Industry Addenda PL-X & PS-X

Supplementary Regulatory & Sector Requirements for Specialized NOVAK Deployments

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Introduction

While NOVAK Laws L0–L15 define the universal cryptographic backbone of proof-before-action, different industries require deeper constraints and supplemental rules.

These are formal addenda extending the core NOVAK protocol:

- **PL-X (Public-Law Addendum)**

- **PS-X (Private-Sector Addendum)**

Both are backward-compatible with all NOVAK Laws.

PL-X — Public-Law Addendum

(For Federal, Military, Regulatory, and Civic Systems)

PL-X applies to:

- U.S. federal agencies

- VA & DoD systems

- regulatory compliance engines

- public safety systems

- judicial & evidentiary automation

PL-X.1 — Immutable Citizen-Facing Decisions

Any government decision affecting a citizen must have an EIR that cannot be altered retroactively.

PL-X.2 — Multi-Verifier Requirement

At least 2 independent verifiers must validate HVET for federally regulated actions.

PL-X.3 — Time-Anchored HVET Ledger

All receipts must be linked to:

- UTC timestamps

- NIST time signals

- optional GPS atomic clock anchors

PL-X.4 — Regulatory Transparency Requirement

All failure cases must remain visible to:

- inspectors

- OIG auditors

- legal oversight bodies

PL-X.5 — Mandatory Rule Publicity

Rules used to compute HR must be published, redacted only for national security.

PS-X — Private-Sector Addendum

(For Commercial, Corporate, Medical, Financial, and Autonomous Systems)

PS-X applies to:

- banks

- insurance

- healthcare providers

- robotics & automation

- AI decision engines

PS-X.1 — Bounded Latency Guarantee

NOVAK must not add more than a defined number of milliseconds to business-critical workflows.

PS-X.2 — Local-First Cryptography

Hashing and verification must occur:

- on-device

- on-prem

- or locally in browser

Cloud-only verification is prohibited.

PS-X.3 — Enforceable Rollback Prevention

No system may revert actions without a traceable HVET chain.

PS-X.4 — Zero-Blind-Spot Processing

All fields used in a decision must be included in HD.
 Hidden or omitted fields are violations.

PS-X.5 — Chain-of-Responsibility (CoR)

Every commercial action must declare the responsible actor included in the EIR:

`actor_id, device_id, verifier_id`

Conclusion

PL-X and PS-X extend NOVAK into real-world legal, regulatory, and commercial environments while retaining mathematical guarantees from L0–L15.

These addenda ensure:

- regulatory compliance

- commercial stability

- forensic visibility

- tamper-resistant recordkeeping

- zero-trust computational safety