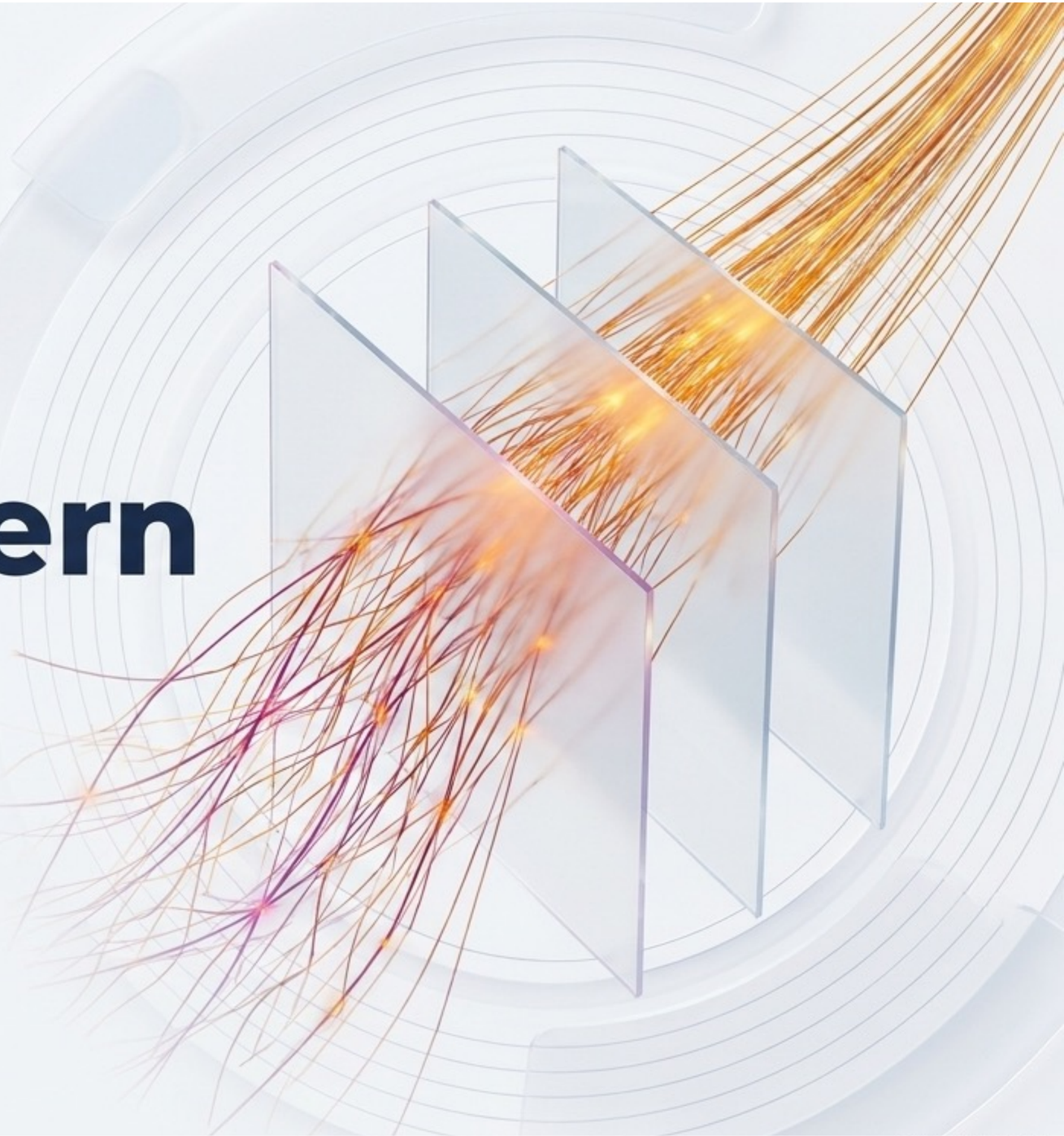
Survey Report

2026 State of Modern Application & AI Security

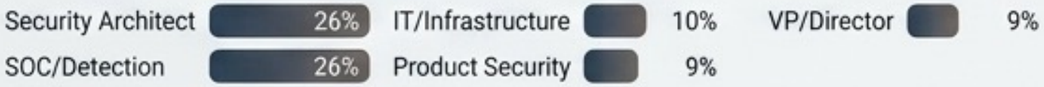


Based on insights from 902 Global Security Leaders

Knowing is no longer enough.

