Standard Business Document Header
Practical Guide on the use of SDBH

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1. Introduction

The standards chosen and deployed in the e-CODEX project span the information exchange on a cross-border level only. In other words: Adoption of the standards between e-CODEX participants is mandatory, but cannot be enforced for usage within the domain of a participant. This approach is fully compliant with the concept of Service Loose Coupling allowing participants to be technically, semantically and operationally autonomous in cross-border cooperation regarding the deployed standards and solutions with their respective domains.

However, in order to fully benefit from the features of the chosen standards, some requirements are laid upon the participant which may not be extensively supported by their internal standards. One example of such requirement is the ability to correlate message patterns. A challenge in meeting this requirement is the fact that the Standard Business Document Header is not a mandatory component with the ebXML stack. If chosen to use the SBDH it does not replace the actual business document, it's specific header information or addressing attributes used in the exchange layer (ebMS). It is simply a rather useful optional component in retaining information which may be lost when multiple standards are deployed in interconnection business partners. It is for that reason that in the context of e-CODEX, the deployment of the SBDH as additional component is strongly advised.

1.1. Notes to the reader

This document is a compilation of supporting documents that were provide by the Member States in relation with the e-CODEX project regarding the SBDH usage. With a view on the strong recommendation for its deployment, that documentation has officially been handed over from the e-CODEX consortium to eu-LISA. It is tightly related to both the SBDH official documentation and the e-CODEX system as a whole.

The document provides an extensive explanation of the SBDH itself and how it can be supportive to the various e-CODEX use case implementations. By means of example a document with coding instructions for the European Order for Payment procedure use case has been provided (see below).
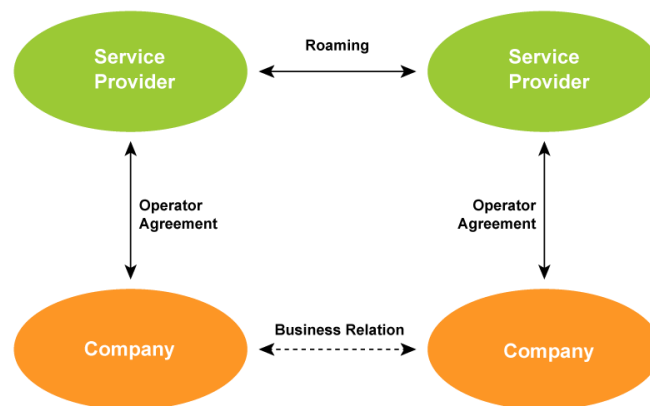
2. Standard Business Document Header

2.1. Why use the SBDH

As addressed in the introduction of this document some procedural, semantical and technical challenges need to be overcome. The usage of the standard business document header can contribute in overcoming these issues. Whereas in the cross-domain exchange of information various exchange protocols and a variety of semantic structures may be used, common end-to-end requirements need to be met.

In the so called *four corner model* as deployed according to the e-CODEX architecture, communication standards only apply on a bilateral basis between two parties, which together are only one leg of the *four-corner model*. In the previous or next leg, a different standard may be applied. This different standard may support and require other parameters that the other legs.

Also, the addressing on the transport level consists only of the adjacent infrastructure components, therefor being unaware of the originator and the final recipient of the message.

▲ *Figure 1 Four corner model*

From the SBDH official documentation:

> The SBDH includes a set of standard elements necessary to determine the routing and processing of documents either as a header within, or linked with the document. The standard header can also optionally provide service and correlation information, at the business domain level between trading partners. The standard header can provide the semantic information needed for the routing, processing and business domain context of documents, regardless of the data format of the document – XML or EDI or other format

The SBDH serves 3 business needs:

1. The routing of business documents from one point to another. This refers not only to the transfer of information from an external originator to receiver, but also from one intermediate application to another. Information in the SBDH can help ensure that a document gets to the correct recipient.

2. The simplified processing of documents. Processing refers to taking action on data, for example transforming it from one format to another. Information in the SBDH can reduce the effort required to determine the correct processing actions.

3. Associating a data message with its originator is important from a business and legal perspective. It is especially important when using intermediaries for data transfer, as information from the transport protocol may be lost after the initial transmission. Because information in the SBDH is retained, it can help ensure that a document's originator is correctly identified.

The main purpose of the Standard Business Document Header is to bridge the gap for standards such as the UN/CEFACT EDI standard, that do not have the functionality of the ebXML standards to perform a complete collaboration framework. It gives other technical frameworks and other standards the ability to simply use the payload in a collaborative exchange. These other standards and frameworks do not easily allow a user to accomplish this collaborative exchange without utilizing the attributes of the SBDH.

