RESEARCH INSTITUTE OF SYSTEM SYNTHESIS · INVESTMENT MEMORANDUM · 19 NOVEMBER 2026

Investment memorandum: digital employees and safe business automation

What the project seeks. MITR Technology Limited Liability Company (LLC, incorporating in Tranche 1A) raises 223,000 United States Dollars (USD, 18,000,000 rubles) over eleven months in two tranches. Tranche 1A is 75,000 USD for months 1–5. Tranche 1B is 148,000 USD for months 6–11 after at least 18,500 USD (1,500,000 rubles) in collected revenue across three paid deployments. Fixed founder salary from investor capital and server graphics-card purchases equal zero USD. The founder receives a 15 percent bonus paid strictly from collected commercial revenue. Investor funds cover product connectors, laboratory testing, and corporate sales, while non-profit legal-research hardware stays strictly separate on the institute balance sheet.

What the investor receives in return. The round uses a convertible loan under Article 32.3 of Federal Law No. 14-FZ at 21 percent per annum for inflation protection prior to conversion. Before conversion, 25 percent of gross commercial revenue repays loan principal quarterly. Upon conversion into a 12 to 18 percent equity stake in MITR Technology LLC, loan interest stops. Remaining principal recovery and priority profit distributions are then governed by a corporate shareholders' agreement (Civil Code Article 67.2) out of net profit under Articles 28–29 of Federal Law No. 14-FZ. Before initial funding, the company receives an irrevocable exclusive license to four live products.

1.08 ms

median formal command check on a four-core processor without graphics cards (95th percentile: 1.96 ms; refusal explanation: 5.22 ms; cold start: 30.7 ms)

157 / 157

internal reference testbed scenarios prior to external accredited lab trials (114 attacks, 43 routine operations: 0 misses, 0 false refusals; 5,441 live receipts on **mitr.asi5.ru** as of 19 November 2026)

223,000 USD

two-tranche Stage 1 round over 11 months (75,000 USD in months 1–5 and 148,000 USD in months 6–11; zero fixed founder salary from round and zero graphics-card capital purchases)

21% → 12–18%

convertible loan at 21 percent per annum with 25 percent gross-revenue payback prior to conversion into 12–18 percent equity and profit distributions

SECTION 01 · BUSINESS AUTOMATION AND A CLEAR FOUR-PRODUCT SYSTEM

1. Why companies hire governed digital employees and how the four products fit together

Enterprises assign routine work in accounting, procurement, contract review, customer support, and code maintenance to digital employees. Yet unchecked language models remain unpredictable: one hidden instruction inside an external file can trigger a wrong wire transfer, expose confidential records, or invent a non-existent court ruling.

According to Gartner estimates, more than 40 percent of autonomous software projects face cancellation by the end of 2027 due to missing pre-execution risk controls. Corporate directors bear personal liability for losses from unverified automation under Article 53.1 of the Russian Civil Code and the European Union Artificial Intelligence Act.

The Autonomous Non-Profit Organization “Scientific Research Institute of System Synthesis” (the institute) built a clear four-product system to run digital employees safely. The institute itself operates without bloated administrative staff: twelve specialized digital roles run more than thirty live production services across three physical workstations under continuous mathematical verification.

- **Digital employees and ready-made departments.** Automate invoice reconciliation, contract screening, procurement checks, and software maintenance inside an air-gapped corporate network without sending documents to external clouds.
- **The Mediating Invariant-Trust Resolver (MITR) gateway.** Holds database credentials outside the language model and checks every proposed action in 1.08 milliseconds (95th percentile 1.96 milliseconds; refusal explanation 5.22 milliseconds; cold start 30.7 milliseconds) through the satisfiability modulo theories solver (Z3) in decidable linear integer arithmetic (QF_LIA). In verified revision ac35359, the verification core and policy compiler total 1,428 lines of Python, and the offline chain verifier totals 954 lines of standard-library Python 3.
- **The Invariant, Nondestructive, Deterministic Resilience Audit (INDRA) testing complex.** Finds vulnerabilities across corporate digital employees and web applications within fourteen calendar days without interrupting live production traffic.
- **The Juridika legal suite** (juridika.ru) **and** sudfact.ru **court database.** Enforce machine-readable power-of-attorney limits and verify every legal citation against verified judicial rulings.

