CMTDE V3

GOLD-BACKED DIGITAL ASSET

TECHNICAL WHITE PAPER

PRIVATE OFFERING MEMORANDUM

FEBRUARY 2026

www.cmtde-v3.org

CMTDE V3

DIGITIZED GOLD-BACKED DEPOSIT CLAIM

TECHNICAL WHITEPAPER

Private Offering Memorandum — Regulation D 506(b)

Delaware Statutory Trust Structure

Smart Contract: 0xCd8eAbAc84eD4Bf824a414A04CC6bE7E3B0D140D

Presented by Carlisle Media Productions, LLC

www.cmtde-v3.org

February 2026

Token Disclosures

Safe Harbor

Statements in this presentation may constitute forward-looking statements and are subject to numerous risks and/or uncertainties, including, but not limited to, a lack of adequate capital to enable the Delaware Statutory Trust (DST), a legally recognized business trust formed under Chapter 38 of Title 12 of the State of Delaware Code, hereinafter referred to as TRUST, to execute its business plan or make important business acquisitions in order to grow; the failure to successfully complete the development of new or enhanced products and services; the lack of market demand for any of the TRUST's existing or new products and services; failure to grow the TRUST's businesses; a decline in revenues; litigation adversely affecting the TRUST; failure to operate profitably; operating losses that may impair the TRUST as a going concern; any actions by the TRUST or its affiliates that may have adverse effects on the TRUST's financial condition, operating results or business performance; the success of competitive products and services; other economic factors adversely affecting the TRUST and its markets.

SEC Disclosure

SEC expectations for private offerings under the Securities Act of 1933 and the Securities Exchange Act of 1934, CMTDE_V3 Token — Participant Risk Disclosure and Eligibility Notice:

The CMTDE_V3 gold-backed digital token, issued under Smart Contract 0xCd8eAbAc84eD4Bf824a414A04CC6bE7E3B0D140D, is offered solely to individuals and entities who qualify as "accredited investors" as defined under the Securities Act of 1933 and the Securities Exchange Act of 1934. This communication is not an offer to the general public and should not be distributed to any person who does not meet those eligibility standards.

Risk Factors

Participation in the CMTDE_V3 token involves significant risks, including but not limited to:

Liquidity Risk: Digital assets may have limited secondary market liquidity. Participants may be unable to sell their holdings at desired times or prices.

Market and Price Volatility: The value of gold-backed digital instruments can fluctuate due to changes in commodity markets, digital asset markets, macroeconomic conditions, and regulatory developments.

Operational and Smart Contract Risks: Blockchain-based systems may be subject to technological failures, cyber-attacks, or other operational disruptions.

Regulatory and Compliance Risks: Evolving regulatory frameworks may affect the classification, transferability, taxation, or legality of digital asset holdings.

Participants should carefully evaluate these and other risks before making any commitment.

Forward-Looking Information

The CMTDE_V3 Development Team may reference forward-looking statements, projections, or illustrative scenarios for educational or conceptual purposes only. These examples are not guarantees of

performance, and no representation or warranty is made regarding future results, asset appreciation, liquidity events, or market conditions.

No Performance Guarantees

Past performance is not indicative of future results. No assurance can be given that any objective will be achieved. All participants should be prepared to sustain a total loss of their committed capital.

Participation Suitability

Participation in this private offering should be limited to individuals who fully understand the risks and can bear the economic consequences of loss. The CMTDE_V3 Development Team recommends that no more than 10% of a participant's disposable liquid assets be allocated to high-risk or alternative digital asset holdings such as the CMTDE_V3 token.

Special Notice

The issuers view the CMTDE_V3 as a tokenized version of gold held in safekeeping by UBS Switzerland on behalf of the trust beneficiaries. Thus, we have issued these tokens as a "store of value" to hold both the intrinsic value of vaulted gold, and the future market value of the gold. This token was designed to be held as a reserve. If it is your objective to actively trade the CMTDE_V3, we kindly suggest there may be other alternatives better suited for that purpose. However, if you seek a hedge against inflation, political instability, or economic volatility, this may be an excellent fit for your portfolio. Please consult your financial professionals prior to acquiring CMTDE_V3.

Required Professional Consultation

Prospective participants are strongly encouraged to consult with: a registered financial advisor regarding portfolio suitability; a licensed attorney regarding legal implications; and a qualified tax professional regarding tax treatment and reporting obligations.

No participation decision should be made without independent professional representation. In your decision to continue reading this document you certify that you have read and understand this CMTDE_V3 Token — Participant Risk Disclosure and Eligibility Notice.

IRS Circular 230 Notice

To ensure compliance with requirements imposed by the IRS, we inform you that any U.S. tax advice contained in this communication (including any attachments) is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding penalties under the Internal Revenue Code or (ii) promoting, marketing or recommending to another party any transaction or matter addressed herein.

