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Commitment-Conditioned Reparation Acceptance: A Counterparty-Evaluated Conformity Determination Within an Epoch-Count Observation Interval

A commitment-conditioned reparation acceptance is a settlement form in which a harmed counterparty conditions its acceptance of an agent's tender of repair upon a conduct commitment, disclosed in U.S. Provisional Application No. 64/117,812. In the unconditioned form, an other-directed reparation arc is discharged upon completion of a matched pair whose second governed observation is the bound counterparty's own reparation acceptance determination, emitted within a discharge window declared in the signed policy object and counted in successor epochs of the agent's hash chain. In the conditioned form, the pair completes and the arc is discharged only upon a subsequent conduct record of the agent that conforms to the commitment and is presented to the counterparty within an observation interval counted the same way. Conformity is evaluated by the counterparty that conditioned the acceptance and by no other party, and that counterparty appends an accepted or rejected conformity determination upon the conduct record and emits it as the observation completing the pair.

Settlement at the Moment of Tender, and the Conduct That Follows

Section 8 of the filing fixes who may settle an obligation the agent owes a counterparty. An other-directed reparation arc (804) is discharged only upon completion of a matched pair (600) whose second governed observation (610) is a reparation acceptance determination (806) produced by the bound counterparty, and not by the persistent semantic agent (100), by the principal of that agent, or by any adjudicator, arbiter, or other third party appointed to determine the sufficiency of the reparation. Where the agent instead performs a restorative mutation anchored to the deviation entry the arc references, the record is appended as a non-discharging restorative mutation record: the arc remains pending, the amount accumulated for it is not reduced, and the self-esteem aggregate (108) receives no positive entropy-scaled increment.

The unconditioned form carries one temporal condition. That acceptance determination is emitted within a discharge window declared in the signed policy object (112); upon recognition of the pair inside that window each party appends a settlement-lineage entry (606), the arc is discharged, and the accumulated amount is removed from the retention register. Under Section 6 a pairing rule within declared proximity windows recognizes the pair and binds it into a settlement record (604) comprising the two signed observations, a cryptographic binding over both, and an attestation of the recognition window. That enumeration reaches no conduct the agent performs afterward.

A settlement meant to turn on later conduct raises two structural questions: who evaluates whether that conduct matched what was undertaken, given that Section 8.5 excludes the agent from producing the acceptance determination upon its own reparation, and what advances the interval in which the conduct must appear, given

that the same section denominates the discharge window in successor epochs of the agent's own hash chain, beyond the reach of a clock available to a hosting execution node. Paragraph [0501] answers both.

Conditioning the Acceptance, Then Completing on the Conduct Record

In the filed embodiment a reparation acceptance determination (806) is commitment-conditioned, the counterparty conditioning its acceptance upon a conduct commitment enumerated in the reparation acknowledgment artifact or in a counter-observation. That artifact is the first governed observation (608) of the pair, emitted by the agent to the counterparty named in the counterparty binding field of the arc. A counter-observation is a governed observation producing revised terms, exchanged before terminal settlement and bounded by a round count declared in the governing policy object.

Where the acceptance is so conditioned, the matched pair (600) completes, and the other-directed reparation arc (804) is discharged, only upon a subsequent conduct record of the persistent semantic agent (100) conforming to the commitment and presented to the counterparty within an observation interval. The filing expresses that interval as a count of successor epochs of the agent's own hash chain, so that it is not advanced by any other party. Under Section 1 the chain advances one epoch per committed entry, each entry committing to the immediately prior one by a cryptographic digest computed over that prior entry together with an unpredictability contribution, a volatile salt, and a domain-separating tag.

Conformity is evaluated by the counterparty that conditioned the acceptance and by no other party, and the agent performs no evaluation of its own conduct record for the purpose. That counterparty appends a conformity determination, being an accepted (122) or a rejected (124) determination upon the conduct record, and emits it as the observation completing the pair. Both values belong to the closed set of determination

classes of Section 1.8, which also holds the not-determinable (126) and the not-applicable (128) determination and which admits no scalar confidence, no probability, and no graded weight in place of a determination.

Absent a conformity determination recording an accepted (122) determination within the interval, the pair completes nothing and the arc remains pending.

