AOS-02 - Unified Data Layer and shared records

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AOS Specifications v1.0 · Edition dated 3 November 2026

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DEC-104 adopted - 29 October 2026: Current revision 0.11. Each mandatory protected-finding category requires assessed technical-failure and implicated-person interference arrangements with an appropriately independent authorised alternative and no implicated sole release gatekeeper. Decision/amendment record (../Supporting-Specifications/aos-dec-104-protected-reporting-and-implicated-recipients-2026-10-29.md). External reporting is conditional on justified lawful authority, not a default. Exact profiles/permissions, protected_finding v0.3 compatibility and actual evidence remain gates; amended wording retains ordinary separate review and cases are planned/unexecuted. Earlier contrary or narrower baselines are history for this scope.

DEC-103 adopted - 29 October 2026: Current revision 0.10. Decision validity/effective time, attributable evidence/authentication, minutes approval and permission to execute are separate. DEC-087 is partly superseded; decision/amendment and legal-source record (../Supporting-Specifications/aos-dec-103-decision-validity-evidence-and-minutes-2026-10-29.md). No universal later-minutes or second decision-record approval gate. Exact instruments/evidence policy, KX-06 v0.3 compatibility and ordinary separate review/readiness gates remain required; cases unexecuted. Earlier contrary wording is historical only where explicitly identified.

DEC-099 adopted - 29 October 2026: Mark approved the derived-information restriction rule. Current document revision 0.9; earlier functional/editorial baselines below are retained history. The decision and controlled amendment record (../Supporting-Specifications/aos-dec-099-derived-information-restrictions-2026-10-29.md) governs this change. Existing requirement/case/IF identities are retained; amended wording remains subject to the normal separate review and readiness gates. No case execution or operating approval is implied.

Editorial edition - 29 October 2026: Mark authorised documentary corrections D-01-09. This edition reconciles navigation, count/revision pointers, conformance links and historical scope labels; existing technical meanings, requirement/IF/decision identities and proposed/planned status are retained. The internal version below identifies the retained functional baseline; this dated editorial edition identifies the corrected document. See the current document inventory (../Supporting-Specifications/aos-current-document-inventory-2026-10-29.md) and correction record (../Supporting-Specifications/aos-documentary-corrections-2026-10-29.md). Earlier dated adoption baselines are historical snapshots; exact logical family/view revisions are in Exchange Register §4.

Table row 1
Document control: Version / date
Value: 0.11 / 29 October 2026

Table row 2
Document control: Status
Value: Review draft; component requirements, schemas and HACT mappings proposed

Table row 3
Document control: Architecture baseline
Value: AOS-00/Map v0.25, DEC-001-089; AOS-30 functional alignment 7 October 2026

Table row 4
Document control: Source baseline
Value: Foundational Principles v4; AOS Reasoning Principles v6; Governance Intelligence Tests, controlled supplied set

Table row 5
Document control: Component owner / custodian
Value: Common-record stewardship required; appointments unresolved

Table row 6
Document control: Project baseline approver
Value: Mark Sweeny

Table row 7
Document control: Organisation approvers
Value: Relevant data/governance/privacy/operational authorities under their approved instruments; appointments unresolved

Table row 8
Document control: Author
Value: Codex, at Mark's request

Table row 9
Document control: Independent reviewer
Value: Unassigned; independent project review deferred

Table row 10
Document control: Quality / template
Value: AOS-QS v0.1; component template v0.4

Table row 11
Document control: Release scope
Value: Whole-component logical specification; bounded implementation not authorised

Table row 12
Document control: Readiness
Value: Author-reviewed draft; no formal readiness gate, build or activation approval

Table row 13
Document control: External standards status
Value: HACT/OSCRE alignment assessed at reference/concept level; exact adopted release and element mappings unverified

Table row 14
Document control: Change history
Value: 0.1 initial component draft. 0.2 incorporates approved DEC-045-048 and Radical Transparency clarification: assurance provenance, governed reconciliation/history, HACT preferred reference; adds REQ-037-046 and VER-021-024. 0.3 - 6 October: common decision-baseline/status/interface reconciliation (KR-09 label portion), preserves historical approvals and proposed/planned records; register formatting repaired where applicable (KR-10); see §19.1. 0.4 - DEC-062-066 common exchange adoption; five new proposed adoption REQs/six planned cases and an additional full-assurance-chain REQ; AOS-03 REQ-040 sequencing clarified where applicable. 0.5 - DEC-067-072 control coordination/withholding notification; eight proposed REQs/eight planned cases and reciprocal source/field adoption; original records preserved. 0.6 - DEC-073-078 protected reporting/recovery and standards provenance; six proposed REQs/six planned VERs; prior records preserved. v0.7 - DEC-086 external-research support, reciprocal AOS-04/02/01 allocation and own component profile; previous records preserved. 7 October - authorised AOS-30 functional adoption, Chair/board approval propagation and material-correction alignment; no new identifiers or operating power.

Current catalogue inventory - editorial reconciliation, 29 October 2026

The normative tables contain 73 retained numbered requirement records and 49 planned verification case identities. These are catalogue counts, not independent obligations, active-scope coverage, executed tests or accepted results. Earlier totals in dated adoption supplements describe those steps only. The current document inventory (../Supporting-Specifications/aos-current-document-inventory-2026-10-29.md) records the suite baseline and count method.

1. Purpose and scope

1.1 Purpose

AOS-02 establishes shared meaning and reconstructable evidence across the AOS. It enables different intelligences, human workflows and existing systems to refer consistently to the same entities, facts, proposals, decisions, actions and outcomes while preserving their differences, provenance and restrictions.

Unified means governed shared semantics and exchange. It does not mean that all information is copied into one database, that every participant may see every record, or that a disputed claim becomes true because it has entered the layer.

1.2 Architectural problem

Without this component, a property, person, repair, decision or delegation can acquire incompatible identities or meanings across systems. A later update can erase a resident's account, an inference can become an asserted fact, and technical dispatch can be reported as accountable closure. Integrations can also combine individually accessible records into an unauthorised new inference.

1.3 Intended outcome

An authorised consumer can establish what a record means, which exact revision and organisation it belongs to, where it came from, what time it describes, which restrictions apply, what is uncertain, and how correction or later events affect its use. Producers and consumers use one controlled contract definition.

1.4 Scope

Common logical structures and vocabulary; entity/source identity mappings; evidence admission; schema/type/unit/reference validation; temporal meaning; provenance and derivation; correction/dispute/version lifecycle; governed retrieval and exchange; accountability/outcome linkage; retention/deletion evidence; semantic ownership and compatibility; sector-standard mappings.

1.5 Exclusions

AOS-01 owns authority semantics. AOS-03 owns identity assurance, access/consent/data-use decisions. AOS-04/05 own execution and runtime control. Domain owners determine factual evidence criteria; AOS-13/30 track operational/human responsibility; AOS-14 governs external exchange; AOS-21 owns corpus/precedent admission; AOS-22/23 analytical method; AOS-25 oversight; AOS-40 assurance.

Existing housing, finance, HR and asset systems can remain authoritative for their approved record types. AOS-02 does not replace them by default or independently adjudicate resident disputes, employment decisions, constitutional interpretation or

legal obligations.

2. Authority and sources

2.1 Governing derivation

FP v4 and RP v6 govern; AOS-00 directions retain their recorded approval status. Exact parent REQ wording remains proposed. GT supplies governance assessment criteria, not software pass claims.

Primary architectural anchors: DEC-002 shared ownership; DEC-005 shared controls; DEC-008 human-approved records; DEC-014 separate instances; DEC-015 existing-system integration; DEC-027 explanation; DEC-028-030 current control/material correction/reconciliation; DEC-031-041 repair evidence, human acceptance and resident channels; DEC-042-044 authority lineage/withdrawal/conflict. Parent requirements include AOS-00-REQ-003/004/010/012/021/024/030/033/035/036/040 and the scoped repair/constitutional records REQ-042-048.

Consulted project sources: FP v4, RP v6 and GT supplied texts read during immediately preceding component work; AOS-00 v0.11/Map v0.8; AOS-QS v0.1/template v0.3; AOS-01 v0.2; Shared Contracts, Core Record Contracts and Operational Profiles v0.1 with current dispositions. Source versions are unchanged; original source manifest remains preserved.

2.2 HACT and associated primary references

External sources were consulted on 5 October 2026. They inform interoperability assessment; they do not override AOS governing constraints or confer authority to process personal data.

Table row 1
Ref: EXT-H01
Primary source / exact locator: HACT author on NHF: Help us develop a data model for Awaab's Law (https://www.housing.org.uk/news-and-blogs/blogs/matthew-grenier/help-us-develop-a-data-model-for-awaabs-law/), Matthew Grenier, 11 August 2025, "A new data model"
Finding and limit: Describes modular repairs/damp-and-mould work reusing property/customer/repairs use cases. Published explanation, not the complete current standards dictionary

Table row 2
Ref: EXT-H02
Primary source / exact locator: MHCLG Digital: Delivering a data standard to support Awaab's Law (https://mhclgdigital.blog.gov.uk/2025/08/20/delivering-a-data-standard-to-support-awaabs-law-in-social-housing/), 20 August 2025, "The data model" / "Ownership and next steps"
Finding and limit: Government project account identifies the model's components and first-working-version status at publication; does not establish today's final release or endorsement

Table row 3
Ref: EXT-H03
Primary source / exact locator: Associated Data Futurists repository (https://github.com/data-futurists/damp-and-mould-standards-concept), README "About this project" / "Disclaimer"
Finding and limit: Accessed README still identifies a proof of concept not finalised/assured and advises against live-service adoption at that stage; reviewed as research/reference, not production dependency

Table row 4
Ref: EXT-H04
Primary source / exact locator: Introducing the damp and mould data model (https://github.com/data-futurists/damp-and-mould-standards-concept/blob/main/guidance/Introducing%20the%20damp%20and%20mould%20data%20model.md), "What's included" / "Key features"

Finding and limit: Component-level concepts and modularity consulted; SQL/DDL implementation not adopted, exact release/commit not pinned

Table row 5
Ref: EXT-H05
Primary source / exact locator: How the damp and mould data model works (https://github.com/data-futurists/damp-and-mould-standards-concept/blob/main/guidance/How%20the%20damp%20and%20mould%20data%20model%20works.md), “How data flows”
Finding and limit: Illustrates hazard/investigation/work-order/escalation links; statutory time values in guidance are not imported as verified AOS legal rules

Table row 6
Ref: EXT-H06
Primary source / exact locator: OSCRE licensing page (https://www.oscre.org/Industry-Data-Model/Licensing-to-Fit-Your-Needs), HACT UK Housing Data Standards and IDM sections
Finding and limit: Describes HACT standards as UK social-housing use cases built on OSCRE IDM; distinguishes standards licensing from IDM access/use terms. Exact applicable artefact terms require verification before reproduction/adoption

Table row 7
Ref: EXT-H07
Primary source / exact locator: HACT standards catalogue (https://hact.org.uk/tools-and-services/uk-housing-data-standards/) and HACT Awaab’s Law use case (https://hact.org.uk/tools-and-services/uk-housing-data-standards/awaabs-law-use-case/)
Finding and limit: Direct retrieval returned 403; catalogue/dictionary/latest release not read. OSCRE model browser did not expose readable definitions through this access route

No “latest version 3.5” assumption is made. The inspected GitHub main-branch guidance is mutable, not a controlled approved standards baseline. Before adopting field-level definitions, obtain and pin the exact applicable HACT release/use-case artefacts, identifier paths, code lists and licence, and assess changes.

2.3 Approved alignment direction

Treat HACT UK Housing Data Standards as the preferred reference to assess for housing-domain entity and exchange definitions, reusing compatible meanings rather than inventing competing definitions. Mark approved this preferred-reference direction on 5 October under DEC-048. Reuse verified compatible definitions where they fit; document gaps, extensions and justified departures. Exact release/scope/mapping adoption and conformance remain unverified; whole-model adoption is not implied.

AOS common metadata covers organisation scope, evidence status, provenance, time precision, authority/data-use links, uncertainty, accountable outcomes and governed change. Housing payloads can map to an adopted sector standard beneath that common envelope. Actual gaps and extensions are recorded; labels alone cannot establish semantic equivalence.

2.4 Concept-level assessment - not verified field mapping

The five named model components below are confirmed by EXT-H04. Their AOS treatment is our proposed engineering interpretation. No exact HACT element names/cardinalities or one-to-one field equivalences are claimed.

Table row 1
Source concept: Property
Proposed AOS treatment: Governed asset/place identity with source mappings and hierarchical relationships
Required mapping evidence: Exact property/address/location identifiers, relationship scope and revision

Table row 2
Source concept: Tenant

Proposed AOS treatment: Person, household and occupancy/tenancy relationships kept distinguishable
Required mapping evidence: Entity/relationship definitions, effective dates, permissions and sensitive-data restrictions

Table row 3
Source concept: Work order
Proposed AOS treatment: Repair work instruction/status linked to case and evidence
Required mapping evidence: Distinguish instruction/status from verified completion or resident promise

Table row 4
Source concept: Investigation
Proposed AOS treatment: Report/investigation/evidence relationships
Required mapping evidence: Preserve assessor, observations, event time and uncertainty; no automatic hazard adjudication

Table row 5
Source concept: Appointment
Proposed AOS treatment: Scheduled/attempted/fulfilled interaction distinct from repair completion
Required mapping evidence: Timing/status codes and evidence of actual occurrence

Table row 6
Source concept: AOS authority, decision, provenance and execution records
Proposed AOS treatment: Separate common record families linked to mapped payloads
Required mapping evidence: Coverage assessment required; not asserted absent from the whole HACT catalogue

EXT-H05's illustrative escalation flow is a useful scenario reference. It does not authorise spending, compensation, external contact, health inference or changes to process scope. Data structure and organisational permission remain different.

DEC-099 - derived-information restriction rule

Every transformation or combination must preserve the applicable restrictions of its contributing sources. The proposed use of the resulting information must satisfy those restrictions and account for any additional sensitive information the combination reveals. If the system cannot establish the lineage or permitted use sufficiently, it must withhold that use and refer the uncertainty for accountable review.

Applies to summaries, aggregates, embeddings/search indexes, joins, exports and restored derived copies within the declared governed scope. Transformation supplies no wider purpose or permission; conflicting restrictions can prevent the proposed combination. A different treatment requires an evidenced authorised determination under the governing rules, never mere notice or developer discretion. Completed disclosures and unreachable external copies remain explicit limitations with accountable handling; no recall or universal forgetting guarantee is made. AOS-03 REQ-011/012 and the existing necessity, explicit-consent, separate-governance and review-cycle conditions are retained; no new personal-inference exception is created.

AOS-02 owns common lineage/restriction record meaning and the scoped transformation inventory; AOS-03 owns the independent operation/purpose-specific permitted-use assessment. Producers supply attributable source/transformation evidence; receiving components must establish the current permission for their intended use. An unresolved case retains its accountable review duty. Exact profile definitions, evidence sufficiency, source-combination rules, permitted transformations, destination inventory and enforceable withdrawal/recovery behaviour must be fixed and assessed before dependent implementation reliance. This decision adds no default policy, wire schema or automatic override.

DEC-104 - protected reporting under failure and implicated-person interference

Each mandatory protected-finding category shall have an approved reporting arrangement assessed against both technical failure and interference by implicated people. The profile shall identify the intended recipient, possible conflicts and an appropriately independent authorised alternative; an implicated person shall not be the sole gatekeeper deciding whether the required finding reaches its authorised audience.

Authority/use permissions, minimum report content, recipient verification, custody, route/change dependencies, tracking ownership, acceptance, cover and escalation are established in advance. An external route is included where justified and lawfully authorised; external reporting is not a universal default and a finding creates no extra disclosure power. Planned exercises address failed infrastructure, unavailable/implicated recipients, apparent alternatives controlled by the same implicated gatekeeper and attempted suppression. Missing adequate arrangements remain an explicit owned gap, prevent claims of operational protected-reporting assurance and withhold affected dependent reliance under existing gates; they do not create false delivery, ownership transfer or blanket shutdown of separately authorised service. Original tracking duty persists until actual scoped acceptance.

The organisation’s profile binds each required finding class to normal/alternate authorised audiences, conflict criteria/evidence and accountable assessment, disclosure basis/minimal payload, independently verifiable recipients/permissions, credentials/custody and route/reconfiguration controls, failure/compromise assumptions, tracking/cover/escalation, human fallback, evidence and review triggers. Test both infrastructure/common-dependency independence and organisational release/recipient/custody control; neither implies the other. No administrator, executive sign-off or report-validation step may silently remove a required duty. The declared threat/governance scope and residual limitations must be visible: this is not an unlimited guarantee against every holder of legal/constitutional change powers. Inadequacy returns to an empowered accountable reviewer; the reporting agent cannot invent a recipient or grant itself onward-disclosure authority.