2.2. How to apply the SBDH

Basically, there are 2 options in the usage of the SBDH;

1. The SBDH can be part of the actual Business Document
2. The SBDH can be a separate xml document

In the e-CODEX use cases it is advisable to deploy the Standard Business Document Header as a separate XML document within the payload. The main reason for this is the Business Document itself may be subject to schema transformations in the four-corner model.
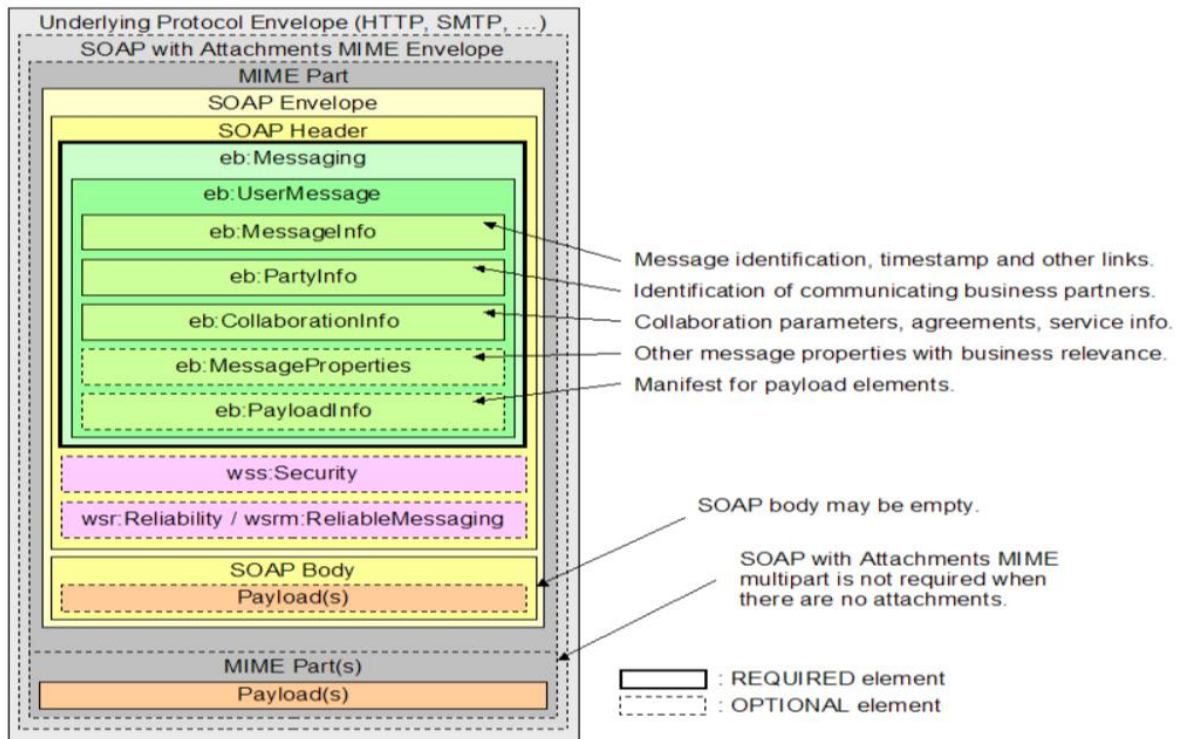
2.3. SBDH building blocks

The Standard Business Document Header structure contains the following building blocks:

- Sender block
- Receiver block
- Document identification
- Manifest block
- Business scope

2.4. ebMS3 structure

The ebMS message itself is structured in a header part and a payload part. The following figure is from the ebMS specification and illustrates the technical setup of an ebMS message. This chapter describes which values are expected in the different ebMS header fields in order to send an e-CODEX message properly.

The SBDH is a broad specification, most of which is not needed in e-CODEX, only the fields that provide value in the exchange of messages for e-CODEX are used. The contents of the SBDH should be in line with the ebMS header.

2.5. Filling out the SBDH

The table below shows the way the SBDH should be filled in case of a European Order for Payment, together with the source of the information. The xml message underneath the table shows an example of an actual SBDH.

SBDH field	Multiplicity	Content (in case of EOP) / ebMS3 field
sbdh:StandardBusinessDocumentHeader/sbdh:HeaderVersion	1..1	Fixed value "1.0"
sbdh:StandardBusinessDocumentHeader/ sbdh:Sender/sbdh:Identifier	1..1	Identifier: In case the sender is a civilian claiming on his own behalf or a representative of a natural person the national identification number (the likes of social security number) should be used if in existence. In case no such identifying number exists, a concatenation of surname + birthdate (CCYYMMDD) should be used. In case the sender is a person acting on behalf of a company, the identifier in the national business register is to be used.

