e2b Invoice

Technical documentation

Version: 3.1

1 July 2005

CHANGE LOG

DATE	VER	DONE BY	COMMENTS
01.07.2005	3.1	Are Berg	Several changes in Format, all backward compatible. Changes are documented in the e2b Change log and as separate Change reports.
01.02.2005	3.0	Are Berg	Several changes in Format, not backward compatible. Changes are documented in the e2b Change log and as separate change reports.
01.10.2004	2.0	Are Berg	Several changes in Format, not backward compatible. Changes are documented in the e2b Change log and as separate Change reports.
18.02.2004	1.0	Are Berg	First version approved as a basis for pilot testing.

Table of contents

1. Introduction

1.1 Background

The aim of the e2b Forum is to work for the proliferation of electronic invoicing between companies. An important factor in achieving this is to agree on the content and structure of the information that is to be exchanged in an invoice, and establish a standard invoice message on the basis of this.

After having assessed the various invoice formats that are in the market today, the e2b Forum decided to establish its own XML-based format. The reason for the choice of XML is that it is known in the market, and is considered easier to take into use than other alternatives. During definition of the message content it has also been natural to use the Edifact messages that are used in many business areas today as a starting point (ref chapter 1.3, sources).

With the different needs in the companies emphasis has been placed on defining a message that is flexible and that can be used in various business areas. Therefore a structure has been chosen based on

- A basis message with information that is common for all types of invoicing
- A number of business area specific modules that can be added according to need

The name of the format is the e2b Invoice Format.

The format is managed by the e2b Format group at the request of the Steering committee in the e2b forum.

1.2 Content

This technical documentation describes the basis part of the e2b Invoice message and consists of two parts.

- A functional, syntax-dependent description based on UML

- A message description in the form of an XML schema

Business area specific modules are described in separate documents.

1.3 Sources

The following existing formats have been used as sources in the development of the e2b invoice format:

- Iocore's XML invoice as used by Gjensidige NOR Insurance
- VGIS (Visa Global Invoice Specification)
- EFO XML Invoice 1.0
- XML invoice as used by Selmer Skanska
- Telenor's XML invoice
- UN/CEFACT Edifact INVOICE
- DEDIP2 Edifact INVOICE

1.4 Documentation technique

UML (the Unified Modelling Language) is used as the documentation technique in the functional description of the format. UML is administered by the Object Management Group (OMG) and has become the de facto standard for modelling both in systems development and in message exchange.

The valid version of UML is 1.4.

Key to the UML class diagram.

The following values are used to describe relationships:

1 = The element is mandatory (there must be 1 occurrence). This is the **default** value and will normally not be described.

0..1 = The element is non-mandatory and does no need to be sent (it can occur 0 or 1 times)

0..*= The element is non-mandatory and does not need to be sent. If it is sent it can occur several times (it can occur 0 or n times).

1..*= The element is mandatory and must occur once (it can occur 1 or n times)

The message itself is defined at an XML schema in accordance with XML version 1.0.

2. Message structure

2.1 Overall information model

Below is an overview of the overall structure of the e2b Invoice message.

All base components are described in detail in chapter 3.
All components related to specific business sectors are described in separate documents.
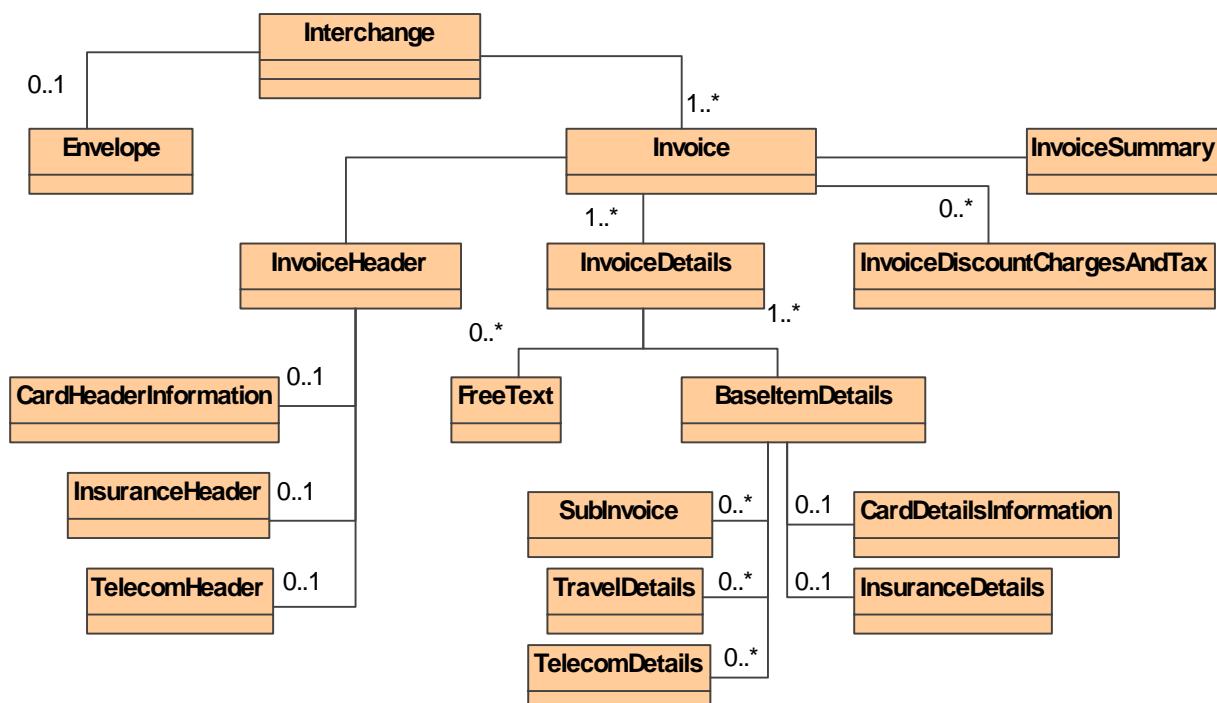
2.2 Additional business information on detail level

All e2b Invoices shall contain a minimum of common basic details information.
In addition the e2b Invoice can contain information related to a specific line of business.
This is information required to identify a product or service within that business sector.
Each sector is responsible for developing and maintaining their own documentation, and
the XML Schemas are included into the e2b Format following certain directions defined by
the e2b Forum.

- If the business details contain information on more than one level, the additional
  business information is located before the basic information. The basic information
  summarizes information from one or more business detail lines.
  This is implemented for Travel and Telecom as well as SubInvoice which is a general
  structure for an Invoice containing several (sub-)invoices or purchase orders.

- If the business details contain information on only one level, the additional information
  is located after the basic information.
  This is implemented for Creditcard (Card) and Insurance.

3. Information model

3.1 Interchange and Message level

The Interchange level ensures a correct structure in the XML message when the Envelope is used. The Envelope contains addressing information, and is especially intended for use in conjunction with messaging brokers.

When invoices are sent directly from one issuer to a receiver, the Envelope should not be used.
The Interchange level must be used if several Invoices are to be sent in one Interchange.