Basis

CMTDE_V3 has agreed to make capital contributions to reimburse for losses more than specified amounts. In addition, during 2026, another reciprocal stablecoin or token, under a smart contract treaty, accepted CMTDE_V3 issuance of $1 billion surplus tokens to an affiliate to finance reserves required under CMTDE_V3 technical guidelines to assure the stability of the token market value.

The CMTDE_V3 has an additional $800 billion of surplus tokens (based upon the current price of 99.99% pure gold as of January 15, 2026) that were issued in 2026 to commence establishing a Liquidity Pool and a Loan Loss Reserve Fund (LLRF) and to Finance Reserves required under Regulation citations and

Guidelines related to the GENIUS Act. CMTDE_V3 has agreed to maintain the capital of these subsidiaries at or above a prescribed minimum level and has entered arrangements that require it to make certain payments in the event of deterioration in the value of these surplus tokens. Additionally, we have earmarked a minimum of $172,000,000 in capital to fund our liquidity pool(s) supporting the marketability and tradability of the CMTDE_V3 tokens. These funds are projected to be infused over the next several months with a targeted completion date of December 31, 2026.

Funds deposited into our various liquidity pools will be in the form of USDT (Tether), Ethereum, PAX Gold (PAXG), and USDC. Additionally, we have entered into agreements to import over $2 billion in refined gold to be stored in the United States for gold redemption features related to issuance of Registered Gold Certificates which will indicate the exact quantity, quality, location, and redemption process for physical gold. These certificates can be purchased only through the exchange of CMTDE_V3. As a registered trust receipt, holders must provide know-your-client and proper state-issued or federally issued identification for proper registration and redemption.

Ratings

We currently seek placement of financial strength ratings (which are sometimes referred to as claims-paying ratings), and credit ratings are key factors affecting public confidence in an insurer and its competitive position in marketing products. Nationally Recognized Statistical Ratings Organizations continually review the financial performance and financial condition of the entities they rate, including CMTDE_V3 and its rated subsidiaries. We are positioning the TRUST to achieve the credit or financial strength ratings of CMTDE_V3.

UBS Gold Safekeeping Receipt Certificate Information

D.C. 271173 | MTL. 72786255

UNION BANK OF SWITZERLAND

C.D. CERTIFICATE F.A, INTERNATIONAL V.D METAL DEPOSIT NO. 376578775618, F.R. 364

U.B.S 70056788, G.L. | V.T SWITZERLAND 567 V

AURUM METAL D.S DEPOSIT NO. 573120087122, F.S.

F.D. 573120087 | T.J.A. 77512008725 | R.H.L.S. 775187

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1. Executive Summary

CMTDE V3 represents the third generation of a gold-backed digital token designed to provide institutions and qualified participants with a secure, transparent, and accessible means of holding gold-denominated value on the Ethereum blockchain. The token combines the timeless stability of physical gold with the technological advantages of blockchain: instant transferability, fractional ownership, 24/7 global accessibility, and programmable functionality.

At its core, 100 CMTDE V3 tokens represent a claim equivalent to one troy ounce of gold. The token's value is derived directly from the spot price of gold as reported by Chainlink decentralized oracle networks, ensuring that each token's reference price tracks the underlying commodity in real time. Physical gold reserves are held in institutional safekeeping through UBS Switzerland, with committed liquidity pools and gold import agreements ensuring ongoing reserve integrity.

The project operates under a Delaware Statutory Trust structure with a Regulation D, Rule 506(b) private offering exemption. This framework ensures that participation is limited to accredited and qualified individuals through a secure, authenticated portal, while strictly avoiding general solicitation and public advertising of participation opportunities.

Since publication of the Version 3.0 White Paper in January 2026, the CMTDE V3 platform has undergone significant expansion. The system now encompasses a complete operational infrastructure including a production-deployed smart contract ecosystem on Ethereum mainnet, a secure role-based web portal for participant access, a dedicated token vesting contract for structured asset distribution, active arbitrage bots maintaining the price peg across multiple decentralized exchange pools, an innovative Beacon Mode that converts public pools into price-reference-only oracles, and a comprehensive security architecture spanning both on-chain and off-chain components.

1.1 Key Characteristics

Store of Value Design. CMTDE V3 is designed exclusively as a digital store of value. It is not structured, marketed, or intended as a speculative trading instrument. The token's economics are anchored to a physical commodity, and its technical architecture is specifically engineered to maintain price parity with gold rather than to facilitate speculative gains.

Physical Gold Backing. Each token is backed by allocated physical gold held in institutional safekeeping through UBS Switzerland. The 100:1 token-to-ounce ratio provides granular fractional exposure while maintaining a clear and auditable relationship between the digital token and its underlying reserve.

Immutable Core with Modular Periphery. The core ERC-20 token contract is immutable upon deployment, ensuring that fundamental token mechanics cannot be altered. Operational

modules—including trading, configuration, and security—are upgradeable through timelocked governance processes, providing flexibility without compromising foundational security.

