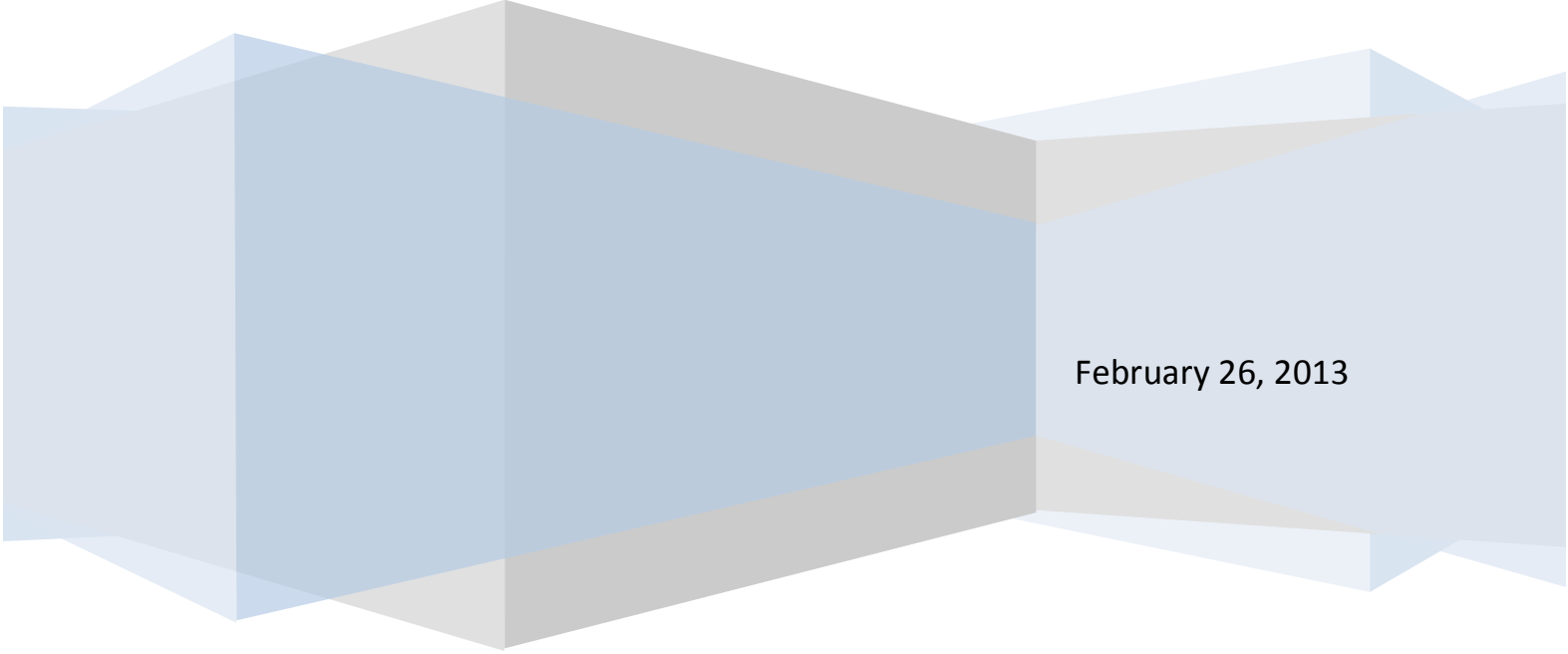


3M Cloud Library API

Version 1.9 - Draft

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Contents

Description.....	4
Use Cases	4
Case 1: Patron interaction with OPAC	4
Case 2: Patron interaction with 3M Cloud Library applications.....	4
Case 3: Independently running system without MARC transfer.....	4
Case 4: Query system for popular selling titles.....	4
Authentication and Authorization	5
Creating a request	5
Creating Signatures.....	5
Data to Sign.....	6
Example	6
Method to Sign	6
Cloud Library API.....	7
Get Item Details	7
Response.....	7
Get Item Details Array	8
Response.....	8
Checkout	10
Request	10
Response.....	10
Check-in	11
Request	11
Response.....	11
Place Hold	12
Request	12
Response.....	12
Cancel Hold	13
Request	13
Response.....	13
Get Item Circulation.....	14
Response.....	14

Get Item Circulation Array	15
Response	16
Get Patron Circulation	17
Response	17
Get MARC	19
Request	19
Response	19
Get Library Events	20
Response	21
Get Library Current Events	22
Response	23
Get Library Purchase Count	24
Response	24
Get Catalog Popular Titles	26
Response	26
Get Catalog Title MARC	27
Response	28

Description

This document describes the details of the 3M Cloud Library REST API that can be used to interface with the 3M Cloud Library System.

Use Cases

Case 1: Patron interaction with OPAC

1. OPAC will call into 3M API to get the MARC entries for eBook titles owned by a library. This allows the OPAC and 3M to track eBooks with a common identifier.
2. OPAC patron interface will provide a GUI for the patrons to search and take action on eBook titles from 3M Cloud Library
3. OPAC calls 3M API to get Item Details which provides the metadata and current state of a given eBook title (CanCheckout and CanHold)
4. OPAC will perform Checkout/Check-in/Hold transactions using the 3M API providing the library, patron and item identifier for the eBook title from the MARC for which the patron is acting

Case 2: Patron interaction with 3M Cloud Library applications

1. OPAC calls 3M API to get MARC records. This allows the OPAC and 3M to track eBooks with a common identifier.
2. Patron checkout/check-in/hold eBook items from 3M Cloud Library
3. OPAC periodically calls to get the Library Events from the 3M API and records item transactions within OPAC

Case 3: Independently running system without MARC transfer

1. OPAC calls 3M API to get Library Events
2. For each item within the Event list the OPAC can call to get the Item Details to retrieve the eBook metadata.