3. Responsibilities and boundaries

Responsibility cross-reference (DEC-094; editorial clarification, 29 October 2026): AOS-14 recognises an exchange-associated obligation and its source/context; the relevant domain steward determines substantive meaning/applicability. AOS-02 owns the common obligation-record semantics and structure/custody. AOS-13 tracks routing, accepted responsibility, fulfilment and unresolved duties. AOS-30 owns the human-workflow meaning of accepted responsibility and supports empowered human disposition/account. These are distinct responsibilities: recognition, record ownership and dispatch do not constitute human acceptance. The existing tracking owner retains the duty until explicit scoped transfer is accepted; failed delivery or exhausted cover does not create an ownerless success. Actual people, cover and response powers remain organisation-appointed prerequisites. No semantic ownership is transferred by this clarification.

Table row 1
Responsibility: Common record shapes
AOS-02 owns: Envelope, identifiers, reference/time/value-status conventions
Semantic or institutional owner: Each family has one accountable semantic owner

Table row 2
Responsibility: Authoritative source mapping
AOS-02 owns: Record-type/source identity, revisions, mappings and provenance
Semantic or institutional owner: Organisation/domain steward approves source authority and factual evidence criteria

Table row 3
Responsibility: Evidence admission
AOS-02 owns: Structural/provenance/permission-dependent validation result
Semantic or institutional owner: Admission is not truth verification or an action grant

Table row 4
Responsibility: Correction and dispute
AOS-02 owns: Preservation/linking/status and impact notification evidence
Semantic or institutional owner: Relevant empowered human/domain owner resolves dispute; AOS-01/03 reassess permission

Table row 5
Responsibility: Governed query/exchange
AOS-02 owns: Meaning-preserving projections with permission evidence
Semantic or institutional owner: AOS-03 use/access, AOS-14 external exchange, AOS-01 action authority

Table row 6
Responsibility: Outcome records
AOS-02 owns: Correlation of decision/action/consequence/ownership/disposition
Semantic or institutional owner: AOS-04/13/30 evidence actual effect and responsibility

Table row 7
Responsibility: Standard alignment
AOS-02 owns: Versioned mapping and extension/deviation register
Semantic or institutional owner: Semantic owners approve compatibility; external publisher controls its standard

Trust boundaries include external ingestion, producer versus admission service, identity reconciliation, source assertion versus inference/decision, human approval, data-use projection, organisation instances and standard-to-local transformation. Technical integration does not erase these boundaries.

3.1 Origin and source of assurance - Radical Transparency

Under DEC-046, source provenance answers two different questions: where did this assertion originate? and what provides assurance for treating it as a fact for this use? A system-of-record designation answers neither automatically.

Proposed assurance metadata links assertion/fact identity and exact evidence revisions; the fact-type source assignment and its approval basis; supporting inspection, measurement, attestation or other approved evidence; validation method/criteria/version; actual validator identity and accountable assurance role; validation time and applicable scope/currentness; result and known limitations. Methods may be human or automated under approved rules. Automated validation retains the rule/tool version and human accountability; a role label alone is not validation evidence.

Unknown or unperformed validation is explicit. A transformed, summarised or projected record retains a governed reference to this assurance chain and its limitations without granting unrestricted access to protected source content. A corrected assurance basis triggers affected dependency review. Historical assurances retain their applicable time/version and cannot be presented as current without the approved currentness checks.

The record supports scrutiny; it does not prove the adequacy of the inspection, method or human judgement. Those need domain criteria and acceptance evidence. Exact fields/cardinalities, evidence sufficiency and disclosure are shared-schema/AOS-03 work.

3.1 Component external-research responsibility

Under DEC-086, AOS-02 has an assigned research agent/capability with a controlled profile inheriting AOS-04 v0.7 §§3.1/6.6. Its remit covers external data standards including HACT, provenance/assurance methods, interoperability, record versioning/lineage and data-lifecycle developments relevant to its own function and specification. The accountable component owner owns relevance and substantive implications. External access/source verification follows AOS-14; common evidence/profile/run/finding/disposition views follow AOS-02 v0.7 §6.6. A shared research service may execute the profile, retaining distinct remit, coverage and accountable review. Sources, jurisdictions, cadence/triggers, rubric, recipients/deadlines/cover and appointments remain profile dependencies; no activation or legal finding is claimed. Internal control/record monitoring remains separately specified.

4. Capabilities, functions and requirements

4.1 Capabilities

All CAP/FUN/REQ identifiers in this document carry prefix AOS-02.

Table row 1
CAP: CAP-001
Outcome: Governed shared identities, definitions and source mappings
FUN: 001/002

Table row 2
CAP: CAP-002
Outcome: Admitted evidence with provenance, time and uncertainty
FUN: 003/004

Table row 3
CAP: CAP-003
Outcome: Traceable correction, dispute and derived-data lifecycle
FUN: 005/006

Table row 4
CAP: CAP-004
Outcome: Permitted consistent retrieval/exchange
FUN: 007/008

Table row 5
CAP: CAP-005
Outcome: Reconstructable decisions/actions/outcomes
FUN: 009

Table row 6
CAP: CAP-006
Outcome: Controlled standards/schema change and evidence
FUN: 010

Table row 7
CAP: CAP-007
Outcome: Govern shared research evidence, coverage and disposition views, including AOS-02’s own research profile
FUN: 011

4.2 Functions

Table row 1
FUN: 001
Trigger / input: New/changed contract and semantic owner
Behaviour / output: Register exact definition, owner, applicable profile and compatibility
Permission, uncertainty and failure: No local duplicate silently overrides shared meaning

Table row 2
FUN: 002
Trigger / input: New source/entity mapping or proposed merge/split
Behaviour / output: Validate organisation/source identity and approved equivalence; record mapping or unresolved relationship
Permission, uncertainty and failure: Similar names/addresses are not proof of same person/entity

Table row 3
FUN: 003
Trigger / input: Producer submits exact evidence revision

Behaviour / output: Validate accepted schema, typed values, references, provenance and permitted admission; return result
Permission, uncertainty and failure: Missing/conflicting mandatory data unresolved/rejected; no invented payload

Table row 4
FUN: 004
Trigger / input: Time/source/current-state query
Behaviour / output: Preserve event/receipt/effective meanings; return revision-specific state and limitations
Permission, uncertainty and failure: Latest received does not necessarily govern; unavailable not “none exists”

Table row 5
FUN: 005
Trigger / input: Correction, dispute or supersession
Behaviour / output: Link previous assertion and basis, preserve relevant history, notify affected consumers
Permission, uncertainty and failure: No silent rewriting of completed effects or adjudication by storage layer

Table row 6
FUN: 006
Trigger / input: Transformation or retention/delete request
Behaviour / output: Record lineage/restrictions or approved lifecycle outcome
Permission, uncertainty and failure: Derived data does not shed purpose; retention and deletion follow reconciled policies

Table row 7
FUN: 007
Trigger / input: Authorised consumer query
Behaviour / output: Evaluate use/access dependencies and produce scoped projection with evidence
Permission, uncertainty and failure: Reference resolvability does not imply access; withheld/unknown distinguishable

Table row 8
FUN: 008
Trigger / input: Delivery/replay/reconciliation event
Behaviour / output: Record admission/delivery acknowledgements and duplicate/order results
Permission, uncertainty and failure: No exactly-once guarantee; uncertain delivery remains uncertain

Table row 9
FUN: 009
Trigger / input: Approved decision/execution/handoff/outcome
Behaviour / output: Link exact family records without conflating proposal, grant, dispatch, receipt and closure
Permission, uncertainty and failure: Human authority and execution evidence supplied by responsible components

Table row 10
FUN: 010
Trigger / input: Standards/schema/source-map change
Behaviour / output: Assess version/meaning/compatibility/impact and controlled activation
Permission, uncertainty and failure: No silent coercion or automatic external-version adoption

Table row 11
FUN: 011
Trigger / input: Research profile/run/finding/disposition record
Behaviour / output: Validate shared research view; preserve exact evidence/baseline, coverage, impact/review and change links
Permission, uncertainty and failure: Domain owns implication; admission is not truth, compliance or amendment approval

4.3 Requirement register

All REQs are proposed, origin v0.1, 5 October 2026; whole-component logical scope, implementation unapproved. Owner

AOS-02 custodian (unassigned); project approver Mark; operational data/retention/source/authority instruments require empowered organisation owners. Category C/I/D denotes component/interface/design constraint. S/E denotes source-derived translation or engineering derivation. Parent REQs refer to proposed AOS-00 v0.12 wording. REQ-001-036 originated in v0.1; REQ-037-046 originate in v0.2, 5 October, with the same proposed status and shared accountability/release metadata. Dependencies and blocking settings are §§6/16/17. VER IDs have prefix AOS-02. Initial change record applies to every row.

Table row 1
REQ: 001
Proposed obligation: A shared record contract shall have one controlled definition referenced by its producers and consumers.
Category / source and rationale: I/S; DEC-002, AOS-00-REQ-021; no incompatible copies
FUN / dependency: 001; ISS-001
VER: 001

Table row 2
REQ: 002
Proposed obligation: Each shared contract shall identify one accountable semantic owner.
Category / source and rationale: I/S; DEC-002, REQ-030; meaning has accountable stewardship
FUN / dependency: 001; ISS-001
VER: 001

Table row 3
REQ: 003
Proposed obligation: A record revision shall identify its organisation instance and exact contract revision.
Category / source and rationale: I/E; REQ-035, REC-R01; scoped interoperability
FUN / dependency: 003; CON-001
VER: 002

Table row 4
REQ: 004
Proposed obligation: Each logical record shall have a stable identity distinct from its revision identity.
Category / source and rationale: I/E; QS-03/13, REC-E envelope; correction without ambiguity
FUN / dependency: 002/003; ISS-002
VER: 002/006

Table row 5
REQ: 005
Proposed obligation: Each source-identity mapping shall retain its source-system namespace and source identifier.
Category / source and rationale: I/S; DEC-015, REQ-036; no global-ID assumption
FUN / dependency: 002; ISS-002
VER: 003

Table row 6
REQ: 006
Proposed obligation: An entity equivalence, merge or split shall require the approved reconciliation evidence for that entity type.
Category / source and rationale: C/E; FP6, QS-13; no identity from similarity alone
FUN / dependency: 002; ISS-002
VER: 003

Table row 7
REQ: 007
Proposed obligation: Each record type exchanged with an existing system shall identify its approved authoritative source assignment.
Category / source and rationale: I/S; DEC-015, REQ-036; preserve source ownership
FUN / dependency: 002/003; ISS-003
VER: 004

Table row 8
REQ: 008
Proposed obligation: An evidence revision shall retain the exact accessible source-revision provenance reference.

Category / source and rationale: I/S; RP7 audit principle, REC-R02; reconstruct origin
FUN / dependency: 003; CON-001
VER: 004

Table row 9
REQ: 009
Proposed obligation: A record shall distinguish source observation/assertion, inference, proposal, approved decision and observed outcome.
Category / source and rationale: I/E; FP6, QS-13/19, REC-R03; no status laundering
FUN / dependency: 003/009; ISS-004
VER: 005

Table row 10
REQ: 010
Proposed obligation: Evidence admission shall not certify the source assertion as verified truth.
Category / source and rationale: C/E; REC-E §3, FP6; validity and truth distinct
FUN / dependency: 003; CON-001
VER: 005

Table row 11
REQ: 011
Proposed obligation: Admission shall require validation of mandatory type, cardinality, unit and vocabulary constraints in the accepted profile.
Category / source and rationale: C/E; QS-12, Core Records §2; no implicit coercion
FUN / dependency: 003; ISS-004
VER: 005

Table row 12
REQ: 012
Proposed obligation: A required unavailable value shall not be replaced with an invented default.
Category / source and rationale: C/S; QS-09, FP6; honest absence
FUN / dependency: 003/004; ISS-004
VER: 005

Table row 13
REQ: 013
Proposed obligation: Shared records shall distinguish unknown, unavailable, not applicable and intentionally withheld values.
Category / source and rationale: I/E; Shared Contracts §3; absence is not false/zero
FUN / dependency: 003/007; ISS-004
VER: 005/012

Table row 14
REQ: 014
Proposed obligation: Time metadata shall distinguish source event time, receipt time and effective time.
Category / source and rationale: I/E; REC-E envelope, QS-12; ordering scope
FUN / dependency: 004; ISS-005
VER: 007

Table row 15
REQ: 015
Proposed obligation: Time values shall preserve source precision and their applicable calendar/timezone context.
Category / source and rationale: I/S; DEC-036, REC-E time value; no invented midnight precision
FUN / dependency: 004; ISS-005
VER: 007

Table row 16
REQ: 016
Proposed obligation: A current-state result shall identify the governing revision rule and known material limitations.

Category / source and rationale: I/E; FP6, REC-E §3.2; latest arrival is not governing truth
FUN / dependency: 004; ISS-003/005
VER: 007

Table row 17
REQ: 017
Proposed obligation: A correction shall identify the superseded evidence revision and correction basis.
Category / source and rationale: I/E; QS-13, REC-R04; reconstruct change
FUN / dependency: 005; CON-001
VER: 006

Table row 18
REQ: 018
Proposed obligation: An unresolved dispute shall preserve the conflicting source accounts as distinct evidence.
Category / source and rationale: C/S; DEC-031; no silent winner
FUN / dependency: 005; ISS-003
VER: 006/018

Table row 19
REQ: 019
Proposed obligation: A material correction notification shall identify the changed scope and affected dependency references, including AOS-30 where its preparation, decision account or outcome review materially depends on the changed evidence.
Category / source and rationale: I/E; DEC-029, REC-R08; support selective reassessment
FUN / dependency: 005; CON-003
VER: 008

Table row 20
REQ: 020
Proposed obligation: Correction shall not rewrite the historical record of an already observed effect.
Category / source and rationale: C/S; DEC-029, QS-19; preserve completed history under lifecycle policy
FUN / dependency: 005/009; ISS-006
VER: 008/016

Table row 21
REQ: 021
Proposed obligation: A derived record shall retain its contributing-source transformation lineage and all applicable source-use restrictions, including when sources are combined.
Category / source and rationale: I/S; RP9 cross-layer purpose, REC-R13; DEC-099 approved direction; no laundering through aggregation
FUN / dependency: 006; CON-003/004
VER: 009

Table row 22
REQ: 022
Proposed obligation: A retrieval or disclosure shall require the current AOS-03 determination for its exact purpose and scope.
Category / source and rationale: C/S; REQ-004/040, REC-D; stored availability is not permission
FUN / dependency: 007; CON-004
VER: 010

Table row 23
REQ: 023
Proposed obligation: A reference to a record shall not itself grant access to that record.
Category / source and rationale: C/E; Core Records §2, QS-13; protected references
FUN / dependency: 007; CON-004
VER: 010

Table row 24
REQ: 024

Proposed obligation: A permitted projection shall preserve the meaning, uncertainty and review status of the content it presents.
Category / source and rationale: I/E; REQ-013, Shared Contracts canonical-analysis brief; no misleading redaction
FUN / dependency: 007; ISS-006
VER: 012

Table row 25
REQ: 025
Proposed obligation: A record lifecycle transition shall follow the approved retention, correction, access and deletion policy for its class.
Category / source and rationale: C/S; QS-13; no unlimited evidence retention
FUN / dependency: 006; ISS-006
VER: 011

Table row 26
REQ: 026
Proposed obligation: A same-identity replay with materially different content shall not overwrite the original as a duplicate.
Category / source and rationale: C/E; REC-R05; integrity conflict
FUN / dependency: 003/008; CON-001
VER: 013

Table row 27
REQ: 027
Proposed obligation: Admission, delivery, human acknowledgement and observed effect shall be recorded as distinct event meanings.
Category / source and rationale: I/S; DEC-033, REC-R17/21; sending is not closure
FUN / dependency: 008/009; CON-005
VER: 014

Table row 28
REQ: 028
Proposed obligation: Each consequential action record shall link its trigger, authority version, observed outcome and accountable human role.
Category / source and rationale: I/S; REQ-012, RP7 audit principle; reconstructability
FUN / dependency: 009; CON-005
VER: 015

Table row 29
REQ: 029
Proposed obligation: An unknown execution outcome shall remain distinguishable from known failure and success.
Category / source and rationale: I/S; DEC-030, REC-R18; timeout not proof
FUN / dependency: 009; CON-005
VER: 015

Table row 30
REQ: 030
Proposed obligation: A decision record shall identify decision validity and effective scope, attributable supporting evidence and authentication status, separate minutes-approval status and decision-authority references without treating later minutes approval as universally creating the decision under DEC-103.
Category / source and rationale: I/S; DEC-008/087, REQ-024; Chair draft is not board-approved decision
FUN / dependency: 009; CON-005
VER: 016

