EB-PB-012 · ENTERPRISE PRODUCT BRIEF

Earth RWA
Product Brief

The issuance and lifecycle platform for on-chain representations of real-world assets — property, invoices, commodities, funds, and fixed-income instruments — engineered for regulated distribution from the first block: identity-gated transfers, document-bound instruments, controller operations, and auditable lifecycle automation.

COMPLIANCE-GATED · EBS-3643 · 1400 · TRANCHES (EBS-3525) · AUDITABLE LIFECYCLE

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Canonical source Earth Blockchain Whitepaper v2.0
Audience asset managers · banks & NBFCs · real-estate issuers · custodians · public programs

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Earth RWA — Real-World Asset Tokenization

COMPLIANCE AS DETERMINISTIC CONTRACT LOGIC

Tokenization fails institutionally when compliance is an afterthought bolted onto free-transfer rails. Earth RWA inverts the order: eligibility is checked by the asset itself on every transfer, governing documents are cryptographically bound into the instrument, custodians hold mandated controller powers for court-ordered actions, and coupons, distributions, and redemptions run as auditable contract logic. The result is an instrument a regulator can inspect, a custodian can administer, and an eligible investor can hold — with settlement finality in seconds.

At a Glance	
Category	Real-world asset tokenization (Whitepaper §12.4).
Core EBS standards	EBS-3643 (identity-gated permissioned assets), EBS-1400 (security assets: partitions, documents, controller ops), EBS-3525 (tranche-structured instruments), EBS-721 (unique titles).
Primary buyers	Asset managers and fund administrators; NBFCs and banks (invoice and trade finance); real-estate developers and REIT-like structures; commodity warehouses; government asset-monetization and registry programs.
Commercial model	Issuance fees per instrument; annualized platform fee on assets under administration (bps); lifecycle-servicing subscriptions; secondary-transfer fees — settled in EARTH.
Canonical reference	Whitepaper v2.0 §12.4; platform interfaces in EB-API-003; contract patterns in EB-SCC-005.

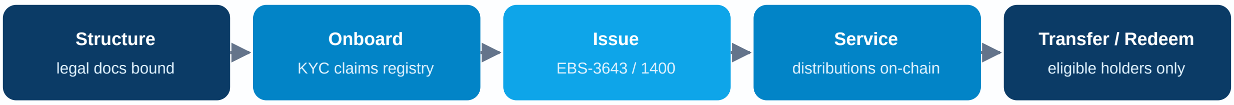
1. The Problem

Institutional asset issuance and servicing remain manual, intermediated, and slow: subscription by paperwork, transfer restrictions enforced by spreadsheets and legal letters, corporate actions reconciled across registrars, and settlement measured in days. General-purpose token rails don't fix this — they remove the restrictions institutions are legally required to keep. What regulated issuance needs is programmable restriction: transfers that succeed only between verified-eligible holders, instruments inseparable from their legal documentation, and recovery paths for the real world of lost keys and court orders (Whitepaper §3, §12.4).

2. Solution Architecture

Issuance is compliance-first. Investors onboard through KYC/eligibility providers who write revocable claims (jurisdiction, accreditation, investor class) to an on-chain identity registry; assets are issued as EBS-3643 permissioned assets whose every transfer validates both parties' claims, or EBS-1400 security assets adding partitions (tranches, lock-up classes), mandatory document binding, and controller operations for legally mandated recovery. EBS-3525 supports quantity-divisible tranche instruments; EBS-721 covers unique titles. The instrument's governing documentation hash is bound on-chain (EarthDoc anchoring), custodians and trustees hold controller roles under documented mandates, and lifecycle automation — distributions, redemptions, corporate actions — executes on-chain with every action regulator-auditable (Whitepaper §12.4; contract patterns in EB-SCC-005 §4).

Fig. 1 — Earth RWA: Compliance-Gated Tokenization Lifecycle



Every transfer validates on-chain eligibility claims; controller roles support legally mandated actions without breaking auditability.

Fig. 1. Every transfer validates on-chain eligibility claims; controller roles support legally mandated actions without breaking auditability.

