**API / OAuth + REST**

**Making REST calls to Mimo's API server**

In order to interact with a user's Mimo account (e.g. User account basic information, money transfer), you will need to first have that user authenticate into your Mimo application. This method of authentication works very similarly to Facebook and Twitter's authentication flow. The user is first presented with a permission dialog for your application, in which point the user can either approve the request permissions, or reject them. Once the user approves, a code is sent to your application server, which can be exchanged for a never-expiring OAuth access token.

Mimo conforms to OAuth version 2. Read more about this standard, [here](http://oauth.net/2/). You may also use a pre-made Mimo OAuth module such as [this one](https://github.com/paywithmimo/mimo-dotnet) for C#.

**Obtaining an OAuth access token**

**First, redirect the user to the permission page:**

You need to include the required parameter, and redirection URL for first time when the user will accepts or rejects your request.

***Request Parameters:***

|  |  |  |
| --- | --- | --- |
|  | **Param** | **Description** |
| \* | client\_id | Consumer key for the application |
| \* | response\_type | Mimo OAuth uses the 'code' response type only |
| \* | url | URL to return the user to after they approve or deny the authentication request. If not provided, will default to registered OAuth Callback URL |
|  |  |  |

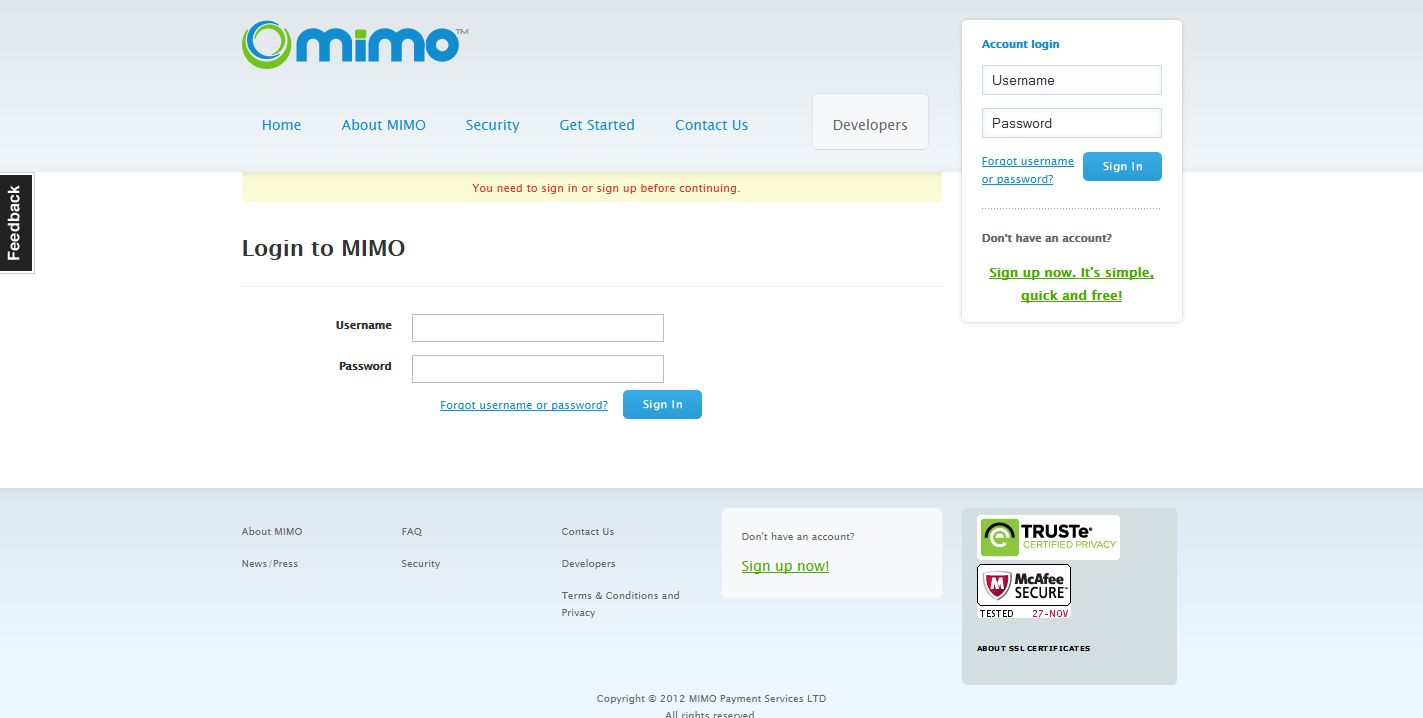
***Request format:***

1. https://staging.mimo.com.ng/oauth/v2/authenticate?client\_id={client\_id}&response\_type=code&url={redirect\_url}

***Request example:***

1. https://staging.mimo.com.ng/oauth/v2/authenticate?client\_id=abcdefg&response\_type=code&url=http://www.myredirect.com

Here's the sign-in page of Mimo appears like:



**Second, the user will be redirected back to your site.**

The user will be taken back to the supplied redirection URL, along with a temporary code. Note that this is not your access token. You will need to exchange this temporary code for an actual OAuth access token.

***Response Parameters:***

|  |  |
| --- | --- |
| **Param** | **Description** |
| code | Verification code used in step 3. |

***In a successful approval:***

{url-to-be-redirected}?code={code}&response\_type=code

