

The End of Alignment

Technical Field Guide

Schemas, evidence joins, rules, and worked artefacts

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Version 0.3

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Scope Note

Version 0.3 contains the machine-readable YAML versions of the five worked artefacts in Part IV of *The End of Alignment*, book v1.1.5. Its independent version identifies the artefact contracts. The minimum protocol adds eight schema contracts, a day-one process and contract, a generic evidence envelope with a renewal binding, twenty-five error rules, four warning rules, and version-change mechanics for every governed artefact type.

The authoritative files live at `field-guide/v0.3` in the book repository. Every PDF listing is rendered from those files; the public source archive travels with this PDF.

The records are illustrative and internally consistent. They are useful starting forms, not operational evidence. The schemas define the portable shape and minimum constraints but do not prescribe storage, workflow, registry, event platform, or vendor tooling.

This version does not cover reader tooling or migration mechanics. Both depend on choices a company has not yet made and would turn a protocol into a premature toolchain.

Validation record: 26 August 2026. Eight schemas and eleven governed artefacts passed schema validation. No error rule failed. W003 warned that two open worked findings were past their recorded dates. V023 and W004 were not applicable to the supplied packet. The validator caught three planted breaks and recorded one known institutional-resolution gap.

Validation identity: rule set 2.0.0. Schema versions: model evaluation and process definition 2.0.0; drift report and unit charter 1.1.0; published contract, evidence envelope, change mechanics, and validation rule set 1.0.0. The YAML record also carries a canonical validation archive digest covering the validator, requirements, schemas, rules, protocols, governed artefacts, and broken fixtures. Source archive SHA-256:

61247cc2ec81965ec1fbf54e194946838f0893a521159c0e0d40f89e6ba5c368

Change record: 26 August 2026, version 0.3. Published the source package, generalised joins around `process_cycle_id`, gave protocol documents stable identity, moved the core rules to 2.0.0, made threshold direction and transition publication structural, added V021 to V025 and W001 to W004, narrowed maturity to obligations beyond schema conformance, widened drift evidence to admit an explicit evidence gap, and added a deliberately broken packet.

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Chapter 1

Start with the Minimum Viable Packet

Do not begin by copying the complete packet. Begin with enough governed meaning to expose a disagreement: one owner, one promise, four states, two invariants, terminal outcomes, and one published contract. A schema's required list already defines structural conformance. The maturity block records a day-one obligation the schema cannot express, such as requiring at least one published contract where the portable schema must allow none. It is not a second required list.

The minimum is not permission to remain vague. Every state is observable, every terminal outcome is explicit, and the event envelope carries the identities needed to join a live result back to its decision. Add detail when a named failure, obligation, decision, or consumer requires it.

Minimum process definition, version 0.1.0

```

1 artifact_type: process_definition
2 schema_id: "urn:sia:end-of-alignment:process-definition"
3 schema_version: "2.0.0"
4 id: policy_renewal
5 version: "0.1.0"
6 maturity:
7   stage: minimum_viable
8   mandatory_now:
9     - published_contracts
10  earned_later:
11    - detailed entry conditions
12    - model evaluation linkage
13    - full reason-code registry
14    - provider-specific failure behaviour
15    - complete evidence inventory
16 owners:
17   process: Leila Morgan
18   definition: policy renewal unit domain steward
19 change_authority: >-
20   Leila Morgan approves changes to a state, transition, invariant, or published
21   meaning. Every approved change creates a new process-definition version.
22 entry_event: renewal_due
23 entry_subject: active_policy
24 entry_state: due
25 customer_promise: >-
26   An eligible customer receives renewal terms in time to accept them or enters
27   a visible referral path with an owner.
```

```

28 states:
29   due: renewal is ready to begin
30   offer_issued: exact terms reached the customer
31   renewed: terminal, new policy identity exists
32   referred: terminal, normal work stopped under a named reason and owner
33 terminal_outcomes:
34   - renewed
35   - referred
36 terminal_outcome_cardinality: exactly_one
37 invariants:
38   - id: I01
39     name: identity
40     rule: >-
41       Every state change carries policy_id, process_cycle_id,
42       process_definition_version, decision_record_id, and deployment_digest.
43   - id: I02
44     name: one_outcome
45     rule: Each process_cycle_id produces exactly one terminal outcome.
46 transitions:
47   - id: T01
48     from: due
49     to: offer_issued
50     event: customer_exposure_verified
51   - id: T02
52     from: offer_issued
53     to: renewed
54     event: customer_acceptance_completed
55   - id: T03
56     from: due
57     to: referred
58     event: normal_path_stopped
59   - id: T04
60     from: offer_issued
61     to: referred
62     event: normal_path_stopped
63 published_contracts:
64   - renewals.renewal_outcome.v0
65 reason_code_registry: renewal-reasons:0.1

```

Minimum published contract, version 0.1.0

```

1 artifact_type: published_contract
2 schema_id: "urn:sia:end-of-alignment:published-contract"
3 schema_version: "1.0.0"
4 id: renewals.renewal_outcome.v0
5 version: "0.1.0"
6 owner: policy renewal unit
7 purpose: publish the terminal result of one renewal cycle
8 consumers:
9   - policy servicing
10 published_events:
11   renewal_confirmed: a new policy identity exists
12   renewal_referred: normal work stopped with a named owner and reason
13 required_envelope:
14   - event_id
15   - event_type
16   - occurred_at
17   - policy_id
18   - process_cycle_id
19   - renewal_cycle_id
20   - process_definition_version

```

```
21   - decision_record_id
22 delivery:
23   guarantee: at_least_once
24   deduplication_key: event_id
25 failure_semantics:
26   missing_required_field:
27     action: reject before publication
28   uncertain_terminal_publication:
29     action: reconcile against the immutable process event
30   prohibited_action: invent a second outcome
31 compatibility:
32   major_version: 0
33   permitted_without_major_change:
34     - additive optional fields
35   requires_new_major_version:
36     - remove a required field
37     - change a field meaning
38     - change an event meaning
39 change_authority:
40   meaning_owner: policy renewal unit
41 reason_code_registry: renewal-reasons:0.1
```

Chapter 2

Telemetry and Join Keys

A drift report is possible only when the running process emits durable identities before anyone knows which discrepancy will matter. Every transition therefore carries the process cycle, decision record, governed process version, serving deployment, and any model and evaluation identities involved. A non-modelled decision keeps the model fields present with an explicit null; omission is not a value.

The generic profile uses `process_cycle_id` and `subject_id`. The renewal instance binds those names to `renewal_cycle_id` and `policy_id`; an adopter in claims can bind the same portable keys without editing the protocol. The portable key travels with every event for cross-process joins, the bound domain key travels for consumers organised around renewal identity, and the worked envelope emits both. It also defines emission points and two concrete joins. It records identities and controlled reasons, not free-text customer material.

Generic evidence envelope

```

1 artifact_type: evidence_envelope
2 schema_id: "urn:sia:end-of-alignment:evidence-envelope"
3 schema_version: "1.0.0"
4 id: evidence-envelope
5 version: "1.0.0"
6 purpose: >-
7   Define the portable identity carried by every process transition so governed
8   claims can be joined to decisions, deployments, models, evaluations, and
9   observed outcomes.
10 required_join_keys:
11   - process_cycle_id
12   - decision_record_id
13   - deployment_digest
14   - model_digest
15   - evaluation_id
16 required_on_every_transition:
17   event_identity:
18     - event_id
19     - occurred_at
20     - event_type
21   process_identity:
22     - subject_id
23     - process_cycle_id
24     - process_definition_version
25     - transition_id
26     - prior_state
27     - resulting_state

```

```

28  decision_identity:
29    - decision_record_id
30    - decision_owner
31  running_identity:
32    - source_commit
33    - deployment_digest
34    - configuration_id
35  model_identity:
36    - model_digest
37    - evaluation_id

```

Renewal binding and worked evidence profile

```

1  artifact_type: evidence_envelope
2  schema_id: "urn:sia:end-of-alignment:evidence-envelope"
3  schema_version: "1.0.0"
4  id: renewal-evidence-envelope
5  version: "1.0.0"
6  purpose: >-
7    Emit enough identity on every process transition to join a governed claim to
8    the exact decision, implementation, deployment, model, evaluation, and live
9    outcome used by a drift report.
10 required_join_keys:
11   - process_cycle_id
12   - decision_record_id
13   - deployment_digest
14   - model_digest
15   - evaluation_id
16 event_stream: prod.renewal_transition_events
17 key_bindings:
18   process_cycle_id: renewal_cycle_id
19   subject_id: policy_id
20 required_on_every_transition:
21   event_identity:
22     - event_id
23     - occurred_at
24     - event_type
25   process_identity:
26     - subject_id
27     - process_cycle_id
28     - policy_id
29     - renewal_cycle_id
30     - process_definition_version
31     - transition_id
32     - prior_state
33     - resulting_state
34   decision_identity:
35     - decision_record_id
36     - decision_owner
37   running_identity:
38     - source_commit
39     - deployment_digest
40     - configuration_id
41   model_identity:
42     - model_digest
43     - evaluation_id
44 presence_rules:
45   - >-
46     Every named field is present on every transition event. model_digest and
47     evaluation_id carry null only when no model participated in the decision.
48   - >-