		In case the sender is a court: the court ID if available; else the name of the court in max 20 positions written without spaces and without capitals.
sbdh:StandardBusinessDocumentHeader/ sbdh:Sender/sbdh:Identifier/@Authority	1..1	Authority is to be filled with the (national) authority in charge of assigning identifiers to persons. (http://docs.oasis-open.org/ebcore/PartyIdType/v1.0/PartyIdType-1.0.html) In case the sender is a court: the name of the court In case there is no identifier available, this attribute should be a copy of the Identifier field.
sbdh:StandardBusinessDocumentHeader/ sbdh:Sender/sbdh:ContactInformation/sbdh:Contact	1..1	In case the sender is a civilian claiming on his own behalf or a representative of a natural person: surname of the representative if present, else the surname of the civilian claimant. In the form: Involved Party/ Family Name
sbdh:StandardBusinessDocumentHeader/ sbdh:Sender/sbdh:ContactInformation/EmailAddress	1..1	From the form: ..../InvolvedParty/ Communication /....
sbdh:StandardBusinessDocumentHeader/ sbdh:Sender/sbdh:ContactInformation/sbdh:ContactTypeIdentifier	1..1	If the contact is the natural person who is claiming on his own behalf : "claimant " If the contact is the representative of the claimant "representative"
sbdh:StandardBusinessDocumentHeader/ sbdh:Receiver/sbdh:Identifier	1..1	Identifier: In case the receiver is a court: the court ID if available; else the name of the court in max 20 positions written without spaces and without capitals. In case the receiver is a company, the identifier in the national business register is to be used. In case the receiver is the civilian claiming on his own behalf or the representative of a natural person the national identification number (the likes of social security number) should be used if in existence. In case no such identifying number exists, a concatenation of surname + birthdate (CCYYMMDD) should be used. In case the receiver is a person acting on behalf of a company, the identifier in the national business register is to be used.
sbdh:StandardBusinessDocumentHeader/ sbdh:Receiver/sbdh:Identifier/@Authority	1..1	Authority is to be filled with the (national) authority in charge of assigning the identifier. (http://docs.oasis-open.org/ebcore/PartyIdType/v1.0/PartyIdType-1.0.html) In case the receiver is a court: the name of the court In case there is no identifier available, this attribute should be a copy of the Identifier field.
sbdh:StandardBusinessDocumentHeader/ sbdh:Receiver/sbdh:ContactInformation/sbdh:ContactTypeIdentifier	1..1	In case the receiver is the court: "Deciding authority" In case the receiver is a civilian claiming on his own behalf or a representative of a natural person: "Claimant" or "Representative". In case the receiver is the defendant: "Defendant".
sbdh:StandardBusinessDocumentHeader/ sbdh:DocumentIdentification/ sbdh:Standard	1..1	**http://data.ecodex.eu/epo/document/EOPFormA-1** (in case it is about Form A)
sbdh:StandardBusinessDocumentHeader/ sbdh:DocumentIdentification/ sbdh:InstanceIdentifier	1..1	GUID eb:MessageInfo/eb:MessageId

