IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

US Provisional Patent Application for

AN INTEGRATED TOKENIZED TREASURY MOVEMENT AND LEDGER-BASED SETTLEMENT SYSTEM FOR MULTI-JURISDICTIONAL B2B TRANSACTIONS

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BACKGROUND

Technical Field

[0001] The present invention generally relates to a financial system. The present invention more particularly relates to an integrated tokenized treasury movement and ledger-based settlement
10   system.

Description of the Related Art

[0002] Currently known cross-border and multi-jurisdictional payments face significant friction, including regulatory delays, pre-funding requirements, lack of real-time settlement, unclear
15   source-of-funds trails, and technical fragmentation between platforms. For both B2B and B2C markets, this results in operational bottlenecks, high fees, increased fraud risks, and compliance challenges, especially in high-risk corridors such as Latin America, Middle-East and North Africa, and Southeast Asia. Payment platforms such as Aeon (Brazil) enable crypto-to-fiat payments via Pix QR codes. Moreta (Privy) allows cross-border stablecoin payments via QR codes. List of fiat
20   on-ramps (Alchemy's listing) includes tools that let users buy/sell crypto/tokens with local currency, using QR codes/e-e-wallets, and the like. Presently, there is a movement in the market towards more seamless, local-currency onboarding and QR/link or wallet-based payments into crypto/tokens, but most often they are more generic or do not combine all features in a single, tightly integrated system.
25   [0003] Hence, there is a need for an integrated tokenized treasury movement and ledger-based settlement system that introduces a fully integrated, proprietary payment infrastructure that leverages smart contract-based tokens to represent fiat currency in a closed-loop, on-chain environment.

[0004] The above-mentioned shortcomings, disadvantages, and problems are addressed herein,
30   and will be understood by reading and studying the following specification.

SUMMARY

[0005] This summary is provided to introduce a selection of concepts in a simplified form that are further disclosed in the detailed description. This summary is not intended to determine the scope of the claimed subject matter.

[0006] The present technology discloses a proprietary, application programming interface (API)-driven financial infrastructure to enable real-time, tokenized treasury movement and fiat settlement. The present technology utilizes two internally created smart contract tokens, such as BRXP and USXP, each pegged 1:1 to fiat currencies (Brazilian Real (BRL) and US dollar (USD), respectively), with on-chain issuance, conversion, and audit logic. The term "token" refers to closed-loop, non-tradable ledger-based fiat representations redeemable only within the ecosystem. All payment functions, onboarding flows, know your customer (KYC) identity mapping, foreign exchange (FX) conversion logic, invoice creation, merchant subaccount handling, and withdrawal operations are custom-coded and exposed via secure APIs. No third-party processing or token infrastructure is relied upon. Users and merchants interact with the system through QR codes, payment links, or automated agents, triggering internal logic for token creation, movement, and eventual fiat redemption. All ledger activity is recorded on-chain (e.g., via a distributed ledger network) for full traceability and compliance. The present technology represents a self-contained, production-ready infrastructure designed to deliver programmable, compliant, and seamless token-based settlement across business-to-business (B2B) and business-to-consumer (B2C) use cases without reliance on external liquidity, exchanges, or outsourced codebases.

[0007] The present technology enables compliant, on-chain tokenized value transfer and settlement across both B2B and B2C transactions. Unlike existing stablecoins or third-party digital assets, the 1:1 smart contract-backed tokens representing Fiat (BRXP and USXP) of the present technology are non-tradable, compliance-bound instruments issued and redeemed exclusively within the proprietary ecosystem to represent fiat value. In the present technology, each issuance, transfer, or burn is directly tied to a KYC-verified account and ledger-based accounting system. In the present technology, consumers can initiate payments by scanning a merchant QR code or using a payment link that triggers automatic KYC, fiat-to-token conversion (e.g., BRL to BRXP), and payment settlement all within a single flow. The BRXP-to-USXP conversions in the present technology use dynamic market data (e.g., an external FX market data feed) to reflect real-world FX rates without requiring third-party exchange integration, ensuring pricing transparency and traceable value preservation across currencies. All the accounts across the token gateway (Xpayz) and fiat settlement rails (PayXGlobal) are tied via a shared KYC