```

```

49     A human override retains the model_digest and evaluation_id that produced
50     the referred decision and adds override_actor and override_reason.
51 - >-
52     Replay preserves event_id, occurred_at, process_cycle_id, and
53     decision_record_id; it adds replayed_at rather than inventing a new event.
54 - >-
55     deployment_digest identifies the serving artefact, not merely the latest
56     successful pipeline or intended release.
57 emission_points:
58 - when: every accepted process transition
59   emits: complete evidence envelope
60 - when: every rejected or referred command
61   emits: attempted transition, controlled reason code, and owner
62 - when: customer exposure changes
63   emits: audience, configuration, deployment_digest, and effective time
64 - when: human review changes a model-assisted result
65   emits: original decision identity, reviewer identity, reason, and outcome
66 drift_join_recipes:
67 - finding: F-041 amendment threshold mismatch
68   governed_sources:
69     - process_definition_version
70     - evaluation_id
71     - transition_id
72   running_sources:
73     - source_commit
74     - deployment_digest
75     - configuration_id
76   observation_keys:
77     - process_cycle_id
78     - decision_record_id
79     - deployment_digest
80   proves: which serving rule acted on which governed decision and population
81 - finding: F-044 model performance drift
82   governed_sources:
83     - model_digest
84     - evaluation_id
85     - process_definition_version
86   running_sources:
87     - deployment_digest
88     - configuration_id
89   observation_keys:
90     - process_cycle_id
91     - decision_record_id
92     - model_digest
93     - evaluation_id
94   proves: which model and evaluation governed each independently adjudicated case
95 minimum_quality_checks:
96 - process_cycle_id is never blank after entry
97 - renewal_cycle_id is emitted as the bound domain key for process_cycle_id
98 - decision_record_id is unique within a process cycle and decision attempt
99 - deployment_digest resolves to a signed or otherwise immutable manifest
100 - model_digest resolves to immutable model bytes when non-null
101 - evaluation_id resolves to one current or expired evaluation record
102 - process_definition_version resolves to one immutable definition
103 - terminal events preserve the identity chain from the initiating event
104 privacy_boundary: >-
105     Emit identifiers and controlled reason codes needed for reconstruction. Do
106     not place free-text customer communication, raw documents, or unrestricted
107     personal data in the evidence envelope.

```

Chapter 3

Validation Rules

Schema validity establishes shape, not coherence. The twenty-nine cross-record rules test the relationships that can make individually valid artefacts describe different processes. The rule set is 2.0.0 because V010, V016, and V019 were generalised from a renewal-specific key to `process_cycle_id`; changing an existing assertion's meaning is a major change under the guide's own mechanics.

Rules marked `error` prevent issue or require an explicit recorded exception by the authority that owns the affected meaning. Rules marked `warn` expose residue or a time-dependent condition without blocking issue. They should not be weakened to make a dashboard green.

```

1 artifact_type: validation_rule_set
2 schema_id: "urn:sia:end-of-alignment:validation-rule-set"
3 schema_version: "1.0.0"
4 id: end-of-alignment-core-validation
5 version: "2.0.0"
6 rule_set_id: end-of-alignment-core-validation
7 rule_set_version: "2.0.0"
8 rules:
9   - id: V001
10     applies_to: all governed artefact instances, including protocols and rule sets
11     severity: error
12     assertion: artifact_type, schema_id, and schema_version resolve to one available schema
13   - id: V002
14     applies_to: all artefacts
15     severity: error
16     assertion: artifact version and schema_version use major.minor.patch notation
17   - id: V003
18     applies_to: process_definition
19     severity: error
20     assertion: every transition.from value exists in states
21   - id: V004
22     applies_to: process_definition
23     severity: error
24     assertion: every transition.to value exists in states
25   - id: V005
26     applies_to: process_definition
27     severity: error
28     assertion: state, invariant, and transition identifiers are unique in the definition
29   - id: V006
30     applies_to: process_definition
31     severity: error
32     assertion: every terminal_outcome exists in states
33   - id: V007
34     applies_to: process_definition
35     severity: error
36     assertion: every terminal_outcome is reachable from the entry state through declared transitions
37   - id: V008

```

```
38     applies_to: process_definition
39     severity: error
40     assertion: terminal states have no outgoing transition and the declared terminal cardinality is
               satisfiable
41 - id: V009
42     applies_to: process_definition
43     severity: error
44     assertion: every transition records an event and every invariant contains an inspectable rule or
               structured condition
45 - id: V010
46     applies_to: process_definition
47     severity: error
48     assertion: the definition requires process_cycle_id, decision_record_id, process_definition_version,
               and deployment identity through its invariants or evidence requirements
49 - id: V011
50     applies_to: process_definition and model_evaluation_record
51     severity: error
52     assertion: every referenced evaluation_id resolves and names the same process-definition version used
               by the decision
53 - id: V012
54     applies_to: process_definition and model_evaluation_record
55     severity: error
56     assertion: every forced_referral_condition in the evaluation appears in the governed process
               definition
57 - id: V013
58     applies_to: model_evaluation_record
59     severity: error
60     assertion: expiry.date postdates the evaluation generation or approval date and no use occurs after
               expiry
61 - id: V014
62     applies_to: model_evaluation_record
63     severity: error
64     assertion: dataset, feature, model, protocol, and validation identities resolve to immutable evidence
65 - id: V015
66     applies_to: published_contract
67     severity: error
68     assertion: every published event has one meaning and every event name is unique inside the contract
               version
69 - id: V016
70     applies_to: published_contract
71     severity: error
72     assertion: required_envelope contains event_id, occurred_at, process_cycle_id,
               process_definition_version, and decision_record_id
73 - id: V017
74     applies_to: process_definition and published_contract
75     severity: error
76     assertion: every emitted or accepted reason code resolves in the governed reason-code registry
77 - id: V018
78     applies_to: unit_charter
79     severity: error
80     assertion: every reserved right names its holder, trigger, evidence, decision clock, escalation, and
               return transition
81 - id: V019
82     applies_to: drift_report
83     severity: error
84     assertion: every finding can join through process_cycle_id, decision_record_id, deployment_digest,
               model_digest, and evaluation_id as applicable
85 - id: V020
86     applies_to: drift_report
87     severity: error
88     assertion: every material finding has a human disposition, owner, due date or review date, and
               evidence-based closure condition
89 - id: V021
90     applies_to: process_definition and model_evaluation_record
91     severity: error
92     assertion: every decision threshold in the process definition equals the approved threshold in the
               evaluation record it references, and the direction of the comparison is stated identically in both
```

```
93 - id: V022
94   applies_to: all artefacts declaring maturity
95   severity: error
96   assertion: every field named in maturity.mandatory_now is present and non-empty in the instance
97 - id: V023
98   applies_to: all artefacts declaring maturity
99   severity: error
100  assertion: a change of maturity.stage creates a new artefact version and records which earned_later
101             fields the change added
102 - id: V024
103   applies_to: process_definition and published_contract
104   severity: error
105   assertion: every id in published_contracts resolves to an available contract artefact, and every
106             structured publishes_event and published_contract pair resolves to an event declared by a contract in
107             that list
108 - id: V025
109   applies_to: unit_charter and process_definition
110   severity: error
111   assertion: unit_charter.process resolves to an available process definition, and that definition's
112             owner matches the charter's ordinary process accountability holder
113 - id: W001
114   applies_to: model_evaluation_record
115   severity: warn
116   assertion: expiry.date is more than 30 days ahead of the current date
117 - id: W002
118   applies_to: drift_report
119   severity: warn
120   assertion: coverage.percent meets or exceeds the declared coverage floor for the process
121 - id: W003
122   applies_to: drift_report
123   severity: warn
124   assertion: no finding remains open past its recorded due_date or review_due
125 - id: W004
126   applies_to: published_contract
127   severity: warn
128   assertion: no superseded major version remains published after observed consumer use has reached zero
```

Chapter 4

Schema Contracts

Each artefact now carries `schema_id` and `schema_version`. Those fields identify the shape to which the artefact conforms. They are deliberately independent of Field Guide version 0.3: a later guide can improve prose or add a protocol without making every company instance stale.

