Pubhub Web Services

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Library API Integration Guide

Library Customers

January 2023

v2.7

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Date	Version	Comment
2014-11-05	1.1	First edition
2014-11-10	1.2	Added new GetProductLoanStatusList method
2014-11-17	1.3	AddCheckListItem, DeleteCheckListItem and GetCheckList added
2014-11-25	1.4	Param phoneNumber changed to lower case in UpdateReservation and CreateReservation. Error message #139 changed to "Ugyldigt clientid. (#139)."
2014-11-27	1.5	Added new GetLibraryUserOrder method
2014-12-05	1.6	Made param cardnumber optional in GetProductLoanStatus and GetProductLoanStatusList and added new loanstatus return value. Added new method GetProduct
2014-12-12	1.7	CreateReservation and UpdateReservation now returns error code 141 if invalid e-mail address and 142 if invalid phone number and CreateReservation now returns error code 137 if the number of concurrent reservations is exceeded. GetProduct now returns error code 128 if ebookid (isbn) is not available for loan on the agreement that the clientid maps to. Error code 126 is now only returned in some cases depending on the clientid and current date. Detailed info about phonenumber (CreateReservation and UpdateReservation) added.
2014-12-19	1.8	GetProductLoanStatusList: Instead of returning error code 128 if one of the ebookid's in the request is not available, loanstatus=0 (NotLoanable) is now returned.
2015-05-26	1.9	E-mail validation for CreateReservation and UpdateReservation changed so that more than 1 dot after @ is allowed. Field <costfree>true|false</costfree> added to output. Cost free titles are now not included in the "max concurrent loans" quota.
2015-12-18	2.0	GetProduct now returns a product even if it isn't available for loan. This way it can be used to display metadata about books that is loaned or reserved but no longer available for new loans/reservations. GetLibraryUserOrder and GetLibraryUserOrderList now returns new field <issubscriptionloan>true/false</issubscriptionloan> New clientids added to support audiobooks on license
2016-02-22	2.1	Added API versioning support. Added new error types in ValidateLibraryUser.
2016-04-26	2.2	Support for "ereolen for børn" added which means new clientid and parameter pincode for method CreateLoan is now optional when calling with this new clientid.
2016-08-09	2.2.1	Support for quota checks for "ereolen for børn" (based on separate quota settings per library). Official support for getlibraryinfo.asmx now added (see endpoint documentation). Released to QA 2016-08-09.
2017-06-15	2.3	Library API updated to version 2.3: - New countrycode parameter added in CreateLoan, and obsolete parameters removed.
2018-05-22	2.4	New field, friendlycardnumber, added to output from ValidateLibraryUser, GetLibraryUserOrder and GetLibraryUserOrderList.
2019-12-10	2.5	New parameter "institutionid" added to CreateLoan. Wishes.asmx removed.
2019-12-16	2.5	Parameter institutionid changed to support alfa-numeric with the exact length of 6 and it's mandatory when creating uni-login loans. **Released to PROD 2019-12-16.**
2020-10-12	2.5	Dynamic image / cover scaling added – e.g. https://images.pubhub.dk/originals/03ab826b-9fef-45df-8136-06b680d2a0ef.jpg?width=1400
2021-11-10	2.6	Extended card number validation added to all endpoints that takes cardnumber as argument (new error code #149). This only apply for specific clientId's. Please contact Publizon for more info. Endpoint ValidateLibraryUser removed (2.6 no longer supports borchk) Parameter pincode removed from createloan Endpoint GetFriendlyCardnumber added SSL added to QA

2022-11-08	2.7	Added optional institution tags parameter to CreateLoan and CreateReservation endpoints. Institution tags are a way of assigning threshold values for max concurrent loans and max concurrent reservations to a tag. The active institution tags and threshold values can be configured in the admin site (under library settings). The current list of supported institution tags are: BOERNETILBUD, AELDRETILBUD, BIBLIOTEKET_KOMMER, ADGANG_4, ADGANG_5, ADGANG_6, ADGANG_7, ADGANG_8, ADGANG_9, ADGANG_10
2023-01-10	2.7	Added optional institution tags parameter to GetLibraryProfile endpoint. Added new error codes 152/153 to CreateLoan, CreateReservation and GetLibraryProfile.

