



## OASIS Committee Note

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# XHE 1.0 Migration and Implementation Guide Version 1.0

## Committee Note 01

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**Technical Committee:**

OASIS Business Document Exchange (BDXR) TC

**Chairs:**

Anders Grangard ([anders.grangard@gs1.org](mailto:anders.grangard@gs1.org)), GS1  
Kenneth Bengtsson ([kbengtsson@efact.pe](mailto:kbengtsson@efact.pe)), Individual member

**Editor:**

Kenneth Bengtsson ([kbengtsson@efact.pe](mailto:kbengtsson@efact.pe)), Individual member

**Related work:**

This document is related to:

- *Exchange Header Envelope (XHE) Version 1.0*. Edited by G. Ken Holman. Latest version: <https://docs.oasis-open.org/bdxx/xhe/v1.0/xhe-v1.0-oasis.html>.

**Abstract:**

This document provides guidance and examples for users of the UN/CEFACT SBDH 1.3 and OASIS BDE 1.1 specifications migrating to XHE 1.0, as well as an analysis of the mapping of the business objects of these specifications to those of XHE. It also provides background information and implementation guidance to those new to header envelope standards and the XHE specification.

**Status:**

This is a Non-Standards Track Work Product. The patent provisions of the OASIS IPR Policy do not apply.

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# 1 Introduction

## 1.1 Overview

The Exchange Header Envelope ([**XHE**]) is a joint specification between the UN/CEFACT and the OASIS Business Document Exchange Technical Committee, which supersedes the UN/CEFACT Standard Business Document Header ([**SBDH**]) and the OASIS Business Document Envelope ([**BDE**]) to provide a single universal specification.

This document serves as a migration and implementation guide for existing users of SBDH and BDE who are migrating to XHE. It provides a mapping of the business objects of SBDH and BDE to those of the XHE, background information for understanding and translation of elements, as well as examples of header and envelope transformations.

## 1.2 Terminology

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in [**RFC2119**].

## 1.3 References (non-normative)

- [BDE]** Business Document Envelope Version 1.1, edited by G. Ken Holman and Kenneth Bengtsson, December 2016, OASIS Committee Specification, <http://docs.oasis-open.org/bdxe/bdx-bde/v1.1/bdx-bde-v1.1.html>.
- [CCTS]** UN/CEFACT Core Components Technical Specification, Version 2.01 15 November 2003, [http://www.unece.org/fileadmin/DAM/cefact/codesfortrade/CCTS/CCTS\\_V2-01\\_Final.pdf](http://www.unece.org/fileadmin/DAM/cefact/codesfortrade/CCTS/CCTS_V2-01_Final.pdf).
- [GS1\_Guide]** Standard Business Document Header (SBDH) Version 1.3 Technical Implementation Guide, Issue 3, July 2012, [https://www.gs1.org/sites/default/files/docs/xml/SBDH\\_v1\\_3\\_Technical\\_Implementation\\_Guide.pdf](https://www.gs1.org/sites/default/files/docs/xml/SBDH_v1_3_Technical_Implementation_Guide.pdf).
- [GS1\_Invoice]** GS1 Invoice Business Message Standard (BMS) Version 3.4, October 2018, <https://www.gs1.org/standards/edi-xml/xml-invoice/3-4>.
- [PEPPOL\_BME]** PEPPOL Business Message Envelope (SBDH), Version 1.2, February 2019, <https://github.com/OpenPEPPOL/documentation/raw/master/TransportInfrastructure/PEPPOL-EDN-Business-Message-Envelope-1.2-2019-02-01.pdf>.
- [RFC2119]** Bradner, S., Key words for use in RFCs to Indicate Requirement Levels, BCP 14, RFC 2119, March 1997, <http://www.rfc-editor.org/info/rfc2119>.
- [SBDH]** UN/CEFACT Standard Business Document Header Technical Specification, Version 1.3, June 2004, [https://www.gs1.org/sites/default/files/docs/gs1\\_unecefact\\_%20xml\\_%20profiles/CEFACT\\_SBDH\\_TS\\_version1.3.pdf](https://www.gs1.org/sites/default/files/docs/gs1_unecefact_%20xml_%20profiles/CEFACT_SBDH_TS_version1.3.pdf).
- [SHA-256]** Secure Hash Standard (SHS) (FIPS PUB 180-4), National Institute of Standards and Technology (NIST), August 2015, <https://nvlpubs.nist.gov/nistpubs/FIPS/NIST.FIPS.180-4.pdf>.
- [XHE]** Exchange Header Envelope (XHE) Version 1.0, joint UN/CEFACT and OASIS BDXR TC Technical Specification, edited by G. Ken Holman, 21 March 2019, <http://docs.oasis-open.org/bdxe/xhe/v1.0/xhe-v1.0-oasis.html> (OASIS version).
- [XML]** Extensible Markup Language (XML) 1.0 (Fifth Edition), T. Bray, J. Paoli, C. M. Sperberg-McQueen, E. Maler, F. Yergeau, Editors, W3C Recommendation, 26 November 2008, <http://www.w3.org/TR/2008/REC-xml-20081126/>. Latest version available at <http://www.w3.org/TR/xml>.
- [XSD1]** XML Schema Part 1: Structures Second Edition, H. S. Thompson, D. Beech, M. Maloney, N. Mendelsohn, Editors, W3C Recommendation, 28 October 2004,

**[XSD2]**

<http://www.w3.org/TR/2004/REC-xmlschema-1-20041028/>. Latest version available at <http://www.w3.org/TR/xmlschema-1>.

XML Schema Part 2: Datatypes Second Edition, P. V. Biron, A. Malhotra, Editors, W3C Recommendation, 28 October 2004, <http://www.w3.org/TR/2004/REC-xmlschema-2-20041028/>. Latest version available at <http://www.w3.org/TR/xmlschema-2>.

## 1.4 XML Schemas used

To exemplify the implementation of **[XHE]** and to simplify the mapping to **[SBDH]** and **[BDE]** objects and elements, this document uses the XML Schema (**[XSD1]** **[XSD2]**) implementation included with the OASIS distribution of XHE.

Please see the **[XHE]** documentation for descriptions and mappings to the respective UN/CEFACT and OASIS semantic identifiers.

## 2 Migrating from SBDH 1.3

### 2.1 Introduction

An [SBDH] implementation can be migrated to [XHE] without loss of data, meaning or context. Whether used as a header technology or as an envelope technology, XHE can seamlessly replace any instance of SBDH in the exact same position, context and environment where it is used, and without the need to modify any additional business processes, documents, conventions or other related systems or components outside of the SBDH itself.

In addition to the data model and structure required to migrate an existing SBDH implementation, XHE provides functionality that cannot be accomplished using SBDH, such as envelopes containing multiple documents and artefacts, encryption of payloads for enhanced security and confidentiality, capability to verify the integrity of business documents, as well as capacity to enhance the understanding of the content and context of the header envelope elements by using OPTIONAL [XML] attributes corresponding to [CCTS] supplementary components. This migration guide covers the migration and transformation of existing SBDH elements to XHE. For information about additional functionalities and features please consult the [XHE] documentation itself.

### 2.2 SBDH mapping guide

The following table contains a comprehensive list of [SBDH] business objects and elements, and their equivalent positions in [XHE]:

SBDH	XHE	Comments
StandardBusinessDocument Header	XHE	The header envelope container.
└ HeaderVersion	XHE/xhb:XHEVersionID	For both standards, this is the identification of the specific version in use.
└ Sender	XHE/xha:FromParty/xha:PartyIdentification	The identification of the party or parties who originated the header envelope. Main differences between the SBDH <i>Sender</i> and the XHE <i>FromParty</i> are: 1) When specifying multiple sender parties in SBDH, the entire <i>Sender</i> block is repeated for each party. In XHE, this is achieved by adding more <i>PartyIdentification</i> children to the <i>FromParty</i> structure. 2) Verbose contact information has been omitted in XHE. The receiver is expected to identify the sending party by the unique ID.
└ └ Identifier	XHE/xha:FromParty/xha:PartyIdentification/xhb:ID	Unambiguously identifies a sending party. In SBDH, the generic <i>Authority</i> attribute can be added to the Identifier to qualify the origin and disposition of the identification being used. In comparison, XHE uses the more verbose standard data type definitions and [XML] attributes derived from [CCTS]. When migrating from SBDH to XHE, the value of the <i>Sender/Identifier</i> element can be transferred literally to the XHE <i>PartyIdentification/ID</i> element, whereas the implementer SHOULD evaluate the nature of the <i>Authority</i> attribute and locate its appropriate equivalent in CCTS. Please see section 8.2 of the [CCTS] documentation for detailed information about the supplementary components, section 4.7 of the [XHE] specification for the corresponding serialization attribute names, as well as the examples in section 2.3.2 below.

<b>SBDH</b>	<b>XHE</b>	<b>Comments</b>
<ul style="list-style-type: none"> <li>└ Receiver</li> </ul>	XHE/xha:ToParty/xha:Partyid entification	<p>The identification of the recipient or recipients of the header envelope.</p> <p>Main differences between the SBDH <i>Receiver</i> and the XHE <i>ToParty</i> are:</p> <ol style="list-style-type: none"> <li>1) When specifying multiple recipients in SBDH, the entire <i>Receiver</i> block is repeated for each party. In XHE, this is achieved by adding more <i>PartyIdentification</i> children to the <i>ToParty</i> structure.</li> <li>2) Verbose contact information has been omitted in XHE. The sender is expected to identify the recipient by the unique ID.</li> </ol>
<ul style="list-style-type: none"> <li>└ └ Identifier</li> </ul>	XHE/xha:ToParty/xha:Partyid entification/xhb:ID	<p>Unambiguously identifies a receiving party. In SBDH, the generic <i>Authority</i> attribute can be added to the <i>Identifier</i> to qualify the origin and disposition of the identification being used. In comparison, XHE uses the more verbose standard data type definitions and <b>[XML]</b> attributes derived from <b>[CCTS]</b>. When migrating from SBDH to XHE, the value of the <i>Receiver/Identifier</i> element can be transferred literally to the XHE <i>PartyIdentification/ID</i> element, whereas the implementer SHOULD evaluate the nature of the <i>Authority</i> attribute and locate its appropriate equivalent in CCTS. Please see the <b>[CCTS]</b> documentation for detailed information, as well as the examples in section 2.3.2 below.</p>
<ul style="list-style-type: none"> <li>└ DocumentIdentification</li> </ul>	XHE/xha:Header  XHE/xha:Payloads	<p>The SBDH <i>DocumentIdentification</i> contains elements that both describe the standard business document as well as the standard business document header itself. In XHE, the relation between an XHE instance and its associated business documents is one-to-many and it is necessary to distinguish between elements that describe the header envelope instance and the elements that describe its individual business documents.</p> <p>The XHE elements describing the XHE instance itself are found in the XHE Header container, while the elements describing an associated or contained business documents are found in the XHE Payloads container.</p>
<ul style="list-style-type: none"> <li>└ └ Standard</li> </ul>	XHE/xha:Payloads/xha:Paylo ad/xhb:ValidationTypeCode	<p>For both SBDH and XHE, indicates the document standard, data dictionary or similar being used for validating the structure of a business document. The SBDH <i>Standard</i> can be transferred literally to the XHE <i>ValidationTypeCode</i>.</p>
<ul style="list-style-type: none"> <li>└ └ TypeVersion</li> </ul>	XHE/xha:Payloads/xha:Paylo ad/xhb:ValidationVersionID	<p>For both SBDH and XHE, indicates the version of the document standard, data dictionary or similar being used for validating the structure of a business document. The SBDH <i>TypeVersion</i> can be transferred literally to the XHE <i>ValidationVersionID</i>.</p>
<ul style="list-style-type: none"> <li>└ └ InstanceIdentifier</li> </ul>	XHE/xha:Header/xhb:ID  XHE/xha:Payloads/xha:Paylo ad/xhb:ID	<p>Uniquely identifies business document header and business document instances. In SBDH, the relationship between the business document header and the business document is one-to-one why only one <i>DocumentIdentification/InstanceIdentifier</i> is necessary to identify both. In XHE, a business document envelope can contain multiple</p>



