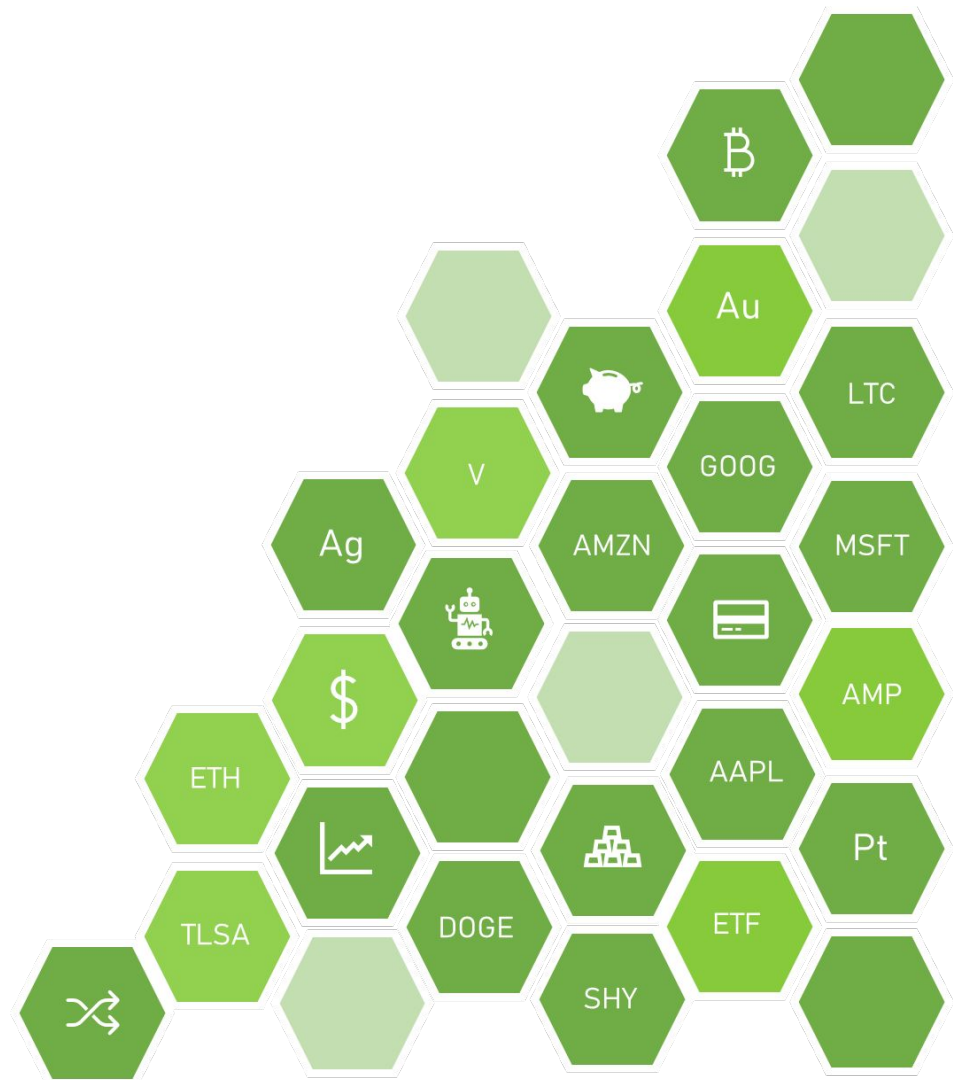


Banno Integration Guide

Version 06282022

In strict commercial confidence
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The way that the **Unifimoney** plugin works is by having two different External Applications. One External Application is for the *Card Face*, and the other External Application is for the *Expanded View*.

Unifimoney will need to provide you with the two redirect URL's referred to in Step 2-8 and Step 3-8. Please contact your account manager to get these provisioned.