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:
https://libraryservices.qa.pubhub.dk/v2_7/

Production environment:
https://libraryservices.pubhub.dk/v2_7/

CREATELOAN

Test: https://libraryservices.qa.pubhub.dk/v2_7/createloan.asmx?op=CreateLoan
Prod: https://libraryservices.pubhub.dk/v2_7/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
cardnumber	String	Borrower's card number
pincode	String	Borrower's pin code. Removed from v2.6+
countrycode	String	ISO 3166-1 Alpha-2 country code (optional)
clientid	String	Id of client/application calling the end point
Institutionid	String	InstitutionId (6 alpha numeric chars) according to "Institutionsregistret" maintained by "Styrelsen for IT og Læring" under "Unvisningsministeriet". (Mandatory for uni-login loans)
InstitutionTags	List of strings	0 or more institution tags. If more than one is supplied the first supported one will be used. If none are supplied the default settings for the client type are used. Institution tags are a way of assigning threshold values for max concurrent loans and max concurrent reservations to a tag. The active institution tags and threshold values can be configured in the admin site (under library settings). The current list of supported institution tags are: BOERNETILBUD, AELDRETILBUD, BIBLIOTEKET_KOMMER, ADGANG_4, ADGANG_5, ADGANG_6, ADGANG_7, ADGANG_8, ADGANG_9, ADGANG_10

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:xs1="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 clientid. (#139).
148	Ugyldigt institutions id (#148).
149	Ugyldigt lånernummer format (#149).
150	Lånernummer afvist (#150).
152	Kvotesættet til institutionstagget er ikke aktivt (#152).
153	Institutionstagget er ikke gyldigt for den givne client (#153).

*Removed from v2.6+

GETPRODUCTLOANSTATUS

Returns availability status of a given isbn13 for a given user

Test: https://libraryservices.qa.pubhub.dk/v2_7/getproductloanstatus.asmx?op=GetProductLoanStatus
Prod: https://libraryservices.pubhub.dk/v2_7/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 (optional)
clientid	String	Id of client/application calling the end point

Response

```xml
<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="">
            <loanstatus>[LoanStatus]</loanstatus>
            <onchecklist>[OnCheckList]</onchecklist>
            <ebookid>[EbookId]</ebookid>
          </data>
        </response>
      </GetProductLoanStatusResult>
    </GetProductLoanStatusResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
loanstatus	Int	0 = NotLoanable (not loanable, max loans reached) 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).
149	Ugyldigt lånernummer format (#149).

GETPRODUCTLOANSTATUSLIST

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

Test: https://libraryservices.qa.pubhub.dk/v2_7/getproductloanstatus.asmx?op=GetProductLoanStatusList
Prod: https://libraryservices.pubhub.dk/v2_7/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 (optional)
clientid	String	Id of client/application calling the end point

```xml
<?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
```xml
<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	0 = NotLoanable (not loanable, max loans reached) 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 (mot 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).
149	Ugyldigt lånernummer format (#149).

CREATERESERVATION

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

Test: https://libraryservices.qa.pubhub.dk/v2_7/reservations.asmx?op=Create
Prod: https://libraryservices.pubhub.dk/v2_7/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	Optional. Users' e-mail address where to a notification will be send when the book is available
phonenumber	String	Optional. Users' mobile number where to a notification will be send when the book is available. If not empty must be exactly 8 digits.
InstitutionTags	List of strings	0 or more institution tags. If more than one is supplied the first supported one will be used. If none are supplied the default settings for the client type are used. Institution tags are a way of assigning threshold values for max concurrent loans and max concurrent reservations to a tag. The active institution tags and threshold values can be configured in the admin site (under library settings). The current list of supported institution tags are: BOERNETILBUD, AELDRETILBUD, BIBLIOTEKET_KOMMER, ADGANG_4, ADGANG_5, ADGANG_6, ADGANG_7, ADGANG_8, ADGANG_9, ADGANG_10

Response

```xml
<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:xs1="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).

