

**Business Interoperability Specification**

**OpenPEPPOL AISBL**

**Post Award Coordinating Community**

**ICT - Models**

**BIS 36A – Message Level Response**

**Version: 1.00**

**Status: In use**

***Statement of copyright***

This PEPPOL Business Interoperability Specification (BIS) document is based on the CEN CWA prepared by the BII workshop specified in the Introduction below.

The original CEN CWA document contains the following copyright notice which still applies:

|  |
| --- |
| © 2012 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members. |

The CEN CWA documents and profiles prepared by the BII workshop are not specific to a business area. Subject to agreement with CEN, customizations have been made by PEPPOL to establish the PEPPOL BIS, detailing and adding further guidance on the use of BII profiles.

OpenPEPPOL AISBL holds the copyright in the customizations made to the original document. The customizations appear from the corresponding conformance statement which is attached to this document. For the purpose of national implementations, customizations covered by the conformance statement may be further refined and detailed by PEPPOL Authorities and/or other entities authorized by OpenPEPPOL AISBL, provided that interoperability with PEPPOL BIS is ensured.

This PEPPOL BIS document may not be modified, re-distributed, sold or repackaged in any other way without the prior consent of CEN and/or OpenPEPPOL AISBL.

**Table of Contents**

[1 Introduction to openPEPPOL and BIS 4](#_Toc371936397)

[1.1 Audience 4](#_Toc371936398)

[2 References 5](#_Toc371936399)

[3 Document history 6](#_Toc371936400)

[3.1 Revision history 6](#_Toc371936401)

[3.2 Contributors 6](#_Toc371936402)

[4 Principles and prerequisites 7](#_Toc371936403)

[4.1 Message Level Response message in general 7](#_Toc371936404)

[4.2 Message level response – Scope 8](#_Toc371936405)

[4.3 Parties and roles 9](#_Toc371936406)

[4.4 Process requirements 10](#_Toc371936407)

[5 Business requirements 11](#_Toc371936408)

[6 Code lists 12](#_Toc371936409)

[6.1 Code lists for coded elements 12](#_Toc371936410)

[6.2 Code list for identifier schemes 12](#_Toc371936411)

[7 Business rules 13](#_Toc371936412)

[8 Process and typical scenarios 16](#_Toc371936413)

[8.1 Legend for BPMN diagrams 16](#_Toc371936414)

[8.2 Process in general 16](#_Toc371936415)

[8.3 Process recommended by this BIS 17](#_Toc371936420)

[8.4 Typical use cases 17](#_Toc371936421)

[8.4.1 Use Case 1 – Positive response 18](#_Toc371936422)

[8.4.2 Use Case 2 – Negative response – violation of business rules 18](#_Toc371936423)

[8.4.3 Use Case 3 – Negative response – violation of syntax and business rules 19](#_Toc371936424)

[9 Description of selected parts of the message 20](#_Toc371936425)

[9.1 Parties 20](#_Toc371936426)

[9.1.1 SenderParty 20](#_Toc371936427)

[9.1.2 ReceiverParty 20](#_Toc371936428)

[9.2 Document response 20](#_Toc371936429)

[9.3 Document reference 20](#_Toc371936430)

[9.4 Line response 21](#_Toc371936431)

[10 PEPPOL Identifiers 22](#_Toc371936432)

[10.1 Party identifiers 22](#_Toc371936433)

[10.2 UBL Version ID 22](#_Toc371936434)

[10.3 Profile ID 22](#_Toc371936435)

[10.4 Customization ID 22](#_Toc371936436)

[10.5 Namespaces 23](#_Toc371936437)

[11 XML Schema Guideline and information content 24](#_Toc371936448)

[11.1 XML Schema Guideline 24](#_Toc371936449)

[11.2 Information Content 26](#_Toc371936450)

[12 Appendices 35](#_Toc371936451)

[12.1 Appendix A – XML for Use cases 35](#_Toc371936452)

[12.2 Appendix B – Conformance statement 35](#_Toc371936453)

# Introduction to openPEPPOL and BIS

This BIS is a result of work within PEPPOL project and is published as part of PEPPOL specifications.

This PEPPOL BIS provides a set of specifications for implementing a PEPPOL business process. The document is concerned with clarifying requirements for ensuring interoperability of pan-European Public eProcurement and provides guidelines for supporting these requirements and how to implement them. This PEPPOL BIS is based on the CEN WS/BII2 Profile “Profile BII36 Message Level Response”. A conformance statement is included in this BIS, see annex D.

**The purpose** of this document is to describe a common format for the message level response message in the European market, and to facilitate an efficient implementation and increased use of electronic collaboration regarding the message level response process based on this format.



## Audience

The audience for this document is organizations wishing to be PEPPOL enabled for exchanging electronic business documents, and/or their ICT-suppliers. These organizations may be:

* Service providers
* Contracting Authorities
* Economic Operators
* Software Developers

More specifically it is addressed towards the following roles:

 ICT Architects

 ICT Developers

 Business Experts

For further information on PEPPOL/OpenPEPPOL please see [COMMON BIS].

# References

[PEPPOL] http://www.peppol.eu/

[PEPPOL\_EIA] http://www.peppol.eu/peppol\_components/peppol-eia/eia

[PEPPOL\_PostAward] http://www.peppol.eu/peppol\_components/peppol-eia/eia#ict-architecture/post-award- eprocurement/models

[PEPPOL\_Transp] [http://www.peppol.eu/peppol\_components/peppol-eia/eia#ict-architecture/transport-](http://www.peppol.eu/peppol_components/peppol-eia/eia%23ict-architecture/transport-) infrastructure/models

[COMMON BIS] To be developed

[CEN\_BII2] http://www.cenbii.eu

[BII\_MessageLevelResp] ftp://ftp.cen.eu/public/CWAs/BII2/CWA16558/CWA16558-Annex-M-BII-Profile-36-MessageLevelResponse-V1\_0\_0.pdf

[BII\_MessageLvlResMod] A browsable HTML version:

<http://spec.cenbii.eu/BII2/fxhtml/Trdm071-MessageLevelResponse/g_1.htm?http://spec.cenbii.eu/BII2/fxhtml/Trdm071-MessageLevelResponse/g_5.htm>

[UBL] <http://docs.oasis-open.org/ubl/cos1-UBL-2.1/UBL-2.1.html>

[UBL\_ApplicationResp] <http://docs.oasis-open.org/ubl/cos1-UBL-2.1/xsd/maindoc/UBL-ApplicationResponse-2.1.xsd>

[Schematron] <http://www.schematron.com>

[XSLT] <http://www.w3.org/TR/xslt20/>

[EIF] European Interoperability Framework 2.0, found at:

http://ec.europa.eu/isa/library/index\_en.htm

http://ec.europa.eu/isa/documents/isa\_annex\_ii\_eif\_en.pdf

# Document history

## Revision history

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Organisation** | **Description** |
| 1.0 | 2013-11-11 | Project team | openPEPPOL | Public review |

## Contributors

Olav Astad Kristiansen, DIFI, NO

Jostein Frømyr, DIFI, NO

Per Martin Jøraholmen, DFØ

Martin Forsberg, SFTI, SE

Mette Theisen, EVRY, NO

Philip Helger, BRZ, AT

Oriol Bausa, Invinet, ES

Randi Haftorn, Jernbaneverket, NO

Christian Druschke, Cap Gemini, NO

Imran Muhammad Shafiq, ISS, NO

Erik Gustavsen, DIFI, NO

# Principles and prerequisites

This chapter describes the principles and assumptions that underlie the use of the PEPPOL Message Level Response message. It is based on the CEN BII2 Message Level Response.

A Messaging Level Response message can be used in the choreography of the exchange of a business document to improve reliability by allowing a receiver of a business document to inform the sender about the results of receivers validations and, in case of negative results, to inform the sender about the nature of the errors as well as their details. They may allow the sender of the document to take appropriate action.

## Message Level Response message in general

Through the start to end flow of a message exchange; from the creation of an electronic message, down the transport line that goes through one or more transport networks to the designated receiver and all way through the eventual processing of the message content, there may be need to give responses to the relevant parties up-line about the status or results of the actions that the message goes through. These responses are of different nature but for the purpose of this document they can be divided into the following main groups.

Transport acknowledgements

These are messages that are exchanged within the transport network(s) to inform about the process of carrying a message down the transport line. These responses may inform someone up-line that the delivery to a given point was successful or not and may contain details about issues that are relevant such as why a delivery was not successful. The key nature of these responses is that they do not in any way act on result of validation or processing of the content of the payload that is being transported. These response messages are commonly called “acks”.

Message Level Responses

When a message has reached a given point in the transport line its content may be validated according to agreed specifications that may be both syntactical and semantic. The outcome of these validations may be reported to a relevant party up-line, informing him whether the validation was successful or not as well as giving some details. An example could be that an order message that is received is rejected because it is missing a closing tag (syntax error) or because its amounts don’t add up according to what is specified in the relevant syntax specification. A key nature of these messages is that they report on the message content on the basis of the technical specifications that apply.

Business Level Responses

A message that has been received and accepted for processing may call for an action on the receiver’s behalf. That receiver’s action may need to be reported back up-line to a relevant party. An example is that a technically correct order may be received but the receiver decides to reject the order for any business reason such as out-of-stock situation, expired contract etc. The key nature of these responses is that they report a business decision that is made on the message instance received.

**This specification is only concerned with the Message Level Responses.**



## Message level response – Scope

The message level response message is intended to inform the issuer of a business document of any errors occurred during validation of the business document. Support for the message level response is optional for both the sender and the receiver of a business document, and should only be used for negative responses.

The following errors are **within the scope** of the message level response:

* XML schema validation error
* Validation error of type fatal
* Validation error of type warning. Warnings only will NOT cause rejection of the business document.
* Wrong version of business document (Will be handled like validation error of type error)
* Empty XML elements and attributes (Will be handled like validation error of type warning)

The following errors are **outside the scope** of the message level response:

* Unknown sender
* Unknown receiver
* Wrong version of envelope
* XML schema validation error – envelope
* XML not well formed
* Non supported encoding
* Wrong value (after database look-up) in reference fields

## Parties and roles

The table below gives the definitions of the parties and roles of the message level response process. The sender and receiver of the message level response message should be extracted from the to/from header in the START/SBDH-envelope, i.e. the PEPPOL participants.

|  |  |
| --- | --- |
| Party / Role | Definition |
| Sender | The party sending an electronic message level response message back to the sending party of the business document. |
| Receiver | The party, an electronic message level response was addressed to,  and who is supposed to process the message level response. This is the same party as the sender of the business document. |

****

## Process requirements

A message level response document should support the following requirements:

* The message and its use should not be linked to any specific infrastructure implementation.
* At most one message level response can be sent per received message.
* If supported by both sender and receiver, the receiver MUST send a message level response whenever he detects errors in the business document that prevents him from processing it.
* If supported by both sender and receiver, the receiver MAY send a message level response whenever he detects warnings in the business document that do not prevent him from processing it, but that violate agreed business rules.
* If supported by sender and receiver, the receiver MAY send a message level response when the business document received was processed successfully.
* Sender and receiver MAY agree that message level responses are always exchanged for selected transactions.
* BII Business profiles MAY mandate the use of message level responses for selected transactions.
* The response message should convey either an “accept” or a “reject” of the instance received. If accepted, no fatal errors should be reported. If rejected, the reason MUST be stated.
* A rejection implies that the instance will not be further processed by the receiver of the business document.
* The specification assumes that any service provider acts on behalf of either the sender or the receiver.
* The response message should provide for coded responses in order to facilitate automation in processing the message response.

Out of scope requirements.

* The possibility for using the message to report on routing is not within the initial scope for this deliverable.

