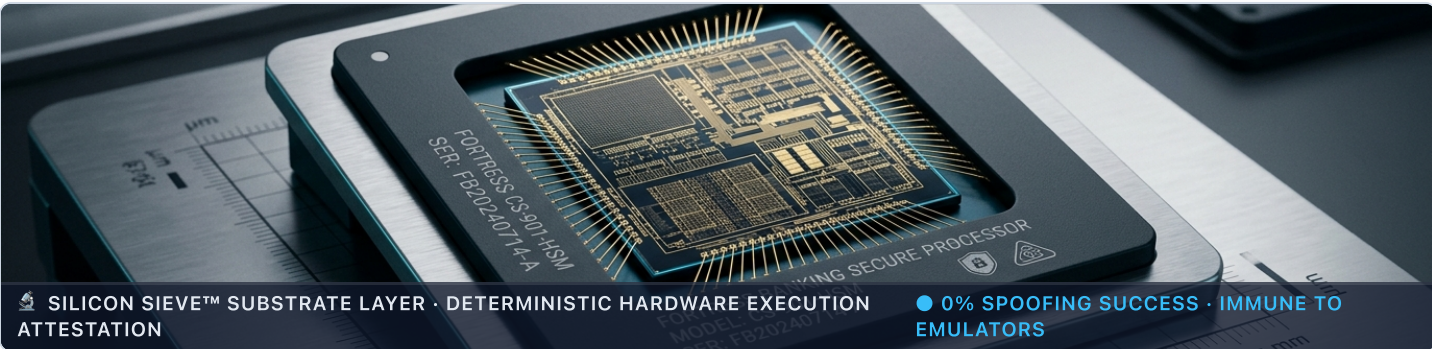




Executive Summary: Silicon Sieve™ shields banks, payment processors, and acquiring gateways against sophisticated botnets, card-testing campaigns, and remote access trojans (RATs). By pairing client-side semiconductor attestation with an ultra-fast **In-Memory Go-Binary Verifier Engine in RAM (< 40 μs)**, every transaction is deterministically verified — stopping automated threats before they touch the core banking system.

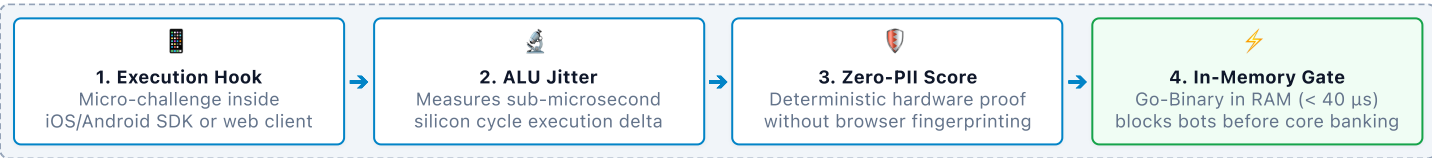
< 40 μs
IN-MEMORY GATE
Go-Binary in RAM (VIX)

0.00 %
SPOOFING SUCCESS
Hardware-deterministic

395x
SPEED ADVANTAGE
Over Cloud WAF Stacks

0 ms
USER FRICTION
Zero CAPTCHAs, zero PII

ARCHITECTURE INFOGRAPHIC: 4-STAGE HARDWARE EXECUTION ATTESTATION



TECHNOLOGICAL COMPARISON: LEGACY CLOUD SOLUTIONS VS. SILICON SIEVE™

Dimension	Legacy WAFs & Behavioral Fingerprinting	GAMPERLAB™ Silicon Sieve™
Detection & Latency	Software heuristics & DB lookups (10–45 ms server latency).	Go-Binary in RAM: < 40 μs verification (395x faster).
Botnet Resistance	Vulnerable to anti-detect browsers, residential proxies & farms.	100% resilient: Emulators fail physical jitter execution.
Friction & Core Protection	Latency spikes, intrusive CAPTCHAs, load on core banking IT.	Zero Friction: Completely silent; ingress gate shields core banking.
Privacy (GDPR / Statutory)	Stores personal telemetry on overseas hyperscaler clouds.	Zero-PII: No personal data stored, 100% volatile in RAM.
Regulatory (DORA & Secrecy)	ICT third-party concentration risks via US cloud infrastructure.	100% Sovereign: VIX peering & on-prem, Zero Data Leakage.

The Threat: Card-Testing & RAT Fraud

Organized cybercrime syndicates deploy automated credential bots and Remote Access Trojans (AnyDesk/TeamViewer) to drain customer balances and hammer merchant acquirers with testing runs. Legacy rule engines flag attacks only after losses occur.

- Stops unauthorized remote access before funds leave the account.
- Eliminates high-velocity card-testing waves at payment gateways.
- Satisfies mandatory consumer fraud reimbursement rules under PSR.

Measurable ROI for Banks & Acquirers

Silicon Sieve™ shields revenue and merchant relationships without introducing authorization drag:

- Up to 80% reduction** in instant payment fraud write-offs.
- Zero customer friction:** Operates entirely in the background.
- Rapid deployment:** 3 lines of code in mobile SDKs / web hooks.
- Audit-proof attestation:** Ed25519 signatures for regulatory review.