

Encumbrance Bounds That Bar Persistence Promotion and Onward Tool-Source Emission Once the Per-Endpoint Count Exceeds the Bound

An encumbrance bound is a limit, declared in a semantic agent's signed policy object, upon the per-endpoint count of distinct counterparties whose settled contributions remain inside a retrained inference endpoint after those counterparties have been severed or quarantined. Disclosed in U.S. Provisional Application No. 64/117,812, it acts on what per-counterparty narrowing does not reach, which is the count itself. Where the count exceeds the declared bound, and only where it exceeds, the receiving agent writes a designation and applies two bars: one upon promotion of derived values to a higher persistence tier, and one upon emission of the endpoint to a peer agent as a tool source. A peer that asks for the endpoint is answered by a recorded positive abstention naming the count and the bound, and is transmitted no count, no encumbering-counterparty identity, and no quality measure.

What accumulates when contributors walk away

A semantic agent (100) that retrains its own inference artifacts on counterparty-contributed corpus material takes that material in under settlement. A counterparty's training-corpus contribution is admitted only as the second governed observation (610)

of a matched pair (600) whose first observation (608) is a contribution-scope offer the agent emits, enumerating the corpus policy version, the scope partitions, and the action classes. On recognition each party appends a settlement-lineage entry, and the receiving agent computes a settled contribution identifier as a digest over that entry. Every retraining event records the set of settled identifiers it incorporated, being its recorded contribution set, matched to corpus material by digest equality alone.

Severance tends to arrive much later. Upon severing a counterparty, or upon writing a quarantine attribute to its counterparty identity record (114), the receiving agent (100) neither retrains nor deletes. It enumerates every endpoint whose recorded contribution set contains a settled contribution identifier of that counterparty, writes into each a contribution-encumbered attribute naming the counterparty, the identifiers, and the condition relied upon, and narrows that counterparty's scope object by an encumbrance narrowing record rendering dispatch to each encumbered endpoint inadmissible for any action whose affected-party class maps to that counterparty. Alongside those writes, the agent maintains per endpoint an encumbrance count of distinct encumbering counterparties, incremented per new counterparty.

Notice what the narrowing is indexed to: one counterparty, and the actions whose affected-party class maps to it. The count it sits beside is not something it acts upon. Two further handling decisions therefore fall outside its reach, and the filing treats both separately: whether values derived from the endpoint record may be promoted to a higher persistence tier, and whether the endpoint may be emitted to a peer semantic agent (100) as a tool source. Against each endpoint the consuming agent already maintains an onward emission register, writing an entry whenever it emits that endpoint to a peer as a tool source, naming the peer's identity primitive, the chain-head identifier at emission, the scope partition, and the time.

Bound, designation, and the two bars

The signed policy object (112) declares an encumbrance bound upon the per-endpoint encumbrance count. Every consequence that follows is conditioned on one comparison: where the count exceeds the bound, the receiving agent (100) writes a designation and applies two bars. Short of that condition, nothing here attaches.

The first bar reaches promotion. No value derived from that endpoint record is promoted to a higher persistence tier, and no such value is admitted as a promotion input. What the paragraph recites is a bar; it recites no retraining, no deletion, and no reversal, and the encumbrance response it builds upon expressly performs neither retraining nor deletion.

The second bar reaches emission. The agent does not emit that endpoint, and does not emit its artifact, to a peer semantic agent (100) as a tool source.

A peer's request for the endpoint is withheld and appended as a positive abstention naming the count and the bound, positive abstention being defined in the filing as a recorded, governed withholding of an action, the agent appending a determination naming the withheld action and the ground relied upon, and withholding dispatch.

What travels to the peer is specified negatively. The receiving agent transmits no count, no encumbering-counterparty identity, and no quality measure. Abstention outcomes are also not raw material for downstream computation: Section 5 carries a conversion bar (502) foreclosing a consuming determination from converting an abstention outcome into a scalar value, a default value, an operand of a threshold comparison (510), or a consequence adverse to any party, the foreclosure being affirmative rather than an absence of defined behavior.