framework, allowing invoice creation, partial payments, and token withdrawal across separate but interoperable environments. In the present technology, every user action, token issuance, payment, conversion, and invoice settlement is immutably recorded on-chain (e.g., via the distributed ledger network), enabling complete traceability and transaction integrity without sacrificing compliance. The present technology performs rule-based internal routing of payments (e.g., invoice fulfillment from token balance, merchant withdrawal requests) that mimic traditional treasury operations but without the latency and manual handling typical of SWIFT or ACH-based systems. Unlike traditional BaaS or embedded finance stacks, the present technology uses its own FX and liquidity logic, reducing reliance on correspondent banks or external crypto exchanges. Combining native currency onboarding, real-time token issuance, automated ledger-based accounting, and cross-jurisdictional treasury movement using a suite of smart contract-based tokens, together forms a new programmable financial layer that delivers real-time, KYC-traceable, token-based settlement across geographies, currencies, and user types, bridging legacy finance with modern tokenized architecture in a closed and controlled compliance-grade environment.

[0008] Various embodiments of the present technology enable real-time treasury movement, internal conversion between fiat equivalents (e.g., BRL → BRXP → USXP → USD), and seamless KYC-linked disbursements without reliance on third-party settlement networks. The present technology eliminates the need for intermediaries and external FX providers, manual KYC cross-checking between platforms, transaction delays tied to traditional banking rails, and exposure to settlement and liquidity timing mismatches. The present technology creates a programmable, traceable, and secure value movement system that meets both merchant and consumer needs while ensuring regulatory-grade compliance and cost-effective operations.

[0009] It is to be understood that the aspects and embodiments of the disclosure described above may be used in any combination with each other. Several of the aspects and embodiments may be combined to form a further embodiment of the disclosure.

[0010] The foregoing summary is illustrative only and is not intended to be in any way limiting. In addition to the illustrative aspects, embodiments, and features described above, further aspects, embodiments, and features will become apparent by reference to the drawings and the following detailed description.

[0011] These and other objects and advantages will become more apparent when reference is made to the following description and accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The other objects, features and advantages will occur to those skilled in the art from the following description of the preferred embodiment and the accompanying drawings in which:

[0013] **FIG. 1** illustrates a block diagram of an integrated tokenized treasury movement and ledger-based settlement system, in accordance with an embodiment; and

[0014] **FIG. 2** illustrates a flowchart of a method for the conversion of fiat to tokenized assets, in accordance with an embodiment.

[0015] Although the specific features of the embodiments herein are shown in some drawings and not in others. This is done for convenience only as each feature may be combined with any or all of the other features in accordance with the embodiments herein.

DETAILED DESCRIPTION OF THE DRAWINGS

[0016] The detailed description of various exemplary embodiments of the disclosure is described herein with reference to the accompanying drawings. It should be noted that the embodiments are described herein in such details as to clearly communicate the disclosure. However, the number of details provided herein is not intended to limit the anticipated variations of embodiments; on the contrary, the intention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the present disclosure as defined by the appended claims.

[0017] It is also to be understood that various arrangements may be devised that, although not explicitly described or shown herein, embody the principles of the present disclosure. Moreover, all statements herein reciting principles, aspects, and embodiments of the present disclosure, as well as specific examples, are intended to encompass equivalents thereof.

[0018] While the disclosure is susceptible to various modifications and alternative forms, specific embodiment thereof has been shown by way of example in the drawings and will be described in detail below. It should be understood, however, that it is not intended to limit the disclosure to the forms disclosed, but on the contrary, the disclosure is to cover all modifications, equivalents, and alternatives falling within the scope of the disclosure.

[0019] The various embodiments of the present technology provide a unified, tokenized treasury movement system that combines blockchain-based settlement, real-time foreign exchange conversion, jurisdiction-aware know your customer (KYC) integration, and internal ledger mapping across business-to-business (B2B) and business-to-consumer (B2C) financial flows, all within a proprietary closed-loop infrastructure. The present technology facilitates native currency onboarding, real-time token issuance, automated ledger-based accounting, and cross-jurisdictional treasury movement using a suite of smart contract-based tokens backed 1:1 by fiat currencies (e.g.,

