

OpenPEPPOL AISBL

Post Award Coordinating Community

ICT – Models

**PEPPOL Punch Out   
Login & Transmission Specification**

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**Table of Contents**

[1 Introduction 4](#_Toc481049556)

[1.1 OpenPeppol 4](#_Toc481049557)

[2 References 5](#_Toc481049558)

[3 Document history 6](#_Toc481049559)

[3.1 Revision history 6](#_Toc481049560)

[3.2 Contributors 6](#_Toc481049561)

[4 Prerequisits and scope 7](#_Toc481049562)

[4.1 Prerequisits 7](#_Toc481049563)

[4.2 Scope 7](#_Toc481049564)

[5 Process 7](#_Toc481049565)

[5.1 Goals and Objectives 7](#_Toc481049566)

[5.2 Parties and roles 7](#_Toc481049567)

[5.3 Process description 8](#_Toc481049568)

[6 Login transaction 9](#_Toc481049569)

[6.1 Minimum Requirements 9](#_Toc481049570)

[Exmple 9](#_Toc481049571)

[7 Return message transaction 10](#_Toc481049572)

[7.1 Minimum Requirements 10](#_Toc481049573)

[8 Session handling 10](#_Toc481049574)

[9 Appendicies 11](#_Toc481049575)

[9.1 Example a complete return message transaction 11](#_Toc481049576)

# Introduction

The PEPPOL Punch Out Login & Transmission Specification can by used to transfer message data between procurement/webshops/ERP systems in a synchronous way as an alternative to asynchronous message transfere via network such as the PEPPOL BusDox network. Message transport by use of this synchronous transfer specification may be relevant when retrieving data directly from a web site during business processes such as a punch out process. This synchronous transfer specification is based on the transfer mechanisms of HTTP.

## OpenPeppol

This specification is a result of work within openPEPPOL and is published as part of the PEPPOL specifications.

The audience for this document is organizations wishing to be PEPPOL enabled for exchanging electronic messages, 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 [PEPPOL].

# References

[PEPPOL] <http://www.peppol.eu/>, specifically http://www.peppol.eu/ressource-library/technical-specifications/post-award

[PEPPOL\_Transp] http://www.peppol.eu/ressource-library/technical-specifications/infrastructure-resources

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

[Schematron] [http://www.schematron.com](http://www.schematron.com/)

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

[BIS18] http://www.peppol.eu/ressource-library/technical-specifications/post-award

# Document history

## Revision history

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version | Date | Author | Organisation | Description |
| 1.0 | April 2017 | Georg Birgisson Martin Forsberg | Midran Ltd. Ecru Consulting | First version. |

## Contributors

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# Prerequisits and scope

## Prerequisits

Reading this document requires general knowledge about the way http data transfer works.

The Supplier operates a Webshop that allows registered customers to login, select items and to retrieve the information about those items in an XML structured format.

## Scope

Login transaction and retrival of business documents from a business partner’s website.

# Process

## Goals and Objectives

The main business benefits to be gained by implementing this specification are:

|  |  |
| --- | --- |
| ID | Description |
| G-001 | Enable transfer of XML messages based on Peppol BIS specification in a synchronous manner from websites. |
| G-002 | Enable the website to identify the user to provide user specific information. |
| G-003 | Support single sign-on for login to simplify users connections from within his own systems. |
| G-004 | Provde a common established approach for login-transaction and transmission of message |
| G-005 | Enable the user to maintain connection between work sessions on websites and in own systems. |

## Parties and roles

The table below gives the definitions of the parties and roles of the message transfer process.

|  |  |
| --- | --- |
| Business partners | Description |
| Customer | The customer is the legal person or organization who is in demand of a product or service.  Examples of customer roles: buyer, consignee/delivery part, debtor, contracting body. |
| Supplier | The supplier is the legal person or organization who provides a product or service.  Examples of supplier roles: seller, consignor, creditor, economic operator. |
| Role/actor | Description | |
| Buyer  (Webshop user - User) | The buyer is the legal person or organization acting on behalf of the customer and who buys or purchases the goods or services.  As a webshop user the buyer accesses the Webshop, selects the items and quantities he wants and completes the action by punching-out. | |
| Seller  (Webshop operator) | The seller is the legal person or organization acting on behalf of the supplier and who sells goods or services to the customer.   As a Webshop operator seller provides the Webshop into which the buyer logs on. The seller is responsible for providing up-to-date information on items and other relevant information in Webstore. | |

The following diagram links the business processes to the roles performed by the Business Partners.



## Process description

The above disgram demonstrates the following process.

1. The user automatically logs into the suppliers webstore directly from his procurement systems by using the relevant login credentials. The login credentials are transmitted to the sellers webshop in the form of of an outbound request as defined in following chapter.
2. In the webstore the user selects the items he is interested in by placing them in his shopping cart. When he has finised his selection he selects to check out. This initiates an action in the sellers webshop where the item information is compiled into a structured XML format conformant to the PEPPOL BIS18 [BIS18].
3. The structured XML information is encoded as an base 64 object and pushed to the user through a post action.
4. In the users procurement system the transferred object is decoded into an XML document and processed automatically into the procurement system as defined in PEPPOL BIS18 [BIS18].