Both bars release when the count ceases to exceed the bound by operation of the two release conditions of the preceding paragraph, and by no other condition. Each condition is a recorded fact rather than a lapse. The first is a matched pair (600) re-

admitting the contribution: the receiving agent (100) emits a fresh contribution-scope offer as first observation (608) naming each settled identifier of the counterparty, the counterparty emits a re-admission as second observation (610), and on settlement the agent appends an encumbrance release record. The second is a substitution event whose successor recorded contribution set omits every settled identifier of that counterparty, demonstrated by an empty intersection. On either, the agent decrements the encumbrance count and removes the narrowing record, whereupon dispatch ceases to be inadmissible, and the contribution-encumbered attribute is marked released and never deleted.

That list is closed expressly. No elapse of time, no successor signed policy object (112), and no lifting of quarantine alone releases a contribution encumbrance. The encumbrance paragraph further states of its own acts that all are performed from the agent's own state without adjudication by any other party.

Which values the filing declares, and which it leaves open

The bound is declared rather than derived. Its filed paragraph states that the signed policy object (112) declares an encumbrance bound upon the per-endpoint encumbrance count, and states no numeric value, no default, and no permitted range. Nothing here supplies one.

Exceedance is the operative comparison on both limbs: the bars attach where the count exceeds the bound, and release when the count ceases to exceed it. A count standing equal to the bound does not exceed it.

Derived instead of declared is the encumbrance count, whose unit is counterparties. It counts distinct encumbering counterparties standing against an endpoint, is incremented per new counterparty, and is decremented on release, so a counterparty whose material reached one endpoint through several contributions stands once against that endpoint.

The promotion limb names a tier without sizing it. Its terms are a higher persistence tier and a promotion input, with no tier count, no dwell time, and no promotion rate stated. Separately, the filing recites a persistence designation taking an ephemeral, a persistent, or a promoted value, promotion to the promoted value under a promotion policy object requiring an encounter history free of unresolved corrective encounters, and demotion by one tier at a rate or a run length declared in the signed policy object (112). That designation is held in the counterparty identity record (114) and the encumbrance paragraph does not tie the endpoint promotion bar to it; no rate or run-length value is stated for it either.

Pairing parameters come into the release path from the settlement layer. A matched pair (600) is recognized under a pairing rule and, where applicable, within a temporal proximity window (602), which the filing defines by form rather than by value: an absolute duration measured from the first governed observation (608), a declared relative event, an adaptive window, a count of epochs of the dynamic agent hash chain, and any temporal-window form declared in the governing policy object.

No interval attaches to the bars themselves. Release is conditioned on the two recorded conditions and on no other, so no expiry, cooldown, or decay value is declared here.

Where the mechanism sits in Section 10.5

Section 10.5 of the filing, titled "Tool provenance, reliance, and contested pairing," carries two chains of paragraphs that meet at a single endpoint record. One begins with the derived-artifact provenance chain, an ordered sequence whose first entry names the base publisher and whose subsequent entries record retraining events, verified at each lifecycle operation. It runs on to a provenance withdrawal that writes a provenance-withdrawn attribute, re-marks determinations falling within a re-marking window declared in the signed policy object (112), and gates the dispatch-authority predicate for the affected action class alone.

The other chain begins with matched-pair-gated corpus contribution and the settled contribution identifier, runs through the encumbrance write on severance or quarantine, and reaches the two release conditions. Sitting at the end of it is the encumbrance bound, reading the count the encumbrance write maintains.

The paragraph after it turns on the emission limb. Where the receiving agent (100) emits an emissible endpoint to a peer semantic agent (100), it may attach an encumbrance commitment: for each settled contribution identifier in the endpoint's recorded contribution set, a blinded identifier computed as a digest over that identifier under a blinding value declared in the corpus policy and emitted with the commitment, the blinded values ordered by magnitude rather than by contribution order. A peer holding a settled identifier of a counterparty it has itself severed tests that identifier's blinded value for membership, and on a hit writes its own contribution-encumbered attribute and narrows its own counterparty scope object. It learns no contributor identity it does not already hold and no quality or standing measure of any party, and the emission increments no meter of any party. That commitment accompanies an endpoint the agent does emit; the bound governs whether the agent emits it.

