Official-Gate Tokenization Methodology — Version 1.2 (standalone)

Audience: Internal Compliance, Legal, Risk, Audit
Purpose: Provide a plain-English, law-anchored standard for deciding when a token **is an asset** (vs a claim), route **every** proposal to exactly **one** method, and score enforceability and settlement feasibility.

Abstract

We define tokenization as making a token the operative **credential** and **command** at an **Official Gate**—the place where a change must be recorded **for it to count** (e.g., securities register/TA or CSD, land/vehicle registry, negotiable e-document platform, custodian/bailee system, device/API controller, or the money rail). The framework is grounded in the **IFRS Conceptual Framework** (asset = **right** controlled by the entity), in modern "control" regimes for electronic records (**UCC Article 12**; **UNCITRAL MLETR**; UK **ETDA 2023**), and in statutes that let DLT be a **register of record** (**Germany eWpG**; **Swiss ledger-based securities**). We add a **deterministic routing table** (first-match) and **Score v2** (0–100) with **ceiling rules** to avoid "claim inflation." ([IFRS Foundation](#))

Executive summary

- **Definition (what "counts")**
  A tokenization is **real** only if the token (or a bound agent) is both the **required key** (the Gate won't act without it) **and** an **auto-execute command** (with conditions met, the Gate changes the record without extra discretion) at the relevant **Official Gate**. If not, it's a **Tokenized Claim**—a promise wrapped in a token. This matches IFRS's asset notion (a **right** controlled by the entity). ([IFRS Foundation](#))

- **Deterministic routing**
  Every proposal is routed to **one** method via a **first-match precedence table** (Section 3). If nothing qualifies, we fall back to **SPV/Trust** or **Attestation-Only**—no overlaps or ambiguity.

- **Score v2 (what we measure)**
  We grade 10 levers (sum = 100): Official Gate identified (6), **Required key** (10),

Auto-execute (10), recognized **control** regime (6), **Perfection & priority** (14), **Negotiability/take-free** (12), **Insolvency & segregation** (12), **Conflicts-of-law predictability** (5), **Registry/infra quality** (5), **Atomic settlement (DvP/PvP)** (20). **Ceilings:** if the D-test fails (Claim) cap at **59**; if no take-free protection, cap at **79**. BIS work justifies the heavy weight on atomic cash legs. ([Bank for International Settlements](#))

- **What Compliance gets**
  An auditable, single-page outcome per case: **Asset / Claim / Out-of-scope**, method selected, Score v2 with evidence, cash-leg design, conflicts-of-law analysis, and IFRS classification.

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1) Scope and core terms

- **Thing (scope):** any **legally cognizable object of rights** (*res*), including physical things, rights in rem / in personam, and digital/data objects recognized as property or as the subject of enforceable rights. IFRS defines an **asset** as a **present economic resource** controlled by the entity; an economic resource is a **right** with potential to produce economic benefits. ([IFRS Foundation](#))

- **Official Gate** (*authoritative control point*): the **place where a change must be recorded for it to count** (securities register/TA or CSD, land/vehicle registry, ETR platform, custodian/bailee system, device/API, or the money rail).

- **Required key** (*necessary credential*): without it, the Gate **will not** change the record.

- **Auto-execute** (*sufficient instruction*): with the key and rulebook conditions, the Gate **does** change the record **without ad-hoc discretion**.

- **Atomic settlement (DvP/PvP):** both sides move together—or not at all; strongest when cash and asset are co-located or legally coupled (BIS "unified ledger"). ([Bank for International Settlements](#))

- **IFRS lens (financial vs other):** a **financial asset** is cash, an equity instrument of another entity, or a **contractual right** to receive cash/another financial asset; many crypto holdings are **intangibles** unless inventory. ([IFRS Foundation](#))

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2) Decision tree (A → F)

A — Is there a right?
Is there an **assignable or excludable** right recognized by law? If **no** → **Out of scope**. IFRS treats assets as **rights**. (IFRS Foundation)

B — Is it *your* IFRS asset?
Does the entity **control** that right as a result of past events? If **no**, it's a "thing" but **not your asset** yet. (IFRS Foundation)

