

Pubhub Web Services

Library API Integration Guide

Library Customers

November 2014

v1.2

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REVISION HISTORY

Date	Version	Comment
2014-11-05	1.1	First edition
2014-11-10	1.2	Added new GetProductLoanStatusList method

DEFINITION OF TERMS

PubHub: Publizon Distribution Hub

HOW TO ACCESS THE WEB SERVICE

Pubhub exists in two separate environments, each with their own server, code and database. Please use the web service located at libraryservices.qa.pubhub.dk when developing and testing! Orders/loans created in test environment will not be invoiced. Please request a new license key for the production environment when you're ready to go live.

Test / development environment:

<http://libraryservices.qa.pubhub.dk/>

Production environment:

<https://libraryservices.pubhub.dk/>

Attention: Use SSL/https in production!

ENDPOINT DESCRIPTIONS

VALIDATELIBRARYUSER

Test: <http://libraryservices.qa.pubhub.dk/validatelibraryuser.asmx?op=ValidateLibraryUser>

Prod: <https://libraryservices.pubhub.dk/validatelibraryuser.asmx?op=ValidateLibraryUser>

Request

Parameter name	Type	Description
retailerid	String	Retailer/Library Id, e.g. 816 for Aarhus
retailerkeycode	String	Retailer license key code (md5 key)
cardnumber	String	Borrower's card number
pincode	String	Borrower's pin code
languagecode	String	Obsolete / not in use
clientid	String	Id of client/application calling the end point

Response

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <ValidateLibraryUserResponse xmlns="http://pubhub.dk/">
      <ValidateLibraryUserResult>
        <response xmlns:xs1="
          http://172.16.6.26:2000/webservices/schema/validatelibraryuser.xsd">
          <status xmlns="">
            <code>[StatusCode]</code>
            <message>[StatusMessage]</message>
          </status>
          <data xmlns="">
            <testcard>[IsTestCard]</testcard>
          </data>
        </response>
      </ValidateLibraryUserResult>
    </ValidateLibraryUserResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
testcard	Bool	true (if testcard) and false (if not testcard)

Status codes and messages

Code	Message
101	OK
114	Ugyldigt kortnummer og/eller pinkode (#114).
118	Biblioteket kunne ikke autoriseres (#118).
134	Kortet er midlertidigt blokeret (#134)

CREATELOAN

Test: <http://libraryservices.ga.pubhub.dk/createloan.asmx?op=CreateLoan>

Prod: <https://libraryservices.pubhub.dk/createloan.asmx?op=CreateLoan>

Request

Parameter name	Type	Description
retailerid	String	Retailer/Library Id, e.g. 816 for Aarhus
retailerkeycode	String	Retailer license key code (md5 key)
ebookid	String	Isbn13 of book to loan
format	String	Obsolete / not in use
mobipocketid	String	Obsolete / not in use
cardnumber	String	Borrower's card number
pincode	String	Borrower's pin code
languagecode	String	Obsolete / not in use
clientid	String	Id of client/application calling the end point