SBDH	XHE	Comments
		business documents and it is therefore necessary to be able to identify the envelope separately from the documents contained within it.
└└ Type	XHE/xha:Payloads/xha:Payload/xhb:DocumentTypeCode	Indicates the type of business document. In XHE, this is indicated for each business document associated with the header envelope.
└└ MultipleType	N/A	Not used in XHE. The presence of more than one Payload within the XHE provides evidence that there are multiple documents within or referenced from the XHE instance.
└└ CreationDateAndTime	XHE/xha:Header/xhb:CreationDateAndTime	The SBDH <i>CreationDateAndTime</i> can be transferred literally to the XHE <i>CreationDateAndTime</i> . This is the timestamp when the header envelope was created. The creation timestamps of business documents associated with the XHE header envelope are expected to be shown within the business documents themselves and their values are not reflected in the header envelope structure.
└ Manifest	XHE/xha:Payloads	The SBDH <i>Manifest</i> object provides information about documents related to or referenced from the business document. In XHE, this is achieved by associating business documents by either including their content in the <i>XHE/xha:Payloads/xha:Payload/xha:PayloadContent</i> element, or by referencing them from the <i>XHE/xha:Payloads/xha:Payload/xha:PayloadExternalReference</i> element.
└└ NumberOfItems	N/A	The number of <i>Payload</i> children of the <i>XHE/xha:Payloads</i> element is evidence of how many payloads are contained within or referenced from an XHE.
└└ ManifestItem	XHE/xha:Payloads/xha:Payload	The <i>XHE/xha:Payloads/xha:Payload</i> element provides information about an included or referenced business document, similar to the SBDH <i>ManifestItem</i> , and is repeated for each business document and artefact associated with the XHE instance.
└└└ MimeTypeQualifierCode	XHE/xha:Payloads/xha:Payload/xhb:ContentTypeCode	Provides information about the file format of the business document or artefact associated with the XHE instance. The SBDH <i>MimeTypeQualifierCode</i> can be transferred literally to the XHE <i>ContentTypeCode</i> .
└└└ UniformResourceIdentifier	XHE/xha:Payloads/xha:Payload/xha:PayloadExternalReference/xhb:ID	The <i>xha:PayloadExternalReference/xhb:ID</i> identifies an externally referenced document by its URI, similar to the SBDH <i>UniformResourceIdentifier</i> . Note that the <i>xha:PayloadExternalReference/xhb:ID</i> MAY use any unambiguous identifier and is not restricted to use a URI.
└└└ Description	XHE/xha:Payloads/xha:Payload/xhb:Description	A textual description of the business document or artefact associated with the XHE instance. The SBDH <i>Description</i> can be transferred literally to the XHE <i>Description</i> .
└└└ LanguageCode	XHE/xha:Payloads/xha:Payload/xhb:DocumentTypeCode/@languageID	The SBDH <i>LanguageCode</i> element provides information about the language of a referenced document. In XHE this is achieved by using the <b>[CCTS]</b> <i>LanguageID</i> attribute of the <i>DocumentTypeCode</i> element. The <i>LanguageID</i> attribute is of type <code>xsd:language</code> why the ISO 639

SBDH	XHE	Comments
		value of the SBDH <i>LanguageCode</i> can be transferred literally to XHE.
<ul style="list-style-type: none"> <li>└ BusinessScope</li> </ul>		<p>The SBDH <i>BusinessScope</i> object describes one or more agreements between parties, which define the context of the SBDH and SBD such as its relation and position in a transaction or business process, or a convention of business document requirements.</p> <p>The XHE may similarly contain information about any such agreements. However, the XHE differentiates between whether such agreements apply to the business document itself, the XHE header envelope, the business process, or any other convention that defines the understanding of the information being exchanged.</p> <p>The following guidelines apply when migrating an SBDH business scope to XHE:</p>
<ul style="list-style-type: none"> <li>└ └ Scope</li> </ul>		<p>The SBDH <i>BusinessScope/Scope</i> is an object that repeats for each agreement and convention that applies to the business document. Each <i>Scope</i> contains as a minimum a <i>Scope/Type</i> and <i>Scope/InstanceIdentifier</i> pair, where the value of the <i>Scope/Type</i> element defines the type of business scope and the <i>Scope/InstanceIdentifier</i> defines the meaning or rules that applies to the business scope type.</p> <p>When migrating from SBDH to XHE it is necessary to evaluate the <i>Type</i> of each SBDH <i>Scope</i> individually, in order to assess its meaning and relevance so that its appropriate position in the XHE structure can be determined. As a general guideline, XHE elements that describe the header envelope itself are found in the root element of the XML structure, XHE elements that describe a business document are found in the <i>Payloads</i> structure, and conventions and agreements that describe a general understanding of the scope of the header envelope and its related business documents are expressed using the <i>Header</i> structure.</p>
<ul style="list-style-type: none"> <li>└ └ └ Type</li> <li>└ └ └ InstanceIdentifier</li> <li>└ └ └ Identifier</li> </ul>	XHE/xhb:CustomizationID	<p>The <i>XHE/CustomizationID</i> describes an agreement to use a subset or a user defined model of the header envelope itself. When an SBDH business scope type is used for describing such a convention, the SBDH <i>BusinessScope/Scope/InstanceIdentifier</i> value is placed as the value of the XHE <i>CustomizationID</i>, while the SBDH <i>BusinessScope/Scope/Identifier</i> can be expressed using the <b>[XML]</b> attributes derived from <b>[CTS]</b> of the <i>CustomizationID</i> element.</p> <p>For example, the SBDH business scope</p>

SBDH	XHE	Comments
		<pre data-bbox="889 233 1421 495">&lt;BusinessScope&gt;   &lt;Scope&gt;     &lt;Type&gt;HEADER_SCHEMA&lt;/Type&gt;     &lt;InstanceIdentifier&gt;       Example Header version 1.0     &lt;/InstanceIdentifier&gt;     &lt;Identifier&gt;       http://www.example.com/CustomHeader     &lt;/Identifier&gt;   &lt;/Scope&gt; &lt;/BusinessScope&gt;</pre> <p data-bbox="889 527 1198 552">Can be expressed in XHE as</p> <pre data-bbox="889 590 1421 684">&lt;xhb:CustomizationID schemeDataURI="http://www.example.com/CustomHeader"&gt;Example Header version 1.0 &lt;/xhb:CustomizationID&gt;</pre> <p data-bbox="889 716 1390 793">Not to be misidentified for the XHE <i>CustomizationID</i> in the XHE <i>Payloads/Payload</i> structure.</p>
	XHE/xha:Payloads/xha:Payload/xhb:CustomizationID	<p data-bbox="889 800 1421 1125">The <i>Payload/CustomizationID</i> identifies an agreement to use a subset or a user defined model of a business document associated with the XHE header envelope. When an SBDH business scope type is used for describing such a convention, the SBDH <i>BusinessScope/Scope/InstanceIdentifier</i> value is placed as the value of the XHE <i>Payload/CustomizationID</i>, while the SBDH Identifier can be expressed using the <b>[CTS]</b> derived attributes of the <i>Payload/CustomizationID</i> element.</p> <p data-bbox="889 1157 1317 1182">For example, the SBDH business scope</p> <pre data-bbox="889 1220 1421 1482">&lt;BusinessScope&gt;   &lt;Scope&gt;     &lt;Type&gt;DOCUMENT_SCHEMA&lt;/Type&gt;     &lt;InstanceIdentifier&gt;       Example Document version 1.0     &lt;/InstanceIdentifier&gt;     &lt;Identifier&gt;       http://www.example.com/CustomDoc     &lt;/Identifier&gt;   &lt;/Scope&gt; &lt;/BusinessScope&gt;</pre> <p data-bbox="889 1514 1198 1539">Can be expressed in XHE as</p> <pre data-bbox="889 1577 1421 1671">&lt;xhb:CustomizationID schemeDataURI="http://www.example.com/CustomDoc"&gt;Example Document version 1.0 &lt;/xhb:CustomizationID&gt;</pre> <p data-bbox="889 1703 1401 1755">Not to be misidentified for the XHE <i>CustomizationID</i> in the root element of the XHE.</p>
	XHE/xhb:ProfileID	<p data-bbox="889 1761 1421 1919">The <i>XHE/ProfileID</i> describes the profile of the business process or business scope that the header envelope itself is part of. When an SBDH business scope type is used for describing such a convention, the SBDH <i>BusinessScope/Scope/InstanceIdentifier</i> value is</p>

SBDH	XHE	Comments
		<p>placed as the value of the XHE <i>ProfileID</i>, while the SBDH Identifier can be expressed using the <b>[CTS]</b> derived attributes of the <i>ProfileID</i> element.</p> <p>For example, the SBDH business scope</p> <pre data-bbox="889 426 1419 688" style="background-color: #f0f0f0;"> &lt;BusinessScope&gt;   &lt;Scope&gt;     &lt;Type&gt;BUSINESS_PROCESS&lt;/Type&gt;     &lt;InstanceIdentifier&gt;       Messaging Process version 1.0     &lt;/InstanceIdentifier&gt;     &lt;Identifier&gt;       http://www.example.com/MsgProcess     &lt;/Identifier&gt;   &lt;/Scope&gt; &lt;/BusinessScope&gt; </pre> <p>Can be expressed in XHE as</p> <pre data-bbox="889 783 1419 877" style="background-color: #f0f0f0;"> &lt;xhb:ProfileID schemeDataURI="http://www.example.com/MsgProcess"&gt;Messaging Process version 1.0 &lt;/xhb:ProfileID&gt; </pre> <p>Not to be misidentified for the XHE <i>ProfileID</i> in the XHE <i>Payloads/Payload</i> structure.</p>
	<p>XHE/xha:Payloads/xha:Payload/xhb:ProfileID</p>	<p>The <i>Payload/ProfileID</i> describes the profile of the business process or business scope that a business document associated with the header envelope is part of. When an SBDH business scope type is used for describing such a convention, the SBDH <i>BusinessScope/Scope/InstanceIdentifier</i> value is placed as the value of the XHE <i>Payload/ProfileID</i>, while the SBDH Identifier can be expressed using the <b>[CTS]</b> derived attributes of the <i>Payload/ProfileID</i> element.</p> <p>For example, the SBDH business scope</p> <pre data-bbox="889 1356 1419 1619" style="background-color: #f0f0f0;"> &lt;BusinessScope&gt;   &lt;Scope&gt;     &lt;Type&gt;INVOICING_PROCESS&lt;/Type&gt;     &lt;InstanceIdentifier&gt;       Invoicing Process version 1.0     &lt;/InstanceIdentifier&gt;     &lt;Identifier&gt;       http://www.example.com/Invoice     &lt;/Identifier&gt;   &lt;/Scope&gt; &lt;/BusinessScope&gt; </pre> <p>Can be expressed in XHE as</p> <pre data-bbox="889 1713 1419 1808" style="background-color: #f0f0f0;"> &lt;xhb:ProfileID schemeDataURI="http://www.example.com/Invoice"&gt;Invoicing Process version 1.0 &lt;/xhb:ProfileID&gt; </pre> <p>Not to be misidentified for the XHE <i>ProfileID</i> in the root element of the XHE.</p>

SBDH	XHE	Comments
	XHE/xhb:ProfileExecutionID	<p>The <i>XHE/ProfileExecutionID</i> is used to keep track of the specific instance within a business profile or process that the header envelope itself constitutes. It can as such be seen as a “business process session identifier”. When an SBDH business scope type is used for tracking messages or documents within a business process, the SBDH <i>BusinessScope/Scope/InstanceIdentifier</i> value is placed as the value of the XHE <i>ProfileExecutionID</i>.</p> <p>For example, the SBDH business scope</p> <pre data-bbox="889 617 1419 806">&lt;BusinessScope&gt;   &lt;Scope&gt;     &lt;Type&gt;PROCESS_INSTANCE_ID&lt;/Type&gt;     &lt;InstanceIdentifier&gt;       xyz123     &lt;/InstanceIdentifier&gt;   &lt;/Scope&gt; &lt;/BusinessScope&gt;</pre> <p>Can be expressed in XHE as</p> <pre data-bbox="889 898 1419 974">&lt;xhb:ProfileExecutionID&gt;   xyz123 &lt;/xhb:ProfileExecutionID&gt;</pre> <p>Not to be misidentified for the XHE <i>Payload/ProfileExecutionID</i>.</p>
	XHE/xha:Payloads/xha:Payload/xhb:ProfileExecutionID	<p>The <i>Payload/ProfileExecutionID</i> is used to keep track of the specific instance within a business profile or process that a business document associated with a header envelope constitutes. It can as such be seen as a “business process session identifier”. When an SBDH business scope type is used for tracking business documents within a business process, the SBDH <i>BusinessScope/Scope/InstanceIdentifier</i> value is placed as the value of the <i>Payload/ProfileExecutionID</i>.</p> <p>For example, the SBDH business scope</p> <pre data-bbox="889 1457 1419 1646">&lt;BusinessScope&gt;   &lt;Scope&gt;     &lt;Type&gt;PROCESS_INSTANCE_ID&lt;/Type&gt;     &lt;InstanceIdentifier&gt;       xyz123     &lt;/InstanceIdentifier&gt;   &lt;/Scope&gt; &lt;/BusinessScope&gt;</pre> <p>Can be expressed in XHE as</p> <pre data-bbox="889 1738 1419 1814">&lt;xhb:ProfileExecutionID&gt;   xyz123 &lt;/xhb:ProfileExecutionID&gt;</pre> <p>Not to be misidentified for the XHE <i>ProfileExecutionID</i> in the root element of the XHE.</p>