The e2b Invoice can also be used together with other Envelopes e.g. SOAP.
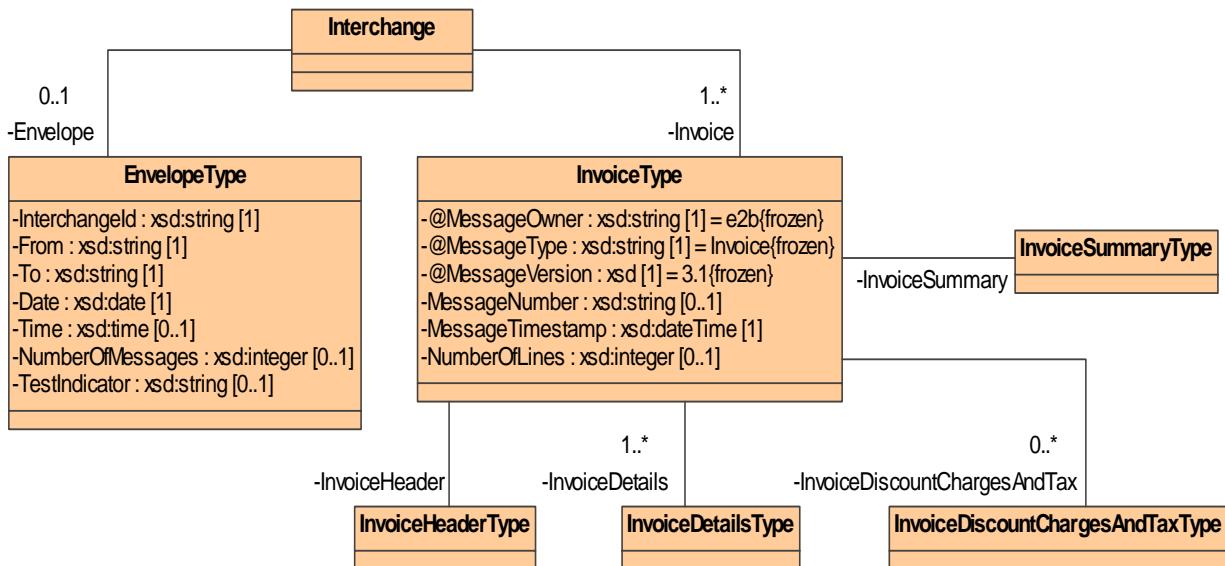
3.2 Invoice Header

The Invoice header contains overall information about the Invoice.

The content of PartyType is described in chapter 3.6.
The content of classes containing additional business information is described in separate documents.
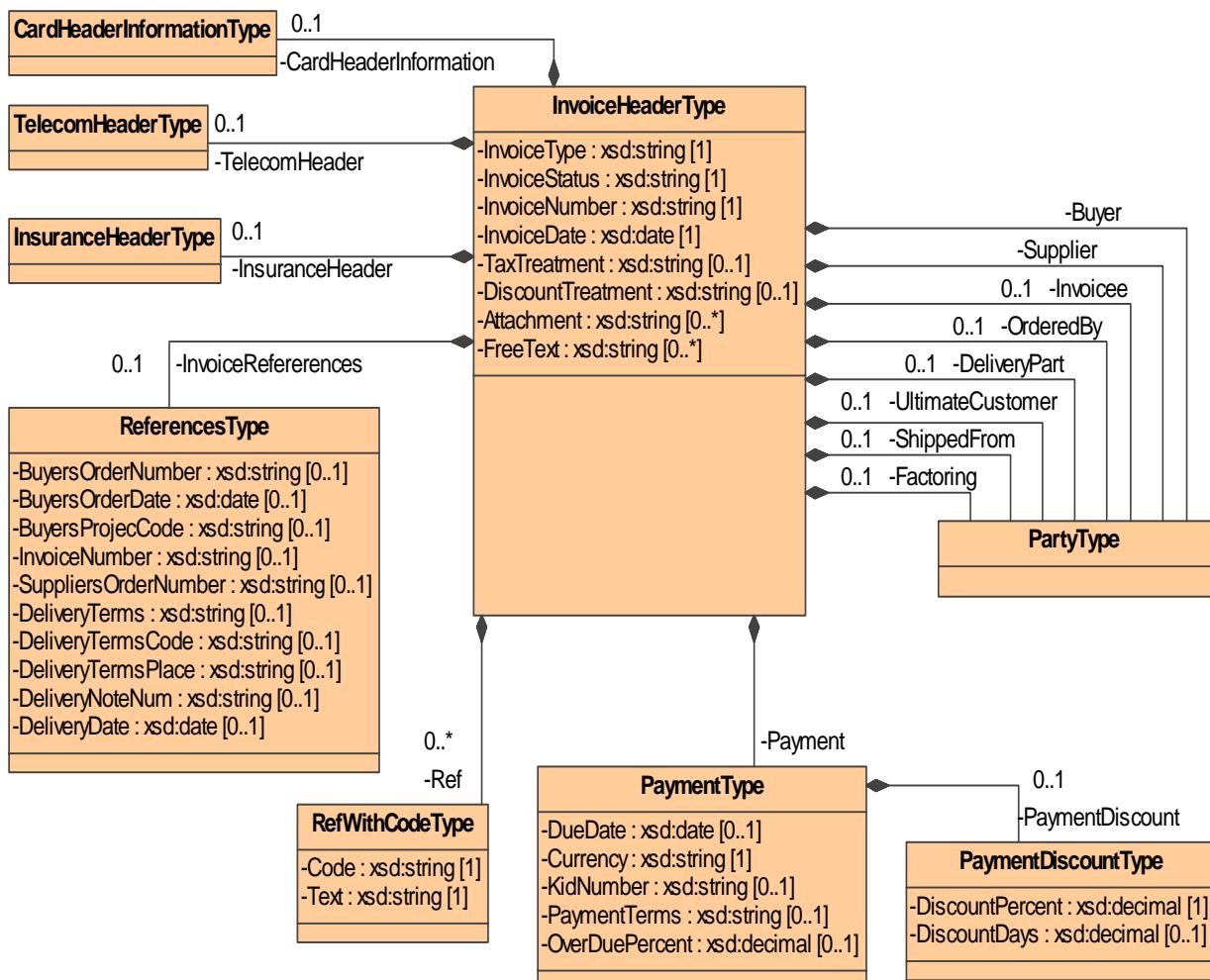
3.3 Invoice details

Invoice details contains information about the products or services that is to be invoiced.

The content of PartyType is described in chapter 3.6. The content of classes containing additional business information is described in separate documents.