Demand is backed by active regulation. Order No. 117 of 11 April 2025 issued by the Federal Service for Technical and Export Control of Russia (FSTEC) **entered into force on 1 March 2026** and prohibits sending restricted data to external model vendors. Draft amendment No. 170500 adds mandatory authority limits for autonomous agents by March 2027.

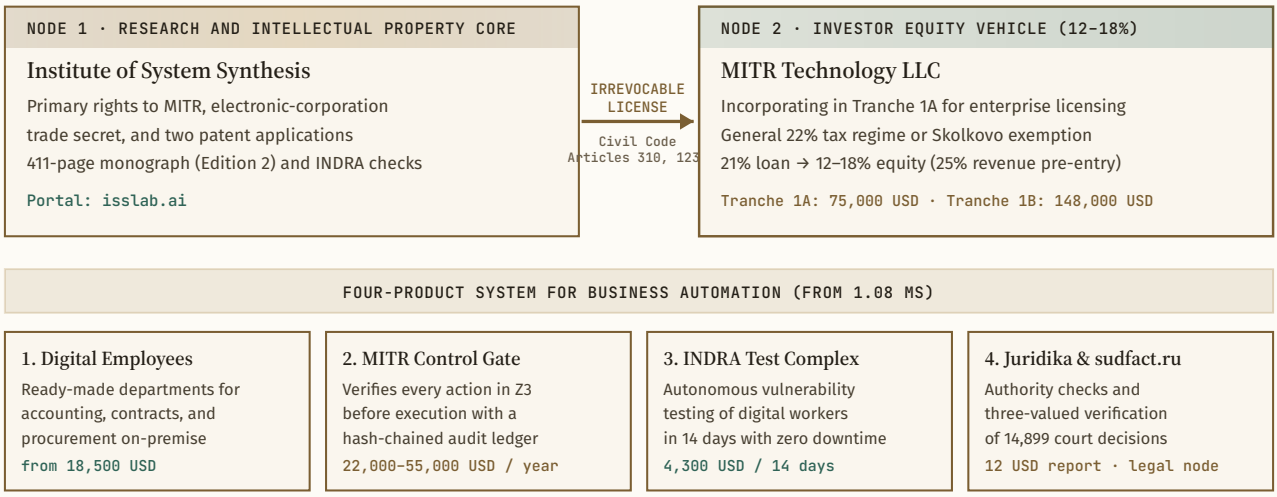

Figure 1. Separating the research institute from MITR Technology LLC protects investor equity with an irrevocable exclusive license and unites four business-automation products into one system.

SECTION 02 · VALUE PROPOSITION FOR INVESTORS, INTEGRATORS, AND ENTERPRISES

2. Cash yield for three partner groups in a high-rate market

In a high-interest environment, waiting five years for a distant share sale penalizes early investors. Instead, the structure pairs corporate equity ownership with quarterly cash distributions paid directly from enterprise software billings.

VENTURE OR STRATEGIC INVESTOR

21% loan → 12–18% equity

Capital deploys in Tranche 1A (75,000 USD, months 1–5) and Tranche 1B (148,000 USD, months 6–11) into MITR Technology LLC as a 21 percent convertible loan. One quarter of gross revenue repays principal prior to conversion. Upon equity entry, loan interest ceases and priority profit distributions are governed by corporate agreement.

SECURITY INTEGRATOR

35–40% partner margin on enterprise clients

Accredited security integrators receive a processor-native verification gateway to meet FSTEC of Russia Order No. 117 and European compliance rules across banking and industrial clients. Partners avoid spending years building an internal formal-methods group.

ENTERPRISE BUYER

14-day shadow check for 4,300 USD

Security leaders start with a fixed-price 4,300 USD (350,000 ruble) INDRA assessment paid from standard operating budgets. Within two weeks the client receives a verified vulnerability report and ready-to-enable protection rules without halting live systems.

SECTION 03 · FOUR PRODUCTS OF THE SYSTEM AND TWO CONTRACTING MODES

3. Commercial product suite and fast enterprise contracting

The operating company sells four connected corporate products for business automation, digital-employee control, and legal verification. Retail consumer apps remain outside the operating company so Stage 1 capital focuses strictly on high-margin corporate contracts.

