

NOVAK PROTOCOL SERIES

# Part 2: What NOVAK Is

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Formal Definitions, Cryptographic Structure, and Terminology

Authoritative Edition

# Formal Definition

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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

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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.
HARMONIE	Safety Gate	SG enforces pre-execution determinism.

# HVET: Hash-Verified Execution Trace

The immutable cryptographic commitment.

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



Rule



Input



Identity



Output



Time

# EIR: Execution Identity Receipt

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

- ❶ Identity cannot be swapped.
- ❷ Fraud cannot mask origin.
- ❸ Permanent accountability.



Formerly "NIPS"

Satisfies Law L6 (Execution Identity).

# RGAC: Recursive Global Audit Chain

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



**Authoritative**

Infinite Audit Recursion

**Not Blockchain**

No Miners. No Forks.

# Safety Gate (Deterministic Layer)

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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)

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## 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

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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