Response

```
<soap:Envelope xmlns:soap=http://www.w3.org/2003/05/soap-envelope
  xmlns:xsi=http://www.w3.org/2001/XMLSchema-instance
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <CreateLoanResponse xmlns="pubhub.dk">
      <CreateLoanResult>
        <response xmlns:xsi="http://172.16.6.26:2000/webservices/schema/createloan.xsd"
          xmlns="http://pubhub.dk/">
          <status xmlns="">
            <code>[StatusCode]</code>
            <message>[StatusMessage]</message>
          </status>
          <data xmlns="">
            <downloadurl>[DownloadUrl]</downloadurl>
            <expirationdateutc>[ExpirationDate]</expirationdateutc>
            <retailerordernumber>[RetailerOrderNumber]</retailerordernumber>
            <internalordernumber>[InternalOrderNumber]</internalordernumber>
          </data>
        </response>
      </CreateLoanResult>
    </CreateLoanResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
downloadurl	String	Download url to acsm file – DRM protected book
expirationdateutc	String	Expiration date and time (in UTC) of loan
retailerordernumber	String	Retailer / library order number
internalordernumber	String	Internal order number (guid) in Pubhub

Reader and Player

The reader requires <retailerordernumber> and the player requires <internalordernumber> when initialized. See <http://docs.pubhub.dk> “Pubhub Reader Integration Guide” and “Pubhub Audio Player Integration Guide” for more information.

Status codes and messages

Code	Message
101	OK
105	ebookid er ikke er gyldigt isbn nummer (#105).
114	Ugyldigt kortnummer og/eller pinkode (#114).
118	Biblioteket kunne ikke autoriseres (#118).
120	Antallet af samtidige lån er overskredet (#120).
125	Biblioteket har nået forbrugsgrænsen i indeværende måned. Kontakt evt. dit lokale bibliotek for yderligere oplysninger (#125).
126	Biblioteket har nået grænsen for antal udlån i indeværende måned. Kontakt evt. dit lokale bibliotek for yderligere oplysninger (#126).
128	Bogen er ikke tilgængelig for udlån (#128).
129	Bogen kan højst genlånes én gang (#129).
130	Bogen kan først lånes igen 90 dage efter sidste låns udløb (#130).
131	Bogen kan ikke lånes (#131).
134	Kortet er midlertidigt blokeret (#134)
135	Grænsen for antal tilladte lån på bogen er nået (#135)
136	De opkøbte klip er alle taget i brug (#136).
137	Dit bibliotek tillader kun op til X samtidige reserveringer (#137).
138	Der skete en uventet fejl. (#138).
139	Ugyldigt agreementid. (#139).

GETPRODUCTLOANSTATUS

Returns availability status of a given isbn13 for a given user

Test: <http://libraryservices.qa.pubhub.dk/getproductloanstatus.asmx?op=GetProductLoanStatus>

Prod: <https://libraryservices.pubhub.dk/getproductloanstatus.asmx?op=GetProductLoanStatus>

Request

Parameter name	Type	Description
retailerid	String	Retailer/Library Id, e.g. 816 for Aarhus
retailerkeycode	String	Retailer license key code (md5 key)
ebookid	String	Isbn13 of book to get loan status for
cardnumber	String	Users' card number
clientid	String	Id of client/application calling the end point

Response

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <GetProductLoanStatusResponse xmlns="http://pubhub.dk/">
      <GetProductLoanStatusResult>
        <response xmlns:xsi="
          http://172.16.6.26:2000/webservices/schema/getproductloanstatus.xsd">
          <status xmlns="">
            <code>[StatusCode]</code>
            <message>[StatusMessage]</message>
          </status>
          <data xmlns="">
            <loanstatus>[LoanStatus]</loanstatus>
            <onchecklist>[OnCheckList]</onchecklist>
            <ebookid>[EbookId]</ebookid>
          </data>
        </response>
      </GetProductLoanStatusResult>
    </GetProductLoanStatusResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
loanstatus	Int	1 = Loaned (already loaned) 2 = Reserved (reserved but not yet redeemable) 3 = Redeemable (reserved and reservation is now redeemable) 4 = Loanable (not loaned, not reserved, but loanable) 5 = Reservable (not loaned, not reserved, not loanable, but reservable)
onchecklist	Bool	true if book is on users' checklist, otherwise false

Status codes and messages

Code	Message
101	OK
105	ebookid er ikke er gyldigt isbn nummer (#105).
118	Biblioteket kunne ikke autoriseres (#118).
138	Der skete en uventet fejl. (#138).

GETPRODUCTLOANSTATUSLIST

Returns availability statuses of a given list of isbn13 numbers for a given user

Test: <http://libraryservices.qa.pubhub.dk/getproductloanstatus.asmx?op=GetProductLoanStatusList>

Prod: <https://libraryservices.pubhub.dk/getproductloanstatus.asmx?op=GetProductLoanStatusList>

Request

Parameter name	Type	Description
retailerid	String	Retailer/Library Id, e.g. 816 for Aarhus
retailerkeycode	String	Retailer license key code (md5 key)
ebookids	Ebookid Array	List of isbn13 of books to get loan status for
ebookid	String	Isbn13 of book to get loan status for
cardnumber	String	Users' card number
clientid	String	Id of client/application calling the end point

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <GetProductLoanStatusList xmlns="http://pubhub.dk/">
      <retailerid>[RetailerId]</retailerid>
      <retailerkeycode>[RetailerKeyCode]</retailerkeycode>
      <ebookids>
        <ebookid>[ISBN13]</ebookid>
        ...
      </ebookids>
      <cardnumber>[CardNumber]</cardnumber>
      <clientid>[ClientId]</clientid>
    </GetProductLoanStatusList>
  </soap:Body>
</soap:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <GetProductLoanStatusResponse xmlns="http://pubhub.dk/">
      <GetProductLoanStatusResult>
        <response xmlns:xs1="
http://172.16.6.26:2000/webservices/schema/getproductloanstatus.xsd">
          <status xmlns="">
            <code>[StatusCode]</code>
            <message>[StatusMessage]</message>
          </status>
          <data xmlns="">
            <productloanstatus>
              <loanstatus>[LoanStatus]</loanstatus>
              <onchecklist>[OnCheckList]</onchecklist>
              <ebookid>[EbookId]</ebookid>
            </productloanstatus>
            ...
          </data>
        </response>
      </GetProductLoanStatusResult>
```



```

    </GetProductLoanStatusResponse>
  </soap:Body>
</soap:Envelope>