# Business requirements

|  |  |
| --- | --- |
| **ID** | **Requirement** |
| tbr71-001 | It must be possible to give the response message a unique identifier. The identifier is  issued by the sender of the MLR and can be used to uniquely identify a message instance. |
| tbr71-002 | It must be possible to state the date and time when the response message is issued.  The date must always be given but the time (hours, minutes and seconds) is optional to use. |
| tbr71-003 | It must be possible to state a free text note used to inform the receiver about information that is not explicitly given in any dedicated structure. The information is meant to be manually read/assessed by the receiver. |
| tbr71-004 | It must be possible to specify the Party sending the response. |
| tbr71-005 | It must be possible to specify the Party receiving the response. |
| tbr71-006 | It must be possible to specify the Response to a previously received message referring to the document including the document type, the document identifier and potentially the message ID.  and  version. |
| tbr71-007 | It must be possible to give the response as a code. A response code list is required in  order to facilitate automated process of message responses. As it may not be feasible to provide a single code list with response codes for all different processes/documents and applicable error types an actual code list is not provided in this document. It is expected that such a code list would typically include values such as: “syntax violation”, “business rule violation”.  not be feasible to provide a single code list with response codes for all different processes/documents and applicable types errors an actual code list is not provided in this document. It is expected that such a code list would typically include values such as: “syntax violation”, “business rule violation”.not be feasible to provide a single code list with response codes for all different processes/documents and applicable types errors an actual code list is not provided in this document. It is expected that such a code list would typically include values such as: “syntax violation”, “business rule violation”. |
| tbr71-009 | It must be possible to give response for one or more lines in the previously received  document. This includes response code and response description. |
| tbr71-010 | A response document must be able to clearly indicate whether the received document was accepted or not.  was accepted or not. |
| tbr71-011 | It must be possible to sign the response document in order to provide for non-  repudiation. |
| tbr71-012 | It must be possible to specify the type of acceptation and/or rejection of the document (e.g Technical Accept, TechnicalReject, etc.)  (e.g. Technical Accept, TechnicalReject, etc.) |
| tbr71-013 | The message should allow the identification of more than one error. |
| tbr71-014 | The message should allow for XPath statements to indicate the location of the errors in the received instance.  the received instance. |

# Code lists

## Code lists for coded elements

Table of the code lists used in the message level response transaction:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Business Term** | **Source** | **Subset** | **XPath** | **listID** |
| Document Type Code | [UN/ECE 1001](http://www.unece.org/trade/untdid/d08a/tred/tred1001.htm) |  | cbc:DocumentTypeCode | UNCL1001 |
| Response code | [UN CEFACT 4343](http://www.unece.org/fileadmin/DAM/trade/edifact/code/4343cl.htm) | PEPPOL | cbc:ResponseCode | UNCL4343,  Values:  RE - Rejected  AP - Accepted |
| Issue type code |  |  | cbc:StatusReasonCode | StatusReason,  Values:  SV – Syntax violation  BV – Business rule violation, fatal  BW – Business rule violation, warning |

**UN/ECE 1001:**

<http://www.unece.org/trade/untdid/d08a/tred/tred1001.htm>

**UN/EDIFACT 4343**

<http://www.unece.org/fileadmin/DAM/trade/edifact/code/4343cl.htm>

## Code list for identifier schemes

Table of the code lists used to constrain the values of schemeID for identifiers in the message level response transaction:

|  |  |  |  |
| --- | --- | --- | --- |
| **Business Term** | **Allowed SchemeID** | **Applicable Xpath** | **Note** |
| **Party Identifier** | See “PEPPOL Policy for using Identifiers” | cbc:EndpointID/@schemeID  cac:PartyIdentification/cbc:ID/@schemeID |  |

# Business rules

## BII rules

The list below describes the business rules valid for the Message Level Response message. The MLR message itself will not be validated to prevent possible infinite loops.

|  |  |  |  |
| --- | --- | --- | --- |
| RuleID | Rule | Target | Errorlevel |
| BII2-T71-R001 | A message level response MUST have a profile identifier | message level  response | Fatal |
| BII2-T71-R002 | A message level response MUST have a customization identifier | message level  response | Fatal |
| BII2-T71-R003 | A message level response MUST contain the date of issue | message level  response | Fatal |
| BII2-T71-R004 | A message level response MUST contain the response identifier | message level  response | Fatal |
| BII2-T71-R005 | The party sending the message level response MUST be specified | message level  response | Fatal |
| BII2-T71-R006 | The party receiving the message level response MUST be specified | message level  response | Fatal |
| BII2-T71-R010 | A message level response MUST contain a document reference pointing towards the business message that the response relates to | message level  response | Fatal |
| BII2-T71-R012 | A response document MUST be able to clearly indicate whether the received document was accepted or not. | message level  response | Fatal |

## PEPPOL Specific rules

|  |  |
| --- | --- |
| **RuleID** | **Rule** |
| EUGEN-T71-R001 | A document type code MUST have a list identifier attribute 'UNCL1001'. |
| EUGEN-T71-R002 | A response code MUST have a list identifier attribute 'UNCL4343'. |
| EUGEN-T71-R003 | A status reason code MUST have a list identifier attribute ‘PEPPOLSTATUS' |
| EUGEN-T71-R004 | An endpoint identifier MUST have a scheme identifier attribute. |
| EUGEN-T71-R005 | A party identifier MUST have a scheme identifier attribute. |

## Code lists business rules

|  |  |
| --- | --- |
| **RuleID** | **Rule** |
| CL-071-R001 | A document type code MUST be coded using UNCL 1001 list BII2 subset |
| CL-071-R002 | A Response Code MUST be from the UNCL 4343 PEPPOL Subset code list |
| OP-T71-R001 | An Endpoint Identifier Scheme MUST be from the list of PEPPOL Party Identifiers described in the "PEPPOL Policy for using Identifiers". |
| OP-T71-R002 | An Party Identifier Scheme MUST be from the list of PEPPOL Party Identifiers described in the "PEPPOL Policy for using Identifiers". |
| OP-071-R003 | A message level response MUST specify the status reason code using the PEPPOL Status code list |

# Process and typical scenarios

## Legend for BPMN diagrams

The diagrams are expressed in the BPMN notation. The diagram below serves as an explanation for the diagrams used in the process descriptions.