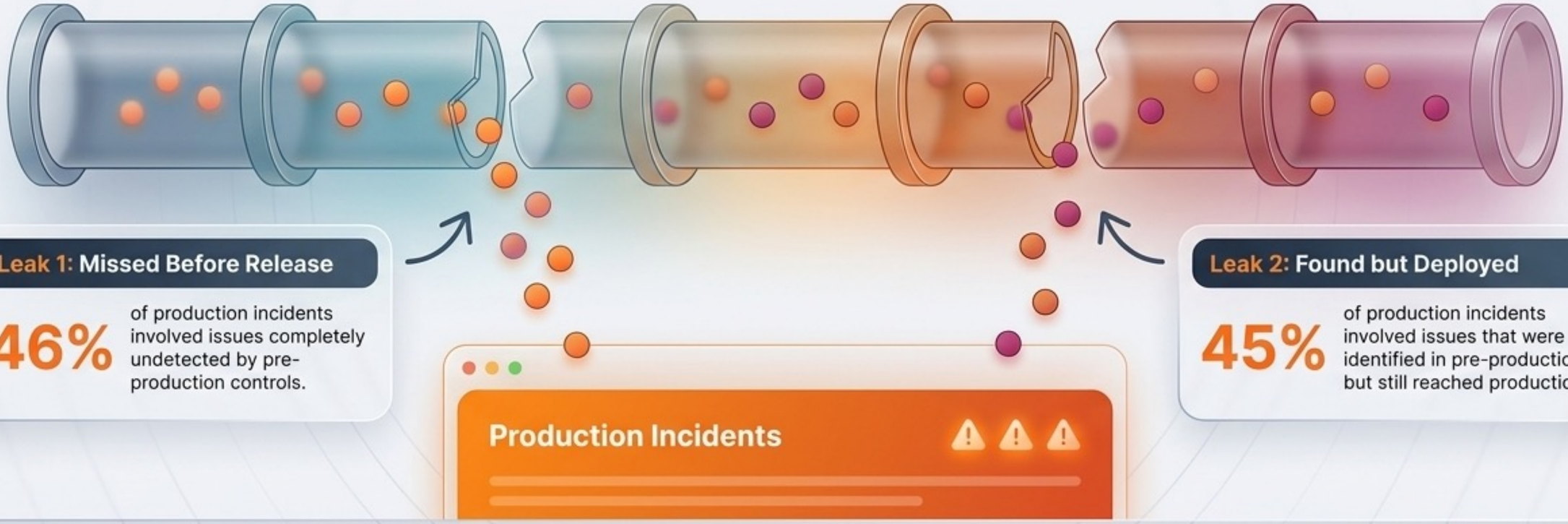
As **attack timelines compress** and **AI** introduces **dynamic complexity**, the **true bottleneck** is no longer finding vulnerabilities. Survival now depends on proving their **exploitability** in **runtime**.

Insights drawn from 902 AppSec, DevSecOps, and Security Architecture leaders.



