

Transitive Reversal Notices That Carry a Settlement Reversal One Hop at a Time Along a Reliance Chain No Party Enumerates

One-hop propagation of a reversal along a reliance chain is the mechanism by which a reversed or amended settlement reaches parties entered in no settled party's reliance register. Disclosed in U.S. Provisional Application No. 64/117,812, it addresses a structural limit on reach: a party that relies on another party's reliance-bearing determination registers that reliance with the party it relied upon rather than with the settled parties, so each party of a chain holds a register of only the parties immediately downstream of it. A party that admits a reversal notice, appends its reversal mark, and re-resolves then evaluates the reliance-completeness predicate over its own register indexed by the reliance record the notice named, and emits a transitive reversal notice to each downstream party so enumerated. Each recipient treats that notice as a reversal notice and discharges the same duty onward, so the reversal reaches a chain of arbitrary length with no party holding the whole enumeration.

What a reverting party can enumerate

A settled party that reverses a settlement notifies the parties its own record names, and that record is a register the relying parties populate. A relying party that independently verifies a settled matched pair (600) against the counterparty identity records (114) it holds for both settled parties, and that then produces a determination consuming that settlement, appends to its append-only lineage field (104) a reliance record. The record carries the settlement identifier, a consuming-determination reference identifying the exact determination with its action class and scope partition, the relying party's identity primitive, and its attested epoch, and it is bound to exactly one settlement and one determination. That record is emitted to both settled parties as a governed observation, complete upon emission and soliciting no acceptance. Each settled party verifies it, resolves the settlement identifier to a settlement-lineage entry (606) of its own, enters it in a reliance register indexed by settlement identifier, and appends a reliance acknowledgment.

The register is load-bearing on the way back out. A settled party reversing or amending a settlement appends a reversal record carrying a reliance enumeration field, then evaluates a reliance-completeness predicate by an evaluator in its own memory field (102). Satisfaction requires that, for every reliance record entered in that party's own reliance register under the settlement identifier, the enumeration carry a matching entry by relying-party identity and consuming-determination reference. Where the predicate is satisfied, the reversal is given effect and a reversal notice is emitted to each enumerated relying party. Where it is not, the reversal record is appended as an attempted-reversal entry and the settlement is not reversed, continuing to obtain for a downstream consumer verifying it from the record alone. The condition rests upon the reverting party's own enumeration alone: no other party is polled, votes, or responds, and the non-response of a relying party neither prevents nor conditions the reversal.

Dependencies can extend past the settled parties. A party consuming not a settlement but another party's reliance-bearing determination appends a reliance record carrying, in place of the settlement identifier, an upstream-reliance reference naming that other party, the entry of its lineage at which its reliance record was appended, and the settlement identifier ultimately relied upon. Such a record is a transitive reliance record, and a sequence of them each referencing the next and terminating in one carrying a settlement identifier constitutes a reliance chain. The further party emits its transitive record as a governed observation to the referenced party alone and not to any settled party; that party verifies it, confirms the upstream reference resolves to its own reliance record, and enters it in its own reliance register. Each party thus holds a register of the parties immediately downstream of it and no enumeration of the whole chain.

A reversal notice from a settled party accordingly reaches the parties entered in that party's own register. Parties further along a chain appear in no register the reverting party holds.

One hop, then the same duty again

The trigger is admission at a party already in a chain. A party of a reliance chain that admits a reversal notice and appends its reversal mark and re-resolution then evaluates the reliance-completeness predicate over its own reliance register, indexed by the reliance record the notice named. At a settled party that predicate runs over entries indexed by settlement identifier; at a chain party the index is instead the reliance record the incoming notice identified, which is the record against which that party's own downstream parties registered their reliance. What the evaluation enumerates is the set of parties immediately downstream of the party performing it.

To each downstream party so enumerated, the party emits a transitive reversal notice as a governed observation. Five items are recited as carried:

- the emitting party's own reliance record identifier;
- the settlement ultimately reversed or amended;
- the resolution class;
- any amended terms;
- a hop count.

Emission of a governed observation is complete upon emission, the emitting party requiring no acknowledgment, no handshake, and no delivery confirmation.