BRXP to BRL, USXP to USD). The system includes a dynamic platform (Xpayz) that allows users or consumers to submit KYC, purchase proprietary tokens (e.g., BRXP) via local fiat payment rails (such as Pix in Brazil), and make payments using a QR code or a payment link generated by merchants. In present technology, all actions, including token creation, transfers, and conversions, are recorded on-chain using the Polygon blockchain. In the present technology, users can also preload BRXP to their accounts and send tokens internally across the platform. In an embodiment, tokens are closed-loop, non-tradable ledger-based fiat representations redeemable only within the ecosystem. A conversion mechanism in the present technology enables BRXP to be exchanged for USXP on Xpayz using live FX data feeds (e.g., from an external FX market data feed) to reflect accurate market conditions. The recipient can use USXP internally or request a fiat payout via a connected platform (PayXGlobal), which performs regulated disbursements to the user's verified bank account. All funds received or withdrawn are linked back to verified KYC accounts across both platforms. Merchants can create subaccounts, issue invoices, and receive token-based payments (partial or full) in either BRXP or USXP, based on token preference settings. Additionally, invoice payments from PayXGlobal clients can be pulled from their linked USXP balance in Xpayz, automatically triggering the necessary token redemption and fiat payout without manual intervention. The present technology ensures full auditability, traceability, and compliance by recording all token activity on blockchain, linking every user, transaction, and payout to a verified KYC identity, and by using internal smart treasury routing to eliminate the need for pre-funding or third-party liquidity. The present technology represents a unified digital infrastructure for real-time, compliant, and programmable financial flows, optimized for both consumer and enterprise use cases in emerging and global markets.

[0020] **FIG. 1** illustrates a block diagram of an integrated tokenized treasury movement and ledger-based settlement system **100**, in accordance with an embodiment. The system **100** may comprise a processor **102,** a memory **104,** a tokenized fiat representation module **106**, a currency onboarding module **108**, a conversion module **110**, an internal account and automated ledger module **112**, an integrated invoicing module **114**, a payment flow module **116**, a withdrawal and settlement module **118**, a KYC and identity mapping module **120**, an API driven architecture module **122**, a blockchain based audit trail module **124** and an AI-automation module **126**. The processors **102** and the memory **104** may be communicably coupled to one or more other processors. The one or more processor(s) may be implemented as one or more microprocessors, microcomputers, microcontrollers, edge or fog microcontrollers, digital signal processors, central processing units, logic circuitries, and/or any devices that process data based on operational instructions. Among other capabilities, one or more processor(s) may be configured to fetch and execute computer-readable instructions stored in the memory **104** of the system **100**. The processor

102 is configured to fetch and execute computer-readable instructions stored in the memory **104**. The memory **104** may be configured to store one or more computer-readable instructions or routines in a non-transitory computer-readable storage medium, which may be fetched and executed to create or share data packets over a network service. The memory **104** may include any non-transitory storage device including, for example, volatile memory such as Random-Access Memory (RAM), or non-volatile memory such as Erasable Programmable Read-Only Memory (EPROM), flash memory, and the like. The memory **104** may be configured to store one or more computer-readable instructions or routines in a non-transitory computer-readable storage medium, fetched and executed to create or share data packets over a network service.

[0021] The tokenized fiat representation module **106** creates two proprietary, non-tradable smart contract tokens, including BRXP (pegged 1:1 to BRL) and USXP (pegged 1:1 to USD). The BRXP and USXP tokens are issued and burned within a closed-loop system, and each token issuance is linked to KYC-verified users. The currency onboarding module **108** ensures the onboarding of users using native currency (e.g., BRL) via QR Code payment or link-based payment request. The currency onboarding module **108** further converts fiat into BRXP instantly at point-of-payment and integrates with local payment systems (e.g., Pix API in Brazil). The conversion module **110** converts the BRXP token to the USXP token and vice versa and ensures an internal token-to-token exchange system. BRXP-to-USXP conversions use dynamic market data (e.g., an external FX market data feed) to reflect real-world FX rates without requiring third-party exchange integration for ensuring pricing transparency and traceable value preservation across currencies. The internal account and automated ledger module **112** create individual account ledgers for users and merchants on Xpayz and transfers between users are recorded on-chain. Merchants can create subaccounts for operational or affiliate use. All accounts across the token gateway (Xpayz) and fiat settlement rails (PayXGlobal) are tied via a shared KYC framework, allowing invoice creation, partial payments, and token withdrawal across separate but interoperable environments. The integrated invoicing module **114** issues an invoice in BRXP or USXP for a verified user. The invoices can be partially paid or fully paid, or paid internally (Xpayz user to user) or paid externally (via Pix or banking partner), where the smart logic applies payments automatically to open invoices. The payment flow module **116** ensures a QR or a link-based payment flow, where the QR or link can initiate a KYC process, a fiat payment, a token issuance (BRXP), a ledger credit, a merchant notification, and tracking through QR code or link and eliminates the need for users to manually interact with wallets or banking apps. The rule-based internal routing of payments (e.g., invoice fulfillment from token balance, merchant withdrawal requests) mimics traditional treasury operations but without the latency and manual handling typical of SWIFT or ACH-based systems. The withdrawal and settlement module **118** performs settlements routed through PayXGlobal, tied