Case 4: Query system for popular selling titles

1. Call the 3M API to get a list of the most popular selling titles during a given timeframes.
2. For each item within the list the 3M API can be queried for MARCXML data related to the popular titles.

Authentication and Authorization

1. In order to call the REST APIs, you will need to obtain an account id and access key from 3M for your application.
2. All API calls should be made via https.

Creating a request

Each request should have the following in the header.

Header	Description	Example
3mcl-Datetime	Required This is the header for the date and time when the request was created. The value should be a UTC date with the format Mon, 23 Apr 2012 14:04:26 GMT A request arriving at the server with a timestamp that is 5 minutes off from the current time server time at 3M will result in an error.	3mcl-datetime: Mon, 23 Apr 2012 14:04:26 GMT
3mcl-Authorization	Required This field is used to provide the hashed signature of the request. See “Creating Signatures” for details of how to create the signature. This is in the format 3MCLAUTH <AccountID>:<signature>	3mcl-Authorization : 3MCLAUTH 3MCloud.AccessId: dfnGq2m7fV3wp7upfhdunkft2EHwGKnurPfr7GrrK7K=
3mcl-APIVersion	Optional This is the version of the api that should be used. If this is not provided, the latest API version will be used to process the requests. It is recommended that this field be included in the request to ensure that your app does not break on API upgrades. Valid values: 1.0	3mcl-apiversion: 1.0

Creating Signatures

Create a string consisting of the following components separated by \n.

- a. Date Time

This is the same value from 3mcl-datetime header field.

b. Http Verb

This is 'GET' for GET requests, 'PUT' for PUT requests, 'POST' for post requests and 'DELETE' for delete requests.

c. The URI path with the encoded parameters

Start with a slash "/", followed by the URI Path in lower case and query string if any in lower case.

Data to Sign

<DateTime in UTC>\n<HTTP Verb>\n/cirrus/<path for API command>

Example

For example the string to sign for Get Item Details API would be

Sun, 22 Apr 2012 20:34:22 GMT\nGET\n/cirrus/library/sampleLibraryId/item/sampleItemId?patronid=samplePatron

Method to Sign

Sign the string with your access key using HMAC-SHA256 and encode it using base64.

3M Cloud API Signature = Base64(HMAC-SHA256(StringToSign))

Sample C# Code

```
var nowUtcDate = DateTime.UtcNow.ToString("R");

using(HMACSHA256 hmac = new HMACSHA256(Encoding.UTF8.GetBytes(AccessKey)))
{
    var signature = Convert.ToBase64String(hmac.ComputeHash(Encoding.UTF8.GetBytes(dataToSign)));
}
```

Sample PHP Code

```
$nowUtcDate = gmdate('D, d M Y H:i:s T');
$dataToSign = $nowUtcDate . "\n" . "GET" . "\n" . "/cirrus/sampleLibraryId/item/sampleItemId";

$signature = base64_encode(hash_hmac("sha256", $dataToSign, $AccessKey, TRUE));
```

Sample Java Code

```
SimpleDateFormat dateFormatGmt = new SimpleDateFormat("EEE, dd MMM yyyy HH:mm:ss z");
dateFormatGmt.setTimeZone(TimeZone.getTimeZone("GMT"));
String nowUtcDate = dateFormatGmt.format(new Date());

javax.crypto.Mac mac = javax.crypto.Mac.getInstance("hmacSHA256");
mac.init(new javax.crypto.spec.SecretKeySpec (accessKey.getBytes(), "HmacSHA1"));
mac.update(dataToSign.getBytes());
String signature = Base64.encodeBase64String(mac.doFinal());
```

Cloud Library API

Get Item Details

Description

This provides the item metadata and current inventory information.

If the patron id (barcode) is supplied, this also specifies allowed patron actions on the item.

Request

Method	URI
GET	<code>http://<3M_API_URL>/cirrus/library/<libraryid>/item/<itemid>?patronid=<patronbarcode></code>

Parameters

Parameter	Description
Patron id	This is an optional parameter to get the item details with specific information for the patron. Gives you the patron specific detail (CanHold, CanCheckout, OnHold fields).

Response

HTTP Status code	Description
200 (OK)	Returned for successful retrieval of item details
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	The item was not found

Response body

```
<?xml version="1.0" encoding="utf-8"?>
<Item xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <ItemId>fzug9</ItemId>
  <Title>The Uplift War</Title>
  <SubTitle/>
  <Authors>Brin, David</Authors>
  <Description>David Brin's Uplift novels are among the most thrilling...</Description>
  <Publisher>Random House Publishing Group</Publisher>
  <PubDate>2009-12-15</PubDate>
  <PubYear>2009</PubYear>
  <Size>2.6 MB</Size>
  <Language>en</Language>
  <PhysicalISBN>9780553279719</PhysicalISBN>
  <ISBN13>9780307575357</ISBN13>
  <BookFormat>EPUB</BookFormat>
  <NumberOfPages>en</NumberOfPages>
  <CanCheckout>True</CanCheckout>
```

```

<CanHold>False</CanHold>
<OnHold>False</OnHold>
<TotalCopies>1</TotalCopies>
<AvailableCopies>1</AvailableCopies>
<HoldCount>0</HoldCount>

```

```

</Item>

```

Get Item Details Array

Description

This provides the item metadata and current inventory information. Many itemids can be provided as a comma separated list and the results are returned as an array of item details.

If the patron id (barcode) is supplied, this also specifies allowed patron actions on the item.

Request

Method	URI
GET	<a href="http://<3M_API_URL>/cirrus/library/<libraryid>/items/<itemid>,<itemid>?patronid=<patronbarcode>">http://<3M_API_URL>/cirrus/library/<libraryid>/items/<itemid>,<itemid>?patronid=<patronbarcode>

Parameters

Parameter	Description
Patron id	This is an optional parameter to get the item details with specific information for the patron. Gives you the patron specific detail (CanHold, CanCheckout, OnHold fields).