SBDH	XHE	Comments
	<p>XHE/xha:Payloads/xha:Payload/xhb:HandlingServiceID</p>	<p>The XHE <i>Payload/HandlingServiceID</i> provides a mechanism to identify the service at the receiver's end that should process the business document. In SBDH, this functionality is generally achieved by using the <i>BusinessService/BusinessServiceName</i> element (see description below), however the SBDH documentation also provides an option to implement this by the use of the <i>BusinessScope/Scope/Identifier</i> element. SBDH implementations using a set of <i>Scope/Type</i>, <i>Scope/InstanceIdentifier</i> and <i>Scope/Identifier</i> elements to describe the a receiving service to process a business document, the value of the <i>Scope/Identifier</i> element can be transferred literally to the XHE <i>Payload/HandlingServiceID</i> while the <i>Scope/InstanceIdentifier</i> value can be described using the [CCTS] attributes of the XHE <i>Payload/HandlingServiceID</i>.</p> <p>For example, the SBDH business scope</p> <pre data-bbox="889 835 1419 1100" style="background-color: #f0f0f0;"> &lt;BusinessScope&gt;   &lt;Scope&gt;     &lt;Type&gt;BUSINESS_SERVICE&lt;/Type&gt;     &lt;InstanceIdentifier&gt;       EDI-Order-Sell     &lt;/InstanceIdentifier&gt;     &lt;Identifier&gt;       Order-Sell     &lt;/Identifier&gt;   &lt;/Scope&gt; &lt;/BusinessScope&gt; </pre> <p>Can be expressed in XHE as</p> <pre data-bbox="889 1192 1419 1310" style="background-color: #f0f0f0;"> &lt;xhb:HandlingServiceID schemeName="EDI-Order-Sell"&gt;   Order-Sell &lt;/xhb:HandlingServiceID&gt; </pre>
	<p>XHE/xha:Header/xha:BusinessScope/xhb:BusinessScopeCriterionTypeCode  XHE/xha:Header/xha:BusinessScope/xha:BusinessScopeCriterion</p>	<p>SBDH business scopes describing any convention or agreement that provides a general context for the scope of the SBDH and its associated business document can similarly be expressed in XHE using the <i>Header/BusinessScope</i> structure. It is a generic code/value combination analogous to the SBDH <i>Scope/Type</i> and <i>Scope/InstanceIdentifier</i>. When using this format in XHE, the <i>BusinessScope/BusinessScopeCriterionTypeCode</i> can be used identically to the SBDH <i>Scope/Type</i>, and the <i>BusinessScope/BusinessScopeCriterion</i> can be used identically to the SBDH <i>Scope/InstanceIdentifier</i>.</p> <p>For example, the SBDH business scope</p>

SBDH	XHE	Comments
		<pre data-bbox="889 233 1416 401">&lt;BusinessScope&gt;   &lt;Scope&gt;     &lt;Type&gt;MESSAGE_STATUS&lt;/Type&gt;     &lt;InstanceIdentifier&gt;       Test     &lt;/InstanceIdentifier&gt;  &lt;/Scope&gt; &lt;/BusinessScope&gt;</pre> <p data-bbox="889 428 1198 457">Can be expressed in XHE as</p> <pre data-bbox="889 493 1416 682">&lt;xha:BusinessScopeCriterion&gt;   &lt;xhb:BusinessScopeCriterionTypeCode&gt;     MESSAGE_STATUS   &lt;/xhb:BusinessScopeCriterionTypeCode&gt;   &lt;xhb:BusinessScopeCriterionValue&gt;     Test   &lt;/xhb:BusinessScopeCriterionValue&gt; &lt;/xha:BusinessScopeCriterion&gt;</pre> <p data-bbox="889 716 1409 846">When using the XHE <i>BusinessScopeCriterion</i> it is RECOMMENDED to make use of <b>[CCTS]</b> derived attributes to provide context and to document the codes being used (see example in section 0 below).</p>
<ul style="list-style-type: none"> <li>└└└ BusinessService</li> </ul>		<p data-bbox="889 852 1416 1073">The <i>BusinessService</i> is an extension to the SBDH business scope, which provides information about the business application expected to process a document in the receiver's end, as well as additional instructions to be passed to the business application. The properties of the SBDH <i>BusinessService</i> are in general agreed upon in advance.</p> <p data-bbox="889 1100 1409 1262">XHE provides similar functionality, however the anticipated comportment of the receiving business application is expected to be documented in the agreed-upon business process or business scope identified by the XHE <i>Payload/ProfileID</i> element.</p>
<ul style="list-style-type: none"> <li>└└└└ BusinessServiceName</li> </ul>	<p data-bbox="548 1268 857 1318">XHE/xha:Payloads/xha:Payload/xhb:HandlingServiceID</p> <p data-bbox="548 1325 857 1375">XHE/xha:Payloads/xha:Payload/xhb:ProfileID</p>	<p data-bbox="889 1268 1416 1482">The SBDH <i>BusinessServiceName</i> element identifies the business service or application at the receiver's end that is expected to process a business document. In most XHE use cases, this is inferred using the <i>Payload/ProfileID</i>. In cases where this is not possible, the optional <i>Payload/HandlingServiceID</i> is analogous to the SBDH <i>BusinessServiceName</i>.</p>
<ul style="list-style-type: none"> <li>└└└└ ServiceTransaction</li> <li>└└└└└ ServiceTransaction/@TypeOfServiceTransaction</li> <li>└└└└└ ServiceTransaction/@IsNonRepudiationRequired</li> <li>└└└└└ ServiceTransaction/@IsAuthenticationRequired</li> <li>└└└└└ ServiceTransaction/@IsNonRepudiationOfReceiptRequired</li> <li>└└└└└ ServiceTransaction/@IsIntelligibleCheckRequired</li> <li>└└└└└ ServiceTransaction/@IsApplicationErrorResponseRequested</li> </ul>	<p data-bbox="548 1488 857 1539">XHE/xha:Payloads/xha:Payload/xhb:ProfileID</p> <p data-bbox="548 1545 743 1575">XHE/xhb:ProfileID</p>	<p data-bbox="889 1488 1416 1814">The SBDH <i>ServiceTransaction</i> element provides a fixed set of attributes through which a sender can include agreed-upon instructions expected to be carried out by the receiver's business application. In XHE, such business level processing instructions and agreements are expected to be documented in the business process convention identified by either the XHE <i>Payload/ProfileID</i> element when referring to the business document, or in the <i>XHE/ProfileID</i> when it is the header envelope itself that is part of the business process.</p>

SBDH	XHE	Comments
<ul style="list-style-type: none"> <li>└└└└ ServiceTransaction/</li> <li>  @TimeToAcknowledgeRecei</li> <li>  pt</li> </ul>		
<ul style="list-style-type: none"> <li>└└└└ ServiceTransaction/</li> <li>  @TimeToAcknowledgeAccep</li> <li>  tance</li> </ul>		
<ul style="list-style-type: none"> <li>└└└└ ServiceTransaction/</li> <li>  @TimeToPerform</li> </ul>		
<ul style="list-style-type: none"> <li>└└└└ ServiceTransaction/</li> <li>  @Recurrence</li> </ul>		
<ul style="list-style-type: none"> <li>└└└ CorrelationInformation</li> <li>  └└└└ RequestingDocume</li> <li>    ntCreationDateTime</li> <li>  └└└└ RequestingDocume</li> <li>    ntInstanceIdentifier</li> <li>  └└└└└└ ExpectedRespons</li> <li>    eDateTime</li> </ul>	XHE/xha:Payloads/xha:Paylo ad/xhb:ProfileID XHE/xhb:ProfileID	SBDH provides the <i>Scope/CorrelationInformation</i> as an alternative to the <i>Scope/BusinessService</i> . When used, <i>CorrelationInformation</i> provides information about a business document's position within the choreography of a business process. As with the <i>Scope/BusinessService</i> above, XHE requires that such information is documented in the business process convention identified by either the XHE <i>Payload/ProfileID</i> element when referring to the business document, or in the <i>XHE/ProfileID</i> when it is the header envelope itself that is part of the business process.

## 2.3 XHE as a header technology

### 2.3.1 Introduction

XHE can be used as a header technology meaning that the XHE instance is included within the structure of the business document itself. When used as a header technology, information that describes the XHE instance itself is placed within the *XHE/Header* element, while OPTIONAL information that describes the business document(s) is placed within the *XHE/Payloads/Payload* element.

When used as a business document header, one or more optional payloads MAY be included in the XHE. When including payloads in an XHE header instance, the first *Payload* child of the *XHE/Payloads* element MUST refer to the bounding business document itself while any additional *Payload* children refer to additional business documents or artefacts included in or referenced from the XHE header. See also the example XHE header with multiple payloads in section 2.3.2.3.

### 2.3.2 Example SBDH to XHE header transformation

#### 2.3.2.1 Original SBDH instance

The below example shows the orderMessage example from the GS1 SBDH 1.3 Technical Implementation Guide (**[GS1\_Guide]**) using the SBDH as a header technology. The annotations in the XML comments show the location of XHE elements in the SBDH header:

```

<?xml version="1.0" encoding="UTF-8"?>
<order:orderMessage xmlns:order="urn:gs1:ecom:order:xsd:3"
  xmlns:sh="http://www.unece.org/cefact/namespaces/StandardBusinessDocumentHeader"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:gs1:ecom:order:xsd:3 ../Schemas/gs1/ecom/Order.xsd">
  <sh:StandardBusinessDocumentHeader>
    <!-- XHE/xhb:XHEVersionID -->
    <sh:HeaderVersion>1.0</sh:HeaderVersion>

    <!-- XHE/xha:Header/xha:FromParty -->
    <sh:Sender>
      <sh:Identifier Authority="GS1">8764321000003</sh:Identifier>
      <sh:ContactInformation>
        <sh:Contact>John Doe</sh:Contact>
        <sh:EmailAddress>John_Doe@purchasing.XYZretailer.com</sh:EmailAddress>
        <sh:FaxNumber>+1-212-555-1213</sh:FaxNumber>
        <sh:TelephoneNumber>+1-212-555-2122</sh:TelephoneNumber>

```



```

    <sh:ContactTypeIdentifier>EDI co-ordinator</sh:ContactTypeIdentifier>
  </sh:ContactInformation>
</sh:Sender>

<!-- XHE/xha:Header/xha:ToParty -->
<sh:Receiver>
  <sh:Identifier Authority="GS1">8712345000004</sh:Identifier>
  <sh:ContactInformation>
    <sh:Contact>Mary Smith</sh:Contact>
    <sh:EmailAddress>Mary_Smith@widgets.com</sh:EmailAddress>
    <sh:FaxNumber>+1-312-555-1214</sh:FaxNumber>
    <sh:TelephoneNumber>+1-312-555-2125</sh:TelephoneNumber>
    <sh:ContactTypeIdentifier>EDI Helpdesk</sh:ContactTypeIdentifier>
  </sh:ContactInformation>
</sh:Receiver>

<sh:DocumentIdentification>
  <!-- XHE/xha:Payloads/xha:Payload/xhb:ValidationTypeCode -->
  <sh:Standard>GS1</sh:Standard>

  <!-- XHE/xha:Payloads/xha:Payload/xhb:ValidationVersionID -->
  <sh:TypeVersion>3.0</sh:TypeVersion>

  <!-- XHE/xha:Header/xhb:ID -->
  <sh:InstanceIdentifier>100002</sh:InstanceIdentifier>

  <!-- XHE/xha:Payloads/xha:Payload/xhb:DocumentTypeCode -->
  <sh:Type>Order</sh:Type>

  <!--
    Not available in XHE. The presense of multiple payloads is evidence of
    multiple documents in the XHE instance.
  -->
  <sh:MultipleType>>false</sh:MultipleType>

  <!-- XHE/xha:Header/hxb:CreationDateTime -->
  <sh:CreationDateAndTime>2006-01-10T12:00:01.000-05:00</sh:CreationDateAndTime>
</sh:DocumentIdentification>
<sh:BusinessScope>

  <sh:Scope>

    <!--
      This Scope Type indicates that the scope of the entire document instance is
      to be treated as a test
      XHE/xha:Header/xha:BusinessScope/xha:BusinessScopeCriterion/
      xhb:BusinessScopeCriterionTypeCode
    -->
    <sh:Type>MESSAGE_STATUS</sh:Type>

    <!--
      XHE/xha:Header/xha:BusinessScope/xha:BusinessScopeCriterion/
      xhb:BusinessScopeCriterionValue
    -->
    <sh:InstanceIdentifier>Test</sh:InstanceIdentifier>

  </sh:Scope>
</sh:Scope>

  <!--
    This Scope Type indicates that InstanceIdentifier contains "the name and
    version of the guideline / set of processing rules that are applicable to this
    particular instance of the business document. The format of the name and
    version of the guideline / set of processing rules must be previously agreed
    upon between the sender and recipient of the message."
  -->

```

```

    XHE/xha:Payloads/xha:Payload/xhb:CustomizationID
-->
<sh:Type>SCHEMA_GUIDE</sh:Type>
<sh:InstanceIdentifier>
    Dutch Fruit and Vegetable Industry Reference Model v. 1.1
</sh:InstanceIdentifier>
<sh:Identifier>urn:FrugICom:AGF:1.1</sh:Identifier>

</sh:Scope>
</sh:BusinessScope>
</sh:StandardBusinessDocumentHeader>
<order>
  <creationDateTime>2011-03-11T11:00:00.000-05:00</creationDateTime>
  <documentStatusCode>ORIGINAL</documentStatusCode>
  <orderIdentification>
    <entityIdentification>PO3352</entityIdentification>
  </orderIdentification>
  <orderTypeCode>220</orderTypeCode>
  <isApplicationReceiptAcknowledgementRequired>
    true
  </isApplicationReceiptAcknowledgementRequired>
  <additionalOrderInstruction languageCode="en">
    Pack all items individually
  </additionalOrderInstruction>
  <totalMonetaryAmountExcludingTaxes currencyCode="EUR">
    12675
  </totalMonetaryAmountExcludingTaxes>
  <totalTaxAmount currencyCode="EUR">2661.75</totalTaxAmount>
  <buyer>
    <gln>5412345000013</gln>
  </buyer>
  <seller>
    <gln>4098765000010</gln>
  </seller>
  <orderLogisticalInformation>
    <shipFrom>
      <gln>4098765000010</gln>
    </shipFrom>
    <shipTo>
      <gln>5412345000037</gln>
    </shipTo>
  </orderLogisticalInformation>
  <paymentTerms>
    <paymentTermsEventCode>AFTER_DATE_OF_DELIVERY</paymentTermsEventCode>
    <paymentTermsTypeCode>1</paymentTermsTypeCode>
    <proximoCutOffDay>---31</proximoCutOffDay>
  </paymentTerms>
  <orderLineItem>
    <lineItemNumber>1</lineItemNumber>
    <requestedQuantity measurementUnitCode="EA">48</requestedQuantity>
    <additionalOrderLineInstruction languageCode="en">FRAGILE</additionalOrderLineInst
    ruction>
    <netAmount currencyCode="EUR">8016</netAmount>
    <netPrice currencyCode="EUR">167</netPrice>
    <transactionalTradeItem>
      <gtin>04098765000027</gtin>
    </transactionalTradeItem>
  </orderLineItem>
</order>
</order:orderMessage>