The Breach Battlefield Has Shifted to Runtime

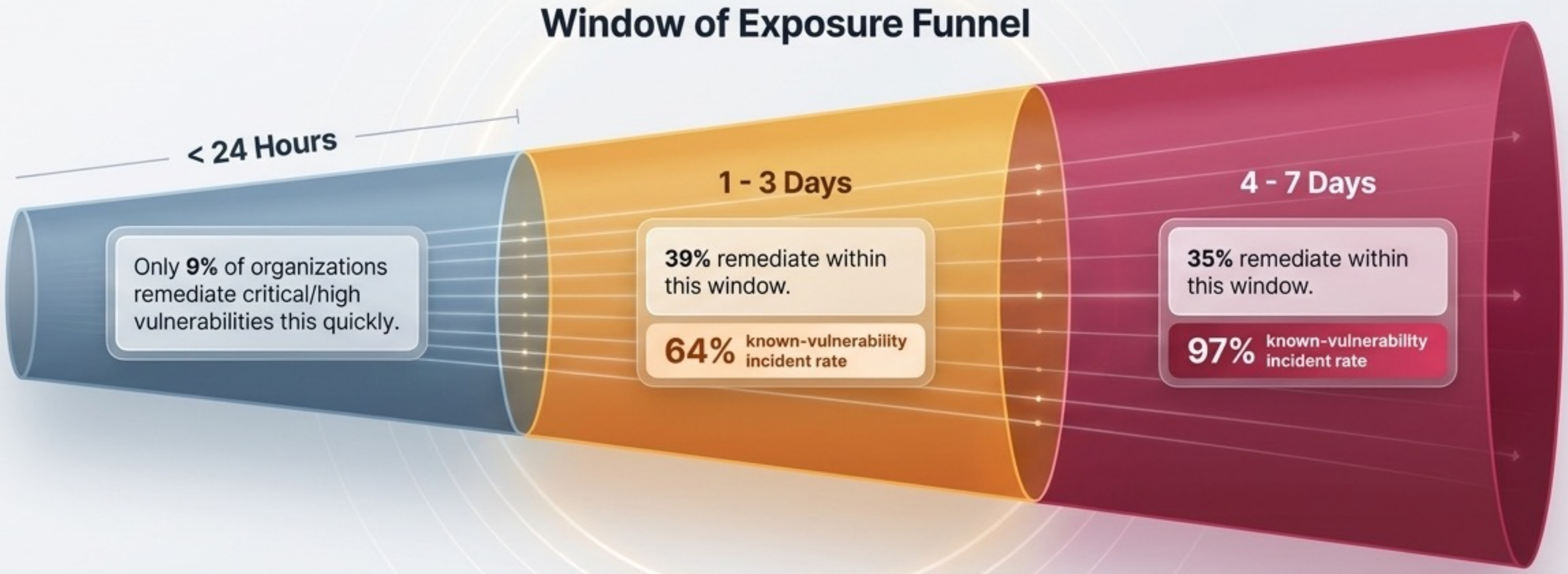
The Leaky CI/CD Pipeline



Core Insight: Upstream detection does not automatically equal downstream protection. Incidents are slipping past the gates.

Key Finding 2

The Fatal Window: The Patch Gap Drives Real-World Breaches



Core Insight: 80% of organizations suffered an incident tied to an already-known vulnerability. The issue isn't ignorance; it's a remediation window wide enough for attackers to act.