***In rejection:***

{url-to-be-redirected}?response\_type=access\_denied

***Code Snippet for Getting Access Code:***

MimoRestClient.GetAccessCode();

Once you will get Access Code from query string of your return URL, you will be required to set ***session["Mimo\_Client\_AccessCode"]*** in the return url page from query string.

if (Request.QueryString["code"] != "" && Request.QueryString["code"] != null)

{

Session["Mimo\_Client\_AccessCode"] = Convert.ToString(Request.QueryString["code"]);

}

**Third, you will exchange the code for an access token.**

In this final step of the OAuth flow, you will exchange the code granted on step 2 for a never-expiring Mimo OAuth access token. In order to do so, you will need to make an HTTP request from your application server, to the Mimo authentication server.

*Request Parameters*:

|  |  |  |
| --- | --- | --- |
|  | **Param** | **Description** |
| \* | client\_id | Consumer key for the application. |
| \* | client\_secret | Consumer secret for the application. |
| \* | grant\_type | Use a value of 'authorization\_code' for a web server application. |
|  | url | The url used when the user was redirected for authentication in step 1. |
| \* | Code | Code from redirect response in step 2. |

***Request format:***

1. https://staging.mimo.com.ng/oauth/v2/token?client\_id={client\_id}&client\_secret={client\_secret}&grant\_type=authorization\_code&url={redirect\_uri}&code={code}

***Request example:***

1. https://staging.mimo.com.ng/oauth/v2/token?client\_id=abcdefg&client\_secret=abcdefg&grant\_type=authorization\_code&url=https:// www.myredirect.com/redirect&code=abcdefg

Mimo's authentication server will respond to your request with the following formats, depending on whether your request was successful or not.

***Response Parameters:***

|  |  |
| --- | --- |
| **Param** | **Description** |
| access\_token | Access token used to make authorized requests. |
| expires\_in |  |
|  |  |

***A successful request will respond with:***

1. {
2. "access\_token": "abcdefg",
3. “expires\_in”:”2099-12-31”
4. }

***Code Snippet for Getting Access Token:***

string AccessToken = MimoRestClient.requestToken();

**Obtaining an OAuth User Profile**

**API / getUser – Basic Information**

Use this method to retrieve the user profile information for the user associated with the authorized access token.