137	Dit bibliotek tillader kun op til {X} samtidige reserveringer (#137).
138	Der skete en uventet fejl. (#138).
139	Ugyldigt clientid. (#139).
140	Bogen er allerede reserveret (#140).
141	Ugyldig e-mail adresse (#141).
142	Ugyldig telefonnummer (#142).
149	Ugyldigt lånernummer format (#149).
153	Institutionstagget er ikke gyldigt for den givne client (#153).

UPDATERESERVATION

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

Test: https://libraryservices.qa.pubhub.dk/v2_7/reservations.asmx?op=Update
Prod: https://libraryservices.pubhub.dk/v2_7/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	Optional. Users' e-mail address where to a notification will be send when the book is available
phonenumber	String	Optional. Users' mobile number where to a notification will be send when the book is available. If not empty must be exactly 8 digits.

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:xs1="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).
141	Ugyldig e-mail adresse (#141).
142	Ugyldig telefonnummer (#142).
149	Ugyldigt lånernummer format (#149).

DELETERESERVATION

Deletes a reservation on a given isbn13 and card number

Test: https://libraryservices.qa.pubhub.dk/v2_7/reservations.asmx?op=Delete
Prod: https://libraryservices.pubhub.dk/v2_7/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:xs1="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).
149	Ugyldigt lånernummer format (#149).

LISTRESERVATIONS

List reservations for a given card number

Test: https://libraryservices.qa.pubhub.dk/v2_7/reservations.asmx?op=List
Prod: https://libraryservices.pubhub.dk/v2_7/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

```xml
<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:xs1="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>
              <isbn>[Isbn]</isbn>
              <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)
Isbn	String	Book isbn
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).
149	Ugyldigt lånernummer format (#149).

GETLIBRARYUSERORDERLIST

Returns a list of a given cardnumber's loans

Test: https://libraryservices.qa.pubhub.dk/v2_7/getlibraryuserorderlist.asmx?op=GetLibraryUserOrderList
Prod: https://libraryservices.pubhub.dk/v2_7/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

```xml
<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:xs1="
                   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="">
            <friendlycardnumber>[FriendlyCardNumber]</friendlycardnumber>
            <orderitem>
              <internalordernumber>[InternalOrderNumber]</internalordernumber>
              <retailerordernumber>[RetailerOrderNumber]</retailerordernumber>
              <orderstatus id="[OrderStatusId]" name="[OrderStatusName]"/>
              <orderdate>[OrderDateTime]</orderdate>
              <loanexpiredate>[LoanExpireDateTime]</loanexpiredate>
              <issubscriptionloan>[IsSubscriptionLoan]</issubscriptionloan>
              <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]"/>
        <data>
          <data>
            <downloadurl><![CDATA[[DownloadUrl]]]></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		
friendlycardnumber	String(6)	Friendly cardnumber – eg. XR56KQ – used as a loaner's unique "friendly" identifier when communicating with support.
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)
Issubscriptionloan	Bool	true if subscription loan, otherwise false
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).
149	Ugyldigt lånernummer format (#149).

GETLIBRARYUSERORDER

Returns a not expired loan (if any) by ebookid/isbn13 and cardnumber

Test: https://libraryservices.qa.pubhub.dk/v2_7/getlibraryuserorderlist.asmx?op=GetLibraryUserOrder
Prod: https://libraryservices.pubhub.dk/v2_7/getlibraryuserorderlist.asmx?op=GetLibraryUserOrder

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
ebookid	String	Isbn13 of book
clientid	String	Id of client/application calling the end point

Response

See "Response" under GetLibraryUserOrderList.
Response will only contain 1 (or none) orderitem element.

