

Elyon-Sol Framework

Synthetic Proof-of-Concept — Gated & Protected Information Access

Prepared for World Health Organization (WHO) evaluation and aligned bodies

This document presents a governance-first, synthetic Proof-of-Concept (PoC) demonstrating how the Elyon-Sol framework manages access to sensitive information under strict gating, consent, and safety constraints. The PoC is non-clinical, non-diagnostic, and contains no personal or patient data.

Executive Summary

Global public-health and healthcare environments require AI systems that can selectively access information, prove compliance, and fail safely under uncertainty. This PoC simulates a WHO-grade scenario in which an AI system retrieves, analyzes, and reports on protected policy information spanning multiple trust zones. Elyon-Sol enforces governance as infrastructure: explicit consent, context isolation, safety routing (OSPF), and auditable outcomes.

Scenario Definition

A WHO analyst requests a synthesized view of outbreak response guidance spanning published public advisories, restricted inter-agency memoranda, and embargoed draft policy. The system must provide useful insight while ensuring that protected content never escapes its authorized context.

Context and Gating Model

The PoC operates across three explicit contexts. Public-Public access includes only published advisories and open guidance. Restricted-Policy access includes inter-agency materials and requires explicit, scoped consent. Embargoed-Draft access includes time-bound draft policy and is subject to the strictest controls, including abstraction-only outputs and non-redistribution.

End-to-End Process Flow

The process proceeds through request intake, consent and authority verification, strict context isolation, safety routing via OSPF, bounded analysis within each gate, approved abstraction across contexts, and comprehensive audit logging. At no point is protected content extracted or merged outside its authorized scope.

Multi-Model Synthesis (Simulated)

To stress-test robustness, the PoC simulates parallel consultation with two independent reasoning engines representative of different AI providers. Each engine operates under identical governance constraints. Elyon-Sol reconciles outputs by prioritizing safety, consistency, and explainability. No raw protected information is exchanged between engines.

Auditability and Compliance

Every action in the PoC generates an auditable trail, including timestamps, consent scopes, accessed contexts, and safety decisions. The system remains advisory and non-clinical throughout, aligning with WHO principles for trustworthy and accountable AI.

Outcomes and Validation Criteria

The PoC demonstrates successful gated access without leakage, deterministic safety routing under uncertainty, explainable synthesis suitable for executive review, and complete auditability for independent validation.

Conclusion

This synthetic Proof-of-Concept shows that Elyon-Sol can support WHO-grade evaluation of gated information access. By placing governance before intelligence, the framework enables safe, auditable, and trustworthy outcomes in high-stakes global health contexts.