Table row 31
REQ: 031
Proposed obligation: A changed schema or mapping shall require an explicit compatibility and cross-component impact assessment before activation.
Category / source and rationale: C/E; QS-03/12/26; no silent semantic change
FUN / dependency: 010; ISS-001/007
VER: 017

Table row 32
REQ: 032
Proposed obligation: An unsupported contract revision shall return an explicit incompatible or unresolved result.
Category / source and rationale: C/E; REC-E header; no silent coercion
FUN / dependency: 003/010; CON-001
VER: 017

Table row 33
REQ: 033
Proposed obligation: An adopted external-standard mapping shall identify its exact standard artefact/version and element locators.
Category / source and rationale: I/E; QS-10/21, EXT-H01-07 assessment; versioned alignment
FUN / dependency: 010; ISS-007
VER: 019

Table row 34
REQ: 034
Proposed obligation: An external-standard transformation shall declare unmapped or materially lossy content.
Category / source and rationale: I/E; QS-12/19; no false equivalence
FUN / dependency: 003/010; ISS-007
VER: 019

Table row 35
REQ: 035
Proposed obligation: A standard-conformance claim shall be limited to its evidenced artefact, scope and tested mapping.
Category / source and rationale: D/E; QS-24/26; reference is not certification
FUN / dependency: 010; ISS-007
VER: 019

Table row 36
REQ: 036
Proposed obligation: Resident-communication evidence shall link the applicable channel-agreement revision and selected channel(s).
Category / source and rationale: I/S; DEC-041, Operational Profiles §6; separate agreement evidence
FUN / dependency: 009; AOS-03/11/14
VER: 018

Table row 37
REQ: 037
Proposed obligation: Automatic entity linking shall require an unambiguous match under the approved entity-type reconciliation rules.
Category / source and rationale: C/S; DEC-045; no name/address-only identity
FUN / dependency: 002; ISS-002
VER: 021

Table row 38
REQ: 038
Proposed obligation: Uncertain matches or potentially destructive entity merges shall require accountable review under the approved reconciliation profile.
Category / source and rationale: C/S; DEC-045; protect distinct source identities
FUN / dependency: 002; ISS-002
VER: 021

Table row 39
REQ: 039
Proposed obligation: Source authority shall be assigned at the fact or record-type scope rather than inferred for every fact held in a source system.
Category / source and rationale: C/S; DEC-046; explicit bounded assurance
FUN / dependency: 002/004; ISS-003
VER: 022

Table row 40
REQ: 040
Proposed obligation: A fact-assurance record shall identify the supporting evidence revision on which the assurance rests.
Category / source and rationale: C/S; DEC-046; Radical Transparency evidence chain
FUN / dependency: 003/004; CON-001/003
VER: 022

Table row 41
REQ: 041
Proposed obligation: A fact-assurance record shall identify the validation method, criteria and relevant version used.
Category / source and rationale: C/S; DEC-046; assertion is not validation
FUN / dependency: 003/004; ISS-003/004
VER: 022

Table row 42
REQ: 042
Proposed obligation: A fact-assurance record shall identify the accountable assurance role and the actual validator identity where validation occurred.
Category / source and rationale: C/S; DEC-046; trace who or what established assurance
FUN / dependency: 003/004; ISS-003
VER: 022

Table row 43
REQ: 043
Proposed obligation: A fact-assurance record shall state known limitations and absent or incomplete validation explicitly.
Category / source and rationale: C/S; DEC-046, FP6; no origin-to-truth shortcut
FUN / dependency: 003/004; ISS-003
VER: 022

Table row 44
REQ: 044
Proposed obligation: Deletion shall not leave a hidden content copy outside the approved record-class lifecycle policy.
Category / source and rationale: C/S; DEC-047; permitted disposition evidence only
FUN / dependency: 006; ISS-006
VER: 023

Table row 45
REQ: 045
Proposed obligation: Housing-data mapping assessment shall prefer verified compatible HACT definitions and record justified departures, extensions or gaps.
Category / source and rationale: C/S; DEC-048; alignment without blanket adoption
FUN / dependency: 010; ISS-007
VER: 024

Table row 46
REQ: 046
Proposed obligation: An unresolved material fact-source conflict shall be referred for accountable human resolution under the approved source profile.
Category / source and rationale: C/S; DEC-046; no latest-arrival winner
FUN / dependency: 004/005; ISS-003
VER: 022

Table row 47
REQ: 047
Proposed obligation: Each component exchange shall reference the common definition, exact revision and profiles allocated to its CON in the Kernel Exchange Register.
Category / source and rationale: I/S; KXR-01/08; DEC-002/065; QS-12/21
FUN / dependency: §6.3/§19.2; AOS-02 with semantic owner; register v0.1

VER: 025/029

Table row 48
REQ: 048
Proposed obligation: A receiving exchange shall reject or hold unresolved an unsupported revision unless an explicitly reviewed translation preserves required meaning and restrictions and declares accepted loss.
Category / source and rationale: I/S; KXR-02/07; DEC-065; FP4/6; RP9
FUN / dependency: §6.3/§19.2; AOS-02 with semantic owner; register v0.1
VER: 025

Table row 49
REQ: 049
Proposed obligation: Reliance on a fact for a conclusion or action shall evaluate its linked assurance against the required profile for that exact fact revision and intended use.
Category / source and rationale: I/S; KXR-04; DEC-062/063; FP4/6; RP7
FUN / dependency: §6.3/§19.2; AOS-02 with semantic owner; register v0.1
VER: 026/030

Table row 50
REQ: 050
Proposed obligation: An exchange acknowledgement shall identify its actually evidenced stage without implying subsequent application, human responsibility or effect.
Category / source and rationale: I/S; KXR-06; DEC-066; RP1; GT M1.13
FUN / dependency: §6.3/§19.2; AOS-02 with semantic owner; register v0.1
VER: 028

Table row 51
REQ: 051
Proposed obligation: A checkpoint or later enforcement/effect record shall link to the exact original permission-evaluation revision without rewriting its original result or presenting a pending evidence link as enforcement proof.
Category / source and rationale: I/S; KXR-05; DEC-064; RP7 auditability
FUN / dependency: §6.3/§19.2; AOS-02 with semantic owner; register v0.1
VER: 027

Table row 52
REQ: 052
Proposed obligation: A fact-assurance exchange shall retain the complete REC-Q chain for the exact fact revision, preserving competing assessments and explicit incomplete status.
Category / source and rationale: I/S; KXR-03; DEC-046/062/063; FP4; RP7
FUN / dependency: §6.3/§19.2; AOS-02 with semantic owner; register v0.1
VER: 026/030

Table row 53
REQ: 053
Proposed obligation: A checkpoint evidence record shall retain the exact request, authoritative source revisions, applied version vector and outcome actually checked.
Category / source and rationale: I/S; DEC-067; KCR-01; FP4/5/6/7/10; RP1/7/8/9
FUN / dependency: §6.4/§19.3; AOS-01-05 respective owner; Control Coordination v0.1
VER: 031/032

Table row 54
REQ: 054
Proposed obligation: An activation record shall distinguish approved change from per-required-dependency applied compatible state.
Category / source and rationale: I/S; DEC-068; KCR-02; FP4/5/6/7/10; RP1/7/8/9
FUN / dependency: §6.4/§19.3; AOS-01-05 respective owner; Control Coordination v0.1
VER: 032

Table row 55

REQ: 055
Proposed obligation: The common change register shall retain each dependent consumer’s actual application, evidenced no-material-dependency or owned unresolved result.
Category / source and rationale: I/S; DEC-069; KCR-03; FP4/5/6/7/10; RP1/7/8/9
FUN / dependency: §6.4/§19.3; AOS-01-05 respective owner; Control Coordination v0.1
VER: 033/034

Table row 56
REQ: 056
Proposed obligation: A cumulative accounting record shall preserve approved linked-work scopes, periods, units and cross-agent effect lineage.
Category / source and rationale: I/S; DEC-070; KCR-04; FP4/5/6/7/10; RP1/7/8/9
FUN / dependency: §6.4/§19.3; AOS-01-05 respective owner; Control Coordination v0.1
VER: 035/036

Table row 57
REQ: 057
Proposed obligation: A reservation record shall preserve the authoritative admission of its complete scope/demand vector without implying a grant of authority.
Category / source and rationale: I/S; DEC-071; KCR-05; FP4/5/6/7/10; RP1/7/8/9
FUN / dependency: §6.4/§19.3; AOS-01-05 respective owner; Control Coordination v0.1
VER: 035

Table row 58
REQ: 058
Proposed obligation: Accounting history shall preserve confirmed consumption, uncertain reserved exposure and evidence supporting any capacity release.
Category / source and rationale: I/S; DEC-071; KCR-06; FP4/5/6/7/10; RP1/7/8/9
FUN / dependency: §6.4/§19.3; AOS-01-05 respective owner; Control Coordination v0.1
VER: 036

Table row 59
REQ: 059
Proposed obligation: A withholding record shall preserve notification ownership, acknowledgement/escalation, linked coalesced operations and unresolved delivery or resident-update duties.
Category / source and rationale: I/S; DEC-071; KCR-07; FP4/5/6/7/10; RP1/7/8/9
FUN / dependency: §6.4/§19.3; AOS-01-05 respective owner; Control Coordination v0.1
VER: 037/038

Table row 60
REQ: 060
Proposed obligation: A resumption record shall identify reconciled prior effects and fresh checkpoint/account evidence without erasing completed history.
Category / source and rationale: I/S; DEC-072; KCR-08; FP4/5/6/7/10; RP1/7/8/9
FUN / dependency: §6.4/§19.3; AOS-01-05 respective owner; Control Coordination v0.1
VER: 034/038

Table row 61
REQ: 061
Proposed obligation: Common evidence custody shall preserve protected reporting records under separately governed access and assessed technical-failure and implicated-person interference dependencies, without an implicated sole release/custody gatekeeper.
Category / source and rationale: I/S; DEC-073/104; KPR-01; STD-05 CP-8/CP-8(2)/(3), IR-6/IR-8; STD-01/02/03/04 scope alignment
FUN / dependency: §6.5/§19.4; Protected Reporting and Recovery v0.2; AOS-02-CON-001/003/004/005/006
VER: 039

Table row 62
REQ: 062
Proposed obligation: Protected reporting projections shall carry exact bounded permission, recipient-validation and permitted-content

evidence without exposing credentials or excess payload.
Category / source and rationale: I/S; DEC-074; KPR-02; STD-05 AC-6; STD-03/04 scope alignment
FUN / dependency: §6.5/§19.4; Protected Reporting and Recovery v0.1; AOS-02-CON-001/003/004/005/006
VER: 040

Table row 63
REQ: 063
Proposed obligation: Handoff records shall distinguish attempted delivery, receipt, validation, responsibility acceptance, escalation and final duty disposition.
Category / source and rationale: I/S; DEC-075; KPR-03; STD-05 IR-6/IR-8; STD-01 scope alignment; AOS-specific acceptance/continuing duty
FUN / dependency: §6.5/§19.4; Protected Reporting and Recovery v0.1; AOS-02-CON-001/003/004/005/006
VER: 041

Table row 64
REQ: 064
Proposed obligation: Recoverable records shall evidence integrity, scope-specific currentness and completeness of withdrawals, restrictions, deletions, approvals and effects/reservations, with gaps explicit.
Category / source and rationale: I/S; DEC-076; KPR-04; STD-05 CP-9/CP-9(1), AU-9; STD-02/03/04 scope alignment; AOS-specific currentness/completeness
FUN / dependency: §6.5/§19.4; Protected Reporting and Recovery v0.1; AOS-02-CON-001/003/004/005/006
VER: 042

Table row 65
REQ: 065
Proposed obligation: Isolated restoration shall apply current lifecycle dispositions to declared copy scope and preserve effect/reservation lineage without hidden deleted payload or erased uncertainty.
Category / source and rationale: I/S; DEC-077; KPR-05; STD-05 CP-10/CP-10(2)/(4)/(6); STD-01/02 scope alignment; AOS-specific current restriction/effect gate
FUN / dependency: §6.5/§19.4; Protected Reporting and Recovery v0.1; AOS-02-CON-001/003/004/005/006
VER: 043

Table row 66
REQ: 066
Proposed obligation: Recovery evidence shall bind source coverage, validation, outstanding duties and exact scoped acceptance/release without treating restoration as case closure.
Category / source and rationale: I/S; DEC-078; KPR-06; STD-05 CP-4/CP-4(4); STD-01/02 scope alignment; AOS-specific release/duty gate
FUN / dependency: §6.5/§19.4; Protected Reporting and Recovery v0.1; AOS-02-CON-001/003/004/005/006
VER: 044

Table row 67
REQ: 067
Proposed obligation: Research-view producers and consumers shall reference one controlled shared definition with explicitly allocated semantic owners.
Category / source and rationale: I/E; DEC-086/002; interoperable research
FUN / dependency: 011; §6.6/CON-007; AOS-04/domain owners
VER: 045

Table row 68
REQ: 068
Proposed obligation: Each admitted research finding shall retain exact component/baseline, source/assurance, inference/uncertainty and affected-element links required by its view.
Category / source and rationale: I/E; DEC-086/046; reconstructable implications
FUN / dependency: 011; §6.6; REC-E/Q
VER: 046

Table row 69

REQ: 069
Proposed obligation: Research records shall distinguish run coverage, human review disposition, amendment approval and observed application.
Category / source and rationale: I/E; DEC-086; stages cannot be conflated
FUN / dependency: 011; §6.6; AOS-01/30
VER: 047

Table row 70
REQ: 070
Proposed obligation: A material correction to research evidence or its assessed baseline shall notify affected consumers for owned reassessment without silently rewriting historical findings.
Category / source and rationale: C/E; DEC-086/069; currentness with history
FUN / dependency: 005/011; existing correction/CHG contract
VER: 048

Table row 71
REQ: 071
Proposed obligation: Research duplicate handling shall preserve each component’s distinct assessment and outstanding review duties.
Category / source and rationale: I/E; DEC-086; shared retrieval is not shared disposition
FUN / dependency: 008/011; §6.6; AOS-13/04
VER: 048

Table row 72
REQ: 072
Proposed obligation: Research projections shall preserve permitted required provenance, coverage and uncertainty while enforcing applicable source/data restrictions.
Category / source and rationale: C/E; DEC-086; evidence with legitimate access
FUN / dependency: 007/011; AOS-03/14
VER: 049

Table row 73
REQ: 073
Proposed obligation: A bounded no-material-finding result shall remain distinct from incomplete, failed or unperformed coverage in stored and disclosed research records.
Category / source and rationale: I/E; DEC-086; honest absence claims
FUN / dependency: 011; §6.6
VER: 047/049

5. State model

Records have orthogonal dimensions rather than one lifecycle status that erases a still-active restriction. Proposed meanings: admission (submitted/validation pending/admitted/restricted admission/rejected/unresolved); currency (current/superseded/disputed); access (permitted/restricted/withheld); retention (retained/deletion pending/deleted under policy); approval (proposal/reviewed/approved/rejected); outcome (known/partial/indeterminate). Exact vocabularies and valid combinations remain schema work.

Table row 1
Transition: Submit → admitted/restricted/rejected/unresolved
Entry evidence / required authority: Producer identity, accepted profile, admission data-use checks
Observable result / failure: Exact revision and limitations; admitted does not mean true

Table row 2
Transition: Current → superseded/corrected
Entry evidence / required authority: Approved correction evidence and source relationship

Observable result / failure: Earlier revision/history governed; consumers notified

Table row 3
Transition: Current assertion → disputed
Entry evidence / required authority: Identified contradiction/report under profile
Observable result / failure: Both accounts retained; disputed state does not erase identity or restrictions

Table row 4
Transition: Record → derived projection
Entry evidence / required authority: Permitted operation, exact inputs and transformation
Observable result / failure: New lineage and inherited restrictions; no expanded purpose

Table row 5
Transition: Retained → restricted/deleted
Entry evidence / required authority: Approved applicable lifecycle disposition
Observable result / failure: Policy-consistent deletion/restriction and permitted evidence of disposition

Table row 6
Transition: Proposed → approved decision record
Entry evidence / required authority: Human authority/approval supplied by AOS-30/01
Observable result / failure: Exact approval scope; no AI-generated transition

Table row 7
Transition: Pending delivery → confirmed/indeterminate
Entry evidence / required authority: Actual admission/delivery evidence
Observable result / failure: Recipient responsibility remains distinct

Deletion may constrain retained payload/history; do not prescribe perpetual immutable personal data. A permitted minimal disposition reference must not expose deleted information or itself lack a valid retention basis. Actual policy conflicts remain commissioning blockers.

6. Semantic contracts and interfaces

6.1 Catalogue

CON identifiers carry prefix AOS-02. CON-001 preserves AOS-02-IF-001 - Evidence exchange. Other CONs describe component participation; definitive shared IF allocation remains open where absent. Common schemas are the single proposed definitions in Core Records; this component adds obligations and governance, not competing fields.