Response

HTTP Status code	Description
200 (OK)	Returned for successful retrieval of item details
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	The item was not found

Response body

```

<ArrayOfItem xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Item>
    <ItemId>edmr9</ItemId>
    <Title>Suite Francaise</Title>
    <SubTitle/>
    <Authors>Nemirovsky, Irene</Authors>
    <Description>
      Beginning in Paris on the eve of the Nazi occupation in 1940. Suite
      Francaise tells the remarkable story of men and women thrown together in
      circumstances beyond their control. As Parisians flee the city, human
      folly surfaces in every imaginable way: a wealthy mother searches for
      sweets in a town without food; a couple is terrified at the thought of
      losing their jobs, even as their world begins to fall apart. Moving on to
    
```


a provincial village now occupied by German soldiers, the locals must learn to coexist with the enemy in their town, their homes, even in their hearts. When Irne Nmirovsky began working on Suite Française, she was already a highly successful writer living in Paris. But she was also a Jew, and in 1942 she was arrested and deported to Auschwitz, where she died. For sixty-four years, this novel remained hidden and unknown. From the Trade Paperback edition.

</Description>

<Publisher>Knopf Doubleday Publishing Group</Publisher>

<PubDate>2006-04-11</PubDate>

<PubYear>2006</PubYear>

<Size>495.0 KB</Size>

<Language>en</Language>

<PhysicalISBN>9781400044733</PhysicalISBN>

<ISBN13>9780307264756</ISBN13>

<BookFormat>EPUB</BookFormat>

<NumberOfPages>/>

<CanCheckout>FALSE</CanCheckout>

<CanHold>FALSE</CanHold>

<OnHold>FALSE</OnHold>

<TotalCopies>0</TotalCopies>

<AvailableCopies>0</AvailableCopies>

<OnHoldCount>0</OnHoldCount>

</Item>

<Item>

<ItemId>ed7z9</ItemId>

<Title>Musicophilia</Title>

<SubTitle>/>

<Authors>Sacks, Oliver</Authors>

<Description>

Revised and Expanded With the same trademark compassion and erudition he brought to *The Man Who Mistook His Wife for a Hat*, Oliver Sacks explores the place music occupies in the brain and how it affects the human condition. In *Musicophilia*, he shows us a variety of what he calls musical misalignments. Among them: a man struck by lightning who suddenly desires to become a pianist at the age of forty-two; an entire group of children with Williams syndrome, who are hypermusical from birth; people with amusia, to whom a symphony sounds like the clattering of pots and pans; and a man whose memory spans only seven seconds—for everything but music. Illuminating, inspiring, and utterly unforgettable, *Musicophilia* is Oliver Sacks's latest masterpiece. From the Trade Paperback edition.

</Description>

<Publisher>Knopf Doubleday Publishing Group</Publisher>

<PubDate>2008-09-23</PubDate>

<PubYear>2008</PubYear>

<Size>478.0 KB</Size>

<Language>en</Language>

<PhysicalISBN>9781400040810</PhysicalISBN>

<ISBN13>9780307267917</ISBN13>

<BookFormat>EPUB</BookFormat>

<NumberOfPages>/>

<CanCheckout>FALSE</CanCheckout>

<CanHold>FALSE</CanHold>

<OnHold>FALSE</OnHold>

<TotalCopies>0</TotalCopies>

<AvailableCopies>0</AvailableCopies>

<OnHoldCount>0</OnHoldCount>

</Item>

</ArrayOfItem>

Checkout

Description

Checkout the item for the patron.

Request

Method	URI
PUT	http:// <3M_API_URL>/cirrus/library/<libraryid>/checkout

Request Body

```
<CheckoutRequest>
  <ItemId>df45qw</ItemId>
  <PatronId>215555602845</PatronId>
</CheckoutRequest>
```

Request Fields

Field	Description
Item Id	The Id of the e-book to be checked out
Patron Id	The patron id/Barcode requesting the checkout

Response

HTTP Status code	Description
201 (Created)	Returned for successful checkout of item.
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	The item was not found
405 (Method not allowed)	Checkout not allowed on the item by the patron. (Already checked out or item not available for checkout)
400 (Bad Request)	Item Id or the Patron Id field was not found in the request.

Response Body

```
<?xml version="1.0" encoding="utf-8"?>
<CheckoutResult xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <ItemId>fzug9</ItemId>
  <DueDateInUTC>2012-04-25T19:27:35</DueDateInUTC>
</CheckoutResult>
```

Response Fields

Field	Description
Item Id	The Id of the e-book checked out
Due Date	The checkout expiration date in UTC.

Check-in

Description

Check-in the item for the patron.

Request

Method	URI
POST	http:// <3M_API_URL>/cirrus/library/<libraryid>/checkin

Request Body

```
<CheckinRequest>
  <ItemId>df45qw</ItemId>
  <PatronId>215555602845</PatronId>
</CheckinRequest>
```

Request Fields

Field	Description
Item Id	The Id of the e-book to be checked in
Patron Id	The patron id/Barcode requesting the check-in

Response

HTTP Status code	Description
200 (OK)	Returned for successful check-in of the item.
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	A checkout was not found for the item and the patron combination.
400 (Bad Request)	Item Id or the Patron Id field was not found in the request.

Response Body

None

Place Hold

Description

Places the item in the hold queue for the patron. Returns the availability date of the item.

Request

Method	URI
PUT	http:// <3M_API_URL>/cirrus/library/<libraryid>/placeholder

Request Body

```
<PlaceHoldRequest>
  <ItemId>df45qw</ItemId>
  <PatronId>215555602845</PatronId>
</PlaceHoldRequest >
```

Request Fields

Field	Description
Item Id	The Id of the e-book to be put on hold. Only items that are not available for checkout can be put on hold.
Patron Id	The patron id/Barcode placing the request

Response

HTTP Status code	Description
201 (Created)	Returned for successful hold creation of the item for patron.
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	The item was not found.
405 (Method not allowed)	Hold not allowed on the item by the patron. (Already on hold or the item can be currently checked out)
400 (Bad Request)	Item Id or the Patron Id field was not found in the request.