The Invoice details can consist of

- Minimum one occurrence of Basis details of the BaseItemDetails type with optional information for the following business sectors:
  - Card
  - Insurance
  - Travel
  - Telecom
- Single lines with free text
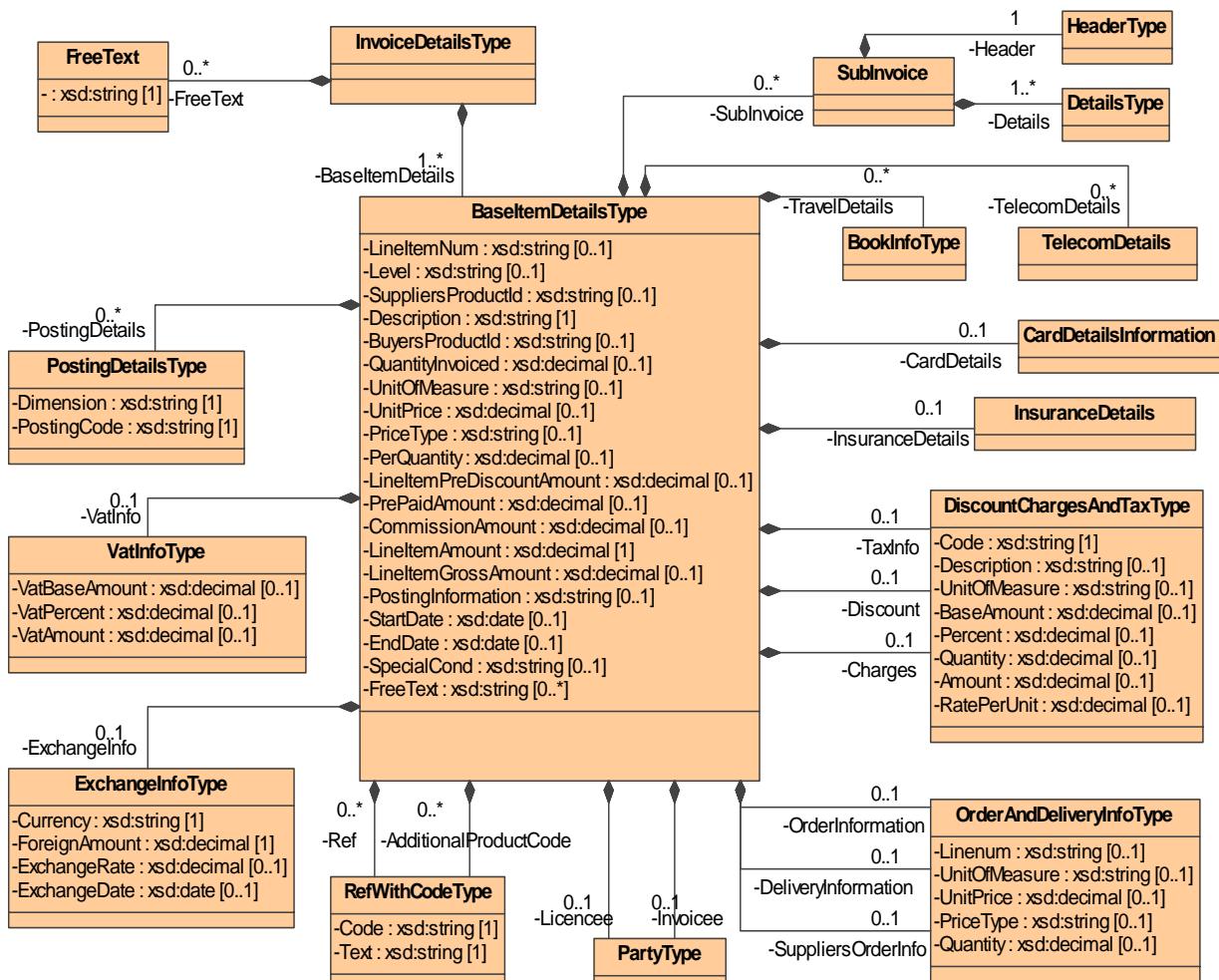
3.4 Invoice discount, charges and tax

Contain discounts, charges and tax that are calculated against the sum of the net line amounts in addition to calculations on each line.

InvoiceDiscountChargesAndTaxType

-InvoiceTax 0..*

-InvoiceCharges   0..*

-InvoiceDiscount 0..*

DiscountChargesAndTaxType

-Code : xsd:string [1]
-Description : xsd:string [0..1]
-Percent : xsd:decimal [0..1]
-BaseAmount : xsd:decimal [0..1]
-Amount : xsd:decimal [0..1]
-Quantity : xsd:decimal [0..1]
-UnitOfMeasure : xsd:string [0..1]
-RatePerUnit : xsd:decimal [0..1]
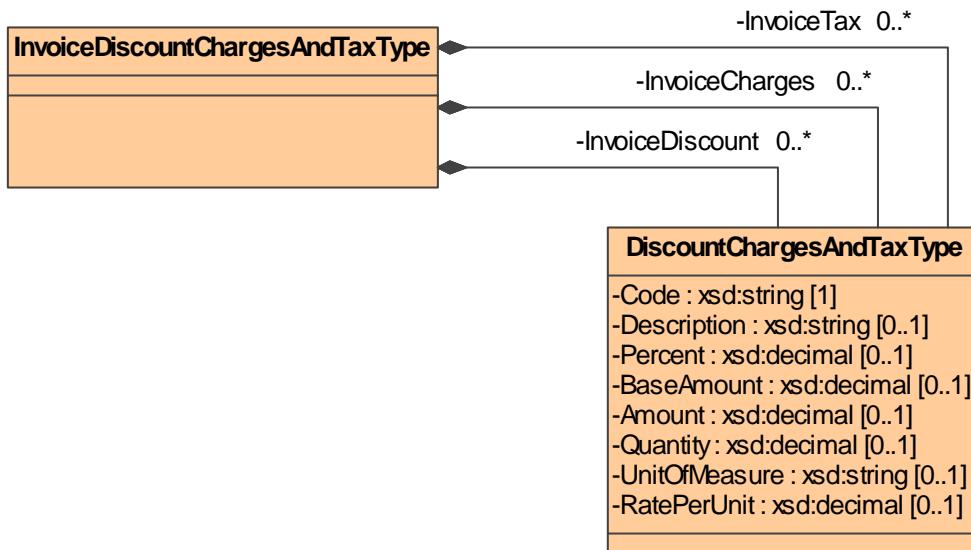
3.5 Invoice totals

Invoice totals contain total amounts for the whole Invoice and must occur once in the Invoice message.

Description of content:

- InvoiceTotals contains the total amounts for each of the defined amount-types including Vat. GrossAmount is with Vat and NetAmount is without Vat

- VatInfoType lists the total amounts for each Vat-percent calculated in the Invoice

- TaxTotalsInfo lists the total amounts for each Tax-type

- DiscountTotals lists the total amounts for each Discount-type

- ChargesTotals lists the total amounts for each Charges-type

- ActualPayment can be used if the amount to be paid is different from the NetAmount
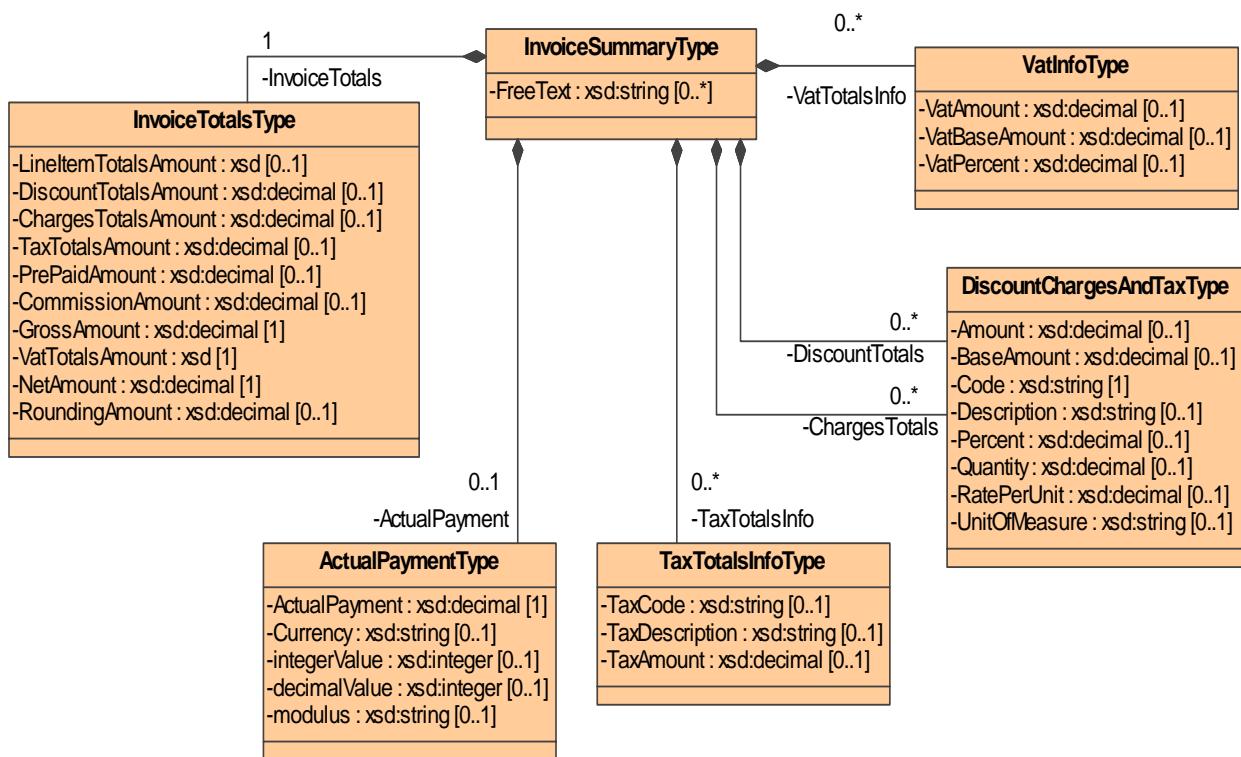
3.6 Party type information

