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Receiver-Side First-Encounter Budget Decrement: Pricing a Stranger's Arrival Per Presented-Material Origin Class

A semantic agent that receives a conduct evaluation artifact from a party for which it holds no counterparty identity record instantiates an ephemeral-tier record seeded only from the presentation, and during the pre-settlement inert state that follows, no counter of the receiving agent is incremented and the presenting party is assigned to no origin-equivalence class. The receiver-side first-encounter budget decrement, disclosed in U.S. Provisional Application No. 64/117,812 at Section 10.4, paragraph [0391], places the cost of the meeting on the receiver. Responsive to instantiating that ephemeral-tier record, the agent decrements its own authorization budget (404) by a first-encounter budget decrement drawn from the signed policy object (112), applied without regard to merit and identically whether the pair later settles, times out, or is refused. The decrement is metered per presented-material origin-equivalence class computed over presented identity material alone, and a first-encounter register records borne decrements per class per window.

1. Where a Stranger's Arrival Goes Unmetered

Section 2.1 of the filing states the condition that origin-equivalence normalization forecloses. Merit-independent metering accumulates increments upon both refusal paths, so volume alone drives the authorization gate (300) of a semantic agent (100) to the withheld state (310), and the volume available to an adverse party is limited only by the cost of presenting further identities. Section 2.2 answers by charging the refusal counter (304) per source of assertion rather than per assertion, a source being a set of asserting parties (118) between which the agent demonstrates a relation from its own records. Declared relation types retrieved from the signed policy object (112) in force supply that relation: a shared dispatch lineage (202), a co-signature (204), a common introduction path (206). Paragraph [0063] states that the evaluation runs upon entries of the agent's own append-only lineage field (104) and upon counterparty identity records (114) it holds, 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.

At first contact the filing describes a different posture. Under paragraph [0387], a semantic agent (100) receiving a conduct evaluation artifact (116) from a party for which it holds no counterparty identity record (114) neither admits nor rejects it. It extracts the presented identity material, constitutes a provisional identity primitive from the attested epoch identifier, and verifies the signature against that primitive. On success it instantiates an ephemeral-tier counterparty identity record, being a record (114) at the most restrictive scope, seeded only from the presentation with an empty encounter history, and appends a provisional-identity record. Paragraph [0388] then has it emit a scaffolding observation as the first governed observation (608) of a matched pair (600).

Paragraph [0390] states what holds from instantiation until promotion or timeout. No determination of the closed set is produced; no value of the scoped integrity vector (106) or self-esteem aggregate (108) is moved; no counter is incremented, the refusal

counter (304) is not incremented, and the authorization gate (300) is not written to withheld (310) responsive to it; the party is assigned to no origin-equivalence class (200). The holding is appended as a positive abstention under the conversion bar (502).

2. Charging the Meeting to the Receiver's Own Budget

Paragraph [0391] states the metering that applies at instantiation, and states the class key over which it is metered.

The trigger is structural rather than evaluative. Responsive to instantiating an ephemeral-tier record, the semantic agent (100) decrements its own authorization budget (404) by a first-encounter budget decrement, from the signed policy object (112), applied without regard to merit and identically whether the pair later settles, times out, or is refused.

Instantiation is itself conditioned. Under [0387], the signature is verified against the provisional identity primitive constituted from the attested epoch identifier, and a failure appends the artifact unadmitted with no record instantiated and no decrement.

Metering runs on a separately sourced derivation. The decrement is metered per presented-material origin-equivalence class computed over presented identity material alone. Paragraph [0387] fixes what that material is: the attested epoch identifier, any carried predecessor epoch identifiers, the attested assertion-cost counter (400) state, and the signature.

Three grounds establish commonality under that derivation, as [0391] states them:

- where the carried predecessors of two parties resolve to a common position;
- where their attested assertion-cost counter (400) states pass a common-accumulator test;
- where a declared partition-entry relation holds.

Structure elsewhere in the filing supplies the terms of the second ground. Under the fourth step of Section 4.2, the issuing agent advances the dynamic agent hash chain to a successor epoch and attests the state of the issuance accumulator and the epoch identifier at which the attestation was made, and [0132] states that an attestation binds a state of the issuance accumulator to a specific successor epoch. The common-accumulator test, as [0391] recites it, is one accumulator advanced by one chain, the lesser state's epoch a predecessor of the greater, and their state difference not exceeding the epochs separating them. For the third ground the filed paragraph recites a declared partition-entry relation and does not enumerate its content.

A first-encounter register records borne decrements per class per window, and [0391] states the consequence: a party generating identities from one origin costs the receiver the same as one presentation. The receipt-presentation register of [0385] performs the parallel function on the encounter-attestation path, recording per class per window whether that class has borne a receipt-presentation decrement.

