copy and payment order on the due date.

Direct payment is aimed for consumer customers who cannot receive consumer's e-invoices in their online bank or web payment service. In direct payment, the Sender delivers the original invoice to the Customer, and then an electronic copy of the invoice to its service provider in Finvoice format.

It is recommended that the Sender uses Finance Finland's direct payment credit transfer template for the original invoice.

The Sender shall send the invoice to the Customer concurrently with sending the electronic copy to be forwarded by the service provider. The invoice shall mention that it has been delivered to the direct payment service for processing. If an invoice contains several payments with different due dates, a separate copy of each invoice shall be sent to the payer's service provider. Only the first invoice's copy is sent concurrently with the invoice. Invoice copies with later due dates must, however, be delivered to the payer's service provider well in advance of their respective due dates.

On the basis of the Customer's payment order, the service provider will execute the credit transfer on the Customer's behalf using the information on the invoice copy.

A consumer customer can use the direct payment service if the invoicer and the customer's service provider both provide the service.

The Sender uses the FinvoiceSenderInfo message to notify service providers that it supports the direct payment service. The customer's address information and notification of the use of direct payment are disclosed to the Sender with the FinvoiceReceiverInfo message.

6   Using a Material Handler in the Finvoice forwarding service

A material handler can be, for example, a service company, accounting firm or e-invoice operator. In the Finvoice forwarding service, the service provider always identifies the original Sender and Receiver.
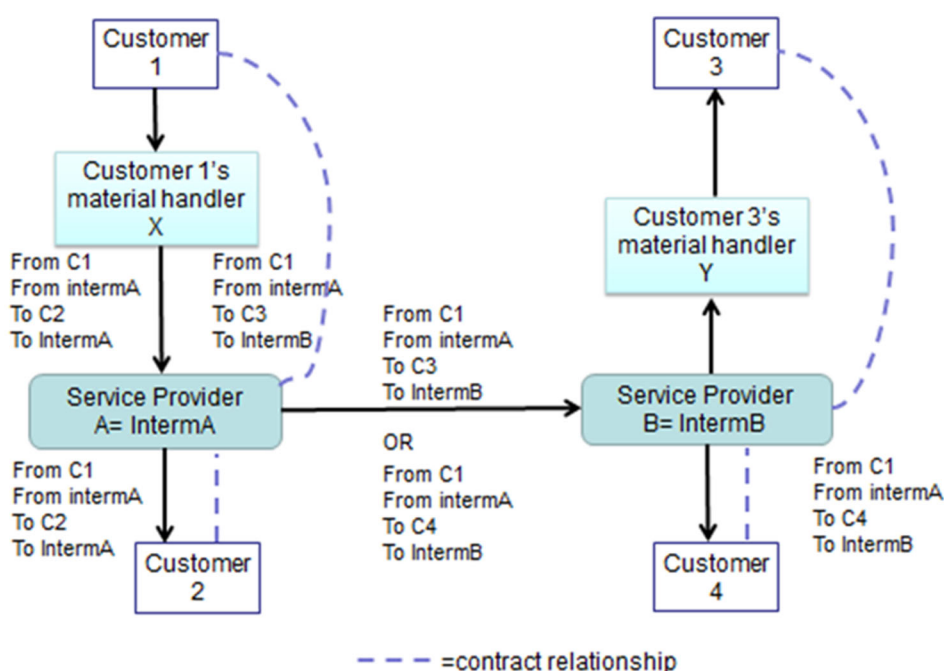
7   Descriptions related to the Finvoice forwarding service

The Implementation Guidelines include:

- a description of the electronic invoice structure and data contents covering all invoicing needs, in excel format;
- style sheet (CSS) and an XSL description enabling the invoice to be represented in a browser and printed on paper;
- an XSD description (Schema) that is used in generating a Finvoice message. XSD specifies the message format.
- examples of an extensive and concise e-invoice;
- the ebXML transmission frame structure (SOAP) that enables the invoice to be forwarded directly from the seller to the buyer or via a third party;

- free archiving software available on the FFI website at finvoice.info; this software can be used to disassemble the invoice frame so that invoices can be managed in their own directory;
- the description and terms and conditions of the Finvoice forwarding service that describe the operation of the banks' services, agreement practices, and the terms and conditions of the service for the Sender and the Receiver;
- for consumer invoicing, the finvoice.info site includes implementation guidelines for the notification service and software for creating invoicer notifications.

Sector-specific implementation guidelines can be prepared for various sectors. Sector-specific implementation guidelines may not conflict with this Finvoice implementation guideline. Sector-specific guidelines can be published on the FFI website at finvoice.info.

The Finvoice electronic invoice implementation guidelines and the DTD, XSD, and XSL files required for formal verification of the invoices are freely available at finvoice.info. A Finvoice invoice must include a reference to the style sheet used. This ensures that the invoice recipient sees the invoice information and may save the invoice on their own data medium as necessary.

8   Testing

The generation of an invoice message is always made using a schema file. The service providers in the Finvoice forwarding service can provide the opportunity to test the sending and reception of Finvoice messages in their services.

9   Finvoice message basic structure and recommendations for use

9.1   Message transmission frame

The transmission frame enables the invoice to be routed from the invoicer to the recipient. The transmission frame is specified in more detail in section "Frame Description" of the implementation guidelines.

9.2   Message structure

At the bare minimum, the message must contain the following obligatory data:

- seller's details
- buyer's details
- invoice details
- invoice row details
- information provided by the seller for a payment order (ePI)

The minimum and maximum lengths of elements are defined in a separate data list.

It is recommended to omit optional elements that contain no data.

Each element in the invoice file always starts with a start tag "<" and ends with an end tag ">". Each row must begin with the "<" character and end with the ">" character. The same applies to transmission frames.

Each row may contain only one element. No spaces are allowed adjacent to the start and end tags (not even to e.g. make the element 35 characters long).

Example:
`<SellerOrganisationName>Pullin Musiikki Oy</SellerOrganisationName>`

If indentations are used in the invoice materials, the only character allowed for indentation is a blank character (space). Tab characters are not allowed.

The Finvoice invoice messages must adhere to the requirements defined by the Finnish Tax Administration in their VAT invoicing guide A214/200/2016.

9.3   Character set used in Finvoice messages

The ISO 8859-15 character set is used in Finvoice messages. In the Finvoice e-invoice, some predefined entities must be used according to the XML standard instead of special characters. The entities are as follows:

Char	Entity
&	&
<	<
>	>
"	"
'	'

For example, the company name *Buy & Sell Ltd*. is written out as follows: `Buy & Sell Ltd`.

9.4   Notification of numerical values using a Finvoice message

The following definitions of decimal positions are used for different types of numeric elements:

- In EPI data, money values should always be entered with two decimal positions so that a payment proposal can be generated from the e-invoice in the online bank.
- Amounts: if decimals are used, the numerical value may contain 2 to 5 decimals.
- Percentages are entered with 1 to 3 decimal positions.
- Currency exchange rates are entered with 6 decimal positions.

A comma (,) is always used as the decimal character. Note also that there are no leading zeros in numeric elements.

The integer part of the Amount must contain at least one digit. A decimal comma is mandatory and is included in the maximum length.

10 Recommendations for the use of Finvoice messages

The data content of Finvoice messages has been defined so that the message may be used in as many situations as possible. For this reason, many data items exist at both the general level and the row level. Even though the objective is that the message can be automatically processed in the recipient's systems, the data content is defined so that the data required for manual processing (such as addresses, contact persons, and footer information) is also available.

10.1   Use at the general level (invoice level) and row level

The message contains, for example, a DeliveryDetails element at the invoice level and the same information for each row. For example, an invoicing period may be represented at the invoice level in the StartDate and EndDate elements of DeliveryDetails, and the invoice rows may contain information related to the invoice in a Freetext element, or the invoicing period can be presented on a row-specific basis.

Row-specific invoice processing is recommended.

10.2   Using a Subtotal on the Rows

SubRow can be used for calculating row summaries, such as subtotals. The subtotal can be used to group the invoice rows by departments, product groups or orders, for example.

10.3   Using Posting Proposals and Automating Posting

The posting of an electronic invoice refers to a ready-made posting proposal on the e-invoice intended for the buyer's financial accounting. The buyer can use the posting proposal to prepare its own accounting records.

Posting proposals are not mandatory for Finvoice messages, but the seller and buyer can agree on the use of posting data. The use of posting data also enables the automation of the buyer's accounting with regard to purchase transactions.

The objective of e-invoice posting proposals is to enable a simple and functional model for the automatic posting of purchase invoices and payment transactions. The accounting of a particular company may require different or more versatile entry procedures, which can be facilitated by constructing company-specific customised entry procedures by means of the data obtained from e-invoices. These modifications must be performed in the buyer's accounting, as they would otherwise make the posting management for electronic invoices too complex.

Finvoice allows the use of posting proposals specific to the invoice as well as proposals specific to the row. A row-specific posting proposal allows the same invoice to contain invoicing related to both expenses and trade in goods.

To implement posting, the seller must know when creating the invoice whether the goods are bought for resale or use by the buyer. This information should be added to the buyer's basic information.

A posting proposal can be created in accordance with the basic list of accounts, in which case data is forwarded at the invoice level in the ShortProposedAccountIdentifier and NormalProposedAccountIdentifier elements. A posting proposal that is not based on the

basic list of accounts – for example a reporting code – is placed in the Dimension or ProposedAccountText element.

A posting proposal can also be created at the invoice row level, in which case the RowShortProposedAccountIdentifier and RowNormalProposedAccountIdentifier elements are used. RowAccountDimensionText and RowProposedAccountText are intended for forwarding mutually agreed posting and cost centre information.

Sellers can add their own posting data to the SellerAccountText element of the invoice. This data is intended for the seller's own accounting. If the seller delivers an invoice copy to the accounting firm, for example, postings related to the invoice can be completed in the seller's system or when an invoice is created.

10.4   Grounds for Invoices Exempt from VAT

The grounds for tax exemption shall be indicated in the VatFreeText or RowFreeText element and VatCode value. The VatCode value will be visualised with style sheet. If the invoice sender or the invoice subject causes a different tax treatment, the tax information can be coded in the invoice or invoice row level. Tax codes are agreed in cooperation with the tax authorities.