The following section and diagrams show the choreography of the business process involving various parties.

## Process in general

The process starts when a sender party is preparing an electronic business document and then sends it. The receiver party receives the business document and validates syntax and business rules. If the business document was validated with no errors, the receiver sends a positive message level response message back to the sender otherwise; a negative message level response is sent.

The sender of the business document receives the message level response and takes appropriate action in case of a negative response. If the response is positive the sender may update the status of the business document or simply do nothing.



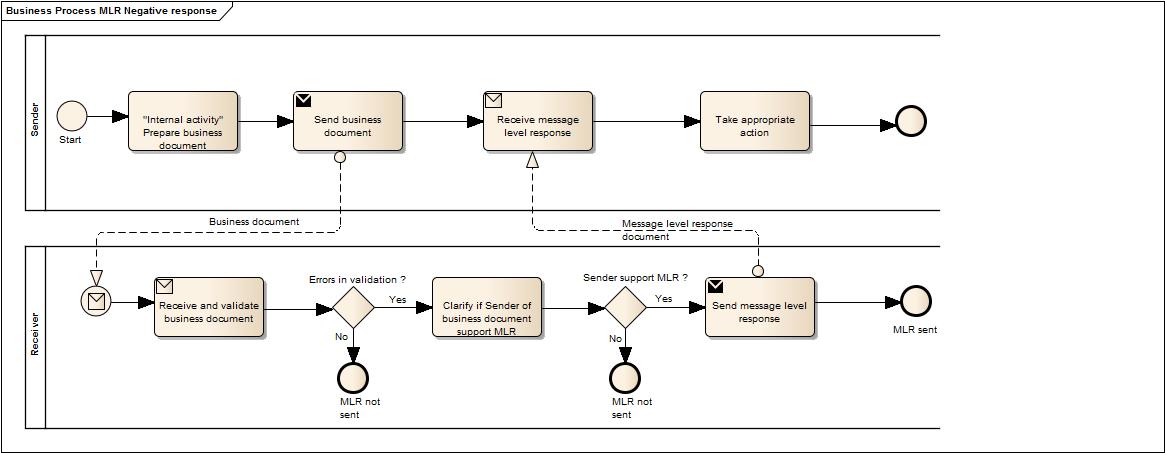




## Process recommended by this BIS

Support for the message level response is optional for both the sender and the receiver of a business document.

The process starts when a sender party is preparing an electronic business document and then sends it. The receiver party receives the business document and validates business rules and syntax. If the validation result is negative, i.e. the business document contains syntax errors and/or violates business rules, the receiver must clarify if the sender of the business document is capable to receive a message level response message. This is achieved by lookup in the SMP or by other means. If the sender supports the MLR, the receiver of the business document creates a message level response and sends it back to the sender.



## Typical use cases

**Parties/Roles:**

In the use case descriptions below the following terms are used:

* BusinessDocumentSender: Sender party in the role of sending a business document
* BusinessDocumentReceiver: Receiving party in the role of receiving a business document
* MLRSender: Sender party in the role of sending a MLR document
* MLRReceiver: Receiver party in the role of receiving a MLR document

In the use cases the BusinessDocumentSender is the same physical party as the MLRReceiver and the BusinessDocumentReceiver is the same physical party as the MLRSender.

### Use Case 1 – Positive response

This use case is a message level response containing no errors, ie a positive response.

|  |  |
| --- | --- |
| **Use Case number** | 1 |
| **Use Case Name** | Positive response |
| **Use Case Description** | This use case is a message level response based on a business document with no errors, ie a positive response. |
| **Parties involved** | BusinessDocumentSender, MLRReceiver  BusinessDocumentReceiver, MLR Sender |
| **Assumptions** | 1. The BusinessDocumentReceiver has received an electronic business document from the BusinessDocumentSender. 2. The BusinessDocumentReceiver has validated the business document from the BusinessDocumentSender. 3. The result of the validation is OK, no fatal errors. |
| **The flow** | 1. The BusinessDocumentSender has prepared and sent an electronic business document to the BusinessDocumentReceiver. 2. The BusinessDocumentReceiver has received the business document. 3. The BusinessDocumentReceiver has validated the business document. 4. The MLRSender has sent a message level response message back to the BusinessDocumentSender. 5. The MLRReceiver has received and processed the message level response message. |
| **Result** | 1. The message level response message helped the BusinessDocumentSender to confirm that the business document was received and validated with no errors by the BusinessDocumentReceiver. |
| **XML example file** | See Appendix A for a sample file illustrating Use Case 1. |

### Use Case 2 – Negative response – violation of business rules

This use case is a message level response containing errors due to violation of business rules.

|  |  |
| --- | --- |
| **Use Case number** | 2 |
| **Use Case Name** | Negative response – violation of business rules |
| **Use Case Description** | This use case is a message level response based on a business document containing errors due to violation of business rules. |
| **Parties involved** | BusinessDocumentSender, MLRReceiver  BusinessDocumentReceiver, MLR Sender |
| **Assumptions** | 1. The BusinessDocumentReceiver has received an electronic business document from the BusinessDocumentSender. 2. The BusinessDocumentReceiver has validated the business document from the BusinessDocumentSender. 3. The result of the validation is not OK due to violation of business rules. |
| **The flow** | 1. The BusinessDocumentSender has prepared and sent an electronic business document to the BusinessDocumentReceiver. 2. The BusinessDocumentReceiver has received the business document. 3. The BusinessDocumentReceiver has validated and rejected the business document. 4. The MLRSender has sent a message level response message back to the BusinessDocumentSender. 5. The MLRReceiver has received and processed the message level response message and performed appropriate action due to the rejection. |
| **Result** | 1. The message level response message helped the BusinessDocumentSender to confirm that the business document was received and rejected by the BusinessDocumentReceiver. The BusinessDocumentSender must take appropriate action to correct and resend the business document. |
| **XML example file** | See Appendix A for a sample file illustrating Use Case 2. |

