Stablecoin White Paper
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1. Executive Summary

This whitepaper unveils our groundbreaking stablecoin, First Digital USD (FDUSD), which revolutionizes the digital asset landscape. Our mission is to empower users with a transformative financial instrument issued by FD121 Limited, that combines the stability of cash reserves, with the seamless efficiency of advanced blockchain technology. By offering a fully collateralized digital asset, our stablecoin ensures the utmost security, transparency, and transaction reliability. This strategic fusion of traditional stability and cutting-edge innovation allows users to confidently navigate the digital economy, unlocking a world of possibilities while maintaining the utmost trust in their financial interactions.

2. Introduction

Cryptocurrencies have several advantages over fiat currencies as a form of payment. For example, it’s much faster than a bank wire, has lower transaction costs, is publicly auditable, and ensures the security and privacy of users' identities. However, there are several barriers to the mainstream adoption of cryptocurrencies as a means of payment. Crypto is also known for its volatile nature, and its value can fluctuate drastically over a short period of time, making them a risky form of payment and limiting usage in daily transactions.

Stablecoins are digitally native payment instruments that are designed to maintain a stable value compared to an external reference asset, usually a fiat currency such as the U.S. dollar. They provide a bridge between the traditional financial system and the cryptoeconomy, allowing fiat currencies to exist in a form that can move more freely and more efficiently on blockchains. Unlike conventional payment methods, stablecoin payments require no centralized intermediary.

Stablecoins are designed to maintain a stable price so users can avoid market volatility risks.
FDUSD provides users with a stable digital currency that is backed by fiat currency (i.e. the U.S. dollar), which can help reduce the volatility in the cryptocurrency market. This makes it more appealing to investors and merchants, who are wary of the volatility associated with traditional cryptocurrency price fluctuations.

FDUSD can be deployed in use cases that improve the efficiency of financial transactions by reducing transaction costs and improving the speed and accuracy of these transactions in a secure manner. FDUSD can also be deployed in use cases that facilitate cross-border transactions and reduce the fees and processing times associated with traditional methods.

The stability of a fiat-backed stablecoin is preserved through the maintenance of a 1:1 peg with the corresponding fiat currency. This is achieved by meticulously ensuring that the value of the reserve assets held matches or exceeds the total quantity of outstanding stablecoins. In essence, the reserves support the issuer’s commitment to redeem the stablecoin at its nominal value. It is important to note that FDUSD operates under rigorous custodial arrangements.

Furthermore, the FDUSD can be programmed, allowing financial contracts, escrow, and insurance without intermediaries.

3. Advantages
   ● Transferable
   As a fungible form of digital currency, FDUSD enables frictionless and streamlined transactions, rendering it a convenient choice for a wide range of applications and scenarios.

   ● Redeemable
   FDUSD is backed by high-quality reserves- cash and cash equivalents, which enable holders the ability to redeem their FDUSD tokens for their equivalent value in US dollars.
This feature provides safety to the stablecoin reserves, and users can trust that FDUSD is intended to always be 1:1 backed.

- **Programmable**
FDUSD is programmable, allowing for the creation of smart contracts, escrow services, and insurance arrangements without intermediaries. This programmability empowers users with greater control over their financial transactions while reducing transaction costs and increasing transaction speed and accuracy.

- **Low Fees**
One notable benefit of FDUSD as a cryptocurrency on the blockchain is its ability to offer cost-effective transactions with minimal fees. Unlike traditional financial transactions, which often incur high fees, blockchain-based transactions generally involve lower costs. This cost-efficiency makes FDUSD an attractive and economical choice for users.

- **Operates on Decentralized Networks**
As a stablecoin built on blockchain technology, FDUSD operates on decentralized networks that are distributed across multiple nodes. In so doing, it enhances transparency, security, and resilience, as no single entity has complete control over the network.

- **Isolated from Custodian’s Bankruptcy**
The fiat reserves of FDUSD are held in reserves with the appointed custodian, First Digital Trust Limited, in an account segregated from the custodian’s operational account. This means that even in the unlikely event of the custodian’s bankruptcy, the reserves backing FDUSD (to the extent they are held with or under the name of the custodian) are kept separate from the custodian’s other assets and protected, ensuring that the stablecoin remains stable and secure.
4. Technology Stack

Each FDUSD issued into circulation is intended to be backed in a one--to--one ratio with the equivalent amount of corresponding fiat currency held in reserves with the appointed custodian, First Digital Trust Limited.

Smart Contract audit: FDUSD smart contracts implement the ERC20 Token Standard and are audited by PeckShield.

FDUSD will be issued on the Ethereum and BNB Chain networks, which follow the ERC20 and BEP20 standards, respectively. These decentralized blockchains provide consensus confirmation of transactions using a Proof of Stake (PoS) or Proof of Staked Authority (PoSA) consensus, providing immutability of records and public transparency to market participants. Both Ethereum and BNB Chain provide the ecosystem of users with the ability to incorporate FDUSD into smart contracts, benefitting users with faster, trustless, stable, and frictionless settlements. In time, FDUSD will be considered to be issued on other blockchains to bring the benefits of the token to a broader audience of developers and end users. The addition of subsequent blockchains will be subject to criteria covering technical diligence, the extent of market adoption of the blockchain, and risk review.

