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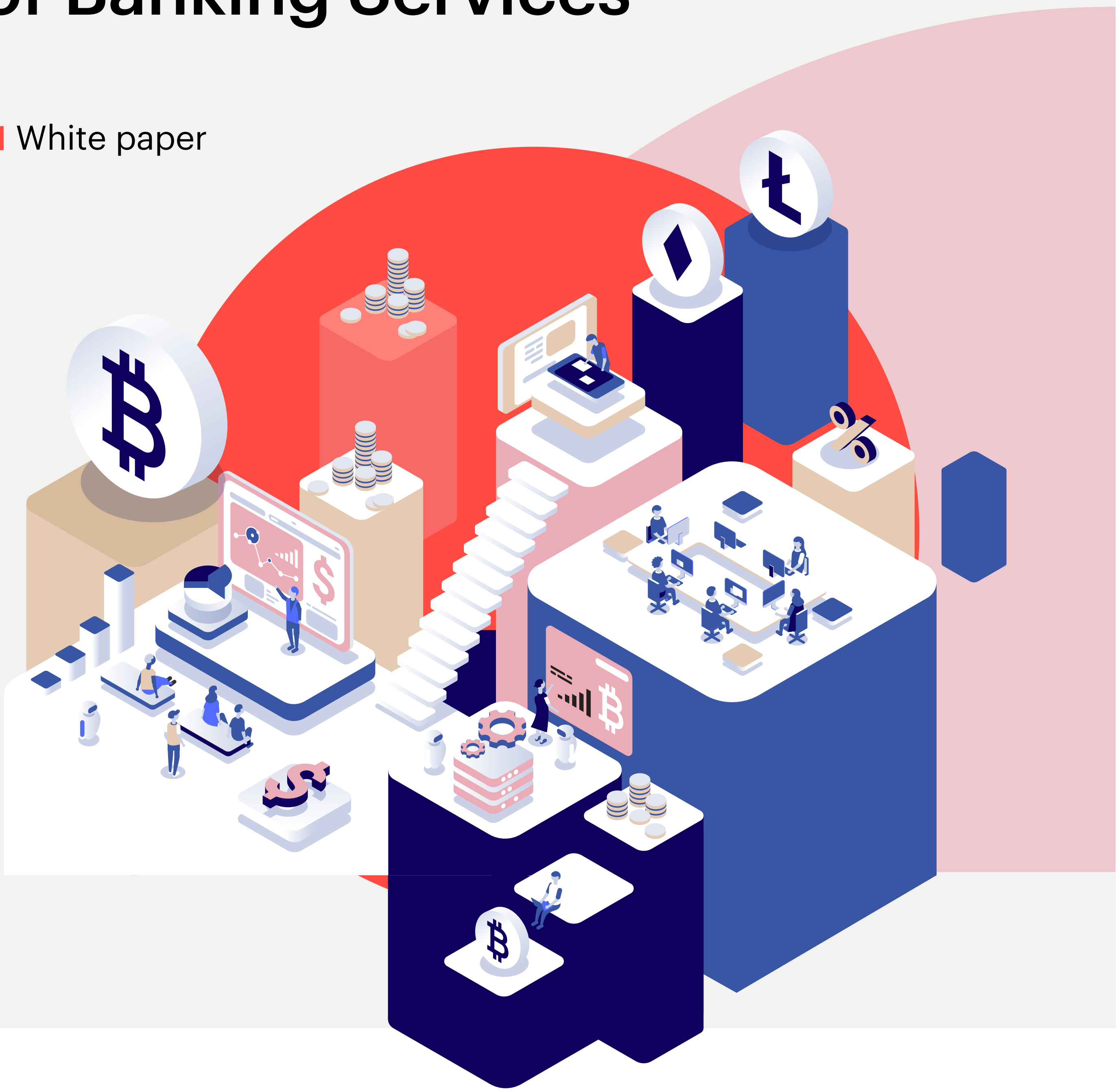
Crypto and the Inevitable Future of Banking Services

White paper



An RPG Company

Cryptocurrency is making a rapid journey to maturity. There were seven cryptocurrencies in April 2013. Now there are about 20,000 in circulation. In May 2022, the market cap of all cryptocurrencies was $1.2 trillion, and trading volumes had breached $500 billion a day. There are an estimated 34,000 crypto ATMs across the world and 68 million crypto wallet holders. Blockchain, the underlying technology for cryptocurrencies, is maturing, with organizations like Microsoft, Intel, and Nvidia investing in it. El Salvador and the Central African Republic have gone ahead and adopted it as legal tender. Most significantly, cryptocurrencies have begun to reflect the features of traditional financial products and assets, but at lowered costs. Yet, there is a sense of hesitance amidst many traditional financial service (FS) providers to take the plunge into crypto. The hesitancy could prove expensive, with newly minted FinTechs grabbing the opportunity presented by decentralized digital currencies.