### Use Case 3 – Negative response – violation of syntax and business rules

This use case is a message level response containing errors and warnings due to violation of syntax and business rules.

|  |  |
| --- | --- |
| **Use Case number** | 3 |
| **Use Case Name** | Negative response – violation of business rules, business rules warnings and violation of syntax |
| **Use Case Description** | This use case is a message level response based on a business document containing errors and warnings due to violation of business rules and syntax. |
| **Parties involved** | BusinessDocumentSender, MLRReceiver  BusinessDocumentReceiver, MLR Sender |
| **Assumptions** | 1. The BusinessDocumentReceiver has received an electronic business document from the BusinessDocumentSender. 2. The BusinessDocumentReceiver has validated the business document from the BusinessDocumentSender. 3. The result of the validation is not OK due to violation of business rules and syntax. |
| **The flow** | 1. The BusinessDocumentSender has prepared and sent an electronic business document to the BusinessDocumentReceiver. 2. The BusinessDocumentReceiver has received the business document. 3. The BusinessDocumentReceiver has validated and rejected the business document. 4. The MLRSender has sent a message level response message back to the MLRReceiver. 5. The MLRReceiver has received and processed the message level response message and performed appropriate action due to the rejection. |
| **Result** | 1. The message level response message helped the BusinessDocumentSender to confirm that the business document was received and rejected by the BusinessDocumentReceiver. The BusinessDocumentSender must take appropriate action to correct and resend the business document. |
| **XML example file** | See Appendix A for a sample file illustrating Use Case 3. |

# Description of selected parts of the message

## Parties

The following parties/roles may be specified in the message.

### SenderParty

The party sending the MLR to another party.

**Example:**

<cac:SenderParty>

<cbc:EndpointID schemeID="NO:ORGNR">981915550</cbc:EndpointID>

<cac:PartyIdentification>

<cbc:ID schemeID="GLN">5790000436057</cbc:ID>

</cac:PartyIdentification>

<cac:PartyName>

<cbc:Name>Sender Company</cbc:Name>

</cac:PartyName>

</cac:SenderParty>

### ReceiverParty

The party the MLR document was addressed to, and who is supposed to process that MLR.

**Example:**

<cac:ReceiverParty>

<cbc:EndpointID schemeID="NO:ORGNR">974356565</cbc:EndpointID>

<cac:PartyIdentification>

<cbc:ID schemeID="GLN">5790000435968</cbc:ID>

</cac:PartyIdentification>

<cac:PartyName>

<cbc:Name>Receiving Company</cbc:Name>

</cac:PartyName>

</cac:ReceiverParty>

## Document response

Is used to indicate the result of business document validation. Only two values are valid:

* AP – Accepted
* RE – Rejected

**Example:**

<cac:Response>

<cbc:ReferenceID>1</cbc:ReferenceID>

<cbc:ResponseCode listID=”UNCL4343">RE</cbc:ResponseCode>

<cbc:Description>Rejected</cbc:Description>

</cac:Response>

## Document reference

Used to provide a reference to the business document on which the message level response is based. The message level response message may only cover one business document. The type of business document must also be included in the document reference element. Document Type Code is coded according to code list 1001 issued by UN/CEFACT. Ref. [6.1](#_Code_lists) for a complete list of all the document types.

Examples of frequently used codes from this codelist:

* 220 Order
* 351 Despatch advice
* 380 Commercial Invoice
* 381 Credit note
* 9 Catalogue
* 51 Catalogue response
* 231 Purchase order response

**Example:**

<cac:DocumentReference>

<cbc:ID>1001589778</cbc:ID>

<cbc:DocumentTypeCode listID="UNCL1001">380</cbc:DocumentTypeCode>

</cac:DocumentReference>

## Line response

In case of a negative response, the line response element is used to specify the errors in the business document. The LineID element must be used to indicate where in the business document the error occurred by using XPath to reference the element causing the error.

To cater for scenarios where it is not possible to provide XPath, a dummy value must be applied. The dummy value must consist of the characters **NA**. This is due to that the LineID element is mandatory in the ApplicationResponse message in UBL 2.1 on which the MLR message is based.

The description must be expressed in the english language only.

**Example:**

<cac:LineResponse>

<cac:LineReference>

<cbc:LineID>Invoice/cac:LegalMonetaryTotal/cbc:TaxExclusiveAmount</cbc:LineID>

</cac:LineReference>

<cac:Response>

<cbc:ResponseCode listID="UNCL4343" >RE</cbc:ResponseCode>

<cbc:Description>Error: [BIIRULE-T10-R012]-Invoice tax exclusive amount MUST equal the sum of lines plus allowances and charges on header level

</cbc:Description>

<cac:Status>

<cbc:StatusReasonCode listID="PEPPOLSTATUS">BV</cbc:StatusReasonCode>

</cac:Status>

</cac:Response>

</cac:LineResponse>

# PEPPOL Identifiers

## Party identifiers

The “schemeID” attribute must be populated in all instances of the “ID” element when used within a “PartyIdentification”-container and in all instances of the “EndpointID” element when used within a “Party”-container.

Examples of usage in PartyIdentification:

<cac:PartyIdentification>

<cbc:ID schemeID="GLN">5790000435968</cbc:ID>

</cac:PartyIdentification>

The following examples denotes that the Issuing Agency is DK:CVR in the PEPPOL set of Issuing Agency Codes. This means that the party has the Danish CVR identifier DK87654321.