Table row 1
Contract: CON-001 / IF-001
Semantic owner / producers → consumers: AOS-02; permitted evidence producers → admission/domain/analysis consumers
Inputs/outputs and controlled definition: Exact REC-E revision, provenance, quality, restrictions and admission result; Core Records §§2-3

Table row 2
Contract: CON-002
Semantic owner / producers → consumers: AOS-02 common structure, domain semantic owner; source steward/adapters ↔ consumers
Inputs/outputs and controlled definition: Entity/source identities, approved source assignment, mapping and equivalence history; profile definitions pending

Table row 3
Contract: CON-003

Semantic owner / producers → consumers: AOS-02 structure and affected semantic owners; correction/derivation service → materially dependent AOS-01/03/04/05/13/21-25/30
Inputs/outputs and controlled definition: Correction/lineage/dependency changes and impact evidence; REC-E lifecycle with approved correction profile

Table row 4
Contract: CON-004
Semantic owner / producers → consumers: AOS-03 permission semantics; query/projector ↔ identity/data-use/consumers
Inputs/outputs and controlled definition: Exact data/operation/purpose/audience, current REC-D result and permitted projection; AOS-03 v0.3 §6 CON-002/003; exact reciprocal REC-D/schema adoption remains open

Table row 5
Contract: CON-005
Semantic owner / producers → consumers: AOS-01/04/13/20/30 family meanings; controls/workflows → common records/oversight
Inputs/outputs and controlled definition: Authority, execution, canonical analysis, escalation and approved decision records; parent IFs retained

Table row 6
Contract: CON-006
Semantic owner / producers → consumers: AOS-02 with semantic owner; standards/schema registry → adapters/producers/consumers
Inputs/outputs and controlled definition: Exact external artefact, mapping version, extensions/losses, licence assessment and compatibility evidence

The parent shared catalogue retains AOS-01-IF-001/002, AOS-13-IF-001, AOS-20-IF-001, AOS-30-IF-001 and AOS-14-IF-001. AOS-02 stores common shapes without taking over each family's meaning, authority or approval rights.

6.2 Interface semantics and unresolved settings

Every exchange names organisation, accepted contract revision, producer/acting role, subject/source identity and relevant revision/time/causation. Each family declares required/conditional/optional fields, types/units/code lists, valid and invalid values, resolvable references and profile result for missing data.

Admission acknowledgement names exact revision/restrictions. It is distinct from truth verification, recipient responsibility and actual effect. Replayed identical source-event content is handled under the approved duplicate profile; conflicting content is preserved/rejected as conflict. Retry cannot alter meaning, grants or source currency.

Event/effective ordering applies within declared scope. Late events must not silently replace a governing current revision. No universal total order, exactly-once delivery or global clock precision is promised. Required timing, acknowledgement intervals, dependency-propagation limits and outage/recovery settings remain explicit profile fields.

Unsupported schemas/mappings yield incompatible/unresolved results. A lossy transform can proceed only for an approved use that accepts its recorded limitations; loss must not silently erase authority, purpose or material uncertainty. Revoked authority or withdrawn data-use basis is consumed from AOS-01/03; stored records do not confer continued permission.

6.3 Reciprocal common-definition adoption, 6 October 2026

AOS-02 adopts Kernel Exchange Register v0.1 (aos-kernel-exchange-register-v0-1.md) §§3-6 at revision 0.1, Core Record Contracts v0.2 and Shared Contracts v0.2 as its single proposed logical definitions. Each local CON retains its identifier and purpose; the register §6 names every produced/consumed family and reciprocal kernel end. No alternative local fields override them. Producers name exact revisions/profiles; receivers validate matching meaning, authorised access and compatibility. Proposed AOS-03-IF-001/REC-D and AOS-04-IF-001/REC-X are catalogue allocations, not schema approval. Required acknowledgement stages and rejection/partial/unresolved responses follow KX-21; actual effect remains REC-X.

DEC-062-066 are approved detailed directions. Organisation role appointments, vocabulary/threshold/unit profiles, executable wire schemas, current-control/propagation and recovery mechanisms, and non-kernel endpoint adoption remain explicit dependencies. Earlier §6 descriptions of pending schema work are resolved only at this common logical level; commissioning and build evidence remain open.

6.4 Action-3 reciprocal coordination adoption

AOS-02 adopts Kernel Control Coordination v0.1 (aos-kernel-control-coordination-v0-1.md) §§2-10, Kernel Exchange Register v0.2 and Core/Shared v0.3 as the single proposed logical checkpoint/activation/change/account/reservation/withholding/resume definitions. Original CON IDs remain stable; Register §10 and Control Coordination §9 extend their common family views. Existing §6.3/§19.2 versions identify action-2 history; current declared definition revisions use Register v0.2 §4/§10, never an inferred version conversion.

AOS-01 supplies current authority/restrictions and powers; AOS-03 supplies identity/use/basis/consent; AOS-04 supplies exact task/effect/grouping/demand; AOS-05 gates actual effects and maintains authoritative account/reservation/applied state; AOS-02 supplies common dependency/assurance/account evidence. KX-24 ACC and KX-25 RSV are produced authoritatively by AOS-05 and consumed by AOS-01/02/03/04/05 only within permitted scope; KX-26 WHD is a continuing-duty view from service/execution workflow with AOS-05 blocker evidence, not an automatic notification exemption. Exact dependent CON allocation is the annex §9 table.

Every relevant change tracks receiving application or a reasoned no-material-dependency/owned unresolved result. Withholding creates an accountable separately authorised notification, human responsibility acknowledgement/cover/escalation, traceable coalescing and appropriate resident workflow update through resident-agreed channels. If delivery fails, the duty remains owned. Acknowledged handoff is not service completion. Independent reporting route/current recovered-state proof remain action 4; no claim of delivery capacity here.

6.5 Action-4 protected reporting and recovery adoption

AOS-02 adopts Protected Reporting and Recovery v0.1 (aos-kernel-protected-reporting-and-recovery-v0-1.md) §§2-8 as the single proposed logical specification under approved DEC-073-078. Current baseline: AOS-00/Map v0.18; AOS-01-05 v0.6; Core/Shared v0.4; Exchange Register v0.3; Control Coordination v0.2. Existing CON/IF identifiers remain; AOS-02-CON-001/003/004/005/006 consume/produce the annex §5 views. KX-19 protected finding, KX-20 recovery and KX-26 continuing duty use their newly declared revisions in Register v0.3. Older action-2/3 declarations remain historical and require explicit reviewed compatibility, never automatic conversion.

The common envelope, REC-E/A/D/X/Q and CHECK/ACT/CHG/ACC/RSV/WHD remain distinct. Protected reporting adds separately approved route/permission/recipient/custody and human responsibility evidence; recovery adds authoritative currentness/completeness, isolation/reconciliation and scoped empowered release. Custody, technical receipt, system availability and accepted responsibility are different results. Operational role appointments, deadlines, accepted source mechanisms and actual fallbacks remain commissioning dependencies with no invented default.

Annex §7 records dated primary standards references and per-rule provenance. STD-05 control principles are design sources; ISO references are verified edition/scope alignments pending licensed clause verification. AOS approval is not ISO conformance or certification. AOS-specific no-revival, uncertainty retention, agreed resident channels and acknowledged continuing duty are expressly distinguished from standard-derived principles.

6.6 Common external-research supporting views

AOS-02-CON-007: component research/profile/run/finding/disposition views. AOS-02 owns shared structure; AOS-04 owns common research behaviour/profile semantics, the affected component owns substantive finding meaning and source relevance, AOS-14 owns external exchange/source-verification evidence, AOS-13 owns coordinated handoff and AOS-30 owns empowered

human disposition. AOS-01 owns amendment/activation powers. These are local supporting views bound to existing evidence/assurance/execution/analysis/decision/change families, not new approved REC/IF identifiers. This section is the single proposed cross-component logical view definition; AOS-20 v0.1's GI candidate fields must be reconciled as a domain specialisation, not a competing common schema. Exact wire format, schema revision, catalogue allocation, types/units/cardinalities beyond the logical constraints and reciprocal consumer adoption require reviewed baseline before dependent build. Presence of fields never proves truth or permission.

All views inherit existing organisation/identity/exact revision/provenance, permission, time, lifecycle and staged acknowledgement rules. R = required; C = required when condition applies. References bind exact identities/revisions; unavailable required references leave validation/reliance unresolved. Source access does not imply unrestricted onward disclosure.

Table row 1

View: research_profile
Required logical meaning: R: component ID and exact assessed specification manifest; remit/questions/topics/jurisdiction; source admission/authority criteria; cadence/triggers; assigned agent/service and accountable component/review/tracking owners; permitted retrieval/tools/use/control references; coverage/currentness/evaluation/materiality/urgency rules; permitted audiences/routes, acknowledgement/deadline/cover/escalation; approval/version/effective/lifecycle references
Ownership / validation: AOS-04 common meaning, component remit, AOS-01 powers. Required numerical/time/source settings have declared types/units and approval basis; no inferred defaults. Shared agents identify every assigned profile separately.

Table row 2

View: research_run
Required logical meaning: R: exact profile/baseline/configuration and task/attempt refs; planned/actual execution period; declared coverage scope and actual sources/retrieval results with evidence; complete/partial/failed/cancelled/not-performed condition; finding/no-material-finding-within-coverage/coverage-unresolved result; limitations and owner/follow-up. C: nonperformance/failure reason and missing coverage
Ownership / validation: AOS-04 run semantics, 14 retrieval evidence. Run completion is not global external completeness or legal compliance. Cancelled/not-performed runs cannot claim complete research.

Table row 3

View: research_finding
Required logical meaning: R: finding identity/revision, run/profile/component/baseline links; exact source/evidence/assurance refs and publication/event/access/effective dates where known, with explicit unknown/not-applicable reasons; evidence versus inference, relevance/applicability/status, affected CAP/FUN/REQ/CON/source/decision references, materiality/urgency uncertainty, cross-component impacts/owners, recommendation/alternatives or explicit unresolved basis; review/tracking/audience/route and disposition links. C: jurisdiction/proposal/enactment/adoption/effective distinctions for legal/regulatory/standards claims; linked urgent operational response
Ownership / validation: Component owns substantive meaning, not storage or gateway. Source verification/admission is not organisational adoption. Source and specification version changes link later reassessment, retaining original assessment under governed lifecycle.

Table row 4

View: research_disposition
Required logical meaning: R: exact finding/proposal revision, empowered reviewer/decision record/powers, observed decision time, accepted-for-further-work/rejected/deferred/unresolved state, rationale/conditions, follow-up owner/deadline or approved no-follow-up basis. C: separate controlled change proposal, amendment approval, verification/release/application/outcome refs when present
Ownership / validation: AOS-30 decision semantics; AOS-01 powers. Responsibility acceptance and completed follow-up remain distinct. Acceptance for work cannot be rendered as an approved/applied amendment.

Producers are component research agents and authorised profile/review workflows; consumers are assigned component owners, AOS-13/30, relevant controls and GI where governance implications justify permitted access. Shared retrieval references one source revision with separate component finding/disposition links. Duplicate/coalesced records retain all affected owners/deadlines; conflicting same-identity content is not silently overwritten. Correction/revocation follows existing CHG notifications and governed data lifecycle; storage does not adjudicate substantive validity. Late acknowledgement cannot revive old approval. Privacy/source licensing and retention/delete duties apply to raw documents, summaries and derived records; an unavailable permitted projection exposes the limitation rather than granting more access.

6.7 AOS-30 decision-record participation - 7 October 2026

Under DEC-103 and current AOS-30 §§5/6.2/10.3, decision validity/effective time, record authentication/evidence, minutes approval and permission to execute are distinct. Reliance uses sufficient attributable evidence assessed under the actual organisation’s legal form, instruments and approved evidence policy; a valid decision may precede minutes approval. A Chair-authenticated record or extract may be evidence through an authorised route, but no signature, draft or extract alone creates decision authority or resolves conflicting evidence. No universal second approval of exact decision wording is imposed where applicable arrangements do not require it. Minute-taker drafting and Company Secretary stewardship remain distinct; non-board decisions use their applicable empowered route. Current authority/data-use/conditions and observed effects remain separate. Missing or disputed sufficient evidence blocks affected automated reliance for accountable resolution, not a declaration of legal invalidity.

CON-005 stores and projects this approval meaning without upgrading a draft through admission. CON-003 conditionally notifies AOS-30 of material evidence corrections; the shared notification does not itself alter a governing decision. No executable schema change is made; the existing logical KX-06 v0.3 meaning is explicitly adopted. Existing REQ/VER identifiers and proposed/planned statuses are preserved.

7. Authority and decision boundaries

AOS-02 can validate and store records only within current permissions. It cannot create an authority grant, resolve an incommensurable-values question or turn an AI proposal into an approved human decision. Source stewardship, semantic ownership, record custody and operational authority are separate powers.

Merge/split, source precedence, evidence resolution, schema change and retention/deletion need named empowered owners and approved rules. Technical administrators cannot silently rewrite governance meaning or remove protected obligations through a data migration.

The boardroom remains outside AI observation/live capture. Only permitted human-authored or human-approved post-meeting records enter. Historical powers and approved revisions are evidenced through AOS-01/30 rather than inferred from a current job title.

A sector standard's vulnerability/contact/occupancy fields are available modelling concepts, not permission to collect, infer or disclose them. HACT alignment does not replace AOS-03 purpose/consent/access controls or determine a welfare exception.

8. Reasoning principles applied

8.1 FP v4 applicability

Table row 1
FP: 1 Telos/function
Application / limitation: Record organisational purpose and software function distinctly; AOS-01/21 govern authoritative purpose

Table row 2
FP: 2 Permanent human Mode 2
Application / limitation: Approval/proposal differences and empowered human references; no automated dispute/value adjudication

Table row 3
FP: 3 Architectural integrity

Application / limitation: Governed meaning, purpose inheritance and auditable interfaces; data convenience cannot remove controls

Table row 4
FP: 4 Radical transparency
Application / limitation: Provenance/revision/uncertainty/explanation records, with governed disclosure

Table row 5
FP: 5 Structural imperfection
Application / limitation: Missing, late, duplicate, conflicting and lost events explicitly modelled

Table row 6
FP: 6 Epistemic humility
Application / limitation: Unknown/unavailable/withheld distinctions; admission is not truth; entity matches require evidence

Table row 7
FP: 7 No-exit obligation
Application / limitation: Preserve resident accounts and agreement, not silence as approval; AOS-11/30 own contestability

Table row 8
FP: 8 Constitutional mediator
Application / limitation: Human-approved decision/purpose records, no grant from storage or AI inference

Table row 9
FP: 9 Purpose-led design
Application / limitation: Shared records derived from governance needs; legal mapping separate, not assumed from data-standard alignment

Table row 10
FP: 10 Complexity/emergence
Application / limitation: Trace cross-layer derivation and aggregate effects; AOS-25/40 assess system-level behaviour

8.2 RP v6 applicability

Table row 1
Controlled domain / locator: 1 “Every governance process must close…” / accountability / “‘AI said so’ test”
AOS-02 application and other owners: REQ-027-030 and causation/accountability records; AOS-13/30 perform tracked handoffs and disposition

Table row 2
Controlled domain / locator: 1 impossible-option principle
AOS-02 application and other owners: Preserve rejected/impossible option references in canonical analysis records; preparation/rubric owned by AOS-22, not an AOS-02 claim to generate options

Table row 3
Controlled domain / locator: 2 all Mode 1/2 commitments
AOS-02 application and other owners: Approved parameter/decision provenance; no live boardroom input; AOS-01/25/30 govern review and boundary defence

Table row 4
Controlled domain / locator: 3 1+5/risk/cross-layer handoff
AOS-02 application and other owners: Shared governed exchange instead of untracked cross-domain copies; domain meaning retained

Table row 5
Controlled domain / locator: 3 Golden Thread
AOS-02 application and other owners: Versioned building-safety evidence/source accountability supports AOS-10; completeness and

verified legal mapping not certified here

Table row 6
Controlled domain / locator: 4 real-state options/decision feedback/revealed preferences
AOS-02 application and other owners: Evidence currency and structured approved outcomes; revealed preferences remain analytical evidence, not constitutional amendment

Table row 7
Controlled domain / locator: 5 blind spots/perimeter/emergent behaviour
AOS-02 application and other owners: Limitations and coverage references retained; AOS-14/25 assess perimeter and interactions

Table row 8
Controlled domain / locator: 6 purpose/ethics/equity/no-exit/compliance
AOS-02 application and other owners: Purpose metadata and disputable evidence; no generic vulnerability or welfare/consent default; professional/board determinations with AOS-03/30

Table row 9
Controlled domain / locator: 6 telos/function and accumulated precedent
AOS-02 application and other owners: Founding statements, interpretations and approved amendments distinguished; AOS-21/25 own curation/independent review

Table row 10
Controlled domain / locator: 6 developer frameworks
AOS-02 application and other owners: Provider/model/configuration lineage permits later divergence assessment; does not itself establish value alignment

Table row 11
Controlled domain / locator: 7 all three transparency principles
AOS-02 application and other owners: Evidence-backed traceability, explicit uncertainty, approved projections and retention policy

Table row 12
Controlled domain / locator: 8 all delegation commitments
AOS-02 application and other owners: REC-A/current restriction/delegation trail linked; AOS-01 grants no power from a task; protected audience obligations survive record migration

Table row 13
Controlled domain / locator: 9 all four purpose/sensing commitments
AOS-02 application and other owners: REQ-021-025; separate asset facts and behavioural inference; no new purpose from cross-layer aggregation

This assessment covers source applicability and complementary ownership. Exact individual source-item allocations in the controlled traceability matrix remain to be extended; unsupported obligations are not marked complete.