Status codes and messages

See "Status codes and messages" under GetLibraryUserOrderList.

ADDCHECKLISTITEM

Adds an item to the card's checklist belonging to the application identified by clientid

Test: https://libraryservices.qa.pubhub.dk/v2_7/Checklists.asmx?op=AddCheckListItem
Prod: https://libraryservices.pubhub.dk/v2_7/Checklists.asmx?op=AddCheckListItem

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 add on checklist
cardnumber	String	Cardnumber to get a list of loans for
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>
    <AddCheckListItemResponse xmlns="pubhub.dk">
      <AddCheckListItemResult>
        <response  xmlns:xs1="http://172.16.6.26:2000/webservices/schema/checklists.xsd"
                   xmlns="http://pubhub.dk/">
          <status xmlns="">
            <code>101</code>
            <message>OK</message>
          </status>
          <data xmlns="">39985866</data>
        </response>
      </AddCheckListItemResult>
    </AddCheckListItemResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
data	string	cardnumber

Status codes and messages

Code	Message
101	OK
118	Biblioteket kunne ikke autoriseres (#118).
138	Der skete en uventet fejl. (#138).
149	Ugyldigt lånernummer format (#149).

DELETECHECKLISTITEM

Deletes an item from the card's checklist belonging to the application identified by clientid

Test: https://libraryservices.qa.pubhub.dk/v2_7/Checklists.asmx?op=DeleteCheckListItem
Prod: https://libraryservices.pubhub.dk/v2_7/Checklists.asmx?op=DeleteCheckListItem

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 add on checklist
cardnumber	String	Cardnumber to get a list of loans for
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>
    <DeleteCheckListItemResponse xmlns="pubhub.dk">
      <DeleteCheckListItemResult>
        <response  xmlns:xs1="http://172.16.6.26:2000/webservices/schema/checklists.xsd"
                   xmlns="http://pubhub.dk/">
          <status xmlns="">
            <code>101</code>
            <message>OK</message>
          </status>
          <data xmlns="">39985866</data>
        </response>
      </DeleteCheckListItemResult>
    </DeleteCheckListItemResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
data	string	cardnumber

Status codes and messages

Code	Message
101	OK
118	Biblioteket kunne ikke autoriseres (#118).
138	Der skete en uventet fejl. (#138).
149	Ugyldigt lånernummer format (#149).

GETCHECKLIST

Returns a card's checklist belonging to the application identified by clientid

Test: https://libraryservices.qa.pubhub.dk/v2_7/Checklists.asmx?op=GetCheckList
Prod: https://libraryservices.pubhub.dk/v2_7/Checklists.asmx?op=GetCheckList

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 check list items for
clientid	String	Id of client/application calling the end point

Response

```xml
<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>
    <GetCheckListResponse xmlns="pubhub.dk">
      <GetCheckListResult>
        <response  xmlns:xs1="http://172.16.6.26:2000/webservices/schema/checklists.xsd"
                   xmlns="http://pubhub.dk/">
          <status xmlns="">
            <code>101</code>
            <message>OK</message>
          </status>
          <data xmlns="">
            <checklist>
              <creationdateutc>[CreationDateUtc]</creationdateutc>
              <title>10 digitale strategier</title>
              <isbn>9788702150414</isbn>
              <loanstatus>4</loanstatus>
            </checklist>
            ...
          </data>
        </response>
      </GetCheckListResult>
    </GetCheckListResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
checklist	Element	
creationdateutc	DateTime	Date and time of creation of the checklist item, e.g. 2014-11-10T12:37:43.556
title	String	Title of book
isbn	String	Isbn13 of book
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 (mot loaned, not reserved, not loanable, but reservable)

Status codes and messages

Code	Message
101	OK
118	Biblioteket kunne ikke autoriseres (#118).
138	Der skete en uventet fejl. (#138).
149	Ugyldigt lånernummer format (#149).

GETPRODUCT

Retrieves book information on a given isbn13

Test: https://libraryservices.qa.pubhub.dk/v2_7/getproduct.asmx?op=GetProduct
Prod: https://libraryservices.pubhub.dk/v2_7/getproduct.asmx?op=GetProduct

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
languagecode	String	(Unused)
clientid	String	Id of client/application calling the end point

Response