PartyType contains information that is common for all parties defined in the Invoice.
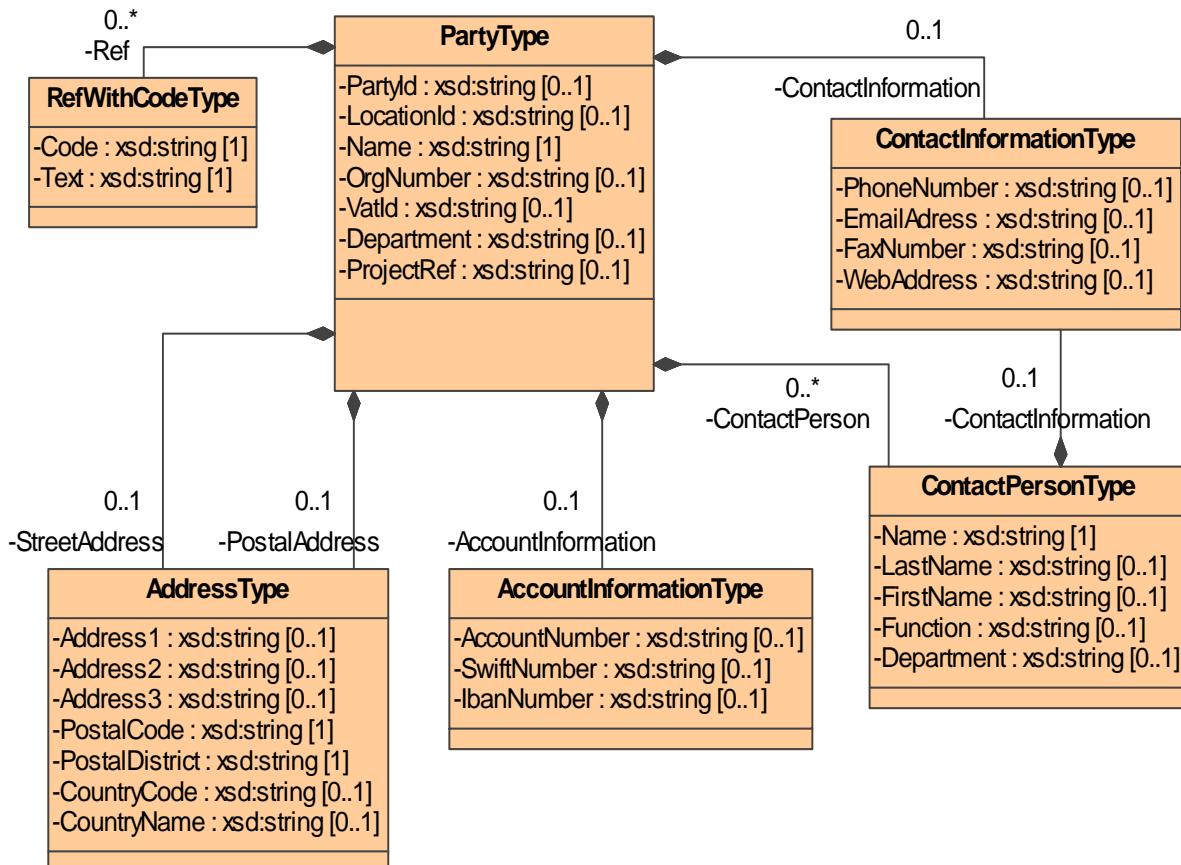
4. Description of the XML Schema

4.1 Interchange

```xml
<?xml version="1.0" encoding="ISO-8859-1"?>
<!-- ============================================================================ -->
<!--                           e2b Interchange format                          -->
<!--                          Copyright (c) e2b Forum (2005)                    -->
<!-- ============================================================================ -->
<!-- Version:        3.1                                                        -->
<!-- Last changed:   2005.06.28                                                 -->
<!-- ============================================================================ -->
<xsd:schema xmlns:e2bInsurance="http://www.e2b.no/XMLSchema/Insurance" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:e2bCard="http://www.e2b.no/XMLSchema/Card" xmlns="http://www.e2b.no/XMLSchema"
xmlns:e2bTravel="http://www.e2b.no/XMLSchema/Travel" targetNamespace="http://www.e2b.no/XMLSchema"
elementFormDefault="qualified">
        <!-- ============================================================================ -->
        <!--                      Import of other schema modules                        -->
        <!--           NB! schemaLocation must be modified according to actual implementation -->
        <!--           if not located in same directory                                  -->
        <!-- ============================================================================ -->
        <xsd:include schemaLocation="e2b_Invoice_v3p1.xsd"/>
        <xsd:annotation>
                <xsd:documentation>--- schema module for the e2b Invoice Format ---</xsd:documentation>
        </xsd:annotation>
        <!-- ============================================================================ -->
        <xsd:element name="Interchange">
                <xsd:annotation>
                        <xsd:documentation>Main structure in Interchange. Contains Envelope (optional) and one or more
Invoices.</xsd:documentation>
                </xsd:annotation>
                <xsd:complexType>
                        <xsd:sequence>
                                <xsd:element name="Envelope" type="EnvelopeType" minOccurs="0"/>
                                <xsd:element name="Invoice" type="InvoiceType" maxOccurs="unbounded"/>
                        </xsd:sequence>
                </xsd:complexType>
        </xsd:element>
        <xsd:annotation>
                <xsd:documentation>Main structure in Interchange. Contains Envelope (optional) and one or more
Invoices.</xsd:documentation>
        </xsd:annotation>
        <xsd:complexType name="EnvelopeType">
                <xsd:annotation>
                        <xsd:documentation>SubType - Envelope. Contains information about sender and receiver
                        </xsd:documentation>
                </xsd:annotation>
                <xsd:sequence>
                        <xsd:element name="InterchangeId" type="xsd:string"/>
                        <xsd:element name="From" type="xsd:string"/>
                        <xsd:element name="To" type="xsd:string"/>
                        <xsd:element name="Date" type="xsd:date"/>
                        <xsd:element name="Time" type="xsd:time" minOccurs="0"/>
                        <xsd:element name="NumberOfMessages" type="xsd:integer" minOccurs="0"/>
                        <xsd:element name="TestIndicator" type="xsd:integer" minOccurs="0"/>
                </xsd:sequence>
        </xsd:complexType>
</xsd:schema>
```