8.3 GT applicability

Table row 1
Tests: M1.1/2/3/5/6/7/8/9/10/11/13/14
Contribution / limit: Consistent source/evidence/currentness/outcome records support governance assessment; domain performance, legal compliance and Golden Thread adequacy require their own evidence

Table row 2
Tests: M1.4/12
Contribution / limit: Board capability and self-assessment are institutional matters; AOS-02 can retain permitted evidence but cannot certify conduct

Table row 3
Tests: M2.1/3/4/7/8/9/10/12/13/14/15
Contribution / limit: Purpose/approval/provenance/uncertainty and resident contestability support human assessment; no automated adjudication or value-alignment claim

Table row 4
Tests: M2.2/5/6/11
Contribution / limit: Coherence under pressure, independence, legitimacy and collective judgement require human/longitudinal assessment

All 29 tests are accounted for at applicability level. No GT pass is claimed, and none justifies observing live board deliberation.

9. Data, privacy and disclosure

AOS-02 processes the data necessary for governed admission, identity reconciliation, evidence linkage, permitted query/exchange and accountable outcomes. AOS-03 specifies valid purposes/bases, consent dependencies, access, permitted inference, recipient/role constraints and withdrawal. These decisions govern operation, storage, derivation and projection separately.

Proposed logical families include asset/place, person/household/occupancy relationships, process/case/work item, source/evidence, authority/delegation, data-use determination, analysis, approved human decision, execution/attempt/effect, handoff/disposition and channel agreement. The exact domain models are owned jointly with their relevant semantic owners; this catalogue is not an approved instruction to collect all such data.

Health, vulnerability, person-alert, behavioural or workforce records have specific scope and access requirements. Domain integration cannot turn asset condition into occupancy surveillance, staff-development data into unapproved employment assessment, or resident assistance into enterprise profiling. Standardised fields can remain unpopulated where collection is not approved.

Projection and disclosure minimise exposed content while preserving accurate meaning. Restrictions attach to derived and aggregate data as applicable; access to an aggregate is not automatically safe from identification. Identity maps, provenance and audit records can themselves contain personal data and need approved retention/access controls.

Consent withdrawal invalidates dependent future use under the applicable policy. It does not automatically erase every independently governed retention duty, authorise welfare override or reverse completed disclosure. Deletion/restriction decisions preserve only evidence that their approved policies permit. Under DEC-047, retain only permitted disposition evidence after authorised deletion, not a hidden content copy. Conflicts between accountability and deletion go to the empowered governance/privacy owners. No universal retention duration, blanket UK-only location rule or legal processing basis is adopted.

10. Behaviour and workflows

10.1 Governed admission and query

Source event → authenticating/permission dependencies → exact contract/version validation → approved source/entity mapping → provenance/time/value-status assessment → admitted/restricted/rejected/unresolved revision → acknowledgement → permitted projection/query → consumer assessment/action → linked outcome.

A receipt error or unknown source identity cannot be repaired by fabricated data. A producer's authority to submit does not give every consumer permission to retrieve. A data-use change before retrieval/disclosure is reassessed at its enforceable control boundary.

10.2 Correction, dispute and dependent work

Correction/dispute → exact earlier revision and basis → preserve distinct accounts/history under lifecycle policy → determine affected dependencies → notify consumers → AOS-01/03/04/05/13/21-25/30 reassess materially affected pending work within their responsibilities → accountable review of significant completed consequences → permitted updated evidence/disposition.

No blanket freeze of unrelated work. No storage-layer selection of a convenient winner. An approved source assignment is specific to a fact/record type. It retains the source of assurance and cannot by itself dispose of a material dispute. Under DEC-046, unresolved material conflicts are referred for accountable human resolution; later arrival does not automatically govern.

10.3 Standard mapping and change

Proposed external artefact/version → verify access/terms and source status → compare entity/field/code-list/time meanings → record direct/conditional/lossy/unmapped relationships → semantic owner/consumer impact review → approved mapping/profile → controlled deployment → round-trip/loss/effect tests → preserved previous mapping/version and review evidence.

HACT use cases are assessed individually; a supplier's broad “HACT compatible” statement is not mapping evidence. Migrating a database or accepting a new code list does not activate organisational authority or new processing purposes.

10.4 Decision and action feedback

Human-approved decision or execution event → exact approval/instrument reference → capture trigger/context/output/limitations → retain attempt/effect/handoff evidence → link disposition → make permitted evidence available to AOS-21/25/30 review.

Do not generate missing human rationale after the event and present it as contemporaneous evidence. Human approval, recipient acknowledgement and actual effect remain separate.

10.6 Combined control coordination

For effects, activation, material changes, concurrent reservations, withholding and resumption, apply the common protocol in Control Coordination v0.1 §§3-8. Denial or missing current controls/accounting withholds dependent work; actual application and responsibility are separately evidenced. Timeouts/cancellations do not establish no prior effect or release uncertain capacity. Numeric/profile/role selections remain commissioning dependencies.

10.7 Protected reporting and controlled recovery

Apply Protected Reporting and Recovery v0.1 §§3-4: withhold dependent effects, attempt only permitted reporting, retain original tracking owner until accepted handoff and preserve unresolved failure duties. Restore in isolation; prove required authoritative current state and complete material changes, apply current dispositions and reconcile effects/reservations. Only scoped accepted release can restore operation, followed by fresh current CHECK and capacity admission; no automatic queue replay. Unaffected release requires evidence of no material dependency, not mere absence of a known incident.

10.8 External research evidence and review

Approved component research profile and exact baseline → permitted external retrieval through AOS-14 → source/provenance/date/applicability evidence → component assessment of relevance and affected requirements/functions/contracts → finding or bounded no-material-finding/coverage-gap result → authorised recipient and

accountable handoff → recorded human disposition → controlled change candidate if accepted → required approval, verification, compatible activation and outcome follow-up. Urgent operational/legal/safety implications use their separately authorised response route while specification change remains pending; a research finding supplies no emergency power. One retrieved source may feed several permitted component assessments; each preserves its own implications, review duties and disposition.

11. Failure, escalation and recovery

Table row 1
Failure: Unsupported or invalid schema/code/unit
Behaviour / accountable dependency: Reject or return unresolved/incompatible under profile; preserve permitted diagnostic and source reference

Table row 2
Failure: Missing/stale source or ambiguous entity match
Behaviour / accountable dependency: Surface limitation; hold dependent matching/use; steward/human route

Table row 3
Failure: Conflicting account or changed payload under duplicate identity
Behaviour / accountable dependency: Preserve distinct contradiction; no overwrite; accountable source/domain resolution

Table row 4
Failure: Late/out-of-order event
Behaviour / accountable dependency: Recompute governing revision under approved time/source rules; do not equate arrival with effectiveness

Table row 5
Failure: AOS-03 or authority dependency unavailable
Behaviour / accountable dependency: Withhold dependent operation/disclosure; separately authorised fallback only

Table row 6
Failure: Partial delivery or missing acknowledgement
Behaviour / accountable dependency: Indeterminate delivery/admission distinguished; query/reconcile before repeat where effect matters

Table row 7
Failure: Missing required audit/pre-effect record
Behaviour / accountable dependency: Dependent action remains blocked at responsible executor boundary unless valid approved fallback exists

Table row 8
Failure: Migration drops restrictions/provenance
Behaviour / accountable dependency: Incompatible/failed migration; do not activate affected consumers; preserve authorised rollback evidence

Table row 9
Failure: Retention and required evidence conflict
Behaviour / accountable dependency: Refer to empowered data/privacy/governance owners; no implicit perpetual retention or erasure priority

Table row 10
Failure: Compromised/unauthorised source or namespace
Behaviour / accountable dependency: Quarantine/reject only under approved incident/admission rights; no unrestricted incident repository

Table row 11
Failure: Store/index/cache outage

Behaviour / accountable dependency: Declare unavailable/stale boundary and dependent capability; no false empty result

Table row 12
Failure: Recovery restores older state
Behaviour / accountable dependency: Reconcile current revisions/restrictions/decisions before dependent operation; no permission resurrection

Exact recovery, replication, reconciliation and manual operating capacity belong with AOS-05 and the approved profiles. No universal exactly-once, zero-loss, always-current or unbreakable-store claim is made.

12. Evidence, provenance and audit

Each relevant record chain exposes trigger → source revision → actor/producer → permitted purpose/authority → transformation/rule/model/configuration where applicable → record/admission result → downstream request/action → actual effect/uncertainty → human intervention → disposition.

Capture actual input/rule/output and approved human rationale. Do not demand private model chain-of-thought. Record changes, failed admission, deliberate withholding, migration/mapping versions, loss limitations and unresolved references. Audit projections are governed, not a bypass around AOS-03.

AOS-02 owns common evidence identity/shape and storage lifecycle, while the event's semantic owner owns what it proves. A delivery log proves attempted/confirmed delivery only to its evidenced extent, not substantive receipt, judgement or repair completion.

13. Security and operational requirements

Instance scope, data classification and current operation-specific permissions apply to record payload, indexes, search, provenance, exports, backups and derived views. Identifier leakage and relationship traversal are assessed as disclosures. Credentials/secrets are not copied into common envelopes.

AOS-05 must define tamper-detection/protection, backup, recovery, migration/rollback, availability, query freshness and capacity boundaries. Evidence versioning does not mandate one storage architecture or indefinite append-only personal data. Replicas and caches must expose their actual currentness constraints.

Admission/type/time validation must be distinguishable from probabilistic entity matching or evidence interpretation. Where matching/model transformation is used, define allowed task/output, uncertain result, human review, test data/rubric/thresholds and model-change impact. No self-reported confidence or fuzzy score is treated as proven identity.

Profiles require approved values for permitted operations, entity reconciliation, quality/currency limits, admission/query timing, duplicate windows, clock uncertainty, mapping compatibility, retention and recovery. Missing required settings block the dependent capability; there are no numerical defaults in this draft.

Human data stewardship, explanation access and correction/challenge processes need accessible formats and feasible operating cover with AOS-30/05. Technical performance cannot substitute for accountable correction handling.

14. Invariants

INV identifiers have prefix AOS-02. They restate listed proposed requirements rather than add unrecorded obligations.

Table row 1

INV: INV-001
Meaning: Shared meaning has one controlled definition and semantic owner
REQ / VER: 001/002; 001

Table row 2
INV: INV-002
Meaning: Admission is not truth, permission or human approval
REQ / VER: 009/010/022/030; 005/010/016

Table row 3
INV: INV-003
Meaning: Correction preserves accountable historical meaning within approved lifecycle
REQ / VER: 017-020/025; 006/008/011

Table row 4
INV: INV-004
Meaning: Derived data does not shed applicable purpose restrictions
REQ / VER: 021/022; 009/010

Table row 5
INV: INV-005
Meaning: Latest arrival is not necessarily current governing fact
REQ / VER: 014-016; 007

Table row 6
INV: INV-006
Meaning: Delivery, responsibility and effect are distinct
REQ / VER: 027-029; 014/015

Table row 7
INV: INV-007
Meaning: Standard alignment is versioned and evidenced, not inferred from a label
REQ / VER: 031-035; 017/019

Table row 8
INV: INV-008
Meaning: Agreed resident-channel evidence is distinct from organisational permission
REQ / VER: 036/022; 010/018

Table row 9
INV: INV-009
Meaning: Research coverage/disposition cannot be represented as compliance or amendment approval
REQ / VER: 068/069/073; 046/047

15. Conformance and acceptance

15.1 Criteria

CR identifiers have prefix AOS-02; all criteria are proposed.

Table row 1
CR: CR-001

Claim requiring evidence: Controlled shared semantics, identity and sources
REQ / verification: 001-008/037-043/046; VER-001-004/021/022

Table row 2
CR: CR-002
Claim requiring evidence: Honest evidence, time and correction meaning
REQ / verification: 009-020/026; VER-005-008/013

Table row 3
CR: CR-003
Claim requiring evidence: Governed derivation, privacy and lifecycle
REQ / verification: 021-025/036/044; VER-009-012/018/023

Table row 4
CR: CR-004
Claim requiring evidence: Reconstructable approval/delivery/effect
REQ / verification: 027-030; VER-014-016

Table row 5
CR: CR-005
Claim requiring evidence: Controlled schema/standards compatibility
REQ / verification: 031-035/045; VER-017/019/024

Table row 6
CR: CR-006
Claim requiring evidence: Adequate behaviour across contexts and recovery
REQ / verification: Relevant whole allocation; VER-020 and scenario matrix

Explicit conformance navigation - 29 October 2026

This index completes the documentary navigation from every retained kernel requirement to its proposed conformance criterion and its existing planned case(s). It neither adds a requirement nor claims that a case was executed or that its coverage is adequate. CR-EXCHANGE, CR-COORDINATION, CR-CONTINUITY and CR-RESEARCH below are derived grouping labels local to this component, not new system obligations. Original numbered CR claims remain applicable with their stated scope and limitations. Exact requirement text in §4.3 and case definitions in §15 remain authoritative.

Table row 1
Derived criterion: CR-EXCHANGE
Existing obligation family / derivation: Common definition/revision, compatibility, assurance and staged evidence adoption; existing §19.2 allocation.

Table row 2
Derived criterion: CR-COORDINATION
Existing obligation family / derivation: Current checkpoint, compatible activation, change propagation, cumulative accounting and owned withholding/resumption; existing §19.3 allocation.

Table row 3
Derived criterion: CR-CONTINUITY
Existing obligation family / derivation: Protected reporting, accepted human duty and current-state recovery/release; existing §19.4 allocation.

Table row 4
Derived criterion: CR-RESEARCH
Existing obligation family / derivation: Controlled research, evidence/coverage, human review and separate amendment authority; existing research requirements and their allocation.