Response Body

```
<PlaceHoldResult xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <ItemId>eeo89</ItemId>
  <AvailabilityDateInUTC>2012-04-27T13:02:47</AvailabilityDateInUTC>
</PlaceHoldResult>
```

Response Fields

Field	Description
Item Id	The Id of the e-book on hold
Availability Date	The date in UTC on which the book should be available for checkout. This is based on the number of people in the hold queue before the patron.

Cancel Hold

Description

Removes the item from the hold queue for the patron.

NOTE: Once an item has been made available to the patron with a hold the hold cannot be cancelled. At this time the item can either be checked out by the patron or the patron's item request will expire based on library configuration settings.

Request

Method	URI
POST	http:// <3M_API_URL>/cirrus/library/<libraryid>/cancelhold

Request Body

```
<CancelHoldRequest>  
  <ItemId>df45qw</ItemId>  
  <PatronId>215555602845</PatronId>  
</CancelHoldRequest >
```

Request Fields

Field	Description
Item Id	The Id of the e-book to be removed from the hold queue
Patron Id	The patron id/Barcode requesting the removal

Response

HTTP Status code	Description
200 (OK)	Returned for successful check-in of the item.
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	A hold request was not found for the item and the patron combination.
400 (Bad Request)	Item Id or the Patron Id field was not found in the request.

Response Body

None

Get Item Circulation

Description

Gets the current item circulation. It has the list of patrons who have checked out, the list of patrons who have the item on hold and the list of patrons who have the item on reserve. Reserve items are items that are exclusively available for the patron to be checked out.

Request

Method	URI
GET	http:// <3M_API_URL>/cirrus/library/<libraryid>/circulation/item/<itemid>

Parameters

Parameter	Description
Item Id	The item id for which the circulation details are provided.

Response

HTTP Status code	Description
200 (OK)	Returned for successful retrieval of item details
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	The item was not found

Response body

```
<?xml version="1.0" encoding="utf-8"?>
<ItemCirculation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <ItemId>fzug9</ItemId>
  <ISBN13>9780307575357</ISBN13>
  <TotalCopies>3</TotalCopies>
  <AvailableCopies>0</AvailableCopies>
  <Checkouts>
    <Patron>
      <PatronId>294245456109</PatronId>
      <EventStartDateInUTC>2012-05-16T13:23:34</EventStartDateInUTC>
      <EventEndDateInUTC>2012-05-23T13:23:34</EventEndDateInUTC>
      <Position>1</Position>
    </Patron>
  </Checkouts>
  <Holds>
    <Patron>
      <PatronId>78234456109</PatronId>
      <EventStartDateInUTC>2012-05-16T13:23:34</EventStartDateInUTC>
      <EventEndDateInUTC>2012-05-23T13:23:34</EventEndDateInUTC>
      <Position>5</Position>
    </Patron>
  </Holds>
</ItemCirculation>
```

```

    <Reserves>
      <Patron>
        <PatronId>294245456109</PatronId>
        <EventStartDateInUTC>2012-05-16T13:23:34</EventStartDateInUTC>
        <EventEndDateInUTC>2012-05-23T13:23:34</EventEndDateInUTC>
        <Position>1</Position>
      </Patron>
    </Reserves>
  </ItemCirculation>

```

Response Fields

Field	Description
Item Id	The Item Id for which the details are being supplied.
ISBN13	The e-book ISBN number
Total Copies	The number of copies in library's catalog
Available Copies	The number of copies available for checkout
Checkouts	Lists the patrons who have checked out the copies of the e-book. Can have 0 or more Patron nodes.
Holds	Lists the patrons who have placed holds on the e-book. Can have 0 or more Patron nodes.
Reserves	Lists the reserves on the book placed by the system for the patrons. Can have 0 or more Patron nodes.
Patron Id	The Patron Id/Barcode of the patron
Event Start Date	This is the time when the patron or the system performed the action on the e-book. In other words, the time when the item entered the current state (Checkout, Hold, Reserve) for the patron.
Event End Date	This is the time up until which the item will remain in the current state (Checkout, Hold, Reserve) for the patron.
Position	Relevant to HOLD entries. Position of the patron in the hold queue.

Get Item Circulation Array

Description

Gets the current item circulation for the items provided. Item identifiers can be provided as a comma separated list. It has the list of patrons who have checked out, the list of patrons who have the item on hold and the list of patrons who have the item on reserve. Reserve items are items that are exclusively available for the patron to be checked out.

Request

Method	URI
GET	http:// <3M_API_URL>/cirrus/library/<libraryid>/circulation/items/<itemid>,<itemid> ...

Parameters

Parameter	Description
Item Id	The item id for which the circulation details are provided. A comma separated list can be provided to retrieve more than one item circulation detail in a result set.

Response

HTTP Status code	Description
200 (OK)	Returned for successful retrieval of item details
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	The item was not found

Response body

```
<ArrayOfItemCirculation xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <ItemCirculation>
    <ItemId>edmr9</ItemId>
    <ISBN13>9780307264756</ISBN13>
    <TotalCopies>0</TotalCopies>
    <AvailableCopies>0</AvailableCopies>
    <Checkouts/>
    <Holds/>
    <Reserves/>
  </ItemCirculation>
  <ItemCirculation>
    <ItemId>ed7z9</ItemId>
    <ISBN13>9780307267917</ISBN13>
    <TotalCopies>0</TotalCopies>
    <AvailableCopies>0</AvailableCopies>
    <Checkouts/>
    <Holds/>
    <Reserves/>
  </ItemCirculation>
</ArrayOfItemCirculation>
```


Get Patron Circulation

Description

Gets the current patron circulation. It has the list of Checked out items, the list of items on hold and the list of items on reserve. Reserve items are items that are exclusively available for the patron to be checked out.

