

NOVAK PROTOCOL SERIES

# Standard Protocol-8 (SP-8): Interoperability & Integration

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Connecting Agencies, AI, Robotics, and Legacy Systems

Version 1.0 (Final Draft)



# The Universal Glue

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SP-8 formally defines how NOVAK attaches to the real world. It is not a replacement for databases or AI models, but an **Execution Governor Layer**.

- 🔗 **Connects:** Gov, Finance, AI, Robotics.
- 📦 **Overlays:** Existing legacy stacks.
- 🛡️ **Enforces:** Proof-Before-Action.





# The Integration Pyramid

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NOVAK integrates at all five layers, ensuring no action executes without proof, from the kernel to the mission commander.

# 4 Integration Modes

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## Embedded

In-process library  
(Medical AI,  
Robotics).



## Sidecar

Container/Pod  
companion  
(Cloud/Microservices).



## Remote

Central Verification  
Node (Federal  
Agencies).



## Client-Side


Browser/Mobile local  
verification.



# Canonical Data Model (NCDM)

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SP-8 mandates strict normalization. No whitespace drift, no floating-point errors, no hidden fields.

 JSON / XML / FHIR

 ISO-8601 UTC Timestamps

 SHA-256 Hashing

```
POST /novak/v1/verify
```

```
{  
  "rule_id": "VA-PTSD-2025",  
  "input_hash": "HD_21fa2e...",  
  "output_hash": "H0_992af2...",  
  "context": { "agency": "VA" }  
}
```

# Universal SDK Support

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Deterministic binding across every major language.

 Python

 JS/TS

 Go

 Rust

 Java

C# / .NET

C++

 Swift

 Kotlin

WASM

Identical Logic. Identical Hash. Every Time.



# CSIB: Saving Legacy Systems

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Cross-System Integrity Bridges allow COBOL and Mainframes to be NOVAK-compliant without rewriting.



Enables determinism for systems built 40 years ago.

# Interoperability Maturity (N-I)

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Level	Status	Capability
N-I-5	Autonomous	Robotics/AI Safe Execution
N-I-4	Native	Deterministic Internal Logic
N-I-3	Enforced	Safety Gate Active (Block)
N-I-2	Bound	HVET + EIR (No Block)
N-I-1	Observed	Passive Hashing Only



# Multi-Party Commit (DCCP)

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Modern systems fail when agencies disagree. DCCP enforces a **Distributed Deterministic Commit**.

- 🤝 **Agreement vs Truth:** We enforce Truth.
- 🔧 **Cross-Agency:** VA, DoD, and Treasury must match.
- 🚫 **Block:** If one node disagrees, ALL stop.

