

Reason-Type Retyping by a Superseding-Type Entry: Recomputing an Edge's Reason-Type on Later Severance Evidence Without Disturbing Modifications Already Applied

Reason-type retyping by a superseding-type entry is a lineage procedure for a persistent semantic agent, disclosed in U.S. Provisional Application No. 64/117,812, that revises how heavily a counterparty's accepted determinations move the agent's integrity state once later severance evidence changes the resolved character of the edge to that counterparty. Ordering is what makes the problem hard: a severance event enters the record after the interactions it bears upon, so an edge may be weighted under one reason-type and later resolve to another. Rather than freeze the classification or rewrite the applied history, the agent recomputes the reason-type upon a severance event later recorded against the edge and, where it resolves differently, appends a superseding-type entry naming the superseded reason-type, the superseding reason-type, and the severance event upon which the retyping was performed. Modifications already applied under the superseded type are left undisturbed, and the superseding type governs only the weighting of a modification whose recorded assertion time is later than the retyping entry.

Severance evidence arrives after the weighting it governs

A governed agent that weights incoming correction by the recorded character of its relationship to the critic faces a question of ordering. In the architecture of U.S. Provisional Application No. 64/117,812, the reason-type of an edge is resolved from recorded severance events, a severance event being a lineage entry recording a structural termination of interaction capacity. Its class is either a payment class, evidenced by cessation of a recorded settlement obligation, or an obligation class, evidenced by lapse or revocation of a contract or enforcement record. Nothing guarantees such an entry exists at the moment a determination is produced. Absent a recorded severance, or with only one class tested and survived, the ordered procedure yields not-typeable, one of the four values it produces.

A not-typeable edge still moves the scoped integrity vector (106) and the self-esteem aggregate (108). Upon an accepted determination (122), a state modifier forms an effective weighting as the product of the per-reason-type weighting and a standing multiplier, and applies that weighting to the magnitude by which those two quantities are modified. Where the reason-type is not-typeable and the product falls below a declared non-zero minimum, the effective weighting is raised to that minimum, a floor upon the product rather than upon the weighting alone, so an untested edge still moves state but by less than a severance-tested one.

A long run of accepted determinations (122) from one asserting party (118) may therefore be weighted across an edge resolving not-typeable. Record a payment-class severance against that edge, let it go unsurvived, and the edge now resolves payment-sustained. The classification the agent holds is no longer the classification under which its own integrity state was moved.

Two repairs are available, and each gives up something held elsewhere in the architecture. Freezing the classification at first resolution leaves the weighting fixed against severance evidence the agent has since appended. Recomputing the applied history would mean altering modification entries, which the append-only lineage field

(104) does not admit: it takes appends and, for the entries these mechanisms rely upon, admits no deletion and no modification of an appended entry. Retyping by a superseding-type entry takes neither branch.

The superseding-type entry and its four prohibitions

The procedure runs on the severance-survival machinery, so the base resolution comes first. An edge is a persisted dyadic relation between the agent (100) and one counterparty, represented by that counterparty's identity record (114) and the entries of the append-only lineage field (104) recording their interactions. A severance event comprises a severance class, a recorded time, and a reference to the evidencing entry. For each class the agent computes a severance-survival state over an observed interval, taking one of three values: not-tested; survived, where an interaction entry follows the severance within a declared continuation interval; and not-survived otherwise. That state is computed structurally and is never inferred from message content or from a party's declaration.

From the pair of survival states alone the agent (100) resolves the reason-type of the edge by an ordered procedure: payment-sustained where a payment-class severance is recorded and unsurvived; obligation-sustained where an obligation-class severance is recorded and unsurvived; want-sustained where severances of both classes are recorded and both survived; and not-typeable where no severance is recorded or only one class was tested and survived. Where both classes are recorded unsurvived, the reason-type resolves under the class whose severance bears the earlier recorded time, with ties broken by a declared class precedence, so exactly one reason-type is yielded. The resolution and its inputs are appended to the lineage field (104) and to the counterparty identity record (114), and the reason-type is never declared by the asserting party (118).

New evidence entering that computation triggers retyping. Upon a severance event later recorded against an edge, the persistent semantic agent (100) recomputes the reason-type of that edge. Where the recomputation resolves differently, the agent appends to

the append-only lineage field (104) a superseding-type entry naming the superseded reason-type, the superseding reason-type, and the severance event upon which the retyping was performed. A severance event carries a reference to the entry evidencing it, so the named event reaches that record through the reference.