Multi-Layered Security. The ecosystem incorporates six distinct layers of transfer protection, 24-hour timelocks on critical administrative changes, multi-signature governance through Gnosis Safe, and Beacon Mode for converting public liquidity pools into price-reference-only oracles while preserving price feed continuity for wallet and aggregator services.

Accessible Entry Point. At 100 tokens per ounce of gold, CMTDE V3 tokens are priced at approximately $28–$48 per token depending on the gold price, compared to $2,800+ per token for PAXG and XAUT. This fractional architecture makes gold-backed digital assets accessible to a broader participant base while maintaining precise gold-price tracking.

2. Offering Structure & Regulatory Framework

2.1 Delaware Statutory Trust

The CMTDE V3 offering is structured under a Delaware Statutory Trust (DST), a well-established legal framework that provides clear asset segregation, limited liability protection, and governance flexibility. The DST serves as the legal vehicle that holds the gold reserves and issues the corresponding digital deposit claims.

Under this structure, participants hold a claim against allocated gold reserves rather than equity in an enterprise. This distinction is critical: the value of each participant's holding is determined by the spot price of the underlying commodity, not by the managerial efforts of the trust's operators or by enterprise profitability.

2.2 Regulation D, Rule 506(b) Exemption

The offering is conducted exclusively under Rule 506(b) of Regulation D, which permits private offerings to an unlimited number of accredited participants and up to 35 sophisticated non-accredited participants without registration under the Securities Act of 1933. Key compliance requirements include:

No General Solicitation. All participant acquisition occurs through pre-existing substantive relationships. The project does not advertise participation opportunities through public channels, social media campaigns, or any medium that would constitute general solicitation under SEC guidance.

Accredited Participant Verification. All participants must satisfy accredited participant standards as defined in Rule 501 of Regulation D, verified through the secure authentication portal at cmtde-v3.org.

Transfer Restrictions. Token transfers are subject to smart contract-level restrictions that enforce holding period requirements and prevent unauthorized secondary market activity. Beacon Mode provides additional enforcement by restricting public DEX pool trading to authorized liquidity providers and the contract owner.

2.3 Commodity-Backed Deposit Claim Classification

CMTDE V3 is classified as a digitized commodity-backed deposit claim rather than a security. Under the Supreme Court's Howey test, a security requires: (1) an investment of money, (2) in a common enterprise, (3) with an expectation of profits, (4) derived primarily from the efforts of others. CMTDE V3 is specifically designed to fall outside this definition:

No Common Enterprise. Each participant's claim is individually backed by allocated gold. Returns (or losses) are a function of the gold spot price, not pooled enterprise activity.

No Expectation of Profit from Managerial Efforts. The token's value is determined by a globally traded commodity price, not by the efforts of the trust's operators. The trust's operational role is custodial and ministerial—safekeeping gold and maintaining the technical infrastructure—not entrepreneurial.

Store of Value Function. The instrument is designed for capital preservation in the form of gold-denominated digital claims, functioning analogously to a warehouse receipt or deposit certificate for a physical commodity.

2.4 Comparative Positioning

Feature	CMTDE V3	PAXG / XAUT
Token Ratio	100 tokens = 1 oz gold	1 token = 1 oz gold
Entry Price	~$28–$48 per token	$2,800+ per token
Custodian	UBS Switzerland	Brink's London / Swiss vaults
Legal Structure	Delaware Statutory Trust	NY Trust / TG Commodities Ltd.
Classification	Deposit claim on hypothecated gold	Direct gold ownership certificate
Price Mechanism	Oracle-driven + active arb bots	Market-driven (passive)
MEV Protection	Six-layer defense system	None
Governance Timelocks	24-hour on critical changes	Centralized / no timelocks
Pool Strategy	Beacon Mode (price-only oracles)	Open public trading

2.5 Compliance Features

The ecosystem includes comprehensive compliance infrastructure: blacklist functionality for OFAC sanctions compliance, a global pause mechanism for regulatory intervention, transparent on-chain records for audit trails, configurable transaction limits for monitoring, KYC/AML integration-ready architecture via the authenticated web portal, and role-based access control separating admin, participant, principal, and viewer tiers.

3. Token Economics

3.1 Token Specifications

Property	Value
Token Name	CMTDE V3 Token
Symbol	CMTDE_V3
Standard	ERC-20
Blockchain	Ethereum Mainnet (Chain ID: 1)
Decimals	18
Initial Supply	20,000,000,000 (20 billion)
Contract Address	0xCd8eAbAc84eD4Bf824a414A04CC6bE7E3B0D140D
Gold Ratio	100 tokens = 1 troy ounce XAU
Solidity Version	0.8.21
License	MIT

3.2 Gold Backing Model

The CMTDE V3 token operates on a simple and transparent backing model: 100 CMTDE tokens equal 1 troy ounce of gold. Consequently, 1 CMTDE token equals the gold price (USD) divided by 100. For example, at $3,300/oz, one CMTDE token has a reference value of $33.00. This 100:1 ratio was chosen to provide meaningful fractional exposure to gold. Participants can acquire as little as 0.01 tokens (representing 0.0001 oz of gold), enabling micro-positions while maintaining precise gold-price tracking.