4.2 Invoice

```xml
<?xml version="1.0" encoding="ISO-8859-1"?>
<!-- ========================================================================== -->
<!--                           e2b Invoice Message format                       -->
<!--                           Copyright (c) e2b Forum (2005)                    -->
<!-- ========================================================================== -->
<!-- Version:          3.1                                                       -->
<!-- Last changed:     2005.06.28                                                -->
<!-- ========================================================================== -->
<xsd:schema xmlns:e2bInsurance="http://www.e2b.no/XMLSchema/Insurance" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:e2bTravel="http://www.e2b.no/XMLSchema/Travel" xmlns:e2bTelecom="http://www.e2b.no/XMLSchema/Telecom"
xmlns="http://www.e2b.no/XMLSchema" xmlns:e2bCard="http://www.e2b.no/XMLSchema/Card"
targetNamespace="http://www.e2b.no/XMLSchema" elementFormDefault="qualified">
        <!-- ============================================================================ -->
        <!--                        Import of other schema modules                        -->
        <!--            NB! schemaLocation must be modified according to actual implementation -->
        <!--            if not located in same directory                                  -->
        <!-- ============================================================================ -->
        <xsd:import namespace="http://www.e2b.no/XMLSchema/Card" schemaLocation="e2b_Card_Information_v1p0.xsd"/>
        <xsd:import namespace="http://www.e2b.no/XMLSchema/Travel" schemaLocation="e2b_Travel_v1p0.xsd"/>
        <xsd:import namespace="http://www.e2b.no/XMLSchema/Insurance" schemaLocation="e2b_Insurance_v1p0.xsd"/>
        <xsd:import namespace="http://www.e2b.no/XMLSchema/Telecom" schemaLocation="e2b_Telecom_v1p0.xsd"/>
        <!-- =================================================================== -->
        <!--                    Root element of the e2b Invoice                  -->
        <!-- =================================================================== -->
        <xsd:element name="Invoice" type="InvoiceType"/>
        <!-- =================================================================== -->
        <!--                         First level types                           -->
        <!-- =================================================================== -->
        <xsd:complexType name="InvoiceType">
                <xsd:annotation>
                        <xsd:documentation>Main Type - Invoice information. Main structure in Invoice. Contains Header, Details and
Summary-information</xsd:documentation>
                </xsd:annotation>
                <xsd:sequence>
                        <xsd:element name="MessageNumber" type="xsd:string" minOccurs="0"/>
                        <xsd:element name="MessageTimestamp" type="xsd:dateTime"/>
                        <xsd:element name="NumberOfLines" type="xsd:integer" minOccurs="0"/>
                        <xsd:element name="InvoiceHeader" type="InvoiceHeaderType"/>
                        <xsd:element name="InvoiceDetails" type="InvoiceDetailsType" maxOccurs="unbounded"/>
                        <xsd:element name="InvoiceDiscountChargesAndTax" type="InvoiceDiscountChargesAndTaxType"
minOccurs="0"/>
                        <xsd:element name="InvoiceSummary" type="InvoiceSummaryType"/>
                </xsd:sequence>
                <xsd:attribute name="MessageOwner" type="xsd:string" use="required" fixed="e2b"/>
                <xsd:attribute name="MessageType" type="xsd:string" use="required" fixed="Invoice"/>
                <xsd:attribute name="MessageVersion" type="xsd:string" use="required" fixed="3.1"/>
                <xsd:attribute name="language" type="xsd:string">
                        <xsd:annotation>
                                <xsd:documentation>ISO 639 2-letter code </xsd:documentation>
                        </xsd:annotation>
                </xsd:attribute>
        </xsd:complexType>
        <xsd:complexType name="InvoiceHeaderType">
                <xsd:annotation>
                        <xsd:documentation>Main type - Header-information including Information related to Business
sectors</xsd:documentation>
                </xsd:annotation>
                <xsd:sequence>
                        <xsd:group ref="InvoiceHeaderGroup"/>
                        <xsd:choice minOccurs="0">
                                <xsd:element name="CardHeaderInformation" type="e2bCard:CardHeaderInfoType">
                                        <xsd:annotation>
                                                <xsd:documentation>Additional header-information for Card
Invoices</xsd:documentation>
                                        </xsd:annotation>
                                </xsd:element>
                                <xsd:element name="InsuranceHeader" type="e2bInsurance:InsuranceHeaderType">
                                        <xsd:annotation>
                                                <xsd:documentation>Additional header-information for Insurance
Invoices</xsd:documentation>
                                        </xsd:annotation>
```

```xml
                                        </xsd:element>
                                        <xsd:element name="TelecomHeader" type="e2bTelecom:TelecomHeaderType">
                                                <xsd:annotation>
                                                        <xsd:documentation>Additional header-information for Telecom
Invoices</xsd:documentation>
                                                </xsd:annotation>
                                        </xsd:element>
                                </xsd:choice>
                        </xsd:sequence>
                </xsd:complexType>
                <xsd:complexType name="InvoiceDetailsType">
                        <xsd:annotation>
                                <xsd:documentation>Main type - Details-information</xsd:documentation>
                        </xsd:annotation>
                        <xsd:choice maxOccurs="unbounded">
                                <xsd:element name="BaseItemDetails" type="BaseItemDetailsType" maxOccurs="unbounded"/>
                                <xsd:element name="FreeText" type="xsd:string" maxOccurs="unbounded"/>
                        </xsd:choice>
                </xsd:complexType>
                <xsd:complexType name="InvoiceDiscountChargesAndTaxType">
                        <xsd:annotation>
                                <xsd:documentation>Main type - Discount and Charges-information</xsd:documentation>
                        </xsd:annotation>
                        <xsd:sequence>
                                <xsd:element name="InvoiceDiscount" type="DiscountChargesAndTaxType" minOccurs="0"
maxOccurs="unbounded"/>
                                <xsd:element name="InvoiceCharges" type="DiscountChargesAndTaxType" minOccurs="0"
maxOccurs="unbounded"/>
                                <xsd:element name="InvoiceTax" type="DiscountChargesAndTaxType" minOccurs="0"
maxOccurs="unbounded"/>
                        </xsd:sequence>
                </xsd:complexType>
                <xsd:complexType name="InvoiceSummaryType">
                        <xsd:annotation>
                                <xsd:documentation>Main type - Summary-information</xsd:documentation>
                        </xsd:annotation>
                        <xsd:sequence>
                                <xsd:element name="FreeText" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
                                <xsd:element name="InvoiceTotals" type="InvoiceTotalsType"/>
                                <xsd:element name="VatTotalsInfo" type="VatInfoType" minOccurs="0" maxOccurs="unbounded"/>
                                <xsd:element name="TaxTotalsInfo" type="TaxTotalsInfoType" minOccurs="0" maxOccurs="unbounded"/>
                                <xsd:element name="DiscountTotals" type="DiscountChargesAndTaxType" minOccurs="0"
maxOccurs="unbounded"/>
                                <xsd:element name="ChargesTotals" type="DiscountChargesAndTaxType" minOccurs="0"
maxOccurs="unbounded"/>
                                <xsd:element name="ActualPayment" type="ActualPaymentType" minOccurs="0"/>
                        </xsd:sequence>
                </xsd:complexType>
                <!-- ======================================================================= -->
                <!--                          Sub-types                                      -->