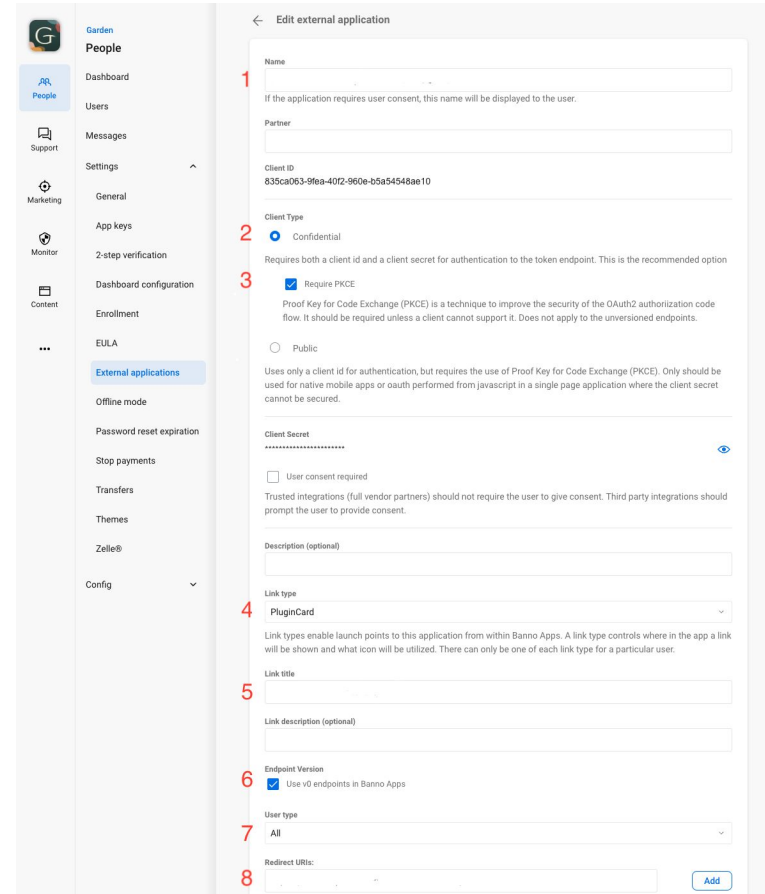
Step 1

Create the External Application

1. Set name to 'Unifimoney Expanded View'
2. Ensure confidential is selected
3. Check Require PKCE
4. Select LinkType to PluginCard
5. Set Link Title to 'Unifimoney Expanded View'
6. Endpoint Version must be checked
7. User Type to All
8. Unifimoney to provide

(typically this will be in the format <https://platform.unifimoney.net/sso-jack-henry?bank=<bankname>>
 le <https://platform.unifimoney.net/sso-jack-henry?bank=Well Fargo>)

Finally click save at the bottom of the page



Edit external application

1 Name

If the application requires user consent, this name will be displayed to the user.

Partner

Client ID
835ca063-9fea-4072-960e-b5a54548ae10

Client Type

2 ☒ Confidential

3 ☒ Require PKCE

Requires both a client id and a client secret for authentication to the token endpoint. This is the recommended option.

Proof Key for Code Exchange (PKCE) is a technique to improve the security of the OAuth2 authorization code flow. It should be required unless a client cannot support it. Does not apply to the unversioned endpoints.

☐ Public

Uses only a client id for authentication, but requires the use of Proof Key for Code Exchange (PKCE). Only should be used for native mobile apps or oauth performed from javascript in a single page application where the client secret cannot be secured.

Client Secret
.....

☐ User consent required

Trusted integrations (full vendor partners) should not require the user to give consent. Third party integrations should prompt the user to provide consent.

Description (optional)

Link type

4 PluginCard

Link types enable launch points to this application from within Banno Apps. A link type controls where in the app a link will be shown and what icon will be utilized. There can only be one of each link type for a particular user.

Link title

5

Link description (optional)