3. Workflow

1. **Structure.** Issuer, counsel, and custodian define the instrument; documentation hashes bind on-chain via EarthDoc anchoring; partitions and policies are encoded.
2. **Onboard.** Investors clear KYC/eligibility with approved claim providers; claims land in the identity registry — revocable, auditable, reusable across instruments.
3. **Issue.** Mint under EBS-3643/1400 with transfer policy live from block one; primary distribution settles atomically against payment with deterministic finality.
4. **Service.** Coupons, rental distributions, NAV updates, and corporate actions execute as contract logic; every action emits regulator-readable events.
5. **Transfer / redeem.** Secondary transfers execute only between eligible holders; redemption burns the asset against final settlement; controller ops handle mandated recovery.

4. Standards and Platform Integration

Component	Role in Earth RWA
EBS-3643	Identity-gated transfers against the claims registry — compliance moved from paperwork into deterministic logic.
EBS-1400	Partitions, mandatory document references, controller (forced-transfer) operations, granular restriction error codes.
EBS-3525	Tranche-structured, quantity-divisible instruments — bonds, invoice pools — that split and merge cleanly.
EBS-721	Unique titles: land parcels, single-asset SPV interests.
EarthDoc + BaaS	Document binding and issuance APIs (EB-API-003 §5.2); indexing exports for administrators and auditors.

5. Deployment and Integration Path

- **Pilot (weeks).** One instrument, one closed investor group: structure a small tranche (e.g., an invoice pool), onboard a handful of eligible investors on testnet, and run issue → distribute → redeem end to end with your counsel and custodian observing the audit trail.
- **Integration (months).** Connect fund-administration or loan-management systems to the lifecycle APIs; onboard your KYC provider as a claims issuer; wire distribution events into reconciliation; formalize controller mandates with the custodian/trustee.
- **Production (quarters).** Multi-instrument issuance programs; secondary transfer windows between eligible holders; data feeds to lenders pricing tokenized collateral; green-labeled instruments with EarthESG-verified sustainability claims (Whitepaper §12.4).

6. Business Model and Value

Dimension	Earth RWA
Target customers	Asset managers and fund administrators; NBFCs and banks (invoice/trade finance); real-estate developers and REIT-like structures; commodity warehouses; government asset-monetization and registry programs.
Business model	Issuance fees per instrument; annualized platform fee on assets under administration (bps); lifecycle-servicing subscriptions; secondary-transfer fees — settled in EARTH.
Revenue opportunities	Tokenization-as-a-service for institutions, identity-claim network fees, custodian/trustee integrations, data feeds to lenders pricing tokenized collateral.
Competitive advantage	Compliance primitives are native standards, not bespoke add-ons; deterministic finality suits settlement obligations; composability with EarthDoc (documents), EarthSCM (physical collateral provenance), and EarthESG (green labeling).

7. Enterprise Use Cases

Invoice and trade-receivable financing pools; fractional commercial real estate with automated rental distribution; warehouse-receipt commodity financing with EarthSCM-proven collateral; tokenized bond and fund-unit issuance to verified investors; green-labeled instruments with EarthESG-verified claims; government asset-registry and monetization programs.

8. Measuring Success

- **Settlement performance.** Primary settlement and secondary transfer time (seconds, final) versus legacy T+n cycles.
- **Servicing cost.** Administrator hours per distribution cycle; reconciliation breaks (target: zero — the ledger is the register).
- **Compliance assurance.** Ineligible-transfer attempts blocked at the contract; audit preparation time using on-chain event exports.
- **Program scale.** Instruments issued, assets under administration, eligible-investor registry growth.

9. Security and Compliance Notes

- **Eligibility integrity.** Claims are issued by approved providers, revocable in real time, and checked at transfer time — sanctions or status changes propagate immediately.
- **Legal enforceability.** Document hashes bind the instrument to its governing law; controller operations execute only under documented custodian/trustee mandates with on-chain reason codes.
- **Key recovery.** Lost-key recovery via controller operations preserves investor property without breaking the audit trail.
- **Regulatory posture.** The platform provides programmable restriction and auditability; securities characterization and licensing are jurisdiction-specific determinations for each issuer.

> **Getting started.** Run the EB-SCC-005 §4 patterns on testnet with your compliance team, then engage the enterprise team for claims-provider onboarding and custodian controller setup.

EB-PB-012 v1.0 (July 2026). This brief expands Whitepaper v2.0 §12.4 with deployment and operational guidance; the Whitepaper governs in any discrepancy. References to reporting or regulatory frameworks describe structural alignment of tooling, not certification or approval. Nothing herein constitutes financial, investment, tax, or legal advice.