By using established public ledgers, market participants can utilize existing monitoring applications to view coins in issuance and transactions. In this way, participants can follow coins issued or redeemed by FD121 Limited as well as other on-chain transactions. Note that distributed ledger technology subject to transaction verification via the PoS/PoSA consensus mechanism may result in verification fees paid to participants engaged in consensus activities. Fees may vary across blockchains.

FDUSD has a robust and secure underlying technology that can handle large volumes of transactions and ensure the stability of the coin's value. We've worked with experienced blockchain developers and auditors to ensure the stability and security of your stablecoin.
5. Attestation of Reserve

The attestation process verifies that the entire supply of FDUSD stablecoins in circulation is consistently fully supported by an equivalent value of cash or cash equivalents held in the secure custody of First Digital Trust Limited.

By undergoing attestations that are carried out by independent auditors, reserves are made transparent to users, granting them the ability to independently and promptly confirm that cash reserves effectively back the stablecoin asset.

Users can access our Transparency Page at firstdigitallabs.com for comprehensive and detailed information.

6. Potential Use Cases

FDUSD, as many other stablecoins, offers various use cases in both the financial and technological sectors due to its inherent stability and digital nature. Note that these use cases are not services or functions provided or operated by FD121 Limited, but by third party service providers. Some prominent product and tech use cases can include:

1) Remittances: Stablecoins enable fast and cost-efficient cross-border transactions, making them an attractive option for remittance services. Utilizing stablecoins reduces the fees and latency associated with traditional remittance methods.

2) Payment solutions: Businesses and merchants can use stablecoins for processing payments without significant transaction fees or delays. This is especially useful for e-commerce and international transactions where currency conversion and cross-border fees can add up quickly.

3) DeFi: FDUSD may offer stability to yield farming, lending, and borrowing platforms. Users can lend or stake their stablecoins to earn interest or participate in liquidity mining programs.
4) Escrow services and Smart contracts: FDUSD can be used as a means of payment in smart contracts or as collateral in escrow services, providing a more predictable and stable value in comparison to volatile cryptocurrencies.

5) Hedging against volatility: Traders and investors can use FDUSD as a safe haven asset during periods of high market volatility. By converting their volatile cryptocurrencies to FDUSD, they can temporarily protect their investments from unforeseen price fluctuations.

6) Financial inclusion: FDUSD can be utilized in regions with underdeveloped financial infrastructure, offering access to essential financial services like savings, loans, and insurance products. This can help bring financial stability and security to individuals and businesses that lack traditional banking services.
7. Partnerships and Integrations

Partnerships and integrations can play a crucial role in the success of the First Digital stablecoin project. By collaborating with projects and platforms, FDUSD may be able to increase its adoption and provide users with more opportunities to use the stablecoin in various ways.

7.1 Exchanges
We aim to partner with cryptocurrency exchanges to increase their liquidity and trading volume. By listing on popular exchanges, stablecoins can become more accessible to users and improve their overall utility.

7.2 Payment Processors
FDUSD can also be integrated with payment processors to enable merchants to accept stablecoins as payment for goods and services. This can allow FDUSD to be used in everyday transactions and increase adoption.

7.3 Wallet Providers
We also aim to partner with wallet providers to make it easier for users to store and transact with the stablecoin. This can increase the user base of the stablecoin and make it more convenient for users to hold and use the stablecoin.

7.4 DeFi Project
Decentralized finance (DeFi) platforms can integrate FDUSD to provide users access to decentralized lending, borrowing, and trading. This can increase the overall utilities of the stablecoin and provide users with more opportunities to earn interest on their holdings.

7.5 Cross-chain Integrations
FDUSD will be integrated with other blockchains to enable cross-chain transfers of value. This can increase the interoperability of the stablecoin and make it more useful in a multi-chain ecosystem.
8. Risk Factors

Issuers of collateralized stablecoins need to ensure robust reserve asset management to instill confidence, ensure the stability of the peg and avoid a run on the coin with possible contagion to the financial sector. Like money market funds (MMFs), reserve assets of stablecoins need to be liquid to allow users to redeem their stablecoins in fiat currency. Meticulous management of reserve assets underpins users’ confidence in stablecoins. A loss of confidence could trigger large-scale redemption requests leading to the liquidation of reserve assets with negative contagion effects on the financial system.