to the original KYC identity, and performs intelligent routing of withdrawals, which are subjected to predefined fees and FX logic. In an embodiment, withdrawals of USXP from the Xpayz platform are restricted to direct transfers into the same KYC-bound entity's PayXGlobal account. This ensures that USXP may only be redeemed by verified business entities within the proprietary ecosystem. Upon initiation of such a withdrawal, the system automatically applies predefined fee logic and records the transaction on the blockchain audit trail for regulatory visibility.

[0022] In an embodiment, invoices issued on PayXGlobal may be satisfied by balances held in Xpayz. For example, Supplier B may issue an invoice from PayXGlobal to User A. User A may elect to settle the invoice in USD (via PayXGlobal) or in USXP (via Xpayz). If USXP is selected, the system automatically withdraws the necessary USXP from User A's Xpayz account, credits User A's PayXGlobal account in USD, and applies settlement to Supplier B's PayXGlobal account. During this process, the system deducts applicable fees automatically before final settlement. In all such flows, including client-initiated withdrawals and auto-invoice settlements, the system enforces a background treasury approval layer. The background treasury approval layer requires an internal treasury operator's validation (e.g., an "approval button") before external disbursement occurs. The approval is invisible to end-users, but it ensures compliance, fraud prevention, liquidity management, and operational security across jurisdictions.

[0023] The KYC and identity mapping module **120** ties all user actions to a single verified identity across PXG and Xpayz for enabling seamless movement between tokenized and fiat-based systems and ensuring cross-platform compliance, traceability, and permissions. The API driven architecture module **122** provides access for a plurality of functional elements including, token creation, payment, conversion, invoice, and withdrawal via secure APIs. The API driven architecture module **122** enables third-party white labeling or platform integration and supports fintechs, marketplaces, merchants, and wallets. The blockchain-based audit trail module **124** records all token issuance, transfers, conversions, and burns on-chain (e.g., a distributed ledger network) and ensures auditability and regulatory visibility. The AI-automation module **126** enhances the ecosystem with proprietary AI agents for automating invoice creation and reconciliation, fraud monitoring and anomaly detection, automated FX execution decisions based on market data and treasury logic, intelligent routing of withdrawals, approvals, and settlement queues, and predictive token reserve balancing across jurisdictions. In an embodiment, the AI agents will act on behalf of users and merchants through secure credentials and API-based permissions, reducing friction and human error across the ecosystem. The AI system will plug into all API endpoints natively, ensuring seamless orchestration of token movements, conversions, and compliance checks without manual intervention.

[0024] In certain embodiments, the system may comprise additional layers of compliance, treasury management, and intelligent routing logic to enhance interoperability across jurisdictions. The system may comprise a rules-based permission engine that dynamically governs user and entity capabilities based on jurisdictional attributes and compliance status. Each transaction or account action is permitted, restricted, or modified according to the applicable regulatory framework of the user's country, entity type, and verified KYC/KYB classification. For example, entities operating within Brazil may transact in BRXP or PIX, whereas U.S.-registered entities may operate exclusively in USD (USXP) and Fedwire channels. The system also incorporates a reserve attestation framework enabling verification that all tokenized or ledger-based balances (e.g., USXP, BRXP) are backed by equivalent fiat reserves held within designated financial institutions. The treasury operations include a reconciliation process comparing total on-ledger supply with fiat balances to ensure full collateralization on a one-to-one basis relative to the underlying currency. In embodiments where reserve levels fluctuate, either increasing or decreasing relative to the circulating tokenized supply, the system may initiate reserve balancing actions. The balancing actions include minting or burning tokenized units of the corresponding currency representation, or adjusting fiat reserves through capital injection or withdrawal to maintain the required 1:1 parity. This ensures continuous equilibrium between on-ledger assets and fiat reserves across all jurisdictions, providing auditable proof of reserve integrity. The system may establish integrations with external ERP or supplier management platforms, enabling automated retrieval ("auto-pull") of pending invoices. The retrieved invoices are automatically linked to the appropriate user ledger, account, or treasury channel within the ecosystem, enabling direct payment execution or funding allocation without manual data entry. Additionally, the system supports partial funding or settlement of invoices and payment requests. When a full balance is unavailable or when a user elects to fund incrementally, the platform records proportional fulfilment of the total invoice amount. The subsequent payments complete the remaining balance, with all partial settlements tracked and reconciled within the treasury ledger.

