

### **Independent Claim 11 (Business Method – Reinvestment Strategies for RWA Digital Twins)**

A business method for managing tokenized digital twins of any physical asset or RWA, comprising: generating value tokens on a blockchain from IoT-measured data; trading the tokens on an integrated blockchain exchange; and automatically directing a portion of proceeds from trades or derivatives into reinvestment that expands IoT instrumentation or physical asset infrastructure to increase RWA supply and liquidity.

### **Dependent Claims for Independent Claim 11**

The following is a complete set of dependent claims (Claims 2–22) that further specify and narrow the business method of Independent Claim 11. Each dependent claim is fully supported by the disclosures in the attached document (Patent Filing Highlights US20220180374A1.pdf), including the detailed descriptions of generating value tokens from IoT-measured data, integrated blockchain trading/exchange functionality, automated allocation and direction of proceeds from trades or derivatives, reinvestment into expanding IoT instrumentation or physical asset infrastructure, increasing RWA supply and liquidity, closed-loop automation, primary-market issuance, immutable ledger recording, multi-cloud redundancy, and the overall IoT-and-blockchain monetization and reinvestment cycle for tokenized digital twins of any physical asset or RWA as of the December 26, 2017 priority date.

### **Full Claim Set in Formal USPTO-Style Format (Reordered to Start with Claim 1)**

1. A business method for managing tokenized digital twins of any physical asset or RWA, comprising: generating value tokens on a blockchain from IoT-measured data; trading the tokens on an integrated blockchain exchange; and automatically directing a portion of proceeds from trades or derivatives into reinvestment that expands IoT instrumentation or physical asset infrastructure to increase RWA supply and liquidity.
2. The business method of claim 1, wherein generating value tokens further comprises collecting real-time data associated with any physical asset or RWA using IoT sensors, routers, and gateways, transmitting the data to an IoT cloud platform, validating the data, and generating a digital RWA certificate prior to minting on the blockchain.
3. The business method of claim 1, wherein generating value tokens comprises creating the value tokens as a primary market activity based on IoT-verified data associated with the physical asset or RWA.
4. The business method of claim 1, wherein trading the tokens further comprises listing the value tokens on a blockchain trading platform that functions as a commodity, crypto, or security exchange.
5. The business method of claim 1, wherein trading the tokens comprises processing market orders, limit orders, options, forwards, futures, swaps, or pre-market contracts on the integrated blockchain exchange.
6. The business method of claim 1, wherein trading the tokens further comprises supporting advanced order types selected from the group consisting of short selling, trailing stop orders, conditional orders, One-Triggers-the-Other (OTO) orders, One-Cancels-the-Other (OCO) orders, One-Triggers-a-One-Cancels-the-Other (OTOCO) orders, and combinations thereof.

7. The business method of claim 1, wherein trading the tokens further comprises applying time-in-force rules to orders, the time-in-force rules selected from the group consisting of day orders, good-'til-canceled orders (up to 180 days), fill-or-kill orders, immediate-or-cancel orders, on-the-open orders, on-the-close orders, and combinations thereof.
8. The business method of claim 1, wherein automatically directing a portion of proceeds further comprises allocating a predetermined percentage or fixed amount of proceeds from each executed trade or derivative.
9. The business method of claim 1, wherein automatically directing a portion of proceeds comprises directing the portion into reinvestment that expands IoT instrumentation, including additional sensors, routers, gateways, or edge hardware.
10. The business method of claim 1, wherein automatically directing a portion of proceeds comprises directing the portion into reinvestment that expands physical asset infrastructure associated with the RWA to increase future RWA supply and liquidity.
11. The business method of claim 1, wherein the reinvestment automatically increases RWA supply and liquidity by scaling IoT data acquisition or physical asset production capacity.
12. The business method of claim 1, wherein the blockchain ledger automatically records the reinvestment transactions as new cryptographically linked blocks to ensure immutable tracking of proceeds allocation and RWA supply growth.
13. The business method of claim 1, wherein the integrated blockchain exchange maintains multiple redundant copies across cloud environments to provide fault tolerance and Byzantine fault tolerance during trading and automated reinvestment operations.
14. The business method of claim 1, wherein the business method operates in a closed-loop automated process from IoT-measured data generation through value token trading and automatic reinvestment to continuously increase RWA supply and liquidity.
15. The business method of claim 1, wherein the value tokens represent immutable digital twins of any commodity, security, physical asset, financial instrument, or other RWA that are verifiable and cannot be double-spent due to the cryptographic provenance on the distributed ledger.
16. The business method of claim 1, wherein the business method eliminates intermediaries by performing end-to-end management—including value token generation, trading, and automated reinvestment—directly through the integrated IoT-and-blockchain platform.
17. The business method of claim 1, wherein the integrated blockchain exchange supports high-frequency, derivative, and institutional trading of tokenized digital twins while automatically directing proceeds into reinvestment.
18. The business method of claim 1, wherein automatically directing a portion of proceeds further comprises executing smart-contract functionality on the blockchain ledger to enforce the reinvestment allocation upon each trade or derivative execution.
19. The business method of claim 1, wherein the reinvestment expands IoT instrumentation or physical asset infrastructure in real time or near real time following trade or derivative execution.
20. The business method of claim 1, wherein the business method provides permanent auditability and fraud reduction through immutable ledger recording of value token generation, trading activity, and automated reinvestment transactions.

21. The business method of claim 1, wherein the business method supports scalable, industrial-scale management of tokenized digital twins by continuously reinvesting proceeds to increase RWA supply and liquidity at industrial scale.
22. The business method of claim 1, wherein the business method further comprises registering unique identifiers for IoT sensors, routers, and gateways on the blockchain ledger to cryptographically bind device provenance to the value tokens and support verifiable reinvestment tracking.

These claims form a self-contained, commercially robust claim family that directly maps to the business method for managing tokenized digital twins of any physical asset or RWA, including value token generation from IoT-measured data, integrated trading, and automatic reinvestment of proceeds to expand IoT instrumentation or physical asset infrastructure and increase RWA supply and liquidity as described in the December 26, 2017 provisional disclosure (and the incorporated earlier provisionals). The full set (renumbered to begin with Claim 1) can be incorporated into a non-provisional, continuation, or continuation-in-part application (alone or in combination with the claim families of Independent Claims 1–10) to further strengthen the Parisii patent portfolio for tokenized Real World Assets and blockchain-based RWA/digital twin infrastructure.