



# Cybersecurity in the Age of AI

Building a Synchronous BFSI Enterprise

MAY 2026



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Data Security Council of India (DSCI) is a not-for-profit, think tank on data protection, cyber security and critical technologies in India, setup by Nasscom, committed towards making the cyberspace safe, secure and trusted by establishing best practices, standards and initiatives in cyber security and privacy. DSCI works together with the Government, law enforcement agencies, defense, industry sectors including IT-BPM, BFSI, CII, Telecom, and other think tanks for public advocacy, thought leadership, capacity building and outreach initiatives.

# Foreword



## Vinayak Godse

Chief Executive Officer, Data Security Council of India

Artificial intelligence is reshaping the foundations of banking and financial services at a pace that few anticipated. What began as a tool for operational efficiency has evolved into the core engine driving automation, personalization, and decision-making across the BFSI sector. This transformation is profound — and so are its security implications.

The same capabilities that make AI transformative for business are equally available to adversaries. Frontier AI systems can now identify vulnerabilities buried in legacy code, generate attacks indistinguishable from legitimate activity, and operate at a speed no human security team can match. We have moved from an era of manual threat detection to one of machine-speed conflict — and the BFSI sector sits squarely at the center of it.

India's scale amplifies the stakes. A vast user base, deeply embedded financial services, and year-on-year growth in digital transactions mean the consequences of a security failure extend well beyond individual institutions. Balancing technology acceleration with cyber resilience and responsible AI governance is a strategic and operational necessity.

To examine how the sector is responding, the Data Security Council of India in collaboration with Boston Consulting Group has developed "Cybersecurity in the Age of AI" — a comprehensive study of how BFSI organizations are navigating cybersecurity in an AI-driven landscape.

The findings show that while security foundations have strengthened, the threat landscape has evolved faster. AI embedded in core infrastructure is reshaping risk exposure and driving investment toward Zero Trust, phantomization, and tokenization. Cyber leaders remain deliberate about autonomous SOC adoption, rightly maintaining human-in-the-loop governance even as agentic models are evaluated. Securing AI deployments, defending against AI-powered threats, and leveraging AI for cyber operations are being pursued as one unified effort.

As frontier AI capabilities continue to evolve and digital dependencies deepen, building a trustworthy ecosystem for users and institutions alike will only grow in importance. The institutions that will lead are not simply those that adopt the most advanced capabilities — but those that build the governance, culture, and accountability to match them.

# Foreword



## Nisha Bachani

Managing Director and Partner, Boston Consulting Group

India's BFSI sector has been at the forefront of digital and technology adoption. Digital channels now mediate majority of customer interactions across banking, insurance and capital markets, and the operational transformation in this sector has seen material advancements in the last decade. Few sectors operate at this scale, velocity, and with this density of interconnections.

Into this landscape, artificial intelligence has arrived as the defining force and is reshaping cybersecurity fundamentally on both sides of the line. It is putting sophisticated defense capabilities within reach of any institution that chooses to adopt them, while simultaneously collapsing the cost, skill and time required to mount sophisticated attacks. Exploit windows that once ran into months are being measured in days. For the first time, the offensive side of the cyber curve is scaling faster than the defensive side, and adversaries are deploying the same frontier capabilities

Indian BFSI faces a sharper version of this challenge than almost any peer – due to the nature of data, complex web of related parties, impact of breach and potential losses that will emerge. Attack intensity is materially higher in Indian BFSI than in global markets, the ecosystem is more interconnected, and risks are rising fast - the opportunity cost and losses due to cyber attacks now materially outweigh the investments and effort in planning the defense. While AI adoption is picking pace, AI-specific security controls still have some ground to cover. The strategy cannot be more compliance, it has to be stronger capabilities, better governance and controls.

We are delighted to launch this report as a product of the partnership between BCG and the Data Security Council of India. It draws on a survey of Indian and Global CISOs, structured conversations with senior leaders across BFSI, and BCG's broader experience in cyber and financial services.

Our study shows Indian BFSI's technical foundations have strengthened, but the threat environment has outpaced them. Cyber leaders remain deliberate about many initiatives and rightly maintain human-in-the-loop governance even as AI-native defense becomes essential. However, few structural gaps still remain - spanning risk quantification with a business & customer impact lens, third-party linked resilience, recovery readiness, talent and others. These risks need to be addressed in a coordinated rather than siloed way. The new operating model will be a lot more "synchronous" with Cyber defense aligned across stakeholders and not just limited to CISO/CIO.

For boards and chief executives, investments in this space are going to be more crucial than ever before and will differentiate the leaders & build greater customer confidence. Institutions that move decisively over the next twelve to eighteen months will define how the rest of the decade plays out, and will be positioned to lead in an AI-driven financial system.

We are grateful to the industry leaders who gave us their valuable inputs in shaping these perspectives and to DSCI for partnering to bring this to light. We look forward to your engagement on this and hope you find it an insightful read!

## Executive Summary (I/II)

Indian BFSI is at a cyber inflection point – and the gap is widening faster than most organizations are recognizing.

India's BFSI is attacked 1.6x more intensely than the global average. Cyber incidents have more than doubled in four years – 1.4 million (2021) to 2.9 million (2025). Breach costs are rising +7% YoY to USD 2.5 million and at the same time, mean time to contain a breach in India is at 263 days and still climbing. The mid-tier Indian BFSI sits in the most exposed position: they have digitized aggressively, are deeply interconnected, but their cyber investments are much smaller than larger players

The biggest shift is on the attackers' side. AI has rewritten the economics of offense:

- Time to exploit: 745 days → 44 days (-94%)
- Cost of attack: down by 70%+

Our survey of 40+ Indian BFSI CISOs and multiple direct interactions with the relevant stakeholders revealed a strong intent to action on the AI-oriented cybersecurity agenda, but with some gaps in policy and execution

- 76% of Indian BFSI CISOs rank AI-enabled attacks as a top-4 priority.
- 69% expect significant impact within 12 months. However, no single control area in our survey crossed the 50% confidence threshold for readiness against an AI-enabled breach.
- 71% of Indian BFSI firms have already reached AI-assisted SOC maturity or higher
- 43% of Indian CISOs say attackers are already moving faster than their defenses – but only 19% have increased cyber budgets by more than 10% to respond

To be truly ready, every BFSI institution must now simultaneously curb AI-powered attacks, deploy AI for defense, and secure its own AI systems – as one unified effort.

AI, however, is only the accelerant. Foundational cyber resilience in Indian BFSI is finding it difficult to keep pace with the digital scale of operations

## Executive Summary (II/II)

Indian BFSI has built strong digital foundations. The institutions that act decisively on the remaining gaps over the next 12–18 months will define the sector's resilience posture for the rest of the decade.

Our survey identified four areas where targeted action can deliver the highest risk-buydown:

- Investment headroom exists: 60%+ Indian BFSI currently directs less than 10% of IT spend to cyber - need to review cyber defense capabilities to ensure exposures are well-managed and within risk appetite
- Third-party risk is manageable with the right model: 55% cite it as a top concern, yet only 49% already have mature controls. Currently the gap is governance and continuity
- AI governance needs a boost: Only 29% have both an AI security owner and a defined policy

The path forward is not more controls – it is synchronicity. Indian BFSI's next cyber operating model must shift from a security-function agenda to a synchronized resilience system across five fronts:

**Business:** Cyber priorities aligned with business priorities and risk – not an afterthought

**Cross-functional teams:** Business, Risk, Legal, IT and Security operating as one accountable unit – not serial handoffs

**Vendors:** Third parties governed as extensions of the enterprise, not managed annually at procurement

**Humans:** The attack surface inside and outside the bank defended as a single discipline – insider risk and customer fraud as one program

**Ecosystem:** Threat intelligence shared across peers, regulators and industry bodies – not captured in siloes

Attackers already operate as a coordinated economy. The institutions that match that coordination – synchronizing defense across all five fronts – will be the ones that turn cyber resilience into competitive advantage. Those that don't will remain permanently reactive, defending yesterday's perimeter against tomorrow's threat.