Table row 1
Requirement: AOS-02-REQ-001
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-001
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 2
Requirement: AOS-02-REQ-002
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-001
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 3
Requirement: AOS-02-REQ-003
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-002
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 4
Requirement: AOS-02-REQ-004
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-002, AOS-02-VER-006
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 5
Requirement: AOS-02-REQ-005
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-003
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 6
Requirement: AOS-02-REQ-006
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-003
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 7
Requirement: AOS-02-REQ-007
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-004
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 8
Requirement: AOS-02-REQ-008
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-004
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 9
Requirement: AOS-02-REQ-009
Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-005
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 10
Requirement: AOS-02-REQ-010
Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-005
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 11
Requirement: AOS-02-REQ-011
Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-005
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 12
Requirement: AOS-02-REQ-012
Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-005
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 13
Requirement: AOS-02-REQ-013
Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-005, AOS-02-VER-012
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 14
Requirement: AOS-02-REQ-014
Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-007
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 15
Requirement: AOS-02-REQ-015
Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-007
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 16
Requirement: AOS-02-REQ-016
Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-007
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 17
Requirement: AOS-02-REQ-017

Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-006
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 18
Requirement: AOS-02-REQ-018
Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-006, AOS-02-VER-018
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 19
Requirement: AOS-02-REQ-019
Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-008
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 20
Requirement: AOS-02-REQ-020
Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-008, AOS-02-VER-016
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 21
Requirement: AOS-02-REQ-021
Proposed criterion (AOS-02 prefix): CR-003
Existing planned case(s): AOS-02-VER-009
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 22
Requirement: AOS-02-REQ-022
Proposed criterion (AOS-02 prefix): CR-003
Existing planned case(s): AOS-02-VER-010
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 23
Requirement: AOS-02-REQ-023
Proposed criterion (AOS-02 prefix): CR-003
Existing planned case(s): AOS-02-VER-010
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 24
Requirement: AOS-02-REQ-024
Proposed criterion (AOS-02 prefix): CR-003
Existing planned case(s): AOS-02-VER-012
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 25
Requirement: AOS-02-REQ-025
Proposed criterion (AOS-02 prefix): CR-003
Existing planned case(s): AOS-02-VER-011

Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 26
Requirement: AOS-02-REQ-026
Proposed criterion (AOS-02 prefix): CR-002
Existing planned case(s): AOS-02-VER-013
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 27
Requirement: AOS-02-REQ-027
Proposed criterion (AOS-02 prefix): CR-004
Existing planned case(s): AOS-02-VER-014
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 28
Requirement: AOS-02-REQ-028
Proposed criterion (AOS-02 prefix): CR-004
Existing planned case(s): AOS-02-VER-015
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 29
Requirement: AOS-02-REQ-029
Proposed criterion (AOS-02 prefix): CR-004
Existing planned case(s): AOS-02-VER-015
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 30
Requirement: AOS-02-REQ-030
Proposed criterion (AOS-02 prefix): CR-004
Existing planned case(s): AOS-02-VER-016
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 31
Requirement: AOS-02-REQ-031
Proposed criterion (AOS-02 prefix): CR-005
Existing planned case(s): AOS-02-VER-017
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 32
Requirement: AOS-02-REQ-032
Proposed criterion (AOS-02 prefix): CR-005
Existing planned case(s): AOS-02-VER-017
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 33
Requirement: AOS-02-REQ-033
Proposed criterion (AOS-02 prefix): CR-005
Existing planned case(s): AOS-02-VER-019
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 34
Requirement: AOS-02-REQ-034
Proposed criterion (AOS-02 prefix): CR-005
Existing planned case(s): AOS-02-VER-019
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 35
Requirement: AOS-02-REQ-035
Proposed criterion (AOS-02 prefix): CR-005
Existing planned case(s): AOS-02-VER-019
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 36
Requirement: AOS-02-REQ-036
Proposed criterion (AOS-02 prefix): CR-003
Existing planned case(s): AOS-02-VER-018
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 37
Requirement: AOS-02-REQ-037
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-021
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 38
Requirement: AOS-02-REQ-038
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-021
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 39
Requirement: AOS-02-REQ-039
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-022
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 40
Requirement: AOS-02-REQ-040
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-022
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 41
Requirement: AOS-02-REQ-041
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-022
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 42

Requirement: AOS-02-REQ-042
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-022
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 43
Requirement: AOS-02-REQ-043
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-022
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 44
Requirement: AOS-02-REQ-044
Proposed criterion (AOS-02 prefix): CR-003
Existing planned case(s): AOS-02-VER-023
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 45
Requirement: AOS-02-REQ-045
Proposed criterion (AOS-02 prefix): CR-005
Existing planned case(s): AOS-02-VER-024
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 46
Requirement: AOS-02-REQ-046
Proposed criterion (AOS-02 prefix): CR-001
Existing planned case(s): AOS-02-VER-022
Derivation / applicability: Explicit allocation to the existing numbered claim in §15.1; assess the unchanged requirement through its linked case(s).

Table row 47
Requirement: AOS-02-REQ-047
Proposed criterion (AOS-02 prefix): CR-EXCHANGE
Existing planned case(s): AOS-02-VER-025, AOS-02-VER-029
Derivation / applicability: Existing common exchange and assurance/evidence obligation.

Table row 48
Requirement: AOS-02-REQ-048
Proposed criterion (AOS-02 prefix): CR-EXCHANGE
Existing planned case(s): AOS-02-VER-025
Derivation / applicability: Existing common exchange and assurance/evidence obligation.

Table row 49
Requirement: AOS-02-REQ-049
Proposed criterion (AOS-02 prefix): CR-EXCHANGE
Existing planned case(s): AOS-02-VER-026, AOS-02-VER-030
Derivation / applicability: Existing common exchange and assurance/evidence obligation.

Table row 50
Requirement: AOS-02-REQ-050
Proposed criterion (AOS-02 prefix): CR-EXCHANGE
Existing planned case(s): AOS-02-VER-028
Derivation / applicability: Existing common exchange and assurance/evidence obligation.

Table row 51
Requirement: AOS-02-REQ-051
Proposed criterion (AOS-02 prefix): CR-EXCHANGE
Existing planned case(s): AOS-02-VER-027
Derivation / applicability: Existing common exchange and assurance/evidence obligation.

Table row 52
Requirement: AOS-02-REQ-052
Proposed criterion (AOS-02 prefix): CR-EXCHANGE
Existing planned case(s): AOS-02-VER-026, AOS-02-VER-030
Derivation / applicability: Existing common exchange and assurance/evidence obligation.

Table row 53
Requirement: AOS-02-REQ-053
Proposed criterion (AOS-02 prefix): CR-COORDINATION
Existing planned case(s): AOS-02-VER-031, AOS-02-VER-032
Derivation / applicability: Existing coordinated current-control/effect/duty obligation.

Table row 54
Requirement: AOS-02-REQ-054
Proposed criterion (AOS-02 prefix): CR-COORDINATION
Existing planned case(s): AOS-02-VER-032
Derivation / applicability: Existing coordinated current-control/effect/duty obligation.

Table row 55
Requirement: AOS-02-REQ-055
Proposed criterion (AOS-02 prefix): CR-COORDINATION
Existing planned case(s): AOS-02-VER-033, AOS-02-VER-034
Derivation / applicability: Existing coordinated current-control/effect/duty obligation.

Table row 56
Requirement: AOS-02-REQ-056
Proposed criterion (AOS-02 prefix): CR-COORDINATION
Existing planned case(s): AOS-02-VER-035, AOS-02-VER-036
Derivation / applicability: Existing coordinated current-control/effect/duty obligation.

Table row 57
Requirement: AOS-02-REQ-057
Proposed criterion (AOS-02 prefix): CR-COORDINATION
Existing planned case(s): AOS-02-VER-035
Derivation / applicability: Existing coordinated current-control/effect/duty obligation.

Table row 58
Requirement: AOS-02-REQ-058
Proposed criterion (AOS-02 prefix): CR-COORDINATION
Existing planned case(s): AOS-02-VER-036
Derivation / applicability: Existing coordinated current-control/effect/duty obligation.

Table row 59
Requirement: AOS-02-REQ-059
Proposed criterion (AOS-02 prefix): CR-COORDINATION
Existing planned case(s): AOS-02-VER-037, AOS-02-VER-038
Derivation / applicability: Existing coordinated current-control/effect/duty obligation.

Table row 60
Requirement: AOS-02-REQ-060
Proposed criterion (AOS-02 prefix): CR-COORDINATION
Existing planned case(s): AOS-02-VER-034, AOS-02-VER-038

Derivation / applicability: Existing coordinated current-control/effect/duty obligation.

Table row 61
Requirement: AOS-02-REQ-061
Proposed criterion (AOS-02 prefix): CR-CONTINUITY
Existing planned case(s): AOS-02-VER-039
Derivation / applicability: Existing protected-reporting, handoff or recovery obligation.

Table row 62
Requirement: AOS-02-REQ-062
Proposed criterion (AOS-02 prefix): CR-CONTINUITY
Existing planned case(s): AOS-02-VER-040
Derivation / applicability: Existing protected-reporting, handoff or recovery obligation.

Table row 63
Requirement: AOS-02-REQ-063
Proposed criterion (AOS-02 prefix): CR-CONTINUITY
Existing planned case(s): AOS-02-VER-041
Derivation / applicability: Existing protected-reporting, handoff or recovery obligation.

Table row 64
Requirement: AOS-02-REQ-064
Proposed criterion (AOS-02 prefix): CR-CONTINUITY
Existing planned case(s): AOS-02-VER-042
Derivation / applicability: Existing protected-reporting, handoff or recovery obligation.

Table row 65
Requirement: AOS-02-REQ-065
Proposed criterion (AOS-02 prefix): CR-CONTINUITY
Existing planned case(s): AOS-02-VER-043
Derivation / applicability: Existing protected-reporting, handoff or recovery obligation.

Table row 66
Requirement: AOS-02-REQ-066
Proposed criterion (AOS-02 prefix): CR-CONTINUITY
Existing planned case(s): AOS-02-VER-044
Derivation / applicability: Existing protected-reporting, handoff or recovery obligation.

Table row 67
Requirement: AOS-02-REQ-067
Proposed criterion (AOS-02 prefix): CR-RESEARCH
Existing planned case(s): AOS-02-VER-045
Derivation / applicability: Existing research obligation; assessment remains distinct from amendment/activation.

Table row 68
Requirement: AOS-02-REQ-068
Proposed criterion (AOS-02 prefix): CR-RESEARCH
Existing planned case(s): AOS-02-VER-046
Derivation / applicability: Existing research obligation; assessment remains distinct from amendment/activation.

Table row 69
Requirement: AOS-02-REQ-069
Proposed criterion (AOS-02 prefix): CR-RESEARCH
Existing planned case(s): AOS-02-VER-047
Derivation / applicability: Existing research obligation; assessment remains distinct from amendment/activation.

Table row 70
Requirement: AOS-02-REQ-070

Proposed criterion (AOS-02 prefix): CR-RESEARCH
Existing planned case(s): AOS-02-VER-048
Derivation / applicability: Existing research obligation; assessment remains distinct from amendment/activation.

Table row 71
Requirement: AOS-02-REQ-071
Proposed criterion (AOS-02 prefix): CR-RESEARCH
Existing planned case(s): AOS-02-VER-048
Derivation / applicability: Existing research obligation; assessment remains distinct from amendment/activation.

Table row 72
Requirement: AOS-02-REQ-072
Proposed criterion (AOS-02 prefix): CR-RESEARCH
Existing planned case(s): AOS-02-VER-049
Derivation / applicability: Existing research obligation; assessment remains distinct from amendment/activation.

Table row 73
Requirement: AOS-02-REQ-073
Proposed criterion (AOS-02 prefix): CR-RESEARCH
Existing planned case(s): AOS-02-VER-047, AOS-02-VER-049
Derivation / applicability: Existing research obligation; assessment remains distinct from amendment/activation.

15.2 Planned verification register

All cases have prefix AOS-02-VER and status planned, not executed. Shared preconditions: fixed source/specification/contract/profile manifest; isolated synthetic environment; approved fixtures and test identities; no live personal data or external effects. Required unavailable configuration yields not assessed. Inspect every relevant in-scope record/mapping/path; no undisclosed sample.

Method: structured inspection plus test/demonstration when implemented. Assessor roles: AOS-40 data/integration reviewer; semantic/source steward for factual definitions; AOS-03 privacy reviewer; governance reviewer for approvals. Appointments unresolved. Preserve exact tested revisions, inputs, outputs, limitations and assessment evidence. Institutional quality needs separately defined human review; software results cannot establish it alone.

Table row 1
VER: 001
REQ: 001/002
Procedure / challenge: Producer/consumer use competing definitions or missing owner
Expected result and retained evidence: Incompatibility/vacancy exposed; one controlled reference and owner required before dependent adoption

Table row 2
VER: 002
REQ: 003/004
Procedure / challenge: Same record identity across instances or materially revised payload
Expected result and retained evidence: Instance/revision distinction enforced; no silent cross-instance join or overwritten revision

Table row 3
VER: 003
REQ: 005/006
Procedure / challenge: Similar person names/address; namespace collision; merge then split
Expected result and retained evidence: Source namespace retained; similarity alone not equivalence; approved relationship evidence/history required

Table row 4

VER: 004
REQ: 007/008
Procedure / challenge: Source substitution, absent source assignment and missing provenance revision
Expected result and retained evidence: Source authority/reference gaps explicit; no unsupported current-fact claim

Table row 5
VER: 005
REQ: 009-013
Procedure / challenge: Inference labelled fact; malformed unit; unknown/withheld value; invented default
Expected result and retained evidence: Meaning/status/validation distinctions preserved; missing required value not invented; admission not truth

Table row 6
VER: 006
REQ: 017/018/004
Procedure / challenge: Contractor update contradicts resident account; approved correction
Expected result and retained evidence: Both assertions and correction links retained under policy; no silent overwrite

Table row 7
VER: 007
REQ: 014-016
Procedure / challenge: Date-only/precise times, late effective record, stale view/query outage
Expected result and retained evidence: Source precision and time roles preserved; governing revision rule/limitations surfaced; outage not false absence

Table row 8
VER: 008
REQ: 019/020
Procedure / challenge: Correct material input affecting pending and completed actions
Expected result and retained evidence: Dependent references notified, including AOS-30 for affected preparation/account/outcome review; GI revises canonical analysis and AOS-30 obtains human review; affected work reassessed by responsible controls; completed effects remain historical

Table row 9
VER: 009
REQ: 021
Procedure / challenge: Transform restricted sources into a summary, aggregate, embedding/search index, joined view, export and restored copy; try a wider purpose, incompatible source restrictions, missing lineage and a combination revealing additional sensitive information.
Expected result and retained evidence: All applicable contributing-source restrictions and attributable lineage retained; transformation grants no wider use. Additional sensitive disclosure is identified for AOS-03 assessment; incompatible or insufficiently evidenced use withheld and referred with an owner. Exercise an evidenced authorised different treatment under existing rules and reject an unsupported override. Completed disclosures/unreachable copies retain explicit limitations and accountable handling. Planned, not executed.

Table row 10
VER: 010
REQ: 022/023
Procedure / challenge: Retrieve via known ID or authority allow without valid data use
Expected result and retained evidence: Operation-scoped access required; reference/action permission alone insufficient; denied content not leaked

Table row 11
VER: 011
REQ: 025
Procedure / challenge: Conflicting retention/deletion needs and authorised lifecycle disposition
Expected result and retained evidence: Unresolved conflict referred; approved restriction/deletion follows exact policy; only permitted residual evidence retained

Table row 12
VER: 012
REQ: 013/024
Procedure / challenge: Redact source/uncertainty/approval state in an otherwise permitted projection
Expected result and retained evidence: Withheld versus absent distinguished; projection does not falsely imply certainty or approval

Table row 13
VER: 013
REQ: 026
Procedure / challenge: Same event/content replay; same identity with changed material content
Expected result and retained evidence: Approved deduplication for first; conflict preserved for second; no destructive overwrite

Table row 14
VER: 014
REQ: 027
Procedure / challenge: Admitted record, dispatched notification, delivered message and human acceptance
Expected result and retained evidence: Distinct evidence/states; dispatch/delivery do not close accountable handoff

Table row 15
VER: 015
REQ: 028/029
Procedure / challenge: Partial/unknown effect and consequential repeat
Expected result and retained evidence: Trigger/authority/accountable role/outcome linked; indeterminate not converted to failure; responsible executor reconciles repeat

Table row 16
VER: 016
REQ: 030/020
Procedure / challenge: Valid decision with minutes pending; authorised authenticated record/extract; signature without a real decision; contradicted signed minutes; later correction or changed decision.
Expected result and retained evidence: Four axes and actual times retained. Valid decision plus sufficient policy-assessed evidence may support reliance before minutes approval; unsupported/contradicted evidence withholds affected reliance for human resolution. Required governing conditions and current controls still apply; later correction cannot silently backdate, erase or fabricate decision/effect. Planned, not executed.

Table row 17
VER: 017
REQ: 031/032
Procedure / challenge: Unsupported schema and materially changed mapping/code meaning
Expected result and retained evidence: Explicit incompatibility; approved impact/compatibility assessment before affected activation

Table row 18
VER: 018
REQ: 036/018
Procedure / challenge: Changed resident-channel agreement, unavailable channel and disputed completion
Expected result and retained evidence: Exact agreement/selected channel evidence linked; relevant sends reassessed; no unagreed substitution or deletion of dispute

Table row 19
VER: 019
REQ: 033-035
Procedure / challenge: Candidate HACT mapping with pinned artefacts, missing fields, lossy statuses and unsupported conformance claim
Expected result and retained evidence: Exact mapping/version/limitations recorded; no claim beyond tested scope; unsupported semantics not silently coerced

Table row 20

VER: 020
REQ: relevant whole allocation
Procedure / challenge: Execute contrasting scenario review and restore/migrate stale/restricted records
Expected result and retained evidence: Meaning/permissions/currentness/history preserved to approved scope; gaps recorded as source-grounded issues; no universal rule inferred from one process

Table row 21
VER: 021
REQ: 037/038/005/006
Procedure / challenge: Ambiguous names/address, approved unambiguous identifier rules, potentially destructive merge and split
Expected result and retained evidence: No similarity-only identity; automatic link only within approved rule; uncertain/destructive operation requires accountable review; source identities/history retained

Table row 22
VER: 022
REQ: 039-043/046/007/008/016/018
Procedure / challenge: One system authoritative for different fact types; missing supporting evidence; validation contradicted or stale; unresolved material conflict
Expected result and retained evidence: Fact-type assignment explicit; origin separate from assurance evidence/method/version/validator/accountability/limitations; missing validation visible; conflict routed to authorised human without latest-arrival shortcut

Table row 23
VER: 023
REQ: 044/025
Procedure / challenge: Approved deletion; attempt hidden archive/shadow content copy; independently permitted disposition metadata
Expected result and retained evidence: No unauthorised retained content; only policy-permitted disposition evidence remains; unresolved policy conflict referred to empowered owners

Table row 24
VER: 024
REQ: 045/033-035
Procedure / challenge: Compatible verified HACT definition; unsuitable/missing definition; candidate extension/version change
Expected result and retained evidence: Compatible meaning preferred; gaps/extensions/departures justified; exact release/scope/elements/losses/tests recorded; no blanket adoption or unsupported conformance

Table row 25
VER: 025
REQ: 047/048
Procedure / challenge: Definition/version compatibility; inspect/test exact approved synthetic fixture and definition revisions
Expected result and retained evidence: KXV-01: supported, unsupported and accepted translated records; original and translation retained, restricted meaning preserved, declared loss suitable for use. Planned, not executed.

