

Keelo + Urbyte Controlled Execution

Evidence Appendix

1,000-service enterprise fleet proof | Technical evidence annex

Version 2.0 | 12 September 2026

CLASSIFICATION	Evidenced / Current - controlled synthetic execution. Not production deployment.
----------------	--

1. Evidence identity

Evidence field	Controlled record
Record date	12 September 2026
REDACTED	
REDACTED	
REDACTED	
REDACTED	
REDACTED	
REDACTED	
REDACTED	

2. Raw synthetic evidence provenance

Input measure	Result
Declared services	1,000
Billing periods	3 contiguous 28-day periods
Measurement window	1 June 2026 to 24 August 2026; 84-day elapsed baseline
Materialised billing rows	2,938
Declared allocation across rows	211,580 GB
Declared usage where present	104,182.162 GB
Rows missing usage	58
Allocation options	25, 40, 50, 60, 80, 100 and 150 GB per period

The fixture is deterministic and synthetic. Aggregate qualification, waste, DBU, action, receipt and outcome totals are system-derived rather than seeded or asserted in the fixture.

3. Verification and exclusion

Metric	Result
Services discovered	1,000
Services verified	805
Verified with recoverable allocation	770
Verified requiring no action	35
Unverifiable and excluded	195
Baseline below 84 days	62

Three billing periods required	62
Missing or invalid usage	58
Insufficient evidence confidence	76

Reason counts can overlap where one excluded service failed more than one rule. The authoritative exclusion total is 195 distinct services.

4. System-derived governed execution

Metric	Evidenced result
Verified-unused allocation	79,087.919 GB
Data-Backed Units established	790,879.19 DBUs
Persistent Keelo conditions	770
Authorised governed actions	770
Controlled external executions	770
External receipts	770
Outcome-verified transactions	770
Unresolved obligations	0
Duplicate external executions	0
Final reconciliation	1,000 of 1,000 services classified exactly once
DBU GUARDRAIL	DBUs are non-transferable internal records established at 10 DBUs per verified-unused GB. They are not currency, tokens, rewards, customer funds or superannuation contributions.

5. Control chain proved

- 1. Raw attributable billing evidence
- 2. Evidence validation and exclusion
- 3. Urbyte allocation-waste verification
- 4. Persistent Keelo condition
- 5. Actor and accountable-owner binding
- 6. Policy, compliance and authority disposition
- 7. Expected-version controlled execution
- 8. Separate controlled HTTP side effect
- 9. Durable external receipt
- 10. Outcome verification
- 11. Final reconciliation

6. Automated verification

Gate	Evidence
Architecture boundary check	PASS - 12 September 2026
TypeScript typecheck	PASS - 12 September 2026
Current unit verification	506 of 506 tests passed across 44 files
Firestore integration tests tied to completed proof	19 of 19 passed
Completed fleet proof	PASS with controlled metrics above
Fleet rerun during submission build	Not completed - cached Firestore emulator directory was absent. No contrary test result observed.

7. Architecture boundaries preserved

- Keelo Core unchanged by the proof commit.
- Urbyte verification rules unchanged.
- DBU rules unchanged.
- Authority controls and governance architecture unchanged.
- Existing execution logic unchanged.
- Proof additions were limited to a synthetic fixture, fleet runner and package command.
- Organisation-neutral Keelo Core boundary check passed.

8. Evidence limitations

- Synthetic deterministic evidence, not customer or carrier data.
- Controlled loopback HTTP receiver, not a production carrier, billing, procurement or service-management system.
- Firestore emulator environment, not production cloud deployment or availability proof.
- No independent security certification, penetration test, privacy impact assessment or production accreditation is claimed.
- No financial saving, invoice value, avoided cost, environmental outcome, customer adoption or carrier acceptance is established by this proof.
- The controlled proof does not close atomic cross-process leases, authority-revocation propagation, full external action recovery or complete production Runtime composition.
- The branch was recorded as locally clean but ahead of its tracked remote at evidence capture; remote preservation must be separately confirmed.

9. Maturity classification

Class	What is established	Boundary
Evidenced / Current	A deterministic 1,000-service controlled execution produced evidence-linked verification, governed actions, receipts, outcomes, duplicate safety and exact reconciliation.	Bounded to the committed synthetic fixture, configured authorities, controlled adapter and test environment.
Next Proving Work	Commit an immutable machine-readable run log; replay from the locked SHA; prove cross-process leases, crash recovery, authority revocation and customer-evidence controls.	Not yet closed.
Destination Case	Production enterprise ingestion, consequential production adapters, independent assurance and measured commercial or ISO 14001/ESG outcomes.	Not represented as current capability.