8.1 Potential Risks of Stabilization Mechanism

Similar to other financial products, stablecoins carry risks for investors and users. These risks depend on a range of factors, including the design of the stablecoin arrangement and its applications. Stablecoins that are fully backed by high-quality liquid assets carry substantially lower risks for investors and users than other stablecoins, particularly algorithmic stablecoins. A key element of stablecoin issuance is the stabilization mechanism, which aims at reducing volatility and underpins an expectation that stablecoins will be redeemed at par, on demand. For most stablecoins covered in this note, the stabilization mechanism is a peg to a fiat currency sustained by reserves. Stablecoin issuers and network administrators face pressure from end users to meet redemptions at, or very close to, par upon request, even if issuers have no obligation to do so. The ability to meet such requests hinges on the safety and liquidity of the assets held as reserves. The management of reserves is specified by the governing body (usually the issuer). Reserves are typically held in custody by a third party, such as a financial institution. Reserves, though, can vary along a continuum from highly liquid to illiquid depending on the redemption pledge by the issuer and the redemption needs from the end-holders.
8.2 Investment and Redemption Risks

FDUSD is backed by cash and cash equivalents only. Reserves are managed by reputable and regulated investment managers. Custody services of the reserves are provided by First Digital Trust Limited. Primary risks for users arise from the potential failure of the issuer to fulfill the claimed structural characteristics of the stablecoin. These encompass the stablecoin's nominal value, the investment mandate of the reserves, and the commitment to redeem stablecoins for fiat cash.

**Investment Mandate**

The reserve is composed of cash and a basket of highly liquid US treasury bills of very short-dated maturity and overnight reverse repos.

**Commitment to Cash Redemption**

The FDUSD reserve assets are custodied for the Issuer by a Hong Kong registered trust company in accordance with the client money rules where reserve assets are segregated from the trust company's own assets to isolate the trust company's bankruptcy. Subject to any suspension and other rights set out in the FDD Terms it is intended that FDUSD can be purchased from and redeemed by FD121 Limited, on a one-for-one basis against U.S. dollars, notwithstanding the secondary market value of FDUSD.

8.3 Operational Risks

Stablecoins and other crypto assets are exposed to operational risks, including fraud and cyber risks. These risks stem from various factors, including the intricate nature of the cryptocurrency ecosystem, reliance on third-party service providers like exchanges and custody services, as well as the absence of effective remedies for the loss or theft of crypto assets. To mitigate these risks, we employ several strategies for improved security measures to safeguard against cyber threats and implement robust due diligence processes when engaging with third-party service providers.
8.4 Regulatory Risks
In addition to upholding the fundamental functionalities of stablecoins, our utmost priority lies in fostering strong collaboration with regulatory authorities. We recognize the significance of maintaining compliance with applicable regulations, and as such, we actively engage with regulators to ensure a thorough understanding and adherence to the evolving regulatory landscape. Our commitment to cooperation serves as the guiding principle in navigating this dynamic environment as we strive to deliver innovative stablecoin solutions while upholding the highest compliance standards.

8.5 Counterparty Risks
The involvement of financial intermediaries in custody and redemption processes can introduce additional risks, such as delays in redemptions and increased costs. In certain cases, stablecoin issuers may depend on crypto asset exchanges, market makers, commercial bank/ATM operators, or other money transmitters to facilitate redemption requests and disburse cash to token-holders. However, this reliance on third parties can potentially amplify run risks, thereby necessitating careful consideration and risk management to ensure smooth and efficient redemption processes while minimizing any adverse effects on token holders.

9. Conclusion
FDUSD encompasses a wide array of benefits that greatly enhance user experiences. It combines redeemable properties, programmability, regulatory compliance, accessibility, low transaction fees, bankruptcy remote functionality, decentralization, and seamless trading capabilities. These attributes collectively create a secure, efficient, and convenient digital currency option for users, offering reliability and stability in their financial transactions. Whether for cross-border payments, smart contract executions, or day-to-day transactions, FDUSD's remarkable features make it an enticing choice for users seeking a trusted and dependable solution within the realm of cryptocurrencies.
Glossary of Terms

1. **FDUSD user/holder:**
   An FDUSD user or holder refers to an individual or entity that possesses and utilizes stablecoins in the course of their activities.

2. **Issuer:**
   The stablecoin issuer herein refers to FD121 Limited, which is responsible for the creation, issuance, and management of a stablecoin.

3. **Money market funds (MMF):**
   Money market funds (MMFs) are mutual funds that invest in short-term, low-risk debt securities such as Treasury bills, commercial paper, and certificates of deposit. MMFs are designed to provide investors with a safe and liquid investment option that can generate a modest return while preserving the value of the investment.

4. **Stablecoin**
   Stablecoin: A term used to describe a crypto asset that is pegged to underlying reserve assets or managed by software algorithms to enforce price stability. Stablecoins are designed to maintain a relatively stable price so that users can avoid the volatility risks common in the crypto markets.
Appendix

About First Digital

First Digital

Established in 2019, First Digital is Asia’s leading multi-faceted trust partner bridging the gap between the traditional and digital financial worlds. With over three decades of experience, First Digital provides expertise and innovative solutions through a comprehensive and personalized suite of trustee services to help future-proof their partners. This includes structuring, custody, payroll, escrow, and administration services. First Digital was recently named one of the leading Emerging Giants of Hong Kong in KPMG and HSBC’s ‘Emerging Giants in Asia Pacific’ Report 2022.

About FD121

FD121 Limited (“FD121”) was established for the sole purpose of issuing stablecoins. It is a subsidiary of First Digital Group Limited (“FDG”).