

Your guide to account opening and funding

Recommendations and helpful tips for building your solution!

This guide outlines best practices and suggestions for building a user-friendly account funding solution which maximizes conversion. We've broken it down into key considerations for a front-end and back-end implementation below.

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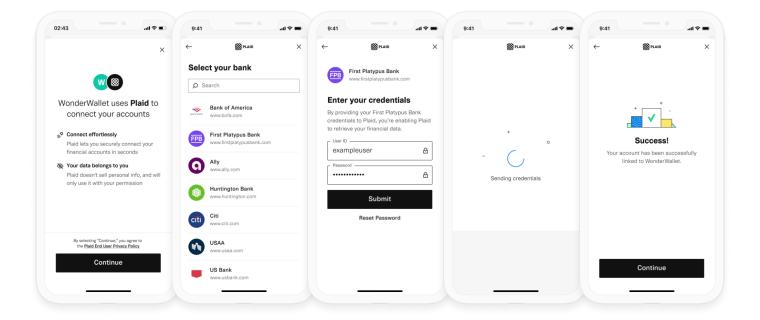
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Front-end implementation

CREATE A FIRST-CLASS USER EXPERIENCE

Plaid Link is the client-side component that your users will interact with to link their accounts to Plaid and allow you to access their accounts via the Plaid API. Plaid Link will handle credential validation, multi-factor authentication, and error handling for each institution that we support. Additionally, consider the following implementation best practices to create a healthy and stable integration.



Choose which products to initialize

Determining which products you should initialize Link with will vary based on your use case. Plaid will dynamically control institution coverage, i.e. what institutions your users can see and select in Link, based on the initialized products. Below, we'll break down how to consider what products to initialize with.

Auth: Allows you to pull account and routing numbers which can be used to fund the account.

WHEN SHOULD I INITIALIZE WITH AUTH?

You should always initialize with Auth as this is at the core of your use case.

HOW DOES THIS IMPACT COVERAGE?

By default, Instant Auth covers 90% of users' financial institution accounts.

Instant Auth covers 90% of users' financial institution accounts. For the remaining 10%, Plaid offers users the ability to connect their accounts through:

Instant Match (US only):

User enters their credentials, account number, and routing number. Plaid matches user input and authenticates immediately.

Automated Micro-deposits (US only):

User enters their credentials, account number, and routing number. Plaid makes a microdeposit and automatically verifies the deposit in as little as one to two business days.

Same Day Micro-deposits (US only):

User enters account and routing numbers. Plaid makes two
Same Day ACH micro-deposits and the user manually verifies the deposits in as little as one business day. If an item is created with Same Day Micro-deposits, Plaid will not be able to provide Balance or Identity data on that item because we do not have a credential based connection.

If you're interested in extended coverage, consider implementing Full Auth Coverage.

Note: If using micro-deposits, listen for <u>Auth webhooks</u>. These will inform you when micro-deposits have been automatically verified and you should let your user know that they can fund their account.

Identity: Allows you to verify identity and reduce fraud.

WHEN SHOULD I INITIALIZE WITH IDENTITY?

If you require identity information as an input to your KYC or risk decisioning process, you should initialize with Identity.

HOW DOES THIS IMPACT COVERAGE?

97% of Auth connected accounts also support identity, but this coverage may vary slightly by Institution. Thus, adding Identity as an initialized Product may slightly reduce the coverage of Auth. If your KYC or risk decisioning process draws on multiple sources, you could skip initializing with Identity, but call the endpoint after Link to see if the data is available.

Balance: Allows you to retrieve real-time balance information

WHEN SHOULD I INITIALIZE WITH BALANCE?

You can't! Balance is a product that cannot initialize Link. You can always call it later once you have the access token.

HOW DOES THIS IMPACT COVERAGE?

No impact.

Filter for a specific account type

By default, Auth only allows checking and savings accounts to be connected. However, you can further limit the accounts shown in Link by using account_index.org filters to specify the account subtypes to be shown.

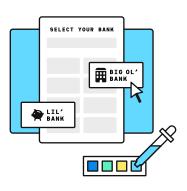
Customize Link in dashboard

Plaid enables you to customize certain visual aspects of your app's interactions with Link via the <u>customization</u> pane in the dashboard. For the account opening and funding use case, consider customizing Link in the following ways:

Customize the 'consent' screen

Select whether to feature a combination of your branding and Plaid's or just Plaid's. Also, review how your name is displayed on the screen.

Are you only interested in users funding their new account from checking accounts? You can indicate that in the account filter. This filtering applies to both the Account Select view (if enabled) and the Institution Select view. Institutions that do not support the selected subtypes will be omitted from Link.



Leverage 'select account' screen

This allows you to understand which account your users prefers to fund their new account from. It also gives users even more control over and transparency into the accounts they share with you and Plaid. In particular, this pane will give you the ability to further tailor your product to a user's preferences since you'll automatically only receive data from accounts they have selected. If a user doesn't select a certain account on this pane, data associated with that account will not be shared with you.

