Privacy-by-Design & Ephemeral Cloud Architecture Note

Version 2026.11 · Infrastructure & Data Lifecycle · rootedcarbon.com/governance

Technical note detailing private-info stripping, minimal technical metadata handling, containerized international inference, and session-only browser operation across Rooted Carbon services.

Three-Stage Data Lifecycle

- 1. On-Device Preparation: Personal identifying information is stripped before transfer, while essential non-identifying technical capture metadata (such as lens and sensor scaling telemetry) may accompany the frame to support optical analysis.
- 2. On-Demand Cloud Inference: Containerized international cloud services process the image in ~15 seconds and return structured ecological JSON.
- 3. Wiped on Refresh: Rooted Carbon stores zero uploaded photos, and public calculator results clear cleanly when the browser session refreshes.

Security & Ownership Guarantees

- Transport security via TLS 1.3 global edge routing (Cloudflare Edge) and anti-abuse attestation through Firebase App Check.
- Open browser access for public single-tree scans with no account registration or login required.
- Landowners, municipalities, classrooms, and Indigenous Guardians retain 100% ownership of all photos and exported JSON, CSV, and GeoJSON datasets.

Contacts & Disclosures

- Privacy inquiries: privacy@rootedcarbon.com
- Security disclosures: security@rootedcarbon.com
- Live service availability: status.rootedcarbon.com

© 2026 Rooted Carbon · Dieppe, New Brunswick