The Shift-Left Illusion

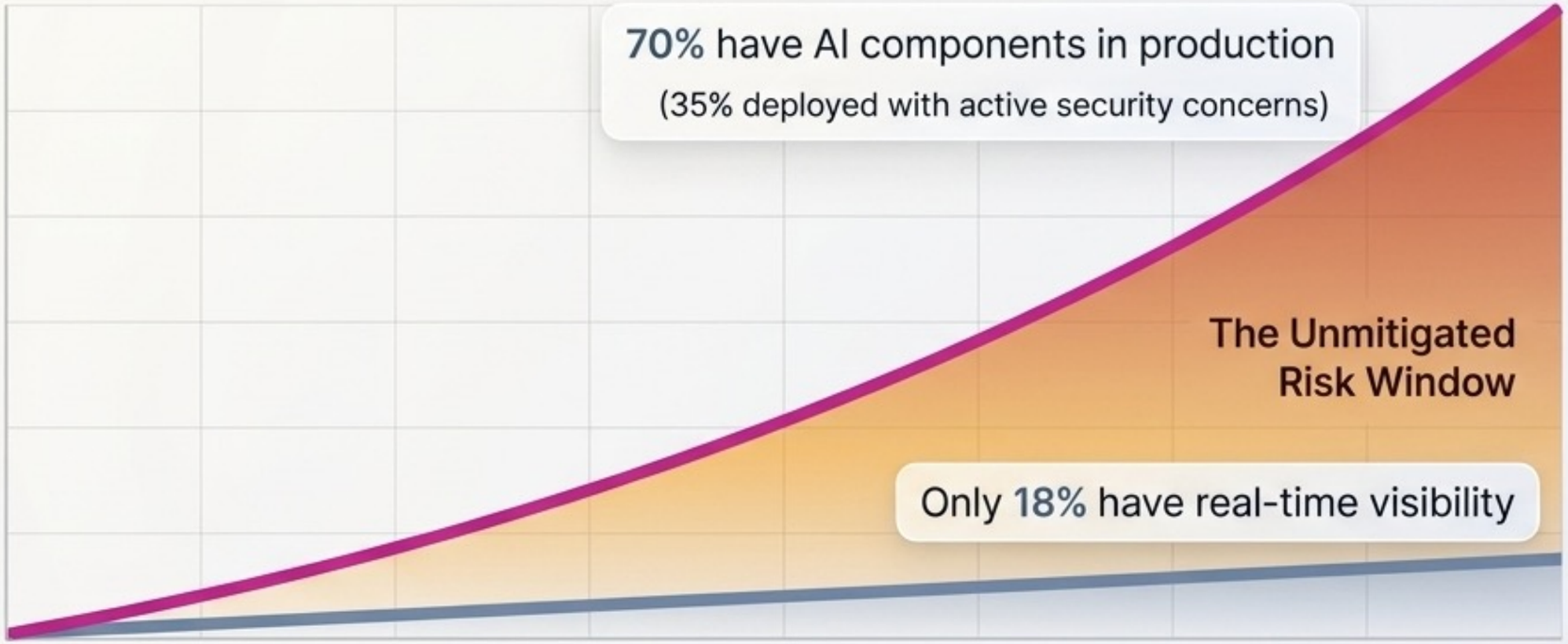
We built the scanners.

But the threats materialized anyway.

Production incidents remain widespread despite heavy upstream investment.

Core Insight: Preventive static analysis cannot secure environments where threats dynamically materialize post-deployment.

The AI Catalyst Outpaces Real-Time Defense



Core Insight: AI behaves dynamically and defies traditional signature-based security models, rapidly widening the window of unmitigated risk.

Security is Stuck in the Post-Mortem

Post-Mortem Reality

50% of organizations rely on post-incident auditability. They can reconstruct what happened after the breach, but cannot stop it.