```xml
<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>
    <GetProductResponse xmlns="http://pubhub.dk/">
      <GetProductResult>
        <response xmlns:xs1="http://172.16.6.26:2000/webservices/schema/getproduct.xsd"
xmlns="http://pubhub.dk/">
          <status xmlns="">
            <code>101</code>
            <message>OK</message>
          </status>
          <data xmlns="">
            <created_date>2010-05-07T00:00:00Z</created_date>
            <updated_date>2012-05-30T11:00:42.77Z</updated_date>
            <title>Downtown</title>
            <status>
              <id>9</id>
              <description>Active</description>
            </status>
            <language lang="iso 639-1">da</language>
            <coverimage>http://images.pubhub.dk/Media/covers/originals/1a641733-1c07-48d0-
85b9-d6f19a53ab86.jpg</coverimage>
            <thumbnailimage>http://images.pubhub.dk/Media/covers/thumbnails/1a641733-1c07-
48d0-85b9-d6f19a53ab86.jpg</thumbnailimage>
            <teaser>
              <link>http://books.qa.pubhub.dk/Samples/9788702108774.epub</link>
            </teaser>
            <external_ids>
              <id_type>ISBN13</id_type>
              <id>9788702108774</id>
            </external_ids>
            <internal_ids>
              <id_type>PHID</id_type>
              <id>1a641733-1c07-48d0-85b9-d6f19a53ab86</id>
            </internal_ids>
            <contributors>
              <type>By (author)</type>
              <first_name>Torben</first_name>
              <family_name>Weirup</family_name>
            </contributors>
            <formats>
              <format_id>58</format_id>
```

```xml
                <name>EPUB with Adobe encryption</name>
                <size_bytes>368640</size_bytes>
                <duration_minutes>0</duration_minutes>
                <duration_48kbit_seconds>0</duration_48kbit_seconds>
            </formats>
            <price />
            <publisher>
                <name>Gyldendal</name>
                <external_id />
            </publisher>
            <first_published>2011-01-10T00:00:00</first_published>
            <description>&lt;p&gt;&lt;a href="http://gyldendal.dk/torben-weirup"&gt;Torben
Weirup&lt;/a&gt; skriver med beundring, begejstring og undren om London; om gallerierne og
museerne, vinbarene og pubberne, om storbyens karrierebevidste mænd og kvinder, og med
kulturhistoriske afsnit om Themsen, undergrundssystemet, haverne og
pladserne.&lt;/p&gt;</description>
            <categories type="BIC_code" desc="Rejse- og ferieguides">
                <category>WTH</category>
            </categories>
        </data>
      </response>
    </GetProductResult>
  </GetProductResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
creationdateutc	DateTime	Date and time of creation of the product, e.g. 2014-11-10T12:37:43.556
updated_date	DateTime	Date and time of last update
title	String	Title of book
status		
id	Int	
description	String	"Active" or "Inactive"
language	String	Language code representation of the book, "lang"-attribute contains the ISO code type
coverimage	String	URL of the book's cover image. Add width or height parameter to scale – e.g. https://images.pubhub.dk/originals/1a641733-1c07-48d0-85b9-d6f19a53ab86.jpg?width=1400
thumbnailimage	String	URL of the book's cover image thumbnail Add width or height parameter to scale – e.g. https://images.pubhub.dk/thumbnails/1a641733-1c07-48d0-85b9-d6f19a53ab86.jpg?width=200
teaser		
link	String	URL of the book's sample file
external_ids		
id_type	String	Identifier type of the book, "ISBN13", "ISBN" or "GTIN13"
id	String	Identifier of the book, e.g. the ISBN13-value if id_type is "ISBN13"
internal_ids		
Id_type	String	Internal product identifier type, e.g. "PHID"
id	String	Value of internal product identifier
contributors		
type	String	Contributor type description
first_name	String	First name of contributor
last_name	String	Last name of contributor
formats		
format_id	Int	Format id
name	String	Name of format
size_bytes	Int	File size of format