The semantic model recommends the use of UN/CEFACT code list 5305, D.16B, for example:

VAT code	Finnish	English	Swedish
AE	Käännetty ALV	VAT Reverse Charge	Omvänd Moms
S	Normaali veroprosentti	Standard rate	Normal skatteprocent

The element VatExemptionReasonCode contains values specified in the VAT Exemption Reason Code List EN16931 published by CEF. The list is updated frequently, and is available at Digital Homepage (europa.eu).

10.5   Invoice Type Codes and Texts

Invoice Type Code	InvoiceTypeText	Description
REQ01	REQUEST FOR QUOTATION	Request for Quotation
QUO01	QUOTATION	Quotation
ORD01	ORDER	Order
ORC01	ORDER CONFIRMATION	Order Confirmation
DEV01	DELIVERY NOTE	e.g. a dispatch note
INV01	INVOICE	Commercial Invoice, e-invoice

INV02	CREDIT NOTE	Credit Note or Cancellation Invoice. Always a negative total sum
INV03	INTEREST NOTE	Interest note refers to an invoice that is used to charge interest only. See RowOverduePaymentDetails.
INV04	INTERNAL INVOICE	
INV05	COLLECT NOTE	The invoice must be delivered as a letter unless the legal requirements for electronic delivery are met.
INV06	PRO FORMA INVOICE	
INV07	SELFBILLING	
INV08	REMINDER INVOICE	This can be delivered to the consumer's online bank or web payment service. Dues date needs to be according to the legislature. Also take into account the delivery time of the invoice.
INV09	DIRECT PAYMENT	Electronic invoice copy of direct payment delivered to Service Provider.
TES01	TEST INVOICE	Test Invoice
PRI01	PRICE LIST	Price List
INF01	INFORMATION	This can be the minimum data of the invoice. Message is written on the rows of the RowFreeText element.
DEN01	DELIVERY ERROR NOTIFICATION	Delivery error notification
SEI01-09	SECURE INVOICE	An invoice that requires special handling. The use of a secure invoice must be agreed upon separately with the Service Provider.
REC01-09 ready to transmit 11/2019	RECEIPT	REC01=Receipt and REC02=Refund receipt REC03=Warranty receipt REC04-09 handled similarly to REC01 Only receipts between corporations
RES01-09	SECURE RECEIPT	REC01=Receipt and REC02=Refund receipt REC03=Warranty receipt REC04-09 handled similarly to REC01 Only receipts between corporations
SDD01	Direct debit preliminary notification	

InvoiceTypeCode and InvoiceTypeText may be sector-specific, in which case the sector of business is responsible for publishing and maintaining the values to be used.

The total message amount consists of invoice rows, which can be positive or negative. The total message amount of a Finvoice message with code INV01 can be positive or negative.

Credit note is sent with code INV02. The details of the credit note are displayed in the online bank and web payment service for the recipient's information. Sending a credit note

does not create a credit transaction on the recipient's account. The Sender must therefore separately agree on crediting with the recipient, if it is needed.

If the invoice needs to have a classification, i.e. InvoiceTypeCode is set to SEI01 or SEI02, the invoice must also have InvoiceClassification/ClassificationCode data. If the recipient and sender have not agreed otherwise, the ClassificationCode value may be the same as InvoiceTypeCode.

10.6   Using OriginalInvoiceNumber in credit notes, reminder notes, and interest notes

The element specifies the identifier of the original invoice. If credit notes or interest invoices are associated with several different invoices, the identification information for the original invoices shall be specified at the row level in the OriginalInvoiceNumber element.

If more than one invoice needs to be communicated, previous invoices can be described in the OriginalInvoiceReference structure.

10.7   Using OriginCode and cancelling invoice message in consumer invoicing

Permitted values in the OriginCode element of a Finvoice message are Original and Copy. The Cancel code may also be used in the credit note message (INV02), but only with direct payments or if the bank supports its use for canceling consumer invoices. The Cancel code cannot be used to B2B invoices.

Service providers carry out the cancellation for direct payment customers. For e-invoice customers, cancellation depends on the service provider. If the Finvoice invoice cannot be matched with the credit note, or the service provider does not support the cancellation function, the credit note is displayed for information in the online bank or web payment service.

The Cancel code can be used when the Sender of the invoice wants to notify the recipient that the original invoice is fully redundant. Electronic copy of the direct payment cancellation is sent to the service provider using code INV02 together with CancelOriginCode. The Sender shall also notify the recipient of the direct payment about the cancellation.
The service provider can delete a payment order from its service on the basis of a credit note that has the cancellation code (cancellation invoice), if the payment order has not been executed and the cancellation message can be matched.

The invoicer sends the service provider a cancellation invoice and, if necessary, a revised Finvoice invoice. The invoicer also sends a revised invoice to the direct payment customer(s). If the invoice has already been paid, the invoicer refunds the extra transaction or reimburses it in the next invoice either in accordance with the agreement between the invoicer and payer, or in accordance with the practices of the invoicer's sector.

10.8   Cancellation invoice details in Finvoice message

Invoice Type Code
```
<OriginCode>Cancel</OriginCode>
```

With credit note code
```
<InvoiceTypeCode
CodeListAgencyIdentifier="SPY">INV02</InvoiceTypeCode>
```

Total euro amount of the original invoice as negative. Partial cancellations cannot be made.
`<EpiInstructedAmount></EpiInstructedAmount>`

Invoice type
`<InvoiceTypeText>CANCELLATION INVOICE</InvoiceTypeText>`

Information to the recipient of invoice
`<InvoiceFreeText>INVOICE CANCELLED BY INVOICER</InvoiceFreeText>`

The details of the cancellation invoice must be identical with the previously sent electronic invoice copy of the direct payment, so that the service provider can cancel the payment proposal that was based on the direct payment order. The following information must be identical:

- Due date (EpiDateOptionDate)
- Invoicer's credit account (EpiAccountID)
- Reference (EpiRemittanceInfoIdentifier)
- Amount as negative (EpiInstructedAmount)
- Reason for invoicing (EpiPaymentInstructionId)
- Receiving address and Intermediator ID of the e-invoice recipient

Sender of the invoice shall send the e-invoice cancellation using the same address and FromIdentifier as they used when the e-invoice was sent.

If the direct payment cancellation request cannot be matched with the payment order, the service provider can send an ACK message with code 6 and the description "Cancellation could not be allocated."

The invoicer may not initiate recovery proceedings on an invoice that it has cancelled. The cancellation message shall be at the consumer customer's service at least one banking day prior to the due date; a cancellation message received later than this cannot be matched with the payment order. If the invoicer uses a single service provider in the forwarding of Finvoice material, the cancellation data must be sent to the invoicer's service provider at least 4 banking days prior to the due date.

10.9   PaymentTermsDetails

If the invoice includes a conditional discount such as a cash discount, the tax authorities' guidelines specify that the amounts payable on different due dates, or at least the value of such a conditional discount including tax, must be pre-calculated. The amount of the discount including tax is specified in the CashDiscountAmount element. The VAT amounts, amounts excluding VAT, and the amount of VAT related to the discount are specified in the corresponding elements.

11 SubInvoiceRow

The SubInvoiceRow aggregate is intended for **presenting summary rows generated from invoice rows**. No summary invoices are generated from invoices transmitted as Finvoice messages. SubInvoiceRow can be used to facilitate the invoice review process in connection with invoice visualisation.

The SubRowAmount element holds the total of the preceding RowAmount elements. In the message layout (XSL), the rows are printed in bold.

The information in the InvoiceRow aggregate is used for calculating the total amounts and VAT summaries for the invoices. The information in the SubRow elements is not used for calculating the invoice total, because this might cause rounding errors and does not support automatic processing.

SubInvoiceRow is a sub-aggregate of InvoiceRow. In this case, InvoiceRow only includes SubInvoiceRow.

The simplest way to use SubInvoiceRow is to enter text describing the summary in the SubArticleName element and the total number of the preceding rows in SubRowAmount.

SubInvoiceRow can be used to provide a reference for matching the SubInvoiceRow with designated InvoiceRow aggregates.

There can be more than one subtotal row per invoice row.

The invoice cannot contain SubInvoiceRows only because the calculation of the invoice total, for example, is based on InvoiceRow.

The RowQuotationIdentifier element can be used to provide a reference to a quotation.

12 SpecificationDetails

Sector-specific specification details may be presented inside this aggregate, for example, the specification details of an electricity invoice or a telephone invoice.

Specification details should be visualised using a fixed-width such as Courier. Each row may only contain 80 characters. When automatic word wrap is enabled, the use of Enter/Return for line breaks is not allowed.

The specifications can be presented in a formatted way in the SpecificationFreeText element, which allows the information to be presented to the payer using the standard XSL of Finance Finland.

Example:

```
<SpecificationDetails>
<SpecificationFreeText>INVOICE DETAILED STATEMENT:    </SpecificationFreeText>
<SpecificationFreeText>Column 1    Column 2    Column 3</SpecificationFreeText>
<SpecificationFreeText>-------------------------------</SpecificationFreeText>
<SpecificationFreeText>1.Column    2.Column      10,00</SpecificationFreeText>
<SpecificationFreeText>2. row      2. row      1 00,00</SpecificationFreeText>
<SpecificationFreeText>3. row      3/2            1,00</SpecificationFreeText>
</SpecificationDetails>
```

13 ePIDetails

The EPI contains the data, provided by the payer, necessary for creating the payment order to be delivered to the bank. The EPI is designed for transferring both national and

international payment orders. The EPI enables automatic processing from payer to recipient via service providers.

The EpiInstructedAmount element indicates the amount that the Sender has specified to be paid. The attribute must be EUR on consumers' e-invoices and on electronic copies of direct payment invoices.

In Finland, the EpiRemittanceInfoIdentifier element always contains a reference number compliant with the banking standard. The attribute "SPY" indicates the reference number standard of Finance Finland. For international references the attribute is "ISO". So that the payment proposal/order can be created accurately, the reference is always required with consumer's e-invoices and invoice copies of direct payments.

The EpiAccountID element contains the payee's account number in IBAN format. The account number shall be specified in electronic format in accordance with instructions issued by each country; in Finland, for example, the IBAN consists of 18 characters. With IBAN- account number you should have banks BIC code in the EpiBfiIdentifier element as well.

The EPI is described in the ECBS standard number EBS 602. Some of the data elements specified as mandatory in the standard are not used in Finland.