The schemas use JSON Schema 2020-12 expressed as YAML. The `required` list states mandatory fields. Properties not in that list are optional; each schema also carries a human-readable `x-optional` list. Types, enumerations, minimum cardinalities, and semantic-version patterns are explicit. Nested operational detail remains extensible where companies legitimately differ.

Model evaluation record schema

```

1 $schema: "https://json-schema.org/draft/2020-12/schema"
2 $id: "urn:sia:end-of-alignment:model-evaluation-record:2.0.0"
3 title: Model evaluation record
4 type: object
5 additionalProperties: false
6 required:
7   - artifact_type
8   - schema_id
9   - schema_version
10  - id
11  - version
12  - generated_at
13  - model
14  - process_definition_version
15  - authority
16  - population
17  - test
18  - provenance
19  - expiry
20 x-optional:
21   - notes
22   - maturity
23 properties:
24   artifact_type:
25     const: model_evaluation_record
26   schema_id:
27     const: "urn:sia:end-of-alignment:model-evaluation-record"
28   schema_version:
29     type: string
30     pattern: "^([0-9]+\\.([0-9]+\\.([0-9]+)$"
31   id:
32     type: string

```

```

33     minLength: 1
34   version:
35     type: string
36     pattern: "^[0-9]+\\.\\.[0-9]+\\.\\.[0-9]+$"
37   generated_at: {type: string, format: date-time}
38   model:
39     type: object
40     required: [id, version]
41     properties:
42       id: {type: string, minLength: 1}
43       version: {type: string, minLength: 1}
44     additionalProperties: true
45   process_definition_version:
46     type: string
47     minLength: 1
48   authority:
49     type: object
50     required: [use_owner, evidence_owner, permitted_decision, forced_referral_conditions]
51     properties:
52       use_owner: {type: string, minLength: 1}
53       evidence_owner: {type: string, minLength: 1}
54       permitted_decision: {type: string, minLength: 1}
55       forced_referral_conditions:
56         type: array
57         minItems: 1
58         uniqueItems: true
59         items: {type: string, minLength: 1}
60     additionalProperties: true
61   population:
62     type: object
63     required: [description, observation_period, size]
64     additionalProperties: true
65   test:
66     type: object
67     required: [reference_standard, threshold, threshold_comparison, selection_rule]
68     properties:
69       threshold_comparison:
70         enum: [at_or_above, above, at_or_below, below]
71     additionalProperties: true
72   provenance:
73     type: object
74     minProperties: 1
75     additionalProperties: true
76   expiry:
77     type: object
78     required: [date, early_stop_conditions, change_rule]
79     properties:
80       date: {type: string, format: date}
81       early_stop_conditions:
82         type: array
83         minItems: 1
84         items: {type: string, minLength: 1}
85       change_rule: {type: string, minLength: 1}
86     additionalProperties: true
87   notes:
88     type: array
89     items: {type: string}
90   maturity: {type: object, additionalProperties: true}

```

Process definition schema

```

1 $schema: "https://json-schema.org/draft/2020-12/schema"
2 $id: "urn:sia:end-of-alignment:process-definition:2.0.0"
3 title: Process definition
4 type: object
5 additionalProperties: false
6 required:
7   - artifact_type
8   - schema_id
9   - schema_version
10  - id
11  - version
12  - owners
13  - change_authority
14  - entry_event
15  - entry_subject
16  - entry_state
17  - terminal_outcomes
18  - customer_promise
19  - states
20  - invariants
21  - transitions
22 x-optional:
23   - entry_conditions
24   - missing_entry_condition_outcome
25   - failure_behaviour
26   - evidence_required
27   - evidence_completion_rule
28   - maturity
29   - published_contracts
30   - reason_code_registry
31 properties:
32   artifact_type:
33     const: process_definition
34   schema_id:
35     const: "urn:sia:end-of-alignment:process-definition"
36   schema_version:
37     type: string
38     pattern: "^[0-9]+\\.\\.[0-9]+\\.\\.[0-9]+$"
39   id: {type: string, minLength: 1}
40   version:
41     type: string
42     pattern: "^[0-9]+\\.\\.[0-9]+\\.\\.[0-9]+$"
43   owners:
44     type: object
45     required: [process, definition]
46     additionalProperties: true
47   change_authority: {type: string, minLength: 1}
48   entry_event: {type: string, minLength: 1}
49   entry_subject: {type: string, minLength: 1}
50   entry_state: {type: string, minLength: 1}
51   terminal_outcomes:
52     type: array
53     minItems: 1
54     uniqueItems: true
55     items: {type: string, minLength: 1}
56   terminal_outcome_cardinality:
57     enum: [exactly_one, one_or_more]
58   customer_promise: {type: string, minLength: 1}
59   entry_conditions:
60     type: array
61     items: {type: string, minLength: 1}
62   missing_entry_condition_outcome: {type: string, minLength: 1}
63   states:

```

```

64   type: object
65   minProperties: 2
66   additionalProperties: {type: string, minLength: 1}
67   invariants:
68     type: array
69     minItems: 1
70     items:
71       type: object
72       required: [id, name]
73       properties:
74         id: {type: string, minLength: 1}
75         name: {type: string, minLength: 1}
76         evaluation_id: {type: string, minLength: 1}
77         referral_threshold: {type: number}
78         threshold_comparison:
79           enum: [at_or_above, above, at_or_below, below]
80       allOf:
81         - if:
82             required: [evaluation_id]
83           then:
84             required: [referral_threshold, threshold_comparison]
85       additionalProperties: true
86   transitions:
87     type: array
88     minItems: 1
89     items:
90       type: object
91       required: [id, from, to, event]
92       properties:
93         id: {type: string, minLength: 1}
94         from: {type: string, minLength: 1}
95         to:
96           oneOf:
97             - {type: string, minLength: 1}
98             - type: array
99               minItems: 1
100               items: {type: string, minLength: 1}
101         event: {type: string, minLength: 1}
102         publishes_event: {type: string, minLength: 1}
103         published_contract: {type: string, minLength: 1}
104         dependentRequired:
105           publishes_event: [published_contract]
106           published_contract: [publishes_event]
107         additionalProperties: true
108   failure_behaviour: {type: object, additionalProperties: true}
109   evidence_required:
110     type: array
111     uniqueItems: true
112     items: {type: string, minLength: 1}
113   evidence_completion_rule: {type: string, minLength: 1}
114   maturity: {type: object, additionalProperties: true}
115   published_contracts:
116     type: array
117     uniqueItems: true
118     items: {type: string, minLength: 1}
119   reason_code_registry: {type: string, minLength: 1}

```

Published contract schema

1 \$schema: "https://json-schema.org/draft/2020-12/schema"

2 \$id: "urn:sia:end-of-alignment:published-contract:1.0.0"

```

3  title: Published contract
4  type: object
5  additionalProperties: false
6  required:
7    - artifact_type
8    - schema_id
9    - schema_version
10   - id
11   - version
12   - owner
13   - purpose
14   - consumers
15   - published_events
16   - required_envelope
17   - delivery
18   - failure_semantics
19   - compatibility
20   - change_authority
21  x-optional:
22    - does_not
23    - excluded_content
24    - service_promise
25    - maturity
26    - reason_code_registry
27  properties:
28    artifact_type:
29      const: published_contract
30    schema_id:
31      const: "urn:sia:end-of-alignment:published-contract"
32    schema_version:
33      type: string
34      pattern: "^[0-9]+\.[0-9]+\.[0-9]+$"
35    id: {type: string, minLength: 1}
36    version:
37      type: string
38      pattern: "^[0-9]+\.[0-9]+\.[0-9]+$"
39    owner: {type: string, minLength: 1}
40    purpose: {type: string, minLength: 1}
41    consumers:
42      type: array
43      minItems: 1
44      uniqueItems: true
45      items: {type: string, minLength: 1}
46    does_not:
47      type: array
48      items: {type: string, minLength: 1}
49    published_events:
50      type: object
51      minProperties: 1
52      additionalProperties: {type: string, minLength: 1}
53    required_envelope:
54      type: array
55      minItems: 1
56      uniqueItems: true
57      items: {type: string, minLength: 1}
58    excluded_content:
59      type: array
60      items: {type: string, minLength: 1}
61    delivery:
62      type: object
63      required: [guarantee, deduplication_key]
64      properties:
65        guarantee: {enum: [at_most_once, at_least_once, exactly_once_effect]}
66        deduplication_key: {type: string, minLength: 1}
67        additionalProperties: true
68    service_promise: {type: object, additionalProperties: true}
69    failure_semantics:
70      type: object