                <!-- ======================================================================= -->
                <xsd:complexType name="AccountInformationType">
                        <xsd:annotation>
                                <xsd:documentation>Sub-type - Account-information</xsd:documentation>
                        </xsd:annotation>
                        <xsd:sequence>
                                <xsd:element name="AccountNumber" type="xsd:string" minOccurs="0"/>
                                <xsd:element name="IbanNumber" type="xsd:string" minOccurs="0"/>
                                <xsd:element name="SwiftNumber" type="xsd:string" minOccurs="0"/>
                        </xsd:sequence>
                </xsd:complexType>
                <xsd:complexType name="ActualPaymentType">
                        <xsd:annotation>
                                <xsd:documentation>Split for mapping to giroformat</xsd:documentation>
                        </xsd:annotation>
                        <xsd:simpleContent>
                                <xsd:extension base="xsd:decimal">
                                        <xsd:attribute name="Currency" type="xsd:string"/>
                                        <xsd:attribute name="integerValue" type="xsd:nonNegativeInteger"/>
                                        <xsd:attribute name="decimalValue" type="xsd:nonNegativeInteger"/>
                                        <xsd:attribute name="modulus" type="xsd:string"/>
                                </xsd:extension>
                        </xsd:simpleContent>
```

```xml
            </xsd:complexType>
            <xsd:complexType name="AddressType">
                    <xsd:annotation>
                            <xsd:documentation>Sub-type - Address-information</xsd:documentation>
                    </xsd:annotation>
                    <xsd:sequence>
                            <xsd:element name="Address1" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="Address2" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="Address3" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="PostalCode" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="PostalDistrict" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="CountryCode" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="CountryName" type="xsd:string" minOccurs="0"/>
                    </xsd:sequence>
            </xsd:complexType>
            <xsd:complexType name="BaseItemDetailsType">
                    <xsd:annotation>
                            <xsd:documentation>Sub-type - Details-information including Business details</xsd:documentation>
                    </xsd:annotation>
                    <xsd:sequence>
                            <xsd:choice minOccurs="0">
                                    <xsd:element name="SubInvoice" type="SubInvoiceType"/>
                                    <xsd:element name="TravelDetails" type="e2bTravel:BookInfoType"/>
                                    <xsd:element name="TelecomDetails" type="e2bTelecom:TelecomDetailsType"/>
                            </xsd:choice>
                            <xsd:group ref="BaseItemDetailsGroup"/>
                            <xsd:choice minOccurs="0">
                                    <xsd:element name="CardDetailsInformation" type="e2bCard:CardDetailsInfoType"/>
                                    <xsd:element name="InsuranceDetails" type="e2bInsurance:InsuranceDetailsType"/>
                            </xsd:choice>
                    </xsd:sequence>
            </xsd:complexType>
            <xsd:group name="BaseItemDetailsGroup">
                    <xsd:sequence>
                            <xsd:element name="LineItemNum" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="Level" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="SuppliersProductId" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="Description" type="xsd:string"/>
                            <xsd:element name="BuyersProductId" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="AdditionalProductId" type="RefWithCodeType" minOccurs="0"/>
                            <xsd:element name="UnitPrice" type="xsd:decimal" minOccurs="0"/>
                            <xsd:element name="PriceType" type="PriceTypeType" minOccurs="0"/>
                            <xsd:element name="PerQuantity" type="xsd:decimal" minOccurs="0"/>
                            <xsd:element name="LineItemPreDiscountAmount" type="xsd:decimal" minOccurs="0"/>
                            <xsd:element name="PrePaidAmount" type="xsd:decimal" minOccurs="0"/>
                            <xsd:element name="CommissionAmount" type="xsd:decimal" minOccurs="0"/>
                            <xsd:element name="LineItemAmount" type="xsd:decimal"/>
                            <xsd:element name="LineItemGrossAmount" type="xsd:decimal" minOccurs="0"/>
                            <xsd:element name="QuantityInvoiced" type="xsd:decimal" minOccurs="0"/>
                            <xsd:element name="UnitOfMeasure" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="ExchangeInformation" type="ExchangeInfoType" minOccurs="0"/>
                            <xsd:element name="OrderInformation" type="OrderAndDeliveryInfoType" minOccurs="0"/>
                            <xsd:element name="DeliveryInformation" type="OrderAndDeliveryInfoType" minOccurs="0"/>
                            <xsd:element name="SuppliersOrderInformation" type="OrderAndDeliveryInfoType" minOccurs="0"/>
                            <xsd:element name="VatInfo" type="VatInfoType" minOccurs="0" maxOccurs="unbounded"/>
                            <xsd:element name="TaxInfo" type="DiscountChargesAndTaxType" minOccurs="0"
maxOccurs="unbounded"/>
                            <xsd:element name="Discount" type="DiscountChargesAndTaxType" minOccurs="0"
maxOccurs="unbounded"/>
                            <xsd:element name="Charges" type="DiscountChargesAndTaxType" minOccurs="0"
maxOccurs="unbounded"/>
                            <xsd:element name="Invoicee" type="PartyType" minOccurs="0"/>
                            <xsd:element name="Licencee" type="PartyType" minOccurs="0"/>
                            <xsd:element name="StartDate" type="xsd:date" nillable="true" minOccurs="0"/>
                            <xsd:element name="EndDate" type="xsd:date" nillable="true" minOccurs="0"/>
                            <xsd:element name="SpecialCond" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="PostingInformation" type="xsd:string" minOccurs="0"/>
                            <xsd:element name="PostingDetails" type="PostingDetailsType" minOccurs="0" maxOccurs="unbounded"/>
                            <xsd:element name="Ref" type="RefWithCodeType" minOccurs="0" maxOccurs="unbounded"/>
                            <xsd:element name="FreeText" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
                    </xsd:sequence>
            </xsd:group>
            <xsd:complexType name="ContactInformationType">
```

```xml
                <xsd:annotation>
                        <xsd:documentation>Sub-type - Contact-information</xsd:documentation>
                </xsd:annotation>
                <xsd:sequence>
                        <xsd:element name="PhoneNumber" type="xsd:string" minOccurs="0"/>
                        <xsd:element name="FaxNumber" type="xsd:string" minOccurs="0"/>
                        <xsd:element name="EmailAddress" type="xsd:string" minOccurs="0"/>
                        <xsd:element name="WebAddress" type="xsd:string" minOccurs="0"/>
                </xsd:sequence>
        </xsd:complexType>
        <xsd:complexType name="ContactPersonType">
                <xsd:annotation>
                        <xsd:documentation>Sub-type - Contact-information</xsd:documentation>
                </xsd:annotation>
                <xsd:sequence>
                        <xsd:element name="Name" type="xsd:string"/>
                        <xsd:element name="FirstName" type="xsd:string" minOccurs="0"/>
                        <xsd:element name="LastName" type="xsd:string" minOccurs="0"/>
                        <xsd:element name="ContactInformation" type="ContactInformationType" minOccurs="0"/>
                        <xsd:element name="Function" type="xsd:string" minOccurs="0"/>
                        <xsd:element name="Department" type="xsd:string" minOccurs="0"/>
                </xsd:sequence>
        </xsd:complexType>
        <xsd:complexType name="DetailsType">
                <xsd:annotation>
                        <xsd:documentation>Sub-type - Basic Details-information</xsd:documentation>
                </xsd:annotation>