The EpiPaymentInstructionId element must contain the same information as the PaymentInstructionIdentifier element of the SenderInfo message and the ReceiverInfo message created by the consumer. The information is obligatory in consumer e-invoices in order to enable the making of automatic payments in an online bank. If the data item is missing or does not correspond with the notification message, the service provider will reject the Finvoice message.

The EpiNameAddressDetails element is mandatory because the recipient's name is necessary for creating the payment.

14 Invoice Calculation Rules

Depending on the Sender's invoicing method, the total amount of the invoice is calculated based on either the delivered, ordered, or confirmed quantity.

The total amount can be calculated according to previous Finvoice versions if invoice-level discounts or charges are not included and therefore do not exist as separate rows.

InvoiceTotalVatIncludedAmount
InvoiceTotalVatIncludedAmount is calculated by adding up the tax-exempt invoice total (InvoiceTotalVatExcludedAmount) and the total amount of taxes of the invoice (InvoiceTotalVatAmount). InvoiceTotalVatIncludedAmount must contain the total invoice amount, even if the invoice does not have VAT information.

InvoiceTotalVatExcludedAmount
InvoiceTotalVatExcludedAmount is calculated by adding up the tax-exempt net sums from the invoice rows (RowVatExcludedAmount).

InvoiceTotalVatAmount
InvoiceTotalVatAmount is calculated by adding up the tax-rate-specific tax amounts from the invoice's tax breakdown (VatRateAmount).

InvoiceVatSpecificationDetails aggregate information
VAT amounts must comply to the instructions of the Finnish Tax Administration.

VatBaseAmount
The total of RowVatExcludedAmount elements by VAT class.

VatRateAmount
The total of RowVatAmount elements by VAT class. The total amount must be calculated starting from the row level, otherwise the VAT amount will not match the row-level information.

VatSpecificationDetails
VatSpecificationDetails can be repeated according to tax rates and currencies. In accordance with the guidelines by the taxation authority, taxes must be presented at least in euro in domestic invoices in Finland. The total amount is not obligatory in VatSpecificationDetails with VAT-exempt invoices (see the Finnish Tax Administration's instructions for further information).

Invoice tax breakdown / tax-rate-specific total tax amount
Tax-rate-specific total amount of taxes is primarily calculated by adding up the tax amounts of invoice rows (RowVatAmount) or, as a secondary option, by adding up the given tax amounts of invoice rows (RowVatExcludedAmount * RowVatRatePercent).

EpiInstructedAmount
The amount specified by the Sender as the amount to be paid.

Example of the calculation formula when invoice-level discount and charge elements are used. Examples are available in the SFS EN16931 standard.

	example	Finvoice element	EN 16931
+ Rows total excluding VAT	433,00	RowsTotalVatExcludedAmount	BT-106
- Discounts excluding VAT	15,00	DiscountsTotalVatExcludedAmount	BT-107
+ Total charges (invoice level)	35,00	ChargesTotalVatExcludedAmount	BT-108
= Invoice total excluding VAT	453,00	InvoiceTotalVatExcludedAmount	BT-109
+ Invoice total VAT	72,65	InvoiceTotalVatAmount	BT-110
= Invoice total including VAT	525,65	InvoiceTotalVatIncludedAmount	BT-112
- Previously paid	0,00	InvoicePaidAmount	BT-113
= Instructed amount	525,65	EpiInstructedAmount	BT-115

15 Use of links in Finvoice e-invoices

The message can contain a link e.g. to the invoicer's website.
Invoice messages can also include the service provider's link to a display or transaction service, which can then display e.g. an image of the invoice, promotional material or the invoice's attachments.

After the invoice has arrived at the online bank or web payment service, clicking on the link in the invoice will open an intermediate page which notifies the payer that by continuing

he/she will be redirected outside of the service provider's service. The payer is only redirected after his/her confirmation. The linked page opens in a separate window, and the user cannot return to the service provider's service from it.

If the service behind the link contains anything more confidential than generic marketing material aimed at all customers, the Sender of the invoice must use a link created using the service provider's online bank link technology. The Sender shall see to it that all customer-specific information displayed with the link are sufficiently encrypted and secure.

The Sender is responsible for the links, their functioning, and the contents of its service, as well as for ensuring that using the links will not endanger the data protection of the bank, the customer or a third party. The service provider is entitled to prevent the use of links if they threaten transaction security.

15.1   Link created by the Sender

A Finvoice invoice includes several data elements, in which the Sender may insert a link. The link can lead e.g. to the Sender's public website. When a Finvoice standard-compliant style sheet is applied to visualise the invoice, the link is displayed as a clickable hyperlink. The full link is placed in an url address element (e.g. InvoiceUrlText), and the corresponding url text is placed in the appropriate header element (e.g. InvoiceUrlNameText for InvoiceUrlText).

The Sender is responsible for the correctness and contents of the link.
A link created by the Sender may only be used to display generic communications and marketing material. Confidential information such as plain text social security number, card number, payer-customer's account number, or any other similar sensitive information may not be transmitted in the link data.

15.2   Link created by the service provider

The link created by the service provider is used to improve the security of the information displayed behind the link and/or to display personalised information. The service provider creates the payer's link from the online bank or web payment service to the Sender's server or to the server of the display archive used by the Sender. The link can be used to direct the consumer to the Sender's transacting service.

The link created by the service provider is not intended for use with electronic invoices received in the online banks or web payment services of companies.

The link is created using online bank link technology. Its technical description is available on the Finance Finland website.

The Sender, the transacting service and/or the company maintaining the display archive must agree on the use of the service with the service provider before starting the use of the service.

The Sender first enters the display archive identifier or transacting service identifier (business ID without hyphen; 8 characters) as agreed with the service provider, and after that enters the identifier which identifies the invoice attachments in the display archive (max 60 characters). Both data items are entered in the same element and separated with a "+" character. Maximum length of the element is 69 characters. All service providers must use the same identifiers.

Example:
```
<InvoiceUrlText>12345678+102030FK40506070809101112131415 6</InvoiceUrlText>
```

The Sender or the party maintaining the Sender's display archive is responsible for constructing the functionalities that are necessary for interpreting the online bank links in its own service. Based on the information in the link, the Sender and/or the company maintaining the display or transacting service will deduce who should have access to the document or service behind the link. The service provider includes the relevant information for this together with the link.

While creating the link, the service provider shall verify whether the Sender and/or company maintaining the display archive or transacting service has a valid link contract.

The service provider's link may not be used for forwarding the recipient to a third-party service while authenticated.

If the InvoiceUrlText element includes the display archive identifier and the document archival identifier according to the Finvoice implementation guideline, the Sender's service provider will verify that the Sender has an agreement on link usage. If the agreement is not found, the Sender's service provider will erase the InvoiceUrlText and InvoiceUrlNameText elements before transferring the message to the Receiver's service provider.

If the Sender has an agreement for sending the message but not links, the Finvoice message will be displayed to recipients in the same bank using the Finvoice style sheet. The service provider may not alter other elements of the Finvoice message besides those specified in the Finvoice implementation guidelines.

The Recipient's service provider verifies the validity of the agreement for the display archive while processing received online invoices. If a valid agreement is not found, the invoice is displayed in the online bank or payment service without links.

If the InvoiceUrlText element does not contain a display archive identifier, the display archive identifier is invalid, or the document archival identifier is too long, the service provider will display the Finvoice message using the Finvoice style sheet. In this case, the link cannot be generated by the service provider.

16 Forwarding attachments in Finvoice forwarding service

16.1   General information

Finvoice attachments can be used to further specify the information in the Finvoice invoices sent between companies. Attachments are sent in a separate Finvoice attachment message. They can be used to transfer information that is necessary for verifying the invoice but impossible to include in the invoice message itself. They can be, for example, receipts, consignment notes or work descriptions. The attachments may not be used to promote products or services nor to send an image copy of the invoice.

Service providers shall state the schedule according to which they will support the forwarding of attachments in the Finvoice forwarding service.

Finvoice attachments are binary data that is sent separately from but in connection to a Finvoice invoice. The attachment is described using XML-format metadata.

- Each Finvoice invoice message may only be accompanied by one Finvoice attachment message at most.

- A Finvoice attachment message can contain 1 to 10 Finvoice attachments.

- Finvoice attachments and Finvoice attachment messages may not be reused: an attachment message and the attachment(s) it contains can only be attached to a single Finvoice invoice.

- An invoice message and its attachment message are linked by unique identifiers. The invoice message contains a reference to the attachment message, and the attachment message contains a reference to the invoice message.

16.2   Sending Finvoice attachment messages

The Sender delivers Finvoice attachments to the service provider within a Finvoice attachment message. The invoice and attachment messages are sent consecutively as separate message types.

The service provider performs checks such as virus scans to the sent material before accepting it. There may be differences between service providers in the order, manner and amount of checking measures taken. If issues are found, the service provider sends the sender an acknowledgement message (Finvoice ACK version 2.0).

If the attachment message contains one or more incorrect attachments, the whole attachment message and its invoice message are rejected. Similarly, if the invoice message contains an error which results in rejection, the linked attachment message is also rejected.

16.3   Attachment message structure

The structure of a Finvoice attachment message consists of the transmission details of the message and the details of the attachment. The aggregate information of the message displays the message's version number. An attachment message does not have a message-specific SOAP frame like Finvoice invoices.

16.3.1   Version

The version number of a Finvoice attachment message is specified in the Version attribute of the message. The version number of an attachment message that adheres to these guidelines is 1.0.

16.3.2   MessageTransmissionDetails

MessageTransmissionDetails is used to specify the details of the sender and receiver as well as the message's identification details.

The sender details of an attachment message (MessageSenderDetails) consist of the sender's identifier (FromIdentifier) and the identifier of the sender's monetary institution (FromIntermediator). The receiver details of an attachment message

(MessageReceiverDetails) consist of the receiver's identifier (ToIdentifier) and the identifier of the receiver's monetary institution (ToIntermediator).

The sender and receiver details must be identical to the corresponding information in the SOAP frame of the invoice message.

The identifying information of the message is specified in the MessageDetails element. MessageIdentifier specifies the unique identifier of the attachment message. The attachment message's identifier consists of the invoice identifier (MessageId) and a fixed character string (see section 16.7).

MessageTimeStamp element contains the message's creation time. RefToMessageIdentifier contains the identifier (MessageId) of the invoice message that is linked to the attachment message.