duration_minutes	Int	File duration in minutes	
duration_48kbit_seconds	Int	File duration in seconds	
price			
currency	String	Currency ISO code	
amount	String	Price in the given currency	
publisher			
name	String	Name of the book's publisher	
external_id	String	External ID of publisher (unused)	
first_published	DateTime	Publication date of the book	
description	String	Description of the book	
categories		Attributes: type (category type, e.g. "BIC_code"), desc (category description, e.g. "Kunst")	
category	String	ONIX subject code	
costfree	Boolean	True if the title is cost free – false if not	

Status codes and messages

Code	Message
101	OK
105	Ebookid er ikke er gyldigt isbn nummer (#105).
128	Bogen er ikke tilgængelig for udlån (#128).

GETLIBRARYPROFILE

Returns a library profile including info about the library and its quota settings.

Test: https://libraryservices.qa.pubhub.dk/v2_7/getlibraryinfo.asmx?op=GetLibraryProfile
Prod: https://libraryservices.pubhub.dk/v2_7/getlibraryinfo.asmx?op=GetLibraryProfile

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
institutionTags	List of Strings	0 or more institution tags. If more than one is supplied the first supported one will be used. If none are supplied the default settings for the client type are used. Institution tags are a way of assigning threshold values for max concurrent loans and max concurrent reservations to a tag. The active institution tags and threshold values can be configured in the admin site (under library settings). The current list of supported institution tags are: BOERNETILBUD, AELDRETILBUD, BIBLIOTEKET_KOMMER, ADGANG_4, ADGANG_5, ADGANG_6, ADGANG_7, ADGANG_8, ADGANG_9, ADGANG_10

Response

```xml
<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>
        <GetLibraryProfileResponse xmlns="http://pubhub.dk/">
            <GetLibraryProfileResult>
                <response xmlns:xs1="http://172.16.6.26:2000/webservices/schema/getlibraryprofile.xsd">
                    <status xmlns="">
                        <code>101</code>
                        <message>OK</message>
                    </status>
                    <data xmlns="">
                        <Id>816</Id>
                        <DbcId>DK-775100</DbcId>
                        <MaxLoansPerMonthNotificationThreshold>8000 </MaxLoansPerMonthNotificationThreshold>
                        <MaxAudioLoansPerMonthNotificationThreshold>8000
                        </MaxAudioLoansPerMonthNotificationThreshold>
                        <MaxAudioAmountPerMonthNotificationThreshold>80000
                        </MaxAudioAmountPerMonthNotificationThreshold>
                        <MaxAmountPerMonthNotificationThreshold>65000</MaxAmountPerMonthNotificationThreshold>
                        <MaxConcurrentLoansPerBorrower>50</MaxConcurrentLoansPerBorrower>
                        <MaxConcurrentReservationsPerBorrower>3</MaxConcurrentReservationsPerBorrower>
                        <MaxLoansPerMonth>9000</MaxLoansPerMonth>
                        <MaxAmountPerMonth>75000</MaxAmountPerMonth>
                        <LoanDurationInDays>30</LoanDurationInDays>
                        <MaxCancellationsPerMonth>10</MaxCancellationsPerMonth>
                        <TestCardProfiles>
                            <string>3208005501</string>
                            <string>3210132049</string>
                        </TestCardProfiles>
                        <Name>Aarhus Bibliotek</Name>
                        <MaxConcurrentAudioLoansPerBorrower>3</MaxConcurrentAudioLoansPerBorrower>
                        <MaxConcurrentAudioReservationsPerBorrower>3</MaxConcurrentAudioReservationsPerBorrower>
                        <MaxAudioLoansPerMonth>9000</MaxAudioLoansPerMonth>
                        <AudioLoanDurationInDays>30</AudioLoanDurationInDays>
                        <MaxAudioCancellationsPerMonth>10</MaxAudioCancellationsPerMonth>
                        <MaxAudioAmountPerMonth>100000</MaxAudioAmountPerMonth>
                    </data>
                </response>
            </GetLibraryProfileResult>
        </GetLibraryProfileResponse>
    </soap:Body>
</soap:Envelope>
```