```

```

71     minProperties: 1
72     additionalProperties: true
73   compatibility:
74     type: object
75     required: [major_version, permitted_without_major_change, requires_new_major_version]
76     additionalProperties: true
77   change_authority:
78     type: object
79     required: [meaning_owner]
80     additionalProperties: true
81   maturity: {type: object, additionalProperties: true}
82   reason_code_registry: {type: string, minLength: 1}

```

Unit charter schema

```

1  $schema: "https://json-schema.org/draft/2020-12/schema"
2  $id: "urn:sia:end-of-alignment:unit-charter:1.1.0"
3  title: Unit charter
4  type: object
5  additionalProperties: false
6  required:
7    - artifact_type
8    - schema_id
9    - schema_version
10   - id
11   - version
12   - process
13   - purpose
14   - accountability
15   - delegated_authority
16   - binding_obligations
17   - institutional_roles
18   - reserved_independent_rights
19   - disputes
20   - review_and_revocation
21  x-optional:
22    - composition_options
23    - composition_constraints
24    - retained_duties
25    - material_model_requirements
26    - shared_control_rule
27    - reserved_right_definition_requires
28    - reserved_right_accountability
29    - employment_and_entity_boundary
30    - contract_authority
31    - exposure_authority
32    - maturity
33  properties:
34    artifact_type:
35      const: unit_charter
36    schema_id:
37      const: "urn:sia:end-of-alignment:unit-charter"
38    schema_version:
39      type: string
40      pattern: "^[0-9]+\\. [0-9]+\\. [0-9]+$"
41    id: {type: string, minLength: 1}
42    version:
43      type: string
44      pattern: "^[0-9]+\\. [0-9]+\\. [0-9]+$"
45    process: {type: string, minLength: 1}
46    purpose: {type: string, minLength: 1}

```

```

47   accountability:
48     type: object
49     minProperties: 1
50     additionalProperties: true
51   delegated_authority:
52     type: array
53     minItems: 1
54     uniqueItems: true
55     items: {type: string, minLength: 1}
56   composition_options: {type: array, items: {type: string}}
57   composition_constraints: {type: array, items: {type: string}}
58   binding_obligations:
59     type: array
60     minItems: 1
61     uniqueItems: true
62     items: {type: string, minLength: 1}
63   retained_duties: {type: array, items: {type: string}}
64   material_model_requirements: {type: array, items: {type: string}}
65   shared_control_rule: {type: string}
66   institutional_roles:
67     type: object
68     minProperties: 1
69     additionalProperties: true
70   reserved_independent_rights:
71     type: array
72     minItems: 1
73     items:
74       type: object
75       required:
76         - decision
77         - holder
78         - prohibited_holder
79         - trigger
80         - evidence
81         - decision_clock
82         - escalation
83         - return_transition
84       properties:
85         decision: {type: string, minLength: 1}
86         holder: {type: string, minLength: 1}
87         prohibited_holder: {type: string, minLength: 1}
88         trigger: {type: string, minLength: 1}
89         evidence: {type: string, minLength: 1}
90         decision_clock: {type: string, minLength: 1}
91         escalation: {type: string, minLength: 1}
92         return_transition: {type: string, minLength: 1}
93       additionalProperties: true
94   reserved_right_definition_requires: {type: array, items: {type: string}}
95   reserved_right_accountability: {type: object, additionalProperties: true}
96   employment_and_entity_boundary: {type: object, additionalProperties: true}
97   contract_authority: {type: object, additionalProperties: true}
98   exposure_authority: {type: object, additionalProperties: true}
99   disputes:
100     type: object
101     required: [challenge_requires, resolution_days]
102     additionalProperties: true
103   review_and_revocation:
104     type: object
105     required: [first_review_days, evidence, amend_or_revoke_when]
106     additionalProperties: true
107   maturity: {type: object, additionalProperties: true}

```

Drift report schema

```

1 $schema: "https://json-schema.org/draft/2020-12/schema"
2 $id: "urn:sia:end-of-alignment:drift-report:1.1.0"
3 title: Drift report
4 type: object
5 additionalProperties: false
6 required:
7   - artifact_type
8   - schema_id
9   - schema_version
10  - id
11  - version
12  - generated_at
13  - observation_window
14  - scope
15  - human_reviewer
16  - status
17  - coverage
18  - findings
19  - limitations
20 x-optional:
21   - autonomous_compliance_decision
22   - maturity
23 properties:
24   artifact_type:
25     const: drift_report
26   schema_id:
27     const: "urn:sia:end-of-alignment:drift-report"
28   schema_version:
29     type: string
30     pattern: "^[0-9]+\.[0-9]+\.[0-9]+$"
31   id: {type: string, minLength: 1}
32   version:
33     type: string
34     pattern: "^[0-9]+\.[0-9]+\.[0-9]+$"
35   generated_at: {type: string, format: date-time}
36   observation_window:
37     type: object
38     required: [from, through]
39     properties:
40       from: {type: string, format: date-time}
41       through: {type: string, format: date-time}
42     additionalProperties: false
43   scope:
44     type: object
45     required: [process_definition_version, source_commit, deployment]
46     additionalProperties: true
47   human_reviewer: {type: string, minLength: 1}
48   status:
49     enum: [draft, actionable_after_review, closed, superseded]
50   autonomous_compliance_decision: {type: boolean}
51   maturity: {type: object, additionalProperties: true}
52   coverage:
53     type: object
54     required: [matched_cycles, excluded_cycles, limitation]
55     additionalProperties: true
56   findings:
57     type: array
58     minItems: 1
59     items:
60       type: object
61       required: [id, title, severity, declared_claim, conclusion, provenance, human_disposition]
62       anyOf:
63         - required: [running_system]
```

```

64     - required: [production_sample]
65     - required: [evidence_gap]
66   properties:
67     id: {type: string, minLength: 1}
68     title: {type: string, minLength: 1}
69     severity: {enum: [low, medium, high, critical]}
70     declared_claim: {type: object, minProperties: 1}
71     running_system: {type: object, minProperties: 1}
72     production_sample: {type: object, minProperties: 1}
73     evidence_gap: {type: object, minProperties: 1}
74     conclusion: {type: object, minProperties: 1}
75     provenance: {type: object, minProperties: 1}
76     human_disposition: {type: object, minProperties: 1}
77     additionalProperties: true
78   limitations:
79     type: object
80     required: [compared, requires_human_and_institutional_judgement, report_claim]
81     additionalProperties: true

```

Evidence envelope schema

```

1  $schema: "https://json-schema.org/draft/2020-12/schema"
2  $id: "urn:sia:end-of-alignment:evidence-envelope:1.0.0"
3  title: Evidence envelope
4  type: object
5  additionalProperties: false
6  required:
7    - artifact_type
8    - schema_id
9    - schema_version
10   - id
11   - version
12   - purpose
13   - required_join_keys
14   - required_on_every_transition
15  x-optional:
16    - key_bindings
17    - event_stream
18    - presence_rules
19    - emission_points
20    - drift_join_recipes
21    - minimum_quality_checks
22    - privacy_boundary
23  properties:
24    artifact_type: {const: evidence_envelope}
25    schema_id: {const: "urn:sia:end-of-alignment:evidence-envelope"}
26    schema_version:
27      type: string
28      pattern: "^[0-9]+\.[0-9]+\.[0-9]+$"
29    id: {type: string, minLength: 1}
30    version:
31      type: string
32      pattern: "^[0-9]+\.[0-9]+\.[0-9]+$"
33    purpose: {type: string, minLength: 1}
34    required_join_keys:
35      type: array
36      minItems: 5
37      uniqueItems: true
38      items: {type: string, minLength: 1}
39    required_on_every_transition:
40      type: object

```

```

41     required: [event_identity, process_identity, decision_identity, running_identity, model_identity]
42     additionalProperties:
43       type: array
44       minItems: 1
45       uniqueItems: true
46       items: {type: string, minLength: 1}
47   key_bindings:
48     type: object
49     minProperties: 1
50     additionalProperties: {type: string, minLength: 1}
51   event_stream: {type: string, minLength: 1}
52   presence_rules:
53     type: array
54     items: {type: string, minLength: 1}
55   emission_points:
56     type: array
57     items: {type: object, minProperties: 1}
58   drift_join_recipes:
59     type: array
60     items: {type: object, minProperties: 1}
61   minimum_quality_checks:
62     type: array
63     items: {type: string, minLength: 1}
64   privacy_boundary: {type: string, minLength: 1}