C — Classify & name the candidate Official Gate
Real property → land registry; tangibles → possession or **document of title** (bills/receipts); securities → **register/TA/CSD**; cash/deposits → bank/CB ledger; receivables/chattel paper → debtor/documentary regime; IP/licences → registry/device/API; data-native → protocol recognized by law (e.g., **CER** or "data objects"). (UNCITRAL)

D — Tokenization test (asset vs claim)
At the named Gate, is the token (or bound agent) the **required key and** an **auto-execute** command under **statute/rulebook/contract**?
Anchors: **UCC Article 12** (control, **take-free** for CERs), **MLETR/ETDA** (electronic transferable records via legal **control**), **eWpG/Swiss CO 973d ff** (DLT as register of record). If **yes** → **Tokenized Asset**; else **Tokenized Claim**. (Uniform Law Commission)

E — Cash leg & finality
Is the settlement asset **co-located or atomically coupled** with enforceable finality? If **yes**, risk/capital compression follows; if **no**, expect reconciliation risk. (Bank for International Settlements)

F — Failure modes & enforceability
Key loss, dispute resolution, **insolvency priority**, forks. Note **UCC 9-105** control of **electronic chattel paper** when relevant. Undefined paths → **downgrade**. (Legal Information Institute)

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3) Deterministic routing (first-match precedence)

Use: test prerequisites **top-down** and **stop at the first match**. If no method qualifies, route to **SPV/Trust**; if even that is unavailable, classify **Attestation-Only**.

1. **Register-of-Record (statutory)**
   DLT ledger is the official securities register.
   Prereqs: Jurisdiction with statute (e.g., **Germany eWpG**; **Swiss ledger-based securities**) and an approved operator.
   Outcome: Asset. (BaFin)

2. **Title / Land / Vehicle Registry Gate**
   Public title/land/DMV registry acts on token instruction or via an appointed on-chain

operator.
 Prereqs: Statute or rulebook binding; API/operator in place (e.g., electronic title/lien programs in motor-vehicle registries).
 Outcome: Asset when binding exists; else **SPV**. ([California DMV](#))

3. **ETR / Negotiable e-Document** (MLETR / **ETDA 2023**)
 Electronic bill/note/receipt with legal "control" equivalent to paper.
 Prereqs: MLETR adoption and compliant platform (e.g., **UK ETDA**—in force **20 Sept 2023**).
 Outcome: Asset (possession substituted by electronic **control**). ([UNCITRAL](#))

4. **Electronic Chattel Paper (UCC 9-105)**
 *Authoritative electronic copy + **control** in a qualifying system.*
 Prereqs: US transaction with 9-105 "authoritative copy" controls satisfied.
 Outcome: Asset (US). ([Legal Information Institute](#))

5. **Intermediated / TA-of-Record (securities & funds)**
 TA/CSD rulebook treats token control as the operational key.
 Prereqs: Operator declares the **official record** is maintained in a blockchain-integrated TA/CSD system (e.g., Franklin OnChain).
 Outcome: Asset if rulebook makes token **required key + auto-execute**; otherwise **Claim**. ([SEC](#))

6. **CER-Native Property (digital/data-native)**
 *Jurisdiction recognizes digital objects as property with **control** (e.g., **UCC Article 12**; UK "data objects" reforms in progress).*
 Outcome: Asset where recognized; IFRS often classifies holdings as **intangible**. ([Uniform Law Commission](#))

7. **Movable-Collateral Registry (secured interest)**
 *Public filing/notation system (UCC Article 9 filing, vehicle lien notation) acts programmatically from token control to file/amend/release the **lien/charge**.*
 Outcome: Asset for the secured interest when binding exists; else **Claim**. (Tokenizes the **security interest**, not title to the goods.) ([AAMVA](#))

8. **Custody-Bound Immobilization**
 Custodian releases/allocates only on token command per rulebook.
 Outcome: Asset if binding is explicit; else **Claim**.

9. **SPV/Trust Wrapper**
 Token represents SPV equity/beneficial interest that owns the thing.
 Outcome: Claim.

10. **Attestation‑Only (incl. Proof‑of‑Reserve)**
    Assurance without a Gate that acts.
     Outcome: Claim/credential (never Asset).