Four prohibitions attach to the entry. Retyping leaves undisturbed each modification of the scoped integrity vector (106) and the self-esteem aggregate (108) already applied under the superseded reason-type: no such modification is reversed, recomputed, or removed, and no entry recording one is altered. The fourth of these reaches the lineage record itself. Each operand of the effective weighting is appended to the lineage field (104) when a modification is applied, and the entry recording that modification is not altered by the retyping.

Forward reach is drawn on a recorded quantity. The superseding reason-type governs only the weighting of a modification whose recorded assertion time is later than the retyping entry, and governs no earlier modification. The classification is revisable, then, without being retroactive: the counterparty identity record (114) carries the resolved reason-type that the state modifier retrieves upon an accepted determination (122), and the lineage field (104) carries the resolutions and the superseding-type entries, each of the latter naming the severance event that produced the transition.

Retyping can move an edge from not-typeable to payment-sustained. Should the declared weightings for those two types differ, a modification asserted after the retyping entry is weighted under the superseding type, while the earlier run of modifications, including any whose effective weighting was raised to the declared non-zero minimum, stands as applied.

Which quantities the filing leaves to declaration

The signed policy object (112) is authored by a principal to which the agent (100) is bound, is covered by that principal's signature, and carries the declared bounds, weights, and coefficients consumed by the computations of the disclosure. The agent does not author it and modifies it only by admitting a successor. That division puts the continuation interval deciding survival and the class precedence breaking a tie between two unsurvived classes on the declared side rather than the computed side. The policy object in force carries a weighting per reason-type, and the non-zero minimum is declared there as well, applying only on the condition set out above.

Declaration also parameterizes the standing multiplier, the second operand. It derives from three timing-domain statistics over the agent's (100) own lineage entries (104) for a counterparty and nothing else: a direction of initiation equal to agent-initiated interactions divided by total interactions, a latency equal to the median reciprocation interval between the parties, and a regularity equal to the median absolute deviation of successive inter-interaction intervals, each interval counted in successor epochs of the agent's hash chain. Each statistic maps through two declared breakpoints to a component score of zero, one, or two; the three scores sum to an integer from zero to six; and a declared non-decreasing map, with a least multiplier above zero and a declared greatest multiplier, yields the multiplier. No cardinal magnitude of benefit conferred or received is computed, solicited, or stored.

Window lengths elsewhere rest on a statistic of the same kind: the recorded inter-arrival estimator, computed by the agent (100) over its own append-only lineage field (104) alone as a declared measure of central tendency of intervals between successive recorded entries, supplies the lower bound of the observation and register windows used elsewhere. No numeric bound, threshold, or rate for any of the foregoing appears in the filed disclosure, and none should be inferred here.

Neighbors of retyping in the reason-type stack

The parent disclosure is reason-type admission, set out above: the severance-survival test, the ordered resolution, the weighting of state movement, and the valuation-free ordinal standing quantity. Retyping supplies the rule for what happens when the resolution changes.

Downstream consumers are several. The effective weighting applied to the scoped integrity vector (106) and the self-esteem aggregate (108) upon an accepted determination (122) is conditioned on the reason-type. So is the decrement applied to the authorization budget (404) upon issuance of a conduct evaluation artifact (116), under a schedule specifying the greatest amount for an edge resolving not-typeable, a lesser amount for one resolving payment-sustained or obligation-sustained, and the least for one resolving want-sustained. Renewal as well: the amount by which a renewal raises the authorization quantity, and the amount by which it replenishes the authorization budget (404), are each a monotonically non-decreasing function of the count of recorded severance events across the constituent edges of the renewing origin-equivalence class (200), a class each of whose edges resolves not-typeable renewing at a declared least amount.

A broader non-retroactivity posture runs through the filing. Under the retroactive narrowing bar, the admission evaluator (120) resolves an assertion against the signed policy object (112) in force at the recorded assertion time and does not retain a successor object admitted after that time. The prospective narrowing bar detects, from the lineage field (104), admission of a successor object that excludes a declared value or drops a scope element from a corresponding value-scope tuple, where that admission follows an as-yet-undetermined conduct evaluation artifact (116) implicating the value or element and occurs within a declared window; on detection the architecture scores a deflection event and increments the refusal counter (304), without adjudicating whether the contraction was well founded. Those two bars govern a policy object the principal authors. Retyping governs a reason-type the agent resolves.

