

OpenPEPPOL Capacity Building Deliverable

New payloads

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Document Logistic

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This Document relates to: Subject area

Revision History

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| Date of this revision: 16-11-2016 | Date of next revision (date) |
| NR | Date | Summary of Changes | Changes marked |
| 1 | June 23rd, 2016 | Added a concrete example | Cook, Steinar |
| 2 | July 6, 2016 | Changed payload definition | Erlend KlakeggBergheim |
| 3 | September 27, 2016 | Added support for payloads outside ASiC container | Juan Baldoví |
| 4 | October 10th, 2016 | Updated XSD with encoding attribute for BinaryContent |  |
| 5 | October 12th, 2016 | Adding content in chapter 4, 5 and 6. | Erlend Klakegg Bergheim |
| 6 | November 16th, 2016 | Removed encoding attribute in TextContent | Juan Baldoví |

Approvals

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1. Pre-analyse report: identification of the need for extensions

One of the Peppol goals is to Encourage European governments and their suppliers to continue implementing eProcurement using the PEPPOL specifications and promoting best practices, but Peppol has its own set of valid documents as defined in the document specifications (PEPPOL Business Interoperability Specifications -BIS) which is not always enough, specially in the pre-award domain requiring transmission of messages consisting of multiple documents having various MIME types.

Allowing any document type to be exchanged via the Peppol infrastructure is critical to ensure that the PEPPOL network continues to grow in an open, accessible and compliant manner supporting interoperability for European public services.

In order to allow this expansion, more payloads should be allowed and included within the PEPPOL Business Interoperability Specifications -BIS.

1. Requirement specification to all of the identified new Capability Extensions

The solution should allow the transportation of any binary data and text data as payload, so a solution should be found with minimal impact on the current infrastructure.

The eSens project gained consensus around utilizing Associated Signature Container - ASiC ([ETSI TS 102 910](http://www.etsi.org/deliver/etsi_ts/102900_102999/102918/01.01.01_60/ts_102918v010101p.pdf) and [ETSI TS 102 918](http://www.etsi.org/deliver/etsi_ts/102900_102999/102918/01.01.01_60/ts_102918v010101p.pdf)) so it makes sense to adopt the same solution for binary data.

An ASiC container is based on a zip file which certain rules.

The ASiC container offers

* Allows any binary payload to be transmitted
* Offers Message integrity
* Offers message authentication
* Because of compression offers bandwidth optimization
* Allows reusing current infrastructure for transport
1. Design Documentation for all of the identified new Capability Extensions

Given the current version of AS2 being used and the need to be backwards compatible, the ASiC payload should be transformed and packaged as follows. Furthermore, in reference to the current PEPPOL AS2 Profile, which mandates that messages must be wrapped as payload within a Standard Business Document:

1. The Base64 encoded ASiC archive shall be included inside an XML element.
2. The XML root element name inside SBDH Payload is “BinaryContent”
3. The attribute “mimeType” is set to “application/vnd.etsi.asic-e+zip”.
4. Encoding attribute for encoding should be used if a text document is attached and it was encoded differently that the XML wrapper
5. ASiC content encoded using Base64 is inside “BinaryContent”.

For text data there is no need of container, it can be placed directly as payload inside a TextContent data element.

If the text payload contains XML entities, they must be escaped or the data needs to be wrapped in a CDATA element so the XML remains well formed.

If a text payload is embedded inside the <TextContent> data element it should use the same character encoding as the surrounding XML, otherwise, the BinaryContent data element should be usedPlease see attached XSD for normative XML Scheme.

**Examples:**

The following is a non-normative example for binary data (ASiC container):

<StandardBusinessDocument xmlns="http://www.unece.org/cefact/namespaces/StandardBusinessDocumentHeader">

 <StandardBusinessDocumentHeader>

 ...

 </StandardBusinessDocumentHeader>

 <BinaryContent xmlns="http://peppol.eu/xsd/ticc/envelope/1.0" mimeType="application/vnd.etsi.asic-e+zip" encoding="UTF-8">

 ABCD45678922 ...

 </BinaryContent>

</StandardBusinessDocument>

The following is a non-normative example for text data:<StandardBusinessDocument xmlns="http://www.unece.org/cefact/namespaces/StandardBusinessDocumentHeader">

 <StandardBusinessDocumentHeader>

 ...

 </StandardBusinessDocumentHeader>

 <TextContent xmlns="http://peppol.eu/xsd/ticc/envelope/1.0" mimeType="Application/EDIFACT">

 UNB+UNOA:2+9930711378399:14+7798032711116:14+160927:2252+EW861380947'UNH+186453437+CONTRL:D:96A:UN:EAN002'UCI+F6GVY+7658032710006:14+9930711378111:14+8'UCM+3HHL0+ORDERS:D:96A:UN:EAN008+7'UNT+4+186453437'UNZ+1+EW861380947'

 </TextContent>

</StandardBusinessDocument>



1. Revised eDelivery specifications/profile

“OpenPEPPOL Business Message Envelope (SBDH) 1.0” need an update with information regarding use of ASiC-E and the XSD introduced in this document. As this does not make changes to any other parts of the specification, such an update based on content in this document should be rather trivial.

1. Implementation plan

The individual document type must define use of ASiC-E and the envelope extension, so allowing this extension in the PEPPOL network as of tomorrow will not introduce any changes to existing content.

Proposed implementation plan:

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| --- | --- |
| Date | Action |
| June 1st, 2017 | Use of solutions specified in this document allowed for general use. |
| June 1st, 2017 | All new document types for introduction in the PEPPOL network should evaluate the immediate need for use of ASiC-E and/or the envelope extension. |
| January 1st,2020 | All UBL based document types defined by OpenPEPPOL use ASiC-E to allow for unified processes when handling content. |

1. Relevant request for change to CEF eDelivery

This document does not introduce a need for any RfC to CEF eDelivery as this document does not introduce changes to the transportation layer itself.