16.3.3 AttachmentDetails

The details of an individual attachment are given in the AttachmentDetails element. There can be several attachments, in which case the AttachmentDetails element is repeated. The maximum number of attachments is ten, and their maximum total size before encoding is 1MB. The number and size limitations of attachments are checked upon reception. The software that creates and/or sends the invoices must control that the maximum size or number of attachments in one message do not exceed the set limits.

An individual attachment's identifier is specified in the AttachmentIdentifier element, which is formed from the attachment message's identifier and the SHA1 checksum calculated from the contents of the attachment.

The actual attachment file is given base64 encoded in the AttachmentContent element. The name of the attachment file (name.fileextension) is specified in the AttachmentName element.

If the sender has flagged the attachment as confidential, this is specified with an SEI code (e.g. SEI01) in the AttachmentSecurityClass element.

The type of the attachment message is specified in the AttachmentMimeType element. Permitted values are image/jpeg, image/png and application/pdf. The service provider checks the validity of the file type upon reception. The only permitted type for PDF documents is PDF/A.

The SHA1 checksum calculated from the base64 encoded contents of the attachment is given in the AttachmentSecureHash element. The checksum can be used to verify that the contents of the attachment file have not changed. It can also be used to identify the attachment. The checksum is used in the attachment identifier.

16.4 Use of message structures

The attachment message must be compatible with XML 1.0 specification. Attachment messages do not have the same restrictions as Finvoice invoices regarding the use of tags, line breaks or line lengths:

- Tag pairs do not need to be on separate lines.
- Line breaks can be used within the limits permitted by XML specification.

Attachment messages must comply with the following requirements:

- Attachment messages must be XML documents that comply with the FinvoiceAttachment schema.
- The character set used in attachment messages is ISO-8859-15.

16.5   Permitted file types

The MIME type of the attachment's binary data and the file extension are checked when the Finvoice attachment is sent. Permitted file types are described below.

MIME type	File extension	Description
image/jpeg	jpg, jpeg	Portable image file format
image/png	png	Portable image file format
application/pdf	pdf	Portable PDF/A document format

MIME type names must be official media types as defined by IANA: http://www.iana.org/assignments/media-types/index.html.

The PDF/A format must be used for PDF documents. Service providers may reject PDF documents that contain video files, scripts or other elements that are potential security risks.

16.6   Attachment checksum

The Finvoice attachment message contains a SHA1 hash value generated from the attachment in Base64 format. The format used in Finvoice attachments is lowercase hex.

For example, the character string "Finvoice" generated as a SHA1 hash:
`8ca2f7a6d8d94cc94da2d0ce9ff13cbdb5341053`

16.7   Attachment references

The use of attachments requires the implementation of attachment references for invoice messages. The reference to an attachment is specified in the AttachmentMessageDetails/AttachmentMessageIdentifier element, which contains the identifier of the attachment message (MessageIdentifier). The attachment message respectively refers to the invoice message in the RefToMessageIdentifier element, which contains the identifier of the invoice message (SOAP/MessageId). This process links the invoice and attachment messages together.

The identifier of the attachment message is formed from the identifier of the invoice by adding two colons "::" and the fixed text "attachments". The attachment message identifier is thus in the form invoice_id::attachments, for example: XS0604.48GPB2212::attachments. The service provider checks the cross-reference between the invoice and attachment message upon reception. The sender and recipient details of invoice and attachment messages must also correspond to each other.

Service providers will reject an attachment message with incomplete or incorrect reference data.

If the invoice or attachment containing the reference is rejected, its counterpart is also rejected.

16.8 Security labels in attachments

Attachments can also have security labels, which allows the Receiver to process them differently from the usual procedure, if necessary. The service provider does not encrypt security labelled attachments or forward them in an encrypted format.

The security label is specified in the attachment's metadata in the AttachmentSecurityClass element.

16.9 Attachment message model

```xml
<?xml version="1.0" encoding="ISO-8859-15" ?>
<FinvoiceAttachments xmlns:xsi=http://www.w3.org/2001/ XMLSchema-instance
xsi:noNamespaceSchemaLocation="FinvoiceAttachments.xsd" Version="1.0">
    <MessageTransmissionDetails>
        <MessageSenderDetails>
            <FromIdentifier>FI4043091020117999</FromIdentifier>
            <FromIntermediator>HELSFIHH</FromIntermediator>
        </MessageSenderDetails>
        <MessageReceiverDetails>
            <ToIdentifier>003702048999</ToIdentifier>
            <ToIntermediator>003714377999</ToIntermediator>
        </MessageReceiverDetails>
        <MessageDetails>
            <MessageIdentifer>XS0604.48GPB2/212::attachments</MessageIdentifier>
            <MessageTimeStamp>2012-06-04T15:54:40+03:00</MessageTimeStamp>
            <RefToMessageIdentifier>XS0604.48GPB2/212</RefToMessageIdentifier>
        </MessageDetails>
    </MessageTransmissionDetails>
    <AttachmentDetails>
        <AttachmentIdentifier>YV1199015::attachments::a0824b7488d56e01cb98c9082ec
320489e  e99e26</AttachmentIdentifier>
        <AttachmentContent>iVBORw0KGgoAAAANSUhEUgAAAAwAAAAMCAYAAAB
WdVznAAAAAXNSR0IArs4c6QAAAPxJRFUKM+FkUGugkAQRF/DSEQWchnjKJyEPXGjIZ5GY7yLF3DlVdTghi
l3RsCfX0kvOtWvq5M2SWIgMwPgh0X03XRdR1EUTKdTkiBe0/Xdf1lwwQzY7FYAHC9Xgkh/J3QNA1mRl3Xb
DYb4jimaZr+TfrSfD7XbDbT/X5X27bK81x5nn+P6AOcz2cBqqrqY+73e00mE51OpzGwXq8F6HK5KISgEIJ
ut5ucc1qtVmPAOSegV2mayszknOsD2+1WgMxsBEVRJEC73U6SZJKUZR
kAz+eTX8qyDDPj8XgQHQ4HXq8X3vvPZ4cfXi6XtG3L8XiEsixlZvpPgIqi0BvI+/Yxt3r4KgAAAABJRU5E
rkJggg==</AttachmentContent>
        <AttachmentName>vokaali.png</AttachmentName>
        <AttachmentSecurityClass>SEI01</AttachmentSecurityClass>
        <AttachmentMimeType>image/png</AttachmentMimeType>

    <AttachmentSecureHash>a0824b7488d56e01cb98c9082ec320489ee99e26</AttachmentSecu
reHash>
    </AttachmentDetails>
</FinvoiceAttachments>
```

17 SOAP frame

The SOAP frame is based on a recommendation by the ebXML project where the message is passed using the SOAP envelope structure. The use of frames in Finvoice transmission deviates from the ebXML 2.0 recommendation with regard to the use of the To and From elements, because the decision was made before the final approval of the ebXML recommendation.

Messages can be sent and received using the same security technology and communication channel used for other message traffic with the party in question. Note! One frame is always associated with exactly one message.

The file sent to the service provider may include several Finvoice messages. Each message must include a transmission frame (SOAP) specifying the sender, recipient and service provider data. The service provider routes the message to its recipient based on the frame data.

The frame structure enables the use of digital signatures when required, if they are implemented in the future.

The frames of Finvoice material can be validated against FFI's SOAP schema.

17.1   SOAP frame structure
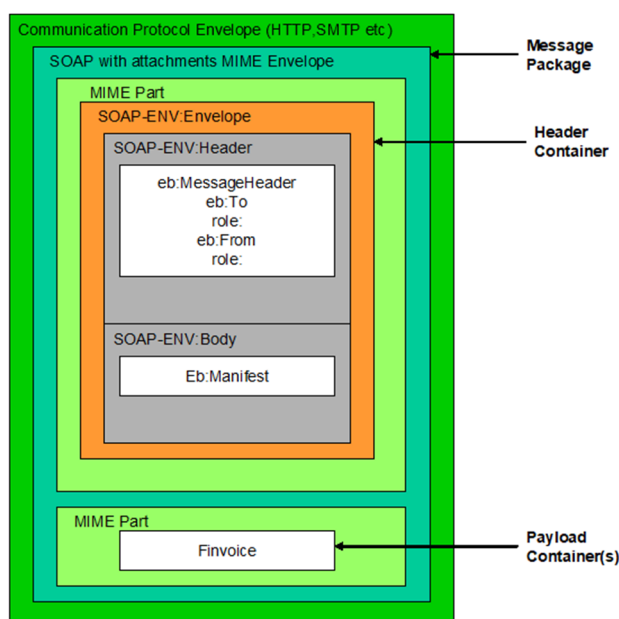
The message structure includes a Mime multipart structure that contains designated parts for SOAP, the ebXML header and Finvoice. The Mime multipart structure is not used when forwarding invoices through service providers. The actual invoice is transmitted outside the frame.

The figure illustrates the message structure. The header part includes the identification data of the Sender(s) and the Receiver. The actual XML message reference is in the SOAP-ENV:Body. The frame is SOAP 1.1 compliant. In SOAP 1.2, the namespace must be: `http://www.w3.org/2001/12/soap-envelope and mustUnderstand="true"`, but no other changes are required.

17.2   SOAP frame example

The file starts at the <SOAP-ENV:.. element.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:eb="http://www.oasis-
open.org/committees/ebxml-msg/schema/msg-header-2_0.xsd">
    <SOAP-ENV:Header>
        <eb:MessageHeader xmlns:eb="http://www.oasis-open.org/committees/ebxml-
msg/schema/msg-header-2_0.xsd" SOAP-ENV:mustUnderstand="1">
            <eb:From>
                    <eb:PartyId>003711630032</eb:PartyId>
                    <eb:Role>Sender</eb:Role>
            </eb:From>
            <eb:From>
                    <eb:PartyId>HELSFIHH</eb:PartyId>
                    <eb:Role>Intermediator</eb:Role>
            </eb:From>
            <eb:To>
                    <eb:PartyId>FI0949931020013511</eb:PartyId>
                    <eb:Role>Receiver</eb:Role>
            </eb:To>
            <eb:To>
                    <eb:PartyId>BANKFIHH</eb:PartyId>
                    <eb:Role>Intermediator</eb:Role>
            </eb:To>
            <eb:CPAId>yoursandmycpa</eb:CPAId>
            <eb:ConversationId></eb:ConversationId>
            <eb:Service>Routing</eb:Service>
            <eb:Action>ProcessInvoice</eb:Action>
            <eb:MessageData>
                    <eb:MessageId>5017</eb:MessageId>
    <eb:Timestamp>2012-2-16T11:34:36</eb:Timestamp>
    <eb:RefToMessageId/>
</eb:MessageData>
        </eb:MessageHeader>
    </SOAP-ENV:Header>
    <SOAP-ENV:Body>
        <eb:Manifest eb:id="Manifest" eb:version="2.0">
            <eb:Reference eb:id="Finvoice" xlink:href="5017">
            <eb:schema eb:location="http://www.finvoice.info/finvoice.xsd"
eb:version="2.0"/>
</eb:Reference>
        </eb:Manifest>
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
<?xml version="1.0" encoding="iso-8859-15"?>
<?xml-stylesheet href="Finvoice.xsl" type="text/xsl"?>
<Finvoice Version="1.3">
```

17.3   Descriptions of parts of the SOAP frame example

The From and To tags are always associated with the eb:Role tag that indicates the role of the Sender/Receiver. In practice, the invoice recipient delivers the recipient's own identifier to the Sender in the Receiver role, and the identifier of any service provider in the Intermediator role. If the invoice is sent directly to the Receiver, the Receiver's service provider is not required or it may be ignored.

Intermediators use the intermediator codes specified in the table in section 17.3.1. Their eb:Role is Intermediator.