                <xsd:sequence>
                        <xsd:group ref="BaseItemDetailsGroup"/>
                </xsd:sequence>
        </xsd:complexType>
        <xsd:complexType name="DiscountChargesAndTaxType">
                <xsd:annotation>
                        <xsd:documentation>Sub-type - Info. about Discount or Charges</xsd:documentation>
                </xsd:annotation>
                <xsd:sequence>
                        <xsd:element name="Code" type="xsd:string" minOccurs="0"/>
                        <xsd:element name="Description" type="xsd:string" minOccurs="0"/>
                        <xsd:element name="Percent" type="xsd:decimal" minOccurs="0"/>
                        <xsd:element name="BaseAmount" type="xsd:decimal" minOccurs="0"/>
                        <xsd:element name="Amount" type="xsd:decimal" minOccurs="0"/>
                        <xsd:element name="Quantity" type="xsd:decimal" minOccurs="0"/>
                        <xsd:element name="UnitOfMeasure" type="xsd:string" minOccurs="0"/>
                        <xsd:element name="RatePerUnit" type="xsd:decimal" minOccurs="0"/>
                </xsd:sequence>
        </xsd:complexType>
        <xsd:complexType name="DiscountTreatmentType">
                <xsd:simpleContent>
                        <xsd:extension base="DiscountTreatmentCodeType">
                                <xsd:attribute name="codetext" type="xsd:string"/>
                        </xsd:extension>
                </xsd:simpleContent>
        </xsd:complexType>
        <xsd:simpleType name="DiscountTreatmentCodeType">
                <xsd:restriction base="xsd:string">
                        <xsd:enumeration value="UN"/>
                        <xsd:enumeration value="UG"/>
                        <xsd:enumeration value="TN"/>
                        <xsd:enumeration value="TG"/>
                </xsd:restriction>
        </xsd:simpleType>
        <xsd:complexType name="ExchangeInfoType">
                <xsd:annotation>
                        <xsd:documentation>Sub-type - Exchange-information</xsd:documentation>
                </xsd:annotation>
                <xsd:sequence>
                        <xsd:element name="Currency" type="xsd:string"/>
                        <xsd:element name="ForeignAmount" type="xsd:decimal"/>
                        <xsd:element name="ExchangeRate" type="xsd:decimal" minOccurs="0"/>
                        <xsd:element name="ExchangeDate" type="xsd:date" minOccurs="0"/>
                </xsd:sequence>
        </xsd:complexType>
        <xsd:complexType name="HeaderType">
```

```xml
                        <xsd:annotation>
                                <xsd:documentation>Sub-type - Basic Header-information</xsd:documentation>
                        </xsd:annotation>
                        <xsd:sequence>
                                <xsd:group ref="InvoiceHeaderGroup"/>
                        </xsd:sequence>
                </xsd:complexType>
        <xsd:group name="InvoiceHeaderGroup">
                        <xsd:annotation>
                                <xsd:documentation>Group - Basic Header-information</xsd:documentation>
                        </xsd:annotation>
                        <xsd:sequence>
                                <xsd:element name="InvoiceType" type="InvoiceTypeType" default="380" minOccurs="0"/>
                                <xsd:element name="InvoiceStatus" type="InvoiceStatusType" default="9" nillable="true" minOccurs="0"/>
                                <xsd:element name="InvoiceNumber" type="xsd:string"/>
                                <xsd:element name="InvoiceDate" type="xsd:date">
                                        <xsd:annotation>
                                                <xsd:documentation>Format yyyy-mm-dd</xsd:documentation>
                                        </xsd:annotation>
                                </xsd:element>
                                <xsd:element name="TaxTreatment" type="TaxTreatmentType" nillable="true" minOccurs="0"/>
                                <xsd:element name="DiscountTreatment" type="DiscountTreatmentType" nillable="true" minOccurs="0"/>
                                <xsd:element name="Supplier" type="PartyType"/>
                                <xsd:element name="InvoiceIssuer" type="PartyType" minOccurs="0"/>
                                <xsd:element name="Buyer" type="PartyType"/>
                                <xsd:element name="Invoicee" type="PartyType" minOccurs="0"/>
                                <xsd:element name="OrderedBy" type="PartyType" minOccurs="0"/>
                                <xsd:element name="DeliveryPart" type="PartyType" minOccurs="0"/>
                                <xsd:element name="UltimateCustomer" type="PartyType" minOccurs="0"/>
                                <xsd:element name="ShippedFrom" type="PartyType" minOccurs="0"/>
                                <xsd:element name="Factoring" type="PartyType" minOccurs="0"/>
                                <xsd:element name="InvoiceReferences" type="InvoiceReferencesType" minOccurs="0"/>
                                <xsd:element name="Payment" type="PaymentType"/>
                                <xsd:element name="Attachments" type="xsd:string" minOccurs="0" maxOccurs="unbounded">
                                        <xsd:annotation>
                                                <xsd:documentation>Ref. to attachments to the Invoice i.e. images</xsd:documentation>
                                        </xsd:annotation>
                                </xsd:element>
                                <xsd:element name="Ref" type="RefWithCodeType" minOccurs="0" maxOccurs="unbounded"/>
                                <xsd:element name="FreeText" type="xsd:string" minOccurs="0" maxOccurs="unbounded"/>
                        </xsd:sequence>
        </xsd:group>
        <xsd:complexType name="InvoiceReferencesType">
                        <xsd:annotation>
                                <xsd:documentation>Sub-type - Invoice references</xsd:documentation>
                        </xsd:annotation>
                        <xsd:sequence>
                                <xsd:element name="BuyersOrderNumber" type="xsd:string" minOccurs="0"/>
                                <xsd:element name="BuyersOrderDate" type="xsd:date" minOccurs="0"/>
                                <xsd:element name="BuyersProjectCode" type="xsd:string" minOccurs="0"/>
                                <xsd:element name="InvoiceNumber" type="xsd:string" minOccurs="0"/>
                                <xsd:element name="SuppliersOrderNumber" type="xsd:string" minOccurs="0"/>
                                <xsd:element name="DeliveryTerms" type="xsd:string" minOccurs="0"/>
                                <xsd:element name="DeliveryTermsCode" type="xsd:string" minOccurs="0"/>
                                <xsd:element name="DeliveryTermsPlace" type="xsd:string" minOccurs="0"/>
                                <xsd:element name="DeliveryNoteNum" type="xsd:string" minOccurs="0"/>
                                <xsd:element name="DeliveryDate" type="xsd:date" minOccurs="0"/>
                        </xsd:sequence>
        </xsd:complexType>
        <xsd:complexType name="InvoiceStatusType">
                        <xsd:simpleContent>
                                <xsd:extension base="StatusCodeType">
                                        <xsd:attribute name="codetext" type="xsd:string"/>
                                </xsd:extension>
                        </xsd:simpleContent>
        </xsd:complexType>
        <xsd:simpleType name="StatusCodeType">
                        <xsd:restriction base="xsd:positiveInteger">
                                <xsd:enumeration value="9"/>
                                <xsd:enumeration value="10"/>
                                <xsd:enumeration value="53"/>
                        </xsd:restriction>
        </xsd:simpleType>
```

```xml
<xsd:complexType name="InvoiceTotalsType">
        <xsd:annotation>
                <xsd:documentation>Sub-type - Invoice totals</xsd:documentation>
        </xsd:annotation>
        <xsd:sequence>
                <xsd:element name="LineItemTotalsAmount" type="xsd:decimal" minOccurs="0"/>
                <xsd:element name="DiscountTotalsAmount" type="xsd:decimal" minOccurs="0"/>
                <xsd:element name="ChargesTotalsAmount" type="xsd:decimal" minOccurs="0"/>
                <xsd:element name="TaxTotalsAmount" type="xsd:decimal" minOccurs="0"/>
                <xsd:element name="PrePaidAmount" type="xsd:decimal" minOccurs="0"/>