Request

Method	URI
GET	http:// <3M_API_URL>/cirrus/library/<libraryid>/circulation/patron/<patronid>

Parameters

Parameter	Description
Patron Id	The Patron Id for which the current circulation details are provided. Empty list if there are no checked out items or hold items or reserved items.

Response

HTTP Status code	Description
200 (OK)	Returned for successful retrieval of item details
403 (Forbidden)	Unable to authenticate the request.

Response body

```
<?xml version="1.0" encoding="utf-8"?>
<PatronCirculation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <PatronId>24145155</PatronId>
  <Checkouts>
    <Item>
      <ItemId>d4thds</ItemId>
      <ISBN13>9780307575357</ISBN13>
      <EventStartDateInUTC>2012-05-16T13:23:34</EventStartDateInUTC>
      <EventEndDateInUTC>2012-05-23T13:23:34</EventEndDateInUTC>
      <Position>1</Position>
    </Item>
  </Checkouts>
  <Holds>
    <Item>
      <ItemId>kls3f</ItemId>
      <ISBN13>9780302905357</ISBN13>
      <EventStartDateInUTC>2012-05-24T17:05:34</EventStartDateInUTC>
      <EventEndDateInUTC>2012-05-26T17:05:34</EventEndDateInUTC>
      <Position>4</Position>
    </Item>
  </Holds>
  <Reserves>
    <Item>
```

```
<ItemId>9wd8</ItemId>
<ISBN13>9780923855357</ISBN13>
<EventStartDateInUTC>2012-05-25T17:05:34</EventStartDateInUTC>
<EventEndDateInUTC>2012-05-27T17:05:34</EventEndDateInUTC>
<Position>1</Position>
</Item>
</Reserves>
</PatronCirculation>
```

Response Fields

Field	Description
Checkouts	Lists the items checked out by the patrons. Can have 0 or more Item nodes.
Holds	Lists the holds by the patrons. Can have 0 or more Item nodes.
Reserves	Lists the book on reserves placed by the system for the patrons. Can have 0 or more Item nodes.
Item Id	The Item Id
Event Start Date	This is the time when the Item entered the current state (Checkout, Hold, Reserve)
Event End Date	This is the time up until which the item will remain in the current state (Checkout, Hold, Reserve) for the patron.
Position	Relevant to HOLD entries. Position of the patron in the hold queue.

Get MARC

Request

Method	URI
GET	http:// <3M_API_URL>/cirrus/library/<libraryid>/data/marc?startdate=<startdatetime>&enddate=<enddatetime>
GET	http:// <3M_API_URL>/cirrus/library/<libraryid>/data/marc/<item Id>

Parameters

Parameter	Description
Item Id	This is an optional parameter. If provided, the MARC record for the item is returned. If not provided, uses the start date/end date to get the data.
Start date time	This is an optional parameter to specify the start date. The api returns MARC records for eBooks purchased by the library after this date. If not provided, defaults to the same date on the previous month. The UTC date has to be specified in the format. YYYY-MM-DD or YYYY-MM-DDTHH:MI:SS
End date time	This is an optional parameter to specify the end date. If not specified, defaults to current date. The UTC date has to be specified in the format. YYYY-MM-DD or YYYY-MM-DDTHH:MI:SS

Response

HTTP Status code	Description
200 (OK)	Returned for successful retrieval of item details
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	Item not found.

Response body

Data found in the title, author, publisher, summary fields are HTML Encoded during transfer.

```
<?xml version="1.0" encoding="UTF-8" ?>
<marc:collection xmlns:marc="http://www.loc.gov/MARC21/slim" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.loc.gov/MARC21/slim http://www.loc.gov/standards/marcxml/schema/MARC21slim.xsd">
<marc:record><marc:leader>02571nam a22002413a 4500</marc:leader><marc:controlfield
tag="001">xc7z9</marc:controlfield><marc:controlfield tag="003">MnSpTMCL</marc:controlfield>
<marc:controlfield tag="005">20120831070651.0</marc:controlfield>
<marc:controlfield tag="006">m o d l </marc:controlfield><marc:controlfield tag="007">cr unullllll</marc:controlfield>
<marc:controlfield tag="007">tz</marc:controlfield><marc:controlfield
tag="008">120831s2011llllllllllolllllllllengld</marc:controlfield>
<marc:datafield tag="020" ind1=" " ind2=" "><marc:subfield
```

```

code="a">9780062091406</marc:subfield></marc:datafield><marc:datafield tag="037" ind1=" " ind2=" "><marc:subfield
code="a">xc7z9</marc:subfield></marc:datafield>
<marc:datafield tag="040" ind1=" " ind2=" "><marc:subfield code="a">MnSpTMCL</marc:subfield><marc:subfield
code="b">eng</marc:subfield><marc:subfield code="c">MnSpTMCL</marc:subfield></marc:datafield>
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code="2">bisacsh</marc:subfield></marc:datafield>
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code="c">Frank, Dorothea Benton.</marc:subfield></marc:datafield>
<marc:datafield tag="260" ind1=" " ind2=" " ><marc:subfield code="a">[S.l.] :</marc:subfield><marc:subfield
code="b">HarperCollins,</marc:subfield><marc:subfield code="c">2011.</marc:subfield></marc:datafield>
<marc:datafield tag="300" ind1=" " ind2=" " ><marc:subfield code="a">368 p.</marc:subfield></marc:datafield>
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<marc:datafield tag="520" ind1=" " ind2=" " ><marc:subfield code="a">Experience the wild beauty and sultry magic of New
York Times bestselling author Dorothea Benton Frank's Carolina Lowcountry — where the pull of family is as powerful as the
ocean tides and love can strike faster than lightning in summer. . . . Folly BeachHome is the place that knows us best. . . . A
woman returns to the past to find her future in this enchanting new tale of loss, acceptance, family, and love. With its sandy
beaches and bohemian charms, surfers and suits alike consider Folly Beach to be one of South Carolina's most historic and
romantic spots. It is also the land of Cate Cooper's childhood, the place where all the ghosts of her past roam freely. Cate never
thought she'd wind up in this tiny cottage named the Porgy House on this breathtakingly lovely strip of coast. But circumstances
have changed, thanks to her newly dead husband whose financial—and emotional—bull and mendacity have left Cate homeless,
broke, and unmoored.Yet Folly Beach holds more than just memories. Once upon a time another woman found unexpected bliss
and comfort within its welcoming arms. An artist, writer, and colleague of the revered George Gershwin, Dorothy Heyward
enjoyed the greatest moments of her life at Folly with her beloved husband, DuBose. And though the Heywards are long gone,
their passion and spirit lingers in every mango sunset and gentle ocean breeze.And for Cate, Folly, too, holds the promise of
unexpected fulfillment when she is forced to look at her life and the zany characters that are her family anew. To her surprise,
she will discover that you can go home again. Folly Beach doesn't just hold the girl she once was . . . it also holds the promise of
the woman she's always wanted—and is finally ready—to become.Folly Beach, filled with the irresistible charm, saucy wit, and
lush atmosphere that have won her the devotion of fans and propelled her books to bestsellerdom, is vintage Dorothea Benton
Frank.</marc:subfield></marc:datafield>
<marc:datafield tag="655" ind1=" " ind2="0"><marc:subfield code="a">Electronic books.</marc:subfield></marc:datafield>
<marc:datafield tag="710" ind1="2" ind2=" " ><marc:subfield code="a">3M Company</marc:subfield></marc:datafield>
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></marc:datafield>
<marc:datafield tag="856" ind1="4" ind2="2"><marc:subfield code="3">3M Cloud Icon</marc:subfield><marc:subfield
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ubfield></marc:datafield>
<marc:datafield tag="956" ind1="4" ind2="2"><marc:subfield code="3">Whole product</marc:subfield><marc:subfield
code="u">http://cloudlibraryapi.3m.com/Library/mf/Item/xc7z9</marc:subfield></marc:datafield>
</marc:record>
...
</marc:collection>