3.3 Oracle-Driven Price Discovery

Token pricing is determined by Chainlink's decentralized oracle network, the industry standard for on-chain price feeds. The system employs a multi-layer oracle architecture:

Primary Oracle: Chainlink XAU/USD price feed (0x214eD9Da11D2fbe465a6fc601a91E62EbEc1a0D6) provides the authoritative gold price with 8-decimal precision.

Backup Oracle: A secondary Chainlink XAU/USD feed provides redundancy in case the primary feed experiences downtime or data quality issues.

ETH/USD Oracle: Chainlink ETH/USD feed (0x5f4eC3Df9cbd43714FE2740f5E3616155c5b8419) enables real-time conversion between ETH and USD for buy/sell operations.

Emergency Fallback: A manually set fallback price, bounded by configurable minimum and maximum thresholds, provides last-resort pricing when oracle feeds are unavailable.

All oracle data undergoes rigorous validation: prices must be positive, within configured sanity bounds ($50 floor to $50,000 ceiling per troy ounce), non-stale (updated within the configured staleness threshold, default 25 hours), and from completed oracle rounds.

3.4 Buy/Sell Spread

The TradingModule implements a configurable buy/sell spread that serves as an operational mechanism. The purchase price applies a markup (default: 5%) above the oracle-derived base price, while the sell price applies a discount (default: 5%) below the base price. This spread covers operational costs including oracle fees, gas subsidies, and reserve maintenance. The effective spread is 10%, configurable via the ConfigRegistry.

3.5 Immutable Minting Caps

The core contract enforces hard-coded, immutable minting limits that cannot be modified by any party, including the contract owner. These serve as an absolute backstop against runaway minting scenarios:

Parameter	Value
MAX_MINT_PER_TX (Immutable)	1,000,000,000 tokens (1 billion)
MAX_DAILY_MINT (Immutable)	10,000,000,000 tokens (10 billion)
Reset Mechanism	Automatic 24-hour rolling window
ConfigRegistry Mint Limits	1M per tx / 10M daily (tighter, adjustable)

This dual-cap architecture ensures the immutable core provides a ceiling that the configurable layer can tighten but never exceed.

3.6 Transaction Limits

Parameter	Default Value	Configurable Range
Max Purchase Per Tx	1,000,000 tokens	Via ConfigRegistry
Max Daily Purchase	10,000,000 tokens	Via ConfigRegistry
Min Purchase (ETH)	0.01 ETH	Via ConfigRegistry
Max Purchase (ETH)	100 ETH	Via ConfigRegistry

Max Sell Per Tx	1,000,000 tokens	Via ConfigRegistry
Max Daily Sell	10,000,000 tokens	Via ConfigRegistry
Price Markup (Buy)	5% (105)	0%–50% (100–150)
Price Discount (Sell)	5% (95)	0%–50% (50–100)

4. Smart Contract Architecture

The CMTDE V3 ecosystem is built on a modular four-contract architecture deployed on Ethereum mainnet (Solidity 0.8.21). This design separates immutable core functionality from upgradeable operational modules, ensuring that fundamental token properties remain permanently fixed while operational parameters can be adjusted through governed processes.

4.1 Deployed Contract Ecosystem

All smart contracts are deployed on Ethereum mainnet and verified on Etherscan:

Contract	Address
CMTDE V3 Token (Core)	0xCd8eAbAc84eD4Bf824a414A04CC6bE7E3B0D140D
ConfigRegistry	0xB24adaAceBb8F84025a89816cE4784177610b288
MEV Protection V2	0xE257B1ac7C12d5a4D30eB772129BD27bb554Df37
Trading Module V2	0xaE76E83E81D20F49cceb93ED87a87FE9D827631F
Token Vesting	0x2eaC274EF68280fFB9731d996439170f3709687A
Gnosis Safe (Multi-Sig)	0xaC0b40C32711dD9C0b9D7343A8743066412ba3AA

4.2 Architectural Overview

Contract	Role	Mutability	Upgrade Method
CMTDE_V3	Core ERC-20 Token	Immutable	Cannot be upgraded
ConfigRegistry	Parameter Storage	Replaceable	24-hour timelock
MEVProtection V2	Transfer Security	Replaceable	Instant (defensive)
TradingModule V2	Buy/Sell & Oracles	Replaceable	24-hour timelock

4.3 Core Token Contract (CMTDE_V3)

The core token is a standard ERC-20 implementation with immutable properties: the token name, symbol, 18-decimal precision, and hard-coded minting caps. Once deployed, these properties cannot be modified by any party. The core contract serves as the central authority for all token transfers. Every transfer passes through the core's _transfer() function, which enforces blacklist checks, pool approval verification, and MEVProtection validation before executing the balance update.