***HTTP Method: GET***

***Request Parameters:***

|  |  |  |
| --- | --- | --- |
|  | **Param** | **Description** |
| \* | sSearchField | Search field of four types like: 1)username 2)email  3)phone  4)account\_number |
| \* | sValue | Value of search field parameter |
| \* | access\_token | Code which is given by above method from Mimo site |
|  |  |  |

***Request format:***

1. https://staging.mimo.com.ng/partner/user/card\_id?{sSearchField}={sValue}&access\_token={Access\_Token}

***Request example:***

* 1. https://staging.mimo.com.ng/partner/user/card\_id?username=le&access\_token=abcdef
  2. https://staging.mimo.com.ng/partner/user/card\_id?email=le@d.com&access\_token=abcdef
  3. https://staging.mimo.com.ng/partner/user/card\_id?phone=2211&access\_token=abcdef
  4. https://staging.mimo.com.ng/partner/user/card\_id?account\_number=000&access\_token=abcdef

***Response Parameters:***

|  |  |
| --- | --- |
| **Param** | **Description** |
| account\_number | User account number |
| account\_type | User account type |
| company\_name | User company name |
| first\_name | User first name |
| id | User ID |
| middle\_name | User middle name |
| surname | User surname |
| username | User name which is use for Mimo site login |
| photo\_url | Url of photo for user image |
| email | User email address |
| level | User account level |

***A successful request will respond with:***

1. {
2. "account\_number" => "0000010123-0",
3. "account\_type" => "personal",
4. "company\_name" => "",
5. "first\_name" => "fname",
6. "id" => 1,
7. "middle\_name" => "mname",
8. "surname" => "lname",
9. "username" => "username",
10. "photo\_url" => "/thumb\_fadf.jpeg",
11. "email" => "username@mail.com",
12. "level" => 2
13. }

***Code Snippet for Getting User Profile:***

string UserProfile = MimoRestClient.getUser(“username”, “le”);

**An OAuth Money Transfer**

**API / transaction**

Use this method to send money from user’s account for the user associated with the authorized access token.

***HTTP Method: POST***

***Request Parameters:***

|  |  |  |
| --- | --- | --- |
|  | **Param** | **Description** |
| \* | note | Note of any kinds like note for this transaction, product name, etc. |
| \* | amount | Amount which is transfer by user in this request. |
| \* | access\_token | Code which is given by OAuth of Mimo site for user |
|  |  |  |

***Request format*:**

* 1. https://staging.mimo.com.ng/partner/transfers?access\_token={access\_token}&notes={note}&amount={amount}

***Request example:***

* 1. https://staging.mimo.com.ng/partner/transfers?access\_token=abcdef&notes=buyKindle&amount=100

***A successful request will respond with:***

1. {
2. "message" => "Money was successfully transferred."
3. }

***Code Snippet for Getting Money Transaction:***

string MoneyTransfer = MimoRestClient.transaction(“100”,”buyKindle”);

**An OAuth Refund endpoint**

**API / Refund**

Use this method to refund money from user’s account for the user associated with the authorized access token.

***HTTP Method: POST***

***Request Parameters:***

|  |  |  |
| --- | --- | --- |
|  | **Param** | **Description** |
| \* | note | Note of any kinds like note for this transaction, product name, etc. |
| \* | amount | Amount which is transfer by user in this request. |
| \* | access\_token | Code which is given by OAuth of Mimo site for user |
| \* | transaction\_id | Transaction id which amount is need to refund to user account. |

***Request format*:**

1. https://staging.mimo.com.ng/partner/refunds?access\_token={access\_token}&notes={note}&amount={amount}&transaction\_id={transaction\_id}

***Request example:***

1. https://staging.mimo.com.ng/partner/refunds?access\_token=abcdef&notes=buyKindle&amount=100&transaction\_id=11092

***A successful request will respond with:***

1. {
2. "message" => "Transfer was successfully refunded.",
3. "transaction\_id" => 34
4. }

***Code Snippet for Getting Refund:***

string MoneyRefund = MimoRestClient.Refund(“100”,”buyKindle”,”11092”);

**An OAuth Void endpoint**

**API / cancelTransaction**

Use this method to cancel transaction having transaction status “Pending” from user’s account for the user associated with the authorized access token.