```

Get Library Events

Description

Gets all the events related to library owned items within the optional timeframe.

Request

Meth od	URI
GET	http:// <3M_API_URL>/cirrus/library/<libraryid>/data/cloudevents?startdate<startdatetime>&enddate=<enddatetime>&patronid=<patronbarcode>

Parameters

Parameter	Description
Start date time	This is an optional parameter to specify the start date. The api returns item events for owned items of the library after this date. If not provided, defaults to seven days prior to the current date. The UTC date has to be specified in the format. YYYY-MM-DD or YYYY-MM-DDTHH:MI:SS
End date time	This is an optional parameter to specify the end date. If not specified, defaults to current date. The UTC date has to be specified in the format. YYYY-MM-DD or YYYY-MM-DDTHH:MI:SS
Patron Id	Optional patron identifier to limit the event list returned to contain only patron specific events.

Response

HTTP Status code	Description
200 (OK)	Returned for successful retrieval of library events
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	The item was not found

Response body

```
<LibraryEventBatch xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <PublishId>4302fccca-ef99-49bf-bd29-d673e990f765</PublishId>
  <PublishDateTimeInUTC>2012-06-29T17:35:18</PublishDateTimeInUTC>
  <LastEventDateTimeInUTC>2012-06-26T13:58:52.055</LastEventDateTimeInUTC>
  <Events>
    <CloudLibraryEvent>
      <EventId>4302fccca-ef99-49bf-bd29-d673e990f4a7</EventId>
      <EventType>CHECKIN</EventType>
      <EventStartDateTimeInUTC>2012-06-26T05:07:56</EventStartDateTimeInUTC>
      <EventEndDateTimeInUTC>2012-06-26T07:50:59</EventEndDateTimeInUTC>
      <ItemId>edbz9</ItemId>
      <ISBN>9780307238405</ISBN>
      <PatronId>TestUser1</PatronId>
      <EventPublishDateTimeInUTC>2012-06-29T17:35:18</EventPublishDateTimeInUTC>
    </CloudLibraryEvent>
  </Events>
</LibraryEventBatch>
```

```

    </CloudLibraryEvent>
  </Events>
</LibraryEventBatch>

```

Response Fields

Field	Description
PublishId	GUID that can be used in an ATOM feed.
PublishDateTimeInUTC	Date and time of data creation including fractional seconds (UTC Format: YYYY-MM-DDTHH:MI:SS.fffZ)
LastEventDateTimeInUTC	Date and time of the last event in the data including fractional seconds. This can be used in subsequent calls as the start date time. (UTC Format: YYYY-MM-DDTHH:MI:SS.fffZ)
EventId	GUID for each event related to an item
EventType	CHECKIN, CHECKOUT, HOLD, PURCHASE, RESERVED (the title which is currently on hold for the patron is now available for checkout)
EventStartDateInUTC	Date and time of event initiation (UTC Format: YYYY-MM-DDTHH:MI:SS)
EventEndDateInUTC	Next relevant date and time for event. Only relevant for Checkout, Hold and Reserved where this value indicates the checkout expiration or estimated hold availability or the time until which the item is reserved for the patron to checkout (UTC Format: YYYY-MM-DDTHH:MI:SS)
Item Id	Item identifier
ISBN	Item ISBN
Patron id	Identifier of the patron if relevant (Purchase event will not have this information).
EventPublishDateTimeInUTC	Date when this element was created (UTC Format: YYYY-MM-DDTHH:MI:SS).

Get Library Current Events

Description

Gets all the current events related to library owned items. All items that are currently checked out or on hold will be returned.