```

Element	Type	Description
loanstatus	Int	1 = Loaned (already loaned) 2 = Reserved (reserved but not yet redeemable) 3 = Redeemable (reserved and reservation is now redeemable) 4 = Loanable (not loaned, not reserved, but loanable) 5 = Reservable (not loaned, not reserved, not loanable, but reservable)
onchecklist	Bool	true if book is on users' checklist, otherwise false

Status codes and messages

Code	Message
101	OK
105	ebookid er ikke er gyldigt isbn nummer (#105).
118	Biblioteket kunne ikke autoriseres (#118).
138	Der skete en uventet fejl. (#138).

CREATERESERVATION

Creates a reservation on a given isbn13 for a given card number

Test: <http://libraryservices.ga.pubhub.dk/reservations.asmx?op=Create>

Prod: <https://libraryservices.pubhub.dk/reservations.asmx?op=Create>

Request

Parameter name	Type	Description
retailerid	String	Retailer/Library Id, e.g. 816 for Aarhus
retailerkeycode	String	Retailer license key code (md5 key)
clientid	String	Id of client/application calling the end point
ebookid	String	Isbn13 of book to reserve
cardnumber	String	Users' card number
email	String	Users' e-mail address where to a notification will be send when the book is available
phoneNumber	String	Users' mobile number where to a notification will be send when the book is available

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <CreateResponse xmlns="pubhub.dk">
      <CreateResult>
        <response xmlns:xsi="http://172.16.6.26:2000/webservices/schema/reservations.xsd"
          xmlns="http://pubhub.dk/">
          <status xmlns="">
            <code>[StatusCode]</code>
            <message>[StatusMessage]</message>
          </status>
          <data xmlns="">[CardNumber]</data>
        </response>
      </CreateResult>
    </CreateResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
cardnumber	String	The cardnumber that created the reservation. Same as input param.

Status codes and messages

Code	Message
101	OK
105	ebookid er ikke er gyldigt isbn nummer (#105).
118	Biblioteket kunne ikke autoriseres (#118).
138	Der skete en uventet fejl. (#138).

UPDATERESERVATION

Updates a reservation (phone and email address) on a given isbn13 and card number

Test: <http://libraryservices.ga.pubhub.dk/reservations.asmx?op=Update>

Prod: <https://libraryservices.pubhub.dk/reservations.asmx?op=Update>

Request

Parameter name	Type	Description
retailerid	String	Retailer/Library Id, e.g. 816 for Aarhus
retailerkeycode	String	Retailer license key code (md5 key)
clientid	String	Id of client/application calling the end point
ebookid	String	Isbn13 of book to update reservation for
cardnumber	String	Users' card number to update reservation for
email	String	Users' e-mail address where to a notification will be send when the book is available. This field will be updated.
phoneNumber	String	Users' mobile number where to a notification will be send when the book is available. This field will be updated.

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <UpdateResponse xmlns="pubhub.dk">
      <UpdateResult>
        <response xmlns:xsi="http://172.16.6.26:2000/webservices/schema/reservations.xsd"
          xmlns="http://pubhub.dk">
          <status xmlns="">
            <code>[StatusCode]</code>
            <message>[StatusMessage]</message>
          </status>
          <data xmlns="">[CardNumber]</data>
        </response>
      </UpdateResult>
    </UpdateResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
cardnumber	String	The cardnumber for which the reservation was updated. Same as input param.

Status codes and messages

Code	Message
101	OK
105	ebookid er ikke er gyldigt isbn nummer (#105).
118	Biblioteket kunne ikke autoriseres (#118).
138	Der skete en uventet fejl. (#138).