# Login transaction

The synchronous transfer is based on a login transaction that automatically logs the user into the business partner’s website. The business document is later transmitted back using the return address (post\_url) provided in the login transaction.

## Minimum Requirements

The login transaction must contain the following elements:

\_

|  |  |  |
| --- | --- | --- |
| Element | Description | Notes |
| <form … action="url") | The url for the login at the providers web site. | The value of the action in the form post. |
| username | An identifier for the user account on the website. | issued by the website |
| password | A password matching the username that validates the user. | issued by Webshop operator according to his password policies. |
| buyer\_id | The id of the user in his role as a buyer. | Used for customized user experience. Such as his delivery addresses, delivery times , prices and terms. Provide if different from user name. |
| return\_object\_spec\_id | An identifier of the document type and version expected to be returned (such as a shopping cart XML-format). | Identifies the specification that the returned object shall be compliant to. |
| post\_url | The url to where the Webshop will post the inbound message on the users site. SessionID/TicketID can be part of the post\_url so that received document can be connected to the user session. | The user may create an SessionID/TicketID and insert it into the post\_url. The Webshop does not need to process the id but when it posts the document the user can parse the url and extract the id for matching. |

Exmple

<form method="post" enctype="application/x-www-form-urlencoded; charset=UTF-8" action="https://punchout.peppol.eu/request/callservice.jsp">

<input type="hidden" name="username" value="samplebuyer"/>

<input type="hidden" name="password" value="strongpass"/>

<input type="hidden" name="buyer\_id" value="jd123"/>

<input type="hidden" name="return\_object\_spec\_id" value=" urn:www.cenbii.eu:transaction:biitrns077:ver2.0:extended:www.peppol.eu:bis:peppol18a:ver1.0"/>

<input type="hidden" name="post\_url" value="https://purchase.johndoe.com/receive/receiveservice.jsp?ticketid=XYZjd123"/>

<input type="submit" value="Login"/>

</form>

# Return message transaction

The business document is transmitted back to the users service on the address (post\_url) provided in the login transaction.

## Minimum Requirements

The return message transaction must contain the following elements:

|  |  |  |
| --- | --- | --- |
| Element | Description | Notes |
| <form … action="url") | The url to where the website will post the business document on the receivers site. This url is provided in the login transaction in the parameter named post\_url. | The post url may contain the users Session or Ticket ID. |
| return\_object\_spec\_id | The specification that governs the returned object and may be used to validate its content. | The relevant BIS customization identifier. Shall be the same as what was in the login transaction. |
| return\_object\_mime | The mime code of the encoded object. | Such as application/xml |
| return\_object\_encoding | The character encoding used in the returned object, i.e. the business document. | Such as UTF-8 |
| return\_object\_base64 | The returned object encoded as base 64 |  |

Following example is for a returned object that is a base 64 encoded XML message which follows the specification of a PEPPOL BIS for Punch Out.

<form method="post" action="https//purchase.johndoe.com/receive/receiveservice.jsp?ticketid= XYZjd123" >

<input type="hidden" name="return\_object\_spec\_id" value=" urn:www.cenbii.eu:transaction:biitrns077:ver2.0:extended:www.peppol.eu:bis:peppol18a:ver1.0"/>

<input type="hidden" name="return\_object\_mime" value="application/xml"/>

<input type="hidden" name="return\_object\_encoding" value="UTF-8"/>

<input type="hidden" name="return\_object\_base64" value="PD94bWwgdmVyc2lvbj0iM…"/>

<input type="submit" value="Return"/>

</form>

# Session handling

Since the user is leaving its service to work in the business partners website (potentially for a rather long while), the original webserver session may time out. This means that there is no guarantee that one can rely on that the same session, which the users used when jumping out for log in to the business partners website, is still alive when the user returns back. A method for overcoming this issue is to provide a ticket-id/session-id in a query string in the post\_url. This provides the user’s service to re-connect the incoming message with the user.

# Appendicies

## Example a complete return message transaction

The following example returns the full example of the shopping cart message, transaction 77, from PEPPOL BIS 18.

<form method="post" action="https//purchase.johndoe.com/receive/receiveservice.jsp?ticketid= XYZjd123">

<input type="hidden" name="return\_object\_spec\_id" value=" urn:www.cenbii.eu:transaction:biitrns077:ver2.0:extended:www.peppol.eu:bis:peppol18a:ver1.0"/>

<input type="hidden" name="return\_object\_mime" value="application/xml"/>

<input type="hidden" name="return\_object\_encoding" value="UTF-8"/>

<input type="hidden" name="return\_object\_base64" value=""/>

<input type="submit" value="Return"/>

</form>