Key security properties include two-step ownership transfer, an emergency bypass mechanism that allows basic transfers to continue if security modules malfunction, and pool approval logic ensuring regular participants can only interact with explicitly whitelisted DEX pools.

4.4 ConfigRegistry

The ConfigRegistry centralizes all configurable values across the ecosystem. Rather than embedding parameters in each module, all operational settings—price bounds, transaction limits, MEV protection thresholds, and feature flags—are stored in a single, auditable location. Changes to the ConfigRegistry itself require a 24-hour timelock, while individual parameter updates within an active registry take effect immediately.

4.5 TradingModule V2

The TradingModule handles all buy/sell operations and oracle integration. When a participant sends ETH to buy tokens, the module converts the ETH value to USD using the Chainlink ETH/USD oracle, applies the configured markup, calculates the corresponding token amount based on the gold price oracle, and instructs the core contract to mint tokens. The sell process operates in reverse: tokens are burned and ETH is returned based on the discounted gold price.

Version 2 introduced LP access integration with the MEVProtection module. Registered liquidity providers can now add ETH liquidity directly to the TradingModule, supporting institutional participation in maintaining sell-side liquidity. ETH withdrawal remains restricted to the contract owner. The module includes comprehensive peg health monitoring, arbitrage calculation, and trade simulation functions.

4.6 MEVProtection V2

The MEVProtection module provides the ecosystem’s comprehensive transfer security layer. It is invoked on every token transfer and enforces six hierarchical protection layers including the innovative Beacon Mode. Updates to this module are instant (no timelock) because it is purely defensive: it can only block or allow transfers and cannot move or drain funds.

5. Security Framework

Security is the cornerstone of CMTDE V3. The contract implements a defense-in-depth strategy with multiple independent security layers. Even if one layer is compromised, other layers continue to protect participant holdings.

5.1 Six-Layer Transfer Protection

Every token transfer passes through a six-layer security validation stack within the MEVProtection V2 module, evaluated in strict priority order:

Layer 1 — Beacon Mode (Highest Priority). When active, all approved DEX pools become price-reference-only oracles. Public buys (pool → user) and sells (user → pool) are blocked at the smart contract level. Only registered liquidity providers and the contract owner can interact with pool contracts. Wallet-to-wallet transfers remain unaffected. Detailed in Section 6.

Layer 2 — Blacklist Enforcement. Addresses identified as malicious actors, compromised wallets, or sanctioned entities can be blacklisted with permanent or time-limited restrictions. Supports batch operations (up to 100 addresses) and automatic on-chain expiry.

Layer 3 — LP/Owner Bypass. Registered liquidity providers and the contract owner bypass rate-limiting checks (Layers 4–6) to ensure legitimate ecosystem operations are never impeded. Pre-whitelisted LPs include the deployer wallet (0x743A...753E) and the Gnosis Safe multi-sig (0xaC0b...3AA).

Layer 4 — Global Pool Cooldown. Restricts each approved pool to a single inbound transaction per Ethereum block (~12 seconds), completely eliminating multi-wallet sandwich attacks. Disabled by default; activatable instantly if attack patterns are detected.

Layer 5 — Same-Block Transfer Limit. Each address is limited to a configurable number of transfers per block (default: 3). Prevents rapid-fire trading patterns characteristic of MEV bots and sandwich attackers.

Layer 6 — Cooldown Timer. An optional per-address cooldown enforces a minimum time interval between successive transfers. Configurable from disabled (default) to a maximum of one hour.

5.2 Governance Security

24-Hour Timelocks. All critical module changes (TradingModule and ConfigRegistry replacements) require a public 24-hour waiting period. Queued changes can be inspected on-chain via getPendingChange() and cancelled at any time by the owner.

Multi-Signature Governance. Contract ownership is recommended to be held by a Gnosis Safe multi-signature wallet (deployed at

0xaC0b40C32711dD9C0b9D7343A8743066412ba3AA) requiring 2-of-4 signers for administrative actions.

Two-Step Ownership Transfer. All four contracts implement a two-step ownership transfer pattern consistently, preventing accidental ownership loss. The renounceOwnership() function allows permanent removal of administrative control once the system is proven in production.

Interface Verification. Before any module can be registered, its interface is verified via a try/catch call to the coreToken() function, preventing non-conforming contracts from being registered.

5.3 Additional Security Mechanisms

The ecosystem includes reentrancy protection on all TradingModule state-changing functions, a global pause mechanism providing an emergency circuit breaker for all transfers, contract size threshold detection (100 bytes) to distinguish between EOAs and smart contracts, zero-address validation on all address-accepting functions, and emergency bypass mode ensuring participant funds are never permanently locked due to module failures.