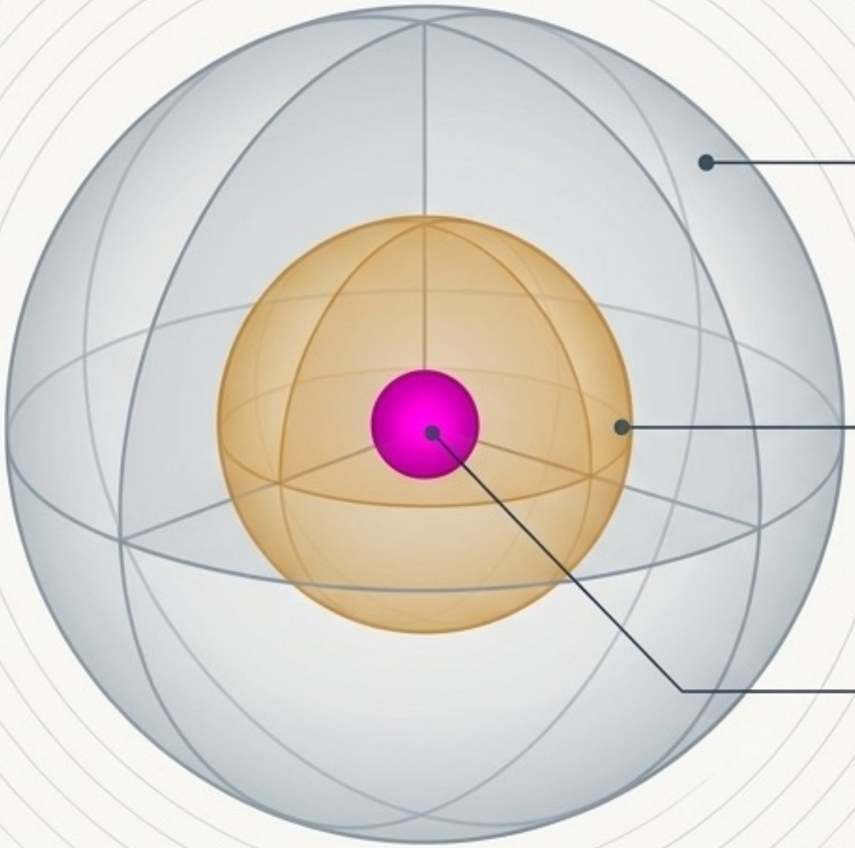
The Real-Time Deficit

Only 18% can observe or intervene in real-time. (An additional 28% suffer from partial or incomplete logging).

Core Insight: Autopsy data doesn't stop active exploits. To secure autonomous components, oversight must move from **reactive** auditing to **real-time observation.**

The Signal Bottleneck: Finding the Exploitable Core

The Irrelevant Factor: Only 4% cite staffing or skill limitations as their top challenge.



The Noise: Theoretical Findings

54% cite difficulty distinguishing real threats from non-exploitable findings.