```
<eb:From>
<eb:PartyId>003711630032</eb:PartyId>
<eb:Role>Sender</eb:Role>
</eb:From>
<eb:From>
<eb:PartyId>HELSFIHH</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:From>
<eb:To>
<eb:PartyId>FI0949931020013511</eb:PartyId>
<eb:Role>Receiver</eb:Role>
</eb:To>
<eb:To>
<eb:PartyId>BANKFIHH</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:To>
```

The From and To parties can use either identifiers agreed with an Intermediator or mutually agreed identifiers. An identifier can be, for example, EDI, IBAN or a designated identifier issued by the invoice operator or Intermediator. If the customer uses an invoice operator, he/she should agree on the address to be used with his operator.

The data regarding the parties must be specified in the following order:

- Sender
- Intermediator (Sender)
- Receiver
- Intermediator (Receiver)

The identifiers of the various actors affect SOAP routing. SOAP will always go one step at a time towards the destination. eb:From and eb:To identify the original Sender and Receiver, but both parties may have an assistant in the Intermediator role, who will receive the message first and then forward it to the final recipient (see figure in section 17.3.3).

17.3.1   Service providers' intermediator codes in the Finvoice forwarding service

Intermediator code	Name of service provider
AABAFI22	Bank of Åland
DABAFIHH	Danske Bank
DNBAFIHX	DNB
HANDFIHH	Handelsbanken
HELSFIHH	Aktia
ITELFIHH	Savings Banks and Oma Säästöpankki
NDEAFIHH	Nordea Bank
OKOYFIHH	Co-operative banks ja Pohjola Bank
POPFFI22	Bonum Bank and Local Co-operative banks
SBANFIHH	S-Bank

17.3.2 Sender and Receiver information

From	Description
ovt	Finnish EDI identifier, country code + Business ID + specifier 0037+01234567+00000 e.g. 00370123456700000
ly	Business Identity Code (Business ID)
IBAN	Account number in international format (IBAN)
nn….	An identifier agreed between the Service Provider (Intermediator) and the customer

To	Description
ovt	Finnish EDI identifier, country code + Business ID + specifier 0037+01234567+00000 e.g. 00370123456700000
ly	Business Identity Code (Business ID)
IBAN	Account number in international format (IBAN)
nn….	An identifier agreed between the Service Provider (Intermediator) and the customer

17.3.3 Example of using the From and To elements


```
<eb:From>A
    <eb:Role>Sender
<eb:From>X
    <eb:Role>Intermediator
<eb:To>B
    <eb:Role>Receiver
<eb:To>Y
    <eb:Role>Intermediator
```

```
<eb:From>A
    <eb:Role>Sender
<eb:From>X
    <eb:Role>Intermediator
<eb:To>B
    <eb:Role>Receiver
<eb:To>Y
    <eb:Role>Intermediator
```

```
<eb:From>A
    <eb:Role>Sender
<eb:From> X
    <eb:Role>Intermediator
<eb:To>B
    <eb:Role>Receiver
<eb:To>Y
    <eb:Role>Intermediator
```
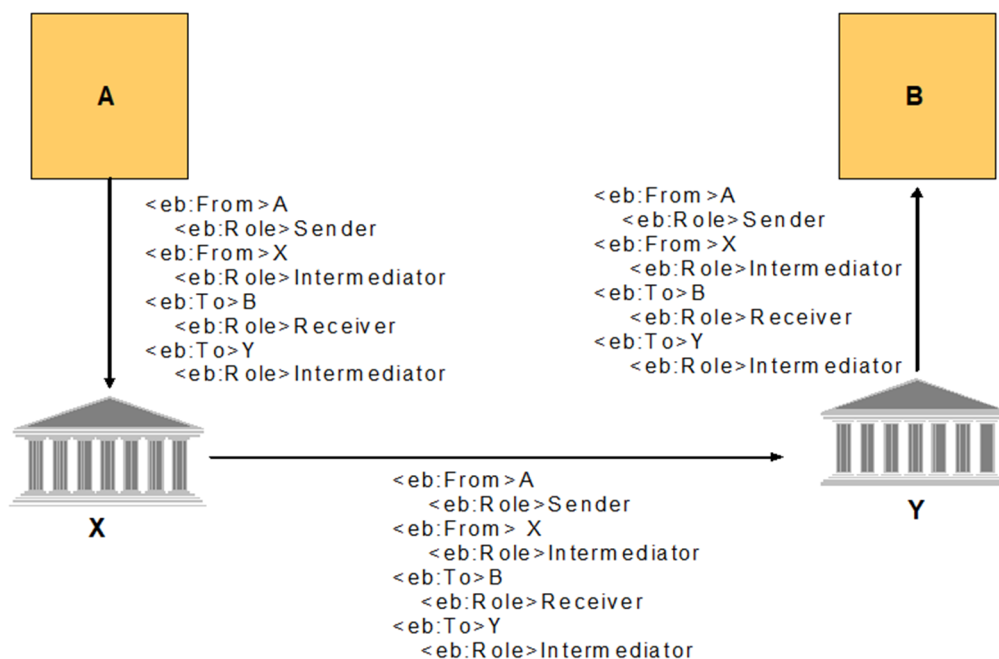
X= Sender's Service Provider
Y= Invoice recipient's Service Provider

```
<eb:CPAId>yoursandmycpa</eb:CPAId>
```

The CPAid is not used in Finvoice forwarding, but is reserved for ebXML-compliant registration services in the future. The value shall be the constant "yoursandmycpa".

ConversationId is not used when sending or receiving through the service providers. ConversationId is a technical identifier uniquely identifying the sent message, used in communication between machines.

Service and Action are intended to be used by each Receiver for their own purposes and may mean different things to different Receivers. Identification data associated with the message (time stamp and identifier) is specified in MessageData. The MessageId is a unique identifier of the invoice that can be used for directing any error feedback. RefToMessageId is intended for the processing of an acknowledgement message and can be used to refer to the original message.

Reference to the actual invoice is made in SOAP-ENV:Body. Reference eb:Id identifies the reference specified in the href element, in this case the Finvoice number. The 5017 value can be equal to eb:MessageId. The maximum length of MessageId is 48 characters. The Envelope end tag is the last one.

