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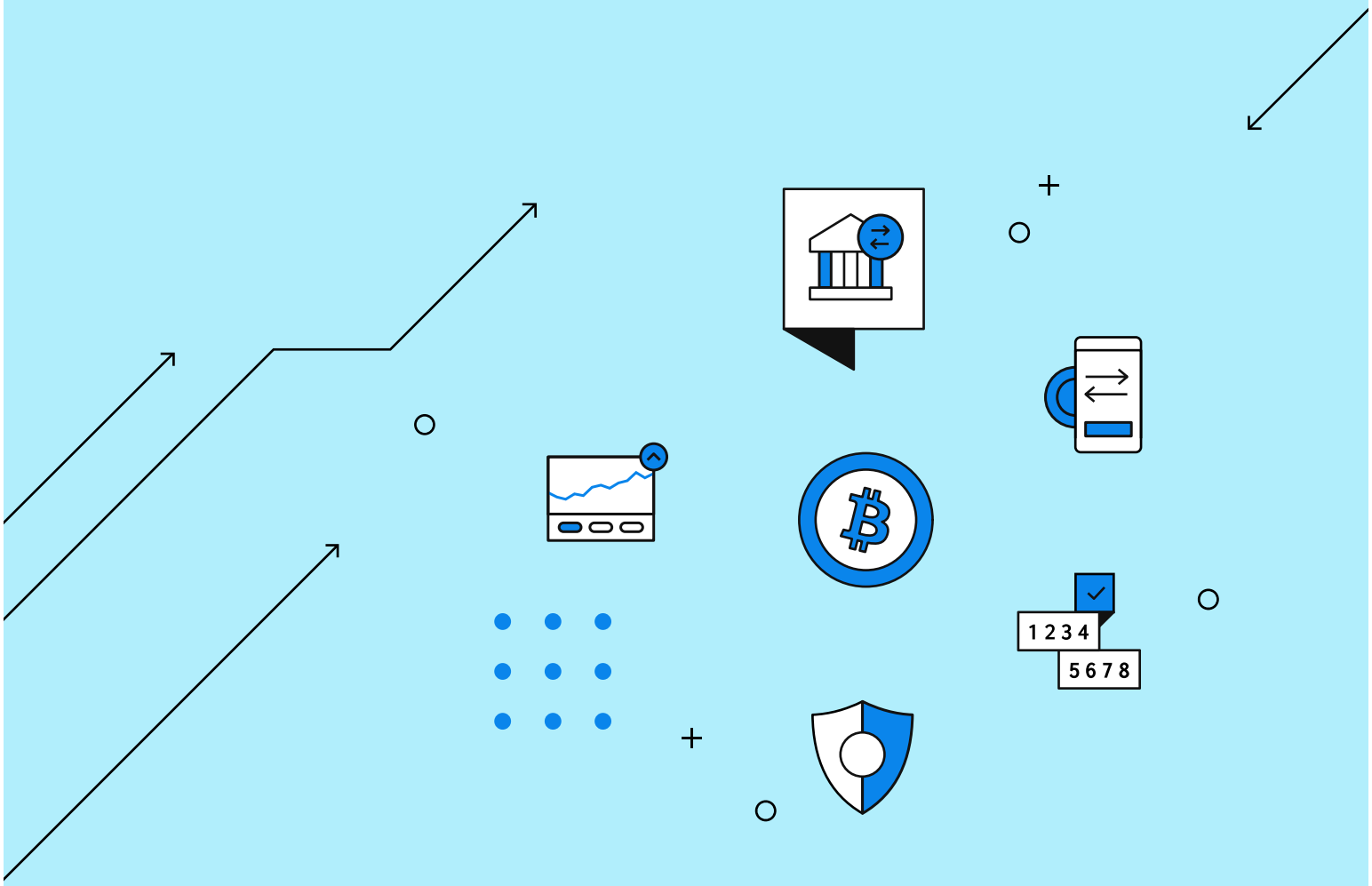
How data portability maximizes crypto's value



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Executive summary

As crypto, Web3, and blockchain technology evolve, data portability can power seamless connections, safer experiences, and new innovation at the intersection of crypto and digital finance. Today, consumers are able to share data from their traditional bank accounts in order to onboard into crypto. Tomorrow, crypto data sharing can enable even greater value to consumers by enabling them to engage with their traditional and crypto finances holistically.

Plaid has onboarded millions of consumers onto crypto applications, and is ready to support the next generation of digital finance as consumers bridge together their traditional and crypto financial lives. It starts with data portability – the technical infrastructure enabling consumers to control and share their information, grounded in the principle of consumer data rights to which both digital finance and crypto subscribe.