    Money legs (cash/deposits) are evaluated in parallel: **CBDC** or **tokenized deposits** qualify where the **bank/CB ledger** honors token control (ideal for atomic **DvP**); **MiCA** classifies **EMTs/ARTs** as **regulated claims**, applicable from **30 Jun 2024** (Titles III–IV) and **30 Dec 2024** (rest). ([Bank for International Settlements](#))

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4) Conflicts‑of‑law triad (evaluate in order)

1. **lex registrii** — law of the **Official Gate** (register/system/platform).

2. **lex contractus** — governing law of the instrument/rulebook.

3. **lex situs / debtor‑location** — for **perfection & priority** of intangibles (e.g., Article 9 in the US).
    Tangibles: use **lex rei sitae** (location of the goods) for **title**, and debtor‑location rules (e.g., Article 9) for **perfection/priority** of security interests. **Shares/money:** add **lex societatis** (place of incorporation) and **lex monetae** (currency law) as relevant. ([UNCITRAL](#))

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5) Score v2 (0–100) — the rubric & ceilings

Lever	Wt	What "good" looks like
Official Gate identified	6	Named operator/system (registry, TA/CSD, custodian, ETR platform, device/API, money rail)
Required key (necessary)	10	Gate *will not* change record without token control
Auto‑execute (sufficient)	10	With key + conditions, rulebook/contract causes change without ad‑hoc approvals
Recognized **control** regime	6	UCC12 CER / MLETR‑ETDA / eWpG‑Swiss ledger / 9‑105 e‑chattel paper

Perfection & priority	14	Clear filing/control/notation path (e.g., UCC Article 9; title/charge registers)
Negotiability / take-free	12	Good-faith/qualifying purchaser protection (e.g., Article 12; negotiable e-docs)
Insolvency & segregation	12	Client-asset segregation/trust; custodian failure playbook
Conflicts-of-law predictability	5	Triad aligned; governing law clear
Registry/infra quality	5	Identifiers, APIs, SLAs, auditability
Atomic settlement (DvP/PvP)	**20**	Co-located money rail or enforceable atomic coupling & finality (BIS)

Ceiling rules:

- If the D-test (Section 2D) fails → **cap total score at 59** (it's a **Claim**).

- If **no take-free/negotiability** protection → **cap at 79** even if other levers are perfect. ([Uniform Law Commission](#))

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6) Conditions by asset category (what must be true)

- **Real property (land/fixtures)** → The **land/title registry** must bind to on-chain control or appoint an operator; otherwise it's **SPV units** (a claim), never "tokenized land." (Digital transformation at HMLR ≠ DLT register of record yet.) ([GOV.UK](#))

- **Vehicles** → **Electronic lien/title** regimes exist (ELT). To "assetize," the ELT operator must accept token control for file/amend/release. If not, it's a **secured-interest claim** at best. ([California DMV](#))

- **Tangible goods via documents of title** → Use **ETR** (MLETR; **ETDA** in force) so **electronic control** substitutes for possession. Without it, you hold a **bailee's promise** (claim). ([UNCITRAL](#))

- **Investment securities** → Either the DLT **is** the register (**eWpG**; Swiss **ledger-based securities**), or the **TA/CSD rulebook** binds token control. Franklin OnChain explicitly states the **TA maintains the official record** and can **limit/correct** transfers. ([BaFin](#))

- **Cash & deposits** → **CBDC / tokenized deposits** qualify when the bank/CB ledger honors token control; **EMTs/ARTs** under **MiCA** are **regulated claims** unless the issuer's ledger is itself the Official Gate for redemption/transfer (application dates split **30 Jun 2024** / **30 Dec 2024**). ([EUR-Lex](#))

- **Receivables / notes / chattel paper** → If embodied as **electronic chattel paper** with **9-105 control** (authoritative copy), treat as **Asset**; anti-assignment clauses route to **SPV** or require re-papering. ([Legal Information Institute](#))

- **Digital/data-native** → Treat as **CER-native property** where recognized (Article 12; UK "data-objects" bill progressing); IFRS often treats holdings as **intangible**. ([Uniform Law Commission](#))

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7) Evidence package we archive for each case

1. **Official Gate** named (operator and role).

2. **Binding basis** (statute / rulebook / contract clause).

3. **Control** regime (UCC 12; MLETR/ETDA; register of record; **9-105**). ([Uniform Law Commission](#))

4. **Cash-leg** finality (CBDC/deposit rails; if "stablecoin," MiCA status). ([EUR-Lex](#))

5. **Perfection/priority** path (filings, control, notations).

