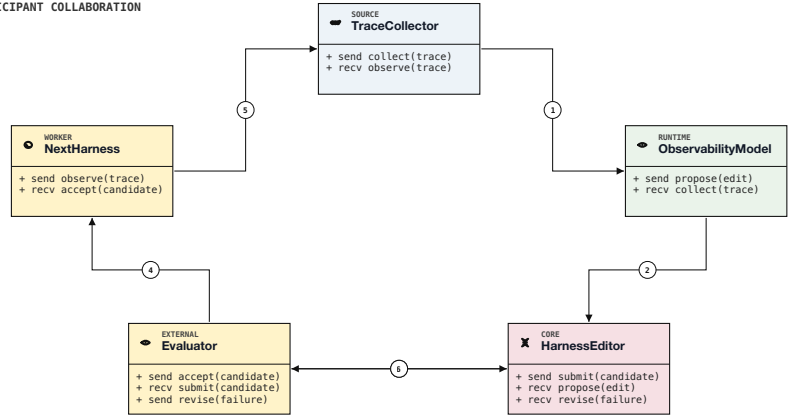
E10 Observability-driven harness evolution

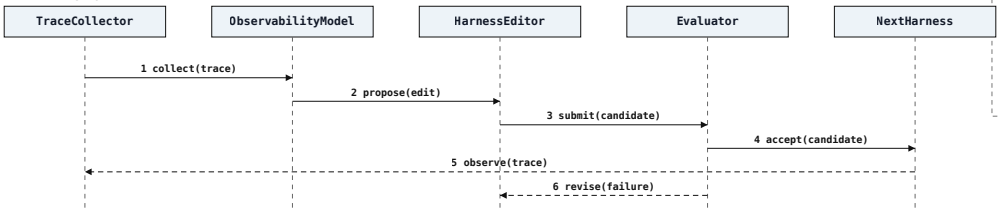
Evolution · A² A2/A3 · evolution role collaboration

Use traces to guide candidate changes.

STRUCTURE · PARTICIPANT COLLABORATION



INTERACTION



MESSAGE TRACE `1 collect(trace) → 2 propose(edit) → 3 submit(candidate) → 4 accept(candidate) → 5 observe(trace) → 6 revise(failure)`

PATTERN INTERFACE

context
Harness traces and evaluation results are available for improvement.

trigger
Analysis identifies a failure or opportunity and proposes a harness change.

structure
Trace schema, analyzer, authorized edit scope, evaluation gate, and regression suite.

effect
The harness change is trace-linked and accepted only after evaluation.

CONTRACT ANNOTATIONS

requires	Trace links compare runs and identify the affected harness component.
ensures	Accepted changes retain observation, hypothesis, diff, and evaluation provenance.
invariant	A changed harness still passes regression and security checks.
violation	Non-reproducible traces or regressions reject or quarantine the change.

Evidence: 1/41 repositories, 1/36 families; 1 trajectories (1 multi-checkpoint); exact audit: not sampled.

Variation: Trace-guided edits, observability loops, automated diagnosis, and transfer tests.

Negative control: Logging without a trace-to-change decision is not E10.