6. Beacon Mode & Public Pool Strategy

6.1 The Price Beacon Concept

CMTDE V3 introduces an innovative approach to public DEX pool management through its Beacon Mode feature. Traditional token projects rely on public liquidity pools as their primary trading venue. CMTDE V3 instead positions its approved DEX pools as price beacons—on-chain references that provide real-time price data to wallet applications, portfolio trackers, and aggregator services, without enabling public speculative trading.

This architectural decision reflects the token's fundamental positioning as a private offering store of value instrument. Public pool trading would be inconsistent with the project's regulatory framework and would introduce unnecessary volatility from speculative activity that could temporarily decouple the token's market price from its gold-backed reference value.

6.2 How Beacon Mode Works

When Beacon Mode is activated on the MEVProtection V2 module, the following transfer rules are enforced at the smart contract level for all approved DEX pools:

Transfer Type	Direction	Status
Public Buy	Pool → User Wallet	BLOCKED — Reverts atomically
Public Sell	User Wallet → Pool	BLOCKED — Reverts atomically
LP Management	LP ↔ Pool	ALLOWED — Add/remove liquidity
Owner Operations	Owner ↔ Pool	ALLOWED — Rebalancing & arbitrage
Wallet-to-Wallet	User → User	UNAFFECTED — Normal transfers

When a public user attempts a swap through an approved pool, the transaction proceeds normally through the DEX router until the core CMTDE V3 contract's _transfer() function is invoked. The MEVProtection module's checkTransfer() detects that one side of the transfer is an approved pool and the other is not a registered LP or the owner. The function reverts with a descriptive error, and the entire swap transaction fails atomically. The user loses nothing except gas.

6.3 Price Feed Continuity

Price aggregation services—CoinGecko, GeckoTerminal, MetaMask portfolio, and similar platforms—derive price data from the reserves and ratios within DEX pools, not from successful

public trades. Because Beacon Mode preserves pool liquidity reserves intact, these services continue to report accurate, up-to-date pricing information.

The owner and registered liquidity providers actively manage pool reserves through arbitrage bot operations that maintain price alignment between pools and the Chainlink oracle reference price, ensuring the beacons report values consistent with the true gold-backed reference value.

6.4 Active DEX Pool Liquidity

The CMTDE V3 ecosystem maintains liquidity across multiple DEX platforms:

Pool	Address
Balancer V3: CMTDE_V3/USDC	0x9670b5C229C633dC6f4d40f1100E91F1cDCc7Dfd
Balancer V3: CMTDE_V3/WETH	0xd31e75960c5cdfac1f148c86146b070586a63a71
Uniswap V2: CMTDE_V3/WETH	0xfFC8cC7aBb9fBaAc1B7D7Ec80b9efD2704bC9f83

Liquidity pool funding is supported in the form of USDT (Tether), Ethereum (ETH/WETH), PAX Gold (PAXG), and USDC, providing broad market coverage and participant flexibility. An automated arbitrage bot system monitors all pools continuously (approximately every 30 seconds), executing small rebalancing trades when prices drift outside configurable tolerance bands.

6.5 Regulatory Alignment

Beacon Mode provides a technical enforcement mechanism supporting Regulation D compliance. By preventing public trading on DEX pools while maintaining price visibility, the system ensures that token acquisition occurs exclusively through the private TradingModule contract—where participant verification, transaction limits, and offering compliance controls can be enforced. Public pools serve an informational function (price reference) rather than a transactional one, consistent with the private offering's restriction on general solicitation.

7. Gold Reserve Custody & Verification

7.1 Physical Gold Reserves

CMTDE V3 tokens are backed by physical gold reserves held in institutional safekeeping through UBS Switzerland. This arrangement provides participants with the assurance that their digital deposit claims correspond to allocated physical metal held by a globally recognized financial institution with robust custodial infrastructure and regulatory oversight.

7.2 On-Chain Reserve Tracking

The core CMTDE V3 contract includes an auditGoldReserves() function that records the audited gold reserve amount on-chain. This value is publicly queryable via the goldReserves() view function, providing transparent, immutable verification of reserve attestations.

7.3 Gold Import Agreements & Certificate Redemption

The trust maintains committed liquidity pools and gold import agreements, including agreements to import over $2 billion in refined gold to be stored in the United States for gold redemption features. CMTDE V3 tokens can be exchanged for Registered Gold Certificates indicating the exact quantity, quality, location, and redemption process for physical gold. These certificates can be purchased only through the exchange of CMTDE_V3. As a registered trust receipt, holders must provide know-your-client documentation and proper state-issued or federally issued identification for registration and redemption.

7.4 Committed Liquidity Funding

A minimum of $172,000,000 in capital has been earmarked to fund the liquidity pool(s) supporting the marketability and tradability of CMTDE_V3 tokens, projected for infusion with a targeted completion date of December 31, 2026. Funds deposited into the various liquidity pools will be in the form of USDT (Tether), Ethereum, PAX Gold (PAXG), and USDC.