On the provenance chain sits a counterpart to that first bar. Where a provenance-freshness check does not resolve, the consuming agent (100) appends a provenance-indeterminate outcome of its recorded abstention class (126); no attribute is written, no determination is re-marked, and dispatch continues. That outcome's sole consequence is a quality-promotion bar under which no locally recorded quality value for that endpoint is advanced to a higher persistence tier or admitted as a promotion input while the outcome stands, released upon a later freshness check that resolves. Reach distinguishes the two: that bar is recited of locally recorded quality values, and the encumbrance bound's of any value derived from the endpoint record.

Composition with the wider architecture runs through the dispatch-authority predicate, which the semantic agent (100) recomputes responsive to each dispatch request from state then carried in the memory field (102), and not from an authorization token, a

cached predicate result, or a session grant, so that a write takes effect at the next dispatch request without revocation infrastructure. Evaluated at that predicate is the encumbrance narrowing record, appended as a positive abstention when it withholds. The designation written under the bound is aimed elsewhere, at promotion and at emission.

Distinguishing unlearning, revocation, and provenance manifests

Several established lines of work address neighboring problems. The comparisons below are structural and assert nothing about any product, party, or practice.

Machine unlearning and influence removal aim at the artifact. Retraining without the contested data, gradient reversal, and approximate forgetting each set out to change what the model contains. The filed response is expressly not that: the encumbrance write performs neither retraining nor deletion, and what the bars change is whether derived values may be promoted and whether the endpoint may be emitted.

License revocation and contractual takedown run through an instrument between parties, generally enforced out of band. Here the operative condition is a severance event or a quarantine attribute recorded in the agent's own counterparty identity record (114), the enumeration and the write are performed from the agent's own state, and the recital is explicit that no other party adjudicates.

Model cards, dataset datasheets, and bill-of-materials provenance manifests are disclosure-forward, telling a consumer what went into an artifact. Running the other way, the emission limb withholds the endpoint rather than annotating it, and transmits no count, no encumbering-counterparty identity, and no quality measure.

Reputation and quality scoring for model registries compute a score and publish it for comparison. The filed recital lists the count and any quality measure as separate things the agent withholds from a requesting peer, and the abstention naming the count falls under the conversion bar (502).

Access control lists and policy engines with cached grants answer authorization but need revocation machinery to undo a grant already issued. Recomputation is the filed alternative, the predicate being computed afresh at each dispatch request rather than read from a cached result or a session grant.

Each addresses a real need and can sit alongside what the filing describes. What the filed paragraph adds is narrower: a policy-declared ceiling on accumulated encumbrance whose two consequences, once the count exceeds that ceiling, are a promotion bar and an emission bar, neither sending a requesting peer a magnitude.

Disclosure Scope

This article describes subject matter disclosed in U.S. Provisional Application No. 64/117,812, at Section 10.5, paragraph [0406], titled "Encumbrance bound barring promotion and onward emission." Immediately supporting it are [0403] on matched-pair-gated corpus contribution and the settled contribution identifier, [0404] on contribution encumbrance and the per-endpoint encumbrance count, [0405] on the two release conditions, and [0407] on the encumbrance commitment that may accompany an emitted endpoint. Paragraphs [0395] through [0402] of the same section supply the derived-artifact provenance chain, the onward emission register, and the quality-promotion bar. Supporting architecture appears at Section 1.5 for the dispatch-authority predicate, Section 5 for the conversion bar (502), Section 6.2 for the matched pair (600) and the temporal proximity window (602), Section 10.11 for the persistence designation, and Section 11 for the definition of positive abstention.

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 \(/articles/governed-settlement/encumbrance-commitment-travelling-emitted-endpoint\)](/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)