

Blinded Encumbrance Commitments: Carrying a Severed Contributor's Encumbrance Along With an Inference Endpoint Emitted to a Peer Agent

An encumbrance commitment is a set of blinded identifiers that a semantic agent may attach to an inference endpoint it emits to a peer, each computed as a digest over a settled contribution identifier in the endpoint's recorded contribution set under a blinding value declared in the corpus policy and emitted with the commitment, the values ordered by magnitude rather than by contribution order. Disclosed in U.S. Provisional Application No. 64/117,812, it addresses what happens after a retrained artifact leaves the agent that encumbered it: the contribution-encumbered attribute written on severance is a write in the emitting agent's own record, and the peer that registers the copy may hold severance records of its own against the same contributors. A peer holding a settled identifier of a counterparty it has itself severed computes that identifier's blinded value under the emitted blinding value and tests membership, and on a hit writes its own contribution-encumbered attribute and narrows its own counterparty scope object, learning no contributor identity it does not already hold and no quality or standing measure of any party.

When the artifact leaves the agent that encumbered it

A semantic agent (100) that retrains its own inference artifacts against counterparty-contributed corpus material, then hands those artifacts to other agents, carries two governance problems easy to mistake for one.

The filing resolves the first in the paragraphs immediately preceding this mechanism. On severing a counterparty, or on writing a quarantine attribute into that counterparty's 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. Every act there is performed from the agent's own state, without adjudication by any other party.

Endpoints move, though, and the second problem begins where the first ends. Against each endpoint the filing maintains an onward emission register, writing an entry whenever the agent emits that endpoint to a peer semantic agent (100) as a tool source, the entry naming the peer's identity primitive, the chain-head identifier at emission, the scope partition, and the time. Once the peer registers the artifact, the encumbrance standing against it remains a write in the emitting agent's own record, made from that agent's own state. The peer may hold severance or quarantine records of its own against the very parties whose settled material the copy carries.

Adjacent filed language fixes what may reach a peer at all. Where an endpoint's encumbrance count exceeds the bound declared in the signed policy object (112), a peer's request for that endpoint is withheld and appended as a positive abstention naming the count and the bound, and the transmission to the peer carries no count, no encumbering-counterparty identity, and no quality measure.

Blinded identifiers, a membership test, and the peer's own write

When the receiving agent (100) emits an emissible endpoint to a peer semantic agent (100), it may attach an encumbrance commitment. Both qualifiers do work. Emissibility points back to the encumbrance bound: where the per-endpoint encumbrance count exceeds the bound declared in the signed policy object (112), the agent does not emit that endpoint or its artifact to a peer as a tool source, so a commitment accompanies only an endpoint already permitted to travel. The permissive "may" is the filed word, and attachment is recited as available on emission rather than as a condition of it.

Construction draws on what the endpoint already records. For each settled contribution identifier in the endpoint's recorded contribution set, the agent computes a blinded identifier, being a digest over that identifier under a blinding value declared in the corpus policy and emitted with the commitment. The blinded values are ordered by magnitude rather than by contribution order, one blinded identifier corresponding to one settled contribution identifier.

What a settled contribution identifier is bears directly on what travels. The filing admits a counterparty's training-corpus contribution only as the second governed observation (610) of a matched pair (600) whose first observation (608) is a contribution-scope offer the receiving agent emits, enumerating the corpus policy version, the scope partitions in which a retrained model will be held and registered, and the action classes for which it will be dispatched. On recognition each party appends a settlement-lineage entry, and the receiving agent computes a settled contribution identifier as a digest over that entry, recording against it the contributor identity, the material digests, the policy version, and the scopes. Each retraining event then records the set of identifiers it incorporated, being its recorded contribution set, matched to corpus material by digest equality alone. Contributor identity is recorded against the identifier rather than carried within it.

On the receiving side the operation runs in reverse. A peer holding a settled identifier of a counterparty it has itself severed computes that identifier's blinded value under the emitted blinding value and tests membership in the commitment. On a hit, the peer writes its own contribution-encumbered attribute and narrows its own counterparty scope object.