# Table of contents

01

Page 08

The Cybersecurity Imperative

Scaling Threats and elevating 'Unknowns'

02

Page 22

Reflection on Our Position

Voice of Global and Indian CISOs

03

Page 40

Path Forward

Five Fronts where Indian BFSI must *Synchronize*  
for a stronger Cyber Defense

01

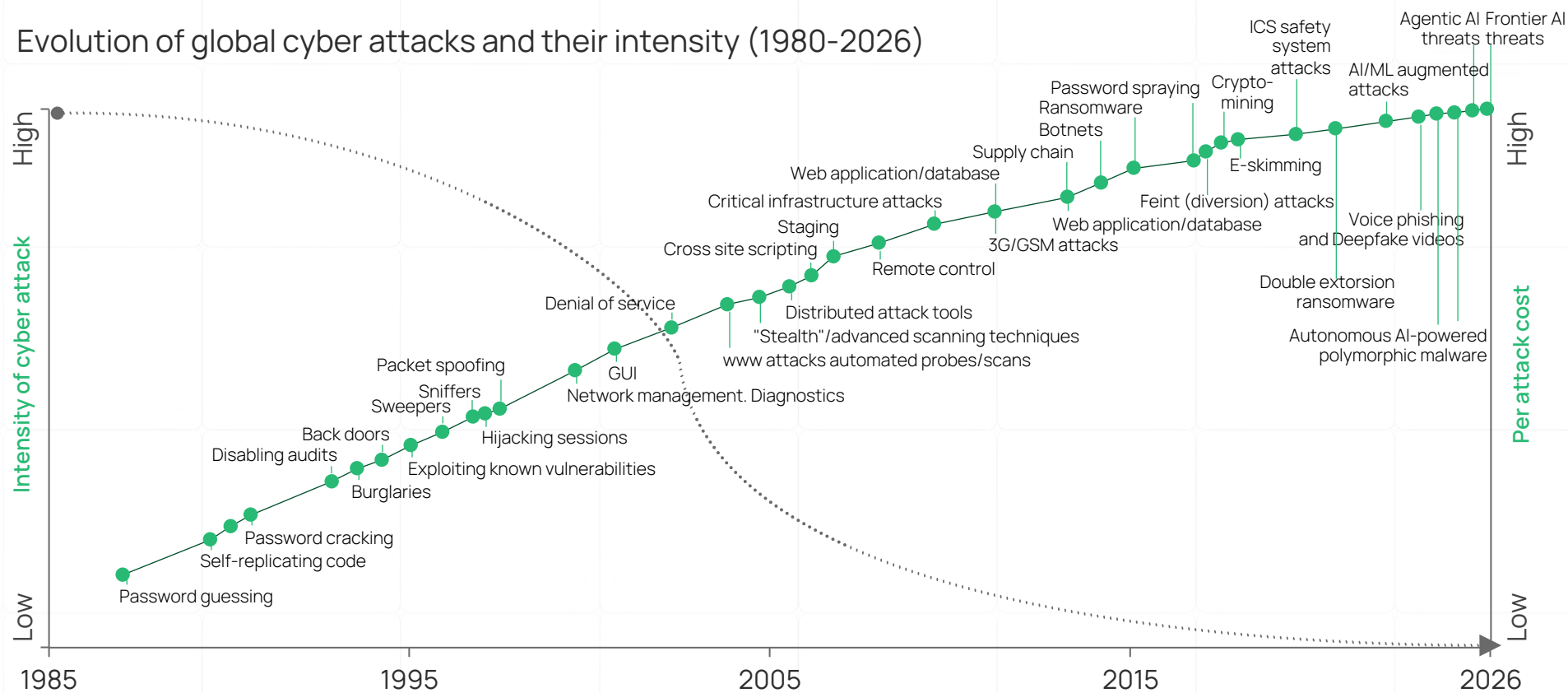


# The Cybersecurity Imperative

## Scaling Threats and elevating 'Unknowns'

# Cyber attacks have evolved over last 4 decades and AI is accelerating the sophistication

Evolution of global cyber attacks and their intensity (1980-2026)



..... Cost to execute attack  
 — Complexity of attack

Frontier AI can attempt a full enterprise network attack for ~USD 80<sup>1</sup>

1. UK NCSC (April 2026)  
 Source: Information Security Incorporated, BCG analysis

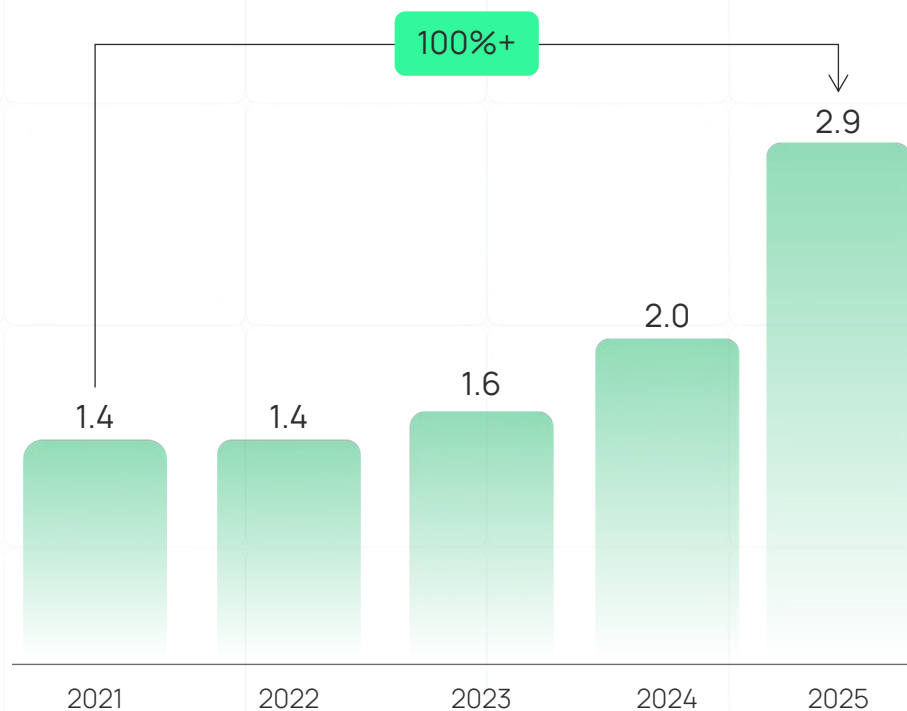
# India BFSI faces a steep challenge on managing cyber attack intensity

	Global	India
<b>Intensity</b> Cyber attacks per organization (2025) <sup>1</sup>	1x	1.6x
<b>Impact</b> YoY change in average cost of a data breach (2024-25) <sup>2</sup>	-9% (to USD 4.4 Mn)	+7% (to USD 2.5 Mn)
Mean time to identify and contain a data breach (March 2025) <sup>2</sup>	241 days	263 days
Share of total attacks in BFSI sector (2025) <sup>3,4</sup>	27%	17%
<b>Preparedness</b> Percentage of BFSI leaders who consider AI related attacks as a top issue (2026) <sup>5,6</sup>	61%	76%
Percentage of BFSI organizations investing > 10% of IT spend on cybersecurity (2025) <sup>5,6</sup>	76%	38%

Source: 1. Check Point Cyber Security Report 2026 (Jan '25 - Dec'25); 2. IBM Cost of a Data Breach Report 2025 (Apr'24 - Mar'25); 3. IBM X-Force Threat Intelligence Index; 4. DSCI x Seqrite India Cyber Threat Report 2025/6; 5. BCG x GLG Global CISO Survey 2026, Banking and Securities + Insurance excl. health subset (N=53); 6. BCG x DSCI India CISO Survey (N=42); BCG analysis

# Cyber incidents in India have doubled in last 4 years BFSI has seen significant breaches

Cyber incidents handled by CERT-In per year doubled in last four years in India (Mn / year)<sup>1</sup>



## Few Indian BFSI breaches in last 24 months

✦ **Cloud misconfiguration exposes client data at top-3 retail brokers (February 2025)<sup>3</sup>**

Environment managed by a leading global cloud services provider was compromised, exposing client data on the dark web; huge erosion in market cap post event.

✦ **Ransomware on shared tech vendor freezes 300 banks (July 2024)<sup>4</sup>**

A ransomware group exploited an unpatched DevOps automation server at a shared technology service provider, disrupting payment services for approximately 300 cooperative and regional rural banks.

✦ **Sophisticated heist drains INR 2K Cr from one of India's largest crypto exchange (July 2024)<sup>5</sup>**

A multi-sig wallet was breached in a single coordinated attack, attributed to a state-sponsored threat actor, with funds laundered globally through crypto mixers.

The mid-tier in Indian BFSI – mid-size private banks, small finance banks, NBFCs, urban cooperative banks – sits in the most exposed position: they have digitized aggressively (and therefore have valuable data and payment rails) and are deeply interconnected through shared infrastructure. But their cyber budgets are a fraction of the large players

**Note:** CERT-In: Indian Computer Emergency Response Team

**1.** Cert-In Annual Report 2021, 2022, 2023, 2024, 2025; **3.** Business Standard (3<sup>rd</sup> March 2025); **4.** Deccan Herald (31<sup>st</sup> July 2024); **5.** Business Today (14<sup>th</sup> January 2025);

**Source:** Press releases and articles; BCG analysis

# 8 structural forces are raising BFSI cyber risk in India (I/II)

Span across an increased attack surface, AI driven threats and other structural issues

01

## Digital Scale and Expanding Attack Surface

India's financial attack surface has expanded faster than any comparable economy. Over 1 billion Indians are now online, with 660 million smartphone users, a base that nearly doubled in six years.

>1Bn

Internet users in India by end-2025<sup>1</sup>

02

## Surge in AI Driven Threats

AI tools have collapsed the barrier to entry for cyber attacks. Malicious LLMs enable low-cost, highly targeted attacks. The attacker advantage has shifted: speed of exploitation now outpaces speed of defense.

90%+

Reduction in Time-to-Exploit with emergence of AI<sup>2</sup>

70%+

Reduction in cost of attacks with AI<sup>3</sup>

03

## Excessive Third Party Reliance

Indian financial institutions increasingly rely on shared 3<sup>rd</sup> party technology providers for core operations.

A single vendor compromise can cascade across the entire chain.

50%+

Of BFSI leaders report 3<sup>rd</sup> party and supply chain risk management remains ad hoc or reactive<sup>4</sup>

04

## Legacy Systems

Legacy core systems running on extended patch cycles are structurally unable to respond to shorter exploit timelines.