Table row 26
VER: 026
REQ: 049/052
Procedure / challenge: Assurance status and exact fact binding; inspect/test exact approved synthetic fixture and definition revisions
Expected result and retained evidence: KXV-02: multiple incomplete/disputed/purpose-bounded assessments; preserve all chains and disagreements; no admission-to-truth or new-revision validation shortcut. Planned, not executed.

Table row 27
VER: 027
REQ: 051
Procedure / challenge: Original evaluation and later effects; inspect/test exact approved synthetic fixture and definition revisions
Expected result and retained evidence: KXV-03: permit/deny before effect, later checkpoint/withheld/effect links; original decision reconstructable, absent evidence never proof of enforcement. Planned, not executed.

Table row 28

VER: 028
REQ: 050
Procedure / challenge: Acknowledgement stages; inspect/test exact approved synthetic fixture and definition revisions
Expected result and retained evidence: KXV-04: delivery without application/responsibility; no false completion; pure information requires no invented human acknowledgement. Planned, not executed.

Table row 29
VER: 029
REQ: 047
Procedure / challenge: Reciprocal CON walkthrough; inspect/test exact approved synthetic fixture and definition revisions
Expected result and retained evidence: KXV-05: inspect every component CON against the same producer/consumer definitions, field/status/units/ack manifest; retain mismatches and non-kernel dependencies. Planned, not executed.

Table row 30
VER: 030
REQ: 049/052
Procedure / challenge: Restricted assurance projection; inspect/test exact approved synthetic fixture and definition revisions
Expected result and retained evidence: KXV-06: permitted projection preserves required assurance substance; unavailable material evidence leaves reliance unresolved; no privacy bypass. Planned, not executed.

Table row 31
VER: 031
REQ: 053
Procedure / challenge: KCV-01: Exact checkpoint and restriction race; inspect/test exact authorised synthetic fixture and versions
Expected result and retained evidence: Substitute arguments/current evidence and restrict before/after last enforceable point; affected pre-boundary effect blocked, irreversible crossing and uncertainty/follow-up evidenced. Planned, not executed.

Table row 32
VER: 032
REQ: 053/054
Procedure / challenge: KCV-02: Partial compatible activation; inspect/test exact authorised synthetic fixture and versions
Expected result and retained evidence: Wrong/old/missing required applied member and restriction during rollout; affected path withheld, compatible unaffected scope evidenced, no approval-to-activation shortcut. Planned, not executed.

Table row 33
VER: 033
REQ: 055
Procedure / challenge: KCV-03: Change receipt versus application; inspect/test exact authorised synthetic fixture and versions
Expected result and retained evidence: Duplicate/conflicting/out-of-order notices and missing consumer; actual applied/no-material-dependency basis or owned unresolved cover/escalation; old permission not revived. Planned, not executed.

Table row 34
VER: 034
REQ: 055/060
Procedure / challenge: KCV-04: Selective impact and restart; inspect/test exact authorised synthetic fixture and versions
Expected result and retained evidence: Correct pending input and significant completed consequence; reassess affected work, preserve history and owner review, no replay on restart. Planned, not executed.

Table row 35
VER: 035
REQ: 056/057
Procedure / challenge: KCV-05: Concurrent overlapping capacity; inspect/test exact authorised synthetic fixture and versions
Expected result and retained evidence: Parallel workers request same remaining allowance across multiple scopes and provider switch; no partial grant, double spend or account reset evasion; exact authoritative evidence. Planned, not executed.

Table row 36
VER: 036
REQ: 056/058

Procedure / challenge: KCV-06: Partial/unknown reservation; inspect/test exact authorised synthetic fixture and versions
Expected result and retained evidence: Expire/cancel/failover after possible effect and cross period boundary; confirmed quantity consumed, uncertain remainder held, release only evidenced unused quantity. Planned, not executed.

Table row 37
VER: 037
REQ: 059
Procedure / challenge: KCV-07: Withheld duty notification; inspect/test exact authorised synthetic fixture and versions
Expected result and retained evidence: Accounting/control unavailable, missing acknowledgement, failed route and coalesced repeats; dependent work blocked, separate permitted notification and accountable delivery exception/cover; every operation traceable. Planned, not executed.

Table row 38
VER: 038
REQ: 059/060
Procedure / challenge: KCV-08: Resident update and controlled resume; inspect/test exact authorised synthetic fixture and versions
Expected result and retained evidence: Service affected with acknowledgement but unresolved task, unagreed channel and sensitive content, then premature resume; only permitted agreed-channel update, contact duty visible, no replay without current reconciled evidence/approval. Planned, not executed.

Table row 39
VER: 039
REQ: 061
Procedure / challenge: KPV-01 / DEC-104: approved finding-class profile; primary controls/reporting failure plus implicated or suppressing normal recipient/release controller; false alternative sharing technical dependency or implicated sole gatekeeper; valid authorised independent alternative.
Expected result and retained evidence: The component supplies its assigned authority/record/use/task/runtime evidence for both technical and organisational independence. No implicated sole release gate; no assumed independence from an alternate address alone. Use only pre-authorised verified minimal-content routes; inadequate arrangements remain owned, block protected-reporting assurance/affected dependent reliance and preserve tracking/service duties. Inspect actual alternate attempt, custody/control, recipient and acceptance evidence; no external-disclosure default. Planned, not executed.

Table row 40
VER: 040
REQ: 062
Procedure / challenge: KPV-02: Reporting permission and recipient invalid; authorised synthetic fixture, exact profile and source revisions
Expected result and retained evidence: Expired/wrong-scope advance permission, unverified recipient or excessive content; refuse unauthorised payload, retain minimal permitted fallback if valid, otherwise owned unresolved duty; no emergency grant. Planned, not executed.

Table row 41
VER: 041
REQ: 063
Procedure / challenge: KPV-03: No human accepts and fallback also fails; authorised synthetic fixture, exact profile and source revisions
Expected result and retained evidence: Receipt without responsibility acceptance, absent cover, escalation failure and repeated linked reports; original tracking owner persists, all affected work traceable, approved human fallback/owned exception and resident-channel duty remain visible. Planned, not executed.

Table row 42
VER: 042
REQ: 064
Procedure / challenge: KPV-04: Protected backup is stale or incomplete; authorised synthetic fixture, exact profile and source revisions
Expected result and retained evidence: Valid integrity check but omitted withdrawal/consent/deletion/change or uncertain source coverage; dependent release blocked until scope-specific currentness and completeness are established from authoritative evidence. Planned, not executed.

Table row 43

VER: 043
REQ: 065
Procedure / challenge: KPV-05: Restore contains old permission and uncertain effects; authorised synthetic fixture, exact profile and source revisions
Expected result and retained evidence: Isolated old snapshot with deleted/restricted payload, completed/partial/unknown effects, uncertain reservation and incompatible config; no normal effects, apply dispositions and reconcile exposure, no repeated known effect or hidden retained payload. Planned, not executed.

Table row 44
VER: 044
REQ: 066
Procedure / challenge: KPV-06: Premature selective release under compound failure; authorised synthetic fixture, exact profile and source revisions
Expected result and retained evidence: Combine compromise, incomplete current-state evidence, outstanding handoff and provider failover; reject unsupported automatic/human release, accept only evidenced approved unaffected scope, preserve unresolved duties and require fresh CHECK/reservation for continuation. Planned, not executed.

Table row 45
VER: 045
REQ: 067
Procedure / challenge: Producer/consumer walkthrough of four research views using exact synthetic schema/profile revisions
Expected result and retained evidence: Same authoritative structure and semantic owners; unsupported fields/versions and absent mandatory references rejected/unresolved. Planned, not executed.

Table row 46
VER: 046
REQ: 068
Procedure / challenge: Evidence-backed versus unsupported finding, disputed assurance, future rule and stale component baseline
Expected result and retained evidence: Source/assurance/date/status/applicability, evidence/inference and affected element links retained with uncertainty; admission is not validation. Planned, not executed.

Table row 47
VER: 047
REQ: 069/073
Procedure / challenge: Complete no-finding, partial/failed/skipped research; candidate accepted but amendment not approved
Expected result and retained evidence: Coverage and review/change/application states remain distinct in queries and presentation; no false completion. Planned, not executed.

Table row 48
VER: 048
REQ: 070/071
Procedure / challenge: Correct source and change baseline after two component findings; replay/coalesce with different deadlines
Expected result and retained evidence: Historical findings preserved; each affected consumer/owner receives tracked reassessment and duties survive deduplication. Planned, not executed.

Table row 49
VER: 049
REQ: 072/073
Procedure / challenge: Restricted source/assurance projection with missing material evidence and failed coverage
Expected result and retained evidence: Only permitted payload disclosed; required uncertainty/coverage survives projection or reliance remains unresolved; no access bypass. Planned, not executed.

15.3 Contrasting scenario matrix

Table row 1
Scenario: Overdue repair
General model tested: Resident promise versus internal target; disputed/partial/unverified completion; exact evidence and agreed channels
Local/profile dependency: DEC-031-041 scoped rules; factual evidence/time/channel profiles

Table row 2
Scenario: Property inspection and hazard case
General model tested: Asset/place/investigation/work-order links; uncertain evidence and approved restrictions
Local/profile dependency: HACT-related concept mapping; verified sector release and independent legal/process assessment

Table row 3
Scenario: Procurement commitment
General model tested: Supplier/source identity, quantity/currency/time meaning, approval and actual commitment outcome
Local/profile dependency: Finance source/approval profiles; no spending right created by records

Table row 4
Scenario: People development/employment
General model tested: Person/role/context relationships, purpose inheritance and sensitive correction
Local/profile dependency: AOS-03/12 approved purposes and employment authority; no generic staff profiling

Table row 5
Scenario: Constitutional amendment
General model tested: Draft/review/approved/effective versions and board-body powers
Local/profile dependency: AOS-01/30 exact-version/sequence evidence; interpretations not authority

Table row 6
Scenario: External exchange and cross-domain insight
General model tested: Recipient/principal/source provenance, data-use projection, duplicate/unknown outcomes
Local/profile dependency: AOS-03/14 trust/use controls; no assumed federation or aggregate safety

16. Dependencies

Table row 1
Stage: Drafting
Required dependencies: Governed sources/architecture, common contracts, AOS-01 and researched HACT references

Table row 2
Stage: Component baseline
Required dependencies: Exact shared envelope/family schemas, type/unit/status/reference rules, appointed semantic stewardship, source allocation and resolved material design questions

Table row 3
Stage: Build
Required dependencies: AOS-03/04/05 contracts; fixed domain source/maps/profiles; approved fixtures; control/retention/evidence boundaries; accepted cases and bounded release

Table row 4
Stage: Standards adoption
Required dependencies: Exact HACT/other artefacts/releases/code lists/terms, controlled field-level mapping, domain approval and conformance evidence

Table row 5
Stage: Activation

Required dependencies: Valid organisation permissions, source ownership, steward/operational cover, approved data lifecycle/location/identity rules and compatible deployed consumers

Table row 6
Stage: Operation
Required dependencies: Current restrictions/revisions, source/quality monitoring, accessible correction/query routes, recovery and ongoing assurance

No draft interoperability mapping supplies a lawful data-sharing arrangement or an institutional appointment.

17. Issues and decisions required

ISS IDs have prefix AOS-02. Detailed dependencies remain open; the four submitted general-data directions are resolved under DEC-045-048. Shared owner appointments remain unresolved. “Decision required” denotes a material design choice to refer, not permission for a builder to invent an answer.

Table row 1
ISS: 001
Type / question and source: Dependency: contract ownership appointments, change procedure and compatibility; DEC-002/P01
Affected / owner: FUN-001/010; AOS-02 and semantic owners
Required evidence / gate: Controlled registry/review process; component baseline/build

Table row 2
ISS: 002
Type / question and source: Design choice: entity namespace/equivalence/merge-split implementation and role settings; DEC-045 settles matching/review direction, FP6
Affected / owner: FUN-002; AOS-02/domain/privacy owners
Required evidence / gate: Approved matching/relationship rules and disputed-identity handling; build

Table row 3
ISS: 003
Type / question and source: Design choice: fact-type source/assurance assignments and current-fact profile implementation; DEC-046 settles conflict/assurance direction, DEC-015/031
Affected / owner: FUN-002/004/005; source/domain stewards
Required evidence / gate: Record-type source profiles and human resolution powers; activation

Table row 4
ISS: 004
Type / question and source: Design gap: final common envelope/family schemas, value-status, type/unit/cardinality/vocabulary
Affected / owner: CON-001-005; AOS-02 with semantic owners
Required evidence / gate: Executable logical definitions and producer/consumer agreement; component baseline

Table row 5
ISS: 005
Type / question and source: Dependency: calendar/time precision/order/currentness/clock/query boundaries
Affected / owner: FUN-004; AOS-02/05/domain owners
Required evidence / gate: Approved comparison/currentness profiles and acceptance fixtures; build

Table row 6
ISS: 006
Type / question and source: Decision/dependency: approved record-class correction/history/deletion settings, projection/access and permitted disposition evidence; DEC-047 settles direction
Affected / owner: FUN-005-007; AOS-02/03/privacy/governance owners
Required evidence / gate: Valid reconciled class policies; activation

Table row 7
ISS: 007
Type / question and source: Decision/dependency: HACT exact release/terms/field mapping; preferred-reference direction settled by DEC-048
Affected / owner: FUN-010/CON-006; AOS-02/domain stewards for mapping, Mark for newly discovered material departures
Required evidence / gate: Accessible versioned artefacts, precise definitions/losses and approved scope; standards adoption

Table row 8
ISS: 008
Type / question and source: Design gap: delivery/duplicate/retry/reconciliation semantics and operational limits
Affected / owner: FUN-008/009; AOS-04/05/13/14
Required evidence / gate: Approved profiles/test evidence; build

Table row 9
ISS: 009
Type / question and source: Dependency: human decision, channel-agreement and outcome common schemas
Affected / owner: CON-005; AOS-01/03/11/30/04
Required evidence / gate: Exact family definitions and approval/effect evidence; component baseline

Table row 10
ISS: 010
Type / question and source: Assurance gap: threat model, migration/recovery and probabilistic matching evaluations
Affected / owner: §§11/13/15; AOS-05/40/domain reviewers
Required evidence / gate: Executable tests, qualified assessment and operating capacity; readiness

Table row 11
ISS: 011
Type / question and source: Dependency: exact source-matrix allocation and complementary component adoption
Affected / owner: §8/19; AOS-02/40 and all semantic owners
Required evidence / gate: Source-to-REQ/VER links and residual findings; component baseline

Table row 12
ISS: 012
Type / question and source: Review: adequacy across non-repair scenarios and emergent derived uses
Affected / owner: §15; Mark/AOS-25/40
Required evidence / gate: Scenario review with explicit source-grounded scope; component baseline

Research confidence: high that HACT is a relevant sector interoperability reference; insufficient evidence to claim an exact latest release, comprehensive mapping, formal endorsement or conformance. Direct catalogue access was blocked; the accessible associated model is explicitly provisional.

AOS-02-ISS-013 - research view exact schema/adoption (open design gap): §6.6 logical views need exact schema/units/cardinalities/version/catalogue adoption with 04/14/13/30 and all components; reconcile AOS-20 candidate view and shared/core/register/source matrix. Owners: AOS-02 and semantic owners. Evidence: reviewed definitions, reciprocal producers/consumers and executed fixtures; gate: dependent contract baseline/build. AOS-02’s own research profile/sources/cadence/appointments remain activation dependencies.

18. Implementation guidance - non-normative

A governed logical layer may use adapters, separate authoritative stores, indexed projections, versioned schemas, evidence journals and permissions-aware retrieval. A central database is one implementation option, not an architectural requirement. A graph or vector index cannot replace exact source/revision/permission evidence.

HACT-compatible payload definitions can sit beneath the common AOS envelope where their verified meaning fits. Mapping should reuse rather than rename equivalent concepts unnecessarily, while retaining separate AOS evidence/authority/outcome

metadata. The preferred-reference direction is approved under DEC-048; exact sector schema adoption remains unverified.

