

Full Claim Set in Formal USPTO-Style Format USPTO Filing US19362415 (Priority October 20, 2024)

- 1. (System Claim)** A system for an AI Agent-driven Web4 tokenized banking platform, comprising: one or more AI Agents trained using Retrieval-Augmented Generation (RAG) and Large Language Model (LLM) architectures on data from IoT systems, Digital MRV systems, Internet sources, or other sources; a blockchain-based distributed ledger; an issuance engine controlled by the AI Agents configured to tokenize any physical asset, commodity, security, contract, intangible asset, financial instrument, natural resource, property, or other Real World Asset (RWA) as a digital twin or digital representation into one or more value tokens functioning as digital bearer instruments; and a tokenized banking module configured to autonomously execute banking services using the value tokens, including deposits, withdrawals, payments, transfers, interest-free loans, staking, reinvestment of reserves, and yield generation.
- 2. (Dependent Claim)** The system of claim 1, wherein the one or more AI Agents are configured to autonomously analyze, score, validate, and value the RWA prior to tokenization.
- 3. (Dependent Claim)** The system of claim 1 or 2, wherein the value tokens include at least one of deposit tokens, loan tokens, and payment tokens.
- 4. (Dependent Claim)** The system of any one of claims 1–3, further comprising special custody account logic configured to hold pledged RWA collateral without transferring legal title to the platform while enabling hypothecation.
- 5. (Dependent Claim)** The system of any one of claims 1–4, wherein the tokenized banking module is configured to perform fractional reserve banking using smart contracts and the pledged collateral held in special custody accounts.
- 6. (Dependent Claim)** The system of any one of claims 1–5, wherein the tokenized banking module supports no-fee payments and transfers using the value tokens functioning as digital bearer instruments.
- 7. (Dependent Claim)** The system of any one of claims 1–6, wherein the tokenized banking module is configured to issue interest-free personal loans and commercial loans using loan tokens issued via hypothecation.
- 8. (Dependent Claim)** The system of any one of claims 1–7, further comprising automated logic for requiring loan repayments in external assets or currencies different from the issued loan tokens to generate network effects and additional token minting.
- 9. (Dependent Claim)** The system of any one of claims 1–8, wherein the tokenized banking module is configured to provide staking services and yield generation based on performance or reinvestment of the underlying RWA collateral.
- 10. (Dependent Claim)** The system of any one of claims 1–9, further comprising integration with one or more commodity, cryptocurrency, security, or hybrid exchanges for trading of the value tokens.
- 11. (Dependent Claim)** The system of any one of claims 1–10, wherein the one or more AI Agents are configured to function as a drop-in module capable of integrating into and autonomously managing financial operations of a corporate, institutional, governmental, or individual network.

12. (Dependent Claim) The system of any one of claims 1–11, further comprising compliance logic wherein the AI Agents perform KYC/AML verification at onboarding while maintaining user privacy during normal operations on the blockchain.

13. (Dependent Claim) The system of any one of claims 1–12, wherein the system implements pledge mechanics via smart contracts that preserve original ownership of the RWA collateral in special custody accounts.

14. (Dependent Claim) The system of any one of claims 1–13, wherein the tokenized banking module supports burn/issue models or direct transfer models for the digital bearer instruments.

15. (Dependent Claim) The system of any one of claims 1–14, further comprising clawback mechanisms for defaulted loans and FDIC-aligned segregation of special custody accounts.

16. (Dependent Claim) The system of any one of claims 1–15, wherein the AI Agents are configured to discover, value, list, and execute trades or swaps of the value tokens on external exchanges while maintaining integration with the tokenized banking services.

This provides a strong, hierarchical dependent claim structure for **Independent Claim 1**, offering excellent fallback protection while fully covering the key inventive aspects of the October 20, 2024 provisional (AI Agents, broad RWA tokenization, digital bearer instruments, special custody accounts, hypothecation, fractional reserve mechanics, multi-token operations, exchange trading, autonomous corporate operations, network effects, compliance, and pledge mechanics).