Examples of usage in PartyIdentification and Endpoint ID:

<cbc:EndpointID schemeID="DK:CVR">DK87654321</cbc:EndpointID>

<cac:PartyIdentification>

<cbc:ID schemeID="DK:CVR">DK87654321</cbc:ID>

</cac:PartyIdentification>

## UBL Version ID

This BIS is using the UBL 2.1 syntax. The namespace of the XML-message does only communicate the major version number. Since it is important for the receiver to also know what minor version of the syntax that is used, the element UBLVersionID must be stated with the value **2.1.**

## Profile ID

The ProfileID identifies the process the business document is part of. PEPPOL BIS uses the identification system according to BII:

**ProfileID**: urn:www.cenbii.eu:profile:bii36:ver2.0

## Customization ID

The PEPPOL Customization ID identifies the specification of content and rules that apply to the transaction.

This BIS has required some minor additions and changes to the CEN BII transaction. Following the CENBII methodology any extension must be communicated by adding an extension ID onto the Customization ID. The full syntax is:

<transactionId>:(restrictive|extended|partly):<extensionId>[(restrictive|extended|partly):<extensionId>].

Where:

* Transaction ID: urn:www.cenbii.eu:transaction:biitrns071:ver2.0
* Extension ID: urn:www.peppol.eu:bis:peppol36a:ver1.0

**CustomizationID to use:**

urn:www.cenbii.eu:transaction:biitrns071:ver2.0**:extended:**urn:www.peppol.eu:bis:peppol36a:ver1.0

Example of usage:

<cbc:CustomizationID>

urn:www.cenbii.eu:transaction:biitrns071:ver2.0:extended:urn:www.peppol.eu:bis:peppol36a:ver1.0

</cbc:CustomizationID>

## Namespaces

The target namespace for the UBL2.1 Application Response which the PEPPOL Message Level Response is based on is:

**urn:oasis:names:specification:ubl:schema:xsd:ApplicationResponse-2**



# XML Schema Guideline and information content

## XML Schema Guideline

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Occurrence** | | **Element/Attribute** **BII Business Term** **Bus. req.** | | | | | |
|  | | | | | | | | | |
|  |  | | **ApplicationResponse** | | | | | | |
|  | 1 **..** 1 | |  | | **cbc:UBLVersionID** UBL version ID 1 | | | | |
|  | 1 **..** 1 | |  | | **cbc:CustomizationID** Customization identifier tir71-006 | | | | |
|  | 1 **..** 1 | |  | | **cbc:ProfileID** Profile identifier tir71-005 | | | | |
|  | 1 **..** 1 | |  | | **cbc:ID** Response identifier tir71-001 | | | | |
|  | 1 **..** 1 | |  | | **cbc:IssueDate** Response issue date tir71-002 | | | | |
|  | 0 **..** 1 | |  | | **cbc:IssueTime** Response issue time tir71-003 | | | | |
|  | 0 **..** 1 | |  | | **cbc:Note** Response textual notes tir71-004 | | | | |
|  | **1** **..** **1** | |  | | **cac:SenderParty** | | | | |
|  | 0 **..** 1 | |  | | | **cbc:EndpointID** Electronic address tir71-009 | | | |
|  | **0** **..** **1** | |  | | | **cac:PartyIdentification** | | | |
|  | 1 **..** 1 | |  | | | | **cbc:ID** Party identifier tir71-008 | | |
|  | **0** **..** **1** | |  | | | **cac:PartyName** | | | |
|  | 1 **..** 1 | |  | | | | **cbc:Name** Party name tir71-007 | | |
|  | **1** **..** **1** | |  | | **cac:ReceiverParty** | | | | |
|  | 0 **..** 1 | |  | | | **cbc:EndpointID** Electronic address tir71-012 | | | |
|  | **0** **..** **1** | |  | | | **cac:PartyIdentification** | | | |
|  | 1 **..** 1 | |  | | | | **cbc:ID** Party identifier tir71-011 | | |
|  | **0** **..** **1** | |  | | | **cac:PartyName** | | | |
|  | 1 **..** 1 | |  | | | | **cbc:Name** Party name tir71-010 | | |
|  | **1** **..** **1** | |  | | **cac:DocumentResponse** | | | | |
|  | **1** **..** **1** | |  | | | **cac:Response** | | | |
|  | 1 **..** 1 | |  | | | | **cbc:ResponseCode** Message cleared tir71-014 | | |
|  | 0 **..** 1 | |  | | | | **cbc:Description** Issue description tir71-015 | | |
|  | **1** **..** **1** | |  | | | **cac:DocumentReference** | | | |
|  | 1 **..** 1 | |  | | | | **cbc:ID** Document identifier tir71-018 | | |
|  | 0 **..** 1 | |  | | | | **cbc:DocumentTypeCode** Document type code tir71-020 | | |
|  | 0 **..** 1 | |  | | | | **cbc:VersionID** Document version tir71-019 | | |
|  | **0** **..** **unbounded** | |  | | | **cac:LineResponse** | | | |
|  | **1** **..** **1** | |  | | | | **cac:LineReference** | | |
|  | 1 **..** 1 | |  | | | | | **cbc:LineID** Section identification tir71-013 | |
|  | **1** **..** **1** | |  | | | | **cac:Response** | | |
|  | 1 **..** 1 | |  | | | | | **cbc:ResponseCode** Line response code OP-T71-001 | |
|  | 0 **..** 1 | |  | | | | | **cbc:Description** Issue description tir71-015 | |
|  | **0** **..** **1** | |  | | | | | **cac:Status** | |
|  | 0 **..** 1 | |  | | | | | | **cbc:StatusReasonCode** Issue type coded tir71-016 |