Some banks have sniffed the opportunity and are showing the way. BNY Melon, for example, has invested $321 million in crypto custodian companies. Citi Bank has invested $279 million in SETL, enabling tokenization and digital custody. Morgan Stanley has invested in NYDIG, also a crypto custody firm. Goldman Sachs, Nomura, Barclay, UBS, and BPN Paribas are other leaders investing in crypto. Estimates suggest that 55 percent of the top 100 banks have invested in crypto and blockchain. The window of opportunity keeps narrowing with each passing day as the number of traditional FS providers exploring the new business opportunity in cryptocurrencies grows (see Table 1 for Banks and the crypto offerings opportunity).

Table 1 - Banks and the crypto offerings opportunity

Crypto wallet	Banking-as-a-service (BaaS)	Trading	Lending
These are white-label solutions that enable their users to send, receive, and trade in crypto.	FLS can integrate with products offering crypto and bring these offerings under a BaaS platform.	Clients can purchase and sell crypto and trade in crypto derivatives using these solutions.	Banks can lend against crypto as collaterals through automated smart contracts.
Example: National Bank of Canada's bitcoin exchange facilities	Example: Ally Financial's integration with Coinbase for buying and selling crypto	Example: Goldman Sachs trading an OTC crypto transaction	Example: Goldman Sachs' bitcoin-backed loans service
Custody service			

Banks can offer custody services on top of the offerings. Organizations can use the services to store and transfer their crypto assets efficiently and safely.

Participating in digital currency is inevitable

Some FS providers appear to be wary because digital currencies are volatile and unregulated, and a number have failed. While banks in the past have built entire empires by betting on volatility, today, they are conditioned by the guardrails of regulations – and the regulatory and governance mechanisms in the world of crypto continue to mystify legacy banks. But banks cannot wait much longer. Participating in digital currency markets is becoming inevitable. The list of reasons is persuasive:

- Customers are moving their money to the wallets of non-banking Institutions. As a result, the opportunities for interest income are on the wane, and banks must explore new options. Digital currency is an opportuni ty waiting to be tapped.
- Crypto is faster to process with low transaction fees — making it attractive to customers.
- Some crypto super apps provide payments, loans, insurance, and trading. Companies like Expedia and Overstock have started accepting cryptocurrency payments for their services and products. Education institutions like King's College in NY accept Bitcoin as payment. Wharton accepts crypto payments for its blockchain and digital assets programs.
- The number of countries interested in adopting digital currencies as legal tender is growing.
- Central banks worldwide are exploring offering their own digital currency to manage/counter the growing influence of the cryptocurrency markets. This means the broader ecosystem of FS providers must imple ment systems designed to handle digital currencies.
- Gen-next, the new consumers of financial services, are already dealing in cryptocurrencies.
- Ransomware – most hackers demand payments in cryptocurrencies, so businesses need to consider holding some to avoid last-minute consequences.

Enabling a digital wallet solution

Not too long ago, the most potent reason for keeping an arm's length from crypto was the uncertain regulatory environment vis-à-vis crypto. But that is changing. In 2020, the Office of the Comptroller of the Currency in the US indicated that custody and safekeeping services for cryptocurrencies, including holding the keys, "was a modern version of traditional banking activities and should be allowed." The recent FTX exchange crash will only hasten the regulator's hand and, ironically, may serve as the tipping point for regulating cryptos, thereby facilitating more extensive banking play.

When banks decide to make custody/sub-custody services part of their offerings, they will want to deliberate on a simple workflow between the consumer, the crypto platform, and the final transaction (see Figure 1: Enabling a digital wallet solution with sub-custody services and Figure 2: Banks facilitating crypto trading via wallets).