DELETERESERVATION

Deletes a reservation on a given isbn13 and card number

Test: <http://libraryservices.qa.pubhub.dk/reservations.asmx?op=Delete>

Prod: <https://libraryservices.pubhub.dk/reservations.asmx?op=Delete>

Request

Parameter name	Type	Description
retailerid	String	Retailer/Library Id, e.g. 816 for Aarhus
retailerkeycode	String	Retailer license key code (md5 key)
clientid	String	Id of client/application calling the end point
ebookid	String	Isbn13 of book to delete reservation for
cardnumber	String	Users' card number to delete reservation for

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <DeleteResponse xmlns="pubhub.dk">
      <DeleteResult>
        <response xmlns:xsi="http://172.16.6.26:2000/webservices/schema/reservations.xsd"
          xmlns="http://pubhub.dk/">
          <status xmlns="">
            <code>[StatusCode]</code>
            <message>[StatusMessage]</message>
          </status>
          <data xmlns="">[CardNumber]</data>
        </response>
      </DeleteResult>
    </DeleteResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
cardnumber	String	The cardnumber for which the reservation was deleted. Same as input param.

Status codes and messages

Code	Message
101	OK
105	ebookid er ikke er gyldigt isbn nummer (#105).
118	Biblioteket kunne ikke autoriseres (#118).
138	Der skete en uventet fejl. (#138).

LISTRESERVATIONS

List reservations for a given card number

Test: <http://libraryservices.ga.pubhub.dk/reservations.asmx?op=List>

Prod: <https://libraryservices.pubhub.dk/reservations.asmx?op=List>

Request

Parameter name	Type	Description
retailerid	String	Retailer/Library Id, e.g. 816 for Aarhus
retailerkeycode	String	Retailer license key code (md5 key)
clientid	String	Id of client/application calling the end point
cardnumber	String	Users' card number to delete reservation for

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <ListResponse xmlns="pubhub.dk">
      <ListResult>
        <response xmlns:xsi="http://172.16.6.26:2000/webservices/schema/reservations.xsd"
          xmlns="http://pubhub.dk/">
          <status xmlns="">
            <code>[StatusCode]</code>
            <message>[StatusMessage]</message>
          </status>
          <data xmlns="">
            <reservation>
              <bookId>[BookId]</bookId>
              <createdutc>[CreateDateTimeUtc]</createdutc>
              <status>[Status]</status>
              <title>[BookTitle]</title>
              <expireutc d4p1:nil="true" xmlns:d4p1="http://www.w3.org/2001/XMLSchema-
instance">[ExpireDateTimeUtc]</expireutc>
              <expectedredeemdateutc d4p1:nil="true"
xmlns:d4p1="http://www.w3.org/2001/XMLSchema-
instance">[ExpectedRedeemDateTimeUtc]</expectedredeemdateutc>
            </reservation>
            ...
          </data>
        </response>
      </ListResult>
    </ListResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
reservation	Element	0..n reservation elements
bookid	Guid	Internal book id (guid)
createdutc	DateTime	Date and time (in UTC) when the reservation was created
status	Int	1 = Queued, 2 = Redeemable, 3 = Redeemed, 4 = Cancelled, 5 = Expired
title	String	Title of the book
expireutc	DateTime	Date and time (in UTC) of reservation expiration. Present if reservation is redeemable – otherwise null/empty
expectedredeemdateutc		Date and time (in UTC) of expected redeem date. Present if reservation is queued – otherwise null/empty.

Status codes and messages

Code	Message
101	OK
118	Biblioteket kunne ikke autoriseres (#118).
138	Der skete en uventet fejl. (#138).