## Information Content

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Element/Attribute** | | | | | | | **Description** | **Usage/Rules/Code lists** |
|  | | | | | | |  |  |
|  | | | | | | |  |  |
| **ApplicationResponse** | | | | | | | **Type** ApplicationResponseType |  |
|  | **cbc:UBLVersionID** | | | | | | **Occurence** 1 **..** 1  **Type** cbc:UBLVersionIDType | **Term name** **UBL version ID**  **BII Usage** *The version of UBL the Message Level Response is*  *based on (2.1)* |
|  | **cbc:CustomizationID** | | | | | | **Occurence** 1 **..** 1  **Type** cbc:CustomizationIDType | **Term name** **Customization identifier**  **BII Usage** *Identifies the specification of content and rules that apply*  *to the transaction.*    **Rules** BII2-T71-R002 - A message level response MUST have  a customization identifier |
|  | **cbc:ProfileID** | | | | | | **Occurence** 1 **..** 1  **Type** cbc:ProfileIDType | **Term name** **Profile identifier**  **BII Usage** *Identifies the BII profile or business process context in*  *which the transaction appears.*    **Rules** Content must be urn:www.cenbii.eu:profile:bii36:ver2.0  BII2-T71-R001 - A message level response MUST have  a profile identifier |
|  | **cbc:ID** | | | | | | **Occurence** 1 **..** 1  **Type** cbc:IDType  **Bus req.ID** tbr71-001 | **Term name** **Response identifier**  **BII Usage** *An transaction instance must contain an identifier. The*  *identifier enables positive referencing the transaction*  *instance for various purposes including referencing*  *between transactions that are part of the same process.*    **Rules** BII2-T71-R004 - A message level response MUST  contain the response identifier |
|  | **cbc:IssueDate** | | | | | | **Occurence** 1 **..** 1  **Type** cbc:IssueDateType  **Bus req.ID** tbr71-002 | **Term name** **Response issue date**  **BII Usage** *The date on which the transaction instance was issued.*    **Rules** BII2-T71-R003 - A message level response MUST  contain the date of issue |
|  | **cbc:IssueTime** | | | | | | **Occurence** 0 **..** 1  **Type** cbc:IssueTimeType  **Bus req.ID** tbr71-002 | **Term name** **Response issue time**  **BII Usage** *The time at which the transaction instance was issued.* |
|  | **cbc:Note** | | | | | | **Occurence** 0 **..** 1  **Type** cbc:NoteType  **Bus req.ID** tbr71-003 | **Term name** **Response textual notes**  **BII Usage** *Used to make any comments or instructions relevant to*  *the response. The use of this element requires manual*  *assessment by the receiver.* |
|  | ***cac:SenderParty*** | | | | | | **Occurence** 1 **..** 1  **Type** cac:PartyType | ***Rules*** *BII2-T71-R005 - The party sending the message level*  *response MUST be specified* |
| **Element/Attribute** | | | | | | | **Description** | **Usage/Rules/Code lists** |
|  | | | | | | |  |  |
|  | | **cbc:EndpointID** | | | | | **Occurence** 0 **..** 1  **Type** cbc:EndpointIDType  **Bus req.ID** tbr71-004 | **Term name** **Electronic address**  **BII Usage** *A response may contain the party electronic address.*  *The address can be of any format and the format should*  *be identified in the message.*    **Rules** EUGEN-T71-R004 - An endpoint identifier MUST have a  scheme identifier attribute. |
|  | | | *schemeID* | | | | *Type* *xs:normalizedString*  *Use* *required* | *Rules* *OP-T71-R001 - An Endpoint Identifier Scheme MUST be*  *from the list of PEPPOL Party Identifiers described in the*  *"PEPPOL Policy for using Identifiers".* |
|  | | ***cac:PartyIdentification*** | | | | | **Occurence** 0 **..** 1  **Type** cac:PartyIdentificationType | ***Rules*** *EUGEN-T71-R005 - A party identifier MUST have a*  *scheme identifier attribute.* |
|  | | | **cbc:ID** | | | | **Occurence** 1 **..** 1  **Type** cbc:IDType  **Bus req.ID** tbr71-004 | **Term name** **Party identifier**  **BII Usage** *It should be possible to specify the identifier or identifiers*  *for the party.*    **Rules** EUGEN-T71-R005 - A party identifier MUST have a  scheme identifier attribute. |
|  | | | | *schemeID* | | | *Type* *xs:normalizedString*  *Use* *required* | *Rules* *OP-T71-R002 - A Party Identifier Scheme MUST be from*  *the list of PEPPOL Party Identifiers described in the*  *"PEPPOL Policy for using Identifiers".* |
|  | | ***cac:PartyName*** | | | | | **Occurence** 0 **..** 1  **Type** cac:PartyNameType |  |
|  | | | **cbc:Name** | | | | **Occurence** 1 **..** 1  **Type** cbc:NameType  **Bus req.ID** tbr71-004 | **Term name** **Party name**  **BII Usage** *The name of the party sending the response.* |
|  | ***cac:ReceiverParty*** | | | | | | **Occurence** 1 **..** 1  **Type** cac:PartyType | ***Rules*** *BII2-T71-R006 - The party receiving the message level*  *response MUST be specified* |
|  | | **cbc:EndpointID** | | | | | **Occurence** 0 **..** 1  **Type** cbc:EndpointIDType  **Bus req.ID** tbr71-005 | **Term name** **Electronic address**  **BII Usage** *A response may contain the party electronic address.*  *The address can be of any format and the format should*  *be identified in the message.*    **Rules** EUGEN-T71-R004 - An endpoint identifier MUST have a  scheme identifier attribute. |
|  | | | *schemeID* | | | | *Type* *xs:normalizedString*  *Use* *required* | *Rules* *OP-T71-R001 - An Endpoint Identifier Scheme MUST be*  *from the list of PEPPOL Party Identifiers described in the*  *"PEPPOL Policy for using Identifiers".* |
|  | | ***cac:PartyIdentification*** | | | | | **Occurence** 0 **..** 1  **Type** cac:PartyIdentificationType | ***Rules*** *EUGEN-T71-R005 - A party identifier MUST have a*  *scheme identifier attribute.* |