                <xsd:element name="CommissionAmount" type="xsd:decimal" minOccurs="0"/>
                <xsd:element name="GrossAmount" type="xsd:decimal"/>
                <xsd:element name="VatTotalsAmount" type="xsd:decimal"/>
                <xsd:element name="NetAmount" type="xsd:decimal"/>
                <xsd:element name="RoundingAmount" type="xsd:decimal" minOccurs="0"/>
        </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="InvoiceTypeType">
        <xsd:simpleContent>
                <xsd:extension base="InvoiceCodeType">
                        <xsd:attribute name="codetext" type="xsd:string"/>
                </xsd:extension>
        </xsd:simpleContent>
</xsd:complexType>
<xsd:simpleType name="InvoiceCodeType">
        <xsd:restriction base="xsd:positiveInteger">
                <xsd:enumeration value="380"/>
                <xsd:enumeration value="381"/>
        </xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="OrderAndDeliveryInfoType">
        <xsd:annotation>
                <xsd:documentation>Sub-type - Order- or Delivery-information</xsd:documentation>
        </xsd:annotation>
        <xsd:sequence>
                <xsd:element name="UnitOfMeasure" type="xsd:string" minOccurs="0"/>
                <xsd:element name="UnitPrice" type="xsd:decimal" minOccurs="0"/>
                <xsd:element name="PriceType" type="xsd:string" minOccurs="0"/>
                <xsd:element name="Quantity" type="xsd:decimal" minOccurs="0"/>
                <xsd:element name="LineNum" type="xsd:string" minOccurs="0"/>
        </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="PartyType">
        <xsd:annotation>
                <xsd:documentation>Sub-type - Party-information</xsd:documentation>
        </xsd:annotation>
        <xsd:sequence>
                <xsd:element name="PartyId" type="xsd:string" minOccurs="0"/>
                <xsd:element name="LocationId" type="xsd:string" minOccurs="0"/>
                <xsd:element name="Name" type="xsd:string"/>
                <xsd:element name="ContactInformation" type="ContactInformationType" minOccurs="0"/>
                <xsd:element name="StreetAddress" type="AddressType" minOccurs="0"/>
                <xsd:element name="PostalAddress" type="AddressType" minOccurs="0"/>
                <xsd:element name="ContactPerson" type="ContactPersonType" minOccurs="0" maxOccurs="unbounded"/>
                <xsd:element name="OrgNumber" type="xsd:string" minOccurs="0"/>
                <xsd:element name="VatId" type="xsd:string" minOccurs="0"/>
                <xsd:element name="Department" type="xsd:string" minOccurs="0"/>
                <xsd:element name="AccountInformation" type="AccountInformationType" minOccurs="0"/>
                <xsd:element name="ProjectRef" type="xsd:string" minOccurs="0"/>
                <xsd:element name="Ref" type="RefWithCodeType" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="PaymentType">
        <xsd:annotation>
                <xsd:documentation>Sub-type - Payment-information</xsd:documentation>
        </xsd:annotation>
        <xsd:sequence>
                <xsd:element name="DueDate" type="xsd:date" minOccurs="0"/>
                <xsd:element name="Currency" type="xsd:string" default="NOK"/>
                <xsd:element name="KidNumber" type="xsd:string" minOccurs="0"/>
                <xsd:element name="PaymentTerms" type="xsd:string" minOccurs="0"/>
                <xsd:element name="PaymentDiscount" type="PaymentDiscountType" minOccurs="0"/>
                <xsd:element name="OverDuePercent" type="xsd:decimal" minOccurs="0"/>
```

```xml
                        </xsd:sequence>
                </xsd:complexType>
                <xsd:complexType name="PaymentDiscountType">
                        <xsd:annotation>
                                <xsd:documentation>Sub-type - PaymentDiscount-information</xsd:documentation>
                        </xsd:annotation>
                        <xsd:sequence>
                                <xsd:element name="DiscountPercent" type="xsd:decimal"/>
                                <xsd:element name="DiscountDays" type="xsd:decimal" minOccurs="0"/>
                        </xsd:sequence>
                </xsd:complexType>
                <xsd:complexType name="PostingDetailsType">
                        <xsd:annotation>
                                <xsd:documentation>Sub-type - Posting details</xsd:documentation>
                        </xsd:annotation>
                        <xsd:sequence>
                                <xsd:element name="Dimension" type="xsd:string"/>
                                <xsd:element name="PostingCode" type="xsd:string"/>
                        </xsd:sequence>
                </xsd:complexType>
                <xsd:complexType name="PriceTypeType">
                        <xsd:simpleContent>
                                <xsd:extension base="PriceTypeCodeType">
                                        <xsd:attribute name="codetext" type="xsd:string"/>
                                </xsd:extension>
                        </xsd:simpleContent>
                </xsd:complexType>
                <xsd:simpleType name="PriceTypeCodeType">
                        <xsd:restriction base="xsd:string">
                                <xsd:enumeration value="AAA"/>
                                <xsd:enumeration value="AAB"/>
                        </xsd:restriction>
                </xsd:simpleType>
                <xsd:complexType name="RefWithCodeType">
                        <xsd:annotation>
                                <xsd:documentation>Sub-type - Reference with code</xsd:documentation>
                        </xsd:annotation>
                        <xsd:sequence>
                                <xsd:element name="Code" type="xsd:string"/>
                                <xsd:element name="Text" type="xsd:string" minOccurs="0"/>
                        </xsd:sequence>
                </xsd:complexType>
                <xsd:complexType name="SubInvoiceType">
                        <xsd:sequence>
                                <xsd:element name="Header" type="HeaderType"/>
                                <xsd:element name="Details" type="DetailsType" maxOccurs="unbounded"/>
                        </xsd:sequence>
                </xsd:complexType>
                <xsd:complexType name="TaxTotalsInfoType">
                        <xsd:annotation>
                                <xsd:documentation>Sub-type - Tax-information</xsd:documentation>
                        </xsd:annotation>
                        <xsd:sequence>
                                <xsd:element name="TaxCode" type="xsd:string" minOccurs="0"/>
                                <xsd:element name="TaxDescription" type="xsd:string" minOccurs="0"/>
                                <xsd:element name="TaxAmount" type="xsd:decimal" minOccurs="0"/>
                        </xsd:sequence>
                </xsd:complexType>
                <xsd:complexType name="TaxTreatmentType">
                        <xsd:simpleContent>
                                <xsd:extension base="TaxTreatmentCodeType">
                                        <xsd:attribute name="codetext" type="xsd:string"/>
                                </xsd:extension>
                        </xsd:simpleContent>
                </xsd:complexType>
                <xsd:simpleType name="TaxTreatmentCodeType">
                        <xsd:restriction base="xsd:string">
                                <xsd:enumeration value="NIL"/>
                                <xsd:enumeration value="GIL"/>
                                <xsd:enumeration value="NLL"/>
                                <xsd:enumeration value="GLL"/>
                                <xsd:enumeration value="NON"/>
                        </xsd:restriction>
```

```xml
            </xsd:simpleType>
            <xsd:complexType name="VatInfoType">
                    <xsd:annotation>
                            <xsd:documentation>Sub-type - Vat-information</xsd:documentation>
                    </xsd:annotation>
                    <xsd:sequence>
                            <xsd:element name="VatPercent" type="xsd:decimal" minOccurs="0"/>
                            <xsd:element name="VatBaseAmount" type="xsd:decimal" minOccurs="0"/>
                            <xsd:element name="VatAmount" type="xsd:decimal" minOccurs="0"/>
                    </xsd:sequence>
            </xsd:complexType>
</xsd:schema>
```

Attachment 1: XML Schema

e2b_Invoice_Interchange_v3p1.xsd

e2b_Invoice_v3p1.xsd

e2b_Card_Information_v1p0.xsd

e2b_Travel_v1p0.xsd

e2b_Telecom_v1p0.xsd

e2b_Insurance_v1p0.xsd

Attachment 2: Example file

e2b_Invoice_Examplefile_v3p1.xml