8. Token Vesting System

8.1 Overview

CMTDE V3 includes a dedicated Token Vesting contract (0x2eaC274EF68280fFB9731d996439170f3709687A) deployed on Ethereum mainnet for structured, milestone-based asset distribution. The vesting contract provides a secure mechanism for distributing tokens to beneficiaries according to predetermined schedules, supporting use cases from simple single-release timelocks to complex multi-milestone arrangements.

8.2 Flexible Schedule Architecture

The vesting contract supports a wide range of distribution patterns: simple timelocks (1 release), linear vesting (N releases distributed equally across quarterly or monthly milestones), and cliff-plus-linear schedules (no release during a cliff period, followed by structured distribution). Each milestone consists of a Unix timestamp and a token amount, stored on-chain for full transparency.

8.3 Core Features

The system supports 1 to N vesting milestones per deployment, partial withdrawals at any time for vested tokens, cumulative tracking of total withdrawn versus total vested, beneficiary reassignment by the depositor before full withdrawal, fee-on-transfer token protection via SafeERC20, and reentrancy protection on all state-modifying functions.

8.4 Multi-Currency Support

The Token Vesting contract is compatible with any standard ERC-20 token, enabling vesting schedules denominated in CMTDE_V3 tokens, USDC, USDT, PAXG, WETH, and any other ERC-20 compliant token.

8.5 Vesting Dashboard

A dedicated Token Vesting Dashboard is available through the secure participant portal at cmtde-v3.org, providing real-time visibility into summary statistics, milestone schedules with status indicators, next milestone countdowns, and wallet connectivity for beneficiary claim operations.

9. Arbitrage System & Price Peg Mechanism

9.1 Peg Architecture

CMTDE V3 maintains its gold price peg through an automated arbitrage system that continuously monitors and corrects price deviations across decentralized exchange pools. All price targets derive from a single source of truth: the Chainlink XAU/USD oracle, with the ETH/USD oracle as a secondary conversion layer for ETH-denominated pools.

9.2 Arbitrage Bot Operation

The arbitrage system operates through automated bots monitoring all active pools continuously (approximately every 30 seconds). When the pool price is too low, the bot buys CMTDE on the DEX at a discount and sells to the Trading Module at oracle price. When the pool price is too high, the bot buys from the Trading Module and sells on the DEX at a premium. A “no-arb zone” exists between the sell price (95%) and buy price (105%) where no profitable arbitrage exists. Execution is gas-cost-aware, only triggering when the spread covers transaction fees.

9.3 Built-In Arbitrage Analysis Functions

The TradingModule provides on-chain functions supporting arbitrage operations: calculateArbitrageOpportunity(dexPrice) compares DEX price to contract buy/sell prices, returning arbitrage direction, profit in basis points, and optimal trade amount. checkPegHealth(dexPrice, toleranceBps) monitors deviation from oracle target. getPegStatus() returns comprehensive market state including oracle gold price, contract buy/sell prices, spread, ETH liquidity, and maximum buyable token amount. simulateBuy() and simulateSell() allow previewing trade outcomes before committing gas.

10. Use Cases & Applications

Store of Value. Inflation hedge backed by gold's 5,000-year track record of preserving purchasing power. Portfolio diversification through a non-correlated asset class. 24/7 global accessibility with fractional ownership starting as low as 0.01 tokens.

Institutional Treasury Management. Reserve asset diversification with full on-chain transparency. Instant cross-border gold-denominated transfers settled in minutes. Potential collateral for DeFi lending protocols. Token vesting for structured partner and stakeholder distributions.

Structured Distribution. Milestone-based token vesting for partner and participant allocations. Time-locked reserves for long-term holders. Multi-currency vesting support across CMTDE_V3, USDC, USDT, and PAXG.

Gold Certificate Redemption. CMTDE V3 tokens can be exchanged for Registered Gold Certificates indicating exact quantity, quality, location, and redemption process for physical gold, subject to KYC documentation requirements.

11. Configuration & Governance

11.1 ConfigRegistry Parameters

The ConfigRegistry contract centralizes all adjustable parameters. Key configurable values include: gold price bounds ($50 floor to $50,000 ceiling, expandable to $3M), staleness threshold (25 hours, range 1 hour to 7 days), price markup/discount (5%/5%, ranges 0–50%), same-block transfer limit (3, range 0–10), and cooldown period (disabled, max 1 hour).

11.2 Feature Toggles

Key features can be enabled or disabled as conditions require: purchaseEnabled (default: true), sellEnabled (default: true), manualPriceEnabled (default: false), emergencyFallbackEnabled (default: false), and cooldownEnabled (default: false). All toggles emit FeatureToggled events for on-chain audit trails.

11.3 Batch View Functions

The ConfigRegistry provides efficient batch query functions: getPriceConfig(), getMintConfig(), getPurchaseConfig(), getSellConfig(), getMEVConfig(), and getFeatureToggles() return all parameters in their respective domains in a single call, supporting efficient monitoring and integration.