Legacy systems typically are more exposed as well.

<15%

Of BFSI CISOs report high confidence in managing unpatchable legacy and embedded systems<sup>4</sup>

1. DataReportal Digital 2026: India; 2. Flashpoint 2026 Global Threat Intelligence Report ; 3. Proxied on decrease in annual subscription cost of WormGPT; 4. BCG x DSCI India CISO Survey 2026 (N=42)  
Source: BCG analysis

# 8 structural forces are raising BFSI cyber risk in India (II/II)

Span across an increased attack surface, AI driven threats and other structural issues

05

## Talent Scarcity

There is a growing shortage of cybersecurity talent in both India and globally, driven not only by insufficient workforce capacity but also by a widening gap between skills and expertise needed.

90%+

Of organizations in India report cybersecurity talent gaps<sup>1</sup>

06

## Limited Leadership Focus and Investment

Cyber is governed as an IT and compliance issue at several Indian financial institutions, rather than as an enterprise-wide risk.

Indian BFSI's cyber spend lags global peers, reinforcing the gap.

40%+

BFSI CXOs report board oversight, cyber risk appetite measurement and reporting is ad hoc or reactive<sup>2</sup>

07

## Software Visibility Bottleneck

With 70–90% of modern software built on open-source libraries, vendor sub-dependencies and legacy systems, even mature Financial institutions find it difficult to maintain a complete, real-time inventory of what they run.

<17%

Of BFSI CISOs report high confidence visibility into third party and open-source dependency exposure<sup>2</sup>

08

## Geopolitical Landscape

State-aligned threat groups and hacktivist networks escalate sharply around every flashpoint, and BFSI sits adjacent to the government and infrastructure they target.

1.5 Mn+

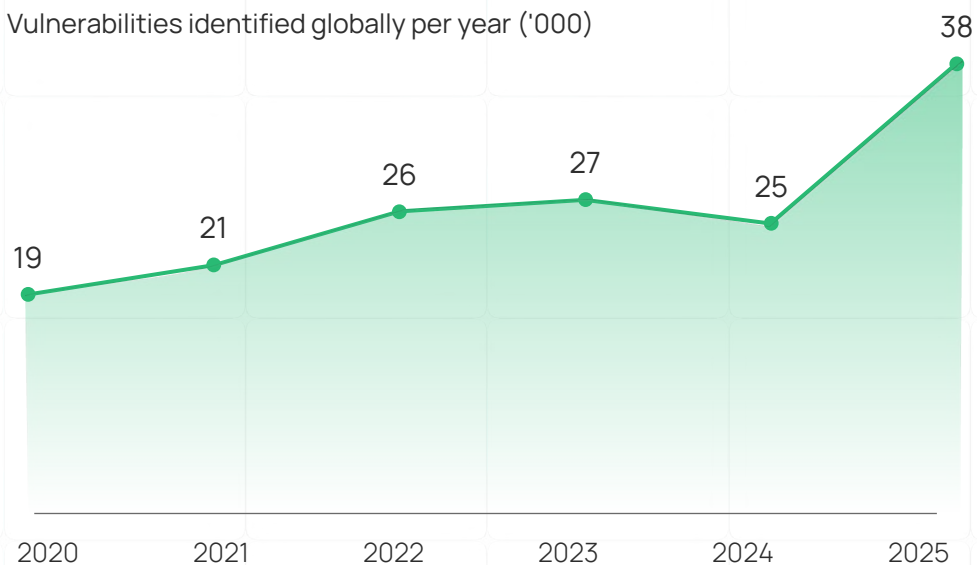
Cyber attacks on Indian websites in a single fortnight after the May 2025 geopolitical flashpoint<sup>3</sup>

1. DSCI Report – Indian Cybersecurity Product Landscape 3.0.; 2. BCG x DSCI India CISO Survey 2026 (N=42); 3. Road of Sindoor Report by Maharashtra Cyber Police  
Source: BCG analysis

# Vulnerability disclosures have grown 1.5x since 2024 with AI increasing the threat

Vulnerability disclosures have doubled since 2020, with the steepest acceleration in the last 24 months<sup>1</sup>

Vulnerabilities identified globally per year ('000)



✦ **56%** of these vulnerabilities could be exploited without authentication, significantly increasing the attack surface<sup>1</sup>

According to Indian CXOs, threat from AI-led attacks is real and fast evolving<sup>2</sup>

✦ **76%** Of Indian BFSI CISOs rank AI-enabled attacks as a top-4 priority for 2026

✦ **69%** Believe AI-powered threats will have significant impact in next 12 months

1. IBM X-Force Threat Intelligence Index 2026; 2. BCG Cyber x AI Report 2025 (n=500), BCG x DSCI India CISO Survey 2026 (N=42)  
Source: BCG analysis

# Third party and supply chain risks are now “first party” risks – AI increasing the potential risk of breach and impact

Supply chain risk is a growing priority for BFSIs....

- Sophisticated financial players are increasingly relying on **high levels of external FTEs and outsourced services** (especially in cloud and data storage)
- Even if an org is not the direct target of an attack, it can still **be adversely affected by vulnerabilities introduced by 3<sup>rd</sup> parties**
- **AI increases the risk of exploiting vulnerabilities and breach**

...However complex challenges faced in managing these risks

- 1 **Maintaining continuous visibility** into third-party vendors and interdependencies
- 2 **Assessing risk levels by vendor**, small but highly connected vendors may pose significant risk
- 3 **Managing access controls** for third-party employees effectively
- 4 **Securing cloud environments** without over-reliance on providers
- 5 **Strengthening threat intelligence** for early detection and rapid response to third-party risks
- 6 **Designing resilient processes, SLAs and architectures** to build operations resilience against third-party risks
- 7 **Effective incident response management** to attacks

1. BCG x DSCI India CISO Survey 2026 (N=42)  
Source: BCG analysis

# 55%

Indian BFSI CXOs report third-party and supply chain risk as a top issue of focus<sup>1</sup>

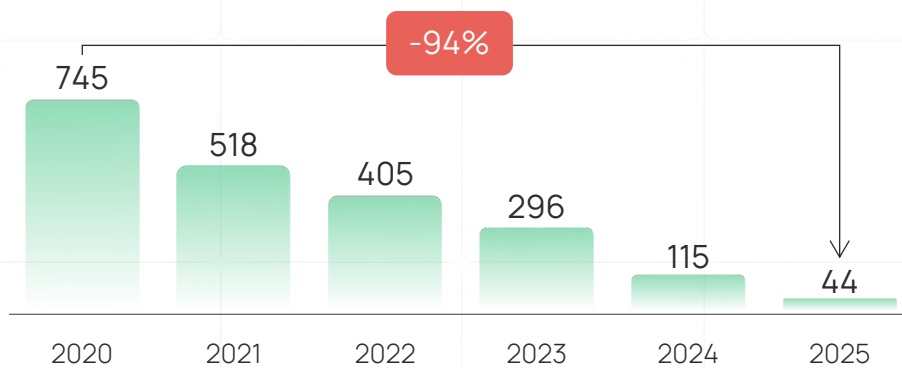
Concentration risk in Indian BFSI is no longer hypothetical – In a single incident, 300 banks went dark from a single shared-vendor breach in July 2024.

The discipline now has to shift from vendor-by-vendor diligence to systemic mapping of shared dependencies.

# Attack economics are changing fast – Time and cost to exploit has reduced materially

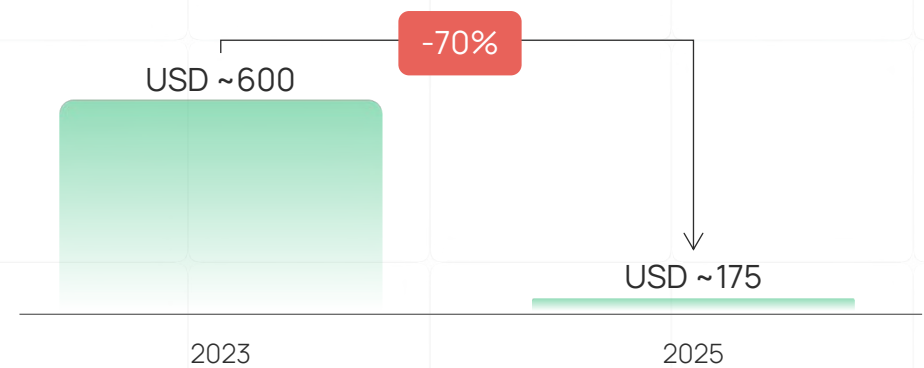
Shifting "bottleneck" - Time to exploit has reduced 90%+, collapsing available patching window for defenders<sup>1</sup>

Average days from first disclosure to exploit



Cost of attack has reduced by 70%+, making attacks 'accessible'

Cost of WormGPT (AI phishing and malware tool) subscription



“

While attacks can be done in days and hours now, our change & patch management still take 1-3 months. That speed asymmetry is the biggest battle.