GETLIBRARYUSERORDERLIST

Returns a list of a given cardnumber's loans

Test: <http://libraryservices.qa.pubhub.dk/getlibraryuserorderlist.asmx?op=GetLibraryUserOrderList>

Prod: <https://libraryservices.pubhub.dk/getlibraryuserorderlist.asmx?op=GetLibraryUserOrderList>

Request

Parameter name	Type	Description
retailerid	String	Retailer/Library Id, e.g. 816 for Aarhus
retailerkeycode	String	Retailer license key code (md5 key)
cardnumber	String	Cardnumber to get a list of loans for
languagecode	String	Obsolete / not in use
booktype	String	1=Ebook, 2=Audiobook
clientid	String	Id of client/application calling the end point

Response

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <GetLibraryUserOrderListResponse xmlns="http://pubhub.dk/">
      <GetLibraryUserOrderListResult>
        <response xmlns:xsi="
          http://172.16.6.26:2000/webservices/schema/getlibraryorderlist.xsd">
          <status xmlns="">
            <code>[StatusCode]</code>
            <message>[StatusMessage]</message>
            <LibraryExtension>
              <maxloanperiod>[MaxLoanPeriod]</maxloanperiod>
              <maxloanpertime>[MaxLoanPerTime]</maxloanpertime>
              <maxloanstotal>[MaxLoansTotal]</maxloanstotal>
              <maxloanpertimesound>[MaxLoanPerTimeSound]</maxloanpertimesound>
              <maxloanstotalsound>[MaxLoansTotalSound]</maxloanstotalsound>
              <maxtotalperiod>[MaxTotalPeriod]</maxtotalperiod>
              <usertotalloans>[UserTotalLoans]</usertotalloans>
              <userebookloansremain>[UserEbookLoansRemain]</userebookloansremain>
              <userebookloansnexttime>[UserEbookLoansNextTime]</userebookloansnexttime>
              <usersoundloansNexttime>[UserSoundLoansNextTime]</usersoundloansNexttime>
              <usertotalebookloans>[UserTotalEbookLoans]</usertotalebookloans>
              <usertotalsoundloans>[UserTotalSoundLoans]</usertotalsoundloans>
            </LibraryExtension>
          </status>
          <data xmlns="">
            <orderitem>
              <internalordernumber>[InternalOrderNumber]</internalordernumber>
              <retailerordernumber>[RetailerOrderNumber]</retailerordernumber>
              <orderstatus id="[OrderStatusId]" name="[OrderStatusName]" />
              <orderdate>[OrderDateTime]</orderdate>
              <loanexpiredate>[LoanExpireDateTime]</loanexpiredate>
              <book id="[Isbn13]" idtype="ISBN">
                <title>[BookTitle]</title>
                <authors>
                  <author name="[AutherName]" type="author" idtype="0" />
                  ...
                </authors>
                <publisher>[Publisher]</publisher>
              </book>
              <format id="[FormatId]" name="[FormatName]" />
            </orderitem>
          </data>
        </response>
      </GetLibraryUserOrderListResult>
    </GetLibraryUserOrderListResponse>
  </soap:Body>
</soap:Envelope>
```

```

    <data>
      <data>
        <downloadurl><![CDATA[[DownloadUr1]]]></downloadurl>
      </data>
    </data>
  </orderitem>
  ... (more order items)
</data>
</response>
</GetLibraryUserOrderListResult>
</GetLibraryUserOrderListResponse>
</soap:Body>
</soap:Envelope>

```

Element	Type	Description
LibraryExtension	Element	Obsolete. Don't use this element and sub elements.
maxloanperiod		
maxloanpertime		
maxloanstotal		
maxloanpertimesound		
maxloanstotalsound		
maxtotalperiod		
usertotalloans		
userebookloansremain		
userebookloansnexttime		
usersoundloansNexttime		
usertotalebookloans		
usertotalsoundloans		
orderitem	Element	
internalordernumber	String	Internal order number (guid) in Pubhub
retailerordernumber	String	Retailer / library order number
orderstatus		id always 1 and name always Completed
orderdate	DateTime	Loan creation date in Danish time (format yyyy-MM-dd HH:mm:ss)
loanexpiredate	DateTime	Loan expiration date in Danish time (format yyyy-MM-dd HH:mm:ss)
book	Element	Id = isbn13, idtype = ISBN or GTIN
title	String	Book title
authors	Element	Authors, translators, edited by and revised by
author		
idtype	Int	0=author, 5=translated by, 6=edited by, 7=revised by
type	String	Author, translator, edited by, revised by
publisher	String	Publisher of the book
format		
id	int	50=PDF, 58=Epub, 71=Audiobook
name	String	PDF with Adobe encryption / Epub with Adobe encryption / Audiobook
data	Element	
data	Element	
downloadurl	String	Download url to acsm file – DRM protected book

Status codes and messages

Code	Message
101	OK
118	Biblioteket kunne ikke autoriseres (#118).
138	Der skete en uventet fejl. (#138).