LOUST-PRO/SnapPipe

Source: LOUST · **Status:** Shipped · **Period:** 2025-04 to 2025-12

Identity-anchored transport daemon in Rust: attested-identity tokens bind every handler invocation to its auth state.

The challenge

In my transport daemon the request handler context could drift from the auth state — a session that was authenticated could later lose its binding, and the handler would still dispatch. The identity and the work it was supposed to authorize were not tied together at the transport layer.

My role

I built an identity-anchored transport daemon in Rust where every handler invocation carries an attested identity token and the daemon refuses to dispatch unless the token chain verifies.

What changed

Auth-state drift

Baseline: Possible (handler could dispatch against a stale session)

Impossible — daemon refuses to dispatch on unverified chain

Handler dispatch latency

Baseline: About 5 milliseconds

About 12 milliseconds (token verification overhead)

Audit chain

Baseline: Probabilistic — reviewer cannot replay

Deterministic — replay byte-by-byte

Stack

Rust | transport | identity