

Tokenized Title

Five Governance Questions Every
On-Chain Land Registry Must Answer

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Tokenized Title: Five Governance Questions Every On-Chain Land Registry Must Answer

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Something remarkable is happening in Dubai: a government land registry has put property title on-chain at scale — tokenized deeds, a regulated secondary market, and what the Dubai Land Department describes as the world's first Property Token Ownership Certificate. As an enterprise architect working in land title registry systems, I've watched this with professional admiration — and with the particular set of questions that registry custodianship trains into you. Land registries are century-scale trust infrastructure: the record must outlive every technology that touches it. Tokenization doesn't lower that bar. It raises it.

These five questions are not criticisms of any program. They are the questions we ask ourselves — the ones every on-chain registry, present or future, must be able to answer in writing.

1. Where does the authoritative record live? When a title exists both in the registry's book and as a token on a ledger, one of them must be master. The strongest design — and notably the one Dubai chose — anchors tokens to the registry's own records rather than making the chain authoritative. But the mirror model has integrity conditions: a defined reconciliation process, an explicit precedence rule for the moment token state and register state diverge, and an audit trail proving which record governed every transfer. A registry that cannot demonstrate these has not tokenized its titles; it has forked them.

2. What happens to indefeasibility when a private key is lost? The registry's historic promise is that ownership, once registered, is guaranteed — recoverable through law even when paper burns. Cryptographic custody introduces a new failure class: keys lost, stolen, or inherited by no one. An on-chain registry must decide, in advance, how a court order reaches the chain: freeze mechanics, reinstatement authority, human-in-the-loop recovery that doesn't quietly become a back door. The answer defines whether the token is property or merely a claim on property.

3. How does jurisdictional control survive a 24/7 global secondary market?

Fractional tokens trading around the clock are magnificent for liquidity and merciless on sovereignty.

Who may hold the token, under which KYC/AML regime, enforced at which layer — the platform, the protocol, or the registry? What happens when a token crosses into a jurisdiction whose courts see it differently? Dual regulation of the kind Dubai built

(registry plus virtual-asset authority) is the right skeleton; the governance test is whether the controls bind at the *record* level, so the register's authority travels with the token rather than stopping at the border.

4. Can the registry exit the chain? Century-scale systems must assume the death of every component — including the ledger itself. Platforms consolidate, protocols stagnate, operators

fail, standards move. An on-chain registry needs a tested, documented migration path: state escrowed in open formats, re-anchoring procedures, and the demonstrated ability to reconstitute every token position from the registry's own records. Exit-capability is not distrust of the chain; it is the same discipline registries have always applied to vaults, microfilm, and databases. The chain is a custodian, not an heir.

5. What may an algorithm do to a title? AI is already adjacent to tokenized property — valuation models, compliance screening, and soon agentic actors trading fractional positions autonomously. The governance question arrives before the technology matures: which actions may an automated agent take against a record of public trust, under whose permission, with what audit trail? The boundary I hold in my own practice applies squarely here: automation may accelerate everything up to the point of record — but an accountable human owns the point of record. Programs that draw that line early will scale AI safely; programs that don't will discover the line in litigation.

None of these questions has a purely technical answer. They are governance questions — decision rights, precedence rules, recovery authorities, audit obligations — which is precisely why registries, of all institutions, are equipped to answer them. We have been running trust infrastructure since before software existed. Tokenization is not a replacement for registry discipline; it is the most demanding test that discipline has ever faced.

The early evidence from Dubai — register-anchored tokens, dual regulation, phased rollout — suggests a program that understands this. The registries that follow will be studying those answers for decades. Some of us already are.