[0025] **FIG. 2** illustrates a flowchart **200** of a method for the conversion of fiat to tokenized assets, in accordance with an embodiment. At step **202**, a plurality of tokens comprising a BRXP and a USXP is created and issued, where each token issuance is linked to KYC-verified users. At step **204**, payments are initiated by scanning a merchant via a QR code payment or a link-based payment request that triggers automatic KYC, fiat-to-token conversion, and payment settlement in a single flow. At step **206**, fiat currency is converted into the BRXP token instantly at the point of payment and integrated with local payment systems. At step **208**, a token (BRXP) is converted to another token (USXP) by using dynamic market data to reflect real-world FX rates without requiring third-party exchange integration. At step **210,** an invoice is issued in one of BRXP or

USXP by a verified user, where the invoice is associated with one of the corresponding user or merchant accounts, through an internal matching process during uploading or retrieving of the invoice. In an embodiment, the system validates funding availability or credit allocation and assigns the invoice to a treasury routing sequence for execution. At step **212**, a rule-based internal routing of payments is performed using an artificial intelligence component, where every user action, token issuance, payment, conversion, and invoice settlement is immutably recorded on-chain, enabling complete traceability and transaction integrity without sacrificing compliance. In an embodiment, the system employs the artificial intelligence component to optimize treasury routing. The algorithm determines the most efficient path for settlement based on liquidity distribution, jurisdictional constraints, transaction priority, and cost optimization. The routing engine may dynamically select between multiple partner entities or internal pools, enabling adaptive and compliant fund movement across the ecosystem. In an embodiment, each transaction, payment, or treasury event is recorded as an immutable on-chain log entry. The system associates each log with a unique identity binding derived from a verified KYC/KYB entity record. This enables traceable, compliance-aligned transparency while preserving data privacy through cryptographic hashing.

[0026] The present technology provides a tokenized fiat representation (BRXP and USXP) by creating two proprietary, non-tradable smart contract tokens, such as BRXP (pegged 1:1 to BRL) and USXP (pegged 1:1 to USD). The tokens are issued and burned within a closed-loop system, and each token issuance is linked to KYC-verified users. The present technology features a local currency onboarding with real-time token conversion, where users can onboard using native currency (e.g., BRL) via QR Code payment or link-based payment request. The present technology converts fiat into BRXP instantly at point-of-payment and the present technology integrates with local payment systems (e.g., Pix API in Brazil). The present technology ensures smart contract-based conversion between BRXP and USXP. The present technology has an internal token-to-token exchange system. The present technology is a fully programmable treasury logic for pricing and slippage tolerance with real-time FX rates pulled via data feeds (e.g., an external FX market data feed), and there is no reliance on third-party exchanges or order books. The present technology has an internal account and subaccount ledger system where users and merchants have individual account ledgers on Xpayz, merchants can create subaccounts for operational or affiliate use and transfers between the users are recorded on-chain. The present technology has integrated invoicing system, where any verified user can issue an invoice in BRXP or USXP. The invoices can be partially paid or fully paid, paid internally (Xpayz user to user), or paid externally (via Pix or banking partner). Smart logic applies payments automatically to open invoices. The present technology features a QR code / link-based payment flow, where QR or link can initiate a KYC

