

Capping Pending Reparation Arcs: The Outstanding-Arc Bound, Untendered Marking, and the Refusal-Meter Exemption

A semantic agent that repairs harm by tendering reparation to the party it harmed opens a channel that can be turned against that party. The tender is the first governed observation of a matched pair, and under metered non-acceptance a party that refuses one increments its own refusal meter against its own settlement-binding authorization, that authorization being written to a withheld state once the meter satisfies its declared bound. The outstanding-arc bound, the untendered marker, and the refusal-meter exemption, disclosed in U.S. Provisional Application No. 64/117,812, close the channel from both ends. A bound declared in the signed policy object caps the count of pending undischarged other-directed reparation arcs an agent holds bound to one counterparty identity primitive; while the count stands at the bound the agent emits no further reparation acknowledgment artifact to that counterparty and creates each further arc bearing an untendered marker field, the arc accumulating in the retention register as the arc it is. Separately, a refusal of a reparation acknowledgment artifact solicited by neither the counterparty nor any assertion of the counterparty takes no increment on that counterparty's refusal meter.

Repeated Tender Against One Counterparty

Metered non-acceptance gives refusal a price. A party that declines to complete a pairing emits the refusal as a refusal observation, being a governed observation that bears that party's authority credential and references the first governed observation (608) refused, the pair being recognized by the non-acceptance detector. A refusal meter carried in the memory field (102) of the refusing party meters that emission against that party's own settlement-binding authorization. One increment is taken upon each emission, the increments accumulate over a declared window, and the meter applies without regard to whether the refusal was well founded. Responsive to the meter satisfying its declared bound, that authorization is written from a granting state to a withheld state and binds no further settlements, its capacity to observe, to produce determinations, and to emit further refusal observations being preserved.

Counterparty-directed reparation reaches that rule from an unusual direction. Where a persistent semantic agent (100) appends a permitted deviation record (710) whose affected-party class resolves to an identified counterparty, the arc created for the amount exceeding the deviation deductible is designated other-directed (804), is bound to that counterparty's identity primitive, and is discharged only by a matched pair (600) whose first governed observation (608) is a reparation acknowledgment artifact the agent emits and whose second (610) is that counterparty's own reparation acceptance determination (806).

So the tender arrives as an offer the harmed party did not solicit, and the base metering rule charges a refusal of it to the refusing party. Section 8.6 already limits re-emission for a single arc: a declared count bounds the emissions for one arc, and exhaustion of that count neither discharges nor redesignates it. Each further deviation resolving to the same counterparty creates a further other-directed arc carrying its own tender. Section 10.12, on partial, bounded, and anti-weaponization reparation, addresses the exposure with two rules.

The Bound, the Marker, and the Exemption

The outstanding-arc bound. An outstanding-arc bound declared in the signed policy object (112) bounds above the count of pending undischarged other-directed reparation arcs (804) the persistent semantic agent (100) holds bound to one counterparty identity primitive of a counterparty identity record (114). While that count stands at the bound, the agent emits no further reparation acknowledgment artifact to that counterparty.

Untendered marking. Each further arc bound to that counterparty is created, while the count stands at the bound, as an arc bearing an untendered marker field in its record. Creation is not suppressed. Section 8.3 governs what such an arc carries: an arc designation field of other-directed value and a counterparty binding field carrying the counterparty's identity primitive, both written at creation and neither removed nor modified thereafter. Nor is an arc so designated dischargeable by a restorative mutation the agent performs alone; such a mutation is appended as a non-discharging restorative mutation record, the arc remaining pending and its accumulated amount unreduced.

An arc so marked accumulates in the retention register the agent maintains in the append-only lineage field (104) as the arc it is. Emission halts; the contribution to the register does not. Where that accumulated amount exceeds the aggregate retention (800) declared in the signed policy object (112), the permission condition (712) is foreclosed and a retention foreclosure record (808) is appended identifying the amount, the aggregate retention applied, and each pending arc contributing.

Clearing the marking is not something the agent performs on its own. No acknowledgment artifact is emitted toward an untendered arc until a pending arc bound to that counterparty is discharged and the count falls below the bound, and an other-directed arc is discharged only upon completion of a matched pair (600) whose second governed observation (610) is produced by an asserting party assigned to the

origin-equivalence class of the party recorded as harmed, and not by the agent, its principal, or any adjudicator or arbiter appointed to determine the sufficiency of the reparation.