PRODUCT	BUSINESS PROBLEM SOLVED	PRICING AND SALES CHANNEL
1. Digital employees and departments	On-premise deployment of digital employees for accounting ledgers, contract review, procurement screening, and software maintenance governed at every step by the MITR gateway.	Turnkey department deployment: **18,500 to 59,000 USD** (1,500,000 to 4,800,000 rubles) plus annual rule-pack maintenance.
2. MITR Enterprise control gateway	Open Apache-2.0 package mcp-sentinel 1.1.2 (0.016 ms in-memory check, 22.5 ms with disk write) offers four baseline pattern rules for five-minute evaluation. Commercial MITR Enterprise adds 20 live formal Z3 rules (22 YAML contracts in revision ac35359), external credential custody, refusal feedback (5.22 ms), and National Cryptographic Hash Standard R 34.11-2012 chains.	30-day pilot: **11,000 USD** (900,000 rubles, credited toward the annual license); annual corporate license: **22,000 to 55,000 USD** (1,800,000 to 4,500,000 rubles).
3. INDRA testing complex	Fourteen-day read-only security check of digital employees, retrieval databases, and web gateways across fourteen threat classes (eight web classes and six language-model, context-protocol, and retrieval classes). Delivers a reproducible report and ready MITR rules.	Fixed operating-budget engagement: **4,300 USD** (350,000 rubles) over 14 calendar days.
4. Juridika and sudfact.ru	Corpus of 320 gigabytes of cleaned public-domain statutes and court rulings (14,899 verified decisions live on sudfact.ru). Juridika Shield checks power-of-attorney limits and blocks fabricated case citations.	Single sudfact.ru report: **12 USD** (990 rubles); counsel seat: **185 to 550 USD** per month; on-premise legal node: **from 11,000 USD** per year.

Two contracting tracks for corporate buyers

The company matches enterprise procurement rules through two tracks. **Mode A (operating spend, 4,300 to 37,000 USD)** uses a standard service agreement or non-exclusive license signed in three to five business days by security or legal department heads. **Mode B (custom research and development, from 62,000 USD / 5,000,000 rubles)** structures custom rule formalization under Civil Code Chapter 38 and Russian Government Decree No. 988. Domestic corporate buyers deduct 200 percent of expenditure (**multiplier 2** under Tax Code Article 262) against profit tax. Under the general taxation regime with 22 percent value-added tax (VAT), buyers claim full input VAT credit. Skolkovo VAT-exempt invoicing operates strictly as a separate alternative without buyer input VAT recovery.

SECTION 04 · CORPORATE GOVERNANCE, INTELLECTUAL PROPERTY, AND CONTINUITY

4. Clean operating company, trade-secret protection, and certification path

Legal and tax bottlenecks are resolved prior to funding so institutional investors enter a clean equity vehicle with documented continuity safeguards.

LEGAL OR TECHNICAL NODE	ADOPTED DESIGN	STATUTORY BASIS AND INVESTOR PROTECTION
Separation of research core and operating LLC	The non-profit institute uses the Automated Simplified Tax Regime (Federal Law No. 17-FZ Article 3(2)), capping staff at five people and corporate ownership at 25 percent. Investors enter MITR Technology LLC (incorporating during Tranche 1A) under one of two mutually exclusive regimes. The first option is general taxation with 22 percent VAT input credit and accredited information-technology tax rates (5 percent profit tax, 7.6 percent payroll once qualifying revenue exceeds 70 percent). The second option is Skolkovo exemption after Unified Software Registry inclusion (0 percent profit tax and VAT, without buyer input VAT credit).	Tax Code Articles 145.1 and 246.1 govern Skolkovo exemptions separately from the Unified Software Registry VAT exemption under Article 149(2)(26). Civil Code Articles 310, 1235, and 1236 lock in an irrevocable exclusive commercial license.
Trade-secret shield for the electronic corporation	The twelve-role Electronic Corporation running under Stafford Beer's Viable System Model across three physical stations is protected as perpetual production know-how and registered computer software.	Civil Code Article 1465, Federal Law No. 98-FZ on trade secrets, and Civil Code Article 1262 prevent mandatory 18-month public patent disclosure of internal coordination methods.
Pending patent filings on gateway nodes	Patent Application No. 1 (1 June 2026) covers the formal gate and cryptographic receipt chain, and Application No. 2 (22 September 2026) covers registry verification. Both are under substantive examination, while Application No. 3 on shared-memory proof checking is prepared for filing.	Priority filings establish filing dates ahead of Patent Cooperation Treaty (PCT) international filings due before 1 June 2027. Pending examination, external gateway logic remains protected as trade secrets (Civil Code Article 1465) and registered software (Article 1262).
Measured codebase and certification roadmap	In verified revision ac35359, the Z3 verification core and policy compiler occupy 1,428 lines of Python (QF_LIA), and the offline verifier verify_chain_standalone.py occupies 954 lines of standard-library Python 3 (20,179 measured Python lines across the full perimeter). A compiled C or Rust proof-checker under 3,000 lines is planned in the Stage 1B roadmap and Patent Application No. 3. Formal soundness holds strictly over formalized axioms; a human specialist verifies legal fidelity through back-translation.	Separating the planned compact proof-checker from the offline rule-authoring workbench prepares the product for static and deductive verification in AstraVer and FSTEC of Russia Assurance Level 4 certification under Orders No. 117 and No. 76.
Model switch and four-hour technical escrow	Language models switch in ten minutes via configuration file to open local weights (Qwen 2.5 Coder, DeepSeek-V3, Llama) on rented Tier-III domestic servers, backed by 6,450 automated tests (pytest --collect-only, revision ac35359) and technical escrow.	A qualified senior systems engineer can cold-boot and verify the entire production stack within four hours without founder involvement, removing key-person and foreign-cloud risk.

