LYNDAX GLOBAL | REAL-WORLD DEPLOYMENT BRIEF

TRACK BRIEF 05: MINA LILIU — Keepers of Songs & Oral Histories

Phase 1 Deployment: Woodlark (Murua) Island | Release: 9 August 2026

Complete Track Brief — all 6 challenges

CHALLENGE AT A GLANCE

Objective: Digitize oral histories, songcodes, and craft heritage; build consent-based archives; let the world actually watch the build happen, sector by sector, verified as real.

Technical Baseline: Consent-governed access control, hardware cryptographic watermarking, sensitivity clearing for sacred sites, offline-compatible grievance channel.

Required Deliverables: Platform architecture schematics, consent governance framework, data security plan, and proof-of-concept evidence in whatever form fits your team's stage.

A note before you read further: everything below is one way to solve this challenge, not the only way. It's meant to show you the shape of the problem clearly enough to work with, not to box you into a single design. Bring your own research, your own expertise, and tell us plainly what extra value your approach adds beyond what's written here — that's genuinely welcome, not a deviation to explain away. This is also a challenge, not the finished deployment: some things that belong to the real, on-the-ground project — like securing consent from customary landowners — aren't yours to demonstrate at this stage, and you won't be asked to. Read the Guidelines for Guardians to Unite alongside this brief for the fuller picture of how deployment actually works, logistics included.

Who can apply: You can apply as a single person, a company, or a team — whatever shape your work actually takes. If more than one submission ends up solving the same piece of this puzzle, we'd rather introduce you to each other than make you compete: this is about uniting the right people around Ava, not picking a lone winner.

1. SYSTEM PLACEMENT & ROLE

Where This Sits: What lets the world actually watch, understand, and respect what the rest of the project protects.

Core Mission: Turn verified telemetry and community consent into a living public record — broadcast, documentary, and archive — without ever separating storytelling from the strict consent and data-sovereignty rules that govern everything it draws from.

Integration Rule: Nothing broadcast or archived here originates in this track alone; it all originates as verified data or community material from elsewhere in the project, cleared through mandatory consent review before release, and identity/ledger functions stay Mina Kula's — this track consumes them, it doesn't rebuild them.

2. WOODLARK ISLAND: WHAT YOU'RE ACTUALLY DESIGNING FOR

A real starting point, not the whole picture — go do your own deeper research from here. Facts below are sourced from public geographic and climate records; anything marked as an estimate is exactly that.

Geography. Woodlark Island is roughly 60km east-west and 30km north-south at its center, in the Solomon Sea, part of Milne Bay Province, centered around 9.13°S, 152.81°E. Highest point is Mount Kabat at 240m. The island's own name is Muyuw, also called Murua.

Population & settlements. No formal census has been taken since 1990; an unofficial estimate puts the island's population around 6,000 today, spread thin. Kulumadau is the largest settlement, Guasopa second — Guasopa also holds the island's health centre, currently 9 health workers covering roughly 6,000 people across Woodlark and the surrounding islands. There is one primary school, in Kulumadau; every child leaves for Alotau to attend secondary school.

Climate. Warm and humid year-round, roughly 21–34°C. Wet season runs January through March, peaking in March. Southeast trade winds dominate the drier stretch, roughly May through November. Cyclone and tropical storm risk concentrates December through March.

Access. The route in runs through Alotau, Milne Bay Province's capital, then by sea to Woodlark — roughly 155–160 nautical miles by straight-line estimate; no verified figure exists for actual sea-route distance or travel time, so treat this as a rough planning estimate, not a fixed number.

3. THE TECHNICAL BASELINE

These fall into two tiers. A small number are hard constraints, marked [HARD CONSTRAINT] below — they protect customary rights and consent, not architecture, and admit no exceptions. Everything else here is the reference bar for meeting each field challenge, not the only acceptable answer: if your team has a genuinely better way to solve the same problem, propose it. This challenge is evaluated on what actually works in the field, not on matching this document line for line.

- **ILG Status Ledger & Consent Governance** — **[HARD CONSTRAINT]**: The governance and access-control layer for all digitized cultural material is hard-linked to Mina Kula's Incorporated Land Group identity and status records. Stored material can only be accessed or shared under terms explicitly authorized by recognized clan executive councils, meeting Verra CCB and SD VISta Gold Level standards.
- **Hardware Cryptographic Watermarking**: Live broadcast feeds drawing raw video or audio from Mina Valu's Forest Sentinel Totems or Mina Tawali's marine pods execute edge-level cryptographic watermarking — hardware MAC signatures and UTC timestamps embedded in the video container — before satellite uplink.
- **Sensitivity & Consent Clearing** — **[HARD CONSTRAINT]**: Live streaming feeds pass through an automated sensitivity review to obscure sacred spatial locations before any public broadcast on lyndax.org.
- **Digital Grievance Mechanism**: An offline-compatible stakeholder engagement and grievance channel, reachable via ILG smart cards, so customary landowners can log grievances or consent updates without needing connectivity, routed to the SMDDA Board and Lyndax legal counsel once back online.
- **Craft Heritage Coordination**: Documentation of traditional canoe-building geometries and craft skills is built in direct partnership with Mina Tawali's non-timber fabrication teams, preserving oral tradition as materials transition away from tree felling.
- **Field Durability, Anti-Theft & Ease of Use** — **[HARD CONSTRAINT]**: Anything deployed unattended in the field is built to survive years without regular maintenance, resist tampering or theft, and stay simple enough not to fail from ordinary misuse — this district is genuinely isolated, and a fragile or easily-defeated unit doesn't help anyone. This is about the real outcome (long unattended service life, tamper resistance, hard to get wrong), not a specific named spec like ‘military grade’: propose whatever achieves that outcome.