Two meterings can fire on one meeting, and the filing coordinates them. Paragraph [0386] addresses a presenting party that in one encounter occasions both a receipt-presentation decrement, by the write of an encounter attestation, and a first-encounter budget decrement, by instantiation of an ephemeral-tier record. Where both meterings resolve that party to a common origin-equivalence class (200) within a common window, exactly one decrement of the authorization budget (404) is applied rather than two, both registers are updated on the one decrement, and a single-encounter decrement coordination record is appended naming both registers, the common class (200), the window, the decrement applied, and the register whose decrement was withheld. The filed rule is one encounter, one decrement.

The quantity moved is the one the filing already uses to price assertion. Paragraph [0121] describes the authorization budget (404) as maintained per semantic agent (100) across the action space, decremented upon issuance of an acknowledgment artifact

under Section 6 and upon an increment of the issuance accumulator under Section 4.2, and replenished under Section 4.5. Under the third step of Section 4.2, the units of that decrement and the units gating dispatch of actions by the agent are identical.

Nothing in the decrement disturbs the state of the presenting party. Paragraph [0390] states that during the pre-settlement inert state the party is assigned to no origin-equivalence class (200), that the state is neither denial nor rejection, and that nothing adverse is appended.

3. Declared Quantities and What the Filing Leaves Open

Magnitude of the first-encounter budget decrement is policy-declared. Paragraph [0391] draws it from the signed policy object (112) and states no value, no range, and no default.

The window governing the first-encounter register is likewise unquantified, the paragraph stating only that the register records borne decrements per class per window. Section 4.1 expresses the metering window of the assertion-cost counter (400) as a count of successor epochs of the dynamic agent hash chain declared in the signed policy object (112).

Rather than a fixed tolerance, the common-accumulator test recites a relation. Permitted difference between two attested states is bounded by the count of epochs separating the epoch identifiers those states are bound to.

For the authorization budget (404) the decrement moves, Section 4 declares a floor held in the budget floor field, an authorization budget ceiling (408), and a budget replenishment schedule (406), each drawn from the signed policy object (112) in force. Paragraph [0140] states that the budget is replenished by the procedure of Section 4.5 and by no other procedure.

Paragraph [0391] declares no gate consequence of its own, no threshold count of presentations, no latency figure, and no benchmark. The write of the authorization gate (300) to the withheld state (310), responsive to the authorization budget (404) satisfying the floor held in the budget floor field, is stated at the sixth step of Section 4.2.

4. How the Decrement Sits in the Filing

Section 10.4 places the mechanism inside a sequence: [0387] instantiates the ephemeral-tier record; [0388] emits the scaffolding observation naming exactly the absent canonical fields; [0389] settles the pair and promotes the record to the persistent tier; [0390] states the pre-settlement inert state; [0391] prices the instantiation; [0392] makes the promotion reversible on a continuity break.

Against Section 2, the two class derivations run over different material. The origin-equivalence class (200) of Section 2.2 comes from the agent's own lineage entries and held counterparty identity records (114), and [0065] states that assignment to it is persistent and not window-scoped. The presented-material class of [0391] is computed over presented identity material alone, for a party that [0390] assigns to no class (200) at all.

Section 4 supplies the shared quantity. It prices what the agent asserts; [0391] prices what it meets. One authorization budget (404) carries both, replenished only under Section 4.5.

Settlement structure comes from Section 6. The scaffolding and completing observations are the first governed observation (608) and second governed observation (610) of a matched pair (600), recognized within one or more of a spatial proximity window and a temporal proximity window (602), without a third-party intermediary, without centralized consensus, and without pre-negotiated session state.

Paragraph [0393] bounds the construction from outside: where each of two agents (100) holds no counterparty identity record (114) of the other, each instantiates its own ephemeral-tier record and applies its own first-encounter budget decrement against its own authorization budget (404), metered against its own first-encounter register, no decrement of either coordinated with, offset against, or credited against the decrement of the other. Paragraph [0484] adds that a renewal register counts an origin-equivalence class (200) toward renewal of an authorization quantity only where the constituent asserting party (118) resolves to a counterparty identity record (114) of the promoted value, whereby a flood of assertions from ephemeral-tier counterparties renews nothing.

5. Distinguishing Prior Approaches

Rate limiting and connection admission control. Conventional arrival metering keys on a transport-level or account-level identifier at a boundary, and enforcement is unpriced to the enforcer. Under [0391] the metering key is computed from material the presentation itself carries, and the enforcing agent decrements the budget (404) whose units, under the third step of Section 4.2, are identical to those gating its own dispatch of actions.

Admission schemes that price the presenting party. Where a scheme imposes the cost of arrival on the party seeking service, the filed construction places it elsewhere: [0391] locates the decrement on the receiver, and [0390] states that during the pre-settlement inert state no counter is incremented and nothing adverse is appended against the presenting party.