```

Artefact change mechanics schema

```

1  $schema: "https://json-schema.org/draft/2020-12/schema"
2  $id: "urn:sia:end-of-alignment:artefact-change-mechanics:1.0.0"
3  title: Artefact change mechanics
4  type: object
5  additionalProperties: false
6  required:
7    - artifact_type
8    - schema_id
9    - schema_version
10   - id
11   - version
12   - identity_rule
13   - common_rules
14   - artefact_types
15   - schema_change
16  properties:
17    artifact_type: {const: artefact_change_mechanics}
18    schema_id: {const: "urn:sia:end-of-alignment:artefact-change-mechanics"}
19    schema_version:
20      type: string
21      pattern: "^[0-9]+\.[0-9]+\.[0-9]+$"
22    id: {type: string, minLength: 1}
23    version:
24      type: string
25      pattern: "^[0-9]+\.[0-9]+\.[0-9]+$"
26    identity_rule: {type: string, minLength: 1}
27    common_rules:
28      type: array
29      minItems: 1
30      items: {type: string, minLength: 1}
31    artefact_types:
32      type: object
33      minProperties: 5
34    additionalProperties:

```

```

35     type: object
36     required: [authority_decision]
37     additionalProperties: true
38   schema_change:
39     type: object
40     required: [new_major_version, new_minor_version, new_patch_version]
41     additionalProperties: false
42     properties:
43       new_major_version: {type: string, minLength: 1}
44       new_minor_version: {type: string, minLength: 1}
45       new_patch_version: {type: string, minLength: 1}

```

Validation rule-set schema

```

1  $schema: "https://json-schema.org/draft/2020-12/schema"
2  $id: "urn:sia:end-of-alignment:validation-rule-set:1.0.0"
3  title: Validation rule set
4  type: object
5  additionalProperties: false
6  required:
7    - artifact_type
8    - schema_id
9    - schema_version
10   - id
11   - version
12   - rule_set_id
13   - rule_set_version
14   - rules
15  properties:
16    artifact_type: {const: validation_rule_set}
17    schema_id: {const: "urn:sia:end-of-alignment:validation-rule-set"}
18    schema_version:
19      type: string
20      pattern: "^[0-9]+\\.[0-9]+\\.[0-9]+$"
21    id: {type: string, minLength: 1}
22    version:
23      type: string
24      pattern: "^[0-9]+\\.[0-9]+\\.[0-9]+$"
25    rule_set_id: {type: string, minLength: 1}
26    rule_set_version:
27      type: string
28      pattern: "^[0-9]+\\.[0-9]+\\.[0-9]+$"
29    rules:
30      type: array
31      minItems: 1
32      items:
33        type: object
34        additionalProperties: false
35        required: [id, applies_to, severity, assertion]
36        properties:
37          id: {type: string, pattern: "^[VW][0-9]{3}$"}
38          applies_to: {type: string, minLength: 1}
39          severity: {enum: [error, warn]}
40          assertion: {type: string, minLength: 1}

```

Chapter 5

Change Mechanics

An issued artefact remains immutable. A correction or changed meaning creates a new artefact version and preserves the prior one. The record below distinguishes major, minor, and patch changes for all governed artefact types and states when a new authority decision is required.

Schema changes follow their own version sequence. The guide may reach 0.3 while every schema remains at 1.0.0; no conforming instance changes merely because the explanation around it improved.

For a drift report, a new observation window or comparison scope creates a new report id and resets version to 1.0.0. Added findings and corrections within the original window change version and preserve the original id. Drift reports are point-in-time records, but the key is named `new_major_version` to keep the mechanics consistent across artefact types.

```

1 artifact_type: artefact_change_mechanics
2 schema_id: "urn:sia:end-of-alignment:artefact-change-mechanics"
3 schema_version: "1.0.0"
4 id: artefact-change-mechanics
5 version: "1.0.0"
6 identity_rule: >-
7   schema_version identifies the shape an artefact conforms to and changes only
8   when that schema changes. The Technical Field Guide version may change without
9   touching conforming artefacts.
10 common_rules:
11   - an issued artefact is immutable; correction creates a new version
12   - every new version records the prior version, reason, owner, and effective time
13   - a semantic change requires the authority that owns the affected meaning
14   - production claims retain the exact artefact version that governed the work
15 artefact_types:
16   process_definition:
17     new_major_version:
18       - change the customer promise or terminal outcome meaning
19       - remove or redefine a state, transition, invariant, or evidence identity
20       - change which process or owner carries the outcome
21     new_minor_version:
22       - add a backward-compatible state, transition, invariant, or evidence field
23       - add a governed reason code without changing existing meaning
24     new_patch_version:
25       - clarify prose or correct metadata without changing behaviour
26     authority_decision: required for every behavioural or semantic change
27 model_evaluation_record:
28   new_major_version:
29     - change permitted decision, model, population, metric, threshold, or forced referral
30     - change a revocation or expiry condition
31   new_minor_version:
```

```

32     - add a predeclared test or evidence source without changing permission
33   new_patch_version:
34     - correct non-semantic metadata with the correction recorded
35   authority_decision: required before changed permission or acceptance criteria take effect
36 published_contract:
37   new_major_version:
38     - remove a required field
39     - change a field or event meaning
40     - weaken a failure invariant or delivery identity
41   new_minor_version:
42     - add an optional field or backward-compatible event
43   new_patch_version:
44     - clarify documentation without changing consumer behaviour
45   authority_decision: provider and affected consumer owners approve semantic change
46 unit_charter:
47   new_major_version:
48     - allocate or revoke a decision right
49     - change accountability, a reserved right, or the process boundary
50   new_minor_version:
51     - add a constraint, threshold, evidence duty, or review route inside existing rights
52   new_patch_version:
53     - correct a reference or clarify wording without changing authority
54   authority_decision: holder of the amended institutional or delegated right approves
55 drift_report:
56   new_major_version:
57     - start a new observation window or comparison scope; create a new report id and reset version to
      1.0.0
58   new_minor_version:
59     - add a finding based on evidence available in the original observation window
60   new_patch_version:
61     - correct a citation, calculation, or disposition while preserving the original record
62   authority_decision: findings do not change governed truth; any resulting change uses the authority of
      the affected artefact
63 evidence_envelope:
64   new_major_version:
65     - remove a required identity or change its meaning
66   new_minor_version:
67     - add an optional identity or compatible binding
68   new_patch_version:
69     - clarify a description without changing emitted evidence
70   authority_decision: owners of evidence production and consumption approve semantic change
71 artefact_change_mechanics:
72   new_major_version:
73     - change which version increment a governed change requires
74   new_minor_version:
75     - add mechanics for another governed artefact type
76   new_patch_version:
77     - clarify a rule without changing its effect
78   authority_decision: guide maintainer approves the governed protocol change
79 validation_rule_set:
80   new_major_version:
81     - change an existing assertion's meaning or remove a rule
82   new_minor_version:
83     - add a compatible rule or allowed severity
84   new_patch_version:
85     - clarify wording without changing pass or fail behaviour
86   authority_decision: rule-set owner approves every assertion change
87 schema_change:
88   new_major_version: remove a required field or change an existing field meaning
89   new_minor_version: add an optional field or compatible allowed value
90   new_patch_version: clarify description or constraint without changing accepted instances

```

Chapter 6

Complete Model Evaluation Record

```

1 artifact_type: model_evaluation_record
2 schema_id: "urn:sia:end-of-alignment:model-evaluation-record"
3 schema_version: "2.0.0"
4 id: eval-renewal-amendment-008
5 version: "1.0.0"
6 generated_at: "2026-06-15T09:00:00Z"
7 model:
8   id: amendment-materiality
9   version: "3.2.1"
10  process_definition_version: "2.3.0"
11  authority:
12    use_owner: Leila Morgan
13    evidence_owner: decisioning steward
14    independent_validation_id: MV-2026-117
15    permitted_decision: route an amendment to referred
16    forced_referral_conditions:
17      - protected-risk marker is present
18      - unsupported term is present
19      - identity discrepancy is unresolved
20      - human stop decision is recorded
21    retained_fields:
22      - score
23      - model_version
24      - threshold
25      - reason
26      - override
27  population:
28    description: adjudicated amendment requests from in-scope EU retail policies
29    observation_period:
30      from: "2026-01-01"
31      through: "2026-05-31"
32    size: 18000
33    exclusions:
34      - cases already requiring deterministic referral
35  test:
36    reference_standard: amendment-referral:5.0
37    required_specialist_referral: 4000
38    threshold: 0.65
39    threshold_comparison: at_or_above
40    identified_for_referral: 3844
41    recall:
42      percent: 96.1
43      confidence_level_percent: 95
44      confidence_interval_percent: [95.5, 96.7]
45      approved_minimum_lower_bound_percent: 95
46    false_referral_rate:
47      percent: 9.4
48      confidence_interval_percent: [8.9, 9.9]
49      approved_maximum_percent: 12
50    selection_rule: >-
51      Highest tested threshold whose lower recall bound exceeded the approved

