FAR-001 - Boundary Intelligence, Functional Architecture and the Living Specification

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Status: Foundational working record; derived from the architecture decision log supplied in the 29 September 2026 conversation. Authority: provenance and proposals, not a new AOS-00 decision or approved normative requirement. Source: the twenty-section “AOS Architecture Decision Log - Boundary Intelligence and the Living Specification” supplied for review, and the subsequent incorporation review. Preserve that conversation as the full source text. This record is an indexed synthesis, not a verbatim transcription.

Context and propositions

1. Competent pursuit of a legitimate objective can find an effective but illegitimate means. Telos is necessary and insufficient: purpose and authority to act are distinct (source §§1-2).
2. Consequential reasoning should consider telos, ethics, boundary/authority, epistemic sufficiency and transparency. Ethical reasoning cannot replace independent enforcement (source §3).
3. A boundary should express its normative meaning, provenance, exceptions and escalation route to an intelligent actor where practicable. Technical prohibition remains independently enforced (source §§4-5).
4. Character, constraint and accountability correspond to Integral Ethics, independently enforced constraints and Radical Transparency. None is assumed infallible (source §5).
5. Consequential activity should be reconstructable from actor and authority through context, evidence, reasoning, decision, action, consequence and intervention. Logs alone need not make an organisation legible (source §6).
6. Controls must consider individual acts, cumulative and population-level patterns, emergent effects and capability change; behavioural and capability boundaries are distinct (source §7).
7. Some duties cross organisational boundaries, including notification, shared risk and affected interests. Federated concepts of materiality, authority and incident may be needed (source §8).
8. AOS specifies enduring functions and contracts rather than a product, framework, model or database. The reviewed refinement of the source hierarchy is Principle → Capability → Function → Contract → Conformance → Implementation. An API may express part of a contract (source §§9-10 and review).
9. Publication requires an explanatory manifesto, a testable reference architecture and, separately, a bounded reference implementation. The Reasoning Principles belong in the normative foundation once their authoritative text and allocation are confirmed (source §11).
10. The Living Specification follows Observe → Challenge → Evolve. Custodian intelligences sense evidence and propose changes; they cannot amend the normative specification. Cross-component challenge, impact assessment, decision authority, versioning and review maintain coherence (source §§12-15).
11. Governance functions must be explicit, separable and transferable from the founder (source §16).

12. A governed Living Specification could demonstrate AOS recursively, but it is a candidate later reference implementation. The agreed first public example remains the overdue-repair scenario (source §§17-18; AOS-00 DEC-021-026 and 28 September publication decision).

Disposition into project material

Table row 1
Source: §§1-8
Destination: Architectural Rules; AOS-01/03/04/05/14/20/30; Reasoning Principles allocation
Disposition: Draft cross-cutting rules and component requirements; reconcile the two meanings of “Boundary Intelligence”

Table row 2
Source: §§9-10
Destination: AOS-00 and Architectural Contracts; Ecosystem
Disposition: Functional prescription and supplier contract model, subject to existing decisions

Table row 3
Source: §§11, 14-16
Destination: Governance of AOS
Disposition: Change Constitution outline and founder-independent roles

Table row 4
Source: §§12-13, 17
Destination: RI-001 concept
Disposition: Research and demonstration proposal; no build or publication authority

Table row 5
Source: §19
Destination: Architecture Issues Register
Disposition: Individually tracked unresolved questions

Table row 6
Source: §20
Destination: To-do and component template
Disposition: Drafting sequence and review tasks

Critical reconciliation

The source uses “Boundary Intelligence” both for systemwide limits on authority and for external/inter-organisational exchange. AOS-00 DEC-005 already allocates external exchange to AOS-14 and enforcement of approved permissions to shared controls in AOS-01/03/05 with the general agent contract in AOS-04. GI interprets and prepares; authorised humans adjudicate Mode 2. This record does not reassign those responsibilities. The semantic-boundary and independent-constraint propositions should be specified in shared controls, with AOS-14 applying the relevant controls to its exchanges. Their exact mechanisms and conformance remain open under D08.

The source's proposal that RI-001 be the first substantial implementation does not displace the selected overdue-repair proof of concept or the first public architecture-draft package. It is retained for later evaluation.

Record integrity: editorial corrections may be made with a dated note; substantive adoption or rejection belongs in the AOS-00 decision register with source, rationale, affected IDs and approval evidence. No new approved DEC or REQ identifier is created by this record.