SENTINEL AUTHORITY

ODDC Overview v1.0

1. Introduction

ODD Conformance Determination (ODDC) is Sentinel Authority's voluntary conformance and evidence framework for autonomous systems. It provides independent verification that an autonomous system operates within a formally declared Operational Design Domain (ODD) and that runtime enforcement mechanisms are architecturally present.

2. Purpose

ODDC addresses the gap between AI capability claims and verifiable operational boundaries. It provides:

- Formal specification of permitted autonomous action boundaries
- Evidence of stable operation within declared boundaries
- Verification of runtime enforcement mechanisms
- Auditable conformance records for third parties

3. Framework Components

Operational Design Domain (ODD) — The formally specified boundary of permitted autonomous action, including environmental conditions, operational parameters, and constraint definitions.

ENVELO — Enforcer for Non-Violable Execution & Limit Oversight. The runtime enforcement layer that makes declared boundaries real through non-bypassable interlocks.

CAT-72 — Convergence Authorization Test. A 72-hour minimum demonstration procedure establishing bounded behavior across operational regimes.

4. Conformance Determination

ODDC conformance is determined when: the ODD is formally specified, evidence demonstrates stable operation within the ODD, ENVELO-compliant enforcement is architecturally present, and CAT-72 has been successfully completed.

5. Contact

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