

The Attestation Origin-Equivalence Gate: An Anti-Collusion Bound

A semantic agent that admits another agent's non-execution attestation carries that agent's withholding: its own dispatch-authority predicate thereafter fails for the enumerated action classes toward that counterparty. The cross-boundary conversion bar of Section 5.8 forecloses four conversions of the carried entry, so the receiving agent may not score the attesting party, increment a counter of it, or append anything adverse to its record. The attestation origin-equivalence gate, disclosed in U.S. Provisional Application No. 64/117,812 at Section 10.8, paragraph [0452], conditions admission of a carried abstention entry. The receiving agent computes from records carried in its own memory field whether the disclosing agent is assignable, under a relation type declared in its signed policy object, to a common origin-equivalence class with a party of an entry it already holds. Where the count of entries held from parties of one class exceeds a bound declared in that policy object, a further attestation from a party of that class is appended under the failing-element path and is not written.

1. The Gap

Portable abstention moves a recorded withholding across the agent boundary while it is still a withholding. A disclosing agent that has written its authorization gate (300) to the withheld state (310) for an enumerated set of action classes, and transitioned into the non-executing cognitive mode (302), emits a non-execution attestation (504). A receiving agent holding a counterparty identity record (114) of that agent verifies it and, upon a satisfied verification, writes it into its own append-only lineage field (104) as a carried abstention entry. Its dispatch-authority predicate thereafter fails for the enumerated classes toward that counterparty, the failure being recorded as a positive abstention and not a denial, with no fault of either agent recorded.

Four express negative limitations travel with that carriage. Section 5.8 applies the conversion bar (502) to a carried abstention entry as it applies within the receiving agent, foreclosing conversion to a scalar, a default, or a threshold operand; increment of any counter of the disclosing agent; any append of fault, breach, unreliability, or degraded standing to its counterparty identity record (114); and treatment of subsequent non-response as a rejected determination (124) or an accepted determination (122). Under Section 5.4 the type discipline is enforced statically upon the agent's instructions before they are executed, so a consuming determination attempting the conversion is not constructible.

The filing recites how far a withholding reaches. Where the receiving agent holds no admissible alternative counterparty for a class so withheld, the counterparty-absence path of Section 5.5 is reached and the agent contracts the partition capability envelope of the scope partition concerned. Section 2.1 states the underlying condition for the refusal path: volume alone drives the gate toward the withheld state (310), and the volume available to an adverse party is limited only by the cost of presenting further identities. Paragraph [0452] answers in its own whereby-clause, that a set of agents of a common origin equivalence does not, by attesting in concert, foreclose the receiving agent's dispatch-authority predicate across an unbounded set of action classes.

2. Mechanism

Admission of a carried abstention entry is conditioned upon the attestation origin-equivalence gate, and an attestation that does not pass is appended under the failing-element path of the receiver verification and not written as an entry. Section 5.7 states what that path carries: the attestation so appended is admitted to no consuming determination, modifies no value of the scoped integrity vector (106), and increments no counter, and a failed verification is not a denial.

The computation. From records carried in its own memory field (102), the receiving agent computes whether the disclosing agent is assignable, under a relation type declared in the signed policy object (112), to a common origin-equivalence class (200) with a party of an entry already held. Section 2.2 supplies the ordered procedure: retrieve or instantiate the counterparty identity record (114); retrieve from the policy object in force an enumeration of declared relation types, each specifying a class of lineage entry and a matching condition; evaluate each declared type between the present party and each party already assigned; assign upon any evidenced type, merging where more than one class is identified; and append the assignment, the types evaluated, the entries relied upon, and the resulting class identifier.

Three relation types are enumerated. Shared dispatch lineage (202) is evidenced where entries recording a dispatch to the present party and to the compared party record a common parent dispatch entry as their immediate antecedent. Co-signature (204) is evidenced where one lineage entry bears a signature verifiable against an identity primitive of each party. A common introduction path (206) is evidenced where the counterparty identity record (114) of each party records an introducing party and the two recorded parties are identical. Each type is independently sufficient for assignment, and the evaluation runs upon the agent's own records, without reference to a centralized registry, without query to a directory, without participation in a consensus procedure, and without coordination with a further execution node.

The count and its unit. Where a count of carried abstention entries held from parties of one origin-equivalence class (200) exceeds a bound declared in that policy object, a further attestation from a party of that class takes the failing-element path. Section 2.1 recites the property the normalization holds on the refusal path: the contribution of a single origin to the withholding of an action of the action space is bounded irrespective of the number of identities that origin presents.