The Struggle: Prioritized Risk

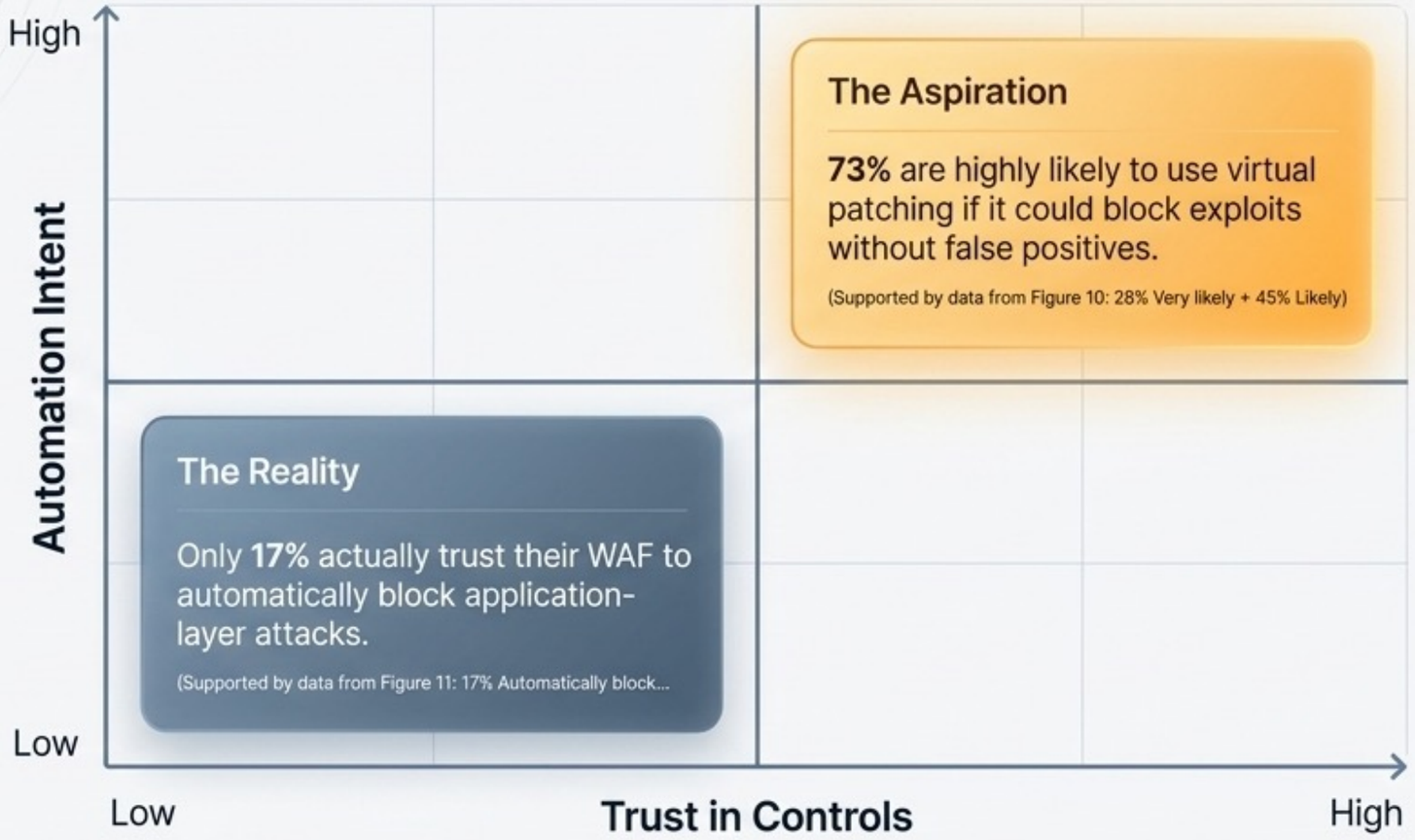
32% struggle to prioritize vulnerabilities by actual risk.

The Signal: The Exploitable Path

The exact code paths and data flows where a vulnerability is reachable in production.

Core Insight: The operational failure is a signal-quality problem. The most valuable security signal isn't another alert—it is proof of exploitability in the real environment.

The Trust Paradox in Production Mitigation



The Obstacles

56% lack application-level context to make safe blocking decisions.

(Data from Figure 12)

32% fear disrupting business-critical functionality.

(Data from Figure 12)

Core Insight: Security teams *want* to block attacks, but legacy controls lack the **contextual intelligence required for automated trust.**

Diagnostic: Theoretical vs. Exploitable Risk

	Legacy AppSec	Modern Runtime Defense
Primary Arena	Pre-Production / Static	Production / Live Runtime
Key Metric	Volume of Findings	Proof of Exploitability (Desired by **41%**)
AI Readiness	Blind / Post-Mortem	Real-time Observation
Mitigation Action	Scan, Ticket, Wait	Virtual Patch & Contain (Desired by **37%**)
Primary Challenge	Alert Fatigue & Noise	Contextual Accuracy

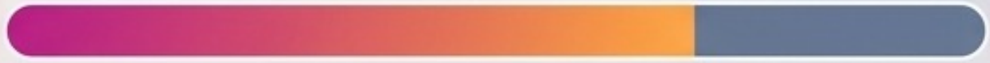
Core Insight: The industry is operating on a legacy model designed for static environments, while threats have evolved to exploit dynamic, live architectures.

Following the Risk: The Pivot Toward Runtime Security

Investment Intent (Next 24 Months)

42% of organizations explicitly plan to invest more in runtime security and production defense.