SECTION 05 · VERIFIED BASELINE BUILT PRIOR TO EXTERNAL CAPITAL

5. Live production assets built with zero external investor funding

All four product lines, open Python packages, testing benches, and judicial databases operate in production before Stage 1 funding. System design builds on twenty years of internal audit in oil production, chief financial officer leadership in international grain trading, and director-liability litigation by founder Aleksandr Fishchuk (Open Researcher and Contributor Identifier 0009-0000-6549-6113).

LIVE ASSET	MEASURED VALUE AS OF 19 NOVEMBER 2026	INDEPENDENT VERIFICATION PATH
Production MITR gateway	Continuous operation since 24 April 2026 across 20 live enforcement rules (versus 4 pattern checks in open-source mcp-sentinel 1.1.2). Four-core processor latencies: 1.08-millisecond warm median, 1.96-millisecond 95th percentile, 5.22 milliseconds with refusal explanation, and 30.7 milliseconds cold start. Revision ac35359 with 22 QF_LIA contracts and core minimization runs in 1.53 to 1.83 milliseconds.	Public witness node mitr.asi5.ru (/health) and five-minute guide at /mitr/start/.
Cryptographic receipt chain	5,441 Secure Hash Algorithm (SHA-256) linked records across 59 completed epochs (60 published) as of 19 November 2026; historical epoch 33 of 25 October 2026 on 5,079 decisions is anchored in Bitcoin block 973,024 via OpenTimestamps. iss-ledger-117 provides tamper-evident lineage rather than certified encryption hardware. Regulated banks and critical infrastructure pair it with Federal Law No. 63-FZ accredited certification-authority timestamps and qualified electronic signatures.	Live witness mitr.asi5.ru and offline script verify_chain_standalone.py.
Adversarial suite and INDRA	Measured on the internal reference testbed prior to external accredited laboratory trials: 157 labeled agent scenarios (114 attacks, 43 routine operations: 0 misses, 0 false refusals). The INDRA bench records 28 web scenarios (26 of 26 destructive probes stopped), and the codebase holds 6,450 automated tests (pytest --collect-only, revision ac35359).	Live bench indra.center and verification passports below.
Court database and monograph	14,899 verified court acts live on sudfact.ru (1.06-terabyte archive). Published Edition 2 monograph Proven Action (411 pages A5, 309 pages 17×24 print), accompanied by a 26-page open memorandum, 44-page book excerpt, 107-page engineering registers, and 2-page English overview.	Live service sudfact.ru and book page at /book/.

SECTION 06 · STAGE 1 BUDGET, MILESTONE GATES, AND PRIORITY PAYBACK

6. How 223,000 USD are deployed and compared against bank deposits

Capital formation runs across three stages. **Stage 1 totals 223,000 USD (18,000,000 rubles) over 11 months** to scale corporate sales with zero server purchases. **Stage 2 totals 560,000 USD over 15 months** to complete Assurance Level 4 certification and reach 25–30 enterprise clients. **Stage 3 totals 1,500,000 USD over 24 months** for international licensing across Asia, the Middle East, and Eurasia.