A reason-type that cannot be resolved at all takes a separate path. The degradation map (500) sends it to the reason-type-unresolved path, which bounds the magnitude of modification to the non-zero minimum declared in the signed policy object (112), the consequence foreclosed at that path being a magnitude of zero rather than an adverse magnitude, and the outcome so produced being adverse to no party. Retyping addresses the different case of a reason-type that resolved and then resolved differently.

The agent (100) maintains a plurality of scope partitions, each carrying in memory its own instance of the scoped integrity vector (106), self-esteem aggregate (108), refusal counter (304), authorization budget (404), and a per-partition segment of the lineage field (104). The modifications a superseding-type entry declines to disturb are per-partition instances.

How this differs from revision models in the art

Several families of systems revise a classification when new evidence arrives. The differences here are structural.

Reputation and trust-scoring systems recompute a score from an evolving evidence set. The recomputed score typically replaces the prior one, and decisions already taken under the prior score are either left with no recorded relationship to it or accompanied by a score history kept as telemetry. Under the disclosed procedure the modifications applied under the superseded reason-type stand as applied, the superseding type governs no earlier modification, and the change of classification is itself an appended entry naming both types and the severance event relied upon.

A shared append-only posture appears in event-sourced and immutable-ledger systems, which append compensating entries rather than mutate records. A compensating entry is normally intended to net out the effect of the entry it compensates. The superseding-type entry nets out nothing, and reversal, recomputation, and removal are separately foreclosed.

Bitemporal databases distinguish the time a fact was true from the time it was recorded, and can answer what a system held to be true at a past instant. That is a query capability over stored history, and it settles neither which of two classifications governs a weighting computation nor the event on which a change of classification was performed.

Retroactive reach is the design intent in certificate revocation and credential-lifecycle systems, which record a status change against an identity and commonly invalidate what was done under the revoked credential. This mechanism forecloses that reach.

Commercial systems that classify counterparty relationships assign categories that change over time, typically from declared attributes, pipeline-stage fields, or operator judgment. The reason-type is resolved solely from the pair of severance-survival states computed over structurally recorded severance events, is never declared by the asserting party (118), and is not derived from message content.

None of these observations is a statement about any product or party. They describe categories of design, and what separates them from the filed disclosure is the combination: a classification derived only from recorded severance and survival, a supersession entry naming both types and the evidencing severance event, four prohibitions on disturbing applied modifications, and a governance boundary keyed to recorded assertion time.

Disclosure Scope

Reason-type retyping by a superseding-type entry is disclosed in U.S. Provisional Application No. 64/117,812, at Section 10.1, paragraph [0348], within the disclosure of value-scope resolution, reason-type admission, provisional restoration, and correction exposure. It builds on the severance-event and survival-state structure of paragraph [0333], the reason-type resolution of paragraph [0334], the reason-type weighting of state movement of paragraph [0335], and the standing quantity of paragraph [0336],

and composes with the severance-conditioned renewal amount of paragraph [0347] and the reason-type-conditioned issuance decrement of paragraph [0488]. Published as a technical disclosure, this article establishes a public, timestamped description of the mechanism as filed. It states no parameter value, threshold, or bound beyond those the filed disclosure declares, asserts infringement by no party, and should be read to neither enlarge nor narrow the provisional's disclosure.

Deference and Earned Exposure ([/earn](#) [All 49 steps → \(/inventive-steps\)](#) [ed-exposure](#))

Standing earned through recorded conduct; deference that survives across agents.

Provisional application

PRIMARY TECHNICAL DISCLOSURE

- [Earned Exposure and Deference Records: Standing Built From Recorded Conduct \(/articles/earned-exposure/earned-exposure-and-deference-records\)](#)

SECONDARY TECHNICAL

- [The Valuation-Free Ordinal Standing Quantity \(/articles/earned-exposure/valuation-free-ordinal-standing\)](#)
- [Determination-Invariance Under an Agent's Own Policy Succession \(/articles/earned-exposure/termination-invariance-policy-succession\)](#)
- [Elective Exposure Enrollment Without Deference \(/articles/earned-exposure/elective-exposure-without-deference\)](#)
- [Interventional Attribution by Receipt-Path Control \(/articles/earned-exposure/interventional-attribution-receipt-path\)](#)
- [The Portable Exoneration Record \(/articles/earned-exposure/portable-exoneration-record\)](#)
- [Attribution, Exoneration, and the Domain Baseline: An Ordered Branch Over the Latency Differential \(/articles/earned-exposure/attribution-versus-exoneration-branch-domain-baseline\)](#)
- [Bounded Count of Dispatches Per Deference Record: Capping How Many Executions One Counter-Signed Adopted Determination Authorizes \(/articles/earned-exposure/bounded-count-dispatches-deference-record\)](#)