Each downstream party treats the transitive reversal notice as a reversal notice, appends its own mark, re-resolves, and discharges the same duty onward. What a reversal notice occasions is recited separately: a relying party receiving one, verified against the counterparty identity record (114) of the emitting settled party, appends to its append-only lineage field (104) a reversal mark carrying the settlement identifier, the resolution class, the emitting identity and epoch, and a reference to its reliance record. The settlement that mark names is not deleted.

Thereafter the party tests each settlement identifier presented as a determination input against its reversal marks, and one bearing a reversal-class mark is not admitted. Re-resolution follows the class. Where the class is a reversal, the party re-resolves the referenced determination with the barred input unavailable, emitting an outcome of its recorded abstention class (126). Where the class is an amendment, it re-resolves against the amended terms and, if those terms supply every consumed input, produces a fresh determination and a fresh reliance record. In either case the outcome propagates to consuming determinations under the conversion bar (502) and is adverse to no settled party.

By repetition of that duty, the reversal reaches a chain of arbitrary length with no party holding the whole enumeration.

One bound is recited on the construction. Propagation within a party's own lineage is bounded by a re-resolution cascade bound declared in that party's signed policy object (112), the traversal terminating in a recorded abstention state rather than unbounded recursion.

Declared bounds and unstated quantities

The re-resolution cascade bound is the single declared quantity in the paragraph. It sits in the party's signed policy object (112), and where propagation within that party's own lineage reaches it, traversal terminates in a recorded abstention state rather than unbounded recursion. No numeric value, no default, and no permitted range appears in the filed text, and none is supplied here.

A hop count is carried by the transitive reversal notice. Carriage is what the paragraph recites of it: no threshold upon it, no comparison against it, and no consequence attaching to any particular value is stated.

Constraints elsewhere in this material are structural rather than numeric, and exact where stated. A reliance record binds to exactly one settlement and one determination. The completeness predicate is satisfied only where every reliance record entered in the evaluating party's register under the applicable index has a matching entry in the enumeration, matched by relying-party identity and consuming-determination reference. A register at a settled party is indexed by settlement identifier; at a chain party, by the reliance record the notice named. Nothing in these paragraphs declares a capacity bound on a register, an interval within which a downstream party must admit a transitive reversal notice, or a latency figure for propagation along a chain.

Where the hop sits in the filed architecture

Section 10.5 treats tool provenance, reliance, and contested pairing together. Its reliance material runs across five paragraphs: registration of a reliance record with the settled parties, the enumeration condition on a reversal, the relying party's mark and re-resolution, the transitive reliance record and the chain, and then the propagation duty described here.

A duty of the same shape sits in that section on a different substrate. A consuming semantic agent (100) maintains against each endpoint an onward emission register, writing an entry whenever it emits that endpoint to a peer semantic agent (100) as a tool source. Upon writing a provenance-withdrawn attribute, the agent enumerates that register and emits an onward withdrawal notice to each peer whose recorded head is the head withdrawn or descends from the withdrawn entry. A peer holding a matching endpoint admits it exactly as a direct withdrawal and discharges the same duty to its own downstream peers, propagating across a sourcing chain of arbitrary length, each hop a non-adverse outcome and incrementing no meter of any party.

Upstream of the reversal sits credentialed dispute resolution, which renders a resolution that may include a settlement reversal, a settlement amendment, a compensation directive, or a no-change outcome. A reversal is given effect there by the settled party appending a reversal record enumerating each reliance entered under the settlement identifier and emitting a reversal notice to each relying party so enumerated, with no step incrementing any refusal meter of either party. The reversal and amendment classes are what a transitive reversal notice carries onward.

Underneath is the append-only substrate. A settlement-lineage entry (606) is neither removed nor modified, a subsequent reversal or amendment being itself appended. The conversion bar (502) forecloses conversion of an abstention outcome into a scalar value, into a default value, into an operand of a threshold comparison (510), or into a consequence adverse to any party. Recomputation supplies the final piece: a semantic agent (100) recomputes its dispatch-authority predicate responsive to each request to

dispatch an action, 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 append-only lineage field (104) takes effect at the next dispatch request without revocation infrastructure. A reversal mark is appended to that same lineage field.