6 ☒ Use v0 endpoints in Banno Apps

Endpoint Version

User type

7 All

8 Redirect URIs:

Add

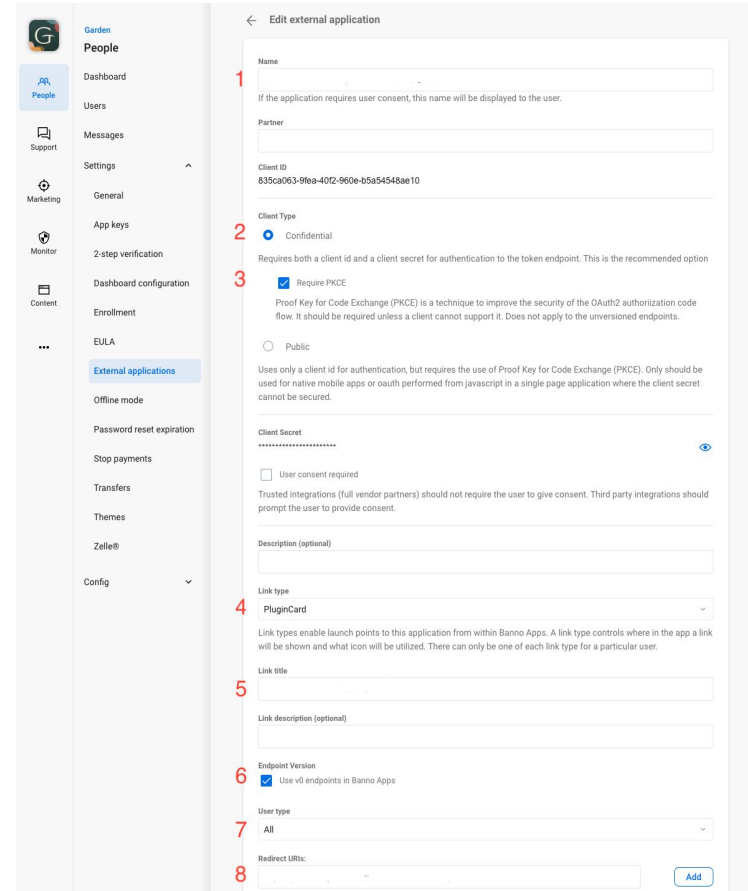
Step 2

Create the External Application

1. Set name to '**Unifimoney Card Face**'
2. Ensure confidential is selected
3. Check Require PCKE
4. Select LinkType to PluginCard
5. Set Link Title to '**Unifimoney Card Face**'
6. Endpoint Version must be checked
7. User Type to All
8. **Unifi to provide**

(typically this will be in the format `https://jackhenry-auth.unifimoney.net/dynamic?bank=<bankname>`
 ie `https://jackhenry-auth.unifimoney.net/dynamic?bank=WellsFargo`)

Finally click save at the bottom of the page



Edit external application

1 Name

If the application requires user consent, this name will be displayed to the user.

Partner

Client ID
835ca063-9f6a-40f2-960e-b5a54548ae10

Client Type

2 ☒ Confidential

Requires both a client id and a client secret for authentication to the token endpoint. This is the recommended option

3 ☒ Require PCKE

Proof Key for Code Exchange (PKCE) is a technique to improve the security of the OAuth2 authorization code flow. It should be required unless a client cannot support it. Does not apply to the unversioned endpoints.

☐ Public

Uses only a client id for authentication, but requires the use of Proof Key for Code Exchange (PKCE). Only should be used for native mobile apps or oauth performed from javascript in a single page application where the client secret cannot be secured.

Client Secret

☐ User consent required

Trusted integrations (full vendor partners) should not require the user to give consent. Third party integrations should prompt the user to provide consent.

Description (optional)

Link type

4 PluginCard

Link types enable launch points to this application from within Banno Apps. A link type controls where in the app a link will be shown and what icon will be utilized. There can only be one of each link type for a particular user.

Link title

5

Link description (optional)

