

Authority Leases and Concurrent Evidence Failure in Safe Agentic Execution

Separating Evidence Qualification from Action-Time Authorization

risk signal != outcome evidence

decision-time evidence != execution-time authority

true observation != action-valid evidence

Core Idea

Agentic systems can inspect evidence, queue an action, and execute later through a scheduler, delegated worker, retry loop, or tool call. Between decision and execution, identity, permission, target state, availability, policy, actor, or impact can change.

Authority leases are bounded execution contracts for that gap. A lease ties a prior decision to the actor, action, target, evidence, permission, policy, impact ceiling, and expiry state that made it valid. At action time, the system checks whether the lease still holds.

Study Snapshot

P0 packets	Outcome-ready	Reviewed/frozen	Insufficient before review
151	146	146	5

Outcome	Count	Meaning
correct_block	99	Block or revalidation decision supported by packet-visible evidence.
false_block	22	Packet-visible evidence indicated the conservative block was not warranted.
needs_more_evidence	25	Packet did not contain enough evidence to judge correctness or falseness.

Findings

False blocks are measurable: 22 of 146 reviewed packets were labeled false_block (15.1% of all reviewed packets; 18.2% of resolved packets).

Evidence insufficiency is a first-class result: 25 packets remained needs_more_evidence (17.1% of all reviewed packets).

Identity conflict behaved as block-grade evidence: 4 of 4 identity_conflict_masked packets were labeled correct_block.

Blocked PDP was not outcome evidence: 7 of 7 blocked_pdp packets remained needs_more_evidence.

Temporal authority matters: 14 of 48 latest-PDP temporal-authority packets were labeled false_block.

Concurrent evidence failure is explicit as 6 local Level 3.5 failure families, not broader population rates.

Unit And Deduplication

The primary unit is `action_attempt_event`. The independence sensitivity unit is `subject_cluster`. In this frozen set both denominators match: 146 event-level units and 146 subject clusters. Duplicate subject clusters: 0.

Why It Matters

Authority leases separate evidence support, action permission, and outcome evidence. A system can have enough evidence to recommend an answer while still lacking authority to execute an action. That distinction matters for queued actions, scheduled automations, delegated workers, tool use, product-data updates, customer-visible publishing, and workflows where state can change between decision and execution.

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