



MGOS RUNTIME STACK



MGOS Runtime Stack

MGOS Integrity & Authorization Runtime

AI proposes. Integrity stabilizes. MGOS authorizes. Evidence proves.

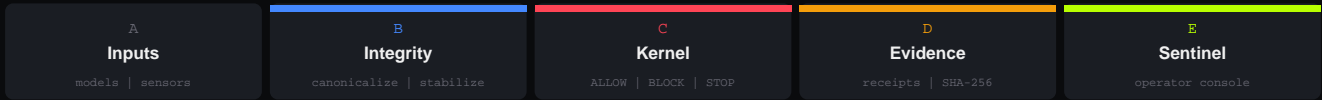
WHAT

Deterministic authorization boundary between AI proposals and real-world execution.

One runtime path: Inputs -> Integrity Engine -> Authorization Kernel -> Evidence Layer -> Sentinel Console.

Not a model. No weights. No probabilistic output. ALLOW / BLOCK / STOP + receipt.

PIPELINE



WHY IT MATTERS

- Prevents uncontrolled execution from uncertain AI outputs
- Preserves conflict instead of forcing false consistency
- Produces deterministic authorization results (core logic Lean 4 verified)
- Generates cryptographically verifiable evidence for every decision

VERIFIED SCOPE

| | | |
|--|---|--|
| <p>FORMALLY VERIFIED</p> <p>Fall-safe authorization Conflict safety Output exhaustiveness Permutation invariance Override dominance</p> <p>Lean 4 artifact on request</p> | <p>ENGINEERED</p> <p>Integrity pipeline Normalizer boundary (N1-N3) Evidence receipts + manifests Sentinel operator console</p> <p>PO4 (normalizer) remains open</p> | <p>OPERATIONALLY VALIDATED</p> <p>Baseline hardtests: PASS Soak tests: PASS Poison-input tests: PASS Zero unsafe authorization</p> <p>In audited suites</p> |
|--|---|--|

USE CASES

| | | | |
|--|---|--|---|
| <p>Autonomous Robotics</p> <p>Planner-to-actuator gate. STOP on constraint violation.</p> | <p>Industrial / SCADA</p> <p>Operational envelope enforcement. Fall-safe on sensor conflict.</p> | <p>Financial Execution</p> <p>Pre-trade compliance gate. Deterministic BLOCK on limit breach.</p> | <p>Security Automation</p> <p>Privileged action authorization. Evidence for forensics.</p> |
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EVALUATION PATH

Eval (NDA, 24h delivery, ~30-day TTL) -> Pilot (real workloads) -> Production License (annual, per-boundary)

IP & CONTACT

Patent pending (PL/US) | CORE_PIN: 337d69f71970 | macOS (current) | Linux (under eval agreement)

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