```
<SOAP-ENV:Body>
<eb:Manifest eb:id="Manifest" eb:version="2.0">
<eb:Reference eb:id="Finvoice" xlink:href="5017">
<eb:schema
eb:location="http://www.finvoice.info/finvoice.xs
d" eb:version="2.0"/>
</eb:Reference>
</eb:Manifest>
</SOAP-ENV:Body>
```
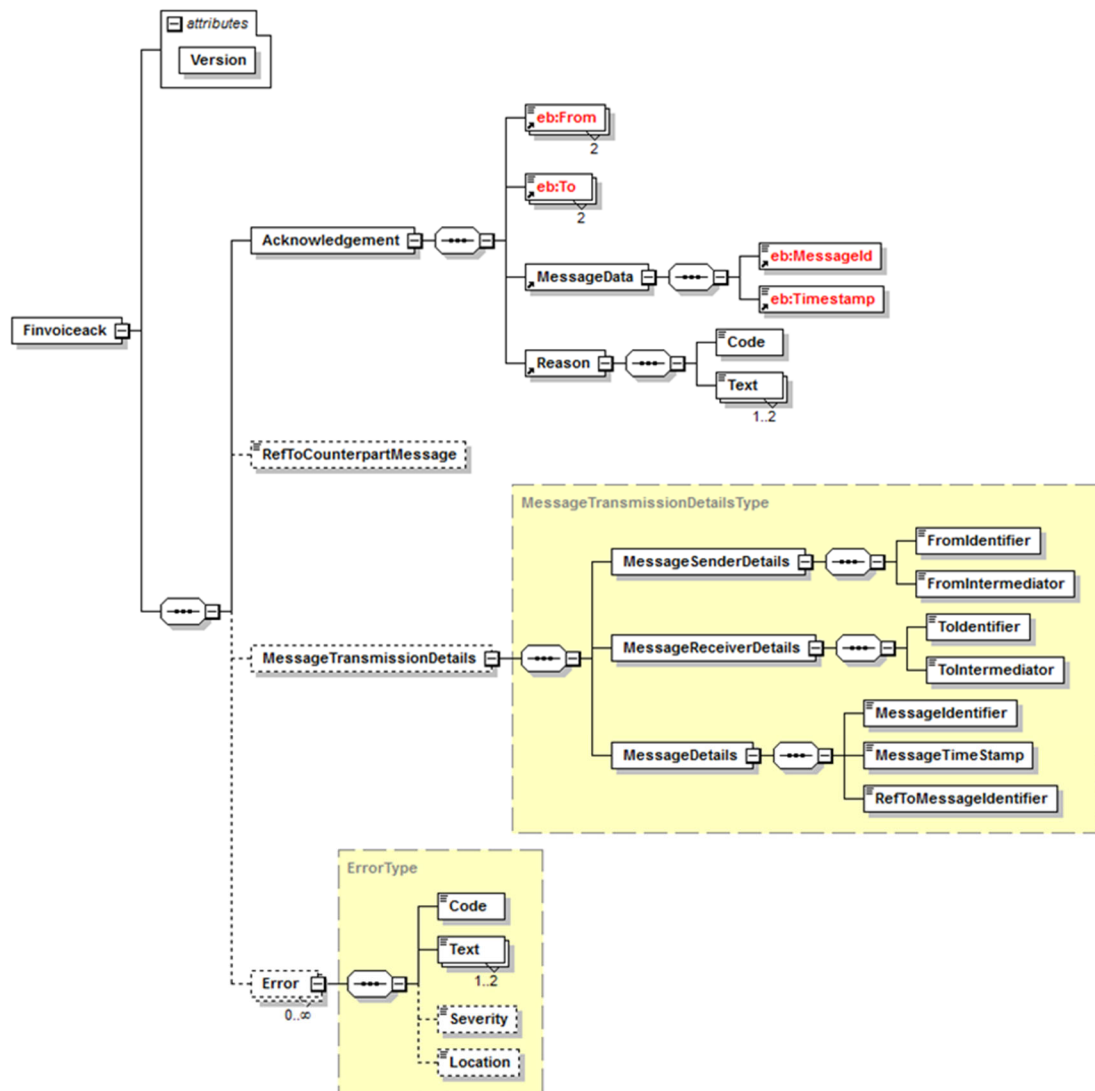
18 Acknowledgement Message

The acknowledgement message can be used to respond to every transmission. The service providers participating in the Finvoice forwarding service will only send an acknowledgement message if the Finvoice message cannot, for some reason, be forwarded or delivered to its receiver. If the Finvoice invoice message includes a separate Finvoice attachment message, only one acknowledgement message is created for the invoice–attachment pair. These guidelines apply to acknowledgement message version FinvoiceAck 2.0.

18.1   Parts of the acknowledgement message

The acknowledgement message consists of the SOAP frame and the FinvoiceAck message. The structure of the SOAP frame is described in section 17. Some error possibilities are reported directly by the SOAP frame, and they are listed in the SOAP definition. The FinvoiceAck message schema is available at finvoice.info.

The structure of the acnowledgement message is described in the following figure:

18.1.1   Version

The version number of the acknowledgement message is displayed in the Version attribute. Acknowledgement messages that adhere to these guidelines have the version number 2.0. Version 2.0 contains the version 1.0 structure as is, so the newer version is backward compatible. An acknowledgement message can be specified with version number 1.0, in which case the acknowledgement message consists of the SOAP frame and the Acknowledgement element of the FinvoiceAck message. With version number 2.0, the acknowledgement message can also contain the RefToCounterpartMessage, MessageTransmissionDetails and Error elements. RefToCounterpartMessage element is only used when an attachment message is linked to the invoice message.

18.1.2   Acknowledgement – original message details
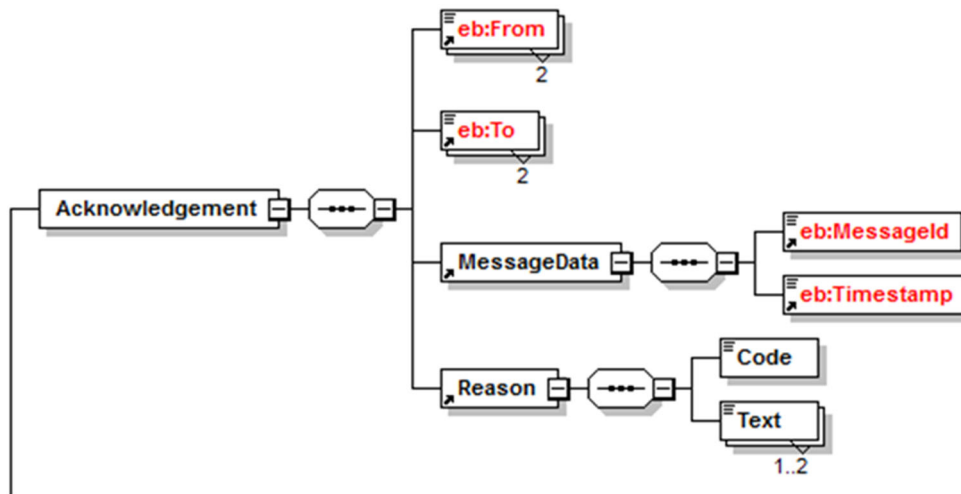
The Acknowledgement element has been in use since acknowledgement message version 1.0.

The Acknowledgement element contains the details of the original message, to which the acknowledgement refers to.

- Eb:From contains the original message's sender details
  - Sender: PartyId element specifies the sender's identifier, and Role element specifies the role as "Sender"
  - Sender's intermediator: PartyId element specifies the identifier of the sender's intermediator, and Role element specifies the role as "Intermediator"
- Eb:To contains the original message's receiver details
  - Receiver: PartyId element specifies the receiver's identifier, and Role element specifies the role as "Receiver"
  - Receiver's intermediator: PartyId element specifies the identifier of the receiver's intermediator, and Role element specifies the role as "Intermediator"
- MessageData element contains the original message's identifier and time stamp
  - MessageId: Original message's identifier
  - Timestamp: Original message's time stamp
- Reason element contains the error code and description (see section 18.2)
  - Code: Error code
  - Text: Description

18.1.3   RefToCounterpartMessage – reference to the message's counterpart

RefToCounterpartMessage element is new data in the acknowledgement message. The information is only used in the acknowledgement message to an invoice with an attachment. RefToCounterpartMessage element can be used to specify the identifier of another message linked to the message to which the acknowledgement message is being sent.

18.1.4   MessageTransmissionDetails – details corresponding to SOAP frame

MessageTransmissionDetails element is a new data group. It is used for the corresponding data as the SOAP frame of the acknowledgement message. The element is optional. The element is not used with acknowledgement message version 1.0.

- **MessageSenderDetails** element contains the acknowledgement message's sender details
  - Sender: FromIdentifier element contains the identifier of the acknowledgement message's sender
  - Sender's intermediator: FromIdentifier element contains the identifier of the acknowledgement message's sender's intermediator
- **MessageReceiverDetails** element contains the acknowledgement message's receiver details
  - Receiver: ToIdentifier element contains the identifier of the acknowledgement message's receiver
  - Receiver's intermediator: ToIntermediator element contains the identifier of the acknowledgement message's receiver's intermediator
- **MessageDetails** element contains the details of the acknowledgement message and a reference to the original message to which the acknowledgement message is related to
  - MessageIdentifier element contains the acknowledgement message's identifier
  - MessageTimeStamp element contains the time stamp of the acknowledgement message's creation
  - RefToMessageIdentifier element contains the identifier of the original message to which the acknowledgement message is related (cf. RefToCounterpartMessage)

18.1.5   Error – additional error message

Error is a new optional data element in the acknowledgement message. The Error element makes it possible to make several error messages, or can be used to further specify the error message in the Reason element. The message's error code and its description are primarily given in the Reason element:

- Code contains the error code
- Text contains the description of the error code
- Severity states the severity of the error, permitted value is "Error". The Severity element is optional and its use depends on the service provider
- Location can be used to state in which part of the message the error was found. The Location element is optional and its use depends on the service provider. The Location element can be used, for example, to display the attachment identifier if the error that caused rejection concerns only a single attachment.

18.1.6   Acknowledgement message models

Acknowledgement message (v1.0) for invoice message v1.3

Contains only the SOAP frame and the Acknowledgement element of the FinvoiceAck message.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:eb="http://www.oasis-
open.org/committees/ebxml-msg/schema/msg-header-2_0.xsd">
<SOAP-ENV:Header>
```

```
 <eb:MessageHeader xmlns:eb="http://www.oasis-open.org/committees/ebxml-
msg/schema/msg- header-2_0.xsd" SOAP-ENV:mustUnderstand="1"
eb:id="20030222133003285">
     <eb:From>
          <eb:PartyId>003702048999</eb:PartyId>
          <eb:Role>Sender</eb:Role>
     </eb:From>
     <eb:From>
          <eb:PartyId>003714377999</eb:PartyId>
          <eb:Role>Intermediator</eb:Role>
     </eb:From>
     <eb:To>
          <eb:PartyId>FI4043091020117999</eb:PartyId>
          <eb:Role>Receiver</eb:Role>
     </eb:To>
     <eb:To>
          <eb:PartyId>HELSFIHH</eb:PartyId>
          <eb:Role>Intermediator</eb:Role>
     </eb:To>
     <eb:CPAId>yoursandmycpa</eb:CPAId>
     <eb:ConversationId></eb:ConversationId>
     <eb:Service>Routing</eb:Service>
     <eb:Action>ProcessInvoice</eb:Action>
     <eb:MessageData>
          <eb:MessageId>1297326762_3</eb:MessageId>
          <eb:Timestamp>2011-02-10T10:32:41+02</eb:Timestamp>
          <eb:RefToMessageId>YV1199015</eb:RefToMessageId>
     </eb:MessageData>
 </eb:MessageHeader>
</SOAP-ENV:Header>
<SOAP-ENV:Body>
 <eb:Manifest eb:id="Manifest" eb:version="2.0">
     <eb:Reference eb:id="Finvoice" xlink:href="1297326762_3">
          <eb:schema eb:location="http://www.finvoice.info/finvoice.xsd"
eb:version="2.0"/>
     </eb:Reference>
</eb:Manifest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
<?xml version="1.0" encoding="ISO-8859-15"?>
<!DOCTYPE Finvoiceack SYSTEM "Finvoiceack.dtd">
<?xml-stylesheet type="text/xsl" href="Finvoiceack.xsl"?>
<Finvoiceack Version="1.0" xmlns:eb="http://www.oasis-open.org/committees/ebxml-
msg/schema/msg-header-2_0.xsd"
xmlns="http://www.pankkiyhdistys.fi/verkkolasku/finvoice/finvoiceack.xsd"">
 <Acknowledgement>
     <eb:From>
          <eb:PartyId>FI4043091020117999</eb:PartyId>
          <eb:Role>Sender</eb:Role>
     </eb:From>
     <eb:From>
          <eb:PartyId>HELSFIHH</eb:PartyId>
          <eb:Role>Intermediator</eb:Role>
     </eb:From>
     <eb:To>
          <eb:PartyId>003702048999</eb:PartyId>
          <eb:Role>Receiver</eb:Role>
     </eb:To>
     <eb:To>
          <eb:PartyId>003714377999</eb:PartyId>
          <eb:Role>Intermediator</eb:Role>
     </eb:To>
     <MessageData>
          <eb:MessageId>YV1199015</eb:MessageId>
```

```
            <eb:Timestamp>2011-02-10T00:30:01+02</eb:Timestamp>
        </MessageData>
        <Reason>
            <Code>2</Code>
            <Text>Vastaanottajaa ei löydy</Text>
        </Reason>
    </Acknowledgement>
</Finvoiceack>
```