***HTTP Method: POST***

***Request Parameters:***

|  |  |  |
| --- | --- | --- |
|  | **Param** | **Description** |
| \* | access\_token | Code which is given by OAuth of Mimo site for user |
| \* | transaction\_id | Transaction id which is need to cancel to user account. |

***Request format*:**

1. https://staging.mimo.com.ng/partner/transfers/void?access\_token={access\_token}&transaction\_id={transaction\_id}

***Request example:***

1. https://staging.mimo.com.ng/partner/transfers/void?access\_token=abcdef&transaction\_id=11092

***A successful request will respond with:***

1. {
2. "message" => "Transaction has been voided."
3. }

***Code Snippet for Cancel Transaction:***

string CancelTransaction = MimoRestClient.cancelTransaction (”11092”);

**An OAuth Create Account endpoint**

**API / newRegistration**

Use this method to register new user with Mimo.

***HTTP Method: POST***

***Request Parameters:***

|  |  |  |
| --- | --- | --- |
|  | **Param** | **Description** |
| \* | client\_id | Consumer key for the application |
| \* | client\_secret | Mimo OAuth uses the 'code' response type only |
| \* | account\_type | Type of Account with user like to register |
| \* | username | User name, used in Mimo log-in. |
| \* | pin |  |
| \* | email | User email address |
| \* | dob | User’s Birth Date |
| \* | password | User Password, used in Mimo log-in |
| \* | challenge\_question | Security question for user account |
| \* | challenge\_answer | Answer of security question |
| \* | terms\_and\_conditions | User accept terms and conditions |
| \* | first\_name | First name of user |
| \* | middle\_name | Middle name of user |
| \* | surname | Surname of user |
| \* | gender | Gender of user |
|  | about | About text for user |
|  | website | User website |
|  | facebook | User facebook link |
|  | twitter | User twitter link |
| \* | address | First line of user address |
|  | address\_2 | Second line of user address |
| \* | city | User city |
| \* | state | User state |
|  | zip | User postal code |
|  | country | User country |
| \* | address\_type | Address type of user. E.g.) Home, business, mailing |
|  |  |  |
| \* | company\_name | Company name of user if account is for Merchant. |
| \* | company\_id\_number | Company id of user if account is for Merchant. |
| \* | rc\_incorporation\_year | Year for incorporation if account is for Merchant |

***Request format*:**

1. https://staging.mimo.com.ng/partner/registration?client\_id={client\_id}&client\_secret={client\_secret}&username={username}&account\_type={account\_type}&email={email}&password={password}&pin={pin}&first\_name={first\_name}&middle\_name={middle\_name}&surname={surname}&dob={dob}&gender={gender}&about={about}&address\_type={address\_type}&address={address}&address\_2={address\_2}&city={city}&state={state}&country={country}&zip={zip}&website={website}&facebook={facebook}&twitter={twitter}&challenge\_question={challenge\_question}&challenge\_answer={challenge\_answer}&terms\_and\_conditions={terms\_and\_conditions}&company\_name={company\_name}&company\_id\_number={company\_id\_number}&rc\_incorporation\_year={rc\_incorporation\_year}

***Request example:***

1. https://staging.mimo.com.ng/partner/registration?client\_id=abcdefg&client\_secret=abcdefg&username=bcdef&account\_type=personal&email=a@a.com&password=123456&pin=1234&first\_name=qa&middle\_name=qa&surname=qa&dob=12/25/1989&gender=Male&about=about me&address\_type=home&address=address&address\_2=address\_2&city=city&state=state&country=country&zip=123&website=http://google.com&facebook=http://facebook.com/qa&twitter=http://twitter.com/qa&challenge\_question=What is your favorite color?&challenge\_answer=Red&terms\_and\_conditions=1&company\_name=CompanyName&company\_id\_number=456&rc\_incorporation\_year=1945

***A successful request will respond with:***

1. {
2. "message" => "Transaction has been voided."
3. }

***Code Snippet for User Registration:***

string NewUserRegistration = MimoRestClient. newRegistration(”bcdef”,”personal”,”a@a.com”,”123456”,”1234”,”qa”,”qa”,”qa”,”12/25/1989”,”Male”,”about me”,”home”,”address”,”address 2”,”city”,”state”,”country”,”123”,” http://google.com”,”http://facebook.com/qa”,”http://twitter.com/qa”,”What is your favorite color?”,”Red”,”1”,”CompanyName”,”456”,”1945”);