**CISO,**  
Indian Mid-Sized Private Bank

**USD 80**

Frontier AI can attempt a full enterprise network attack for USD ~80.<sup>2</sup>

**USD 0.11**

A small 3.6 Bn open-weight model, costing USD 0.11 per Mn tokens to run, successfully replicated the FreeBSD exploit.<sup>3</sup>

1. Flashpoint 2026 Global Threat Intelligence Report; 2. UK NCSC (April 2026); 3. AISLE research (April 2026)  
Source: BCG analysis

# Example | Emerging frontier AI models can now find a 27-year-old zero-day at significantly low costs

Discovery is now faster, broader, and cheaper

- Zero-day discovery has shifted from slow and specialized to fast and scalable
- With new frontier models, vulnerabilities that survived decades of human security review can be identified for under USD ~50 in compute
- Engineers with no formal security training can now generate complete, working exploits from a simple prompt

Exploitation has become autonomous

- While previous models had a < 1% success rate at autonomously developing exploits, frontier models now reportedly generated exploits in over 70% of trials including chaining low-severity vulnerabilities without human intervention
- Automation is even exposing legacy systems and software maintained by small teams

Third party risk is amplified

- AI-assisted reconnaissance can map institutional dependencies and identify the weakest vendor at a scale and speed no human team could match
- A single compromised technology provider can cascade simultaneously across hundreds of institutions

Capability will rapidly diffuse

- Capabilities emerged from broader improvements in coding and reasoning, suggesting a convergent trajectory across frontier labs and open-source ecosystems, rather than a single-vendor breakthrough
- Comparable vulnerability-finding capabilities are expected to diffuse rapidly, with open-weight models estimated to reach parity within months

Frontier models such as Claude Mythos and OpenAI GPT 5.5-Cyber are a potential step-change in how quickly vulnerabilities are identified and weaponized.

When these capabilities reach open-source models, the risk becomes structural – guardrails fall away, access becomes universal and any attacker can run them without restriction.

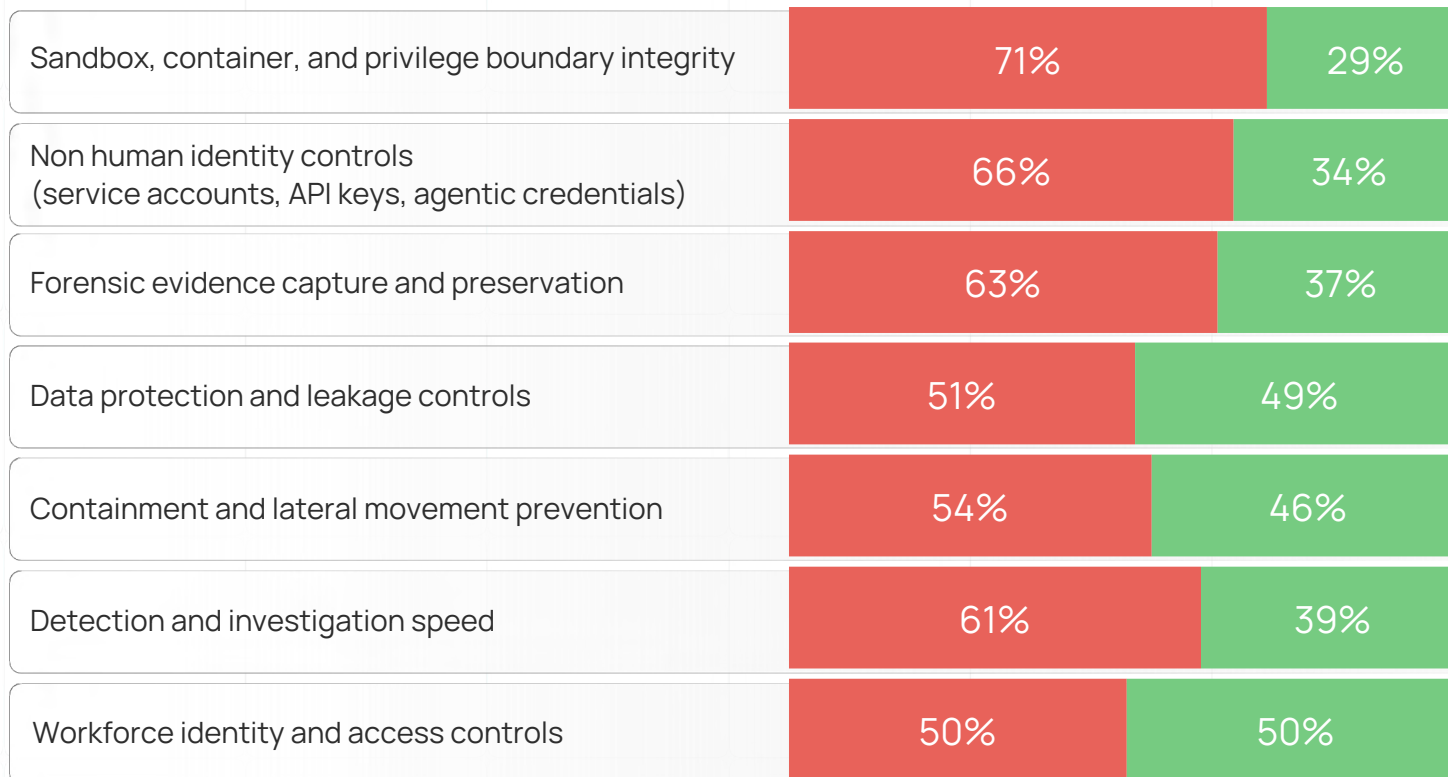
This introduces additional pressure on existing security fundamentals, which must be strengthened and operated in parallel.

Source: Anthropic announcements, press reports and articles and BCG analysis

# Indian BFSI leaders show limited confidence in readiness for AI-enabled cyber incidents

## Confidence in controls and operational capabilities to withstand an AI-enabled attack

Q. If your organization is attacked by a severe AI-enabled cyber incident in the next 6 months, how confident are you that each of the following controls and operational capabilities would hold?



Highly confident (tested, proven, would hold) Not Confident to Partially Confident

Source: BCG x DSCI India CISO Survey 2026 (N=42); BCG analysis

Indian BFSI's cyber defenses were built for human-paced threats and have not yet been tested against AI-enabled adversaries and in many cases, the impact is still unknown.

Recovery Time Objective (RTO), Recovery Point Objective (RPO) and the true blast radius of an AI-enabled incident need to be better quantified.

# Cybersecurity talent is a critical constraint, with AI widening the advanced skills gap

## The Global Story

4.8 Mn

Unfilled cybersecurity job positions globally in 2024, up 19% YoY, outpacing 0.1% YoY active workforce growth<sup>1</sup>

83%

Of global banking leaders report challenges in finding the cyber talent they need<sup>2</sup>

95%

Of cybersecurity professionals report at least one identified skills gap in their organization<sup>3</sup>

88%

Have experienced at least one cybersecurity incident in their organization due to a skills shortage<sup>3</sup>

## The India Story

1

Sourcing remains a challenge, with demand outpacing supply for cybersecurity roles viz. AI security, cloud security, threat intelligence and incident response

2

More than 95% organizations in India report cybersecurity talent gaps<sup>4</sup>

3

Cyber hiring remains heavily dependent on lateral talent (~45%). Learning curve for young professionals is steep with limited courses especially for cyber in age of AI

4

60K+ cybersecurity professionals<sup>4</sup> currently employed by cybersecurity product companies, with plans to grow 25% Y-o-Y. Even though India has emerged as one of the fastest-growing talent pools, it may still not be enough to cover the demand, especially in AI age

1. ISC2 Cybersecurity Workforce Study 2024; 2. BCG Cyber x AI Report 2025 (n=500); 3. ISC2 Cybersecurity Workforce Study 2025; 4. DSCI Report – Indian Cybersecurity Product Landscape 3.0 (Dec 2025)

Source: BCG analysis

# Significant business implications & cost incurred in managing an attack

## Organizational risk & loss materially high compared to investments to build defense

<b>Global Auto OEM</b> USD 2.5 Bn Economic loss in UK from a 5-week production halt	<b>Major UK Retailer</b> USD 400 Mn Lost from a 46-day online sales suspension	<b>Major LATAM Bank</b> 4+ Days services disruption	<b>US Retail Brokerage</b> ~7 Mn Consumer records disclosed	<b>Global Crypto Platform</b> USD 600 Mn Stolen from cross chain DeFi bridge	<b>4 Major European Banks</b> Customers' PII leaked after an attack of a third-party service provider
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The implications are often visible, before they become headlines. The gap is not awareness; it is quantification.

Indian BFSI boards need to learn to measure cyber risk in the language of business impact.