Acknowledgement message (v2.0) for invoice message without attachment (v2.0)

Contains the MessageTransmissionDetails element

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:eb="http://www.oasis-
open.org/committees/ebxml-msg/schema/msg-header-2_0.xsd">
<SOAP-ENV:Header>
<eb:MessageHeader xmlns:eb="http://www.oasis-open.org/committees/ebxml-
msg/schema/msg-header-2_0.xsd" SOAP-ENV:mustUnderstand="1"
eb:id="20030222133003285">
<eb:From>
<eb:PartyId>003702048999</eb:PartyId>
<eb:Role>Sender</eb:Role>
</eb:From>
<eb:From>
<eb:PartyId>003714377999</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:From>
<eb:To>
<eb:PartyId>FI4043091020117999</eb:PartyId>
<eb:Role>Receiver</eb:Role>
</eb:To>
<eb:To>
<eb:PartyId>HELSFIHH</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:To>
<eb:CPAId>yoursandmycpa</eb:CPAId>
<eb:ConversationId></eb:ConversationId>
<eb:Service>Routing</eb:Service>
<eb:Action>ProcessInvoice</eb:Action>
<eb:MessageData>
<eb:MessageId>1297326762_3</eb:MessageId>
<eb:Timestamp>2011-02-10T10:32:41+02</eb:Timestamp>
<eb:RefToMessageId>YV1199015</eb:RefToMessageId>
</eb:MessageData>
</eb:MessageHeader>
</SOAP-ENV:Header>
<SOAP-ENV:Body>
<eb:Manifest eb:id="Manifest" eb:version="2.0">
<eb:Reference eb:id="Finvoice" xlink:href="1297326762_3">
<eb:schema eb:location="http://www.finvoice.info/finvoice.xsd" eb:version="2.0"/>
</eb:Reference>
</eb:Manifest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
<?xml version="1.0" encoding=" ISO-8859-15"?>
<!--Sample XML file generated by XMLSpy v2010 rel. 3 sp1 (http://www.altova.com)--
>
<Finvoiceack Version="2.0"
```

```
xmlns:eb="http://www.oasis-open.org/committees/ebxml-msg/schema/msg-header-
2_0.xsd"
xmlns="http://www.pankkiyhdistys.fi/verkkolasku/finvoice/finvoiceack.xsd"">
<Acknowledgement>
<eb:From>
<eb:PartyId>FI4043091020117999</eb:PartyId>
<eb:Role>Sender</eb:Role>
</eb:From>
<eb:From>
<eb:PartyId>HELSFIHH</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:From>
<eb:To>
<eb:PartyId>003702048999</eb:PartyId>
<eb:Role>Receiver</eb:Role>
</eb:To>
<eb:To>
<eb:PartyId>003714377999</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:To>
<MessageData>
<eb:MessageId> YV1199015</eb:MessageId>
<eb:Timestamp>2011-02-10T07:00:00+02</eb:Timestamp>
<MessageData>
<Reason>
<Code>2</Code>
<Text>Vastaanottajaa ei löydy</Text>
<Text>a</Text>
<Reason>
<Acknowledgement>
<MessageTransmissionDetails>
<MessageSenderDetails>
<FromIdentifier>003702048999</FromIdentifier>
<FromIntermediator>003714377999</FromIntermediator>
</MessageSenderDetails>
<MessageReceiverDetails>
<ToIdentifier>FI4043091020117999</ToIdentifier>
<ToIntermediator>HELSFIHH</ToIntermediator>
</MessageReceiverDetails>
<MessageDetails>
<MessageIdentifier>1297326762_3</MessageIdentifier>
<MessageTimeStamp>2011-02-10T10:32:41+02</MessageTimeStamp>
<RefToMessageIdentifier>YV1199015</RefToMessageIdentifier>
</MessageDetails>
</MessageTransmissionDetails>
```

Acknowledgement message (v2.0) for invoice message (v2.0) with attachment

Includes Error element. Error is related to the entire attachment message, not an individual attachment.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:eb="http://www.oasis-
open.org/committees/ebxml-msg/schema/msg-header-2_0.xsd">
<SOAP-ENV:Header>
<eb:MessageHeader xmlns:eb="http://www.oasis-open.org/committees/ebxml-
msg/schema/msg-header-2_0.xsd" SOAP-ENV:mustUnderstand="1"
eb:id="20030222133003285">
<eb:From>
<eb:PartyId>003702048999</eb:PartyId>
<eb:Role>Sender</eb:Role>
```

```
</eb:From>
<eb:From>
<eb:PartyId>003714377999</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:From>
<eb:To>
<eb:PartyId>FI4043091020117999</eb:PartyId>
<eb:Role>Receiver</eb:Role>
</eb:To>
<eb:To>
<eb:PartyId>HELSFIHH</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:To>
<eb:CPAId>yoursandmycpa</eb:CPAId>
<eb:ConversationId></eb:ConversationId>
<eb:Service>Routing</eb:Service>
<eb:Action>ProcessInvoice</eb:Action>
<eb:MessageData>
<eb:MessageId>1297326762_3</eb:MessageId>
<eb:Timestamp>2011-02-10T10:32:41+02</eb:Timestamp>
  <eb:RefToMessageId>YV1199015</eb:RefToMessageId>
</eb:MessageData>
</eb:MessageHeader>
</SOAP-ENV:Header>
<SOAP-ENV:Body>
<eb:Manifest eb:id="Manifest" eb:version="2.0">
<eb:Reference eb:id="Finvoice" xlink:href="1297326762_3">
<eb:schema eb:location="http://www.finvoice.info/finvoice.xsd" eb:version="2.0"/>
</eb:Reference>
</eb:Manifest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
<?xml version="1.0" encoding="ISO-8859-15" ?>
<Finvoiceack Version="2.0" xsi:schemaLocation=
"http://www.pankkiyhdistys.fi/verkkolasku/finvoice/finvoiceack.xsd
Finvoiceack.xsd" xmlns:eb="http://www.oasis-open.org/committees/ebxml-
msg/schema/msg-header-2_0.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<Acknowledgement>
<eb:From>
<eb:PartyId>FI4043091020117999</eb:PartyId>
<eb:Role>Sender</eb:Role>
</eb:From>
<eb:From>
<eb:PartyId>HELSFIHH</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:From>
<eb:To>
<eb:PartyId>003702048999</eb:PartyId>
<eb:Role>Receiver</eb:Role>
</eb:To>
<eb:To>
<eb:PartyId>003714377999</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:To>
<MessageData>
<eb:MessageId> YV1199015</eb:MessageId>
<eb:Timestamp>2011-02-10T07:00:00+02</eb:Timestamp>
</MessageData>
<Reason>
<Code>12</Code>
<Text>Laskusanoma hylätty, koska liitesanomaa ei löydy tai se on hylätty</Text>
<Text>a</Text>
</Reason>
```

```
</Acknowledgement>
<RefToCounterpartMessage>YV1199015::attachments</RefToCounterpartMessage>
<MessageTransmissionDetails>
<MessageSenderDetails>
<FromIdentifier>003702048999</FromIdentifier>
<FromIntermediator>003714377999</FromIntermediator>
</MessageSenderDetails>
<MessageReceiverDetails>
<ToIdentifier>FI4043091020117999</ToIdentifier>
<ToIntermediator>HELSFIHH</ToIntermediator>
</MessageReceiverDetails>
<MessageDetails>
<MessageIdentifier>1297326762_3</MessageIdentifier>
<MessageTimeStamp>2011-02-10T10:32:41+02</MessageTimeStamp>
<RefToMessageIdentifier> YV1199015</RefToMessageIdentifier>
</MessageDetails>
</MessageTransmissionDetails>
<Error>
<Code>16</Code>
<Text>Liitesanoman tunnus on jo käytetty</Text>
<Severity>ERROR</Severity>
</Error>
</Finvoiceack>
```

Acknowledgement message (v2.0) for invoice message (v2.0) with attachment

Includes Error element. Error is in an individual attachment.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:eb="http://www.oasis-
open.org/committees/ebxml-msg/schema/msg-header-2_0.xsd">
<SOAP-ENV:Header>
<eb:MessageHeader xmlns:eb="http://www.oasis-open.org/committees/ebxml-
msg/schema/msg-header-2_0.xsd" SOAP-ENV:mustUnderstand="1"
eb:id="20030222133003285">
<eb:From>
<eb:PartyId>003702048999</eb:PartyId>
<eb:Role>Sender</eb:Role>
</eb:From>
<eb:From>
<eb:PartyId>003714377999</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:From>
<eb:To>
<eb:PartyId>FI4043091020117999</eb:PartyId>
<eb:Role>Receiver</eb:Role>
</eb:To>
<eb:To>
<eb:PartyId>HELSFIHH</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:To>
<eb:CPAId>yoursandmycpa</eb:CPAId>
<eb:ConversationId></eb:ConversationId>
<eb:Service>Routing</eb:Service>
<eb:Action>ProcessInvoice</eb:Action>
<eb:MessageData>
<eb:MessageId>1297326762_3</eb:MessageId>
<eb:Timestamp>2011-02-10T10:32:41+02</eb:Timestamp>
<eb:RefToMessageId>YV1199015</eb:RefToMessageId>
</eb:MessageData>
</eb:MessageHeader>
```