process, a fiat payment, token issuance (BRXP), ledger credit, merchant notification, and tracking. The present technology eliminates the need for users to manually interact with wallets or banking apps. The present technology enables users to request payout (e.g., USXP → USD), settlements routed through PayXGlobal are tied to the original KYC identity, and withdrawals are subjected to predefined fees and FX logic. The present technology features a multi-platform KYC & identity mapping where a single KYC identity is shared between Xpayz and PXG. The mapping ensures cross-platform compliance, traceability, and permissions, and enables seamless movement between tokenized and fiat-based systems. The present technology has a full API-driven architecture, where every functional element (token creation, payment, conversion, invoice, withdrawal) is accessible via secure APIs. The API-driven architecture enables third-party white labelling or platform integration and supports fintechs, marketplaces, merchants, and wallets. The present technology features a blockchain-based audit trail, where all token issuance, transfers, conversions, and burns are recorded on-chain (e.g., a distributed ledger network). Immutable, time-stamped records ensure auditability and regulatory visibility. The blockchain-based audit trail supports smart contract extensions for future programmability. The present technology has an AI agent automation layer, where the ecosystem is enhanced with proprietary AI agents that will automate key operational functions like invoice creation and reconciliation, fraud monitoring and anomaly detection, automated FX execution decisions based on market data and treasury logic, intelligent routing of withdrawals, approvals, and settlement queues, predictive token reserve balancing across jurisdictions. The AI agents act on behalf of users and merchants through secure credentials and API-based permissions, reducing friction and human error across the ecosystem. The AI system plugs into all API endpoints natively, ensuring seamless orchestration of token movements, conversions, and compliance checks without manual intervention.

[0027] Visa Tokenized Asset Platform (VTAP) enables financial institutions to issue and manage fiat-backed tokens on blockchain networks. The VTAP is similar to the present technology based on blockchain, tokenization of fiat, which could enable programmable money. However, VTAP is for FI/institutions and does not publicly include link/QR payments from local fiat, or an integrated invoice system, or internal token to token conversion (BRXP↔USXP style). Finzly is an API-first, multi-rail payments platform and has a stablecoin / tokenized deposit strategy. Finzly, offer real-time APIs, programmable rules, tokenized deposits, etc, but does not look like they offer a closed-loop proprietary token 1:1 tied to local currency and full ecosystem for B2C, QR/link payments, internal merchant subaccounts, or token conversion between proprietary tokens with live FX, etc ., as the present technology. Alchemy Pay is a fiat-crypto on-ramps from many countries using cards, bank transfers, and mobile wallets. Alchemy Pay bridge fiat into crypto, offer some API integrations. But Alchemy Pay are more general crypto to fiat ramps and vice versa

rather than a full internal ledger and token system with proprietary tokens, local-currency peg, internal conversion, invoice features, etc. Fiat Republic is an aggregated banking & payments API for crypto businesses, regulated and compliance-oriented. Similar in that Fiat Republic provide banking/API infrastructure, fiat rails, compliance tools. Fiat Republic are more about providing fiat rails and banking integration. Fiat Republic do not (publicly) offer everything like QR/link local-currency to proprietary token, token to token conversion inside the platform, merchants creating invoices, internal payment pools, etc. In MoonPay, users can buy crypto with fiat via many payment methods, widely used on-ramps for consumer crypto purchases. Similar in that MoonPay facilitate fiat to crypto flow, API-based integrations. But MoonPay do not (from what's public) do all the features, proprietary stable tokens pegged 1:1 within a closed system with full internal transfers, QR/link payments, merchant subaccounts, or invoice creation and token conversion between proprietary tokens as in the present technology. Rain provides stablecoin-linked Visa cards, payment APIs partner wallet infrastructure. Rain is similar to the present technology by using stablecoins, linking payments APIs, card-based disbursements. However, Rain does not appear (publicly) to offer a full system of QR/link payments triggered with local currency onboarding into a proprietary token, internal token conversion, invoice systems, etc., at least not with the same breadth as in the present technology.