## Board level accountability has far-reaching implications - leaders have taken drastic steps including stepping down from the roles

<b>US Big-Box Retailer</b> President and CEO	<b>Cybersecurity Firm</b> CEO	<b>Global Media Studio</b> Co-Chairman	<b>UK Telecom Operator</b> CEO	<b>EU Aerospace Supplier</b> CEO and CFO
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It is imperative to build strong capabilities on Cyber Resilience and Risk Management with a structured approach for Risk Quantification

Source: Press releases and articles; BCG analysis

# AI to defend against AI: Need to implement robust AI-driven security controls across Cyber architecture

Non-exhaustive

## 01

### Shrink the Surface

- **Enhance attack surface management:** Discover true cyber exposure of internet-facing assets, shadow IT and vendors
- **Code-base testing for business-logic exploits:** Use AI testing to surface exploitation paths that traditional SAST/DAST<sup>1</sup> & WAFs<sup>2</sup> cannot catch
- **Vulnerability prioritization:** Risk ranked patch queues by business impact, asset criticality and exploitability status to focus on the 1-2% that matter
- **Shadow AI detection:** Continuous detection and monitoring of unsanctioned GenAI usage and data exfiltration

## 02

### Harden the Identities

- **Micro-segmentation:** Enforce identity-aware, ML-tuned segments at workload and API edges to contain intrusion escalation
- **Non-human identity governance:** Discover, scope and revoke AI agents, service accounts, API keys and sub-agent credentials
- **Strengthen compensating controls:** Vulnerabilities that cannot be patched immediately, harden controls such as virtual patching, configuration hardening, access restrictions, EDR<sup>3</sup> tuning and heightened monitoring
- **Runtime guardrails for AI agents:** Monitor autonomous agent actions, permissions and data access in real time through AI-based runtime controls

## 03

### Sever the Paths

- **Autonomous containment (AI SOC):** Trigger auto-isolation, credential reset and config rollback through high-confidence ML detections
- **Lateral movement detection:** Detect anomalies via ML on credential misuse, privilege escalation and east-west traffic
- **Behavioral analytics and adaptive authentication:** Detect and trigger step-up authentication through ML-based per-user behavior models on deviation
- **Patching to AI-speed:** Automate patching and remediation, using live asset inventory, continuous vulnerability scanning and threat intelligence

1. Static Application Security Testing/Dynamic Application Security Testing; 2. Web Application Firewall; 3. Endpoint Detection and Response; Source: BCG analysis

02



Reflection on Our Position  
Voice of Global and Indian CISOs

# Five themes shaping the Cybersecurity space in Indian BFSI in 2026

<p>✦ <b>Cyber spend and maturity</b> Budgets are growing; most incremental budgets directed to AI</p>	<ul style="list-style-type: none"> <li>• 62% of Indian BFSI spend less than 10% of IT on cyber, vs 76% globally spending more than 10%</li> <li>• 67% direct incremental cyber spend to AI tools, but only 19% have raised budgets by more than 10%</li> <li>• Indian BFSI is funding AI defense through product consolidation, rather than budget inflation</li> <li>• Compliance load consumes the cyber budget significantly, leaving little headroom for capability building</li> </ul>
<p>✦ <b>Security for AI</b> AI deployment races ahead of AI-specific security controls</p>	<ul style="list-style-type: none"> <li>• Enterprise AI adoption slower than Global - 60% in India are at pilot or below vs 43% globally</li> <li>• Less than 30% have at least one AI security capability deployed in production</li> </ul>
<p>✦ <b>AI-enabled threats</b> Fear is high and CISOs perceive the gap is widening</p>	<ul style="list-style-type: none"> <li>• 69% of CISOs are 'very' or 'extremely' concerned</li> <li>• 43% say attackers are moving faster vs. defense</li> <li>• 64% identify deepfake and AI social engineering as the top defense priority</li> </ul>
<p>✦ <b>Using AI for security</b> SOC modernization is the biggest near-term AI bet, but autonomy is gated by trust</p>	<ul style="list-style-type: none"> <li>• 60% are integrating AI into Security Information and Event Management (SIEM)/Security Orchestration Automation and Response (SOAR)</li> <li>• 55% expect AI agents to handle 25%+ of Tier-1 work within 2-3 years</li> </ul>
<p>✦ <b>Platform consolidation</b> Indian BFSI is consolidating selectively, and rewarding India-fit</p>	<ul style="list-style-type: none"> <li>• 57% will expand with existing providers</li> <li>• Consolidation runs deepest in SIEM/SOAR, Data Security and Application security</li> <li>• Regulatory alignment ties with detection accuracy as the top driver</li> </ul>

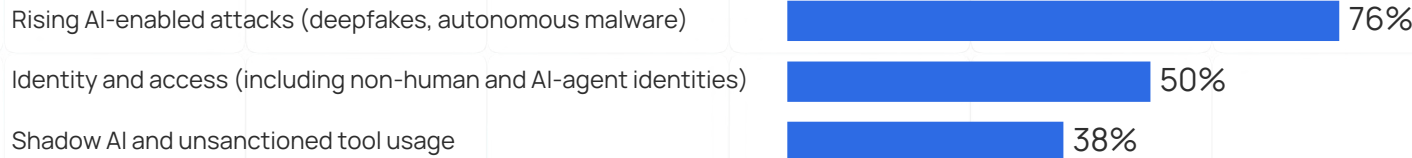
Source: BCG x DSCI India CISO Survey 2026 (N=42), BCG x GLG Global CISO Survey 2026, Banking and Securities + Insurance excl. health subset (N=53)

# 76% of BFSI CISOs cite AI-enabled attacks as the top concern, with regulatory complexity and ecosystem risks close behind

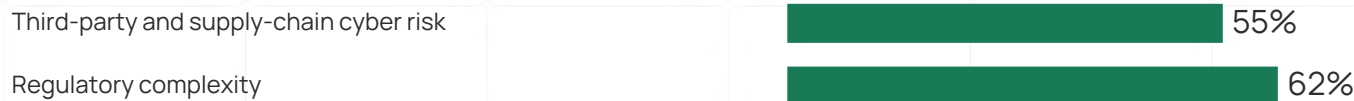
## Cybersecurity Priorities Shaping the Indian BFSI Agenda

Q. As a cybersecurity leader, what are the top issues / challenges you are focused on? (Select top 4)

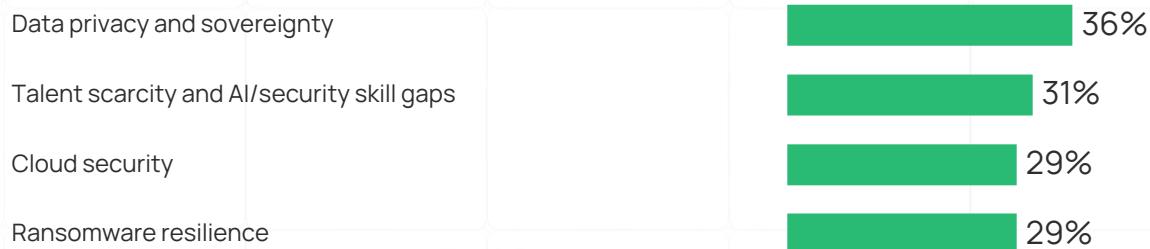
### TIER 1 Defining the cyber agenda



### TIER 2 Structural ecosystem risks



### TIER 3 Emerging and operational



Multi-select; bars do not sum to 100%.

Source: BCG x DSCI India CISO Survey 2026 (N=42); BCG analysis

## Why it Matters

The leading concern is structurally underfunded

76% of CISOs place AI-enabled attacks among their top four concerns, yet only 19% have increased cyber budgets by more than 10% to address them.

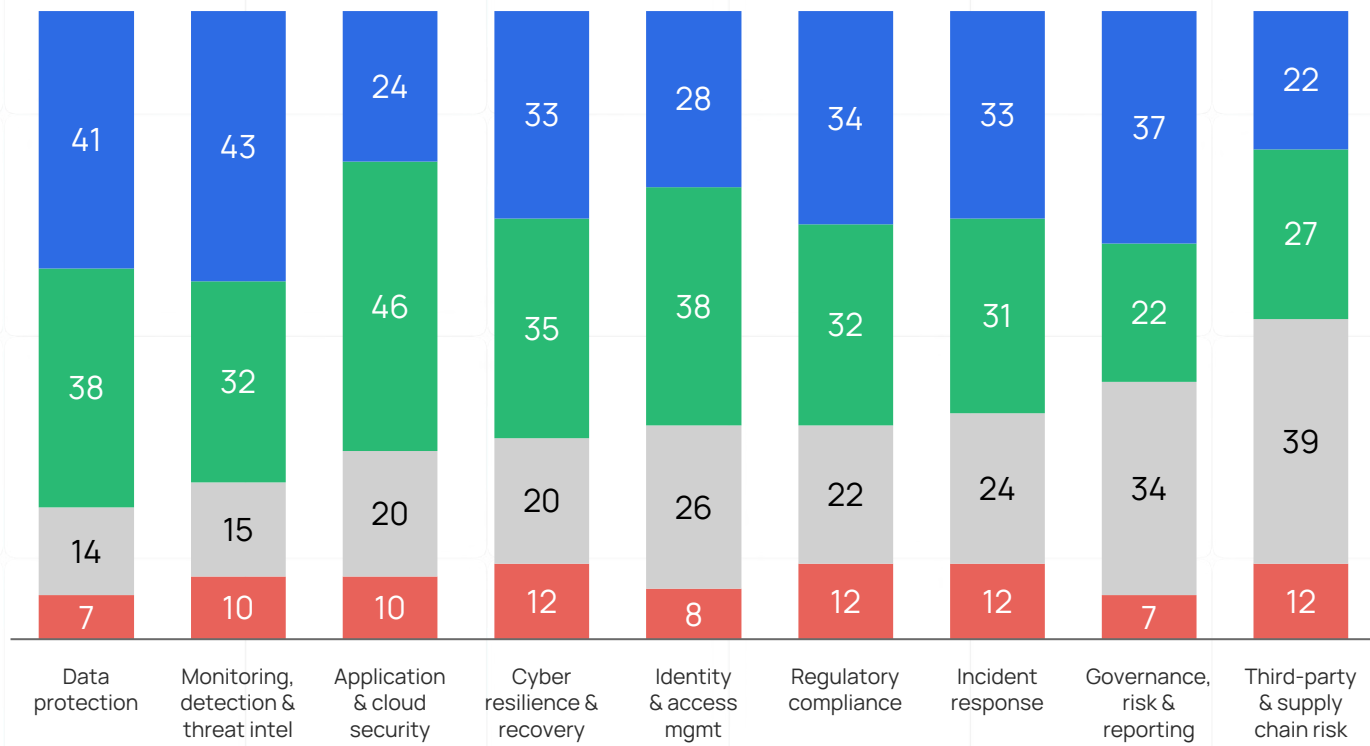
Ecosystem-level risks outweigh any individual attack vector

Third-party risk (55%), identity and AI-agent access (50%), and Shadow AI usage (38%) collectively show that CISOs are prioritizing interconnected operational and ecosystem vulnerabilities alongside direct attacks.