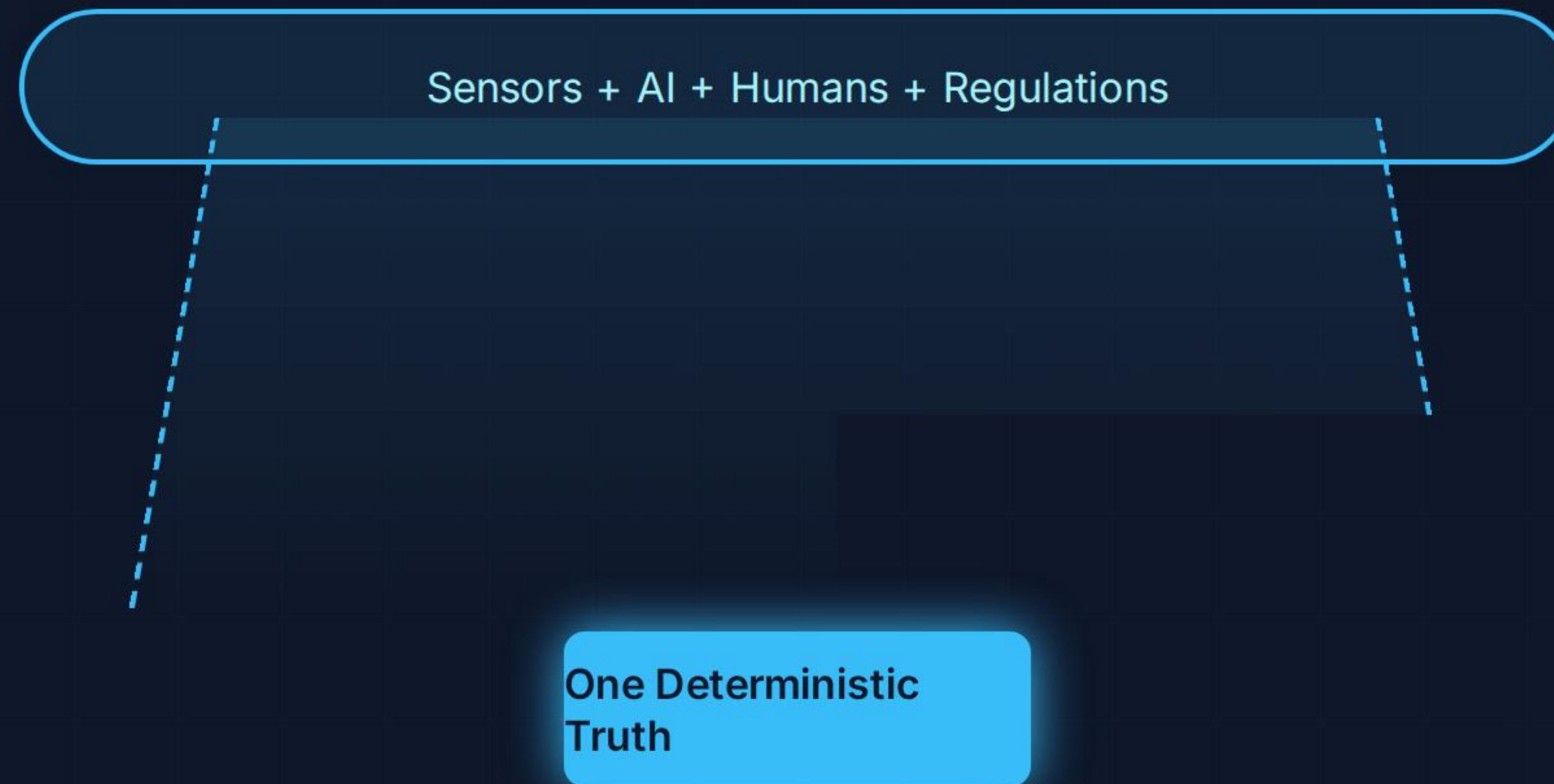




# Evidence Fusion (DMEF)

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Merging sensors, AI, and human reports without corruption.



*Prevents "Semantic Drift" where systems disagree on meaning.*



# Global Regulatory Alignment

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## GRIL (Global Reg. Layer)

Standardizes regulations into machine-readable logic. Allows US, EU, and UK rules to coexist.

## MJ-LAL (Jurisdiction)

Prevents jurisdiction drift. Ensures a VA decision isn't judged by SSA rules.



## Legal Admissibility

NOVAK Evidence Chains (UECF) are designed to be court-admissible globally.



# GDEL: Global Enforcement

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STOP

## The Final Rule

The **Global Deterministic Enforcement Layer** ensures no system—bank, robot, agency, or AI—executes action without a complete cryptographic truth chain.

This is the "Police" of the NOVAK Protocol.



# SP-8 Summary

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The logo consists of the letters 'SP8' in a bold, blue, sans-serif font. The 'S' and 'P' are connected, and the '8' is a simple, rounded shape.

Integration  
Standard

## The Universal Connector

SP-8 transforms NOVAK from a theoretical cryptographic concept into a deployable, global infrastructure compatible with everything from 1970s mainframes to 2030s autonomous swarms.



# Questions?

NOVAK Protocol Standards Series

Category: SP-8 Interoperability