An encumbrance narrowing gets its structure one paragraph earlier, in the emitting agent's own case. There, the narrowing record renders dispatch to each encumbered endpoint inadmissible for any action whose affected-party class maps to that counterparty, is evaluated at the dispatch-authority predicate, and, when it withholds, is appended as a positive abstention, defined in the filing as a recorded, governed withholding in which the agent appends a determination naming the withheld action and the ground relied upon.

Note the condition. Filed language ties the write and the narrowing to a successful membership test, and no part of the paragraph directs a peer to encumber on receipt of a commitment, on its mere presence, or on anything short of the hit.

Limits on what moves are recited as behavior rather than argued. The peer 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. Those recitals are the filed statement of what the exchange discloses and what it costs, and this article adds none.

Parameters the filing declares, and those it leaves to policy

Policy declares the blinding value. The filed specification states that it is declared in the corpus policy and emitted with the commitment, and states no length, no derivation, no rotation schedule, and no value. This article states none either.

Role, not algorithm, identifies each digest. A blinded identifier is a digest over a settled contribution identifier, and that identifier is itself a digest over a settlement-lineage entry. Neither is given a named function, an output size, or a parameterization.

Commitment size is derived rather than declared. One blinded identifier exists per settled contribution identifier in the recorded contribution set, so the member count follows from the retraining events that produced the endpoint. The filed paragraph places no bound on that count.

Ordering is fixed by rule, by magnitude rather than by contribution order, and nothing in it is tunable.

Emissibility turns on a parameter declared elsewhere. The signed policy object (112) declares an encumbrance bound upon the per-endpoint encumbrance count, and where the count exceeds the bound the endpoint and its artifact are not emitted to a peer semantic agent (100) as a tool source. No numeric value, default, or permitted range appears for that bound.

Time enters nowhere in this mechanism. The commitment carries no declared expiry, no re-emission cadence is stated, and no interval conditions the peer's test. Release of a contribution-encumbered attribute is likewise non-temporal, coming only by a matched pair (600) re-admitting the contribution or by 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, and the attribute is marked released rather than deleted. No elapse of time, no successor signed policy object (112), and no lifting of quarantine alone releases one.

Where the commitment sits inside Section 10.5

Section 10.5 of the filing gathers tool provenance, reliance, and contested pairing, and opens with two sequences running over a single endpoint record. One carries a derived-artifact provenance chain, verifies it at every lifecycle operation, and, on an admitted provenance withdrawal, writes a provenance-withdrawn attribute and gates the dispatch-authority predicate for the affected action class. The other admits contributions only through a matched pair (600), computes settled contribution identifiers, records a contribution set per retraining event, encumbers endpoints on severance or quarantine, and bounds the resulting count. This mechanism closes that second sequence.

Set beside the provenance path, the direction of travel differs. Provenance withdrawal propagates as a push: the consuming agent enumerates its onward emission register and emits an onward withdrawal notice to each peer whose recorded head is the head withdrawn or descends from the withdrawn entry, each hop a non-adverse outcome incrementing no meter of any party. That knowledge originates with the party that stopped standing behind the artifact. Encumbrance moves the other way, because the knowledge producing the consequence is the peer's own recorded severance, and the emitting agent supplies only material against which the peer can test it.

The bound paragraph and this one interlock in a single direction: the bound decides whether an endpoint is emissible, and this paragraph describes what may accompany one that is.

A related cryptographic discipline appears in Section 10.4 with a different object. There, a content-blind encounter commitment is computed over an ordered tuple of exactly four members and no other member, the tuple admitting no conduct descriptor, so that an opening discloses no characterization of conduct. It is emitted as the first governed observation (608) of a matched pair (600) and answered by a counter-commitment as the second (610), and it is opened: a third semantic agent (100) presented an encounter receipt verifies, among other conjuncts, that both commitments open from both

opening values and recover one and the same determination class. An encumbrance commitment is opened by nobody, being tested for membership by a party that already holds the candidate.