No database, API style, message broker, identity format or model is prescribed. Associated reference SQL/DDL illustrates a research model; it is not AOS code or a mandated implementation. External artefact rights and accepted scope must be checked before copying or publishing definitions.

19. Traceability and change

Requirement rows link source/decision/engineering derivation to function/dependency and planned VER. CAP/CON/INV/CR tables provide complementary reverse paths. AOS-02-IF-001 remains stable. Core Records retains the single proposed detailed family/envelope definitions; definitive component/schema adoption must resolve gaps without competing copies.

HACT is recorded through EXT-H01-07 and ISS-007. Concept-level assessment is distinguished from field-level mapping. Any adopted mapping records exact source artefact/revision/element, AOS target, relationship/cardinality/type/unit/time/code semantics, transformation/loss, reviewer, approval, tests and permitted use. Later releases require impact review, not automatic replacement.

Extend the controlled source traceability matrix with exact component REQ/VER allocations during adoption. This draft does not close source findings or assert all-domain adoption. Material changes identify affected sources, records, mappings, requirements, consumers, permissions and cases, with rationale and approval evidence.

The agreed sequence is governing principles → architecture → specification → contrasting process tests → justified change where needed. Repair-specific profiles remain scoped. Research agents observe/analyse/challenge/propose without amending the baseline themselves.

19.1 Common decision-baseline reconciliation, 6 October 2026

Author review against AOS-00 v0.15 (DEC-001-061) and Specification Map v0.15. Earlier dated source/approval references identify historical derivation, not a competing current baseline. Decisions DEC-001-044 remain applicable as scoped in §§2-8: logical ownership, human reserved powers, common contracts, separate organisation instances, controlled locations, technology neutrality and bounded repair profiles. Repair-specific choices do not become universal rules. DEC-018 remains deferred; independent review remains unassigned. No new decision, permission, numerical setting or requirement approval is inferred.

The table records later-decision applicability and existing document anchors. It is a decision/status reconciliation, not the completed source-to-field-to-producer/consumer traceability required by KR-09.

Table row 1
Decision set: DEC-045-048
Applicable direction / responsibility boundary: Existing v0.2 approval disposition retained: entity reconciliation, fact-specific source/assurance, governed history/deletion and HACT preferred reference.
Existing component anchors: REQ-037-046; VER-021-024; ISS-002/003/006/007
Remaining work / status: Exact source/matching/lifecycle settings, verified HACT release/mappings and assurance-chain field adoption remain open.

Table row 2
Decision set: DEC-049-053
Applicable direction / responsibility boundary: Identity assurance is not entity matching; governed private-content, welfare, refusal and disclosure boundaries constrain record exchange.
Existing component anchors: REQ-022-025/036/040-043; CON-004; VER-010/011/018/022
Remaining work / status: AOS-03 v0.3 supplies the logical permission specification; exact family adoption remains ISS-004/006/011.

Table row 3
Decision set: DEC-054-057

Applicable direction / responsibility boundary: Task memory and worker records retain lineage/restrictions; aggregate and change evidence use common structures without transferring semantic ownership.
Existing component anchors: REQ-016/018/025/028; CON-003/005/006; VER-007/011/013
Remaining work / status: Task/execution field definitions and aggregate accounting remain KR-01/06; no new IF allocated.

Table row 4
Decision set: DEC-058-061
Applicable direction / responsibility boundary: Incident evidence, selective continuity and restoration preserve current lifecycle restrictions; platform privilege is not record-use permission.
Existing component anchors: REQ-022/025/028/033/044; CON-004/005; VER-010/011/013/016/023
Remaining work / status: Correction consumer map and authoritative recovery inputs remain KR-03/05; they are not repaired by this label pass.

Stable REQ/VER/CON/IF identifiers, requirement wording and planned-case status are preserved. The five current component revisions are v0.3; their historical v0.1/v0.2 records remain intact. KR-09 decision/status/interface-label work is complete; full reciprocal source/REQ/contract/field/VER allocation remains open with the shared-contract work. Author checks are document checks, not executed verification or independent readiness evidence.

19.2 Action-2 source/field/consumer/verification allocation

New REQ-047-052 originate in v0.4, 6 October 2026; status proposed, owner inherited from document control, logical scope only. VER-025-030 are planned cases. Earlier records retain their origins; AOS-03 REQ-040 is clarified under DEC-064, not retired. Totals at this historical adoption step: 52 proposed REQs and 30 planned VERs.

Table row 1
Source / decision: DEC-002/065; QS-12/21; GT M1.13
Register obligation / common field: KXR-01/02/07/08; definition_revision/profile_manifest; KX-10 field_map/losses
Component REQ → planned VER: REQ-047/048 → VER-025/029
Reciprocal adoption: Every local CON ↔ declared producer/consumer ends in register §6

Table row 2
Source / decision: FP4/6; RP7 audit/uncertainty; DEC-046/062/063
Register obligation / common field: KXR-03/04; REC-E assurance_refs/status, complete REC-Q and use suitability
Component REQ → planned VER: REQ-049/052 → VER-026/030
Reciprocal adoption: Evidence producer/AOS-02 ↔ this consumer under independently permitted use

Table row 3
Source / decision: RP7 auditability; DEC-064
Register obligation / common field: KXR-05; original REC-A/D evaluation, REC-X exact-result/checkpoint/effect links
Component REQ → planned VER: REQ-051 → VER-027
Reciprocal adoption: AOS-01/03 evaluator ↔ AOS-04 execution/AOS-05 runtime ↔ AOS-02 custody

Table row 4
Source / decision: RP1 accountability; GT M1.13; DEC-066
Register obligation / common field: KXR-06; KX-21 stage/result/evidence
Component REQ → planned VER: REQ-050 → VER-028
Reciprocal adoption: Actual receiver/applier/empowered human ↔ sender/tracker; no assumed non-kernel adoption

Shared fields and reciprocal logical definitions are now adopted at kernel document level. Old local source-matrix/schema issue descriptions remain residual commissioning/full-suite tasks, not a reason to duplicate definitions. Full-suite source allocation and non-kernel adoption remain open; no implemented conformance or independent readiness evidence.

19.3 Action-3 exact obligation/field/consumer/verification allocation

REQ-053-060 originate in v0.5, 6 October; proposed logical scope, custodian/approver inherited, no implementation approval. VER-031-038 are planned. Totals at this historical adoption step: 60 proposed REQs/38 planned VERs. Original record wording and IDs remain unchanged.

Table row 1
Source / approved decision: DEC-067; FP4/5/6/7/10; RP1/7 audit/8 contextual authority/9 purpose; GT M1.13
Common obligation / field / reciprocal ends: KCR-01; CHECK.request/current sources/version/outcome; 01/03 controls → 04/05 effect gate, 02 custody
Proposed REQ → planned VER: REQ-053 → VER-031/032

Table row 2
Source / approved decision: DEC-068; FP4/5/6/7/10; RP1/7 audit/8 contextual authority/9 purpose; GT M1.13
Common obligation / field / reciprocal ends: KCR-02; ACT.required members/applied vector/restriction fence; 01/03/04/05 application → coordinator/02
Proposed REQ → planned VER: REQ-054 → VER-032

Table row 3
Source / approved decision: DEC-069; FP4/5/6/7/10; RP1/7 audit/8 contextual authority/9 purpose; GT M1.13
Common obligation / field / reciprocal ends: KCR-03; CHG.consumer application/impact owner; semantic source/02 → all material consumers
Proposed REQ → planned VER: REQ-055 → VER-033/034

Table row 4
Source / approved decision: DEC-070; FP4/5/6/7/10; RP1/7 audit/8 contextual authority/9 purpose; GT M1.13
Common obligation / field / reciprocal ends: KCR-04; ACC.linked scope/period/units; 04 semantics → 05 accounting, 01/03 constraints, 02 custody
Proposed REQ → planned VER: REQ-056 → VER-035/036

Table row 5
Source / approved decision: DEC-071; FP4/5/6/7/10; RP1/7 audit/8 contextual authority/9 purpose; GT M1.13
Common obligation / field / reciprocal ends: KCR-05; RSV.complete demand/admission vector; 04 request → 05 authoritative admission → exact executor
Proposed REQ → planned VER: REQ-057 → VER-035

Table row 6
Source / approved decision: DEC-071; FP4/5/6/7/10; RP1/7 audit/8 contextual authority/9 purpose; GT M1.13
Common obligation / field / reciprocal ends: KCR-06; RSV.confirmed/residual/release evidence; observed effects → 05 account and 02/04 evidence
Proposed REQ → planned VER: REQ-058 → VER-036

Table row 7
Source / approved decision: DEC-071; FP4/5/6/7/10; RP1/7 audit/8 contextual authority/9 purpose; GT M1.13
Common obligation / field / reciprocal ends: KCR-07; WHD.owner/ack/cover/resident duty; service/05 blockers → permitted operational recipient, 13/30/resident workflow
Proposed REQ → planned VER: REQ-059 → VER-037/038

Table row 8
Source / approved decision: DEC-072; FP4/5/6/7/10; RP1/7 audit/8 contextual authority/9 purpose; GT M1.13
Common obligation / field / reciprocal ends: KCR-08; BRK.resume evidence/current check; authorised owner/controls/account → 04/05 executor
Proposed REQ → planned VER: REQ-060 → VER-034/038

Record types and source locators are the annex §§9-10, using unchanged FP/RP/GT versions. Non-kernel adoption and wire/profile/role implementation remain explicit gaps. This source/field/case allocation does not supply executed or independent assurance.

19.4 Action-4 sources and reciprocal verification

REQ-061-066 link DEC-073-078/KPR-01-06 to planned VER-039-044/KPV-01-06 one-to-one; all cases include cross-component failure/acceptance evidence. Source references and derivation boundaries are Protected Reporting and Recovery §7; exact fields, ownership and CON reciprocity are §§2/5. Current authoritative source mechanisms, human capacity, numerical profiles and commissioned independence need explicit owners/evidence before release. These cases have not been executed.

19.5 External-research traceability

DEC-086 → CAP-007/FUN-011/CON-007/§6.6 → REQ-067-073 → VER-045-049. Origin v0.7, 6 October 2026; proposed logical wording, project approver Mark, operational semantic owners/appointments open. AOS-04-CON-009 references this single supporting view; AOS-01 v0.7 §6.6 retains existing authority/change/decision contracts. Source matrix/catalogue and remaining consumer specialisations are explicit downstream obligations.

20. Build and handover

No build is authorised. A future bounded release requires exact schema/contract/profile/source/mapping manifest, resolved relevant issues, validated permissions/lifecycle/location arrangements, approved synthetic fixtures, accepted cases, platform/recovery implementation and separate readiness assessment.

Builder discretion covers technology behind approved semantics. Stop for unresolved identity/source equivalence, missing data-use permission, unapproved required schema/units, ambiguous timing/currentness, unaccountable correction/deletion, absent recording or unknown effect, incompatible mapping, unverified required standard artefact or newly proposed inference/authority scope.

An HACT reference alone is not a release dependency; if the build depends on an adopted mapping its exact verified artefacts become prerequisites. Author checks cannot satisfy G3's separate reviewer walkthrough. Independent project review remains deferred; organisational independent governance reviews remain required.

21. Review and control

Table row 1
Quality area: QS-01-03 structure/identity/history
Author assessment / residual limitation: 21 template sections, common stable IDs and explicit control; no earlier AOS-02 found in the current reference-architecture inventory

Table row 2
Quality area: QS-04-10 requirement records
Author assessment / residual limitation: 66 proposed obligations with derivation/category/shared accountability/release/history and planned cases; schemas/values remain unresolved

Table row 3
Quality area: QS-11-14 context/contracts/lifecycle/failure
Author assessment / residual limitation: Shared meaning, source/identity/projection boundaries, preserved IF-001, six CONs, states and failure paths; cross-component implementation pending

Table row 4
Quality area: QS-15-20 qualities/authority/source fidelity
Author assessment / residual limitation: Purpose/restriction/lifecycle/provenance/uncertainty explicit; no numeric default, legal determination or AI truth certificate

Table row 5
Quality area: QS-21-23 traceability/testing
Author assessment / residual limitation: 38 planned cases and six contrasting scenarios; source-matrix allocation/executable assurance not complete

Table row 6
Quality area: QS-24-28 review/handover/readiness
Author assessment / residual limitation: Author review only; no independent assurance, formal gate, build or live activation claim

Table row 7
Quality area: HACT reference adequacy
Author assessment / residual limitation: Primary explanations/associated guidance read and linked; catalogue access/current release/field mapping unresolved; no standards-conformance claim

Author checks: section/identifier uniqueness, REQ-to-VER linkage and Markdown table structure. No tailoring claimed. Specification-quality conclusion: structured review draft with explicit dependencies. Design-adequacy conclusion: principle-derived common-data model with relevant HACT reference assessment, requiring material-choice review, exact mapping/schema adoption and technical/organisation assurance.

Next: action-4 logical protected reporting/recovery adopted with standards provenance. Read existing GI/human-handoff material before further drafting; non-kernel adoption, commissioning and independent/executed evidence remain open.

v0.7 research amendment author checks: stable original requirement/verification rows and approval histories preserved; new REQ/VER sequences and references checked; common profile/view/powers ownership reconciled against AOS-00/Map v0.21 and template v0.4. New cases remain planned; no actual research, runtime, independent review or readiness evidence claimed.

Component summary

Purpose: shared meaning and reconstructable evidence without treating storage as truth or permission.
Owns: common structures, source/entity mappings, provenance, time/version/correction and governed exchange.
Receives: permitted source evidence and exact authority/data-use/analysis/decision/execution records.
Produces: validated revision-scoped records, permitted projections, correction/lineage and compatibility evidence.
Does not own: institutional judgement, source truth adjudication, action authority, data-use permission or domain process design.
HACT: approved preferred reference for compatible housing-data definitions; concept assessment included, exact release/mapping adoption and conformance unverified.
Conformant when: accepted requirements and fixed dependency/mapping scope are evidenced across contrasting cases.
Open: semantic/schema choices, source/reconciliation rules, AOS-03 lifecycle/access, exact HACT artefacts/mappings and independent readiness assurance.

5 October approval disposition: Mark agreed all four recommendations and emphasised fact-assurance provenance as Radical Transparency. DEC-045-048 in AOS-00 v0.12 / Map v0.9 record these directions. AOS-02 v0.2 incorporates them; exact requirement wording remains proposed and cases planned. No further general-data question is currently submitted to Mark. Detailed schemas, factual assurance criteria, actual source/role/lifecycle settings, HACT artefacts/mappings and readiness evidence remain open.

Action-2 current disposition, 6 October: v0.4 uses AOS-00/Map v0.16 and approved DEC-062-066. §6.3/§19.2 record common logical adoption and traceability. Current totals 52 proposed REQs/30 planned VERs; earlier counts/versions in approval histories remain historical. No requirement-wording, executed-case or readiness promotion.

Action-3 current disposition, 6 October: DEC-067-072 approved, including revised recommendation 5 notification/acknowledged duty and appropriate resident update. AOS-02 v0.5 adopts Register v0.2, Core/Shared v0.3 and Control Coordination v0.1 against AOS-00/Map v0.17. Current totals 60/38 proposed REQs/planned VERs; no executed assurance or readiness promotion. KR-02/03/06 logically reconciled; actual commissioned implementation remains open.

Action-4 current disposition, 6 October: all six directions approved; DEC-073-078 and standards-reference instruction recorded. AOS-02 v0.6; 66 proposed REQs/44 planned VERs. KR-04/05 logically reconciled through the common annex and reciprocal adoption. No executed recovery/report delivery, clause-level ISO conformity, independent assurance or readiness promotion.

External-research current disposition, 6 October: AOS-02 v0.7; 73 proposed REQs/49 planned VERs against AOS-00/Map v0.21/template v0.4. Direction DEC-086 approved, logical supporting views proposed; exact schema/adoption/evaluation open, no research activation or readiness claim.

Historical opening status notices - retained provenance

These are dated drafting snapshots, including their then-current versions, totals, completion statements and next tasks. They do not define today's baseline or work queue. The present document retains its proposed/planned status; approved directions retain their recorded scope. Use the current inventory, adopted README and live to-do list for orientation; authoritative requirement and decision text remains in its named sections.

Historical status notice - AOS-30 alignment - 7 October 2026: functional drafting and consistency alignment complete under Mark’s instruction. AOS-00/Map v0.25, DEC-001-089; AOS-01-05 v0.8, AOS-14 v0.4, AOS-20 v0.3 and AOS-30 v0.3; Shared v0.9/Core v0.6/Exchange Register v0.8; source matrix v0.9 and template v0.4 unchanged; Control Coordination v0.2/Protected Reporting and Recovery v0.1 unchanged. Earlier dated baseline/adoption/next-step entries are history. CR30-01-03 are closed at the functional-document level; implementation/commissioning evidence remains separate. No new DEC/REQ/VER/IF identifier or operating power is introduced.