6. **Insolvency/segregation** model (client asset trust, omnibus vs segregated).

7. **Conflicts-of-law triad** resolved.

8. **IFRS classification** and required disclosures. ([IFRS Foundation](#))

9. **Citations** (primary sources) and operator attestations (TA/CSD/custodian/platform).

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8) Control framework (what Compliance should insist on)

- **Legal & registry controls:** cite the **specific section** (e.g., **eWpG** crypto-securities register rules; **ETDA** commencement; **UCC Article 12**; **UCC 9-105**). Add a **state-enactment check** for Article 12—adoption is **state-by-state**. ([BaFin](#))

- **Key management:** hardware/MPC custody; four-eyes for privileged actions; emergency revocation consistent with the Gate's rulebook.

- **Transfer restrictions & AML:** if the Gate is a TA/CSD/bank, enforce allow-lists and jurisdictional filters per rulebook and law (e.g., MiCA for EMT/ART issuers and CASPs). ([EUR-Lex](#))

- **Settlement controls:** document **atomic DvP/PvP** with the money Gate and legal finality (BIS rationale). ([Bank for International Settlements](#))

- **Recordkeeping & audit:** transaction hashes, signed messages, registry extracts, custodian receipts, approvals; for e-chattel paper, preserve the **authoritative copy** metadata. ([Legal Information Institute](#))

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9) Edge-case guardrails (so the tool can't be gamed)

- **Anti-assignment/consent** in receivables → do **not** call it "title"; route to **SPV** or **ETR with debtor consent**.

- **Attestations / Proof-of-Reserve** → **never** a tokenization method (no Gate acts).

- **Omnibus custody without trust/segregation** → cap scores; document insolvency risk.

- **Registry-native instruments (carbon/allowances)** → if the registry won't act on token, it's a **Claim**.

- **Public-chain finality** → if a Gate relies on L1/L2, encode the recognized confirmation rule and **reorg tolerance** in the rulebook.

- **US scope** → for chattel paper, ensure **9-105 control** before calling it assetized. ([Legal Information Institute](#))

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10) Illustrative outcomes (how routing resolves)

- **Germany — listed bond on crypto-securities register**
  Match: **Register-of-Record** (DLT **is** the register). → **Tokenized Asset**. Add cash-leg DvP design. ([BaFin](#))

- **UK — electronic bill of lading**
  Match: **ETR (ETDA 2023 in force)** → **Tokenized Asset** once **control** requirements are met. ([Legislation.gov.uk](#))

- **US — auto floorplan with e-chattel paper**
  Match: **UCC 9-105** authoritative copy + control → **Tokenized Asset**; scoring depends on filing/priority and take-free environment. ([Legal Information Institute](#))

- **US — money market fund with blockchain-integrated TA**
  Match: **Intermediated / TA-of-Record**. The **transfer agent maintains the official record** and can **limit/correct** transfers under the rulebook → **Tokenized Asset** if token is the required key + auto-execute; else **Claim**. ([SEC](#))

- **EU — stablecoin cash leg**
  Match: **MiCA EMT/ART** (regulated claim). Count as **Claim** unless the issuer's system is the **Official Gate** for redemption/transfer; still valuable for DvP if atomic coupling is achieved. ([EUR-Lex](#))

- **Switzerland — ledger-based shares**
  Match: **Register-of-Record** (CO **973d ff**). → **Tokenized Asset**. ([Newsd](#))

- **Market infrastructure precedent — DTCC Project Ion**
  Note: live **parallel production**; DTC classic remains the **authoritative** record—useful context for TA/CSD routing. ([DTCC](#))

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11) IFRS & disclosure notes we apply

- **IFRS asset definition** (embed once): "Asset = present economic resource controlled by the entity; economic resource = **right** with potential benefits." Use this in A/B of the tree. ([IFRS Foundation](#))

- **Financial assets**: cash; equity instrument of another entity; **contractual right** to receive cash/another financial asset (IAS 32). ([IFRS Foundation](#))

- **Crypto holdings**: generally **intangible assets** unless inventory (IFRS IC 2019). ([IFRS Foundation](#))

12) Minimal inputs & instance metadata (for reproducibility)

- **Method-selection tuple: Asset Class × Gate Jurisdiction × Right to Represent (primary)**.