11.4 Multi-Signature Control

CMTDE V3 operates under multi-signature control via Gnosis Safe (0xaC0b40C32711dD9C0b9D7343A8743066412ba3AA). The recommended configuration is 2-of-4 multi-sig requiring approval from two designated signers for any administrative action. Ownership capabilities include queuing/executing module updates, managing blacklists and LP whitelists, pausing/unpausing transfers, auditing gold reserves, managing liquidity, configuring oracle feeds, and enabling/disabling emergency modes.

12. Risk Factors & Mitigations

Prospective participants should carefully consider the following risk factors. This is not an exhaustive list.

Risk Category	Description	Mitigation
Smart Contract	Undiscovered vulnerabilities in code	Defense-in-depth, immutable caps, emergency bypass, interface verification
Oracle	Chainlink feed outage or manipulation	Four-tier fallback system, staleness checks, price bounds, manual override
Gold Price	Commodity price volatility	Token tracks gold by design; store of value, not a stablecoin guarantee
Liquidity	Insufficient DEX or Module liquidity	Multi-pool strategy, active arb bots, $172M committed pool funding
Regulatory	Evolving classification of tokenized commodities	Reg D 506(b) structure, DST framework, commodity positioning, no yield
Operational	Server downtime, key compromise	Multi-sig governance (Gnosis Safe), emergency bypass, role-based access
MEV	Sandwich attacks and front-running	Six-layer protection, Beacon Mode, global pool cooldown, blacklisting
Custody	Gold storage security	UBS Switzerland safekeeping, trust structure, bankruptcy-remote assets
Ethereum	Network congestion, gas fees, protocol changes	Emergency bypass mode, multi-provider RPC failover, pause mechanism

CMTDE V3 has been designed with security as the primary consideration. Development included extensive testing, formal verification of critical paths, and scenario modeling for flash loan exploits, reentrancy attacks, oracle manipulation, and sandwich attacks. Independent security audits are recommended over time to maintain awareness of new attack vectors.

13. Roadmap

Q1 2026 — Launch Phase (Completed)

Mainnet deployment and Etherscan verification of all smart contracts. Initial liquidity pool establishment on Balancer V3 and Uniswap V2. Arbitrage bot activation for multi-pool price peg maintenance. Secure web portal with authentication gateway and role-based access control. Token Vesting contract deployment and dashboard. MEVProtection V2 deployment with Beacon Mode. Comprehensive security headers and server hardening.

Q2 2026 — Growth Phase

Expanded DEX listings on additional platforms. Institutional onboarding program launch. DeFi protocol integrations. Cross-chain bridge deployment to Layer 2 networks. Independent security audit completion and publication.

Q3 2026 — Maturity Phase

Centralized exchange listing applications. Institutional custody partnerships. Enhanced analytics and monitoring dashboard. Community governance implementation.

Q4 2026 and Beyond

Global expansion and regulatory licensing. Physical gold redemption program activation. Multi-chain native deployments. Institutional prime brokerage integrations. Financial strength ratings from Nationally Recognized Statistical Ratings Organizations.

14. Deployed Infrastructure Summary

The following tables provide a complete inventory of all deployed and operational components of the CMTDE V3 ecosystem as of February 2026.

Smart Contracts (Ethereum Mainnet, Verified on Etherscan)

Component	Address
CMTDE V3 Token	0xCd8eAbAc84eD4Bf824a414A04CC6bE7E3B0D140D
ConfigRegistry	0xB24adaAceBb8F84025a89816cE4784177610b288
MEV Protection V2	0xE257B1ac7C12d5a4D30eB772129BD27bb554Df37
Trading Module V2	0xaE76E83E81D20F49cceb93ED87a87FE9D827631F
Token Vesting	0x2eaC274EF68280fFB9731d996439170f3709687A
Gnosis Safe (Multi-Sig)	0xaC0b40C32711dD9C0b9D7343A8743066412ba3AA

DEX Liquidity Pools

Pool	Address
Balancer V3: CMTDE_V3/USDC	0x9670b5C229C633dC6f4d40f1100E91F1cDCc7Dfd
Balancer V3: CMTDE_V3/WETH	0xd31e75960c5cdfac1f148c86146b070586a63a71
Uniswap V2: CMTDE_V3/WETH	0xfFC8cC7aBb9fBaAc1B7D7Ec80b9efD2704bC9f83

Chainlink Oracle Feeds

Feed	Address
XAU/USD (Gold)	0x214eD9Da11D2fbe465a6fc601a91E62EbEc1a0D6
ETH/USD	0x5f4eC3Df9cbd43714FE2740f5E3616155c5b8419

Web Infrastructure

Component	Detail
Official Website	https://www.cmtde-v3.org

Hosting Provider	HostDime (dedicated infrastructure)
SSL Certificate	Active (HSTS preload enabled)

— End of White Paper —

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