Stage 1 releases funds in two protected tranches. **Tranche 1A (75,000 USD, months 1–5)** funds incorporation of MITR Technology LLC, enterprise 1C and security connectors, initial commercial audits, and Unified Software Registry filing. **Tranche 1B (148,000 USD, months 6–11)** transfers only after three verifiable conditions are met together. First, collected revenue reaches at least 18,500 USD (1,500,000 rubles) across three paid engagements, with a target benchmark up to 2,700,000 rubles at three 900,000-ruble pilots. Second, an accredited security laboratory signs an independent protocol on the 157-scenario suite. Third, Unified Software Registry inclusion and official recording of the irrevocable exclusive license to MITR Technology LLC are completed. Fixed founder salary from investor funds and graphics-card purchases remain zero USD across both tranches.

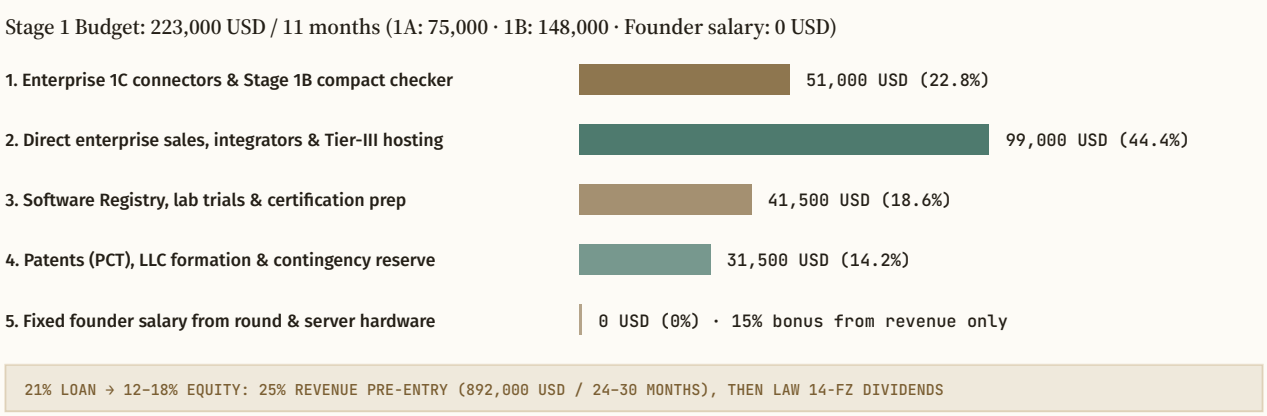

Figure 2. Zero fixed founder salary from investor funds and zero graphics-card capital purchases direct all 223,000 USD across four operating lines. The Tranche 1A and 1B split in thousand USD is 23.5 plus 27.5, 30.0 plus 69.0, 11.8 plus 29.7, and 9.7 plus 21.8, while the founder bonus is paid solely from collected revenue.

COMPARISON CRITERION	BANK DEPOSIT (ABOUT 21% RUBLE YIELD, LOW RISK)	CONVERTIBLE LOAN 21% + 12–18% EQUITY (VENTURE RISK)
Capital release and risk profile	100 percent of funds locked on day one at fixed interest with low banking and sovereign risk.	Uninsured commercial venture risk mitigated by staged release. Tranche 1A deploys 75,000 USD in months 1–5, and Tranche 1B releases 148,000 USD only after 18,500 USD in collected revenue and lab sign-off.
Inflation shield and principal return	Fixed 21 percent local-currency interest and nominal principal repayment with zero equity upside.	Prior to conversion, 21 percent per annum interest accrues under Federal Law No. 14-FZ Article 32.3 while 25 percent of gross billings repay loan principal. Full principal recovery projects to 24–30 months at 892,000 USD cumulative billings, accounting for 35–40% integrator margins and 3–6 month enterprise sales cycles.
Rights upon conversion	Zero equity ownership; income stops when the deposit matures.	Upon conversion into 12 to 18 percent equity, loan interest ceases. Ongoing profit payback and dividends then run under shareholders' agreement (Civil Code Article 67.2) out of net profit under Articles 28–29 of Law No. 14-FZ.