sbdh:StandardBusinessDocumentHeader/ sbdh:DocumentIdentification/ sbdh: TypeVersion	1..1	"1.0"
sbdh:StandardBusinessDocumentHeader/ sbdh:DocumentIdentification/ sbdh:Type	1..1	The identifier of a BD from the EOP business transactions: "BD-00001" (Application for EOP) etc.
sbdh:StandardBusinessDocumentHeader/ sbdh:DocumentIdentification/ sbdh:CreationDateAndTime	1..1	Creation date and time of the actual message
sbdh:StandardBusinessDocumentHeader/ sbdh:Manifest/sbdh:NumberOfItems	1..1	The number of Attachments that are specified in the Form
sbdh:StandardBusinessDocumentHeader/ sbdh:Manifest/sbdh:ManifestItem	1..n	
sbdh:StandardBusinessDocumentHeader/ sbdh:Manifest/sbdh:ManifestItem/sbdh:MimeTypeQualifier Code	1..1	From Business Document: …./Attachment/ Content Type - The mime type of the attachment
sbdh:StandardBusinessDocumentHeader/ sbdh:Manifest/sbdh:ManifestItem/sbdh:UniformResourceId entifier	1..1	From Business Document : …../Attachment/Content ID
sbdh:StandardBusinessDocumentHeader/ sbdh:Manifest/sbdh:ManifestItem/sbdh :Description	1..1	From Business Document : …/Attachment/Content Description - a description of the content
sbdh:StandardBusinessDocumentHeader/ sbdh:BusinessScope/sbdh:Scope/sbdh:Type	1..1	"ebXML:BusinessServiceAction"
sbdh:StandardBusinessDocumentHeader/ sbdh:BusinessScope/sbdh:Scope/sbdh:InstanceIdentifier	1..1	A unique ID to keep together all of the messages that make up one conversation in a business process. This field has to be filled up by the national subsystem. For this field there is no specific structure foreseen. eb:CollaborationInfo/eb:ConversationId
sbdh:StandardBusinessDocumentHeader/ sbdh:BusinessScope/sbdh:Scope/sbdh:Identifier	0..1	eb:AgreementRef Reference to an agreement between two parties within the context of a business process eb:CPA id
sbdh:StandardBusinessDocumentHeader/ sbdh:BusinessScope/sbdh:Scope/sbdh:CorrelationInforma tion/sbdh:RequestingDocumentInstanceIdentifier	0..1	In case the message is a response to a message, the GUID of the previous message should be included here. eb:MessageInfo/eb:RefToMessageId
sbdh:StandardBusinessDocumentHeader/ sbdh:BusinessScope/sbdh:Scope/sbdh:BusinessService/s bdh:BusinessServiceName	1..1	SC: "BC-001001" (SC Main Process) SC: "BC-001003" (Judgment) "BC-001004" (Complete claim) "BC-001005" (Withdraw claim) "BC-001006" (Inform about withdrawal)

```
<sbdh:StandardBusinessDocumentHeader>
    <sbdh:HeaderVersion>1.0</sbdh:HeaderVersion>
    <sbdh:Sender>
        <sbdh:Identifier Authority="urn:at:rechtsanwalt-advokat">R123456</sbdh:Identifier> // e.g.
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```
Austrian "ERV" Address of the lawyer
      <sbdh:ContactInformation>
         <sbdh:Contact>Albert Advokat</sbdh:Contact>
         <sbdh:ContactTypeIdentifier>Claimant</sbdh:ContactTypeIdentifier>
      </sbdh:ContactInformation>
   </sbdh:Sender>
   <sbdh:Receiver>
      <sbdh:Identifier Authority="urn:at:courtid">008</sbdh:Identifier> // ID of the Court
      <sbdh:ContactInformation>
         <sbdh:Contact>Oberlandesgericht Wien</sbdh:Contact>
         <sbdh:ContactTypeIdentifier>Deciding authority</sbdh:ContactTypeIdentifier>
      </sbdh:ContactInformation>
   </sbdh:Receiver>
   <sbdh:DocumentIdentification>
      <sbdh:Standard>e-CODEX</sbdh:Standard>
      <sbdh:TypeVersion>1.0RC1</sbdh:TypeVersion>
      <sbdh:InstanceIdentifier>M1325862228922.292035[at]eJustice.eu</sbdh:InstanceIdentifier> // ID
of the message
      <sbdh:Type>ApplicationForEPO</sbdh:Type>
      <sbdh:CreationDateAndTime>2012-01-04T18:13:51.0Z</sbdh:CreationDateAndTime> // Time of the
receipt of the message
   </sbdh:DocumentIdentification>
   <sbdh:BusinessScope>
      <sbdh:Scope>
         <sbdh:Type>European regulation No.1896/2006</sbdh:Type>
         <sbdh:InstanceIdentifier>00ebf4f7-ede3-4dbc-b95c-a61c255b9d92</sbdh:InstanceIdentifier>
         <sbdh:Identifier>PModeId</sbdh:Identifier>
         <sbdh:BusinessService>
            <sbdh:BusinessServiceName>urn:ebv:services:EPO:0:4</sbdh:BusinessServiceName>
            <sbdh:ServiceTransaction TypeOfServiceTransaction="RequestingServiceTransaction"
IsApplicationErrorResponseRequested="true" IsAuthenticationRequired="true"
IsIntelligibleCheckRequired="true" IsNonRepudiationOfReceiptRequired="true"
IsNonRepudiationRequired="true" Recurrence="2" TimeToAcknowledgeAcceptance=""
TimeToAcknowledgeReceipt="PT6H" />
         </sbdh:BusinessService>
      </sbdh:Scope>
   </sbdh:BusinessScope>
</sbdh:StandardBusinessDocumentHeader>
```