In the past decade, data portability transformed traditional financial services from in-person, one-size-fits-all, to personalized and digital first. Consumers who once obtained all of their financial services from a single provider now piece together multiple use cases that suit their unique overall needs. Plaid's research shows that Americans have an average of over three fintech applications on their phones, supplementing their traditional accounts.

Each new crypto innovation expands the use cases that a consumer might value, but in most cases crypto is just one piece of their broader financial life. Portability can strengthen crypto's connection to consumers' financial priorities, and also help crypto providers quickly onboard customers, fund accounts in real-time, and connect with consumers in more places. Building on principled support for consumers' digital rights and data autonomy, the marriage of crypto and data portability can bring consumers' digital financial lives fully into the future.

Portability increases crypto's universal value

Expanding the surface area of consumer account value

Data portability increases lifetime value to crypto providers by making it easier for consumers to engage across their traditional and crypto finances. While today's crypto wallets enable consumer portability across decentralized finance, portability can extend that surface back into traditional finance and web2, enabling consumers to engage holistically with all of their financial products and services.

Data portability already benefits crypto tremendously, both by demonstrating that there is significant value to consumers in digital finance, and also by enabling consumers to seamlessly onboard into crypto experiences. Making crypto data portable will expand consumer touchpoints with their wallets of choice across a greater number of surfaces.

Fundamentally, data portability unlocks innovation by enabling third-party developers to build new use cases to serve consumer demands based on access to consumer-permissioned data. Interoperability, which refers to the ability of different systems and protocols to interact seamlessly, is one way in which data portability is implemented. Leaders the crypto space have voiced strong support of data portability and interoperability as not just a principle, but a fundamental component of decentralized protocols and consumer rights on the internet:

> *"Preserving and enhancing interoperability would allow the continued development of decentralized protocols, including solutions that allow free and open exchange of information between networks rather than closed and permissioned walled gardens."*[1]

[1] Coinbase white paper

Bringing data portability to crypto providers benefits consumers

While traditional finance raced ahead with data portability - the vast majority of U.S. consumers can access data from their bank accounts - crypto surprisingly trails behind. A particular gap exists on centralized exchanges that custody crypto wallets on consumers' behalf and therefore store critical information on consumers' crypto holdings like coin types, balances, and transactions. Despite philosophical alignment and clear consumer benefits, many exchanges don't support data sharing, or only do so in the context of exclusive commercial relationships.

As centralized exchanges and decentralized applications (dApps) increasingly converge, both ecosystems stand to benefit from data portability. Consider a consumer's frustration at their inability to share their crypto balances with a personal financial management application, or to their financial advisor helping them set a financial plan. Only with data portability can that person engage with their exchange accounts on equal footing with their bank accounts - as a central hub for their financial life. The sooner exchanges embrace data portability, the higher lifetime customer value they will unlock for their user bases.

Fortunately, data portability is becoming more reliable and secure. While open banking largely arose via screen scraping, Plaid and the ecosystem have aligned around API-first solutions, and Plaid became a majority-API company in early 2022. Plaid offers our own data portability solutions, including Plaid Exchange, which supports crypto data portability today, and Core Exchange, which aligns to the industry standard Financial Data Exchange specification and will support crypto in the future.

Spotlight: Crypto and open banking, a regulatory primer

Open banking refers to a financial system in which consumers have rights over their financial information and can consent to share that information with whichever providers they choose. Across the globe, jurisdictions are implementing open banking in different ways - some more heavy-handed with mandates for banks to stand up APIs, others more industry-first simply providing consumer rights and expecting providers to comply.

Jurisdiction	Regulation	Crypto coverage?
United States	Section 1033 of the Dodd-Frank Act "[s]ubject to rules prescribed by the Bureau, a covered person shall make available to a consumer, upon request, information in the control or possession of the covered person concerning the consumer financial product or service that the consumer obtained from such covered person, including information relating to any transaction, series of transactions, or to the account including costs, charges, and usage data."[2]	As of mid-2022 the CFPB is writing a rule to make Section 1033 enforceable. Covered under 1033 are financial products and services - and while crypto hadn't yet arisen when Dodd-Frank was written, regulators increasingly see crypto as financial services which would be covered under this statute.
Canada	As of 2022 Canada is standing up a formal open banking system based upon a series of Recommendations from the Department of Finance.	The Advisory Committee Report that "data reciprocity" is the expectation. This means that any entity - bank or nonbank - is expected to support consumer requests for information.[3]