What attaches to an arc still pending comes from Section 8.7. The retention register accumulates the amount of each pending arc, and the accumulation is monotone in the absence of settlement, an other-directed reparation arc (804) being reducible only by a completed matched pair (600) with the party recorded as harmed, and not by an act of the deviating agent upon itself, elapsed time, standing without further incident, or policy succession. Should the accumulated amount exceed the aggregate retention (800) declared in the signed policy object (112), the permission condition of Section 7 is foreclosed and a retention foreclosure record (808) is appended, whereupon a deviation likelihood (706) exceeding unity produces the withholding outcome and not the admission outcome, the authorization gate (300) being written to the withheld state (310) and no permitted deviation record (710) appended.

A different absence is governed by Section 8.6. Where no reparation acceptance determination (806) arrives within the discharge window at all, the agent appends a reparation non-response outcome as a not-determinable outcome identifying the arc, the bound counterparty, and the window applied. No counter of either party is incremented, nothing adverse is appended to the counterparty identity record (114), and no standing quantity of the counterparty under Section 3 is modified.

Declared Bounds, Epoch Counts, and What the Filing Leaves Open

Paragraph [0501] fixes the units of the observation interval and states no value for it. Quantities the surrounding sections attach to the exchange are also declared at deployment.

- **The observation interval.** Expressed as a count of successor epochs of the agent's own hash chain, so that no other party advances it. The paragraph states no numeric count and no default.
- **The discharge window.** Declared in the signed policy object (112) and expressed in those same units. Section 8.5 makes it the sole temporal condition upon completion of the pair, subsuming the time component of the pairing rule of Section 6, whose scope-partition intersection and identity conditions apply unmodified.
- **The authorization budget decrement.** Emission of a reparation acknowledgment artifact decrements the authorization budget (404) by an amount declared in the signed policy object (112), without regard to whether the emission was warranted.
- **Re-emission cadence and its bounding count.** Both declared in the signed policy object (112). Exhaustion of the count neither discharges nor redesignates the arc.
- **The counter-observation round count.** Declared in the governing policy object, non-convergence being exhaustion of that count and a failure of the timeout class.
- **The aggregate retention (800).** Declared in the signed policy object (112) and held by a retention monotonicity constraint to a monotonically non-increasing floor over values admitted from successor signed policy objects.

Numeric figures reach Section 8 at one place only, the worked trace of Section 8.9 given expressly by way of illustration, which runs the deviation deductible, the retention register, and the foreclosure rather than the conformity determination. No latency figure, no benchmark, and no default epoch count for the observation interval appears.

Placement Among the Further Settlement Rules

The paragraph sits in Section 10.13, among partition-scoped escrow and further settlement rules. Immediately before it stands the disclosure of conditional settlement completion forms, under which the matched pair (600) is recognized only upon

satisfaction of a declared completion condition whose evidence is linked in the append-only lineage field (104) to the settlement it conditions. Conditions enumerated there include a credentialed observation of a declared external event, a declared authority sign-off, a declared compliance demonstration, an aggregation of a declared count of contributing governed observations, and any further completion condition declared in the governing policy object. Paragraph [0501] recites its own gating separately, naming the obligated agent's subsequent conduct record and the counterparty bound to the arc.

Section 6.12 carries the general statement, the restoration procedure of Section 8 being performed as a matched-pair settlement: the receiving machine of the asserting party (118) of the harmed origin-equivalence class (200) verifies the artifact's references against its own append-only lineage field (104) and, where they verify, emits the acceptance determination as the second governed observation (610), the pair itself effecting the transition of the authorization gate (300) from the provisional granting state to the granting state. That section adds, as a further embodiment, that the acceptance is commitment-conditioned upon a conduct commitment, the pair completing only upon a subsequent conforming conduct record.

Delegated acceptance authorization, an adjacent embodiment, provides for a reparation acceptance determination (806) produced by a delegate or the principal of the counterparty rather than by the counterparty itself, completing the pair only upon a verified delegated acceptance authorization presented with it; paragraph [0501] recites no delegation, assigning evaluation to the counterparty that conditioned the acceptance and to no other party. Section 10.14 suspends propagation of state while the agent carries any undischarged reparation arc (804), the suspended propagation comprising coupling of a value 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.