The refusal-meter exemption. Turn now to the counterparty's side. The refusal meter of the matched-pair settlement is not incremented against a counterparty upon a refusal observation emitted in response to a reparation acknowledgment artifact, the artifact having been solicited by neither the counterparty nor any assertion of the counterparty. That qualifying clause is the predicate, and it picks out a class of artifact the filing already separates: a reparation acknowledgment artifact is distinct from the acknowledgment artifact of Section 6, being occasioned by the agent's own admitted deviation, and neither completes the other's pair.

Recording continues regardless. Such a refusal is recorded in the settlement-lineage entry without a decrement of the refusing party's settlement-binding authorization. Withheld is the increment alone. Nor does the refusal supply the agent anything, a refusal observation being no reparation acceptance determination (806) and completing no matched pair (600).

Together, the filing states, the bound and the exemption foreclose a semantic agent from driving a harmed counterparty toward foreclosure of its own settlement-binding authorization by repeated deviation against that counterparty followed by repeated tender.

What the Policy Object Declares

Each quantity is declared rather than fixed by the structure.

- **Outstanding-arc bound.** Declared in the signed policy object (112), bounding above a count of pending undischarged other-directed reparation arcs (804) held bound to one counterparty identity primitive.

- **Untendered marker field.** Borne in the arc's own record; the filing gives no numeric parameter for it.
- **Re-emission cadence and re-emission count.** Declared in the signed policy object (112) for a pending arc, each emission decrementing the authorization budget (404) by a declared amount without regard to whether it was warranted, the count bounding the emissions for one arc.
- **Refusal increment, refusal-meter bound, and metering window.** Declared in the governing policy object, the increment being that of the transaction class of the first governed observation (608) refused where a per-transaction-class increment is declared, the bound denominated in the same units.
- **Aggregate retention (800).** Declared in the signed policy object (112), denominated in the units of the entropy-weighted harm coefficient, and subject to a retention monotonicity constraint maintained in the memory field (102), being a monotonically non-increasing floor over the values admitted from successor policy objects, a declared value greater than the floor not being admitted while a retention foreclosure record (808) stands unreversed.
- **Discharge window.** Declared in the signed policy object (112) and expressed as a count of successor epochs of the dynamic agent hash chain of the agent, so that no other party advances it and no manipulation of a clock available to a hosting execution node advances it.

No numeric value is assigned to the outstanding-arc bound, and the worked trace of Section 8.9, which gives a deviation deductible of 2.0 units of the entropy-weighted harm coefficient and an aggregate retention (800) of 10.0 units, supplies those by way of illustration only. Note also that the foreclosure consequence is stated conditionally: the permission condition (712) is foreclosed where the accumulated undischarged amount exceeds the declared aggregate retention (800).

Placement Within the Reparation Machinery

Section 8 supplies the antecedents. There the affected-party resolution (802) designates an arc other-directed upon an identified-counterparty outcome; discharge requires the harmed party's own acceptance; under the non-response rule, no acceptance determination arriving within the discharge window leaves the arc pending, its amount in the retention register, and no counter of either party incremented; and the register carries its aggregate retention (800) and terminal foreclosure. From Section 6 come the matched-pair settlement, the refusal observation, and the metered non-acceptance in which the refusal meter lives.

Neighbors within Section 10.12 bear on it directly. A partial reparation acceptance determination discharges an arc as to the accepted portion and creates a residual other-directed reparation arc carrying the same counterparty binding field and designation, an amount field set to the portion not accepted, and a lineage reference field naming the arc from which it derives. Reparation containment suspension treats accumulation the other way around: where a containment determination stands for the scope partition in which the deviation occasioning an arc was recorded, the agent emits no reparation acknowledgment artifact into that partition and the contribution of that arc to the amount tested against the aggregate retention (800) is held at the amount then standing and is not further increased. Under the outstanding-arc bound, emission halts and the accumulation runs on.

Rules elsewhere in the filing turn on arcs standing undischarged. Propagation of any state change is suspended while the agent carries any undischarged reparation arc (804), the suspended propagation comprising coupling into another component of the scoped integrity vector (106), propagation into another scope partition, delegation to a further party, and structural inheritance by a successor. And upon appending a retention foreclosure record (808), the agent emits a structured inquiry to its principal, to which a responsive principal-resolution object discharges no arc, the inquiry being a disclosure of the foreclosed state rather than an override of it.