Two levers connect the mechanism to the wider architecture. The dispatch-authority predicate, at which an encumbrance narrowing is evaluated, is recomputed 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. Abstention outcomes, including those a narrowing produces, fall under the conversion bar (502), which forecloses 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.

Distinguishing set-intersection protocols, provenance manifests, and unlearning

Several established lines of work sit near this mechanism. The comparisons below are structural, and none is an assertion about any product, party, or practice.

Private set intersection and encrypted set membership protocols let two parties learn something about a shared set without revealing the rest, and are generally interactive. The filed construction is one-way: a set of blinded values computed under a policy-declared blinding value travels attached to an endpoint, and the receiver tests candidates it already holds. The filing states its disclosure limit as behavior, and this article makes no cryptographic security claim on its behalf.

Model cards, dataset datasheets, and bill-of-materials style provenance manifests enumerate sources so that a downstream consumer can read them. An encumbrance commitment enumerates nothing readable, carries no contributor name, and confines its usable content to a confirmation available to a party already holding the settled contribution identifier being tested.

Machine unlearning, influence removal, and approximate forgetting act on the artifact, aiming to change what the model contains. On severance or quarantine the filed agent neither retrains nor deletes, and the consequence lands on dispatch admissibility at whichever agent holds the endpoint. Nothing recited estimates or asserts the removal of a contribution's influence.

License revocation, digital rights management, and takedown propagation push a prohibition outward from a rights holder and ask the recipient to honor an external instrument. The emitting agent here names no party and asserts nothing about any contributor. What produces a consequence at the peer is the peer's own recorded severance, written into the peer's own record.

Training-data watermarking and membership inference work to establish whether material sits inside a model by probing the model after the fact. The presence relation used here is recorded at admission, as a settled contribution identifier arising from a matched pair (600), and is tested against that record.

Registry reputation and quality scoring compute a comparable measure and publish it to drive selection. An encumbrance commitment carries no quality or standing measure of any party, and abstentions arising from a narrowing fall under the conversion bar (502).

Each category answers a real need and may sit alongside the mechanism described here. What distinguishes the filed construction is narrower: magnitude-ordered blinded settlement digests, attached to an emissible endpoint, evaluated only against a receiver's own severance record.

Disclosure Scope

This article describes subject matter disclosed in U.S. Provisional Application No. 64/117,812, at Section 10.5, paragraph [0407], which recites the encumbrance commitment that travels with an emitted endpoint. Directly supporting paragraphs are [0403] on matched-pair-gated corpus contribution and the settled contribution identifier, [0404] on contribution encumbrance upon severance or quarantine, [0405] on the two release conditions, [0406] on the encumbrance bound and the bar upon onward emission, and [0399] on the onward emission register maintained against each endpoint. Supporting architecture appears at Section 1.5 for the dispatch-authority predicate, Section 5.4 for the conversion bar (502), Section 6 for the matched pair (600) and its governed observations (608, 610), Section 10.4 for the content-blind encounter commitment, and the definitional section for 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 here is for technical disclosure and 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 \(/articles/governed-settlement/derived-artifact-provenance-chain\)](/articles/governed-settlement/derived-artifact-provenance-chain)
- [Provenance Withdrawal and the Provenance-Withdrawn Attribute \(/articles/governed-settlement/provenance-withdrawal\)](/articles/governed-settlement/provenance-withdrawal)
- [Matched-Pair-Gated Corpus Contribution \(/articles/governed-settlement/matched-pair-gated-corpus-contribution\)](/articles/governed-settlement/matched-pair-gated-corpus-contribution)
- [Partition-Scoped Escrow Release Gated on Intersection Non-Emptiness \(/articles/governed-settlement/partition-scoped-escrow-release\)](/articles/governed-settlement/partition-scoped-escrow-release)
- [The First-Encounter Settled Pair and Promotion to the Persistent Tier \(/articles/governed-settlement/first-encounter-settled-pair\)](/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 \(/articles/governed-settlement/contribution-encumbrance-severance-quarantine\)](/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 \(/articles/governed-settlement/encumbrance-bound-barring-promotion-onward-emission\)](/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)