Limitations recited on the gate itself. Paragraph [0452] carries four of its own. The gate is computed over the origin-equivalence class (200) and not over any per-counterparty count. It appends nothing adverse to any counterparty identity record (114). It modifies no value of the scoped integrity vector (106). And it increments no counter of any disclosing agent.

Release. Section 5.9 recites release independently of the gate: an unmarked execution record of the disclosing agent within the class, verified under Section 5.7; a superseding attestation omitting the class and carrying a successor attested epoch field; or elapse of the time-to-live field, which elapse is no evidence that the class has been restored. Section 10.8 adds an attestation revocation object, emitted by the disclosing agent and by no other party, and a restoration settlement reference drawn from a matched pair (600). Emission is complete upon emission, that agent's state being unchanged by whether any receiver admits the attestation.

Locality of the class. A second agent holding a different lineage field and different counterparty identity records (114) derives, from one population, a partition that need not agree with the first. No procedure reconciles the two, no class identifier is transmitted, and neither agent admits one derived by the other, so the identifier is not an identity attested by a third party and confers no portable standing. Assignment is persistent and not window-scoped, and upon a merge the reconciliation of Section 2.3 applies.

Two edge configurations are disclosed. The enumeration comprises at least one relation type, an empty enumeration assigning every party to a distinct class and restoring the condition of Section 2.1. Where a class cannot be computed for want of a counterparty identity record (114), the class-unresolved path assigns a provisional class of one member.

3. Operating Parameters

The filing declares these parameters for the gate and its admission neighbors, and no numeric value for any of them.

- The bound upon carried abstention entries held per origin-equivalence class (200), declared in the signed policy object (112).
- The enumeration of declared relation types, retrieved from the policy object in force, each specifying a class of lineage entry and a matching condition, at least one type being required.
- The attestation window parameter, declared in the receiving agent's governing policy object, bounding the interval between the attested epoch and the recorded time of admission. An attestation presented outside it produces an attestation staleness outcome of that agent's recorded abstention class rather than a rejection, no counter being incremented and nothing adverse appended.
- The time-to-live field carried by the attestation, whose elapse is a release condition.
- The emission window and the persistence tier declared in the disclosing agent's policy object, which together fix the counterparties an attestation is emitted to, that agent surveying no party it has not encountered.

Section 1.5 recites that the dispatch-authority predicate is recomputed responsive to each request to dispatch, from state then carried in the memory field (102), and not from a previously issued authorization token, a cached predicate result, or a session grant, whereby an append to the lineage field takes effect at the next dispatch request without revocation infrastructure.

4. Composition

Section 10.8 bounds chained cross-agent withholding from more than one direction. The relay non-execution attestation of [0449] lets a withholding propagate by disclosure across a chain of persistent semantic agents (100), each hop preserving the abstention type and remaining subject to the cross-boundary conversion bar. Three recited elements bound its length: the relay depth field, one less at each subsequent emission than the value carried by the entry relied upon, an agent whose entry carries depth zero emitting no relay attestation; the relay depth ceiling maintained per counterparty and per action class, monotonically non-increasing under the anti-rollback discipline; and the cycle check, which sends to the failing-element path an attestation whose chain names the admitting agent. Paragraph [0450] recites that an agent admitting a relay attestation writes it as a carried abstention entry as it does a non-execution attestation, and [0452] conditions admission of such an entry upon the gate. The widening supersession of [0457] is a second recited occasion for writing a further entry, upon a fresh receiver verification performed on the superseding attestation in its entirety.

The same locally derived class does work elsewhere in the filing. The refusal counter (304) is incremented per origin-equivalence class (200) rather than per conduct evaluation artifact (116). The receipt-verification register holds, per class of issuing parties, a count of verifications performed within a declared window; at the cap a further artifact from that class is appended, is not verified, is not admitted to the admission evaluator (120), and appends nothing adverse to the issuing party. On the determination path, a propagation record is given effect only where the emitting agent and the asserting party (118) are not assignable to a common class.

The two paths are bounded in different denominations. Paragraph [0451] bounds a magnitude, capping modification of an admitting agent's scoped integrity vector (106) upon a propagation record at a declared fraction, less than unity, of a reference displacement magnitude. On the abstention path a value of the abstention type (506)

and a magnitude are values of disjoint types, and the quantity [0452] bounds is a count of entries held per class. Where an agent is left without an admissible member of a required counterparty class, [0463] supplies the cure by signed introduction protocol.

