



WHITEPAPER V0.1 · JULY 2026

Corngate Digital Passport Protocol

Land, trees, farms and regulated applications. Corngate is a digital passport and asset intelligence system for productive real-world assets: persistent identities, verified evidence, geospatial data, and selected assertions anchored to a public blockchain — designed so financing and fractionalized farming can be added as separately governed applications rather than embedded indiscriminately into every passport.

Corngate — digital passports for productive real-world assets.

Live registry: corngate.co · Pilot: Eastern Region, Ghana · Certificates: Polygon Amoy (testnet).

This document describes a certification and registry protocol. It is not an offer, solicitation or investment recommendation.

1. The problem

Productive assets across African markets often suffer from fragmented records, informal agreements, duplicated claims, inaccessible evidence, weak monitoring and limited interoperability between landowners, banks, insurers, buyers and regulators. The result is not merely a lack of capital; it is a lack of trusted, continuously updated asset information.

2. The thesis

Before an asset can be financed, insured, leased or tokenized, it needs a reliable identity. Corngate therefore begins with identity, verification and history. Tokenization is an optional application layer, not the starting point.

3. Passport hierarchy

A Farm Passport can contain one or more Land Passports. A Land Passport can contain Tree Passports, infrastructure and operational records. Each passport has its own identity and history while preserving parent-child relationships.

4. Core protocol

Every passport includes a unique ID, asset type, geospatial reference, evidence set, claimant and custodian roles, verification status, version history, documents, inspection history, privacy rules and blockchain certificate. Asset-specific schemas extend the core protocol.

5. Verification model

Verification is risk-based. A registrar submits data; automated checks flag duplicates and inconsistencies; an approved verifier reviews evidence; higher-value claims require field inspection or documentary confirmation. Every decision is logged and reversible through dispute and revocation workflows.

6. Blockchain design

The application database remains the operational source of truth. Polygon PoS is recommended for public certification because it is EVM-compatible and supports low-cost issuance. ERC-721 represents unique passport certificates. IPFS stores intentionally public, versioned metadata. Sensitive evidence remains off-chain and permissioned.

7. Ownership and claims

A passport can record a claimed, verified, disputed or superseded relationship between people and assets. The system distinguishes legal owner, customary interest holder, lessee, operator, custodian, beneficiary and sponsor. Token possession alone does not establish legal ownership.

8. Fractionalized farming

Corngate Grow is a separately governed application. A verified Farm Passport supplies the underlying evidence. The investment instrument, beneficial rights, custody, distributions, transfer limits and disclosures must be structured under applicable securities, collective investment, virtual asset, AML and tax rules. Passport NFTs should not be fractionalized directly.

9. Security and privacy

The protocol uses role-based access, row-level database security, private storage, signed URLs, evidence hashes, key separation, audit logs and incident procedures. Exact coordinates and private identity documents are never published by default.

10. Regulatory approach

Corngate seeks to work within Ghana's regulatory sandbox and does not seek to use tokenization to evade securities, land, data protection or virtual asset regulation. The initial pilot is a controlled certification system without public investment solicitation.

Context: the SEC issued Securities Industry (Regulatory Sandbox Licensing) Guidelines in March 2026 under the Securities Industry framework and the Virtual Asset Providers Act, 2025, providing a designated virtual-asset sandbox track. Corngate intends to use the sandbox to validate its registry boundaries and any later capital-market application.

11. Roadmap

Phase 1 delivers live passports and proof of work. Phase 2 commercializes verification and monitoring. Phase 3 adds institutional dashboards and APIs. Phase 4 pilots one approved financing or fractional farming application. Phase 5 supports multiple issuers, markets and asset classes.

12. Disclosures

A passport is a structured digital record and certificate, not conclusive legal title. A passport does not automatically represent an investment, carbon credit, commodity or right to income. Blockchain data is public and difficult to remove; sensitive information remains off-chain. Verification reduces information asymmetry but cannot eliminate fraud, biological risk or legal disputes. All economic applications require specific terms, approvals and risk disclosures.

Corngate Digital Passport Protocol — Whitepaper v0.1, July 2026. The web rendition and the build-in-public documentation centre live at corngate.co/docs. Questions and verification requests: via the contact form on the registry site.