Endpoint Version

6 ☒ Use v0 endpoints in Banno Apps

User type

7 All

Redirect URIs

8

Add

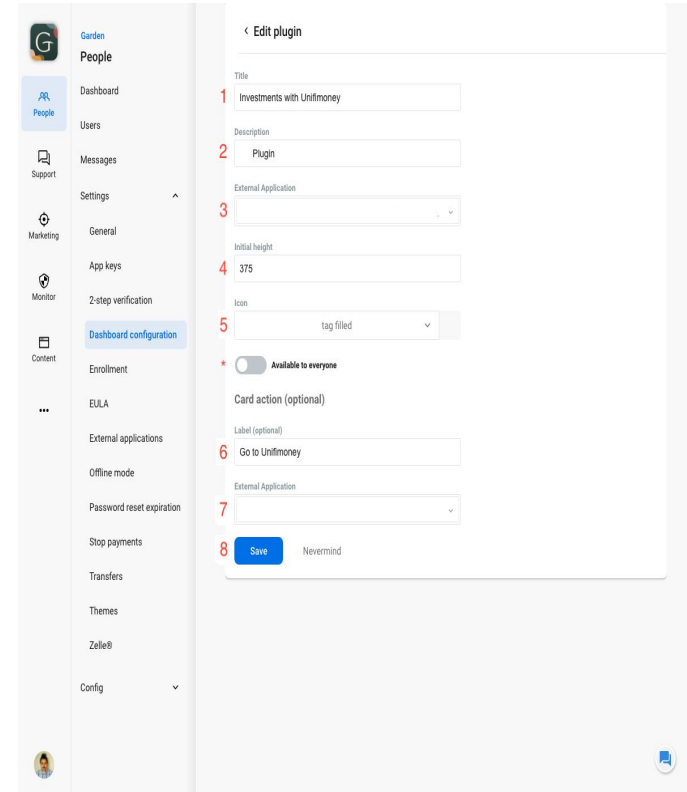
Step 3

From the Dashboard Configuration screen

1. Title field - enter 'Investments with **Unifimoney**' or your choice
2. Description field - enter 'Plugin' or your choice
3. External Application - select "Unifimoney Prod Card Face" from the drop-down
4. Initial Height - enter 375
5. Select an Icon from -> <https://jackhenry.design/visual-language/iconography/>
6. Set the Label to "Go to Unifimoney"
7. External Application - select "Unifimoney Expanded View" from the drop-down

8. Then click Save

* **Note re-whitelisting**, you may want to specify to have **"Available to everyone"** set to off at this point. Off for this option means the plugin card is hidden from everyone, except for any user which has their permissions overridden to show the plugin



The screenshot shows the 'Edit plugin' configuration screen in the Unifimoney dashboard. The left sidebar contains a navigation menu with options like Garden, People, Dashboard, Users, Messages, Settings, General, App keys, 2-step verification, Dashboard configuration (highlighted), Enrollment, EULA, External applications, Offline mode, Password reset expiration, Stop payments, Transfers, Themes, Zelle®, and Config. The main content area is titled '< Edit plugin' and contains the following fields and options:

- Title:** 1 Investments with Unifimoney
- Description:** 2 Plugin
- External Application:** 3 (Dropdown menu)
- Initial height:** 4 375
- Icon:** 5 (Dropdown menu with 'tag filled' selected)
- Available to everyone:** * (Toggle switch, currently off)
- Card action (optional):** 6 Go to Unifimoney
- Label (optional):** (Empty text field)
- External Application:** 7 (Dropdown menu)
- Buttons:** 8 Save (blue button), Nevermind (grey button)

Step 4 - Share configuration details back to Unifimoney

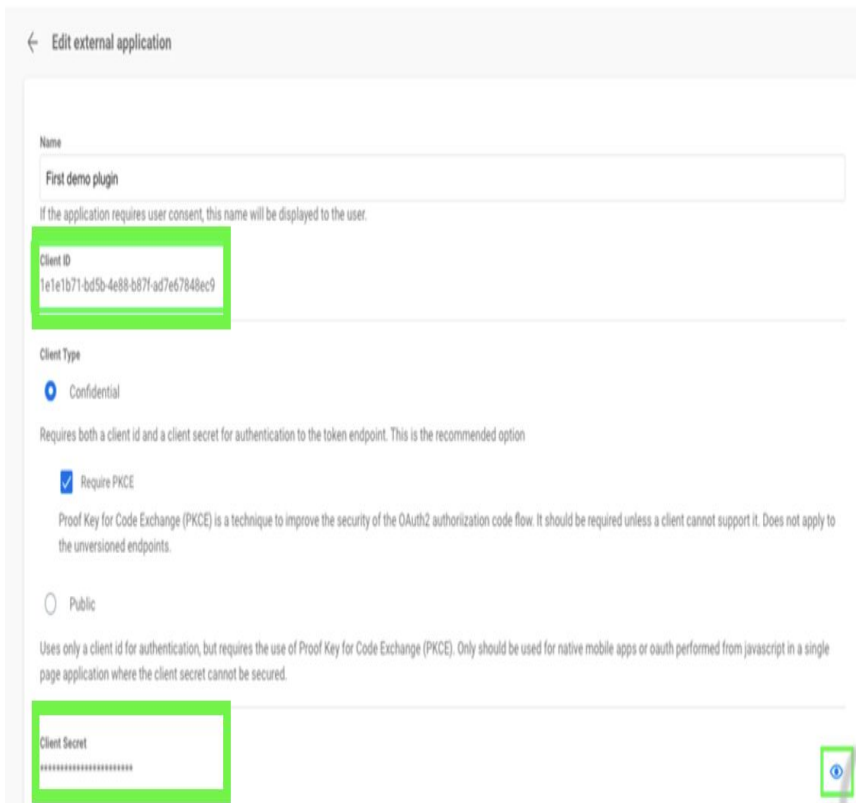
Source:

<https://jackhenry.dev/open-api-docs/plugins/quickstarts/buildyourfirstplugin/>

From both your “**Unifimoney** Card Face”- and from “**Unifimoney** Expanded View” in order for us to deploy our code to Production environment we need;

- client_id
- client_secret
- environment (the Banno environment deployment location)

Please DO NOT send these in clear text over the internet - use a secure service like Zix to send this information.