# Cyber Maturity and Spend | 70%+ report mature capabilities in data protection and monitoring, while governance and third-party risk lag behind

## Maturity levels across key cybersecurity practices in Indian BFSI

Q. Which best describes the state of each cybersecurity practice in your organization?



Maturity Stage: ■ Continuous Benchmarked, measured ■ Active Operational, codified ■ Reactive Triggered by events ■ Ad hoc Informal / not in place

Source: BCG x DSCI India CISO Survey 2026 (N=42); BCG analysis

### Key Takeaways

**Regulator-driven maturity**  
 Survey results indicate that data protection is the most mature cybersecurity capability – 79% of firms operate it at Active or Continuous maturity stages. Domains subject to the longest-standing regulatory pressure show the highest maturity.

**Third-party risk is a structural gap**  
 Only 49% have reached mature practice on third-party and supply-chain risk, where the pace of threat evolution outpaces existing controls. Given Indian BFSI's extensive third-party exposure, this becomes a critical area of concern.

# Cyber Maturity and Spend | AI threats are reshaping cyber investment priorities, but budget expansion remains measured across Indian BFSI

## AI dominates incremental spend but absolute budget still has room for ramp up

Q. Has the rise of AI-based threats influenced your cyber spending?

“ Overall, I would not say my budgets are increasing drastically. The increase is hardly around 10% year on year.

CISO, Leading Indian Mid-Tier Private Bank

90%

say AI threats have influenced cyber spending against 74% for global BFSI, however cyber spend as a % of tech spend lower than Global peers

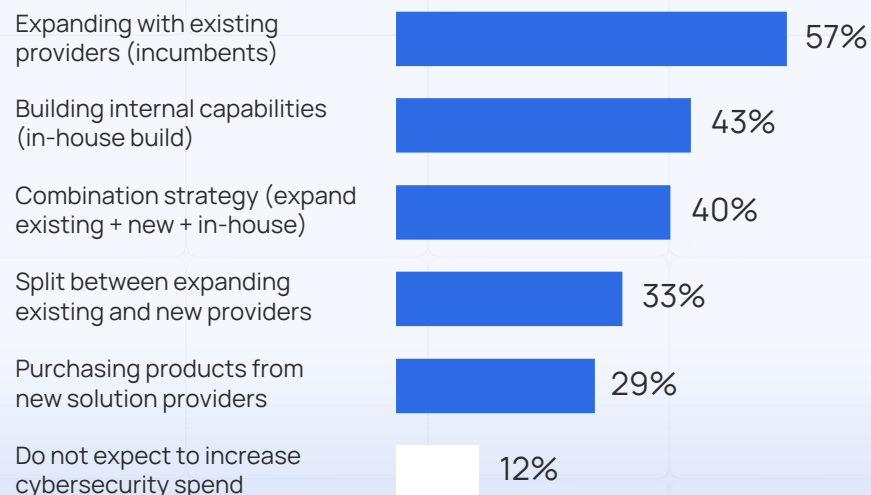
## Incremental spend is skewed towards AI powered security tools and existing vendors

Q. As you increase cybersecurity spend over the next 12 months, how do you expect that to be allocated (multi-select)

67% AI-powered security tools emerge as top incremental spend priority for Indian BFSI CISOs

“ Much of the security spend is going into meeting compliance asks – that leaves limited room for capability building.

CISO, Leading Indian Life Insurer



Source: BCG x DSCI India CISO Survey 2026 (N=42), BCG x GLG Global CISO Survey 2026, Banking and Securities + Insurance excl. health subset (N=53); BCG analysis

# AI and cybersecurity intersects in three ways - each demanding a holistic action plan

## Security of AI

**79%**

Have formally assessed AI model security risks (prompt injection, model poisoning, training data poisoning etc.) in the past 12 months

**43%**

Cite embedding of AI in enterprise workflows as a top driver of AI based attacks

### Builders

Use of AI applications and technology create a **new source of cyber and data privacy risk**, expanding the digital attack surface

## Security against AI

### Attackers

AI is **part of the hacker toolkit**, accelerating and commoditizing attacks

### Defenders

To keep pace with threats and address the new attack surface, organizations are **deploying AI powered cyber capabilities**

## AI for Security

**83%**

Are actively embedding AI solutions into their operations, with 67% investing in AI solutions in next 12 months

**69%**

Are seriously exploring or actively deploying AI based SOC into their operations

**76%**

Rank AI enabled attacks as a top-4 priority for 2026

**69%**

Believe that AI-powered threats will have a significant impact on their organizations over the next 12 months and beyond

Source: BCG x DSCI India CISO Survey 2026 (N=42); BCG analysis

# Security Against AI | 69% of Indian CISOs are highly concerned about AI-enabled cyberattacks

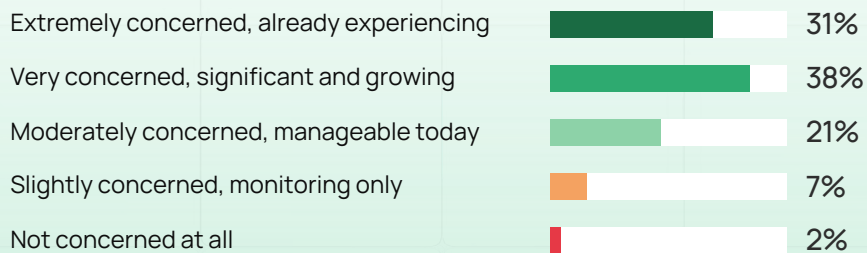
## Concern levels around AI-enabled cyber threats

Q. How concerned are you about the rise of AI-based cyberattacks targeting your organization over the next 12 months?

# 69%

of Indian BFSI CISOs are 'very' or 'extremely' concerned about AI-based cyberattacks over the next 12 months

### Distribution across the five concern levels



Source: BCG x DSCI India CISO Survey 2026 (N=42); BCG analysis

## Voice of the Industry

“

Growth in sophistication

The kind of technology in the market now, the kind of attack path it generates, just needs an opening to exploit. The path of attack defines itself. If your door is open, this kind of technology will find a way in.

CISO,

Leading Indian Asset Management Firm

“

Growth in pace

Earlier we talked about a cyber-attack taking 100 days to recon and act. Then 50. Then 30. Up to last year, four to five days. Today, if these [AI] tools are being employed effectively, you have the vulnerability and you are exploited immediately

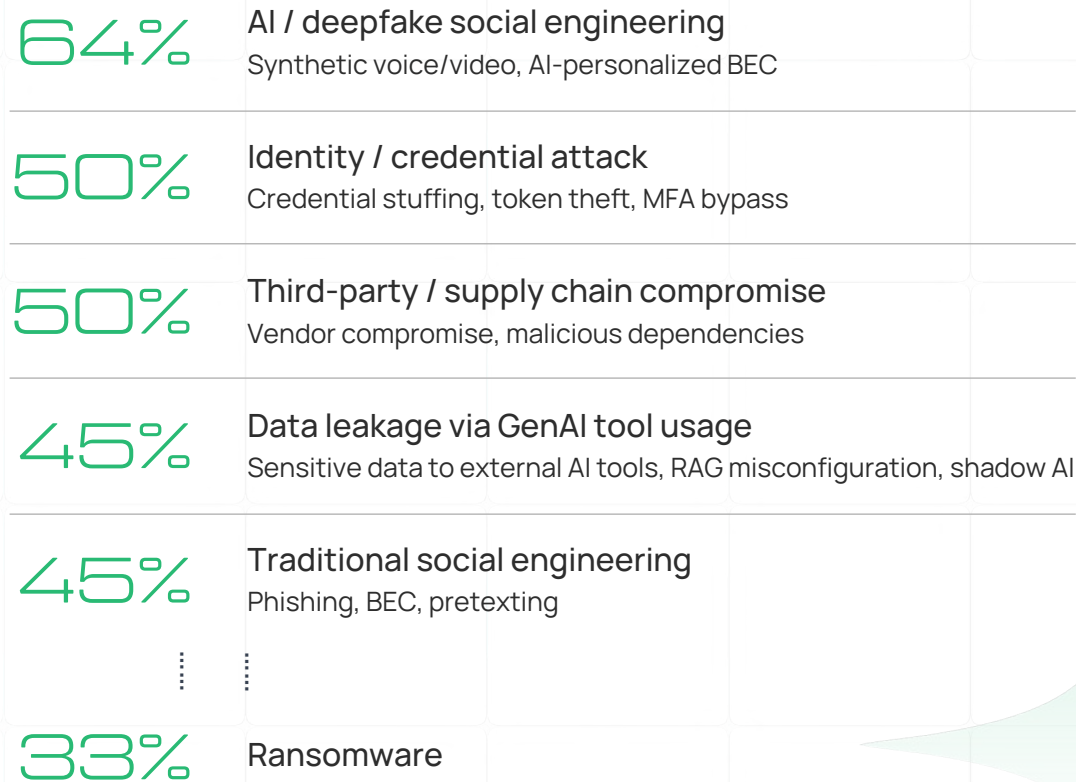
CISO,

Indian Public Sector Bank

# Security Against AI | AI-enabled social engineering and identity attacks now dominate the BFSI threat agenda

## Top AI-enabled attack scenarios driving defensive investment in India

Q. What types of security incidents/attacks are you worried about / actively working to build capability towards?



Source: BCG x DSCI India CISO Survey 2026 (N=42); BCG analysis

AI-driven threats now dominate Indian BFSI's defensive priorities. Deepfake social engineering and GenAI data leakage together signal the shift from "AI as a future threat" to "AI as a present defensive priority". Denial of service, historically a top concern in Indian banking, has fallen to 17%, displaced by these newer threats.