[2] Dodd-Frank Wall Street Reform and Consumer Protection Act

[3] Advisory Committee Report on Open Banking

Jurisdiction	Regulation	Crypto coverage?
United Kingdom	Open banking rules implemented starting in 2018 require the nine largest financial institutions to stand up data sharing APIs for payments-related data. Both read- and write-access APIs exist to enable personal financial management tools and payment initiation.	The UK government has been one of the more aggressive jurisdictions with regards to cryptocurrency. However, as it explores an expansion of open banking to open finance, which would cover a broader set of data types, starting with savings, pensions, and investments, and potentially also covering crypto.

TradFi, CeFi, DeFi - How Plaid works across the spectrum

Plaid's data portability unlocks innovation at the intersection of traditional and digital finance. Our initial customer base sat on top of traditional financial services and built direct-to-consumer products for the mobile-first age. Increasingly we serve both bank and nonbank customers in traditional finance. As our technology enabled more developers to build digital financial services, we've seen fintech continue to evolve both inside and outside the traditional space.

Centralized exchanges represent a core set of those nontraditional use cases. Millions of consumers have gone through Plaid flows as they onboard into both traditional and crypto financial services. The concept of a unified account representing a singular individual across spaces is a central innovation in crypto. But those accounts thus far serve only use cases in the crypto space. Data portability and innovation, grounded in consistent onboarding experiences, can reinforce that unified quality by expanding it in multiple directions across the TradFi, CeFi, and DeFi spectrum.

TradFi: It may seem odd to call fintech traditional, but that's the natural dichotomy when compared with non-fiat cryptocurrencies. Plaid's support for peer-to-peer payments powered by our account authentication product, personal financial management powered by transactions and balance sharing, and investing and trading platforms supported by our Investments and Liabilities products, all contributed to the boom in crypto adoption.

CeFi: Centralized exchanges play an important role in the on- and off-boarding process, because they're typically where consumers first convert their fiat dollars into crypto. Plaid's account opening and funding tools (see Use Cases section below) are widely used today by major exchanges as both part of initial onboarding and continuous inflows and outflows.

DeFi: As centralized exchanges incorporate their own on-ramps into dApps within their platforms, the TradFi-CeFi on-ramp becomes more significant. The availability and 24/7 trading qualities in crypto already spurred tremendous demand for real-time account funding. dApp connectivity within CeFi applications will only amplify those demands, catalyze further innovation with TradFi and DeFi, and allow developers to combine the best secure and compliant components of each. Where governance and protocols require real-time engagement, real-time funding and validation play a critical role. Plaid services including real-time balance and transaction information can enable consumers to view and manage their holistic finances in real-time.

Plaid will continue exploring ways to improve access to account onboarding and decrease user friction as users increasingly toggle among their TradFi, CeFi, and DeFi financial lives.

Data portability and innovation, grounded in consistent onboarding experiences, can reinforce that unified quality by expanding it in multiple directions across the TradFi, CeFi, and DeFi spectrum.

Enabling seamless onboarding

Onboarding - the moment in which consumers formally enroll in a solution - is a critical surface area for any digital application. While users of crypto, Web3, or decentralized products will go through a range of onboarding experiences depending on their selected application, onboarding is universally a necessary step on the way to the experience.

For a new user making their first foray into a crypto exchange, they'll need to verify and fund their new account from a traditional fiat account. Exchanges often require identity verification and fraud mitigation as part of their onboarding, whether from regulatory requirements or purely risk management. As has already been established in digital finance, data portability, can serve the smoothest possible first step by seamlessly incorporating data into the onboarding experience in a user-friendly way.

Plaid's business model depends on our ability to convert users through those first onboarding steps. We focus intensely on conversion, getting users efficiently through the required stages and onto the application's experience.

Verifying & funding accounts

Verifying accounts: Plaid's Auth and Identity products enable consumers to verify their control over a financial account - either with a traditional bank or a fintech bank - by confirming their credentials with that account. Verifying an account is the first step towards either permissioning the flow of financial information or taking other actions like initiating a transaction.

Funding accounts: Plaid's Auth product provides a requisite input into an account funding solution. Consumers permission their account information, which centralized exchanges or decentralized protocols can use as an input into payment processing, enabling consumers to fund wallets, protocols, or dApps directly from their fiat accounts.