← Edit external application

Name

First demo plugin

If the application requires user consent, this name will be displayed to the user.

Client ID

1e1e1b71-bd5b-4e88-b871-ad7e67848ec9

Client Type

☒ Confidential

Requires both a client id and a client secret for authentication to the token endpoint. This is the recommended option

☒ Require PKCE

Proof Key for Code Exchange (PKCE) is a technique to improve the security of the OAuth2 authorization code flow. It should be required unless a client cannot support it. Does not apply to the unversioned endpoints.

☐ Public

Uses only a client id for authentication, but requires the use of Proof Key for Code Exchange (PKCE). Only should be used for native mobile apps or oauth performed from javascript in a single page application where the client secret cannot be secured.

Client Secret

Running the dynamic plugin

Configuration

Now that the static plugin is running, let's make it dynamic! First, we need the *Client ID* and *Client Secret* from the *External Application* that was configured above.

Find the *config.js* (make sure you have already renamed the example config file to just *config.js*) in the project's folder. Change the following values in that file:

- *client_id*: Use your *Client ID* value
- *client_secret* : Use your *Client Secret* value
- *environment*: Use your Banno environment deployment location

Now, return to the Banno People External Application, change the redirect URI from `http://localhost:8080/static` to `http://localhost:8080/dynamic`

Finally, restart the plugin server.

```
npm run start
```

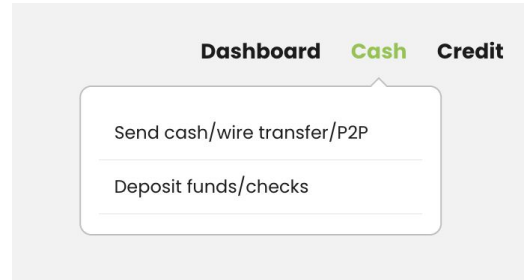
Now, navigate back to **Banno Online** dashboard, you can see that the plugin now greets the authenticated user by name and displays the number of accounts associated with the user.

You have successfully built your first plugin!

How to Fund your Pilot

To fund your **Unifimoney** cash account do the following

1. From top right menu select Cash/Deposit funds



- 2.) Follow the instructions to create an ACH transfer that will clear into your bank account in T+2 days

How To WhiteList Users

It is possible to have the **Unifimoney** plugin be available to only a select few users.

This is something the financial institution can do without the need for Jack Henry to step in.

Specifically, administrators with access to Banno's back office for their institution.

The plugin can be enabled for;

1) enable a plugin for *all* users or

2) *hide* the plugin for all users and override permissions for individual users whom you want to see the plugin card.*

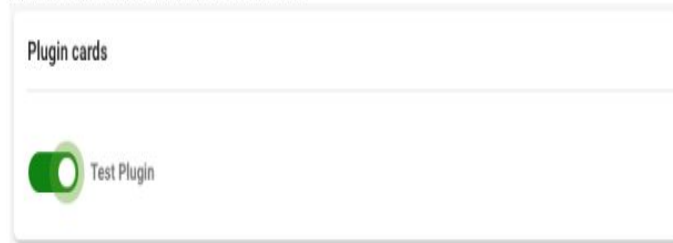
* (Technically each user would also need the permission for the *External Application(s)* turned on as well).

We don't believe this would take very long at all, in fact the only limiting factor would be the administrator at the FI's familiarity with the process. It's very quick for them to do in Banno's back office UI.

Enable Plugin Card for User

As mentioned in the note above, if you don't want the plugin enabled for **ALL** users, we need to select which users to enable the Plugin Card for.

- From Banno People, click the **Users** and search by username.
- Click on the user
- Click **Permissions**
- Find and enable the plugin under **Plugin cards**



The user will now have the plugin available to them in the Banno Online dashboard.