Request

Method	URI
GET	http:// <3M_API_URL>/cirrus/library/<libraryid>/data/currentevents?patronid=<patronbarcode>

Parameters

Parameter	Description
Patron Id	Optional patron identifier to limit the event list returned to contain only patron specific events.

Response

HTTP Status code	Description
200 (OK)	Returned for successful retrieval of library events
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	The item was not found

Response body

```
<LibraryEventBatch xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <PublishId>4302fccca-ef99-49bf-bd29-d673e990f765</PublishId>
  <PublishDateTimeInUTC>2012-06-29T17:35:18</PublishDateTimeInUTC>
  <LastEventDateTimeInUTC>2012-06-26T13:58:52.055</LastEventDateTimeInUTC>
  <Events>
    <CloudLibraryEvent>
      <EventId>4302fccca-ef99-49bf-bd29-d673e990f4a7</EventId>
      <EventType>CHECKIN</EventType>
      <EventStartDateTimeInUTC>2012-06-26T05:07:56</EventStartDateTimeInUTC>
      <EventEndDateTimeInUTC>2012-06-26T07:50:59</EventEndDateTimeInUTC>
      <ItemId>edbz9</ItemId>
      <ISBN>9780307238405</ISBN>
      <PatronId>TestUser1</PatronId>
      <EventPublishDateTimeInUTC>2012-06-29T17:35:18</EventPublishDateTimeInUTC>
    </CloudLibraryEvent>
  </Events>
</LibraryEventBatch>
```

Response Fields

Field	Description
PublishId	GUID that can be used in an ATOM feed.
PublishDateTimeInUTC	Date and time of data creation including fractional seconds (UTC Format: YYYY-MM-DDTHH:MI:SS.fffZ)
LastEventDateTimeInUTC	Date and time of the last event in the data including fractional seconds. This can be used in subsequent calls as the start date time. (UTC Format: YYYY-MM-DDTHH:MI:SS.fffZ)
EventId	GUID for each event related to an item
EventType	CHECKOUT, HOLD if the hold has an end date then that means the item is in the RESERVED status and the reservation will expire on the end date.
EventStartDateTimeInUTC	Date and time of event initiation (UTC Format: YYYY-MM-DDTHH:MI:SS)

EventEndDateTimeInUTC	Next relevant date and time for event. Only relevant for Checkout, Hold and Reserved where this value indicates the checkout expiration or estimated hold availability or the time until which the item is reserved for the patron to checkout (UTC Format: YYYY-MM-DDTHH:MI:SS)
Item Id	Item identifier
ISBN	Item ISBN
Patron id	Identifier of the patron if relevant (Purchase event will not have this information).
EventPublishDateInUTC	Date when this element was created (UTC Format: YYYY-MM-DDTHH:MI:SS).

Get Library Purchase Count

Description

Gets count of library item purchases.

Request

Method	URI
GET	http:// <3M_API_URL>/cirrus/library/<libraryid>/data/purchase/count?startDate=<startDate>&endDate=<endDate>

Parameters

Parameter	Description
Start Date	Optional date to limit query for purchase dates beyond this date.
End Date	Optional date to limit query for purchases prior to this date.

Response

HTTP Status code	Description
200 (OK)	Returned for successful retrieval of library events
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	The item was not found

Response body

```
<ArrayOfEventDate xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```



```
<EventData>
  <EventType>10</EventType>
  <StartDateInUTC>2012-06-01T00:00:00</StartDateInUTC>
</EventData>
...
</ArrayOfEventData>
```

Response Fields

Field	Description
EventType	Number of purchases made for the month and year specified in the StartDateInUTC element.
StartDateInUTC	Date (month and year only) of the purchase (UTC Format: YYYY-MM-DDTHH:MI:SS)

Get Catalog Popular Titles

Description

Aggregates library purchases across the entire 3M Cloud Library system into a “most popular” list of titles purchased within a specified timeframe. The return is an XML array of titles with the max result set size limited.

Request

Method	URI
GET	http:// <3M_API_URL>/cirrus/catalog/titles/popular?startDate=<fromDate>&endDate=<toDate>&startIndex=<startIndex>&maxResults=<maxNumReturnResults>&libraryId=<libraryId>

Parameters

Parameter	Description
Start Date	UTC DateTime representing the start date of the time window for title purchases to be considered in calculating the top purchases.
End Date	UTC DateTime representing the end date of the time window.
Start Index	Index offset for the result set. This field allows the call to iterate through the result set meaning the max results can be minimized for performance. Default value if not specified is 1.
Max Results	Maximum number of results to return in the result set. Default value if not specified is 100. Values specified must be 1000 or less.
Library ID	Optional: If provided, the result set will only return those popular titles that are not already owned by the provided library.

Response

HTTP Status code	Description
200 (OK)	Returned for successful retrieval data.
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	

Response body

```
<ArrayOfItem xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">  
<Item>  
<ItemId>q6s2g9</ItemId>  
<Title>Let&#39;s Pretend This Never Happened</Title>  
<Authors>Lawson, Jenny</Authors>
```

```

<Description />
<Publisher>Penguin Group US</Publisher>
<ISBN13>9781101573082</ISBN13>
<TotalCopies>5</TotalCopies>
</Item>
<Item>
<ItemId>nq5cr9</ItemId>
<Title>Flight Behavior</Title>
<Authors>Kingsolver, Barbara</Authors>
<Description>FICTION Literary</Description>
<Publisher>HarperCollins</Publisher>
<ISBN13>9780062124289</ISBN13>
<TotalCopies>4</TotalCopies>
</Item>
...
</ArrayOfItem>

```

Response Fields

Field	Description
ItemId	Internal title identifier.
Title	Title for content.
Authors	Content author(s).
Description	Categories associated with the title separated by ‘\n’ character.
Publisher	Publisher of the title.
ISBN13	Thirteen digit ISBN.
TotalCopies	Total purchases of the copy within the specified DateTimes.

Get Catalog Title MARC

Description

Get MARCXML data associated with a title from the 3M collection. This call spans the entire 3M Cloud Library collection so the title need not have been purchased by a library prior to request.

Request

Method	URI
GET	http:// <3M_API_URL>/cirrus/catalog/titles/marc/<itemId>

Parameters

Parameter	Description
ItemId	Internal 3M identifier for the catalog title.

Response

HTTP Status code	Description
200 (OK)	Returned for successful retrieval data.
403 (Forbidden)	Unable to authenticate the request.
404 (Not Found)	

Response body

Data found in the title, author, publisher, summary fields are HTML Encoded during transfer.