Adjust background color and call to action

Modify the color seen on large screens where Plaid Link does not occupy the entirety of the viewport as well as the Call to Action to align with your branding.

Ensure OAuth coverage

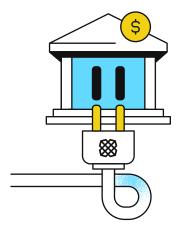
In order to ensure secure, stable, and consistent API access in the financial ecosystem, more and more Financial Institutions are moving to an <u>OAuth flow</u>. In order to access all OAuth institutions, there are a few steps you must consider to make sure your users can leverage OAuth:

- 1 Complete your <u>Application Profile</u> in the dashboard. This is used in the OAuth flow.
- 2 Configure your redirect URI and add it to the developer Dashboard. Your redirect URI must be HTTPS. If you are using Link on IOS, you will need to configure an Apple App Association file and if you are using Android you'll need to define an Android Package Name.
- 3 Provide your redirect URI in the link/token/create call. This will tell Plaid where to return control back to your application after a user completes the bank's OAuth flow.
- 4 Re-launch Link. Make sure to <u>persist the user state</u> and re-launch Link using the same Link token with the provided received redirect URI.

Utilize callbacks

Callbacks provide a way for us to let you know what happens in Link. We provide onSuccess, onEvent callbacks. We highly recommend listening to all of these callbacks. Here are a couple ways you can use them for your account opening and funding use case:

- Capture metadata from callbacks to aid in debugging and triaging issues.
- Build an onExit flow for users if they exit Link before successfully connecting. This can create a better user experience and help conversion.



Back-end implementation

EFFECTIVELY LEVERAGE PLAID DATA

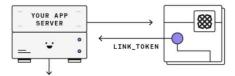
Handle Plaid tokens

Plaid uses several tokens to securely communicate over API and execute the data exchanges. The following diagram shows the basic token exchange structure:

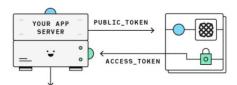
The Plaid flow begins when your user wants to connect their bank account to your app.

- 1 Make a request to create a <u>link_token</u> and pass the temporary token to your app's client.
- 2 Use the link_token to open Link for your user. In the onSuccess callback, send the temporary public_token to your app's server.
- 3 Make a request to exchange the <u>public_token</u> for a permanent access_token and item_id for the new item.
- 4 Store the access_token and use it to make product requests for your user's item.











Note: When leveraging the 'Select Account' functionality, you should store the account_id for the selected account from the onSuccess callback.



Leverage Plaid data

On the server side, our product endpoints will provide the key data needed to make transactions and avoid ACH issues.

Auth

Display the Account Name, Mask, and Institution Name to the user to visually confirm they have connected the correct account. Refer to the 'numbers' section of the Auth response to retrieve the account and routing numbers. *Note: The wire number will be provided if it is received from the financial institution.*

Identity

Refer to the 'name' object for the full name that was retrieved from the financial institution, if there are multiple people on the account we will return each in an array. We will also return any emails, phone numbers, and addresses retrieved from the institution. We will indicate if they are primary for your reference.

Balance

After initial linking, the balance in the Auth response will be real-time, however, it does not update over time. In order to prevent Non-sufficient Funds on subsequent transfers, call Balance to check the real-time balance. *Note: A user may need to re-authorize the account due to a credential change or MFA, so be sure to implement Link in Update Mode.*

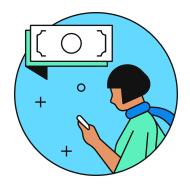
Plaid payment partners

In order to simplify your technical integration, and avoid holding sensitive account data internally, consider working with an <u>Auth Payment Partner</u> who can support a Plaid Processor Token and call these endpoints, then process the payments on your behalf.

Handle errors

Link handles and informs the user of many user actionable errors, such as invalid credentials or MFA. However, in some cases it may be necessary to investigate errors. To do so, it is recommended to store key identifiers returned from the onSuccess, onExit, and onEvent metadata which allow you and our support team to properly triage issues. Some of the identifiers we recommend you store are:

- access_token: a token used to make API requests related to a specific item.
- **link_session_id:** an identifier included in all Link callbacks which correlates to a specific Link session.
- request_id: an identifier returned as part of the response body for every Plaid API response.
- item_id: an identifier for a Plaid Item. This can be found in the API response.



Other considerations

Leverage Plaid SDKs

The <u>Plaid Link SDK</u> is a quick way to integrate your app with Link with updated features pushed regularly. We have SDK support for iOS, Android, and React Native integrations.

Follow our Link best practices

Our <u>Link best practices guide</u> contains a very helpful checklist for confirming your integration follows our guidelines.

Consider item deduplication

To avoid user confusion and prevent double-billing, make sure you have logic in place to check that you're not linking the same item twice.

plaid.com

Plaid builds digital infrastructure that allows people to securely connect their financial accounts to the apps they want to use. We power more than 4,000 financial apps and services, as well as more than 11,000 financial institutions in the US, Canada, UK, and Europe.

Questions? Reach out to our sales team at info@plaid.com