Distinguishing revocation lists, brokers, and coordinated rollback

Several established categories address adjacent problems. The comparisons below are structural, and assert nothing about any product, party, or practice.

Certificate revocation lists and status responders publish invalidity from an issuer and require each consumer to fetch it, so the publisher holds the authoritative list and reach depends on consumers polling. In the filed structure no party holds an enumeration of the whole chain, and a notice travels from each holder of a register to the parties named in that register.

Publish and subscribe brokers and webhook fan-out achieve reach by centralizing the subscriber set, with some component knowing every recipient. What the filed material records instead is a register per party covering the parties immediately downstream of it.

Distributed transaction rollback and compensating-transaction protocols generally involve a coordinator driving participants, with outcomes that can wait on participant responses. The filed condition runs the other way: no other party is polled, votes, or responds, and a relying party's non-response neither prevents nor conditions the reversal.

Ledger reorganization and rollback revert shared state so that reverted entries cease to be part of the record. Nothing is reverted here. A settlement-lineage entry (606) is neither removed nor modified, and the settlement a mark names is not deleted;

what changes is that identifier's admissibility as a determination input at the party that appended the mark.

Data lineage and provenance catalogs record dependencies for audit and query, generally after the fact and without gating anything. A reliance record is emitted to the parties relied upon and entered in their registers, and completeness of the enumeration against such a register conditions whether a reversal is given effect at all.

Narrower than any of these is what the filed paragraph adds: a one-hop duty triggered by admission of a reversal notice, evaluated over a register indexed by the reliance record that notice named, discharged again at each recipient, and bounded within each party by a policy-declared cascade bound.

Disclosure Scope

This article describes subject matter disclosed in U.S. Provisional Application No. 64/117,812, at Section 10.5, paragraph [0412], titled "One-hop propagation of a reversal along a reliance chain." Immediately supporting it are [0408] on the reliance record registered with the settled parties, [0409] on the reliance-completeness predicate, [0410] on the reversal mark and re-resolution, and [0411] on the transitive reliance record and the reliance chain. Paragraph [0399] supplies the parallel onward withdrawal duty across a tool-sourcing chain. Supporting architecture appears at Section 1.5 for the dispatch-authority predicate, Section 5.4 for the conversion bar (502), Section 6.1 for the governed observation, Section 6.2 for the matched pair (600) and its first (608) and second (610) observations, Section 6.6 for the settlement-lineage entry (606), and Section 6.16 for credentialed dispute resolution.

Everything asserted above is drawn from that filed disclosure. Descriptions are of embodiments, and the scope of any exclusive right is determined by the claims of any application claiming benefit of that provisional, not by this article. Publication

establishes public, timestamped prior art on this mechanism. It is not a license, an offer, or legal advice.

Governed Matched-Pair Settlement

[All 49 steps → \(/inventive-steps\)](#)

(/governed-settlement)

Two agents settle on matched signed observations, by continuity, with no clearer.

Provisional application

PRIMARY TECHNICAL DISCLOSURE

- [Matched-Pair Settlement Between Agents: Bilateral Closure Without a Clearer \(/articles/governed-settlement/matched-pair-settlement-without-a-clearer\)](#)

SECONDARY TECHNICAL

- [The Derived-Artifact Provenance Chain and Chain-Head Identifier \(/articles/governed-settlement/derived-artifact-provenance-chain\)](#)
- [Provenance Withdrawal and the Provenance-Withdrawn Attribute \(/articles/governed-settlement/provenance-withdrawal\)](#)
- [Matched-Pair-Gated Corpus Contribution \(/articles/governed-settlement/matched-pair-gated-corpus-contribution\)](#)
- [Partition-Scoped Escrow Release Gated on Intersection Non-Emptiness \(/articles/governed-settlement/partition-scoped-escrow-release\)](#)
- [The First-Encounter Settled Pair and Promotion to the Persistent Tier \(/articles/governed-settlement/first-encounter-settled-pair\)](#)
- [Contribution Encumbrance on Severance or Quarantine: Governing Dispatch to Models Trained on a Severed Counterparty's Corpus Without Retraining or Deletion \(/articles/governed-settlement/contribution-encumbrance-severance-quarantine\)](#)
- [Encumbrance Bounds That Bar Persistence Promotion and Onward Tool-Source Emission Once the Per-Endpoint Count Exceeds the Bound \(/articles/governed-settlement/encumbrance-bound-barring-promotion-onward-emission\)](#)
- [Blinded Encumbrance Commitments: Carrying a Severed Contributor's Encumbrance Along With an Inference Endpoint Emitted to a Peer Agent \(/articles/governed-settlement/encumbrance-commitment-travelling-emitted-endpoint\)](#)