Sybil resistance resolved against a registry or identity authority. Paragraph [0053] distinguishes a Sybil-resistance scheme that resolves identity against a shared registry or a coordinating authority, and states that the origin-equivalence class (200) is instead computed by the agent (100) from its own records without reference to any

centralized registry and without coordination with a further execution node. Paragraph [0064] adds that the class so derived is local, is not an identity attested by a third party, and confers no portable standing.

Reputation and trust systems. The background at [0004] records that such systems locate the score at a registry, a scoring authority, or a shared ledger, and that the filtering party is a disinterested aggregator on whom the exercise of filtering imposes no cost of any kind. Here the party performing admission bears the decrement, and [0391] applies it without regard to merit.

Bonded and stake-based admission. Paragraph [0008] describes bonded challenge procedures that forfeit a challenger's stake upon a determination that the challenge failed, the consequence attaching only after a merits determination performed by an institution other than the penalized party. The decrement of [0391] is applied on instantiation, by the party bearing it, with no adjudication of merit.

None of the foregoing asserts anything about any product, service, or party, and no comparison here states that any implementation practices this subject matter.

6. Disclosure Scope

The receiver-side first-encounter budget decrement metered per presented-material class is disclosed in U.S. Provisional Application No. 64/117,812, Section 10.4, paragraph [0391]. Supporting disclosure appears at [0385] for receipt-presentation metering, [0386] for single-encounter decrement coordination, [0387] for the ephemeral-tier record and provisional-identity verification, [0388] for the scaffolding observation, [0389] for the settled pair and promotion, [0390] for the pre-settlement inert state, and [0393] for the mutual first encounter. The class derivation is disclosed at Section 2.2, the authorization budget (404) at Sections 4.1, 4.2, and 4.5, and matched-pair settlement at Section 6.

What is disclosed is a semantic agent that, responsive to instantiating an ephemeral-tier counterparty identity record, decrements its own authorization budget by a first-encounter budget decrement drawn from the signed policy object in force, applies that decrement without regard to merit and identically whether the pair later settles, times out, or is refused, meters it per presented-material origin-equivalence class computed over presented identity material alone by common predecessor position, by a common-accumulator test, or by a declared partition-entry relation, and maintains a first-encounter register of borne decrements per class per window.

What is disclaimed is everything past that. No registry, directory, scoring service, quorum, or coordination with a further execution node is claimed, none being required or consulted. No adjudication of the merit of a presentation, no determination concerning the conduct of a presenting party, and no consequence borne by that party during the pre-settlement inert state is claimed. No numeric decrement amount, window length, presentation threshold, latency figure, or benchmark is stated, the filed paragraph declaring none. Nothing here asserts infringement by any party, and this publication is a defensive technical disclosure of subject matter already on file.

Origin-Equivalence Normalization (/origin-equivalence)

All 49 steps → (/inventive-steps)

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)

SECONDARY TECHNICAL

- Content-Blind Encounter Commitment and the Paired Encounter Receipt (/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)
- The Untested-Origin Saturation Bound: Pricing a Flood of Freshly Minted Identities (/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)
- The Attestation Origin-Equivalence Gate: An Anti-Collusion Bound (/articles/origin-equivalence/attestation-anti-collusion-bound)
- The Bridging Party and the Deferred Merge: Charging One Windowed Increment Against Every Origin-Equivalence Class a Single Asserting Party Bridges (/articles/origin-equivalence/bridging-party-deferred-merge)
- The Common-Execution-Node Relation Type: Charging Co-Hosted Asserting Parties as One Origin (/articles/origin-equivalence/common-execution-node-relation-type)
- **Receiver-Side First-Encounter Budget Decrement: Pricing a Stranger's Arrival Per Presented-Material Origin Class (/articles/origin-equivalence/receiver-side-first-encounter-budget-decrement)**
- Mutual First Encounter Without Cross-Budget Coordination: Two Strangers, Two Matched Pairs, Two Separate Budget Decrements (/articles/origin-equivalence/mutual-first-encounter-no-cross-budget)

APPLICATIONS · GENERAL

- Sybil-Resistant Agent Networks: When One Accuser Becomes Many (/articles/origin-equivalence/sybil-resistant-agent-networks)
- Fraud Rings in Autonomous Commerce: Metering Per Source, Not Per Claim (/articles/origin-equivalence/fraud-rings-in-autonomous-commerce)

APPLICATIONS · SPECIFIC

- W3C Decentralized Identifiers and Verifiable Credentials: Verifying an Identifier Versus Metering Its Origin (/articles/origin-equivalence/w3c-decentralized-identifiers)

TERMINOLOGY

- asserting party (/glossary#asserting-party)
- origin-equivalence class (/glossary#origin-equivalence-class)

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