```
</SOAP-ENV:Header>
<SOAP-ENV:Body>
<eb:Manifest eb:id="Manifest" eb:version="2.0">
<eb:Reference eb:id="Finvoice" xlink:href="1297326762_3">
<eb:schema eb:location="http://www.finvoice.info/finvoice.xsd" eb:version="2.0"/>
</eb:Reference>
</eb:Manifest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
<?xml version="1.0" encoding="ISO-8859-15" ?>
<Finvoiceack Version="2.0" xsi:schemaLocation=
"http://www.pankkiyhdistys.fi/verkkolasku/finvoice/finvoiceack.xsd
Finvoiceack.xsd" xmlns:eb="http://www.oasis-open.org/committees/ebxml-
msg/schema/msg-header-2_0.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<Acknowledgement>
<eb:From>
<eb:PartyId>FI4043091020117999</eb:PartyId>
<eb:Role>Sender</eb:Role>
</eb:From>
<eb:From>
<eb:PartyId>HELSFIHH</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:From>
<eb:To>
<eb:PartyId>003702048999</eb:PartyId>
<eb:Role>Receiver</eb:Role>
</eb:To>
<eb:To>
<eb:PartyId>003714377999</eb:PartyId>
<eb:Role>Intermediator</eb:Role>
</eb:To>
<MessageData>
<eb:MessageId> YV1199015</eb:MessageId>
<eb:Timestamp>2011-02-10T07:00:00+02</eb:Timestamp>
</MessageData>
<Reason>
<Code>12</Code>
<Text>Laskusanoma hylätty, koska liitesanomaa ei löydy tai se on hylätty</Text>
<Text>a</Text>
</Reason>
</Acknowledgement>
<RefToCounterpartMessage>YV1199015::attachments</RefToCounterpartMessage>
<MessageTransmissionDetails>
  <MessageSenderDetails>
     <FromIdentifier>003702048999</FromIdentifier>
     <FromIntermediator>003714377999</FromIntermediator>
  </MessageSenderDetails>
<MessageReceiverDetails>
<ToIdentifier>FI4043091020117999</ToIdentifier>
<ToIntermediator>HELSFIHH</ToIntermediator>
  <MessageReceiverDetails>
<MessageDetails>
<MessageIdentifier>1297326762_3</MessageIdentifier>
<MessageTimeStamp>2011-02-10T10:32:41+02</MessageTimeStamp>
<RefToMessageIdentifier> YV1199015</RefToMessageIdentifier>
</MessageDetails>
</MessageTransmissionDetails>
<Error>
<Code>25</Code>
<Text>Liite sisältää haittaohjelman</Text>
<Severity>ERROR</Severity>
<Location>YV1199015::attachments::a0824b7488d56e01cb98c9082</Location>
</Error>
```

```
</Finvoiceack>
```

18.2   Reason Codes and Descriptions:

XS = Attachment message
SI = SenderInfo
RI = ReceiverInfo
RP = ReceiverProposal

Code	Text	
1	Message received for further processing.	service provider specific
2	Receiver not found. The frame's Receiver has incorrect data. Address of the Sender's notification is not SENDERINFO.	XS, RI, SI, RP
3	Service agreement missing. Sender does not have a Finvoice forwarding service agreement with the service provider.	XS, RI, SI, RP
4	Intermediator not found. The frame's Sender or Receiver has incorrect data.	XS, RI, SI, RP
5	Message ID and timestamp already used.	XS, RI, SI, RP
6	Other error: description of error (e.g. e-invoice address in message does not match e-invoice address in the frame)	XS, RI, SI, RP
7	Schema validation errors.	XS, RI, SI, RP
Error codes related to notification service only		
800	Other error related to notification service: <description of error>.	
801	Invoicer Notification not found.	RP
802	Invoicer does not offer direct payment service.	RP
803	Invoicer Notification already exists.	SI
804	Invoicer Notification cannot be allocated (used with CHANGE and DELETE messages)	SI
805	Receiver is a company.	RP
806	Receiver has refused.	RP
807	Reception proposal cannot be allocated.	RP
Error codes related to invoices with attachments and attachment messages		
10	Maximum number of attachments exceeded.	XS/AS pair
11	Maximum size of attachments exceeded.	XS/AS pair
12	Invoice message rejected, because attachment message could not be found or was rejected.	XS/AS pair
13	Attachment message rejected, because invoice message could not be found or was rejected.	XS/AS pair
14	Sender and receiver details of invoice and attachment message do not match.	XS/AS pair

15	Invoice message ID already used.	XS/AS pair
16	Attachment message ID already used.	XS/AS pair
17	Attachment checksum already used.	XS/AS pair
20	Attachment checksum is incorrect.	XS/AS pair
21	Attachment filename is incorrect.	XS/AS pair
22	Type of attachment is not supported.	XS/AS pair
23	Attachment format is incorrect.	XS/AS pair
24	Attachment size is too large.	XS/AS pair
25	Attachment contains malware.	XS/AS pair
26	Attachment message does not contain reference to invoice or reference is incorrect.	XS/AS pair
39	Other error in processing attachment message.	XS/AS pair

18.2.1   Processing rules for error codes 10–39

A single acknowledgement message is formed for an invoice message and its attachment message.

Rejection of either of these messages always automatically causes the rejection of its counterpart.

Invoice message details are the primary source data for the acknowledgement message. When an invoice message is found, the invoice message ID is given in the RefToMessageId element of the SOAP frame. Invoice message details are also used in the Acknowledgement element of the FinvoiceAck message. An error code that relates to the invoice message is always given in the Reason element.

The attachment message ID included in the invoice message is given in the RefToCounterpartMessage element of the acknowledgement message. An error code that relates to the attachment message is given in the Error element.

As an exception, if an invoice message cannot be found, the attachment message details are used in the acknowledgement message instead.

In this case the RefToMessageId element of the SOAP frame will contain the attachment message ID, and the details of the Acknowledgement element are also picked from the attachment message. The error code is given in the Reason element and can be repeated in the Error element. The invoice message ID included in the attachment message is then given in the RefToCounterpartMessage element.

If the rejection of the invoice message is caused by the rejection or absence of the attachment message, error code 12 is given in the Reason element.

If the rejection of the invoice message is caused by an error in the invoice message, the invoice message error code is given in the Reason element, and attachment message error code 13 is given in the Error element.

.

Code	Description
10	Maximum number of attachments in attachment message is 10.
11	Maximum total size of attachments in attachment message is 1MB.
12	If the attachment message cannot be found or has been rejected, invoice message rejection error code is <u>always</u> given in Reason element. Error code related to a rejected attachment message is given in Error element. If an attachment message cannot be found, Error element is not used.
13	If the invoice message cannot be found, attachment message rejection error code is given in Reason element. The code can be repeated in the Error element.
14	The invoice message's From/PartyId and To/PartyId details must match the attachment message's FromIdentifier/Intermediator and ToIdentifier/Intermediator details. Error code is given in Reason element.
15	Invoice message's identifier (MessageId) must be unique, and can not be used for more than one invoice message.
16	Attachment message's identifier (MessageId) must be unique, and can not be used for more than one attachment message.
17	Each attachment has a unique checksum calculated from the contents of the attachment. The same attachment may not be sent to several recipients, and the checksum therefore cannot be reused. Error code is given in Error element.
20	Service provider calculates the checksum from the contents of the attachment and compares it with the checksum given in the attachment message. If the checksums do not match, the entire attachment message is rejected. Error code is given in Error element. Location element is used for the attachment ID.
21	The file extension of the attachment's filename must match the type given in the details.
22	Permitted attachment file types are pdf/a, jpeg and png. If the type given in the message is not a permitted type, the attachment message is rejected.
23	If the attachment's file type is not a permitted type, the attachment message is rejected.
24	The permitted maximum size of one attachment is 1MB.
25	Each attachment is checked for malware. If the antivirus software discovers malware, the attachment message is rejected.
26	If the attachment message is lacking a reference to an invoice message, or the reference is incorrect, the attachment message is rejected.
39	Code 39 is used as error code if any of the other codes are not suited for the purpose.

18.2.2   Error scenario examples

Example 1.   No errors in the invoice message, attachment message rejected due to duplicate error in attachment message ID. Rejection of attachment message also causes rejection of invoice message.

- SOAP frame
  - Sender and receiver details are given in reverse order in From/To elements of the invoice message
  - Invoice message ID is given in RefToMessageId element
  - Invoice message timestamp is given in Timestamp element
- FinvoiceAck/Acknowledgement
  - Details of the invoice message are given in the corresponding elements of the original message
  - Value "12" in the Code element in Reason element, Text element description "Invoice message rejected because attachment message could not be found or was rejected"
- RefToCounterpartMessage
  - Attachment message ID is given in this element
  - MessageTransmissionDetails
  - Same information given in this element as in the SOAP frame
- Error
  - Code element value "16" and Text element description "Attachment message ID already used"

Example 2.   No error in invoice message, attachment message rejected due to virus or malware found in one of the attachments.

Otherwise same as above, but Error/Code element value "25" and Text element description "Attachment contains malware"

Identifier of the attachment in which the error was found is inserted in the Location element.

Example 3.   Invoice message cannot be found, but attachment message is found and contains no errors.

- SOAP frame
  - Sender and receiver details are given in reverse order in From/To elements of the attachment message
  - Attachment message ID is given in RefToMessageId element
  - Attachment message timestamp is given in Timestamp element
- FinvoiceAck/Acknowledgement
  - Details of the attachment message are given in the corresponding elements of the original message

- Value "13" in the Code element in Reason element, Text element description "Attachment message rejected because invoice message could not be found or was rejected"
  - RefToCounterpartMessage
    - Invoice ID from attachment message is given in this element
  - MessageTransmissionDetails
    - Same information given in this element as in the SOAP frame
  - Error
    - Error details from Reason element can be repeated in Error element.

19 Finvoice technical description

The minimum and maximum lengths of elements are defined in a separate data list. Optional and mandatory elements are specified as follows:

Occurs	1. Definition
1	Mandatory, occurs once.
0..1	Not mandatory, but may occur only once.
1..n	Mandatory at least once. May occur several times.
0..n	Not mandatory, but may occur several times.

XML messages consist of the following types of entities: elements, aggregates and structures. An element is a simple entity including only one string of data. An aggregate is a structural entity consisting of elements. A structure is a more complicated entity that includes either aggregates or both aggregates and elements.

19.1   Attributes Used in the Implementation Guideline

All monetary amount elements (Amount) are associated with the AmountCurrencyIdentifier attribute, even though the monetary amounts associated with the invoice must be in the same currency. The amount of tax is an exception and must be in the currency of the country of sale. The monetary amounts have a decimal part separated by a comma (,). The number of digits following the comma must not exceed the maximum allowed for the specified currency.

A monetary amount may also be negative, in which case it is preceded by a minus sign (-).

Quantity elements have a UnitCode attribute specifying the unit of the quantity.

Date elements (such as InvoiceDate) always have a Format attribute of CCYYMMDD. The EpiCharge element has a ChargeOption attribute.

20 Finvoice structure

The Finvoice structure is described in a separate document available at finvoice.info.

FINANCE
FINLAND