“

A < global hyperscaler > [sanitized] came out with 169 vulnerabilities. Assume 50 apply to my platforms across 5K assets - that is 250K identified vulnerabilities. Patch velocity is exceeding patching capability.

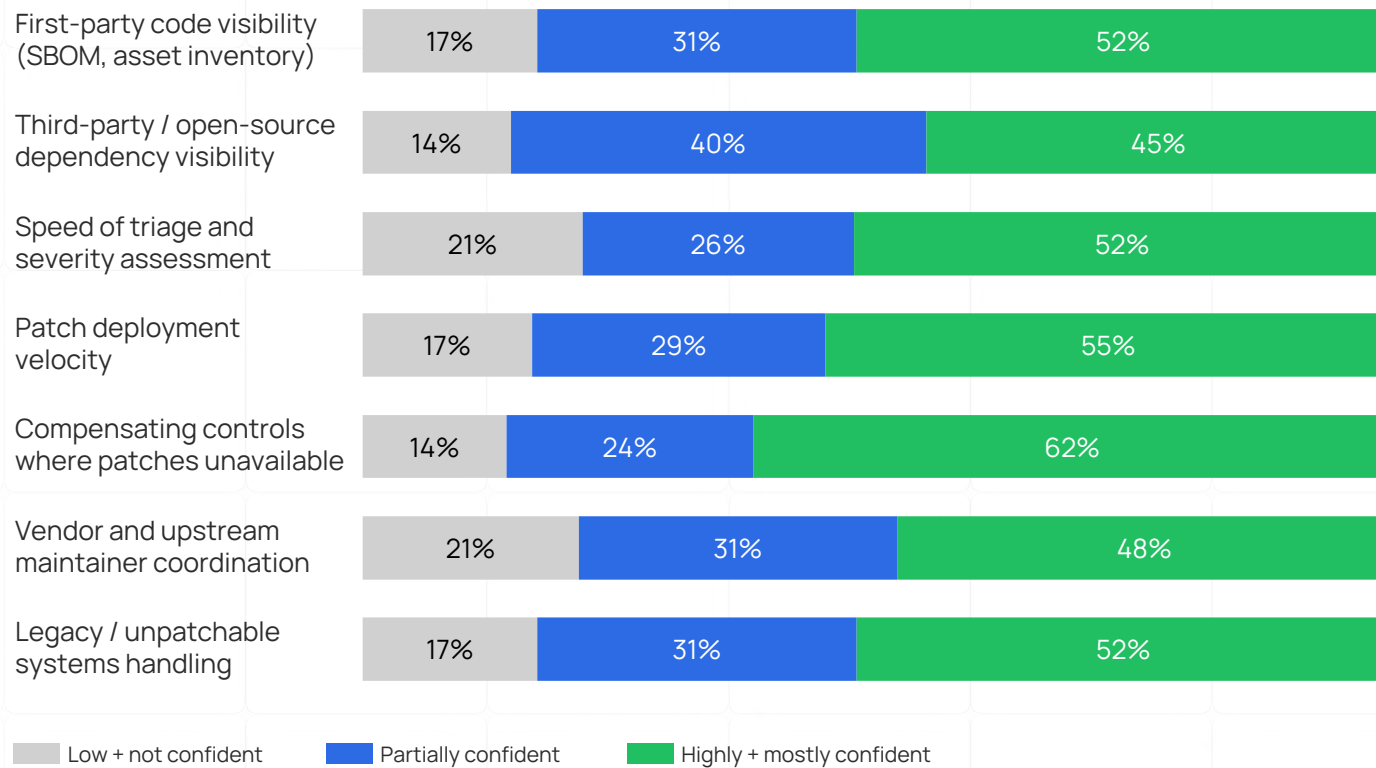
CISO

Indian Public Sector Bank

# Security Against AI | On vulnerability defense, third-party blind spots are the weakest link – only 45% are confident of diagnosing risk

## Confidence levels in response to frontier AI-identified vulnerabilities (India)

Q: If a frontier AI capability were used to disclose a surge of high-severity vulnerabilities across the software your organization depends on, how confident are you in each of the following?



Indian BFSI feels strongest about compensating controls when patches aren't available (62% confident) – a muscle built from years of running legacy estates – but weakest about knowing what third-party code its systems actually depend on (45% confident).

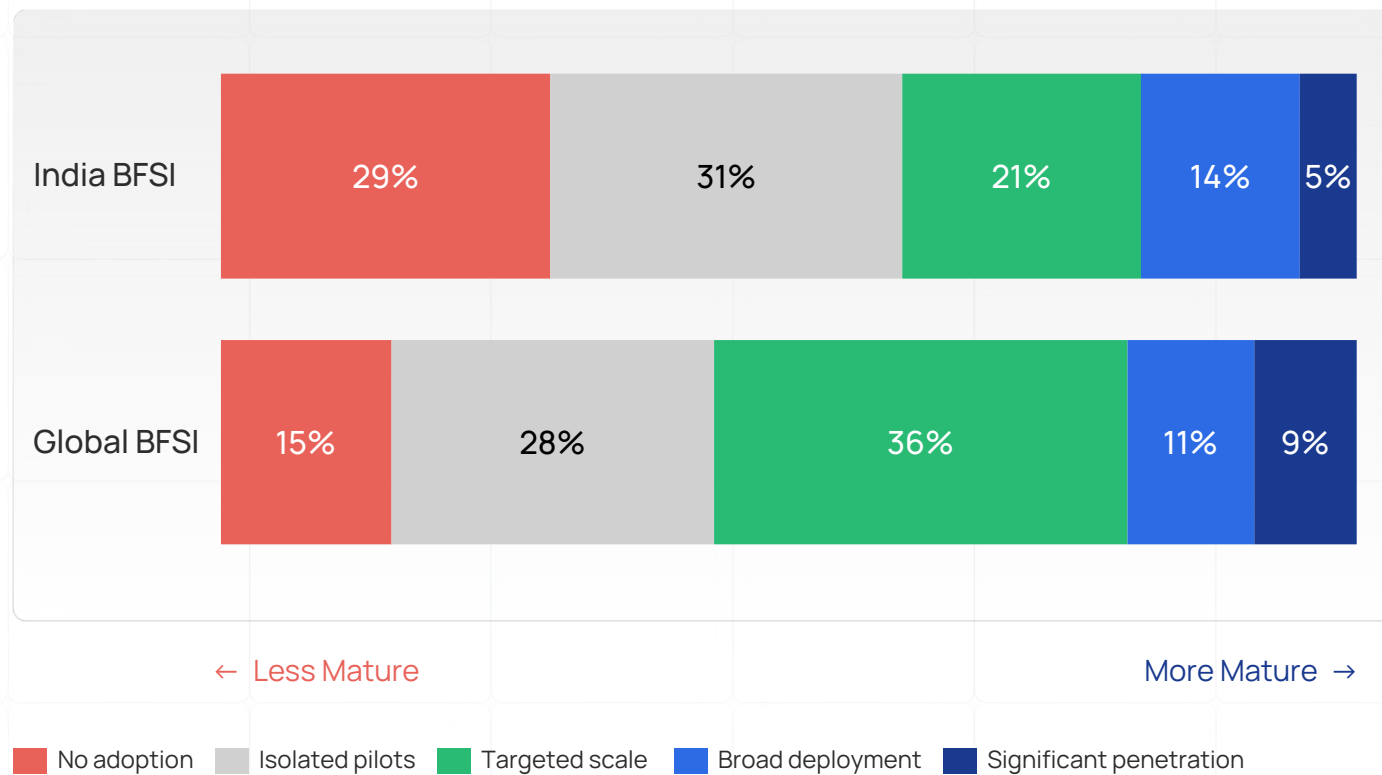
The implication: Indian BFSI is poorly equipped to anticipate which disclosures will hit them.

Source: BCG x DSCI India CISO Survey 2026 (N=42); BCG analysis

# Security for AI | Leading financial institutions are at par with global peers on AI adoption, but 60% remain at pilot stage or below

## Organizations' maturity level in AI Adoption

Q. How would you describe your organization's overall maturity in adopting AI (including GenAI and agentic AI) across business functions?