```

### 2.3.2.2 SBDH instance transformed to XHE

The below example shows the same header as in 2.3.2.1, but transformed to XHE. The annotations in the XML comments show the location of values in the original SBDH header:

```

<?xml version="1.0" encoding="UTF-8"?>
<order:orderMessage xmlns:order="urn:gs1:ecom:order:xsd:3"
  xmlns:xhe="oasis-цеfact-xhe-1.0-ExchangeHeaderEnvelope"
  xmlns:xha="oasis-цеfact-xhe-1.0-AggregateComponents"
  xmlns:xhb="oasis-цеfact-xhe-1.0-BasicComponents"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:gs1:ecom:order:xsd:3 ../Schemas/gsl/ecom/Order-XHE.xsd">
  <xhe:XHE >

  <!-- XHE/xhb:XHEVersionID -->
  <xhb:XHEVersionID>1.0</xhb:XHEVersionID>

  <xha:Header>

    <!-- StandardBusinessDocumentHeader/DocumentIdentification/InstanceIdentifier -->
    <xhb:ID>100002</xhb:ID>

    <!-- StandardBusinessDocumentHeader/DocumentIdentification/CreationDateAndTime -->
    <xhb:CreationDateTime>2006-01-10T12:00:01.000-05:00</xhb:CreationDateTime>

    <xha:BusinessScope>

      <!--
      StandardBusinessDocumentHeader/BusinessScope/Scope/Type =
      a code at header level that applies to the entire message.
      StandardBusinessDocumentHeader/BusinessScope/Scope/InstanceIdentifier
      StandardBusinessDocumentHeader/BusinessScope/Scope/Identifier
      -->
      <xha:BusinessScopeCriterion>
        <xhb:BusinessScopeCriterionTypeCode listAgencyName="GS1"
          listURI="urn:gs1:gdd:cl:BusinessDocumentProcessingTypeCode"
          listName="BusinessDocumentProcessingTypeCode"
          listVersionID="R1">MESSAGE_STATUS</xhb:BusinessScopeCriterionTypeCode>
        <xhb:BusinessScopeCriterionValue>Test</xhb:BusinessScopeCriterionValue>
      </xha:BusinessScopeCriterion>

    </xha:BusinessScope>

    <!-- StandardBusinessDocumentHeader/Sender -->
    <xha:FromParty>
      <xha:PartyIdentification>
        <xhb:ID schemeAgencyID="GS1" schemeID="GLN">8764321000003</xhb:ID>
      </xha:PartyIdentification>
    </xha:FromParty>

    <!-- StandardBusinessDocumentHeader/Receiver -->
    <xha:ToParty>
      <xha:PartyIdentification>
        <xhb:ID schemeAgencyID="GS1" schemeID="GLN">8712345000004</xhb:ID>
      </xha:PartyIdentification>
    </xha:ToParty>

  </xha:Header>
  <xha:Payloads>
    <xha:Payload>

    <!-- StandardBusinessDocumentHeader/DocumentIdentification/Type -->
    <xhb:DocumentTypeCode>Order</xhb:DocumentTypeCode>

    <!--
    StandardBusinessDocumentHeader/BusinessScope/Scope/Type =
    a document type identifier.
    StandardBusinessDocumentHeader/BusinessScope/Scope/InstanceIdentifier
    StandardBusinessDocumentHeader/BusinessScope/Scope/Identifier
    -->
    <xhb:CustomizationID schemeURI="urn:FrugICom:AGF:1.1">
      Dutch Fruit and Vegetable Industry Reference Model v. 1.1
    </xhb:CustomizationID>
  </xha:Payload>
  </xha:Header>
</order:orderMessage>

```

```

<!-- StandardBusinessDocumentHeader/DocumentIdentification/Standard -->
<xhb:ValidationTypeCode>GS1</xhb:ValidationTypeCode>

<!-- StandardBusinessDocumentHeader/DocumentIdentification/TypeVersion -->
<xhb:ValidationVersionID>3.0</xhb:ValidationVersionID>

<!-- No SBDH equivalent but mandatory in XHE -->
<xhb:InstanceEncryptionIndicator>>false</xhb:InstanceEncryptionIndicator>

</xha:Payload>
</xha:Payloads>
</xhe:XHE>
<order>
<creationDateTime>2011-03-11T11:00:00.000-05:00</creationDateTime>
<documentStatusCode>ORIGINAL</documentStatusCode>
<orderIdentification>
  <entityIdentification>PO3352</entityIdentification>
</orderIdentification>
<orderTypeCode>220</orderTypeCode>
<isApplicationReceiptAcknowledgementRequired>
  true
</isApplicationReceiptAcknowledgementRequired>
<additionalOrderInstruction languageCode="en">
  Pack all items individually
</additionalOrderInstruction>
<totalMonetaryAmountExcludingTaxes currencyCode="EUR">
  12675
</totalMonetaryAmountExcludingTaxes>
<totalTaxAmount currencyCode="EUR">2661.75</totalTaxAmount>
<buyer>
  <gln>5412345000013</gln>
</buyer>
<seller>
  <gln>4098765000010</gln>
</seller>
<orderLogisticalInformation>
  <shipFrom>
    <gln>4098765000010</gln>
  </shipFrom>
  <shipTo>
    <gln>5412345000037</gln>
  </shipTo>
</orderLogisticalInformation>
<paymentTerms>
  <paymentTermsEventCode>AFTER_DATE_OF_DELIVERY</paymentTermsEventCode>
  <paymentTermsTypeCode>1</paymentTermsTypeCode>
  <proximoCutOffDay>---31</proximoCutOffDay>
</paymentTerms>
<orderLineItem>
  <lineItemNumber>1</lineItemNumber>
  <requestedQuantity measurementUnitCode="EA">48</requestedQuantity>
  <additionalOrderLineInstruction languageCode="en">
    FRAGILE
  </additionalOrderLineInstruction>
  <netAmount currencyCode="EUR">8016</netAmount>
  <netPrice currencyCode="EUR">167</netPrice>
  <transactionalTradeItem>
    <gtin>04098765000027</gtin>
  </transactionalTradeItem>
</orderLineItem>
</order>
</order:orderMessage>

```

As an alternative to the above example, the XHE namespace declarations can also be moved into the apex of the XHE header itself so as to not be included in the transformation of the business document itself:

```

<?xml version="1.0" encoding="UTF-8"?>
<order:orderMessage xmlns:order="urn:gs1:ecom:order:xsd:3"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:gs1:ecom:order:xsd:3 ../Schemas/gs1/ecom/Order-XHE.xsd ">
  <xhe:XHE xmlns:xhe="oasis-cefact-xhe-1.0-ExchangeHeaderEnvelope"
    xmlns:xha="oasis-cefact-xhe-1.0-AggregateComponents"
    xmlns:xhb="oasis-cefact-xhe-1.0-BasicComponents">

```

### 2.3.2.3 XHE header with multiple payloads example

The below example shows the invoiceMessage example from the GS1 SBDH Invoice Business Message Standard ([**GS1 Invoice**]) with its SBDH header transformed to XHE and additional XHE payloads added to its header:

```

<?xml version="1.0" encoding="UTF-8"?>
<invoice:invoiceMessage xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:gs1:ecom:invoice:xsd:3 ../Schemas/gs1/ecom/Invoice-XHE.xsd"
  xmlns:eanucc="urn:ean.ucc:2" xmlns:invoice="urn:gs1:ecom:invoice:xsd:3">
  <xhe:XHE xmlns:xhe="oasis-cefact-xhe-1.0-ExchangeHeaderEnvelope"
    xmlns:xha="oasis-cefact-xhe-1.0-AggregateComponents"
    xmlns:xhb="oasis-cefact-xhe-1.0-BasicComponents">
    <xhb:XHEVersionID>1.0</xhb:XHEVersionID>
    <xha:Header>
      <xhb:ID>IN11-548</xhb:ID>
      <xhb:CreationDateTime>2011-04-12T10:15:00.000-05:00</xhb:CreationDateTime>
      <xha:BusinessScope>
        <xha:BusinessScopeCriterion>
          <xhb:BusinessScopeCriterionTypeCode>
            MESSAGE_STATUS
          </xhb:BusinessScopeCriterionTypeCode>
          <xhb:BusinessScopeCriterionValue>Test</xhb:BusinessScopeCriterionValue>
        </xha:BusinessScopeCriterion>
      </xha:BusinessScope>
      <xha:FromParty>
        <xha:PartyIdentification>
          <xhb:ID schemeAgencyID="GS1" schemeID="GLN">4098765000010</xhb:ID>
        </xha:PartyIdentification>
      </xha:FromParty>
      <xha:ToParty>
        <xha:PartyIdentification>
          <xhb:ID schemeAgencyID="GS1" schemeID="GLN">5412345000013</xhb:ID>
        </xha:PartyIdentification>
      </xha:ToParty>
    </xha:Header>
    <xha:Payloads>
      <!--
        First payload occurrence refers to the business document itself, in this
        case the IN11-548 invoice
      -->
      <xha:Payload>
        <xhb:ID>IN11-548</xhb:ID>
        <xhb:Description>This invoice document</xhb:Description>
        <xhb:DocumentTypeCode>Invoice</xhb:DocumentTypeCode>
        <xhb:ValidationTypeCode>GS1</xhb:ValidationTypeCode>
        <xhb:ValidationVersionID>3.2</xhb:ValidationVersionID>
        <xhb:InstanceEncryptionIndicator>>false</xhb:InstanceEncryptionIndicator>
      </xha:Payload>
      <!-- Additional payloads refer to any additional documents -->
      <!-- Includes the original purchase order document -->
      <xha:Payload>
        <xhb:ID>P03352</xhb:ID>
        <xhb:Description>Purchase order associated with IN11-548</xhb:Description>
        <xhb:DocumentTypeCode>Order</xhb:DocumentTypeCode>
        <xhb:CustomizationID schemeURI="urn:FrugICom:AGF:1.1">
          Dutch Fruit and Vegetable Industry Reference Model v. 1.1
        </xhb:CustomizationID>
        <xhb:ValidationTypeCode>GS1</xhb:ValidationTypeCode>

```

```

<xhb:ValidationVersionID>3.0</xhb:ValidationVersionID>
<xhb:InstanceEncryptionIndicator>>false</xhb:InstanceEncryptionIndicator>
<xha:PayloadContent>
  <order:orderMessage xmlns:order="urn:gs1:ecom:order:xsd:3"
    xmlns:xhe="oasis-cefact-xhe-1.0-ExchangeHeaderEnvelope"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="urn:gs1:ecom:order:xsd:3
    ../Schemas/gsl/ecom/Order-XHE.xsd">
    <xhe:XHE xmlns:xha="oasis-cefact-xhe-1.0-AggregateComponents"
      xmlns:xhb="oasis-cefact-xhe-1.0-BasicComponents">
      <xhb:XHEVersionID>1.0</xhb:XHEVersionID>
      <xha:Header>
        <xhb:ID>100002</xhb:ID>
        <xhb:CreationDateTime>
          2006-01-10T12:00:01.000-05:00
        </xhb:CreationDateTime>
        <xha:BusinessScope>
          <xha:BusinessScopeCriterion>
            <xhb:BusinessScopeCriterionTypeCode>
              MESSAGE_STATUS
            </xhb:BusinessScopeCriterionTypeCode>
            <xhb:BusinessScopeCriterionValue>
              Test
            </xhb:BusinessScopeCriterionValue>
          </xha:BusinessScopeCriterion>
        </xha:BusinessScope>
        <xha:FromParty>
          <xha:PartyIdentification>
            <xhb:ID schemeAgencyID="GS1" schemeID="GLN">8764321000003</xhb:ID>
          </xha:PartyIdentification>
        </xha:FromParty>
        <xha:ToParty>
          <xha:PartyIdentification>
            <xhb:ID schemeAgencyID="GS1" schemeID="GLN">8712345000004</xhb:ID>
          </xha:PartyIdentification>
        </xha:ToParty>
      </xha:Header>
      <xha:Payloads>
        <xha:Payload>
          <xhb:DocumentTypeCode>Order</xhb:DocumentTypeCode>
          <xhb:CustomizationID schemeURI="urn:FruGICom:AGF:1.1">
            Dutch Fruit and Vegetable Industry Reference Model v. 1.1
          </xhb:CustomizationID>
          <xhb:ValidationTypeCode>GS1</xhb:ValidationTypeCode>
          <xhb:ValidationVersionID>3.0</xhb:ValidationVersionID>
          <xhb:InstanceEncryptionIndicator>>false</xhb:InstanceEncryptionIndicato
r>
        </xha:Payload>
      </xha:Payloads>
    </xhe:XHE>
  </order>
  <order>
    <creationDateTime>2011-03-11T11:00:00.000-05:00</creationDateTime>
    <documentStatusCode>ORIGINAL</documentStatusCode>
    <orderIdentification>
      <entityIdentification>P03352</entityIdentification>
    </orderIdentification>
    <orderTypeCode>220</orderTypeCode>
    <isApplicationReceiptAcknowledgementRequired>
      true
    </isApplicationReceiptAcknowledgementRequired>
    <additionalOrderInstruction languageCode="en">
      Pack all items individually
    </additionalOrderInstruction>
    <totalMonetaryAmountExcludingTaxes currencyCode="EUR">
      12675