One established pattern governs what loads a meter. The refusal meter is incremented by the emission of a refusal observation and by nothing else: initiation of a dispute record, a resolution by a dispute-resolution authority, a non-convergence, a rejection for want of an intersection, a holding of an orphan observation, a timeout, and a failed fulfillment each increment no refusal meter of either party and are adverse to neither.

How Adjacent Categories Differ

Rate limiting and anti-abuse throttling cap outbound messages per recipient. A message a throttle stops is dropped or queued, and capacity returns as time passes or an allowance refills. What is suppressed here is not a queued message: the arc is created, marked untendered in its own record, and accumulated in the retention register as the arc it is. Emission resumes not on elapsed time, which restores no authorization and discharges no arc, but upon discharge of a pending arc bound to that counterparty, requiring that counterparty's own acceptance determination.

Contact-frequency limits in collections and outreach regimes are imposed from outside the parties and applied after a violation. This bound is declared in the agent's own signed policy object (112), and the foreclosing it feeds is performed by the agent from state carried in its memory field (102) and without adjudication by any other party. Obligations the agent may no longer tender keep accumulating against the aggregate retention (800) whose exceedance forecloses its own permission condition (712).

Dispute-resolution and settlement platforms commonly allocate the cost of declining an offer, with an arbiter, escrow agent, or platform operator deciding whether declining was justified. No such determination enters this settlement layer: the meter is applied without regard to, and without the refusing party performing, any determination of whether the refusal was well founded, and the exemption is keyed instead to the origin of the artifact refused, namely that neither the counterparty nor any assertion of the counterparty solicited it.

Reputation and responsiveness systems in common use charge a recipient for declining an approach. Under the exemption that charge is withheld for this class of refusal while the refusal stays recorded in the settlement-lineage entry: removed is the decrement, not the record of the event.

None of these comparisons asserts that any product, service, or party practices or infringes the disclosed subject matter. They mark where the disclosed structure departs from familiar ones.

Disclosure Scope

This article describes subject matter disclosed in U.S. Provisional Application No. 64/117,812, Section 10.12, paragraph [0492], titled "Outstanding-arc bound, untendered marking, and the refusal-meter exemption." Disclosed there are: an outstanding-arc bound declared in the signed policy object (112) bounding above the count of pending undischarged other-directed reparation arcs (804) the persistent semantic agent (100) holds bound to one counterparty identity primitive of a counterparty identity record (114); the halt on further reparation acknowledgment artifacts to that counterparty while the count stands at the bound, each further arc bound to that counterparty being created bearing an untendered marker field in its record; the accumulation of such an arc in the retention register maintained in the append-only lineage field (104) as the arc it is; the condition that no acknowledgment artifact is emitted toward it until a pending arc bound to that counterparty is discharged and the count falls below the bound; the separate exemption of the refusal meter from increment against a counterparty upon a refusal observation emitted in response to a reparation acknowledgment artifact solicited by neither the counterparty nor any assertion of the counterparty, that refusal being recorded in the settlement-lineage entry without a decrement of the refusing party's settlement-binding authorization; and the joint effect stated there, that the bound and the exemption

foreclose a semantic agent from driving a harmed counterparty toward foreclosure of its own settlement-binding authorization by repeated deviation followed by repeated tender.

No numeric value of the outstanding-arc bound, the refusal increment or its window, the re-emission cadence or count, the aggregate retention (800), or the discharge window is asserted here, those being quantities the governing policy object declares rather than fixed limits of the invention. This is a defensive technical publication, not a grant of any license and not an admission of claim scope. The operative, citable rights are defined by the application identified above and by any patents issuing from it.

Counterparty-Directed Reparation(/ [All 49 steps → \(/inventive-steps\)](/inventive-steps)

counterparty-reparation)

Repair directed at the harmed party — bounded and resistant to weaponization.

