

NOVAK PROTOCOL SERIES

Standard Protocol-6 (SP-6): Conformance Testing Suite

Proof-Before-Action (PBA) Verification Framework

Version 1.0 (Final Draft)

The Audit Standard

Historical Context

Bitcoin had BIPs.

TLS had RFCs.

FIPS-140 had Validation Batteries.

NOVAK Context

NOVAK has SP-6.

The unified testing suite for Gov, Enterprise, and AI Safety Assurance.

Testing Scope



Determinism

Execution Purity
Tests



Safety Gate

Enforcement Tests



PL-X / PS-X

Drift & Fraud Sims



Negative

Tamper & Stress
Tests

Components Under Test

Every implementation MUST expose these internal modules to the SP-6 Validation Battery.

- 📋 **Rule Engine:** Check for Purity.
- 🗄️ **Data Intake:** Check for Attestation.
- 🔑 **Crypto Core:** HVET/EIR/RGAC logic.
- 🔒 **Safety Gate:** The Master Switch.



The "Iron Law" of Certification

Automatic Failure

A system FAILS if:

- ✗ A single anomaly goes undetected.
- ✗ A bypass path exists.
- ✗ Safety Gate fails open.

Certified

A system PASSES only if:

- ✓ All mandatory tests pass.
- ✓ Safety Gate always fails CLOSED.

The 7 Test Groups (TG)

TG-1

Determinism

TG-2

Crypto Binding

TG-3

Safety Gate

TG-4

PL-X Drift

TG-5

PS-X Fraud

TG-6

RGAC Lineage

TG-7

Identity

TG-1 & TG-2: Core Logic

TG-1: Repeatability

Run a rule 1,000 times with identical input.

- ✓ Output MUST be bit-identical.
- ✓ Hashes MUST match.

TG-2: Mutation

Modify input by 1 character or inject whitespace.

- ✓ HD Hash MUST change.
- ✓ HVET MUST change.

TG-3: Safety Gate Enforcement

[TEST SG-1] Executing with Missing HVET... **BLOCKED**

[TEST SG-2] Executing with Corrupted HVET... **BLOCKED**

[TEST SG-3] Injecting PL-X Bit Drift... **BLOCKED**

[TEST SG-4] Injecting "override" keyword... **BLOCKED**

[TEST SG-5] Forcing Lineage Mismatch... **BLOCKED**

TG-4 & TG-5: Domain Integrity

TG-4: PL-X (Physics)

Simulates physical reality drift.

- **Value Drift:** Sensor creep.
- **Impossible Transition:** Data violating physics.
- **Encoding Corruption:** Invisible Unicode anomalies.

TG-5: PS-X (Human)

Simulates human-driven manipulation.

- **Coercion:** "Force allow", "Ignore rule".
- **Incentive Conflict:** Contradictory inputs.
- **Adversarial Admin:** Attempts to disable logs.

TG-6 & TG-7: Chain & Identity

RGAC Integrity

 **Chain Mutation:** Any edit breaks chain.

 **Parallel Lineage:** Detects forks.

 **Partial Loss:** Deletion detection.

Identity Binding

 **Anonymous:** No ID = Block.

 **Revoked:** Expired key = Block.

 **Drift:** Hardware ID mismatch = Block.

Mandatory Negative Testing

Certification requires proving the system withstands intentional stress and corruption.



Corrupt Rules



Future/Past
Timestamps



Identity
Spoofing



Malformed
HVETs

Certification Outcome

If ANY test fails:

FAIL

No partial certification.

If ALL tests pass:

CERTIFIED

NOVAK PBA-COMPLIANT

Level EI-1 through EI-5

Questions?

NOVAK Protocol Standards Series

Category: SP-6 Conformance Testing