[0028] The present technology has a proprietary smart contract token 1:1 tied to fiat inside an ecosystem (BRXP for BRL, USXP for USD), that is usable internally and not just a general stablecoin or third-party token. The present technology provides local currency onboarding and instant conversion to proprietary token at purchase time via link/QR code with built-in KYC, all in one flow. The present technology has full API-driven architecture, where every feature including token issuance, ledger mapping, QR/link payment, merchant subaccounts, conversions, invoices, and withdrawals are exposed via APIs, so that the partners or developers can integrate. The present technology has a dual token conversion built in (BRXP ↔ USXP) with live FX quotes inside the platform, maintaining real rates, with internal ledger movement, all logged on blockchain. The present technology has invoice/merchant subaccount structure which allow merchants to issue invoices that clients can pay in the token of their choice, partial/full payments, withdrawals to bank accounts, etc. the present technology has KYC linkage across multiple platforms, so that a user or merchant has a consistent identity between Xpayz, PayXGlobal, etc., enabling fluid movement and payout across the ecosystem. The present technology performs full on-chain traceability / audit log by recording every token issuance/burn /transfer/conversion etc., on a blockchain network (e.g., Polygon), supporting transparency and compliance.

[0029] In an embodiment, as compared to the existing technologies, the present technology features a dual-token system with smart contract logic, a closed ecosystem with internal liquidity,

a real-time fiat-to-token via local payment rails, an automated treasury logic & invoicing, a cross-platform KYC and identity mapping, an API-driven from end to end, blockchain transparency, and AI Automation. The present technology provides proprietary, non-tradable BRXP and USXP tokens, which represent real fiat in the ledger. The present technology uses live FX rates for conversion between tokens and is fully internal. The present technology do not need external exchanges or third-party stablecoins. The present technology eliminates delays, slippage, and third-party risk. The present technology provides tokenized onboarding tied to smart contracts and KYC. Brazilian consumers can pay a Pix QR and instantly receive BRXP. In present technology, invoice creation, partial settlement, and withdrawal routing are all programmable via API. No existing system supports this degree of automation, traceability, and customization. In present technology, all user actions are tied to a single verified identity across PXG and Xpayz. The present technology ensures regulatory compliance and frictionless internal movement. In present technology, every component from QR payment to token conversion to invoicing to payouts is exposed via API, allowing third parties to build directly on the infrastructure. The present technology does not depend on a single frontend. In present technology, all actions are recorded immutably on Polygon. In present technology, next-generation features (AI agents) will handle compliance checks, treasury optimization, and auto-routing for invoices and withdrawals.

[0030] The various embodiments of the present technology enable real-time treasury movement, internal conversion between fiat equivalents (e.g., BRL → BRXP → USXP → USD), and seamless KYC-linked disbursements without reliance on third-party settlement networks. The present technology eliminates the need for intermediaries and external FX providers, manual KYC cross-checking between platforms, transaction delays tied to traditional banking rails, and exposure to settlement and liquidity timing mismatches. The present technology creates a programmable, traceable, and secure value movement system that meets both merchant and consumer needs while ensuring regulatory-grade compliance and cost-effective operations.

[0031] The foregoing description of the specific embodiments will so fully reveal the general nature of the embodiments herein that others can, by applying current knowledge, readily modify and/or adapt for various applications such as specific embodiments without departing from the generic concept, and, therefore, such adaptations and modifications should and are intended to be comprehended within the meaning and range of equivalents of the disclosed embodiments. It is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation. Therefore, while the embodiments herein have been described in terms of preferred embodiments, those skilled in the art will recognize that the embodiments herein can be practiced with modifications. However, all such modifications are deemed to be within the

scope of the claims. The scope of the embodiments will be ascertained by the claims to be submitted at the time of filing a complete specification.

AN INTEGRATED TOKENIZED TREASURY MOVEMENT AND LEDGER-BASED SETTLEMENT SYSTEM FOR MULTI-JURISDICTIONAL B2B TRANSACTIONS

ABSTRACT

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The present technology provides a platform for the conversion of fiat to tokenized assets. The platform creates a plurality of tokens comprising a BRXP and a USXP, where each token issuance is linked to KYC-verified users. The platform initiates payments by scanning a merchant via a QR code or a link-based payment request that triggers automatic KYC, fiat-to-token conversion, and

10   payment settlement in a single flow. The platform converts fiat currency into the BRXP token and integrates with local payment systems. The platform converts a token (BRXP) to another token (USXP) by using dynamic market data to reflect real-world FX rates without requiring third-party exchange integration. "Token" refers to closed-loop, non-tradable ledger-based fiat representations redeemable only within the ecosystem. The platform performs rule-based internal

15   routing of payments, where every user action, token issuance, payment, conversion, and invoice settlement is immutably recorded on-chain, enabling complete traceability and transaction integrity without sacrificing compliance.