4. THE SIX SUB-CHALLENGES — ONE BACKBONE

5.1

Consent-Based Cultural Archiving & Data Sovereignty

THE FIELD CHALLENGE

Digitizing oral histories, the Muyuw language, and traditional songcodes creates a real risk of third-party exploitation if cultural assets are exposed without clan permission.

REFERENCE STANDARDS

- Encrypted, decentralized digital archive where access rights are controlled via Mina Kula's offline ILG smart card identity layer, not a separate identity system built here
- Zero-knowledge permissions so clan elders retain absolute, unalterable control over who views or listens to archived material

WHO SHOULD APPLY

Archival systems developers, digital rights and consent-management specialists, zero-knowledge security engineers.

5.2

Songcodes & Oral History Digitization

THE FIELD CHALLENGE

Ecological knowledge, navigation lore, and clan genealogy currently exist only in the memory of living elders, with no digital preservation and no guarantee that knowledge survives the next generation.

REFERENCE STANDARDS

- High-fidelity audio/visual capture, preservation, and living-archive software designed for offline field collection alongside customary clans

WHO SHOULD APPLY

Cultural archivists, audio/digital preservation specialists, applied anthropologists.

5.3

Traditional Craft & Vessel Culture Documentation

THE FIELD CHALLENGE

Canoe-building and craft traditions are living knowledge held in the hands of elders, currently undocumented as new non-timber materials are introduced under Mina Tawali.

REFERENCE STANDARDS

- Multi-angle 3D scanning and audio-visual documentation of traditional canoe carving, in direct coordination with Mina Tawali's non-timber fabrication teams

WHO SHOULD APPLY

Applied anthropologists, 3D scanning specialists, cultural documentarians.

5.4

Live Multi-Sector Viewing Channel

THE FIELD CHALLENGE

Right now, nobody outside the project can actually see what's happening on Woodlark as it happens — the forest that's being protected, the reef that's being monitored, the villages that are being built. The challenge: a live channel where people can watch each sector for themselves, not one generic feed but a real choice of what to watch, cleared and cryptographically verified so what they're seeing is provably real, not staged or

deepfaked.

REFERENCE STANDARDS

- A viewing interface letting someone choose between live sectors — forest canopy, reef and mangrove, village construction — rather than a single undifferentiated stream
- Each feed cryptographically watermarked at the edge before it ever reaches lyndax.org
- Pulls from cleared sentinel, reef, and site cameras already built elsewhere in the project — this challenge is the viewing and verification layer, not the cameras themselves

WHO SHOULD APPLY

Broadcast engineers, live-streaming platform developers, video cryptography specialists, UX designers for multi-feed viewing experiences.

5.5

Programme Grievance & FPIC Engagement Portal

THE FIELD CHALLENGE

Customary landowner disputes or community concerns need to be addressed quickly, before they escalate into localized project freezes or physical site disruption. This builds the tool that supports Lyndax/SMDDA's ongoing FPIC relationship — it doesn't lead that relationship itself.

REFERENCE STANDARDS

- Offline-capable digital grievance submission channel linked to ILG smart cards
- Transparent logging and resolution tracking on Mina Kula's sovereign ledger — not a separate tracking system

WHO SHOULD APPLY

Legaltech developers, dispute-resolution platform designers, FPIC governance specialists.

5.6

Documentary & Field Production

THE FIELD CHALLENGE

The scale of what's being built on Woodlark — landing craft deployments, 3D printing, ranger patrols, clan partnerships — needs authentic, long-form human storytelling, not just a live data feed.

REFERENCE STANDARDS

- Field documentary production capturing Phase 1 deployment across all six physical tracks

WHO SHOULD APPLY

Filmmakers, documentary producers, field media teams.

5. WHAT TO SUBMIT

Teams applying to Mina Liliu upload to lyndax.org:

- **Platform & Governance Architecture Package** — data vault schematics, zero-knowledge permission flowcharts, ILG status ledger integration, and grievance portal schematics.
- **Consent & Security Handoff Matrix** — direct mapping showing how cultural access rights and grievance logs interface with Mina Kula's smart-card identity layer.

- **Proof-of-Concept Evidence** — in whatever form best reflects where your team actually is — a working prototype, a bench-tested subsystem, evidence of a prior deployment, or a detailed feasibility case with supporting calculations. A polished video is welcome but not required.
- **Rough Cost Estimate** — an order-of-magnitude budget for the specific challenge(s) you're addressing — not a binding quote. Early-stage teams can give a range; further-along teams can be more precise. This helps us plan against something real instead of guessing.

6. HOW THIS IS EVALUATED

Submissions are scored on three equal pillars:

- **Technical Integrity** — Does it meet the technical baseline — either as written, or with a genuinely better alternative?
- **Integration Readiness** — Does it plug cleanly into the rest of the build?
- **Guardian Spirit** — Was it designed for the clans, not just the spec sheet?

7. INTELLECTUAL PROPERTY

Any technology or intellectual property you bring into this challenge remains yours. What gets built specifically for this project is licensed to Lyndax Global and the Samarai-Murua District Development Authority for use here — not assigned, not sold, not owned by us. If your technology's use ever expands beyond this initial deployment, those terms will be set out clearly in your individual contract once you're selected — never assumed from this brief.

Questions or more detail before you submit? Reach Mina Liliu directly at liliu@lyndax.org.

This is a first-of-its-kind deployment, and this brief is a challenge document, not the final build — specifications are a starting point for direct engagement with applicant teams, not a fixed spec to execute silently. Full disclaimers and engagement terms are set out in the Guidelines for Guardians to Unite and the Eligibility & Disclaimers document. Submissions close 11 September 2026, 6:00pm Singapore time.