```

```
52     minimum while false referral remained below the approved maximum.
53 provenance:
54   dataset:
55     id: renewal-amendments-2026-05
56     digest: sha256:4c91...7e20
57     protocol: amendment-referral:5.0
58     features: renewal-features:4.2
59     model_digest: sha256:91bd...aa08
60     process_definition_version: "2.3.0"
61     validation_id: MV-2026-117
62 expiry:
63   date: "2026-09-30"
64   early_stop_conditions:
65     - production population cannot be matched
66     - lower recall bound falls below 95 percent
67     - protected harm appears
68     - a bound component changes materially
69   stopped_case_route: owned referral path
70   change_rule: >-
71     A changed threshold or revocation condition requires a new evaluation and
72     authority decision.
```

Chapter 7

Complete Process Definition

```

1 artifact_type: process_definition
2 schema_id: "urn:sia:end-of-alignment:process-definition"
3 schema_version: "2.0.0"
4 id: policy_renewal
5 version: "2.3.0"
6 owners:
7   process: Leila Morgan
8   definition: policy renewal unit domain steward
9 change_authority: >-
10  A change to a state, transition, invariant, or reason code requires Leila
11  Morgan's approval and a new process-definition version.
12 entry_event: renewal_due_45_days
13 entry_subject: active policy
14 entry_state: due
15 terminal_outcomes:
16   - renewed
17   - declined
18   - lapsed
19   - referred
20 terminal_outcome_cardinality: exactly_one
21 customer_promise: >-
22   An eligible customer receives terms derived from the current policy and
23   approved underwriting rules with enough time to act before expiry.
24   Acceptance creates a renewed policy only after required controls and payment
25   conditions complete. An amendment outside delegated authority enters a
26   visible referral path.
27 published_contracts:
28   - renewals.renewal_outcome.v2
29 entry_conditions:
30   - policy identity is resolvable
31   - current policy is active
32   - expiry timestamp is known
33   - governing legal entity is known
34   - customer communication route has a declared status
35   - source policy version is immutable for the renewal cycle
36 missing_entry_condition_outcome: referred
37 states:
38   due: renewal window opened
39   eligibility_checked: eligibility decision and rule-set version recorded
40   terms_requested: waiting for priced terms from underwriting
41   offer_prepared: approved offer not yet exposed
42   offer_issued: exact terms made available to the customer
43   amendment_assessment: requested change under evaluation
44   accepted: customer intent recorded but policy not yet renewed
45   payment_confirming: waiting for required collection evidence
46   renewed: terminal
47   declined: terminal
48   lapsed: terminal
49   referred: terminal
50 invariants:
51   - id: I01
52     name: identity
53     rule: >-
54       Every state change carries policy_id, process_cycle_id, prior_event_id,

```

```

55     process_definition_version, decision_record_id, deployment_digest, and
56     correlation_id.
57     No operator, service, or agent may replace a missing identity with a
58     description.
59 - id: I02
60   name: terms
61   rule: >-
62     offer_prepared requires source_policy_version,
63     underwriting_terms_version, price, tax_and_fee_basis, covered_period,
64     expiry_time, and legal_entity. The rendered document and machine record
65     name the same terms version.
66 - id: I03
67   name: exposure
68   rule: >-
69     offer_issued requires controlled customer exposure. Document generation,
70     queue placement, or a successful provider response does not establish
71     exposure. Record channel, audience, timestamp, and communication evidence.
72 - id: I04
73   name: amendment_authority
74   evaluation_id: eval-renewal-amendment-008
75   model: amendment-materiality:3.2.1
76   referral_threshold: 0.65
77   threshold_comparison: at_or_above
78   forced_referral_conditions:
79     - materiality_score is at or above 0.65
80     - protected-risk marker is present
81     - unsupported term is present
82     - identity discrepancy is unresolved
83     - human stop decision is recorded
84   permitted_return:
85     state: offer_prepared
86     conditions:
87       - materiality_score is below 0.65
88       - renewal-eligibility:7.4 records an explicit permitted reason
89 - id: I05
90   name: completion
91   renewed_requires:
92     - accepted terms
93     - satisfied payment conditions
94     - completed mandatory controls
95     - effective policy identity
96   rule: >-
97     Publish exactly one terminal outcome for each cycle. Replayed commands may
98     reproduce the same outcome event but may not create a second renewal.
99 transitions:
100 - id: T01
101   from: due
102   to: eligibility_checked
103   event: eligibility_evaluation_completed
104   records:
105     - result
106     - rule_set_version
107     - excluded_reasons
108     - evidence_timestamp
109   exception: ineligible, ambiguous, or unresolvable cases enter referred with a reason code
110 - id: T02
111   from: eligibility_checked
112   to: terms_requested
113   event: eligible
114   action: call underwriting.renewal_terms.v3 with immutable source policy and renewal context
115   retry_rule: preserve request identity
116 - id: T03
117   from: terms_requested
118   to: offer_prepared
119   event: terms_received
120   conditions:
121     - satisfies I02
122     - matches request identity

```

```

123     rejection_rule: retain and reject superseded or mismatched responses
124 - id: T04
125   from: offer_prepared
126   to: offer_issued
127   event: customer_exposure_verified
128   records:
129     - offer_artifact
130     - channel
131     - audience
132     - communication_evidence
133   publishes_event: offer_issued
134   published_contract: renewals.renewal_outcome.v2
135 - id: T05
136   from: offer_issued
137   to: amendment_assessment
138   event: customer_requests_amendment
139   records:
140     - changed_fields
141     - authentication
142     - offer_version
143     - model_id
144     - evaluation_id
145     - score
146     - threshold
147     - population_check
148     - override
149   superseded_offer_result: recoverable_rejection
150 - id: T06
151   from: amendment_assessment
152   to: offer_prepared
153   event: amendment_permitted
154   conditions:
155     - score is below the I04 threshold
156     - renewal-eligibility:7.4 records a permitted reason
157   version_rule: new terms receive a new version and preserve the prior offer
158 - id: T07
159   from: amendment_assessment
160   to: referred
161   event: amendment_outside_authority
162   records:
163     - rule
164     - threshold
165     - protected_condition
166   service_rule: referral has an owner and a service clock
167 - id: T08
168   from: offer_issued
169   to: accepted
170   event: customer_accepts
171   records:
172     - exact_offer
173     - authentication_evidence
174   superseded_or_expired_offer_result: return current terms with a rejection
175 - id: T09
176   from: accepted
177   to:
178     - payment_confirming
179     - renewed
180   event: acceptance_validated
181   collection_contract: payments.collection_confirmation.v2
182   no_collection_rule: proceed to T10 with reason recorded
183 - id: T10
184   from: payment_confirming
185   to: renewed
186   event: collection_condition_satisfied
187   actions:
188     - create effective policy identity
189     - complete mandatory controls
190     - publish renewal_confirmed

```

```

191     completion_rule: provider acknowledgement alone is insufficient
192 - id: T11
193   from: offer_issued
194   to: declined
195   event: customer_declines
196   records:
197     - offer_version
198     - customer_evidence
199     - supplied_reason
200   publishes_event: renewal_declined
201   published_contract: renewals.renewal_outcome.v2
202 - id: T12
203   from: offer_issued
204   to: lapsed
205   event: renewal_deadline_passed
206   requires:
207     - declared deadline
208     - reminder evidence
209     - absence of an accepted command
210   publishes_event: policy_lapsed
211   published_contract: renewals.renewal_outcome.v2
212 failure_behaviour:
213   underwriting_unavailable:
214     at_30_days_before_expiry:
215       - retry with stable request identity
216       - open an owned operational case
217     at_21_days_before_expiry: escalate to Leila Morgan
218   payment_timeout: remain in payment_confirming
219   provider_acknowledgement: never treat as completion
220   duplicate_commands: answer idempotently
221   exposure_stop_triggers:
222     - material complaint
223     - control failure
224     - unexplained increase in referrals
225   recovery_rule: existing customers remain on a declared recovery path
226 evidence_required:
227   - immutable event for every transition
228   - source policy version
229   - rule version
230   - model version
231   - evaluation version
232   - score and threshold where used
233   - terms response
234   - decision record
235   - offer artifact hash
236   - customer exposure record
237   - acceptance or decline evidence
238   - payment evidence where applicable
239   - terminal policy identity
240   - all human overrides
241 evidence_completion_rule: >-
242   The process is incomplete if an outcome exists without the evidence needed to
243   reconstruct how it became true.
244 reason_code_registry: renewal-reasons:1.0