| **Element/Attribute** | | | | | | | **Description** | **Usage/Rules/Code lists** |
|  | | | | | | |  |  |
|  | | | **cbc:ID** | | | | **Occurence** 1 **..** 1  **Type** cbc:IDType  **Bus req.ID** tbr71-005 | **Term name** **Party identifier**  **BII Usage** *It should be possible to specify the identifier or identifiers*  *for the party.*    **Rules** EUGEN-T71-R005 - A party identifier MUST have a  scheme identifier attribute. |
|  | | | | *schemeID* | | | *Type* *xs:normalizedString*  *Use* *required* | *Rules* *OP-T71-R002 - A Party Identifier Scheme MUST be from*  *the list of PEPPOL Party Identifiers described in the*  *"PEPPOL Policy for using Identifiers".* |
|  | | ***cac:PartyName*** | | | | | **Occurence** 0 **..** 1  **Type** cac:PartyNameType |  |
|  | | | **cbc:Name** | | | | **Occurence** 1 **..** 1  **Type** cbc:NameType  **Bus req.ID** tbr71-005 | **Term name** **Party name**  **BII Usage** *The name of the party receiving the response.* |
|  | ***cac:DocumentResponse*** | | | | | | **Occurence** 1 **..** 1  **Type** cac:DocumentResponseType | ***Rules*** *BII2-T71-R010 - A message level response MUST*  *contain a document reference pointing towards the*  *business message that the response relates to* |
|  | | ***cac:Response*** | | | | | **Occurence** 1 **..** 1  **Type** cac:ResponseType |  |
|  | | | **cbc:ResponseCode** | | | | **Occurence** 1 **..** 1  **Type** cbc:ResponseCodeType  **Bus req.ID** tbr71-010, tbr71-012 | **Term name** **Message cleared**  **BII Usage** *An indicator stating whether the referenced message*  *was cleared through validation and advanced to the next*  *step in the process. A negative response states that the*  *document was not processed because of identified*  *issues.*    **Rules** CL-071-R002 - A Response Code MUST be from the  UNCL 4343 PEPPOL Subset code list  BII2-T71-R012 - A response document MUST be able to  clearly indicate whether the received document was  accepted or not. |
|  | | | | *listID* | | | *Type* *xs:normalizedString*  *Use* *required* | *Rules* *EUGEN-T71-R002 - A response code MUST have a list*  *identifier attribute 'UNCL4343'.* |
|  | | | **cbc:Description** | | | | **Occurence** 0 **..** 1  **Type** cbc:DescriptionType  **Bus req.ID** tbr71-008, tbr71-013, tbr71-014 | **Term name** **Issue description**  **BII Usage** *The description of the issue identified in the transaction*  *document.* |
|  | | ***cac:DocumentReference*** | | | | | **Occurence** 1 **..** 1  **Type** cac:DocumentReferenceType |  |
|  | | | **cbc:ID** | | | | **Occurence** 1 **..** 1  **Type** cbc:IDType  **Bus req.ID** tbr71-006 | **Term name** **Document identifier**  **BII Usage** *Identifies the document being referred to.* |
| **Element/Attribute** | | | | | | | **Description** | **Usage/Rules/Code lists** |
|  | | | | | | |  |  |
|  | | | **cbc:DocumentTypeCode** | | | | **Occurence** 0 **..** 1  **Type** cbc:DocumentTypeCodeType  **Bus req.ID** tbr71-006 | **Term name** **Document type code**  **BII Usage** *The type of the document being referred to, expressed*  *as a code.*  **Code List ID:** UN/ECE 1001    **Rules** CL-071-R001 - A document type code MUST be coded  using UNCL 1001 list BII2 subset |
|  | | | | *listID* | | | *Type* *xs:normalizedString*  *Use* *required* | *Rules* *EUGEN-T71-R001 - A document type code MUST have*  *a list identifier attribute 'UNCL1001'.* |
|  | | | **cbc:VersionID** | | | | **Occurence** 0 **..** 1  **Type** cbc:VersionIDType  **Bus req.ID** tbr71-006 | **Term name** **Document version**  **BII Usage** *The version of the document that has been identified*  *with the document identifier.* |
|  | | ***cac:LineResponse*** | | | | | **Occurence** 0 **..** unbounded  **Type** cac:LineResponseType |  |
|  | | | ***cac:LineReference*** | | | | **Occurence** 1 **..** 1  **Type** cac:LineReferenceType |  |
|  | | | | **cbc:LineID** | | | **Occurence** 1 **..** 1  **Type** cbc:LineIDType  **Bus req.ID** tbr71-009, tbr71-013 | **Term name** **Section identification**  **BII Usage** *Identifies the section  of the document to which the*  *reported issue applies.* |
|  | | | ***cac:Response*** | | | | **Occurence** 1 **..** 1  **Type** cac:ResponseType |  |
|  | | | | **cbc:ResponseCode** | | | **Occurence** 1 **..** 1  **Type** cbc:ResponseCodeType | **Term name** **Line response code**  **BII Usage** *Used when there are several errors reported* |
|  | | | | | *listID* | | *Type* *xs:normalizedString*  *Use* *required* | *Rules* *EUGEN-T71-R002 - A response code MUST have a list*  *identifier attribute 'UNCL4343'.* |
|  | | | | **cbc:Description** | | | **Occurence** 0 **..** 1  **Type** cbc:DescriptionType  **Bus req.ID** tbr71-008, tbr71-013, tbr71-014 | **Term name** **Issue description**  **BII Usage** *The description of the issue identified in the transaction*  *document.* |
|  | | | | ***cac:Status*** | | | **Occurence** 0 **..** 1  **Type** cac:StatusType |  |
|  | | | | | **cbc:StatusReasonCode** | | **Occurence** 0 **..** 1  **Type** cbc:StatusReasonCodeType  **Bus req.ID** tbr71-007, tbr71-013 | **Term name** **Issue type coded**  **BII Usage** *A codified verison of the issue description that describes*  *the nature of the issue e.g. Syntax violation, Business*  *rule violation, etc.*    **Rules** OP-071-R003 - A message level response MUST  specify the status reason code using the PEPPOL  Status code list |
|  | | | | | | *listID* | *Type* *xs:normalizedString*  *Use* *required* | *Rules* *EUGEN-T71-R003 - A status reason code MUST have a*  *list identifier attribute ‘PEPPOLSTATUS'* |

# Appendices

## Appendix A – XML for Use cases

## Appendix B – Conformance statement