11-month execution plan for Stage 1

Months 1–5 (Tranche 1A — 75,000 USD). Incorporate MITR Technology LLC, file Unified Software Registry applications, and record the irrevocable license. Ship 1C and security-monitoring connectors, complete the 157-scenario accredited laboratory protocol, and collect at least 18,500 USD (1,500,000 rubles) across three paid engagements. **Months 6–11 (Tranche 1B — 148,000 USD).** Release the compiled sub-3,000-line proof-checker, submit certification packages, and file international PCT patent applications before 1 June 2027. Onboard five security integrators and scale monthly billings to 31,000–47,000 USD (2,500,000 to 3,800,000 rubles) toward 24–30 month payback.

SECTION 07 · FIVE-MINUTE INDEPENDENT VERIFICATION AND PRINT EDITIONS

7. Offline verification without trusting developer claims

A technical reviewer can verify receipt-chain integrity and local command interception on an isolated workstation in five minutes using only the Python 3 standard library.

```
curl -O https://asi5.ru/console/verify/verify_chain_standalone.py.txt
mv verify_chain_standalone.py.txt verify_chain_standalone.py
curl -O https://asi5.ru/console/verify/gate_anchors-public.jsonl
python3 verify_chain_standalone.py gate_anchors-public.jsonl

pip install --no-index --find-links https://isslab.ai/wp-content/uploads/iss-utils/index.html mcp-sentinel
mcp-sentinel check --tool sql_query --args '{"query": "DROP TABLE users;"}'
```

Print publications and SHA-256 checksums (November 2026)

Investment Memorandum — English Edition 2.1 (November 2026, 9 pages) — print PDF edition covering two-tranche deal terms, the four-product business automation system, legal protection, and payback math.

ISS_Investor_Memorandum_2026_11_EN.pdf · sha256: *(current SHA-256 checksums are published at https://isslab.ai/investor/#materials)*

Information Security 3.0 Verification Passport (English Edition, 3 pages) — historical snapshot of measured solver latency percentiles, 157-scenario benchmark results, and standalone replay commands.

iss-ib30-verification-passport-2026-10-25-en.pdf · sha256: `6a73de6ec426f4b240a985174eebcc7fdc86a02ab0d6d035b7c8544ce4ec9281`

Monograph *Proven Action* **— Overview (English Edition, 2 pages)** — summary and chapter structure of the 411-page Edition 2 monograph on governed autonomous software.

proven-action-monograph-overview-en.pdf · sha256: `ffab1baaae96642c8b588473faba0a3c2f0a5465f33f0f2896008576f91f1179`

Russian Primary Editions (Memorandum, MITR Passport, and INDRA Passport) — Russian Investment Memorandum 2.1 (ISS_Investor_Memorandum_2026_11_RU.pdf, sha256: *(current SHA-256 checksums are published at https://isslab.ai/investor/#materials)*), MITR Product Passport (ISS_MITR_Product_Passport_2026_11_RU.pdf, sha256: `01e25cc601205caf9bbd1799f43d86df1a9362e45e6c6993714238c1ffb409de`), 14-day INDRA Assessment Passport (ISS_INDRA_Assessment_Passport_2026_11_RU.pdf, sha256: `0748ecbf9fc32172ff55c5179fbab43c837b907cec54c50929251ee815f40059`), 26-page open memorandum (dokazannoe-deystvie-memorandum.pdf), 44-page book excerpt (dokazannoe-deystvie-fragment.pdf), and 107-page engineering registers (dokazannoe-deystvie-registers.pdf).

SECTION 08 · DIRECT PRINCIPAL CONTACT AND LIVE DEMONSTRATION

8. Requesting the term sheet and live product demonstration

Investor discussions, live demonstrations of digital employees governed by MITR, and MITR Technology LLC term-sheet reviews are conducted directly by the founder and scientific director under mutual non-disclosure terms. Benchmark protocols and reproducibility instructions are published on Accuracy and benchmarks.

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Edition 2.1 dated 19 November 2026. Checked against primary sources: 19 November 2026. Figures and terms are provided for institutional and strategic review and do not constitute a public securities offering. All latency, benchmark, and ledger metrics are backed by reproducible verification logs as of the publication date.