5. Prior-Art Distinction

Adjacent categories address related problems by different structures.

Registry-based Sybil resistance. Schemes that resolve identity against a shared registry or a coordinating authority bound identity multiplication at a common point. Section 2.1 draws the distinction expressly: the class (200) is computed by the agent from its own records, without reference to any centralized registry and without coordination with a further execution node.

Reputation and trust scoring. Correlated-rater collusion is ordinarily handled by down-weighting the reputations of the correlated raters, which takes each attestation as an input to a score. Section 5.8 forecloses that input by its terms.

Per-peer rate limiting and quotas. Token buckets and per-connection quotas are indexed on the party. The gate is computed over the class and not over any per-counterparty count.

Credential revocation distribution. Revocation lists and status responders distribute a fact about a credential and rely on a trust anchor common to relying parties. The class relied upon here is derived by each agent from its own records, is transmitted to no one, and confers no portable standing.

Quorum and Byzantine-fault-tolerant voting. These bound faulty participants as a fraction of a known validator set under a shared membership view. The filing recites no such view: two agents deriving from one population may reach partitions that do not agree, and no procedure reconciles them.

Spam and abuse filtering. Such systems score a sender and discard the message. Here the attestation that does not pass is appended with its failing element and retained, and the disposal appends nothing adverse to the sender.

Each difference is structural, going to what is computed, over which records, and with what recorded effect. Nothing above assesses any particular product or expresses a view on whether any system practices the disclosed subject matter.

6. Disclosure Scope

The attestation origin-equivalence gate is disclosed in U.S. Provisional Application No. 64/117,812, Section 10.8, at paragraph [0452], with antecedents in Section 2 (the normalization, the derivation procedure of Section 2.2, the merge reconciliation of Section 2.3) and in Section 5.4 through Section 5.9 (the conversion bar, the counterparty-absence path, the non-execution attestation, receiver verification, and the dispatch-authority predicate).

Disclosed: conditioning admission of a carried abstention entry upon a gate the receiving agent computes from records carried in its own memory field; assignability of a disclosing agent to a common origin-equivalence class with a party of an entry already held, under a declared relation type; a policy-declared bound upon the count of entries held from parties of one class; disposal of a further attestation from a party of that class under the failing-element path; and the four limitations recited on the gate itself.

Disclaimed: any numeric value of the bound, the count, or any window, none being declared in the filing; any registry, directory, consensus procedure, or coordination with a further execution node; any portability of a class identifier between agents; any denial or fault attribution arising from the gate; and any conversion of a carried abstention entry into a magnitude, a default value, or a threshold operand.

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Origin-Equivalence Normalization(/ [All 49 steps → \(/inventive-steps\)](/inventive-steps) [origin-equivalence](#))

Metering that can't be gamed by splitting one accuser into many.

Provisional application

PRIMARY TECHNICAL DISCLOSURE

- [Origin-Equivalence Normalization: Metering Refusal Per Source, Not Per Assertion \(/articles/origin-equivalence/origin-equivalence-normalization\)](/articles/origin-equivalence/origin-equivalence-normalization).

SECONDARY TECHNICAL

- [Content-Blind Encounter Commitment and the Paired Encounter Receipt \(/articles/origin-equivalence/content-blind-encounter-commitment\)](/articles/origin-equivalence/content-blind-encounter-commitment).
- [Cross-Receipt Equivocation Detection: Catching an Agent That Tells Two Stories \(/articles/origin-equivalence/cross-receipt-equivocation-detection\)](/articles/origin-equivalence/cross-receipt-equivocation-detection).
- [The Untested-Origin Saturation Bound: Pricing a Flood of Freshly Minted Identities \(/articles/origin-equivalence/untested-origin-weighted-saturation-bound\)](/articles/origin-equivalence/untested-origin-weighted-saturation-bound).
- [Counterparty-Side Fork Detection: Recognizing a Split Identity From Outside \(/articles/origin-equivalence/counterparty-side-fork-detection\)](/articles/origin-equivalence/counterparty-side-fork-detection).
- [The Attestation Origin-Equivalence Gate: An Anti-Collusion Bound \(/articles/origin-equivalence/attestation-anti-collusion-bound\)](/articles/origin-equivalence/attestation-anti-collusion-bound).

TERMINOLOGY

- [asserting_party \(/glossary#asserting-party\)](/glossary#asserting-party).
- [origin-equivalence class \(/glossary#origin-equivalence-class\)](/glossary#origin-equivalence-class).

Origin-Equivalence Normalization overview → (/origin-equivalence).