```

```

</totalMonetaryAmountExcludingTaxes>
<totalTaxAmount currencyCode="EUR">2661.75</totalTaxAmount>
<buyer>
  <gln>5412345000013</gln>
</buyer>
<seller>
  <gln>4098765000010</gln>
</seller>
<orderLogisticalInformation>
  <shipFrom>
    <gln>4098765000010</gln>
  </shipFrom>
  <shipTo>
    <gln>5412345000037</gln>
  </shipTo>
</orderLogisticalInformation>
<paymentTerms>
  <paymentTermsEventCode>AFTER_DATE_OF_DELIVERY</paymentTermsEventCode>
  <paymentTermsTypeCode>1</paymentTermsTypeCode>
  <proximoCutOffDay>---31</proximoCutOffDay>
</paymentTerms>
<orderLineItem>
  <lineItemNumber>1</lineItemNumber>
  <requestedQuantity measurementUnitCode="EA">48</requestedQuantity>
  <additionalOrderLineInstruction languageCode="en">
    FRAGILE
  </additionalOrderLineInstruction>
  <netAmount currencyCode="EUR">8016</netAmount>
  <netPrice currencyCode="EUR">167</netPrice>
  <transactionalTradeItem>
    <gtin>04098765000027</gtin>
  </transactionalTradeItem>
</orderLineItem>
</order>
</order:orderMessage>
</xha:PayloadContent>
</xha:Payload>
<xha:Payload>
  <xhb:ID>PO3352-PDF</xhb:ID>
  <xhb:Description>
    PDF rendering of purchase order associated with IN11-548
  </xhb:Description>
  <xhb:ContentTypeCode>application/pdf</xhb:ContentTypeCode>
  <xhb:InstanceEncryptionIndicator>>false</xhb:InstanceEncryptionIndicator>
  <xha:RelevantExternalReference>
    <xhb:ID>http://www.example.com/PO3352-PDF</xhb:ID>
  </xha:RelevantExternalReference>
</xha:Payload>
</xha:Payloads>
</xhe:XHE>
<invoice>
  <creationDateTime>2011-04-12T10:15:00.000-05:00</creationDateTime>
  <documentStatusCode>ORIGINAL</documentStatusCode>
  <invoiceIdentification>
    <entityIdentification>IN11-548</entityIdentification>
    <contentOwner>
      <gln>4098765000010</gln>
    </contentOwner>
  </invoiceIdentification>
  <digitalSignature>
    <Signature xmlns="http://www.w3.org/2000/09/xmldsig#"
      xsi:schemaLocation="http://www.w3.org/2000/09/xmldsig#
      ../Schemas/xmldsig/xmldsig-core-schema.xsd">
    <SignedInfo>
      <CanonicalizationMethod
        Algorithm="http://www.w3.org/TR/2001/REC-xml-c14n-20010315"/>
      <SignatureMethod Algorithm="http://www.w3.org/2000/09/xmldsig#dsa-sha1"/>
      <Reference URI="http://example.org">
      <Transforms>
      <Transform

```





```

<lineItemNumber>1</lineItemNumber>
<invoicedQuantity>48</invoicedQuantity>
<amountInclusiveAllowancesCharges currencyCode="EUR"
  >480</amountInclusiveAllowancesCharges>
<itemPriceInclusiveAllowancesCharges currencyCode="EUR"
  >10</itemPriceInclusiveAllowancesCharges>
<transferOfOwnershipDate>2011-04-11</transferOfOwnershipDate>
<transactionalTradeItem>
  <gtin>40987650000223</gtin>
</transactionalTradeItem>
<invoiceLineTaxInformation>
  <dutyFeeTaxAmount currencyCode="EUR">91.2</dutyFeeTaxAmount>
  <dutyFeeTaxBasisAmount currencyCode="EUR">480</dutyFeeTaxBasisAmount>
  <dutyFeeTaxCategoryCode>STANDARD_RATE</dutyFeeTaxCategoryCode>
  <dutyFeeTaxPercentage>19.00</dutyFeeTaxPercentage>
  <dutyFeeTaxTypeCode>VALUE_ADDED_TAX</dutyFeeTaxTypeCode>
</invoiceLineTaxInformation>
<invoiceLineItemInformationAfterTaxes>
  <amountInclusiveAllowancesCharges currencyCode="EUR"
    >571.2</amountInclusiveAllowancesCharges>
</invoiceLineItemInformationAfterTaxes>
<purchaseOrder>
  <entityIdentification>PO3352</entityIdentification>
  <creationDateTime>2011-03-11T11:00:00.000-05:00</creationDateTime>
  <lineItemNumber>1</lineItemNumber>
</purchaseOrder>
</invoiceLineItem>
<invoiceLineItem>
  <lineItemNumber>2</lineItemNumber>
  <invoicedQuantity>24</invoicedQuantity>
  <amountInclusiveAllowancesCharges currencyCode="EUR"
    >360</amountInclusiveAllowancesCharges>
  <itemPriceInclusiveAllowancesCharges currencyCode="EUR"
    >15</itemPriceInclusiveAllowancesCharges>
  <transferOfOwnershipDate>2011-04-11</transferOfOwnershipDate>
  <transactionalTradeItem>
    <gtin>40987650000346</gtin>
  </transactionalTradeItem>
  <invoiceLineTaxInformation>
    <dutyFeeTaxAmount currencyCode="EUR">68.4</dutyFeeTaxAmount>
    <dutyFeeTaxBasisAmount currencyCode="EUR">360</dutyFeeTaxBasisAmount>
    <dutyFeeTaxCategoryCode>STANDARD_RATE</dutyFeeTaxCategoryCode>
    <dutyFeeTaxPercentage>19.00</dutyFeeTaxPercentage>
    <dutyFeeTaxTypeCode>VALUE_ADDED_TAX</dutyFeeTaxTypeCode>
    <extension/>
  </invoiceLineTaxInformation>
  <invoiceLineItemInformationAfterTaxes>
    <amountInclusiveAllowancesCharges currencyCode="EUR"
      >571.2</amountInclusiveAllowancesCharges>
  </invoiceLineItemInformationAfterTaxes>
  <purchaseOrder>
    <entityIdentification>PO3352</entityIdentification>
    <creationDateTime>2011-03-11T11:00:00.000-05:00</creationDateTime>
    <lineItemNumber>1</lineItemNumber>
  </purchaseOrder>
</invoiceLineItem>
</invoice>
</invoice:invoiceMessage>

```

## 2.4 XHE as an envelope technology

### 2.4.1 Introduction

XHE can be used as an envelope technology meaning that the XHE instance is an entity in itself and includes one or more business documents as payloads within its structure. Whether used as a header or as an envelope technology, information that describes the XHE instance itself is placed within the

*XHE/Header* element while information that describes an associated business document is placed within the business document's respective *XHE/Payloads/Payload* element.

## 2.4.2 Example SBDH to XHE envelope transformation

### 2.4.2.1 Original SBDH instance

The below example shows the Invoice example from the PEPPOL Business Message Envelope (**PEPPOL\_BME**) using the SBDH as an envelope technology. The annotations in the XML comments show the location of SBDH elements in an XHE:

```
<?xml version="1.0" encoding="UTF-8"?>
<StandardBusinessDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.unece.org/cefact/namespaces/StandardBusinessDocumentHeader
  xsd/StandardBusinessDocumentHeader.xsd"
  xmlns="http://www.unece.org/cefact/namespaces/StandardBusinessDocumentHeader"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <StandardBusinessDocumentHeader>
    <!-- XHE/xhb:XHEVersionID -->
    <HeaderVersion>1.0</HeaderVersion>

    <!-- XHE/xha:Header/xha:FromParty -->
    <Sender>
      <Identifier Authority="iso6523-actorid-upis">0088:7315458756324</Identifier>
    </Sender>

    <!-- XHE/xha:Header/xha:ToParty -->
    <Receiver>
      <Identifier Authority="iso6523-actorid-upis">0088:4562458856624</Identifier>
    </Receiver>

    <DocumentIdentification>

      <!-- XHE/xha:Payloads/xha:Payload/xhb:ValidationTypeCode -->
      <Standard>urn:oasis:names:specification:ubl:schema:xsd:Invoice-2</Standard>

      <!-- XHE/xha:Payloads/xha:Payload/xhb:ValidationVersionID -->
      <TypeVersion>2.1</TypeVersion>

      <!-- XHE/xha:Header/xhb:ID -->
      <InstanceIdentifier>123123</InstanceIdentifier>

      <!-- XHE/xha:Payloads/xha:Payload/xhb:DocumentTypeCode -->
      <Type>Invoice</Type>

      <!-- XHE/xha:Header/hxb:CreationDateTime -->
      <CreationDateAndTime>2019-02-01T15:42:10Z</CreationDateAndTime>

    </DocumentIdentification>
    <BusinessScope>

      <!--
      BusinessScope/Scope/Type = a Document Type Identifier
      XHE/xha:Payloads/xha:Payload/xhb:CustomizationID
      -->
      <Scope>
        <Type>DOCUMENTID</Type>
        <InstanceIdentifier>urn:oasis:names:specification:ubl:schema:xsd:Invoice- 2::Invoice#urn:cen.eu:en16931:2017#compliant#urn:fdc:peppol.eu:2017:poacc:billing:3.0::2.1</InstanceIdentifier>
        <Identifier>busdox-docid-qns</Identifier>
      </Scope>

      <!--
      BusinessScope/Scope/Type = a Process Type Identifier
      XHE/xha:Payloads/xha:Payload/xhb:ProfileID
      -->
      <Scope>
        <Type>PROCESSID</Type>
        <InstanceIdentifier>
```

```

urn:fdc:peppol.eu:2017:poacc:billing:01:1.0
  </InstanceIdentifier>
  <Identifier>cenbii-procid-ubl</Identifier>
</Scope>

</BusinessScope>
</StandardBusinessDocumentHeader>

<!-- XHE/xha:Payloads/xha:Payload/xha:PayloadContent -->
<Invoice xmlns:cbc="urn:oasis:names:specification:ubl:schema:xsd:CommonBasicComponents
-2"
  xmlns:cac="urn:oasis:names:specification:ubl:schema:xsd:CommonAggregateComponents-2"
  xmlns="urn:oasis:names:specification:ubl:schema:xsd:Invoice-2">
  <!-- reduced instance file -->
</Invoice>
</StandardBusinessDocument>

```

### 2.4.2.2 SBDH instance transformed to XHE

The below example shows the same envelope as in 2.4.2.1, but transformed to XHE. The annotations in the XML comments show the location of values in the original SBDH document:

```

<?xml version="1.0" encoding="UTF-8"?>
<XHE xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="oasis-cefact-xhe-1.0-ExchangeHeaderEnvelope xsd/XHE-1.0.xsd"
  xmlns="oasis-cefact-xhe-1.0-ExchangeHeaderEnvelope"
  xmlns:xha="oasis-cefact-xhe-1.0-AggregateComponents"
  xmlns:ext="oasis-cefact-xhe-1.0-ExtensionComponents"
  xmlns:xhb="oasis-cefact-xhe-1.0-BasicComponents">

  <!-- StandardBusinessDocumentHeader/HeaderVersion -->
  <xhb:XHEVersionID>1.0</xhb:XHEVersionID>
  <xha:Header>

  <!-- StandardBusinessDocumentHeader/DocumentIdentification/InstanceIdentifier -->
  <xhb:ID>123123</xhb:ID>

  <!-- StandardBusinessDocumentHeader/DocumentIdentification/CreationDateAndTime -->
  <xhb:CreationDateTime>2019-02-01T15:42:10Z</xhb:CreationDateTime>

  <!-- StandardBusinessDocumentHeader/Sender -->
  <xha:FromParty>
    <xha:PartyIdentification>
      <xhb:ID schemeID="iso6523-actorid-upis">0088:7315458756324</xhb:ID>
    </xha:PartyIdentification>
  </xha:FromParty>

  <!-- StandardBusinessDocumentHeader/Receiver -->
  <xha:ToParty>
    <xha:PartyIdentification>
      <xhb:ID schemeID="iso6523-actorid-upis">0088:4562458856624</xhb:ID>
    </xha:PartyIdentification>
  </xha:ToParty>

  </xha:Header>
  <xha:Payloads>
  <xha:Payload>

  <!-- StandardBusinessDocumentHeader/DocumentIdentification/Type -->
  <xhb:DocumentTypeCode>Invoice</xhb:DocumentTypeCode>

  <!--
  StandardBusinessDocumentHeader/BusinessScope/Scope/Type = a document type
  identifier
  StandardBusinessDocumentHeader/BusinessScope/Scope/InstanceIdentifier
  StandardBusinessDocumentHeader/BusinessScope/Scope/Identifier
  -->
  <xhb:CustomizationID schemeID="busdox-docid-
qns">urn:oasis:names:specification:ubl:schema:xsd:Invoice- 2::Invoice##urn:cen.eu:en1693

```

```

1:2017#compliant#urn:fdc:peppol.eu:2017:poacc:billing:3.0::2.1</xhb:CustomizationID>

  <!--
  StandardBusinessDocumentHeader/BusinessScope/Scope/Type = a process type
  identifier
  StandardBusinessDocumentHeader/BusinessScope/Scope/InstanceIdentifier
  StandardBusinessDocumentHeader/BusinessScope/Scope/Identifier
  -->
  <xhb:ProfileID schemeID="cenbii-procid-
ubl">urn:fdc:peppol.eu:2017:poacc:billing:01:1.0</xhb:ProfileID>

  <!-- StandardBusinessDocumentHeader/DocumentIdentification/Standard -->
  <xhb:ValidationTypeCode>urn:oasis:names:specification:ubl:schema:xsd:Invoice-
2</xhb:ValidationTypeCode>

  <!-- StandardBusinessDocumentHeader/DocumentIdentification/TypeVersion -->
  <xhb:ValidationVersionID>2.1</xhb:ValidationVersionID>

  <!-- No SBDH equivalent but mandatory in XHE -->
  <xhb:InstanceEncryptionIndicator>false</xhb:InstanceEncryptionIndicator>

  <!-- StandardBusinessDocument -->
  <xha:PayloadContent>
  <Invoice xmlns:cbc="urn:oasis:names:specification:ubl:schema:xsd:CommonBasicComponen
ts-2"
  xmlns:cac="urn:oasis:names:specification:ubl:schema:xsd:CommonAggregateComponents-
2"
  xmlns="urn:oasis:names:specification:ubl:schema:xsd:Invoice-2">
  <!-- reduced instance file -->
  </Invoice>
  </xha:PayloadContent>
  </xha:Payload>
  </xha:Payloads>
</XHE>

```

## 3 Migrating from BDE 1.1

### 3.1 Introduction

A [BDE] implementation can be migrated to [XHE] without loss of data, meaning or context. Since the distinct purpose of BDE is to function as an autonomous and content-agnostic business document envelope, XHE can replace its role in the same context and environment where BDE used, and without the need to modify any additional business processes, documents, conventions or other related systems or components except for the BDE itself. Furthermore, XHE can be used as a header technology, and provides functionality that cannot be accomplished using BDE. Both BDE and XHE consist of [CCTS]-modeled objects, why the migration from BDE to XHE should not be complex for anyone with a basic understanding of BDE and CCTS.