- [Release of a Contribution Encumbrance: Matched-Pair Re-Admission or a Substitution With an Empty Intersection \(/articles/governed-settlement/release-contribution-encumbrance\)](/articles/governed-settlement/release-contribution-encumbrance).
- [Registering Third-Party Reliance on a Settled Matched Pair: The Reliance Record and the Settled-Party Reliance Register \(/articles/governed-settlement/reliance-record-registered-settled-parties\)](/articles/governed-settlement/reliance-record-registered-settled-parties).
- [Conditioning a Settlement Reversal on a Reliance-Completeness Predicate Evaluated Over the Reverting Party's Own Reliance Register \(/articles/governed-settlement/reliance-completeness-predicate-conditioning-reversal\)](/articles/governed-settlement/reliance-completeness-predicate-conditioning-reversal).
- [The Relying Party's Reversal Mark: Barring a Reversed Settlement as a Determination Input and Re-Resolving the Determination That Consumed It \(/articles/governed-settlement/relying-party-reversal-mark-and-re-resolution\)](/articles/governed-settlement/relying-party-reversal-mark-and-re-resolution).
- [Transitive Reliance Records and the Reliance Chain: Registering Second-Order Dependency on a Settlement Without Any Party Enumerating the Whole Chain \(/articles/governed-settlement/transitive-reliance-record-reliance-chain\)](/articles/governed-settlement/transitive-reliance-record-reliance-chain).
- [Transitive Reversal Notices That Carry a Settlement Reversal One Hop at a Time Along a Reliance Chain No Party Enumerates \(/articles/governed-settlement/one-hop-propagation-reversal-along-reliance\)](/articles/governed-settlement/one-hop-propagation-reversal-along-reliance).
- [Contested Pairing in Matched-Pair Settlement: Withheld Recognition, a Distinct-Identity Claimant Count, and the Not-Determinable Resolution \(/articles/governed-settlement/contested-pairing-not-determinable-resolution\)](/articles/governed-settlement/contested-pairing-not-determinable-resolution).
- [Attributable Contest Resolution: Settling a Contested Offer by Re-Emitting a First Governed Observation That Names Exactly One Claimant \(/articles/governed-settlement/attributable-contest-resolution-named-re-emission\)](/articles/governed-settlement/attributable-contest-resolution-named-re-emission).
- [Local Outcome-Quality Records and Smoothed Endpoint Selection Preference for Governed Inference Dispatch \(/articles/governed-settlement/outcome-quality-record-endpoint-selection-preference\)](/articles/governed-settlement/outcome-quality-record-endpoint-selection-preference).

APPLICATIONS • GENERAL

- [B2B Agent Commerce: Bilateral Settlement Without a Clearing House \(/articles/governed-settlement/b2b-agent-commerce-settlement\)](/articles/governed-settlement/b2b-agent-commerce-settlement).
- [Supply Chain Handoffs: Settling a Transfer on Matched Observations \(/articles/governed-settlement/supply-chain-agent-handoffs\)](/articles/governed-settlement/supply-chain-agent-handoffs).

APPLICATIONS • SPECIFIC

- [ISO 20022 and Settlement Messaging: Matched Pairs in Financial Infrastructure \(/articles/governed-settlement/iso-20022-settlement-messaging\)](/articles/governed-settlement/iso-20022-settlement-messaging).

TERMINOLOGY

- [governed observation \(/glossary#governed-observation\)](/glossary#governed-observation)
- [matched pair \(/glossary#matched-pair\)](/glossary#matched-pair)
- [scope partition \(/glossary#scope-partition\)](/glossary#scope-partition)

[Governed Matched-Pair Settlement overview → \(/governed-settlement\)](/governed-settlement)