

LUIN

SPECIFICATION

Conformance Specification — Public Consultation Draft v0.3

Lugh Systems Architecture · luin.cc · October 2026

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This specification is published for industry consultation. It operationalises the economic / legal / operational equivalence framework set out in the World Gold Council's "Digital Gold: The Case for a Shared Infrastructure" (2026).

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0. Purpose and conformance model

The LUIN Gold Standard is a rulebook, not a vault. Its purpose is to make independent gold-backed tokens **interchangeable**, so that market-level fungibility emerges from conformance rather than from a single issuer — the digital analogue of the London Good Delivery standard for bars.

- A **Gold Backed Token (GBT)** is an issuer's fungible token on LUIN representing a fixed mass of fine gold (reference unit: 1 LUIN standard unit = 1 gram fine, versioned).
- An issuer submits a **Conformance Dossier**; the protocol verifies machine-checkable clauses on-chain; the Standard Council (§7) approves judgement clauses.
- A conformant GBT may be wrapped into **LUIN standard units** — an accounting wrapper aggregating all conformant tokens into one tradeable unit, unwrappable to the underlying issuer token. Wrapper eligibility is the live conformance status; a breach freezes wrapping automatically.

Clause tags: **[M]** mandatory · **[S]** slashed (breach triggers automatic consequences) · **[V]** machine-verifiable on-chain.

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1. Economic equivalence

#	Requirement
E1 [M] [V]	Fixed reference mass per token (grams fine), immutable in registered terms. Fee schedules may change only within caps declared at registration.
E2 [M] [V]	**1:1 allocated or pool-allocated backing at all times.** Unallocated claims are never conformant. On-chain supply ≤ attested metal entitlement, continuously (see O3).
E3 [M]	Redemption right: holders may redeem one London Good Delivery bar-equivalent for delivered metal, and any amount above a declared minimum for cash-out, at **LBMA benchmark ± maximum spread of 25 bps**, T+2 business days, via the approved redemption network. [S — service-level breach triggers a compensation schedule and conformance review.]
E4 [M]	All-in holding-cost cap: storage + insurance + platform fees within a declared annualised cap in a canonical fee schema; changes require 90-day notice and are hash-committed at registration.
E5 [M]	No rehypothecation of metal backing outstanding tokens by the issuer or its affiliates. [S on discovery — immediate conformance suspension and claim process.]
E6 [M]	Insolvency remoteness: holder entitlements held in a structure (trust / SPV / statutory trust) that survives issuer insolvency under the master legal opinion (§2).

2. Legal equivalence

#	Requirement
L1 [M]	Every conformant GBT wraps **one master form** of document-of-title terms (the "LUIN Title Form"), licensed to all issuers, interpreted under a single governing law selected by the Standard Council from jurisdictions with enforceable electronic-possessory-record regimes.
L2 [M]	Master opinion: one standing legal opinion per issuance jurisdiction confirming (a) the token is an enforceable entitlement to identified or pool-allocated metal, (b) possession/control transfers validly on-chain, (c) pledges perfect as security interests via on-chain control under that law. Issuers adopt the opinion; deviations break conformance.
L3 [M]	Redemption terms identical across issuers up to fee level: minimum sizes, T+2 cash-out, delivery-from-network metal redemption and force-majeure definitions are fixed by this specification.
L4 [M]	Transfer restrictions only per court or lawful regulatory order; discretionary issuer freezes trigger Standard Council review. 24/7 transferability is the default.

3. Operational equivalence

#	Requirement
O1 [M]	Metal held only in **LUIN-approved vault networks** (≥2 independent networks live before first wrapping). Bar-level identity (serial, assay certificate) recorded at registration for allocated holdings.
O2 [M] [V]	**Continuous reconciliation feed**: vault inventory versus on-chain supply in a structured schema, signed by an N-of-M quorum of independent attestors (custodian ≠ auditor ≠ issuer). Attestation keys are post-quantum. [S — stale feed beyond a grace window auto-suspends wrapping.]
O3 [V]	Reconciliation tolerance: absolute difference between on-chain supply and attested entitlement ≤ max(0.1% of supply, 5 kg). Breach enters "disputed" state: no new minting or wrapping; **redemption continues to be honoured** (protects exiting holders first).
O4 [M]	Attestor slashing: attestors post bond; false attestation (proven via Standard Council and independent arbiter) slashes bond and pays claimants. Key-compromise protocol: rotate, re-attest genesis snapshot.
O5 [M] [V]	Metal from LBMA Good Delivery refiners (or Council-approved equivalents under responsible-sourcing audit); assay certificates hash-committed per bar or pool.
O6 [M]	All-risk vault and transit insurance above a declared floor, insurer from the approved list, policy terms hash-committed.
O7 [V]	Benchmark settlement: mint / redeem / liquidation pricing uses published LBMA AM/PM benchmarks via signed oracle feeds; no spot-exchange price dependency. Issuance windows pause gracefully around benchmark gaps rather than pricing against stale marks.

4. Machine-verifiable conformance status

The protocol maintains a public conformance object per conformant product, including: issuer and token identifiers, dossier and legal-opinion hashes, insurance hash, vault networks, attestation quorum parameters, last attestation timestamp, supply tolerance, redemption spread cap, breach counters, fee cap, rehypothecation

attestation, and status — **ACTIVE / DISPUTED / SUSPENDED / REVOKED** — with specification version. Wrapper units mint only against ACTIVE status; transferred wrapper units carry the worst conformance status in their basket until unwrapped and reweighted. Status transitions are automatic where machine-verifiable, Council-governed otherwise.

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5. Breach ladder

1. **Stale attestation** (beyond grace): wrapping frozen; issuer remediation window of 72 hours.
2. **Tolerance breach**: DISPUTED — mint and wrap halt; redemption honoured; public incident record.
3. **Redemption service-level breach (E3)**: compensation from issuer bond to affected holders at a benchmark ± spread fill guarantee.
4. **Proven rehypothecation or false attestation**: SUSPENDED → REVOKED; bond slashed to claimants; protocol backstop fund provides secondary cover for operational loss; Council-run orderly wind-down with dealer support for cash-out.

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6. What this specification does not do

It does not issue tokens (regulated issuers do), price gold (benchmarks do), or lend (the pledge facility and dealers do). It does not require single-jurisdiction issuance — jurisdiction packs are swappable modules under L1/L2. ETF wrappers and wholesale pooled-gold instruments are roadmap items, not current scope.

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7. Interim governance

Standard Council: the founding organisation plus anchor issuers, one vault network, and independent bullion-market practitioners; simple majority on approvals, supermajority on specification changes. The specification version is part of every conformance record; migrations are explicit re-registration events, never silent. LUIN launches with a permissioned validator set and publishes its decentralisation roadmap — an honest permissioned-first posture rather than a claim it cannot yet underwrite.

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8. Consultation items

The Council welcomes written comment on: (a) the redemption-floor spread cap and settlement cycle; (b) attestation quorum size and bond sizing; (c) the wrapper's characterisation as a pure accounting unit; (d) jurisdiction packs beyond the initial governing law. Comments to **standards@luin.cc**.

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