This migration guide covers the migration and transformation of existing BDE instances to XHE. For information about additional functionalities and features please consult the [XHE] documentation itself.

### 3.2 BDE mapping guide

#### 3.2.1 Introduction

This section contains a complete list of [BDE] business objects and their equivalent positions in [XHE]. Most elements in BDE can be mapped one-to-one to an equivalent XHE element as can their [XML] attributes derived from the [CCTS] supplementary components.

#### 3.2.2 BDE Envelope class mapping

<b>BDE</b>	<b>XHE</b>	<b>Comments</b>
Envelope	XHE	When used as an envelope technology, the <i>XHE</i> element is the root element of the XML document, analogous to the BDE <i>Envelope</i> .
↳ BDEVersionID	XHE/xhb:XHEVersionID	For both standards, this is the identification of the specific version in use.
↳ CustomizationID	XHE/xhb:CustomizationID	For both BDE and XHE, the <i>CustomizationID</i> , when not within a <i>Payload</i> element, describes an agreement to use a subset or a user defined model of the envelope itself. It is in both cases different from the <i>Payload/CustomizationID</i> , which describes a user defined model of a business document associated with an envelope (see section <b>Error! Reference source not found.</b> below). The <i>XHE/xhb:CustomizationID</i> is analogous to the BDE <i>Envelope/cbc:CustomizationID</i> .
↳ ID	XHE/xha:Header/xhb:ID	Uniquely identifies the envelope instance. In XHE, elements describing the header envelope instance itself are placed in the <i>Header</i> structure. The <i>XHE/xha:Header/xhb:ID</i> is analogous to the BDE <i>Envelope/cbc:ID</i> .
↳ CreationDateTime	XHE/xha:Header/xhb:CreationDateTime	The timestamp of when the envelope instance was created. In XHE, elements describing the header envelope instance itself are placed in the <i>Header</i> structure. The <i>XHE/xha:Header/xhb:CreationDateTime</i> is analogous to the BDE <i>Envelope/cbc:CreationDateTime</i> .
↳ TestIndicator	XHE/xha:Header/xha:BusinessScope/xhb:BusinessScopeCriterionTypeCode	The BDE <i>TestIndicator</i> is a convention defined in the BDE specification, which describes the scope and context of the envelope and its content as either being testing or production. When used,

BDE	XHE	Comments
	XHE/xha:Header/xha:BusinessScope/xha:BusinessScopeCriterion/xhb:BusinessScopeCriterionValue	<p>and its value is set to “true”, the scope and context of the BDE envelope, including its content, is that it is a test.</p> <p>In XHE, such scopes and conventions are revealed in the <i>BusinessScope</i> element within the XHE <i>Header</i> structure. The XHE <i>BusinessScope</i> element MAY contain any number of business scopes by including repeatable <i>BusinessScopeCriterion</i> elements. Each <i>BusinessScopeCriterion</i> identifies a business scope that applies to the XHE and MUST contain a pair of <i>BusinessScopeCriterionTypeCode</i> and <i>BusinessScopeCriterionValue</i> elements. The <i>BusinessScopeCriterionTypeCode</i> describes the type and nature of the business scope being defined, and the <i>BusinessScopeCriterionValue</i> describes the value being assigned to the business scope. Together they define a context for the header envelope. Consequently, to define that the context of an XHE as testing, an implementer must include a <i>BusinessScopeCriterion</i> with a <i>BusinessScopeCriterionTypeCode</i> that is defined as whether a header envelope is a test or not, and a <i>BusinessScopeCriterionValue</i> that defines that it is a test. For example:</p> <pre data-bbox="889 1024 1414 1293"> &lt;xha:BusinessScopeCriterion&gt;   &lt;xhb:BusinessScopeCriterionTypeCode&gt;     Test   &lt;/xhb:BusinessScopeCriterionTypeCode&gt;   &lt;xhb:BusinessScopeCriterionValue&gt;     True   &lt;/xhb:BusinessScopeCriterionValue&gt; &lt;/xha:BusinessScopeCriterion&gt; </pre> <p>It is important to understand that the specific business scopes and their definitions are not defined within the XHE specification itself. Such conventions are expected to be agreed upon and documented by the implementing parties or user communities, and XHE simply provides the methodology and structure to reveal them within a header envelope instance.</p>
└ FromParty	XHE/xha:Header/xha:FromParty	Describes a sending party. The <i>XHE/xha:Header/xhb:FromParty</i> is analogous to the BDE <i>Envelope/eac:FromParty</i> (see section <b>Error! Reference source not found.</b> for information about the <i>Party</i> class).
└ ToParty	XHE/xha:Header/xha:ToParty	Describes a recipient. The <i>XHE/xha:Header/xhb:ToParty</i> is analogous to the BDE <i>Envelope/eac:ToParty</i> (see section <b>Error! Reference source not found.</b> for information about the <i>Party</i> class).
└ Payload	XHE/xha:Payloads/xha:Payload	For both BDE and XHE, the <i>Payload</i> is a repeatable element where each instance describes the properties of a business document as well as either contains the business document

<b>BDE</b>	<b>XHE</b>	<b>Comments</b>
		itself or a contains reference to an external business document. While the BDE <i>Payload</i> repeats in the root element of the envelope, the XHE <i>Payload</i> repeats within an <i>XHE/xha:Payloads</i> container. See section <b>Error! Reference source not found.</b> for more information about the <i>Payload</i> class.

### 3.2.3 BDE Party class mapping

<b>BDE</b>	<b>XHE</b>	<b>Comments</b>
Party	Party	
└ ID	Party/xha:PartyIdentification/xhb:ID	Unambiguously identifies a party. The <i>XHE/xha:Party/xhb:ID</i> is analogous to the BDE <i>cac:Party/cbc:ID</i> .

### 3.2.4 BDE Payload class mapping

<b>BDE</b>	<b>XHE</b>	<b>Comments</b>
Payload	Payload	
└ ID	Payload/xhb:ID	Unambiguously identifies a payload (a business document contained within or referenced from an envelope) instance. The <i>XHE/xha:Payloads/xha:Payload/xhb:ID</i> is analogous to the BDE <i>cac:Payload/cbc:ID</i> .
└ DocumentTypeID	Payload/xhb:DocumentTypeCode	<p>The BDE <i>DocumentTypeID</i> identifies the document type of a business document, such as "Order", "Invoice", a URN, or using any convention agreed upon by the parties. The equivalent in XHE is the <i>DocumentTypeCode</i>, with the important difference that the BDE <i>DocumentTypeID</i> is a <b>[CCTS]</b> <i>Identifier</i> type, while the XHE <i>DocumentTypeCode</i> is a <b>[CCTS]</b> <i>Code</i> type.</p> <p>As an example, the BDE <i>DocumentTypeID</i></p> <pre>&lt;ebc:DocumentTypeID&gt;   Invoice &lt;/ebc:DocumentTypeID&gt;</pre> <p>Can be expressed in XHE as</p> <pre>&lt;xhb:DocumentTypeCode&gt;   Invoice &lt;/xhb:DocumentTypeCode&gt;</pre>
└ CustomizationID	Payload/xhb:CustomizationID	The <i>Payload/CustomizationID</i> describes an agreement to use a subset or a user defined model of a business document associated with an envelope. The <i>XHE/xha:Payloads/xha:Payload/xhb:CustomizationID</i> is analogous to the BDE <i>cac:Payload/cbc:CustomizationID</i> .
└ ProfileID	Payload/xhb:ProfileID	The <i>Payload/ProfileID</i> describes the profile of the business process or business scope that a business document associated with an envelope is part of. The

BDE	XHE	Comments
		<p><i>XHE/xha:Payloads/xha:Payload/xhb:ProfileID</i> is analogous to the BDE <i>cac:Payload/cbc:ProfileID</i>.</p>
<p>└ ProfileExecutionID</p>	<p>Payload/xhb:ProfileExecutionID</p>	<p>The <i>Payload/ProfileExecutionID</i> is used to keep track of the specific instance within a business profile or process that a business document associated with an envelope constitutes. It can as such be seen as a “business process session identifier”. The <i>XHE/xha:Payloads/xha:Payload/xhb:ProfileExecutionID</i> is analogous to the BDE <i>Payload/cbc:ProfileExecutionID</i> and is different from the <i>XHE/xhb:ProfileExecutionID</i>, which identifies the header envelope <i>itself</i> within such process.</p>
<p>└ HandlingServiceID</p>	<p>Payload/xhb:HandlingServiceID</p>	<p>The <i>Payload/HandlingServiceID</i> provides a mechanism to identify the service at the receiver’s end that should process the business document. The <i>XHE/xha:Payloads/xha:Payload/xhb:HandlingServiceID</i> is analogous to the BDE <i>cac:Payload/cbc:HandlingServiceID</i>.</p>
<p>└ InstanceSyntaxID</p>	<p>Payload/xhb:ContentTypeCode</p>	<p>The BDE <i>InstanceSyntaxID</i> indicates the syntax used to express and structure a business document, such as a MIME type or a markup language. The equivalent in XHE is the <i>ContentTypeCode</i>, with the important difference that the BDE <i>InstanceSyntaxID</i> is a <b>[CCTS] Identifier</b> type, while the XHE <i>ContentTypeCode</i> is a <b>[CCTS] Code</b> type.</p> <p>As an example, the BDE <i>InstanceSyntaxID</i></p> <pre data-bbox="889 1115 1414 1184">&lt;ebc:InstanceSyntaxID schemeID="MIME"&gt;   text/plain &lt;/ebc:InstanceSyntaxID&gt;</pre> <p>Can be expressed in XHE as</p> <pre data-bbox="889 1276 1414 1346">&lt;xhb:ContentTypeCode listID="MIME"&gt;   text/plain &lt;/xhb:ContentTypeCode&gt;</pre>
<p>└ InstanceEncryptionIndicator</p>	<p>Payload/xhb:InstanceEncryptionIndicator</p>	<p>Reveals whether the business document associated with the envelope payload instance is encrypted or not. When set to “true”, the business document is encrypted. The <i>InstanceEncryptionIndicator</i> is a mandatory element of the XHE <i>Payload</i> class, while it is optional in BDE.</p>
<p>└ InstanceEncryptionMethod</p>	<p>Payload/xhb:InstanceEncryptionMethod</p>	<p>When the business document associated with the envelope payload is encrypted, the <i>InstanceEncryptionMethod</i> reveals the method that was used for encrypting it. The <i>XHE/xha:Payloads/xha:Payload/xhb:InstanceEncryptionMethod</i> is analogous to the BDE <i>cac:Payload/cbc:InstanceEncryptionMethod</i>.</p>
<p>└ InstanceHashValue</p>	<p>Payload/xhb:InstanceHashValue</p>	<p>When used, the <i>InstanceHashValue</i> contains the computed hash total of the entire business document being sent with the payload instance, enabling the receiver and other parties to compute the hash total of the business document received and thereby verifying its integrity. XHE <b>REQUIRES</b> that the hash total is computed using</p>