The Budget Disconnect

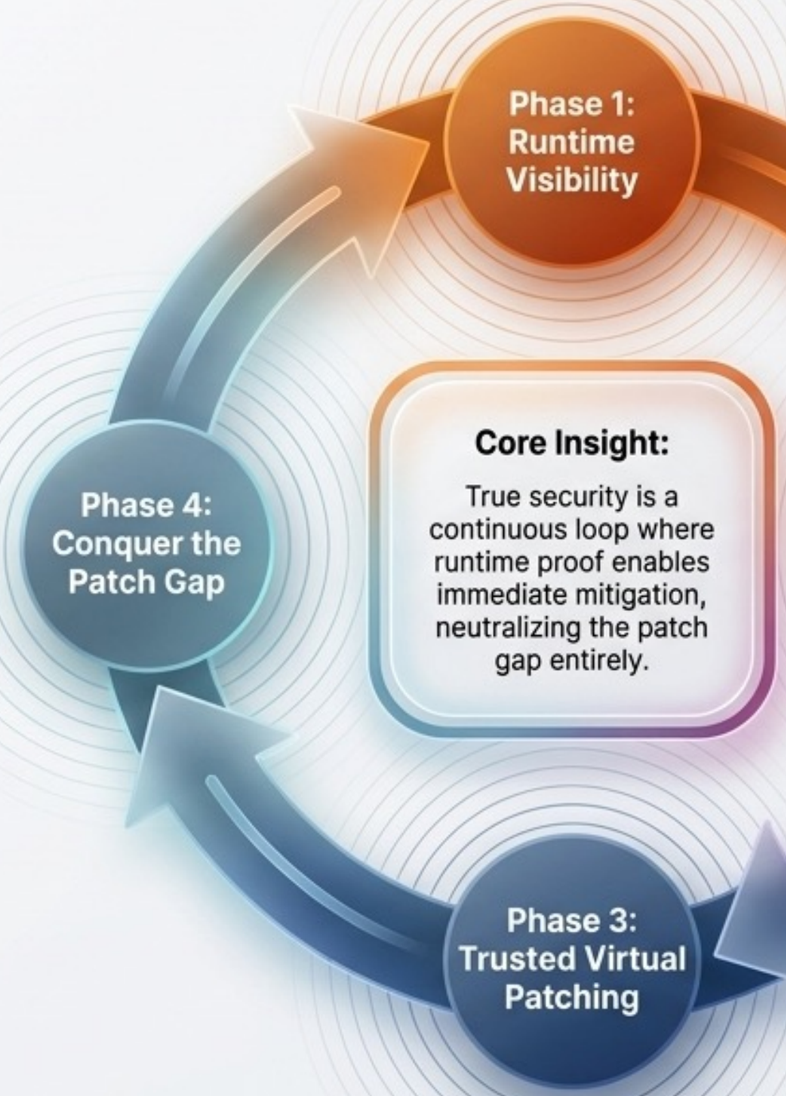


While **70%** have AI in production, AI security budgets are uncertain:

- **38%** expect budgets to decrease
- **34%** expect budgets to stay flat

Core Insight: Security investment is beginning to follow risk into production, but funding strategies are lagging dangerously behind the reality of AI-driven attack surfaces.

The Closed-Loop AppSec Model



The Continuous Loop

Solving the AI Blind Spot: Real-time observation of application behavior.

Exploitablity Loop

Solving the Signal Bottleneck: Context-aware intelligence determining exact reachability.

Trusted Virtual Patching

Solving the WAF Trust Paradox: Automated, precise mitigation without breaking applications.

Phase 4: Conquer the Patch Gap

Solving the Window of Exposure: Engineering is granted the 4-7 days they need to remediate code without active risk.

The most valuable security signal is proof.

Attackers weaponize vulnerabilities at machine speed. Patching takes weeks. Close the patch gap in minutes with precision mitigation engineered for the exact exploit path.

Download the full **2026 State of Modern Application & AI Security Survey Report.**

Based on the survey from CSA in the year of 2026. We are an AI-driven available at the website - https://cyberyog.com/partners/

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