Provisional application

PRIMARY TECHNICAL DISCLOSURE

- [Counterparty-Directed Reparation: Repair Owed to the Party Actually Harmed \(/articles/counterparty-reparation/reparation-directed-to-the-party-harmed\)](/articles/counterparty-reparation/reparation-directed-to-the-party-harmed)

SECONDARY TECHNICAL

- [The Costly Acknowledgment Artifact \(/articles/counterparty-reparation/costly-acknowledgment-artifact\)](/articles/counterparty-reparation/costly-acknowledgment-artifact)
- [Completion by Non-Worsening Re-Encounter \(/articles/counterparty-reparation/completion-by-non-worsening-re-encounter\)](/articles/counterparty-reparation/completion-by-non-worsening-re-encounter)
- [Partial Reparation Acceptance and the Residual Arc \(/articles/counterparty-reparation/partial-reparation-and-residual-arc\)](/articles/counterparty-reparation/partial-reparation-and-residual-arc)
- [Dual-Lock Escrow of the Discharge Itself \(/articles/counterparty-reparation/dual-lock-escrow-of-discharge\)](/articles/counterparty-reparation/dual-lock-escrow-of-discharge)

- [Per-Integrity-Scope Aggregate Retention and OR-Firing Foreclosure \(/articles/counterparty-reparation/aggregate-retention-or-firing-foreclosure\)](/articles/counterparty-reparation/aggregate-retention-or-firing-foreclosure).
- [Costless Rehearsal of Repair: Speculative Evaluation of Acknowledgment Artifacts and Restorative Mutations Inside the Non-Executing Cognitive Mode \(/articles/counterparty-reparation/costless-rehearsal-repair-non-executing-mode\)](/articles/counterparty-reparation/costless-rehearsal-repair-non-executing-mode).
- [Delegated Acceptance Authorization: Discharging a Reparation Arc Through a Counterparty's Delegate or Principal \(/articles/counterparty-reparation/delegated-acceptance-authorization\)](/articles/counterparty-reparation/delegated-acceptance-authorization)
- [Capping Pending Reparation Arcs: The Outstanding-Arc Bound, Untendered Marking, and the Refusal-Meter Exemption \(/articles/counterparty-reparation/outstanding-arc-bound-untendered-marking-refusal-meter\)](/articles/counterparty-reparation/outstanding-arc-bound-untendered-marking-refusal-meter)
- [Commitment-Conditioned Reparation Acceptance: A Counterparty-Evaluated Conformity Determination Within an Epoch-Count Observation Interval \(/articles/counterparty-reparation/reparation-conformity-determination-epoch-count-interval\)](/articles/counterparty-reparation/reparation-conformity-determination-epoch-count-interval)
- [Reparation Containment Suspension: Holding an Arc's Accumulation While a Scope Partition Stands Contained \(/articles/counterparty-reparation/reparation-containment-suspension\)](/articles/counterparty-reparation/reparation-containment-suspension).
- [Structured Inquiry to the Principal on Retention Foreclosure: Disclosing an Agent's Foreclosed Permission Condition Without Supplying an Override Path \(/articles/counterparty-reparation/structured-inquiry-principal-foreclosure\)](/articles/counterparty-reparation/structured-inquiry-principal-foreclosure).

APPLICATIONS • GENERAL

- [Automated Consumer Redress: Repair Directed at the Party Harmed \(/articles/counterparty-reparation/consumer-redress-automation\)](/articles/counterparty-reparation/consumer-redress-automation).
- [Insurance Claims Networks: Discharging Harm to the Counterparty That Holds It \(/articles/counterparty-reparation/insurance-claims-agent-networks\)](/articles/counterparty-reparation/insurance-claims-agent-networks).

APPLICATIONS • SPECIFIC

- [Card Network Chargebacks: Counterparty-Directed Remedy in Practice \(/articles/counterparty-reparation/payment-chargeback-systems\)](/articles/counterparty-reparation/payment-chargeback-systems).

TERMINOLOGY

- [other-directed reparation arc \(/glossary#other-directed-reparation-arc\)](/glossary#other-directed-reparation-arc)
- [reparation arc \(/glossary#reparation-arc\)](/glossary#reparation-arc)
- [restorative mutation \(/glossary#restorative-mutation\)](/glossary#restorative-mutation)
- [unaddressed reparation arc \(/glossary#unaddressed-reparation-arc\)](/glossary#unaddressed-reparation-arc)

[Counterparty-Directed Reparation overview → \(/counterparty-reparation\)](/counterparty-reparation).