Mitigating risk in account funding: Several types of risks are present when users attempt to fund new accounts. Providers need to be sure that users are legitimate and have sufficient funds to transfer their allotted funding. Plaid serves several data types that can serve as inputs to risk mitigation: Assets and Transactions can present holistic views of consumers' overall holdings, showing their legitimate investing histories, and their recent spending history, respectively. A newer product, Plaid Signal evaluates unique, Plaid-level insights such as the longevity of a consumer's connections into Plaid, and assesses whether a transaction presents fraud risk. Incorporating Signal into the funding step helps providers mitigate the

Know Your Customer/Anti-Money Laundering Compliance

Despite crypto's ability to function independently of central oversight, regulators are keen to bring crypto businesses under their purview as part of efforts to mitigate illicit activities. Data portability can automate and smooth exchange's compliance requirements as part of the onboarding process with identity verification services. Plaid's Identity Verification solution is powered by Cognito, a longtime provider of digital verification services to crypto providers. For crypto providers, Identity Verification can be a seamless input into the onboarding process, get consumers to the magic of your experiences right away.

Spotlight: Crypto and KYC regulations

"Travel Rule" (Financial Action Task Force)[4]	Recommends that Virtual Asset Service Providers (VASPs) obtain "required and accurate" information about both originating & beneficiary parties engaged in transactions over $1000USD. Also includes transactions between VASPs and "non-obliged entities," meaning unhosted wallets.
Requirements for Certain Transactions Involving Convertible Virtual Currency or Digital Assets (FinCen)[5]	Would require reporting of transactions above $10,000 from an exchange to an unhosted wallet.
Recordkeeping Rule (Treasury, FinCEN, Federal Reserve)[6]	The Treasury Department released a Notice of Proposed Rulemaking to expand the entities covered under the Bank Secrecy Act (BSA) to include virtual asset providers. This would bring virtual asset providers under the Recordkeeping rule, which requires reporting on transactions over $3,000. This proposed rule would also lower the threshold to $250 for international transactions. Required information would include: Name, Amount, Execution Date, Payment Instructions, and Receiving Entity.

[4] "Updated Guidance for a Risk Based Approach: Virtual Assets and Virtual Asset Service Providers," Financial Action Task Force

[5] "Requirements for Certain Transactions Involving Convertible Virtual Currency or Digital Assets," Treasury Department

[6] "Threshold for the Requirement To Collect, Retain, and Transmit Information on Funds Transfers and Transmittals of Funds That Begin or End Outside the United States, and Clarification of the Requirement To Collect, Retain, and Transmit Information on Transactions Involving Convertible Virtual Currencies and Digital Assets With Legal Tender Status," Treasury, FinCEN, Federal Reserve

Keeping Web3 safe and secure

From self-custody wallets to central exchanges, crypto's varied consumer surfaces present a range of security and safety challenges. As a broader range of consumers enter the system, the winners will be those who can maintain the permissionless ethos in crypto while assuring consumers of safety and security as they move across platforms. Currently a spectrum exists of total permissionless and levels of centralization that suit the demands of consumer types. But succeeding on interoperability will require that consumers feel secure across all surfaces.

Consistent onboarding, with familiar checks where necessary, will provide consumers the benefits of both anonymization where desired, and security where needed. By giving people control over their information, including their identity information across providers, data portability can solve both security and interoperability.

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Conclusion: Bridging finance's present and future

As consumers increasingly adopt crypto as a part of their financial lives, Plaid stands ready to support all levels of cryptocurrency providers. In addition to the product functionality described above, we set out the below principles to align ourselves with the direction of consumers, businesses, and providers who want seamless crypto experiences.

Data portability can reinforce the best of crypto's promise.

- At the heart of crypto's vision is a world in which consumers can easily adopt services from anywhere - this same vision applies to data.

Consumers should have identical rights to their crypto as their fiat data.

- Crypto has become a meaningful part of many consumers' financial lives, essential to financial planning & literacy.
- The ability to connect their crypto accounts to other crypto accounts and to traditional accounts will be critical to those consumers' financial management.

Consumers deserve protections across their financial lives.

- Whether in crypto or in fiat, consumers deserve transparency and control over their finances and sufficient information to make informed financial decisions.

Plaid's role is as an enabling tool that prioritizes consumer data control & security.

- We serve cryptocurrency customers with the same products as fiat customers - consumer-directed financial connectivity.

PLAID

Plaid powers the digital finance solutions that enable millions of people to live healthier financial lives. Trusted by 6,000+ of the world's leading companies and connected to 12,000+ financial institutions across the US, Canada, UK, and Europe, Plaid's mission is to unlock financial freedom for everyone.

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