

NOVAK PROTOCOL SERIES

Part 2: What NOVAK Is

Formal Definitions, Cryptographic Structure, and Terminology

Authoritative Edition

Formal Definition

NOVAK is an authoritative proof-before-action system governing all execution.

$$\text{NOVAK} = (R, D, I, O, \text{HVET}, \text{EIR}, \text{RGAC}, \text{SG}, T)$$

R = Rules

D = Data

I = Identity

O = Output

T = Time

Execution Requirements

Action **A** may not execute unless:

- ✓ Rule (**R**) is deterministic.
- ✓ Data (**D**) is attested.
- ✓ Output (**O**) is precomputed.
- ✓ **HVET** is generated.
- ✓ **EIR** binds identity.
- ✓ **Safety Gate** validates proof.
- ✓ **RGAC** records audit.
- ✓ **PL-X/PS-X** constraints met.

Mandatory Terminology Lineage

| Old Term | Updated NOVAK Term | Reason for Change |
|-----------------------|-------------------------------------|--|
| NIPS | EIR (Execution Identity Receipt) | Enforces cryptographic actor lineage. |
| REVELATION | RGAC (Recursive Global Audit Chain) | Expands to infinite-depth audit recursion. |
| HARMONEE | Safety Gate | SG enforces pre-execution determinism. |

HVET: Hash-Verified Execution Trace

The immutable cryptographic commitment.

$$\text{HVET} = H(\text{HR} \parallel \text{HD} \parallel \text{HI} \parallel \text{HO} \parallel \text{T})$$



Rule



Input



Identity



Output




Time

EIR: Execution Identity Receipt

EIR binds the **Actor Identity** to the entire execution event.

 Identity cannot be swapped.

 Fraud cannot mask origin.

 Permanent accountability.



Formerly "NIPS"

Satisfies Law L6 (Execution Identity).

RGAC: Recursive Global Audit Chain

A forever-growing, globally consistent record of every HVET.



Authoritative

Infinite Audit Recursion

Not Blockchain

No Miners. No Forks.

Safety Gate (Deterministic Layer)



Formerly HARMONEE

The mechanism that blocks action until all proofs are satisfied.

- 🔧 PL-X: Physical Layer Verification.
- 🧠 PS-X: Psycho-Social Fraud Prevention.
- 🔑 Enforces: Laws L0-L15.

What NOVAK Is (Simply Put)

The Core Promise

NOVAK forces computers, AI, and people to **prove correctness before they act.**

The Outcome

Actions cannot be changed, faked, or tampered with. Every action is traceable to an identity.

"Stops bad decisions before they happen."

Why This Matters

NOVAK solves systemic problems that have plagued governance for decades:

- ✗ Inconsistent Decisions
- ✗ Altered Records
- ✗ Identity Spoofing
- ✗ Silent Tampering

Result

Mathematically Enforced Rule-of-Law.

Questions?

NOVAK Protocol Standards Series

Part 2: Definitions & Structure