Conformity evaluated over an observation interval recurs outside reparation. The two-part conformance filter (906) of Section 9.8 admits an origin-equivalence class (200) into a corrector-class enumeration (904) only where the presented records record both a correction of the followed agent and, within an observation interval, a subsequent conduct record of that agent evaluated for conformity with that correction and recorded as compliant. In Section 10.2 a corrective encounter resolves conformity by two cases, a recorded abstention establishing it where the artifact asserted conduct that ought not to have been performed and a recorded execution establishing it where the artifact asserted omitted conduct, mere repetition establishing it in neither.

How Escrow, Timelocks, Probation, and Auditor Verdicts Differ

Conditional and third-party settlement mechanisms are surveyed in the filing's background. Escrow arrangements interpose a trusted third party or escrow agent that holds the subject of the exchange and releases it upon a release condition. Release there is performed by the interposed party, whereas the conformity determination is appended by the counterparty bound to the arc, and the completing act recites no intermediary.

Atomic swaps and hashed timelock contracts effect a cross-ledger exchange conditioned upon disclosure of a preimage within a timelock, each leg being committed to a distributed ledger whose ordering a consensus authority establishes. Two-phase commit protocols coordinate the parties through a coordinator or a quorum that fixes a single agreed ordering before the exchange is final, and payment-channel settlement runs against a channel opened by pre-negotiated session state established before any exchange occurs. Matched-pair settlement is disclosed as operating without all three: no intermediary, no centralized consensus or ordering authority, and no pre-negotiated session or channel state.

The background treats behavioral integrity and reputation systems for autonomous agents at greater length. Such systems compute a conformity measure between an agent's observed execution signals and a baseline model of expected behavior, compare that measure against a threshold, reduce capability upon a deficient comparison, and restore capability upon sustained standing, being an interval of operation without incident, or upon a reconciliation recorded to a ledger unconditioned on the participation of any party recorded as harmed. Each element sits differently in the filed mechanism. Elapsed time restores no authorization and discharges no arc, the restoring act is a typed determination from the counterparty bound to the arc, and what gets evaluated is conformity to a commitment upon which that counterparty conditioned its acceptance rather than divergence from a supplied baseline.

Accountability protocols for distributed systems hold the verdict in auditors, witness nodes collecting evidence concerning an accused node and third parties verifying the proof, while remote attestation architectures locate the appraisal of evidence in a verifier and the consequent grant or denial of authority in a relying party. Regulatory and contractual accountability mechanisms, among them suspension of notice processing for a notifier that frequently submits manifestly unfounded notices, attach the consequence only after a merits determination performed by an institution other than the penalized party. Placement differs again here: the obligated agent is excluded from evaluating its own remedial conduct, and that evaluation is routed not to a third party but to the counterparty the conduct harmed.

Each distinction above is drawn from the filing's own background. Nothing here asserts that any product, protocol, or standard practices the mechanism described.

Disclosure Scope

The mechanism described here is disclosed in U.S. Provisional Application No. 64/117,812, at Section 10.13, paragraph [0501], titled in the filing as reparation conformity determination over an epoch-count interval. Antecedents come from

Section 8, which establishes the other-directed reparation arc (804), the reparation acknowledgment artifact, the reparation acceptance determination (806), the discharge window, and the aggregate retention (800); from Section 6, which supplies the matched pair (600) and the counter-observation; and from Section 1.8, which supplies the closed set of determination classes. The general commitment-conditioned form appears at Section 6.12.

This article is a technical description written for public disclosure and search. It is not a claim construction, not legal advice, and not a statement of the scope of any claim that may issue. Where this description and the filed specification differ, the specification governs. Parameters identified above as declared are declared at deployment in a signed policy object (112) or in the governing policy object, and the filing fixes no numeric value for them.

Counterparty-Directed Reparation (/counterparty-reparation)

All 49 steps → (/inventive-steps)

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)

SECONDARY TECHNICAL

- The Costly Acknowledgment Artifact (/articles/counterparty-reparation/costly-acknowledgment-artifact)
- 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)

- Dual-Lock Escrow of the Discharge Itself (/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)
- 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)
- Delegated Acceptance Authorization: Discharging a Reparation Arc Through a Counterparty's Delegate or Principal (/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)
- **Commitment-Conditioned Reparation Acceptance: A Counterparty-Evaluated Conformity Determination Within an Epoch-Count Observation 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)
- 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)

APPLICATIONS · GENERAL

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

APPLICATIONS · SPECIFIC

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

TERMINOLOGY

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

Counterparty-Directed Reparation overview → (/counterparty-reparation)