Element	Type	Description
Id	Int	Library id
DbcId	String	DBC's library id
Name	String	Library name
TestCardProfiles		The library's test card numbers
TestCardNumber	String	Test card number 1
TestCardNumber	String	Test card number 2
…		
LoanDurationInDays	Int	Ebook loan duration in days
MaxConcurrentLoansPerBorrower	Int	Number of concurrent ebook loans allowed
MaxAmountPerMonth	Int	Total amount (in DKK) allowed per month (for ebooks)
MaxAmountPerMonthNotificationThreshold	Int	Threshold (in DKK) where an e-mail notification will be send (for e-books)
MaxConcurrentReservationsPerBorrower	Int	Number of concurrent ebook reservations allowed
MaxCancellationsPerMonth	Int	Number of ebook cancellations allowed per month
AudioLoanDurationInDays	Int	Audiobook loan duration in days
MaxConcurrentAudioLoansPerBorrower	Int	Number of concurrent audiobook loans allowed
MaxAudioAmountPerMonth	Int	Total amount (in DKK) allowed per month (for audiobooks)
MaxAudioAmountPerMonthNotificationThreshold	Int	Threshold (in DKK) where an e-mail notification will be send (for audiobooks)
MaxConcurrentAudioReservationsPerBorrower	Int	Number of concurrent audiobook reservations allowed
MaxAudioCancellationsPerMonth	Int	Number of audiobook cancellations allowed per month

Status codes and messages

Code	Message
101	OK
118	Biblioteket kunne ikke autoriseres (#118).
139	Ugyldigt clientid. (#139).
152	Kvotesættet til institutionstagget er ikke aktivt (#152).
153	Institutionstagget er ikke gyldigt for den givne client (#153).

GETFRIENDLYCARDNUMBER

Returns the friendly card number for a given user

Test: https://libraryservices.qa.pubhub.dk/v2_7/getfriendlycardnumber.asmx?op=GetFriendlyCardnumber
Prod: https://libraryservices.pubhub.dk/v2_7/getfriendlycardnumber.asmx?op=GetFriendlyCardnumber

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	Users' card number
clientid	String	Id of client/application calling the end point

Response

```xml
<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>
    <GetFriendlyCardnumberResponse xmlns="http://pubhub.dk/">
      <GetFriendlyCardnumberResult>
        <response  xmlns:xs1="
                   http://172.16.6.26:2000/webservices/schema/getfriendlycardnumber.xsd">
          <status xmlns="">
            <code>[StatusCode]</code>
            <message>[StatusMessage]</message>
          </status>
          <data xmlns="">
            <FriendlyCardNumber>[FriendlyCardNumber]</FriendlyCardNumber>
          </data>
        </response>
      </GetFriendlyCardnumberResult>
    </GetFriendlyCardnumberResponse>
  </soap:Body>
</soap:Envelope>
```

Element	Type	Description
FriendlyCardNumber	String	Friendly card number / support id

Status codes and messages

Code	Message
101	OK
118	Biblioteket kunne ikke autoriseres (#118).
151	Ukendt lånernummer (#151).