BDE	XHE	Comments
		the <b>[SHA-256]</b> algorithm. This is different from BDE, which allows the implementer to specify the algorithm used (see <i>InstanceHashAlgorithm</i> below).
└ InstanceHashAlgorithm	N/A	In BDE, the <i>InstanceHashAlgorithm</i> indicates the algorithm and methodology used to compute the hash total value (see <i>InstanceHashValue</i> above). This is not used in XHE. For XHE payloads, users MUST use the <b>[SHA-256]</b> algorithm to compute the <i>InstanceHashValue</i> .
└ InstanceDecryptionInformationExternalReference	Payload/xha:InstanceDecryptionInformationExternalReference	The <i>InstanceDecryptionInformationExternalReference</i> holds information about an externally available (not within the envelope itself) resource with information about how to decrypt an encrypted business document. The <i>XHE/xha:Payloads/xha:Payload/xha:InstanceDecryptionInformationExternalReference</i> is analogous to the BDE <i>cac:Payload/cac:InstanceDecryptionInformationExternalReference</i> . See section 3.2.5 for information about the <i>External Reference</i> class
└ InstanceDecryptionKeyExternalReference	Payload/xha:InstanceDecryptionKeyExternalReference	The <i>InstanceDecryptionKeyExternalReference</i> holds information about an externally available (not within the envelope itself) decryption key necessary to transform an encrypted business document into a readable form. The <i>XHE/xha:Payloads/xha:Payload/xha:InstanceDecryptionKeyExternalReference</i> is analogous to the BDE <i>cac:Payload/cac:InstanceDecryptionKeyExternalReference</i> . See section 3.2.5 for information about the <i>External Reference</i> class.
└ RelevantExternalReference	Payload/xha:RelevantExternalReference	For both BDE and XHE, the <i>RelevantExternalReference</i> is a repeatable element within an envelope payload instance. Each <i>RelevantExternalReference</i> holds information about any document or other resource externally available (not within the envelope itself) to the envelope and which is not a business document associated with the envelope itself but is relevant for a business document associated with the envelope. An envelope payload can have any number of <i>RelevantExternalReference</i> available to it. The <i>XHE/xha:Payloads/xha:Payload/xha:RelevantExternalReference</i> is analogous to the BDE <i>cac:Payload/cac:RelevantExternalReference</i> . See section 3.2.5 for information about the <i>External Reference</i> class.
└ PayloadExternalReference	Payload/xha:PayloadExternalReference	The <i>PayloadExternalReference</i> holds information about a business document associated with the envelope when it is not included within the envelope itself. Because BDE is exclusively an envelope technology, a BDE instance must always have a business document associated with it, either as an external <i>PayloadExternalReference</i> or included in the <i>PayloadContent</i> . This is different in XHE, which can also be used as a header technology where the XHE instance is included in the business document instead of the other way around. For

<b>BDE</b>	<b>XHE</b>	<b>Comments</b>
		both BDE and XHE applies that a <i>Payload</i> instance MUST NOT have both a <i>PayloadExternalReference</i> element and a <i>PayloadContent</i> element. The BDE MUST have one or the other and the XHE MAY have one or the other, but neither a BDE nor an XHE payload instance can have both. See also <i>PayloadContent</i> below, and section 3.2.5 for more information about the <i>External Reference</i> class.
└ PayloadContent	Payload/PayloadContent	When present, the <i>PayloadContent</i> contains a business document associated with the envelope, either as well-formed XML content or as text. Because BDE is exclusively an envelope technology, a BDE instance must always have a business document associated with it, either as an external <i>PayloadExternalReference</i> or included in the <i>PayloadContent</i> . This is different in XHE, which can also be used as a header technology where the XHE instance is included in the business document instead of the other way around. For both BDE and XHE applies that a <i>Payload</i> MUST NOT have both a <i>PayloadExternalReference</i> element and a <i>PayloadContent</i> element. The BDE MUST have one or the other and the XHE MAY have one or the other, but neither a BDE nor an XHE payload instance can have both. See also <i>PayloadExternalReference</i> above.

### 3.2.5 BDE External Reference class mapping

<b>BDE</b>	<b>XHE</b>	<b>Comments</b>
External Reference	External Reference	
└ ID	External Reference/xhb:ID	The ID element of the External Reference class unambiguously identifies a resource not included in the header envelope so that its location can be unequivocally determined, and the resource retrieved. This is usually done by using a URL or URI as ID value; however, any ID can be used, which can fulfill the requirement of unambiguously identifying how to retrieve a resource. The XHE <i>External Payload/xhb:ID</i> is analogous to the BDE <i>External Payload/cbc:ID</i> .
└ AvailabilityStartDateTime	External Reference/xhb:AvailabilityStartDateTime	An external resource related to a header envelope may be available for a limited time only. This is necessary in some business transactions, for example when submitting a tender or a bid in an envelope that should not be opened before a certain date and time. The <i>AvailabilityStartDateTime</i> and <i>AvailabilityEndTime</i> exist to support such processes. The <i>AvailabilityStartDateTime</i> is a timestamp that reveals <i>from when</i> a resource will be available, and the <i>AvailabilityEndTime</i> timestamp reveals <i>until when</i> a resource will be available. The XHE <i>External Payload/xhb:AvailabilityStartDateTime</i> is analogous to the BDE <i>External</i>
└ AvailabilityEndTime	External Reference/xhb:AvailabilityEndTime	

BDE	XHE	Comments
		<i>Payload/cbc:AvailabilityStartDateTime</i> and the XHE <i>External Payload/xhb:AvailabilityStartDateTime</i> is analogous to the BDE <i>External Payload/cbc:AvailabilityStartDateTime</i> .
L Login L Password	External Reference/xhb:Login External Reference/xhb>Password	When access is restricted to an external resource, OPTIONAL information necessary to access the resource can be included in a header envelope through the <i>Login</i> and <i>Password</i> elements. The <i>Login</i> reveals any required login details such as a username, while the <i>Password</i> reveals the password or access code for the login. It should be emphasized that neither BDE nor XHE specify any practice for scrambling or otherwise protecting the values of the <i>Login</i> and <i>Password</i> elements. The parties exchanging header envelopes MAY define their own practice for protecting sensitive login and password details, either bilaterally or within a community of users, but the default expectation is that this information is included in clear text and implementer must be aware that it will be available to anyone in possession of the header envelope instance. When using XHE to convey sensitive information it is RECOMMENDED to implement more secure manners of protecting information, such as by using the encryption functionalities of XHE (see section <b>Error! Reference source not found.</b> above). The XHE <i>External Payload/xhb:Login</i> is analogous to the BDE <i>External Payload/cbc:Login</i> and the XHE <i>External Payload/xhb&gt;Password</i> is analogous to the BDE <i>External Payload/cbc&gt;Password</i> .

### 3.2.6 Migrating BDE extensions

XHE supports extending its data model with user-defined content in the same manner as BDE, and the XHE extension points are modeled identical to the BDE as well. Users who have developed extensions for BDE can migrate these extensions to XHE without the need for adaptation or refactoring.

See sections 2.10 and 5.6.2 of the XHE specification for information about extending the XHE data model.

## 3.3 Example BDE to XHE envelope transformation

### 3.3.1 Original BDE instance

The below example shows a BDE instance with examples of included Invoice Response and Invoice documents. The annotations in the XML comments show the location of XHE elements in the BDE envelope:

```
<?xml version="1.0" encoding="UTF-8"?>
<Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://docs.oasis-open.org/bdxx/ns/bde/1.0/Envelope
  xsd/BDE-Envelope-1.1.xsd"
  xmlns="http://docs.oasis-open.org/bdxx/ns/bde/1.0/Envelope"
  xmlns:eac="http://docs.oasis-open.org/bdxx/ns/bde/1.0/AggregateComponents"
  xmlns:ebc="http://docs.oasis-open.org/bdxx/ns/bde/1.0/BasicComponents">
  <!-- XHE/xhb:XHEVersionID -->
  <ebc:BDEVersionID>1.1</ebc:BDEVersionID>
```

```

<!-- XHE/xha:Header/xhb:ID -->
<ebc:ID>123</ebc:ID>

<!-- XHE/xha:Header/xhb:CreationDateTime -->
<ebc:CreationDateTime>2017-12-01T12:00:00Z</ebc:CreationDateTime>

<!--
XHE/xha:Header/xha:BusinessScope
XHE/xha:Header/xha:BusinessScope/xha:BusinessScopeCriterion
XHE/xha:Header/xha:BusinessScope/xha:BusinessScopeCriterion/
xhb:BusinessScopeCriterionTypeCode
XHE/xha:Header/xha:BusinessScope/xha:BusinessScopeCriterion/
xhb:BusinessScopeCriterionValue
-->
<ebc:TestIndicator>true</ebc:TestIndicator>

<!--
XHE/xha:Header/xha:FromParty
XHE/xha:Header/xha:FromParty/xha:PartyIdentification
XHE/xha:Header/xha:FromParty/xha:PartyIdentification/xhb:ID
XHE/xha:Header/xha:FromParty/xha:PartyIdentification/xhb:ID/@schemeAgencyName
XHE/xha:Header/xha:FromParty/xha:PartyIdentification/xhb:ID/@schemeID
-->
<eac:FromParty>
  <ebc:ID schemeAgencyName="GS1" schemeID="GLN">579800012345</ebc:ID>
</eac:FromParty>

<!--
XHE/xha:Header/xha:ToParty
XHE/xha:Header/xha:ToParty/xha:PartyIdentification
XHE/xha:Header/xha:ToParty/xha:PartyIdentification/xhb:ID
XHE/xha:Header/xha:ToParty/xha:PartyIdentification/xhb:ID/@schemeAgencyName
XHE/xha:Header/xha:ToParty/xha:PartyIdentification/xhb:ID/@schemeID
-->
<eac:ToParty>
  <ebc:ID schemeAgencyName="GS1" schemeAgencyID="GLN">733001000001</ebc:ID>
</eac:ToParty>

<!-- XHE/xha:Payloads/xha:Payload -->
<eac:Payload>

  <!-- XHE/xha:Payloads/xha:Payload/xhb:ID -->
  <ebc:ID>imrid001</ebc:ID>

  <!-- XHE/xha:Payloads/xha:Payload/xhb:DocumentTypeCode -->
  <ebc:DocumentTypeCode>ApplicationResponse</ebc:DocumentTypeCode>

  <!-- XHE/xha:Payloads/xha:Payload/xhb:CustomizationID -->
  <ebc:CustomizationID>urn:fdc:peppol.eu:poacc:trns:invoice_response:3</ebc:CustomizationID>

  <!-- XHE/xha:Payloads/xha:Payload/xhb:ProfileID -->
  <ebc:ProfileID>urn:fdc:peppol.eu:poacc:bis:invoice_response:3</ebc:ProfileID>

  <!-- XHE/xha:Payloads/xha:Payload/xha:PayloadContent -->
  <eac:PayloadContent>
    <ApplicationResponse
      xmlns="urn:oasis:names:specification:ubl:schema:xsd:ApplicationResponse-2"
      xmlns:cac="urn:oasis:names:specification:ubl:schema:xsd:CommonAggregateComponent
s-2"
      xmlns:cbc="urn:oasis:names:specification:ubl:schema:xsd:CommonBasicComponents-
2">
      <cbc:CustomizationID>
        urn:fdc:peppol.eu:poacc:trns:invoice_response:3
      </cbc:CustomizationID>
      <cbc:ProfileID>urn:fdc:peppol.eu:poacc:bis:invoice_response:3</cbc:ProfileID>
      <cbc:ID>imrid001</cbc:ID>
      <cbc:IssueDate>2017-12-01</cbc:IssueDate>
      <cbc:IssueTime>12:00:00</cbc:IssueTime>
      <cbc:Note>text</cbc:Note>
    </ApplicationResponse>
  </eac:PayloadContent>

```

```

<cac:SenderParty>
  <cac:PartyIdentification>
    <cbc:ID schemeID="0184">DK88776655</cbc:ID>
  </cac:PartyIdentification>
  <cac:PartyLegalEntity>
    <cbc:RegistrationName>Buyer organization</cbc:RegistrationName>
  </cac:PartyLegalEntity>
  <cac:Contact>
    <cbc:Name>Jens Jensen</cbc:Name>
    <cbc:Telephone>23232323</cbc:Telephone>
    <cbc:ElectronicMail>jj@test-company.dk</cbc:ElectronicMail>
  </cac:Contact>
</cac:SenderParty>
<cac:ReceiverParty>
  <cac:PartyIdentification>
    <cbc:ID schemeID="0192">98765432</cbc:ID>
  </cac:PartyIdentification>
  <cac:PartyLegalEntity>
    <cbc:RegistrationName>Seller company</cbc:RegistrationName>
  </cac:PartyLegalEntity>
</cac:ReceiverParty>
<cac:DocumentResponse>
  <cac:Response>
    <cbc:ResponseCode>RE</cbc:ResponseCode>
    <cbc:EffectiveDate>2018-09-24</cbc:EffectiveDate>
    <cac:Status>
      <cbc:StatusReasonCode listID="OPStatusAction">REF</cbc:StatusReasonCode>
      <cbc:StatusReason>VAT Reference not found</cbc:StatusReason>
      <cac:Condition>
        <cbc:AttributeID>BT-48</cbc:AttributeID>
        <cbc:Description>EU123456789</cbc:Description>
      </cac:Condition>
    </cac:Status>
  </cac:Response>
  <cac:DocumentReference>
    <cbc:ID>inv021</cbc:ID>
    <cbc:IssueDate>2018-09-22</cbc:IssueDate>
    <cbc:DocumentTypeCode>380</cbc:DocumentTypeCode>
  </cac:DocumentReference>
  <cac:IssuerParty>
    <cac:PartyIdentification>
      <cbc:ID schemeID="0192">999888777</cbc:ID>
    </cac:PartyIdentification>
    <cac:PartyName>
      <cbc:Name>Test Company AS</cbc:Name>
    </cac:PartyName>
  </cac:IssuerParty>
</cac:DocumentResponse>
</ApplicationResponse>
</eac:PayloadContent>
</eac:Payload>

<!-- XHE/xha:Payloads/xha:Payload -->
<eac:Payload>

  <!-- XHE/xha:Payloads/xha:Payload/xhb:ID -->
  <ebc:ID>inv021</ebc:ID>

  <!-- XHE/xha:Payloads/xha:Payload/xhb:DocumentTypeCode -->
  <ebc:DocumentTypeCode>Invoice</ebc:DocumentTypeCode>

  <!-- XHE/xha:Payloads/xha:Payload/xhb:CustomizationID -->
  <ebc:CustomizationID>
    urn:cen.eu:en16931:2017#compliant#urn:fdc:peppol.eu:2017:poacc:billing:3.0
  </ebc:CustomizationID>

  <!-- XHE/xha:Payloads/xha:Payload/xhb:ProfileID -->
  <ebc:ProfileID>urn:fdc:peppol.eu:2017:poacc:billing:01:1.0</ebc:ProfileID>

  <!-- XHE/xha:Payloads/xha:Payload/xha:PayloadContent -->
  <eac:PayloadContent>
    <Invoice xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

