



OpenPEPPOL AISBL



Post Award Coordinating
Community

ICT – Models

**PEPPOL Punch Out
Login & Transmission Specification**



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1 Introduction

The PEPPOL Punch Out Login & Transmission Specification can be used to transfer message data between procurement/webshops/ERP systems in a synchronous way as an alternative to asynchronous message transfer 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.

1.1 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].

2 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
[XSLT]	http://www.w3.org/TR/xslt20/
[BIS18]	http://www.peppol.eu/ressource-library/technical-specifications/post-award

3 Document history

3.1 Revision history

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

3.2 Contributors

The following individuals and their organizations have contributed to the development of this PEPPOL BIS document by participation in team meetings, discussion and by providing expert input and review.

Ahti Allikas, Opuscapita
Chris Heavey, Ghxeurope
I Burdon, Elcom
Jan Andre Maroe, DIFI
Jens Aabol, DIFI
Krist Deveugele, Basware
Martin Forsberg, Ecrú Consulting
Peter Danko, Edocdelivery
Petteri Zilliacus, Basware
Seija Vallinen, Basware
Søren Pedersen, ESV
Thomas Pettersson, PSK-konsult



4 Prerequisites and scope

4.1 Prerequisites

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.

4.2 Scope

Login transaction and retrieval of business documents from a business partner's website.

5 Process

5.1 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	Provide 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.

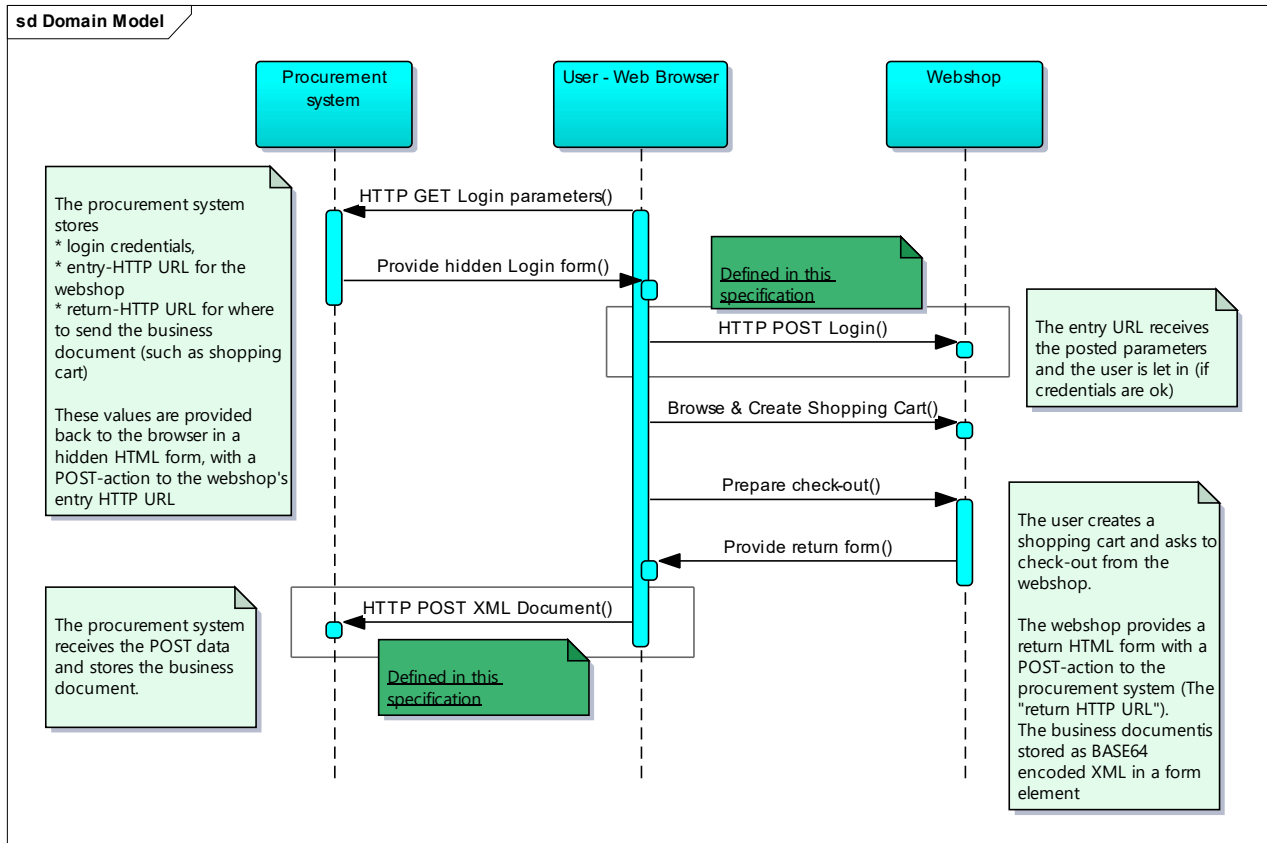
5.2 Parties and roles

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	The seller is the legal person or organization acting on behalf of the

(Webshop operator)	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.
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The following diagram links the business processes to the roles performed by the Business Partners.



5.3 Process description

The above diagram 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].

6 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.

6.1 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>
```

7 Return message transaction

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

7.1 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>
```

8 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.


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