```
<?xml version="1.0" encoding="UTF-8" ?>
<marc:collection xmlns:marc="http://www.loc.gov/MARC21/slim" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.loc.gov/MARC21/slim http://www.loc.gov/standards/marcxml/schema/MARC21slim.xsd">
<marc:record><marc:leader>02571nam a22002413a 4500</marc:leader><marc:controlfield
tag="001">xc7z9</marc:controlfield><marc:controlfield tag="003">MnSpTMCL</marc:controlfield>
<marc:controlfield tag="005">20120831070651.0</marc:controlfield>
<marc:controlfield tag="006">m o d l </marc:controlfield><marc:controlfield tag="007">cr unullllll</marc:controlfield>
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tag="008">120831s2011|||||||l|||lengld</marc:controlfield>
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code="a">9780062091406</marc:subfield></marc:datafield><marc:datafield tag="037" ind1=" " ind2=" "><marc:subfield
code="a">xc7z9</marc:subfield></marc:datafield>
<marc:datafield tag="040" ind1=" " ind2=" "><marc:subfield code="a">MnSpTMCL</marc:subfield><marc:subfield
code="b">eng</marc:subfield><marc:subfield code="c">MnSpTMCL</marc:subfield></marc:datafield>
<marc:datafield tag="072" ind1=" " ind2="7"><marc:subfield code="a">FIC000000</marc:subfield><marc:subfield
code="2">bisacsh</marc:subfield></marc:datafield>
<marc:datafield tag="650" ind1=" " ind2="7"><marc:subfield code="a">FICTION</marc:subfield><marc:subfield
code="2">bisacsh</marc:subfield></marc:datafield>
<marc:datafield tag="100" ind1="1" ind2=" "><marc:subfield code="a">Frank, Dorothea
Benton.</marc:subfield><marc:subfield code="4">aut</marc:subfield></marc:datafield>
<marc:datafield tag="245" ind1="1" ind2="0"><marc:subfield code="a">Folly Beach</marc:subfield><marc:subfield
code="h">[electronic resource] :</marc:subfield><marc:subfield code="b">A Lowcountry Tale</marc:subfield><marc:subfield
code="c">Frank, Dorothea Benton.</marc:subfield></marc:datafield>
<marc:datafield tag="260" ind1=" " ind2=" "><marc:subfield code="a">[S.l.] :</marc:subfield><marc:subfield
code="b">HarperCollins,</marc:subfield><marc:subfield code="c">2011.</marc:subfield></marc:datafield>
<marc:datafield tag="300" ind1=" " ind2=" "><marc:subfield code="a">368 p.</marc:subfield></marc:datafield>
<marc:datafield tag="500" ind1=" " ind2=" "><marc:subfield code="a">Electronic book.</marc:subfield></marc:datafield>
<marc:datafield tag="520" ind1=" " ind2=" "><marc:subfield code="a">Experience the wild beauty and sultry magic of New
York Times bestselling author Dorothea Benton Frank's Carolina Lowcountry — where the pull of family is as powerful as the
ocean tides and love can strike faster than lightning in summer. . . . Folly BeachHome is the place that knows us best. . . . A
woman returns to the past to find her future in this enchanting new tale of loss, acceptance, family, and love. With its sandy
beaches and bohemian charms, surfers and suits alike consider Folly Beach to be one of South Carolina's most historic and
romantic spots. It is also the land of Cate Cooper's childhood, the place where all the ghosts of her past roam freely. Cate never
thought she'd wind up in this tiny cottage named the Porgy House on this breathtakingly lovely strip of coast. But circumstances
have changed, thanks to her newly dead husband whose financial—and emotional—bull and mendacity have left Cate homeless,
broke, and unmoored.Yet Folly Beach holds more than just memories. Once upon a time another woman found unexpected bliss
and comfort within its welcoming arms. An artist, writer, and colleague of the revered George Gershwin, Dorothy Heyward
enjoyed the greatest moments of her life at Folly with her beloved husband, DuBose. And though the Heywards are long gone,
their passion and spirit lingers in every mango sunset and gentle ocean breeze.And for Cate, Folly, too, holds the promise of
unexpected fulfillment when she is forced to look at her life and the zany characters that are her family anew. To her surprise,
she will discover that you can go home again. Folly Beach doesn't just hold the girl she once was . . . it also holds the promise of
```

the woman she's always wanted—and is finally ready—to become.Folly Beach, filled with the irresistible charm, saucy wit, and lush atmosphere that have won her the devotion of fans and propelled her books to bestsellerdom, is vintage Dorothea Benton Frank.</marc:subfield></marc:datafield>

<marc:datafield tag="655" ind1=" " ind2="0"><marc:subfield code="a">Electronic books.</marc:subfield></marc:datafield>

<marc:datafield tag="710" ind1="2" ind2=" "><marc:subfield code="a">3M Company</marc:subfield></marc:datafield>

<marc:datafield tag="856" ind1="4" ind2="2"><marc:subfield code="3">3M Cloud Icon</marc:subfield><marc:subfield code="u">http://ebookdownload.3m.com/sites/prototypes/web/media/themes/mmm_patron/img/landing_page/step1.png</marc:subfield></marc:datafield>

</marc:record>

</marc:collection>