```

```

xmlns="urn:oasis:names:specification:ubl:schema:xsd:Invoice-2"
xmlns:cac="urn:oasis:names:specification:ubl:schema:xsd:CommonAggregateComponent
s-2"
xmlns:cbc="urn:oasis:names:specification:ubl:schema:xsd:CommonBasicComponents-
2">
  <cbc:CustomizationID>
    urn:cen.eu:en16931:2017#compliant#urn:fdc:peppol.eu:2017:poacc:billing:3.0
  </cbc:CustomizationID>
  <cbc:ProfileID>urn:fdc:peppol.eu:2017:poacc:billing:01:1.0</cbc:ProfileID>
  <cbc:ID>inv021</cbc:ID>
  <cbc:IssueDate>2018-09-22</cbc:IssueDate>
  <cbc:DocumentCurrencyCode>EUR</cbc:DocumentCurrencyCode>
  <cac:AccountingSupplierParty>
    <cac:Party>
      <cac:PartyIdentification>
        <cbc:ID schemeID="0184">DK88776655</cbc:ID>
      </cac:PartyIdentification>
      <cac:PartyLegalEntity>
        <cbc:RegistrationName>Buyer organization</cbc:RegistrationName>
      </cac:PartyLegalEntity>
      <cac:Contact>
        <cbc:Name>Jens Jensen</cbc:Name>
        <cbc:Telephone>23232323</cbc:Telephone>
        <cbc:ElectronicMail>jj@test-company.dk</cbc:ElectronicMail>
      </cac:Contact>
    </cac:Party>
  </cac:AccountingSupplierParty>
  <cac:AccountingCustomerParty>
    <cac:Party>
      <cac:PartyIdentification>
        <cbc:ID schemeID="0192">98765432</cbc:ID>
      </cac:PartyIdentification>
      <cac:PartyLegalEntity>
        <cbc:RegistrationName>Seller company</cbc:RegistrationName>
      </cac:PartyLegalEntity>
    </cac:Party>
  </cac:AccountingCustomerParty>
  <!-- reduced instance file -->
</Invoice>
</eac:PayloadContent>
</eac:Payload>
</Envelope>

```

### 3.3.2 BDE instance transformed to XHE

The below example shows the same envelope as in 3.3.1, but transformed to XHE. The annotations in the XML comments show the location of values in the original BDE envelope:

```

<?xml version="1.0" encoding="UTF-8"?>
<XHE xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="oasis-cefact-xhe-1.0-ExchangeHeaderEnvelope xsd/XHE-1.0.xsd"
  xmlns="oasis-cefact-xhe-1.0-ExchangeHeaderEnvelope"
  xmlns:xha="oasis-cefact-xhe-1.0-AggregateComponents"
  xmlns:ext="oasis-cefact-xhe-1.0-ExtensionComponents"
  xmlns:xhb="oasis-cefact-xhe-1.0-BasicComponents">
  <!-- Envelope/ebc:BDEVersionID -->
  <xhb:XHEVersionID>1.1</xhb:XHEVersionID>

  <xha:Header>
    <!-- Envelope/ebc:ID -->
    <xhb:ID>123</xhb:ID>

    <!-- Envelope/ebc:CreationDateTime -->
    <xhb:CreationDateTime>2017-12-01T12:00:00Z</xhb:CreationDateTime>

    <!--<ebc:TestIndicator>true</ebc:TestIndicator>-->
    <xha:BusinessScope>
      <xha:BusinessScopeCriterion>
        <xhb:BusinessScopeCriterionTypeCode>Test</xhb:BusinessScopeCriterionTypeCode>

```

```

    <xhb:BusinessScopeCriterionValue>true</xhb:BusinessScopeCriterionValue>
  </xha:BusinessScopeCriterion>
</xha:BusinessScope>

<!--
  Envelope/eac:FromParty/ebc:ID
  Envelope/eac:FromParty/ebc:ID/@schemeAgencyName
  Envelope/eac:FromParty/ebc:ID/@schemeID
-->
<xha:FromParty>
  <xha:PartyIdentification>
    <xhb:ID schemeAgencyName="GS1" schemeID="GLN">5798000012345</xhb:ID>
  </xha:PartyIdentification>
</xha:FromParty>

<!--
  Envelope/eac:ToParty/ebc:ID
  Envelope/eac:ToParty/ebc:ID/@schemeAgencyName
  Envelope/eac:ToParty/ebc:ID/@schemeID
-->
<xha:ToParty>
  <xha:PartyIdentification>
    <xhb:ID schemeAgencyName="GS1" schemeAgencyID="GLN">7330001000001</xhb:ID>
  </xha:PartyIdentification>
</xha:ToParty>

</xha:Header>

<xha:Payloads>
  <!-- Envelope/eac:Payload -->
  <xha:Payload>

    <!-- Envelope/eac:Payload/ebc:ID -->
    <xhb:ID>imrid001</xhb:ID>

    <!-- Envelope/eac:Payload/ebc:DocumentTypeCode -->
    <xhb:DocumentTypeCode>ApplicationResponse</xhb:DocumentTypeCode>

    <!-- Envelope/eac:Payload/ebc:CustomizationID -->
    <xhb:CustomizationID>
      urn:fdc:peppol.eu:poacc:trns:invoice_response:3
    </xhb:CustomizationID>

    <!-- Envelope/eac:Payload/ebc:ProfileID -->
    <xhb:ProfileID>urn:fdc:peppol.eu:poacc:bis:invoice_response:3</xhb:ProfileID>

    <xhb:InstanceEncryptionIndicator>false</xhb:InstanceEncryptionIndicator>
    <!-- Envelope/eac:Payload/eac:PayloadContent -->
    <xha:PayloadContent>
      <ApplicationResponse
        xmlns="urn:oasis:names:specification:ubl:schema:xsd:ApplicationResponse-2"
        xmlns:cac="urn:oasis:names:specification:ubl:schema:xsd:CommonAggregateComponent-2"
        xmlns:cbc="urn:oasis:names:specification:ubl:schema:xsd:CommonBasicComponents-2">
        <cbc:CustomizationID>
          urn:fdc:peppol.eu:poacc:trns:invoice_response:3
        </cbc:CustomizationID>
        <cbc:ProfileID>urn:fdc:peppol.eu:poacc:bis:invoice_response:3</cbc:ProfileID>
        <cbc:ID>imrid001</cbc:ID>
        <cbc:IssueDate>2017-12-01</cbc:IssueDate>
        <cbc:IssueTime>12:00:00</cbc:IssueTime>
        <cbc:Note>text</cbc:Note>
        <cac:SenderParty>
          <cac:PartyIdentification>
            <cbc:ID schemeID="0184">DK88776655</cbc:ID>
          </cac:PartyIdentification>
          <cac:PartyLegalEntity>
            <cbc:RegistrationName>Buyer organization</cbc:RegistrationName>
          </cac:PartyLegalEntity>
          <cac:Contact>
            <cbc:Name>Jens Jensen</cbc:Name>
          </cac:Contact>
        </cac:SenderParty>
      </ApplicationResponse>
    </xha:PayloadContent>
  </xha:Payload>
</xha:Payloads>

```

```

        <cbc:Telephone>23232323</cbc:Telephone>
        <cbc:ElectronicMail>jj@test-company.dk</cbc:ElectronicMail>
    </cac:Contact>
</cac:SenderParty>
<cac:ReceiverParty>
    <cac:PartyIdentification>
        <cbc:ID schemeID="0192">98765432</cbc:ID>
    </cac:PartyIdentification>
    <cac:PartyLegalEntity>
        <cbc:RegistrationName>Seller company</cbc:RegistrationName>
    </cac:PartyLegalEntity>
</cac:ReceiverParty>
<cac:DocumentResponse>
    <cac:Response>
        <cbc:ResponseCode>RE</cbc:ResponseCode>
        <cbc:EffectiveDate>2018-09-24</cbc:EffectiveDate>
        <cac:Status>
            <cbc:StatusReasonCode listID="OPStatusAction"
                >REF</cbc:StatusReasonCode>
            <cbc:StatusReason>VAT Reference not found</cbc:StatusReason>
            <cac:Condition>
                <cbc:AttributeID>BT-48</cbc:AttributeID>
                <cbc:Description>EU123456789</cbc:Description>
            </cac:Condition>
        </cac:Status>
    </cac:Response>
    <cac:DocumentReference>
        <cbc:ID>inv021</cbc:ID>
        <cbc:IssueDate>2018-09-22</cbc:IssueDate>
        <cbc:DocumentTypeCode>380</cbc:DocumentTypeCode>
    </cac:DocumentReference>
    <cac:IssuerParty>
        <cac:PartyIdentification>
            <cbc:ID schemeID="0192">999888777</cbc:ID>
        </cac:PartyIdentification>
        <cac:PartyName>
            <cbc:Name>Test Company AS</cbc:Name>
        </cac:PartyName>
    </cac:IssuerParty>
</cac:DocumentResponse>
</ApplicationResponse>
</xha:PayloadContent>
</xha:Payload>

<!-- Envelope/eac:Payload/eac:Payload -->
<xha:Payload>

    <!-- Envelope/eac:Payload/ebc:ID -->
    <xhb:ID>inv021</xhb:ID>

    <!-- Envelope/eac:Payload/ebc:DocumentTypeCode -->
    <xhb:DocumentTypeCode>Invoice</xhb:DocumentTypeCode>

    <!-- Envelope/eac:Payload/ebc:CustomizationID -->
    <xhb:CustomizationID>
        urn:cen.eu:en16931:2017#compliant#urn:fdc:peppol.eu:2017:poacc:billing:3.0
    </xhb:CustomizationID>

    <!-- Envelope/eac:Payload/ebc:ProfileID -->
    <xhb:ProfileID>urn:fdc:peppol.eu:2017:poacc:billing:01:1.0</xhb:ProfileID>

    <!-- Envelope/eac:Payload/eac:PayloadContent -->
    <xhb:InstanceEncryptionIndicator>false</xhb:InstanceEncryptionIndicator>
    <xha:PayloadContent>
        <Invoice xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
            xmlns="urn:oasis:names:specification:ubl:schema:xsd:Invoice-2"
            xmlns:cac="urn:oasis:names:specification:ubl:schema:xsd:CommonAggregateComponen
nts-2"
            xmlns:cbc="urn:oasis:names:specification:ubl:schema:xsd:CommonBasicComponents-
2">
            <cbc:CustomizationID>
                urn:cen.eu:en16931:2017#compliant#urn:fdc:peppol.eu:2017:poacc:billing:3.0

```



```

</cbc:CustomizationID>
<cbc:ProfileID>urn:fdc:peppol.eu:2017:poacc:billing:01:1.0</cbc:ProfileID>
<cbc:ID>inv021</cbc:ID>
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<cbc:DocumentCurrencyCode>EUR</cbc:DocumentCurrencyCode>
<cac:AccountingSupplierParty>
  <cac:Party>
    <cac:PartyIdentification>
      <cbc:ID schemeID="0184">DK88776655</cbc:ID>
    </cac:PartyIdentification>
    <cac:PartyLegalEntity>
      <cbc:RegistrationName>Buyer organization</cbc:RegistrationName>
    </cac:PartyLegalEntity>
    <cac:Contact>
      <cbc:Name>Jens Jensen</cbc:Name>
      <cbc:Telephone>23232323</cbc:Telephone>
      <cbc:ElectronicMail>jj@test-company.dk</cbc:ElectronicMail>
    </cac:Contact>
  </cac:Party>
</cac:AccountingSupplierParty>
<cac:AccountingCustomerParty>
  <cac:Party>
    <cac:PartyIdentification>
      <cbc:ID schemeID="0192">98765432</cbc:ID>
    </cac:PartyIdentification>
    <cac:PartyLegalEntity>
      <cbc:RegistrationName>Seller company</cbc:RegistrationName>
    </cac:PartyLegalEntity>
  </cac:Party>
</cac:AccountingCustomerParty>
<!-- reduced instance file -->
</Invoice>
</xha:PayloadContent>
</xha:Payload>
</xha:Payloads>
</XHE>

```

---

## Appendix A. Acknowledgments

The following individuals have participated in the creation of this specification and are gratefully acknowledged:

Participants:

Kenneth Bengtsson, Individual (co-chair and editor)

Anders Grandgaard, GS1 (co-chair)

G. Ken Holman, Crane Softwrights Ltd.

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## Appendix B. Revision History

<b>Revision</b>	<b>Date</b>	<b>Editor</b>	<b>Changes Made</b>
WD01	2019/05/14	Kenneth Bengtsson	First version