- Coarse Lineage-Segment Granularity: Verifying a Tested-Entry Enumeration Without Disclosing Which Lineage Entries Were Tested (/articles/earned-exposure/coarse-lineage-segment-granularity-tested-entry).
- Correction-Exposure Decay: An Authorization Quantity That Depletes With Agent Operation and Renews Only on Recorded External Evaluation (/articles/earned-exposure/correction-exposure-decay-authorization-quantity).
- Cause-Keyed Gate Restoration: A Distinct Return Path for Decay-Induced Withholding of Agent Authorization (/articles/earned-exposure/distinct-return-path-decay-induced-withholding).
- Edge Severance Events and the Three-Valued Survival State: Resolving Whether a Counterparty Relationship Outlived a Payment-Class or Obligation-Class Termination (/articles/earned-exposure/edge-severance-events-three-valued-survival).
- Emitting the Deference Correction Linkage Record to the Followed Agent: Reporting a Downstream Correction Without Producing a Rating (/articles/earned-exposure/emission-deference-correction-linkage-record-followed).
- The No-Address Omission Branch: What a Deferring Agent Records When an Exposure Dispatch Reaches Nobody (/articles/earned-exposure/exposure-dispatch-no-address-omission-branch).
- Channel-Baseline Normalization: Taking Channel Overhead Out of the Latency Differential (/articles/earned-exposure/latency-differential-channel-baseline-normalization).
- Reason-Type Resolution From Severance-Survival States: Typing an Agent's Relationship Edges Without Asking the Counterparty (/articles/earned-exposure/reason-type-resolution-survival-states).
- **Reason-Type Retyping by a Superseding-Type Entry: Recomputing an Edge's Reason-Type on Later Severance Evidence Without Disturbing Modifications Already Applied (/articles/earned-exposure/reason-type-retyping-superseding-type-entry)**
- Renewal-Side Replenishment of the Authorization Budget: Restoring an Agent's Metered Spending Capacity Only on Exposure to an Uncounted Origin-Equivalence Class (/articles/earned-exposure/renewal-side-replenishment-authorization-budget).
- Following Does Not Count as Being Tested: Retention of the Short Decay Constant When an Agent Defers, and the Action Class That Stays Untested (/articles/earned-exposure/retention-short-decay-constant-deference-class).
- Standing-Determination Designation: Substituting a Verified Counterparty Determination for One Conjunct of the Dispatch-Authority Predicate (/articles/earned-exposure/standing-determination-designation-substitution-inside-dispatch).
- Uncounted-Class Renewal: Gating Agent Authorization on a Windowed Register of Origin-Equivalence Classes (/articles/earned-exposure/uncounted-class-renewal-gated-windowed-register).

APPLICATIONS • GENERAL

- Vendor Qualification Without Ratings: Standing Earned From Recorded Conduct (/articles/earned-exposure/vendor-qualification-without-ratings).

- [Credentialing Autonomous Practitioners: Deference That Survives Across Agents \(/articles/earned-exposure/professional-credentialing-agents\)](/articles/earned-exposure/professional-credentialing-agents).

APPLICATIONS • SPECIFIC

- [Marketplace Seller Reputation Systems: Presented Scores Versus Earned Admissibility \(/articles/earned-exposure/marketplace-seller-reputation\)](/articles/earned-exposure/marketplace-seller-reputation).

TERMINOLOGY

- [counterparty identity record \(/glossary#counterparty-identity-record\)](/glossary#counterparty-identity-record)
- [deference record \(/glossary#deference-record\)](/glossary#deference-record)
- [edge \(/glossary#edge\)](/glossary#edge)
- [reason-type \(/glossary#reason-type\)](/glossary#reason-type)
- [severance event \(/glossary#severance-event\)](/glossary#severance-event).
- [standing quantity \(/glossary#standing-quantity\)](/glossary#standing-quantity).
- [untested class \(/glossary#untested-class\)](/glossary#untested-class).

[Deference and Earned Exposure overview → \(/earned-exposure\)](/earned-exposure)