```

Chapter 8

Complete Published Contract

```

1 artifact_type: published_contract
2 schema_id: "urn:sia:end-of-alignment:published-contract"
3 schema_version: "1.0.0"
4 id: renewals.renewal_outcome.v2
5 version: "2.1.0"
6 owner: policy renewal unit
7 purpose: report what happened in a renewal cycle
8 consumers:
9   - policy servicing
10  - billing and collections
11  - customer communications
12  - authorised analytical consumers
13 does_not:
14   - expose the unit's internal state machine
15   - permit a consumer to reinterpret a referral as a decline
16 published_events:
17   offer_issued: exact offer exposed to the declared customer audience
18   renewal_confirmed: new policy identity exists and every completion invariant was satisfied
19   renewal_referred: normal path stopped under a named authority or control reason and has an owner
20   renewal_declined: explicit customer decision recorded
21   policy_lapsed: deadline passed after required notices and without a prior accepted command
22 required_envelope:
23   - event_id
24   - event_type
25   - occurred_at
26   - policy_id
27   - process_cycle_id
28   - renewal_cycle_id
29   - correlation_id
30   - process_definition_version
31   - decision_record_id
32   - terms_version
33   - outcome
34   - effective_at_when_applicable
35   - controlled_reason_code
36 excluded_content:
37   - personal communication content
38   - unrestricted free text
39 delivery:
40   guarantee: at_least_once
41   ordering_scope: renewal_cycle_id
42   cross_customer_ordering: false
43   cross_policy_ordering: false
44   deduplication_key: event_id
45   replay_identity_rule: preserve original event_id and occurred_at
46   online_replay_days: 90
47   archive_retention: institutional retention period
48 service_promise:
49   event: terminal event
50   maximum_publication_delay_minutes: 5
51   percentile: 99
52   rolling_window_days: 7
53 published_evidence:
54   - availability

```

```

55     - delay
56     - replay
57     - rejection
58     - schema validation
59 breach_rule: >-
60     Missing the service objective creates a contract incident and does not
61     change the semantic meaning of an event that eventually arrives.
62 failure_semantics:
63     missing_required_field:
64         action: reject before publication
65         evidence: provider contract-error stream
66     consumer_outage:
67         action: retain and replay event
68         renewal_rollback: false
69     uncertain_terminal_publication:
70         reconcile_against: immutable process event
71         action: reissue the same event_id
72         prohibited_action: invent a second outcome
73 compatibility:
74     major_version: 2
75     permitted_without_major_change:
76         - additive optional fields
77         - new reason codes inside the governed registry
78     requires_new_major_version:
79         - remove a field
80         - change a field's meaning
81         - weaken an invariant
82         - change the interpretation of an event
83     ordinary_major_change_notice_days: 30
84     migration_rules:
85         - publish both versions during a declared migration
86         - identify every remaining consumer
87         - retire the old version only after observed use reaches zero
88 change_authority:
89     meaning_owner: policy renewal unit
90     adaptation_owner: each consuming unit
91     proposal_requires:
92         - customer or operating reason
93         - affected consumers
94         - migration evidence
95         - expiry of the old version
96         - rollback path
97     urgency_rule: >-
98         Security or legal urgency may shorten the notice period under the charter
99         but does not permit an undocumented semantic change.
100 reason_code_registry: renewal-reasons:1.0

```

Chapter 9

Complete Unit Charter

```

1 artifact_type: unit_charter
2 schema_id: "urn:sia:end-of-alignment:unit-charter"
3 schema_version: "1.1.0"
4 id: policy_renewal_unit
5 version: "1.4.0"
6 process: policy_renewal
7 purpose: >-
8   Join accountability for the renewal promise to the means of performance
9   while preserving institutional duties and independent challenge.
10 accountability:
11   institutional:
12     holder: Sonia Patel
13     role: retail-policy director and accountable SMF
14   ordinary_process:
15     holder: Leila Morgan
16   delegated_authority:
17     - process meaning
18     - operating procedure
19     - source and service design
20     - operational data
21     - published contracts
22     - prioritisation
23     - deployment schedule
24     - staged exposure
25     - first-line controls
26     - supplier use inside the process
27     - spending within the quarterly envelope
28 composition_options:
29   - employees
30   - software
31   - agents
32   - suppliers
33   - partners
34 composition_constraints:
35   - law
36   - employment policy
37   - delegated capital
38   - charter constraints
39 binding_obligations:
40   - insurance
41   - consumer
42   - conduct
43   - privacy
44   - records
45   - accessibility
46   - financial crime
47   - model risk
48   - operational resilience
49   - employment
50 retained_duties:
51   - accountable senior manager duties
52   - governing body duties
53 material_model_requirements:
54   - inventory

```

```

55 - development evidence
56 - independent validation
57 - monitoring
58 - exit provisions
59 shared_control_rule: binds only when law or declared institutional design requires that exact mechanism
60 institutional_roles:
61   legal_and_compliance:
62     rights:
63       - interpret obligations
64       - require an outcome
65       - stop an unlawful act
66 specialist_risk:
67   rights:
68     - set classification and thresholds
69     - aggregate exposure
70     - challenge design
71     - require remediation
72     - restrict activity at a declared threshold
73 security:
74   rights:
75     - set baseline controls
76     - test evidence
77 finance:
78   rights:
79     - receive unconditional cost visibility
80     - receive unconditional allocation visibility
81 employment_operations:
82   rights:
83     - execute lawful employment services
84 independent_audit:
85   rights:
86     - test the unit
87     - test institutional functions
88 ordinary_authority_excluded:
89   - process design
90   - backlog
91   - architecture
92   - tooling
93   - release
94 reserved_independent_rights:
95   - decision: validate a material model
96     holder: independent model validation
97     prohibited_holder: unit that uses the model
98     trigger: material model use or material model change
99     evidence: evaluation record and independent validation record
100    decision_clock: before model exposure
101    escalation: Sonia Patel as accountable SMF
102    return_transition: validated use returns to controlled exposure
103 - decision: decide an appeal against the original conduct decision
104   holder: independent conduct appeal function
105   prohibited_holder: unit that made the original decision
106   trigger: customer submits an eligible appeal
107   evidence: original decision record, appeal evidence, and customer account
108   decision_clock: governed appeal service level
109   escalation: accountable conduct officer
110   return_transition: appeal outcome returns to the owned customer process
111 - decision: release a payment instruction where dual control applies
112   holder: authorised independent payment checker
113   prohibited_holder: holder that created the instruction
114   trigger: instruction reaches the declared dual-control threshold
115   evidence: instruction, authority, beneficiary, amount, and source decision
116   decision_clock: before instruction release
117   escalation: payments control owner
118   return_transition: released or rejected instruction returns to the renewal process
119 - decision: certify control effectiveness for independent assurance
120   holder: independent assurance
121   prohibited_holder: unit whose controls are being certified
122   trigger: scheduled assurance or a declared control failure

```

```

123     evidence: control design, operating sample, exceptions, and remediation record
124     decision_clock: stated in the assurance plan
125     escalation: governing body or delegated audit committee
126     return_transition: conclusion and required actions return to the charter review
127 reserved_right_definition_requires:
128     - holder
129     - entry threshold
130     - evidence
131     - decision clock
132     - escalation
133     - return transition
134 reserved_right_accountability:
135     unit: complete renewal outcome and elapsed time
136     independent_holder: protected decision
137     general_approval_right_created: false
138     employment_and_entity_boundary:
139     must_name:
140     - each employing legal entity
141     - each risk-carrying legal entity
142     retained_local_rights:
143     - employment authority
144     - consultation
145     - collective rights
146     - worker protections
147     inter_company_capability_requires:
148     - owner
149     - price
150     - allocation basis
151     - evidence of use
152     - service contract
153     unit_right: decide what capability it requires
154     prohibitions:
155     - instruct an entity to act unlawfully
156     - hide an unpriced dependency inside a central pool
157     contract_authority:
158     internal_change_without_consumer_approval: true
159     condition: published contracts remain satisfied
160     semantic_change_rule: follow compatibility and migration rules in contract version 2.1.0
161     adjacent_unit_prohibitions:
162     - direct database access as a substitute for a contract
163     - standing approval rights as a substitute for a contract
164     exposure_authority:
165     permitted_when_recorded:
166     - source
167     - deployable
168     - configuration
169     - audience
170     - observation window
171     - rollback path
172     - guardrails
173     automatic_pause_conditions:
174     - legal threshold crossed
175     - safety threshold crossed
176     - required control evidence disappears
177     - complaint guardrail breaches its declared limit
178     - harm guardrail breaches its declared limit
179     - material model operates outside validation
180     - production identity cannot be established
181     earlier_stop_holder: Leila Morgan
182     restart_rule: evidence against the recorded condition, not a new committee
183     disputes:
184     challenge_requires:
185     - exact charter clause
186     - contract
187     - evidence
188     - threshold
189     - requested remedy
190     resolution_days: 5