- **Instance-binding: Anchor Identifier** (registry/ETR/receipt ID), **Recognized Controller** (as seen by the Gate), **Governing Instrument Ref** (rulebook clause / contract section / URL/hash).

- **Flags:** `title_form: legal|beneficial`; `assignment_constraints: none|consent|prohibited`.

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13) One-page diligence checklist

1. Name the **Official Gate** and operator.

2. Cite the **binding basis** (statute/rulebook/contract section).

3. Prove **required key** + **auto-execute** at that Gate.

4. Specify the **control** regime (UCC 12 / MLETR-ETDA / register / 9-105). ([Uniform Law Commission](#))

5. Map **perfection & priority** and **take-free** (if any).

6. Confirm **insolvency & segregation**.

7. Resolve the **conflicts-of-law triad** (add **lex rei sitae** where relevant).

8. Design the **cash leg** and **atomic DvP/PvP** path. ([Bank for International Settlements](#))

9. Record **IFRS classification** and disclosures. ([IFRS Foundation](#))

10. Compute **Score v2** (apply **ceilings**) and declare **Asset / Claim / Out of scope**.

14) Appendix A — Capabilities registry (per jurisdiction/platform)

Fields to maintain:

- `supports_register_of_record: yes/no` (e.g., eWpG / Swiss ledger-based). ([BaFin](#))

- `supports_ETR_control: yes/no` (ETDA/MLETR implementer). ([Legislation.gov.uk](#))

- `supports_9_105_echattel_control: yes/no`. ([Legal Information Institute](#))

- `supports_custody_binding: yes/no` (operator rulebook exists).

- `supports_tokenized_deposits/CBDC: yes/no`.

- `supports_movable_collateral_e_filing: yes/no` (API + token binding; e.g., ELT for liens). ([AAMVA](#))

- `article12_in_force: yes/no + citation` (state-by-state adoption). ([Uniform Law Commission](#))

- `notes: operator, SLA, identifiers (ISIN/LEI), service windows.`

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15) Appendix B — Quote-box (short anchors)

- **ETDA 2023 is in force:** commencement **20 Sep 2023**. ([Legislation.gov.uk](#))

- **UCC Article 12 (2022 Amendments):** creates **controllable electronic records** (CERs) and **take-free** for qualifying purchasers; adoption is **state-by-state**. ([Uniform Law Commission](#))

- **UCC 9-105: control of electronic chattel paper** via an **authoritative copy** system. ([Legal Information Institute](#))

- **eWpG:** DLT **crypto-securities register** may be the official register. ([BaFin](#))

- **Swiss DLT reforms: ledger-based securities** transferable **via the ledger**. ([Newsd](#))

- **BIS unified ledger:** co-located money rails enable **atomic settlement** and the biggest efficiency gains. ([Bank for International Settlements](#))

- **MiCA application dates:** Titles III–IV (**ART/EMT**) from **30 Jun 2024**; rest from **30 Dec 2024**. ([EUR-Lex](#))

- **UK digital-assets property reform: Property (Digital Assets etc) Bill** passed **Commons second reading, 16 Jul 2025** (progressing; not yet in force). ([House of Commons Library](#))

Final policy line (what we commit to internally)

- We will call **Tokenized Asset only** when the token is the **required key** and **auto-execute** at the **Official Gate**.

- We will label everything else **Tokenized Claim** (or **Out of scope**) and apply the right controls.

- We will route **every** case through the **first-match** table and publish the **Score v2** (with **ceilings**) and the evidence package.

Primary sources cited

IFRS Conceptual Framework; IAS 32/IFRS 9; IFRS IC 2019 crypto holdings; UCC Article 12 (ULC materials); UCC 9-105; UNCITRAL **MLETR**; UK **ETDA 2023**; Germany **eWpG**; Switzerland **CO 973d ff**; BIS **Annual Economic Report 2023 — Ch. III**; DTCC **Project Ion**; Franklin OnChain (SEC filing); MiCA **Reg. 2023/1114** application dates; UK **Property (Digital Assets etc) Bill** progress. ([IFRS Foundation](#))

This version 1.2 is self-contained and written for readers with no prior digital-assets background, while preserving the legal rigor Compliance requires.