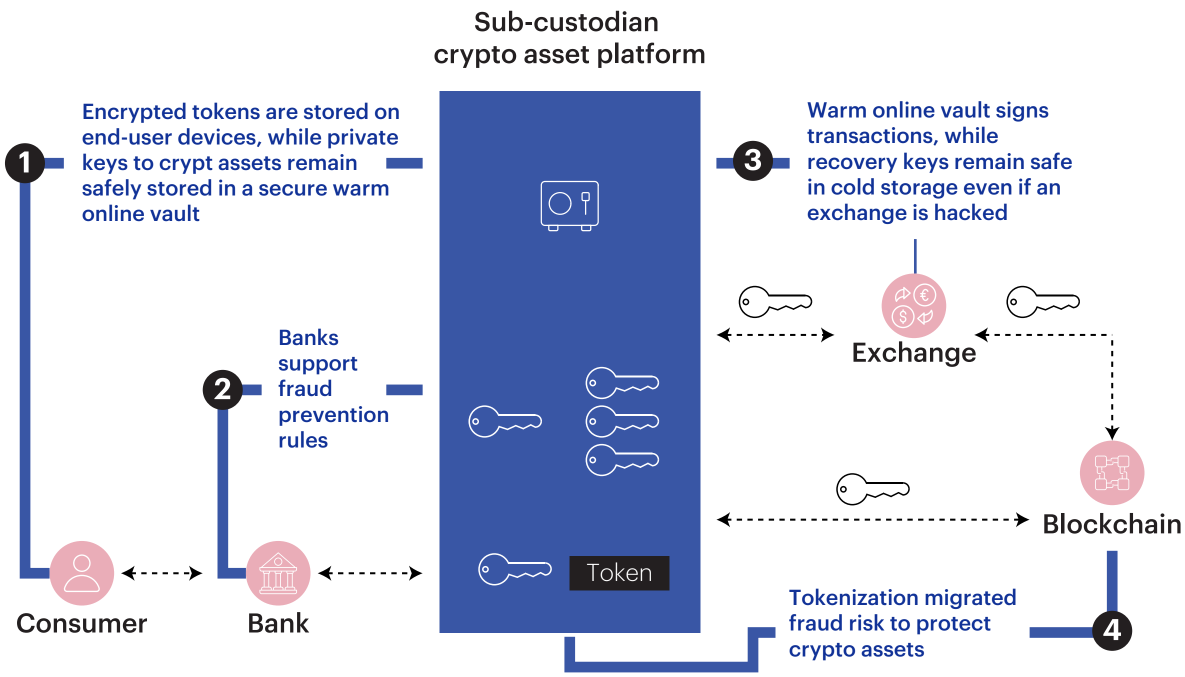


Figure 1: Enabling a digital wallet solution with sub-custody services

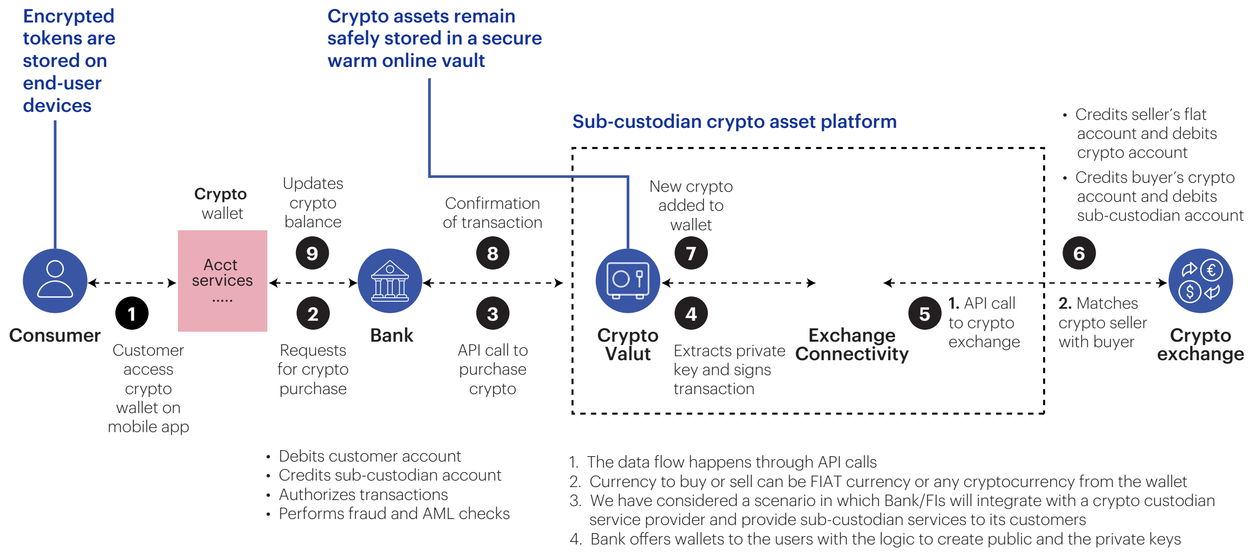


Figure 2: Banks facilitating crypto trading via wallets

While the workflow is easy to understand, banks are waiting for complete regulatory clarity. In 2021, US regulators were still exploring how banks could hold crypto assets. Meanwhile, several states have been taking their own chosen path. Some examples show the divergence in postures:

- Ohio became the first state to accept taxes on cryptocurrencies.
- Wyoming was praised for allowing the creation of a new crypto-focused bank.
- Oklahoma passed a bill to authorize the use, sale, and exchange of crypto.
- Iowa went the other way by introducing a bill prohib iting the acceptance of crypto.
- Colorado introduced a bipartisan rule sparing crypto from state securities regulations.

Meanwhile, in 2021, the Securities and Exchange Commission issued cease orders in New Jersey and other states against BlockFi for offering interest-bearing accounts. In 2022, in a first-of-its-kind action, BlockFi was forced to pay $100 million in penalties for failing to register the offers and sales of its retail crypto lending product. This indicates the growing interest in crypto from regulators — a development, when seen from the FS provider lens, that is positive.

As can only be expected, the regulatory environment around crypto is improving. A slew of financial agencies, from the Financial Crimes Enforcement Network to the US Securities and Exchange Commission, Commodities Futures Trading Commission, Federal Deposit Insurance Corporation, and the Financial Industry Regulatory Authority, are bringing a more cohesive approach to regulations around crypto. These regulations will positively impact investment advisories, derivatives, consumer lending, commercial lending, broker-dealers, retail banking, alternative investments, investment banking, and payments and clearing systems, moving FS providers into a good space. For the moment, they can jockey to influence those regulations, understand them, and work on plans to implement them without getting overwhelmed.

Meanwhile, there is no time to lose. While regulations evolve, banks cannot afford to stand still. They must get their crypto strategy in place — an approach that differentiates them while offering services across the dimensions of financial services. We have a list of the top eight areas a bank should consider.

Top eight tenets of crypto offerings

1. Creating superior customer experience: The broader category of bank customers would find it difficult to use a typical crypto app. Therefore, banks should simplify their apps, making it easy and seamless to interact between crypto and their traditional assets.

2. Efficient custody models: What does a custody offering for crypto look like? Should it include self-custody services (despite the challenge posed to customers in terms of managing passwords)? Should it include partially assisted custody, where customers have complete control over their assets but can rely on provider protection with a key management solution? Should it be a fully managed solution? Should the solution be online (internet-connected) or offline (air-gapped hardware)? And finally, should the bank build or buy the solution?

3. Auditing and reporting capabilities: Banks must keep asset services transparent, align with industry best practices, and manage risk using third-party attestations.

4. Manage data from the public blockchain and internal sources: Banks must overcome the challenges of integrating large encrypted public blockchain transactions with the client's off-chain transactions guided by agreements outside the blockchain.

5. Next-gen cybersecurity measures: Trust has always been central to banking, and it acquires greater importance with crypto. Consider compliance and cybersecurity standards and frameworks such as NIST 800-53, FIPS 140-2, and Federal Security certification for cryptographic key management.

6. Risk management and controls: Banks need superior risk management and practice control and should be able to identify and rationalize key gaps in the existing framework based on crypto assets.

7. Enhanced regulatory compliance: Meeting compliance for AML, KYC, FATF, etc., is a key requirement — and meeting them will assist in developing enhanced risk-based compliance programs.

8. Infrastructure support: Ideally, banks should embrace OPEN API to integrate with products and build interfaces with crypto exchanges.

Cryptocurrencies are no longer a novelty. The market size for crypto, along with the number of FinTechs, has increased dramatically. The US has 27 million crypto users, the second highest in the world after India, where crypto users number over 100 million. There are 1,458 crypto-related organizations operating in industries related to payments, financial services, software, and hardware. The market will see the demand for mature products grow rapidly in the coming months, especially those that already exhibit the characteristics of traditional financial products and assets.

The urgency to develop and offer cryptocurrency solutions and products is evident. Most FS providers will – if they have not already — start by launching minimum viable products. As a result, FS providers will partner with technology companies in the next 24 months to launch offerings such as banking-as-a-service and wallet-as-a-service.

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