```

```
191 unresolved_ordinary_boundary_decision: accountable executive decides once
192 authority_during_first_six_months: remains in force
193 hold_conditions:
194   - law
195   - safety
196   - conduct
197   - declared risk threshold
198 exception_requires:
199   - owner
200   - reason
201   - expiry
202   - review date
203 review_and_revocation:
204   first_review_days: 90
205   later_frequency: quarterly
206 evidence:
207   - customer outcomes
208   - decision time
209   - control performance
210   - contract incidents
211   - cost
212   - coordination demand
213   - governance interventions
214   - authority exceptions
215 amend_or_revoke_when:
216   - unit cannot contain risk
217   - contract and governance overhead exceed coordination removed
218   - local optimisation harms a material cross-process outcome
219   - capability authority cannot be exercised lawfully
220 identity_rule: unit name survives only while authority and evidence survive
```

Chapter 10

Complete Drift Report

```

1 artifact_type: drift_report
2 schema_id: "urn:sia:end-of-alignment:drift-report"
3 schema_version: "1.1.0"
4 id: drift-2026-08-17-renewals-0041
5 version: "1.0.0"
6 generated_at: "2026-08-17T06:15:00Z"
7 observation_window:
8   from: "2026-08-10T00:00:00Z"
9   through: "2026-08-16T23:59:59Z"
10 scope:
11   process_definition_version: "2.3.0"
12   evaluation_id: eval-renewal-amendment-008
13   contract_version: "2.1.0"
14   source_commit: 9f4c2a1
15   deployment: renewals-api:2026.08.15.3
16   rule_set: renewal-eligibility:7.4
17   exposure_configuration: renewal-amendments:cohort-eu-05
18   human_reviewer: renewal domain steward
19   status: actionable_after_review
20   autonomous_compliance_decision: false
21   coverage:
22     matched_cycles: 12418
23     excluded_cycles: 406
24     percent: 96.8
25     floor_percent: 95.0
26     exclusion_reason: source policy version unavailable for manually reconstructed legacy cycles
27     limitation: excluded population remains an explicit evidence limitation
28 findings:
29   - id: F-041
30     title: amendment threshold mismatch
31     severity: high
32     declared_claim:
33       sources:
34         - evaluation eval-renewal-amendment-008
35         - invariant I04
36         - transition T07
37       rule: materiality_score at or above 0.65 enters referred
38     running_system:
39       rule: referral begins at materiality_score of 0.72
40     observed_consequence:
41       amended_renewals: 1842
42       score_range: [0.65, 0.7199]
43       returned_to_offer_prepared: 218
44       later_renewed: 173
45     conclusion:
46       established:
47         - unapproved decision behaviour
48         - affected population
49       not_established:
50         - customer harm
51     provenance:
52       claim_sources:
53         - id: eval-renewal-amendment-008
54           digest: sha256:6f81...be09

```

```

55     - id: process/policy-renewal-v2.3.0.yaml
56     locations:
57       - invariant I04
58       - transition T07
59     digest: sha256:6b8d...91ce
60   implementation_source:
61     path: services/renewals/amendment-authority.ts
62     lines: 118-134
63     commit: 9f4c2a1
64   deployment_source:
65     manifest: renewals-api:2026.08.15.3
66     digest: sha256:2a71...44bf
67   configuration_source:
68     id: renewal-eligibility:7.4
69     retrieved_at: "2026-08-17T05:40:12Z"
70   observation_source:
71     dataset: prod.renewal_transition_events
72     query: RQ-8841
73     result_digest: sha256:93ad...0fe2
74   join_keys:
75     - process_cycle_id
76     - renewal_cycle_id
77     - decision_record_id
78     - deployment_digest
79     - model_digest
80     - evaluation_id
81   human_disposition:
82     status: confirmed_divergence
83     interpretation: implementation is wrong relative to the approved definition
84     owner: Leila Morgan
85     immediate_actions:
86       - stop amendment exposure for scores at or above 0.65
87       - restore the declared threshold
88       - preserve the 218-cycle cohort
89       - review control consequences
90       - review customer consequences
91     due_date: "2026-08-19"
92     closure_requires:
93       - reviewed source change
94       - deployment identity
95       - back-test against affected cohort
96       - controlled re-exposure
97       - seven days of production evidence
98     authority_rule: changing I04 to match code is a new authority decision, not remediation
99   - id: F-044
100     title: model performance drift
101     severity: high
102     declared_claim:
103       source: evaluation eval-renewal-amendment-008
104       rule: lower 95 percent confidence bound for referral recall remains at or above 95 percent
105     production_sample:
106       adjudication: human
107       required_referral: 120
108       model_referred: 104
109       observed_recall_percent: 86.7
110       confidence_level_percent: 95
111       confidence_interval_percent: [79.4, 91.6]
112       passed_below_threshold_but_later_required_referral: 16
113     conclusion:
114       established:
115         - performance outside the approved condition
116       not_established:
117         - customer harm
118         - cause of performance movement
119     provenance:
120       evaluation_source:
121         id: eval-renewal-amendment-008
122         digest: sha256:6f81...be09

```

```

123     model_source:
124         id: amendment-materiality:3.2.1
125         digest: sha256:91bd...aa08
126         feature_definition: renewal-features:4.2
127     production_cohort:
128         dataset: prod.amendment_assessments
129         query: RQ-8853
130         result_digest: sha256:8bb2...1cd4
131     independent_adjudication:
132         sample: ADJ-2026-08-17-04
133         protocol: amendment-referral:5.0
134         reviewer_agreement_record: AGR-04
135     join_keys:
136         - process_cycle_id
137         - renewal_cycle_id
138         - decision_record_id
139         - deployment_digest
140         - model_digest
141         - evaluation_id
142     human_disposition:
143         status: confirmed_revocation_condition_breach
144         owner: Leila Morgan
145         oversight: Sonia Patel as accountable SMF
146         review_due: "2026-08-19"
147     actions:
148         - route all model-scored amendments to the owned human referral path
149         - preserve the 16 affected cases
150         - investigate population change
151         - investigate feature change
152         - investigate model change
153     re_exposure_requires:
154         - new evaluation against a declared population
155         - independent validation
156         - controlled production evidence
157     authority_rule: lowering required recall is a new authority decision, not closure
158     limitations:
159         compared:
160             - declared process claims
161             - evaluation claims
162             - contract claims
163             - source
164             - configuration
165             - deployment
166             - observed events
167     requires_human_and_institutional_judgement:
168         - commercial optimality
169         - cause of model movement
170         - harm in the excluded legacy population
171     report_claim: disagreements and evidence boundaries are exact

```

Chapter 11

Test the Rules Against a Broken Packet

A clean validation report is not assurance until the validator finds a contradiction it was told to find. The package therefore includes four fixtures that remain valid against their individual schemas while changing one cross-record fact.

Shape failure caught at build

The first fixture changes T07.to from referred to refered. V004 catches the target because it is absent from the declared states.

```

159   from: amendment_assessment
160   to: refered
161   event: amendment_outside_authority
162   records:
163     - rule
164     - threshold
165     - protected_condition

```

Coherence failure across fields

The second fixture moves expiry.date to 1 May 2026, before the record's 15 June generation time. It remains a valid date. V013 catches the impossible sequence.

```

62   expiry:
63     date: "2026-05-01"
64   early_stop_conditions:
65     - production population cannot be matched
66     - lower recall bound falls below 95 percent
67     - protected harm appears
68     - a bound component changes materially

```

Cross-artefact threshold failure

The third fixture declares `I04.referral_threshold` as 0.72 while the referenced evaluation approves 0.65. Both files remain independently schema-valid. V021 catches the difference and also compares the structured direction `at_or_above`.

```
73   name: amendment_authority
74   evaluation_id: eval-renewal-amendment-008
75   model: amendment-materiality:3.2.1
76   referral_threshold: 0.72
77   threshold_comparison: at_or_above
78   forced_referral_conditions:
79     - materiality_score is at or above 0.65
80     - protected-risk marker is present
```

The gap the rules do not catch

The fourth fixture names the same value as both `holder` and `prohibited_holder`. It passes V018 because V018 tests for the presence of the six operating elements, not their mutual exclusion.

```
94 reserved_independent_rights:
95   - decision: validate a material model
96     holder: independent model validation
97     prohibited_holder: independent model validation
98     trigger: material model use or material model change
99     evidence: evaluation record and independent validation record
100   decision_clock: before model exposure
101   escalation: Sonia Patel as accountable SMF
102   return_transition: validated use returns to controlled exposure
```

Closing that gap requires resolving holders against an institutional register the guide does not define. The gap is recorded rather than closed. That is the method operating on itself.