The gap at the bottom  
More Indian firms are behind

60%

India BFSI at pilot or below  
vs Global BFSI: 43%

No gap at the top  
The leading firms have caught up

19%

India BFSI at Broad deployment  
and significant penetration vs  
Global BFSI: 20%

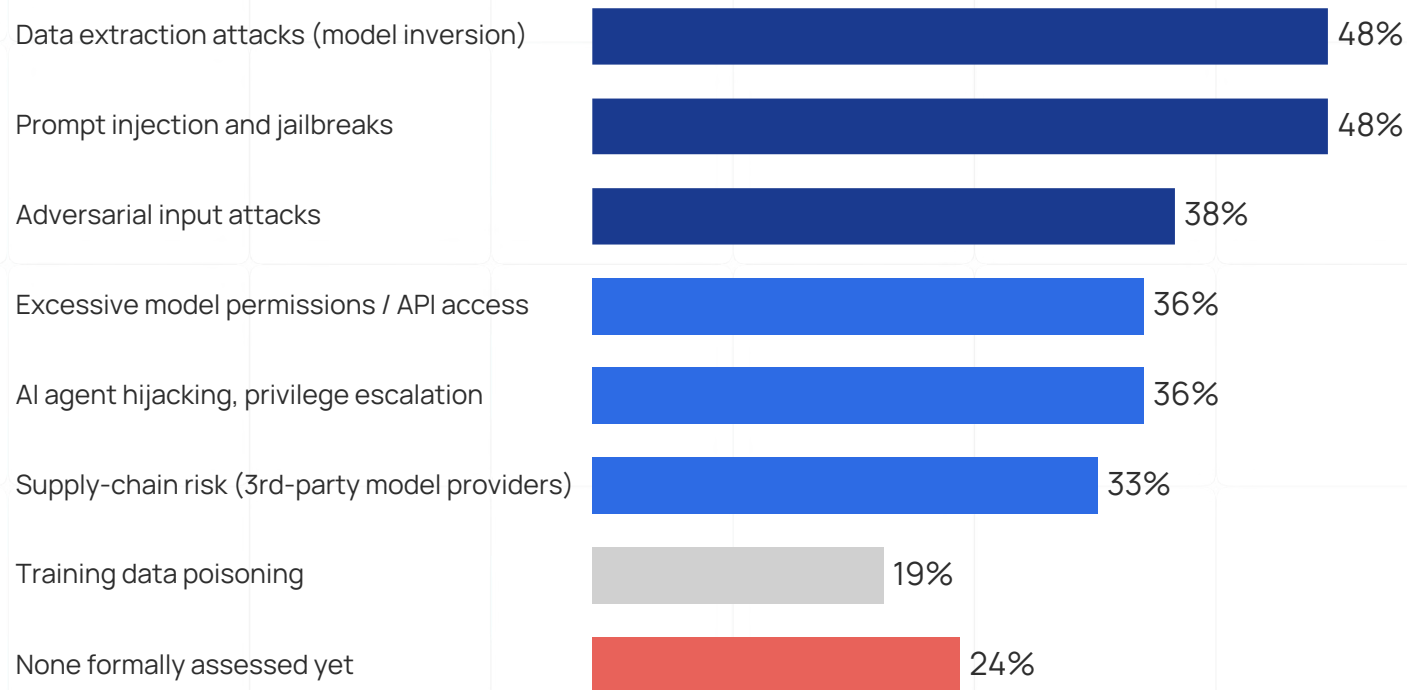
The gap reflects deliberate,  
cyber-risk-driven caution. It  
protects the institution today  
but increases exposure once  
scale-up accelerates

Source: BCG x DSCI India CISO Survey 2026 (N=42), BCG x GLG Global CISO Survey 2026, Banking and Securities + Insurance excluding health subset (N=53); BCG analysis

# Security for AI | 24% of Indian BFSI firms have not formally assessed any major AI security risks

## AI model security risks assessed by firms

Q. Which of the following AI model security risks have you formally assessed in the past 12 months? (multi-select)



■ Widely assessed (>40%) ■ Moderately assessed (33% to 39%) ■ Rarely assessed (<25%) ■ Not assessed at all

Source: BCG x DSCI India CISO Survey 2026 (N=42); BCG Analysis;

Methodology: Percentages represent the share of organizations reporting formal assessment of each AI model security risk within the past 12 months. "None formally assessed yet" reflects respondents indicating no formal assessment activity across the listed AI risk categories. Multi-select responses; percentages do not sum to 100%.

## Voice of the Industry

“

[The frontier-AI threat] is a lot of hype at the moment. We haven't seen organizations getting impacted because of it yet.

CISO,

Leading Indian Life Insurer

“

Every bank has a policy for third-party risk management. But what has happened recently has literally rattled that part. Supply chain is one of the weakest links in cybersecurity, we all know that.

CISO,

Indian Public Sector Bank

# Security for AI | Less than one-third of Indian BFSI firms have deployed core AI security controls at scale

## Adoption of AI security capabilities across Indian BFSI

Q. Which of the following capabilities is your organization actively applying to secure AI systems, AI agents, or non-human identities? (Top two box: Deployed + Piloting)



**Source:** BCG x DSCI India CISO Survey 2026 (N=42), BCG x GLG Global CISO Survey 2026, Banking and Securities + Insurance excl. health subset (N=53); BCG analysis; **Methodology:** Percentages represent organizations reporting AI security capabilities as either deployed in production or currently in piloting/POC stages ("top-two-box"). Global benchmark reflects organizations reporting capabilities as in use or in piloting stages. Due to limited BFSI sample sizes in the global benchmark, the cross-industry global sample is used as the comparison baseline.

## India Vs Global

Where the gap to Global is widest

49pp

Formal AI governance  
India 24% / Global 73%

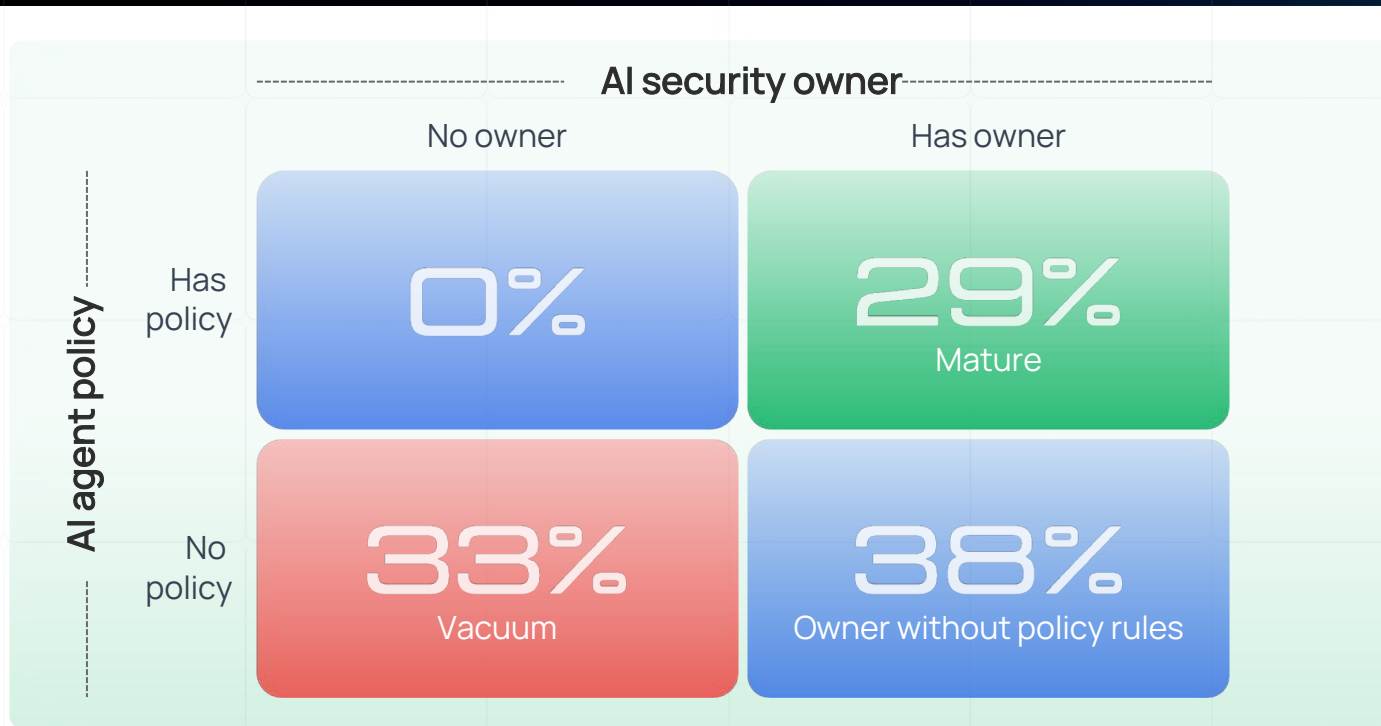
39pp

AI agent monitoring  
India 21% / Global 60%

27pp

Guardrails for agent actions  
India 24% / Global 51%

# Security for AI | Only 29% of Indian BFSI have both, an AI security owner and a defined AI policy



## Key Takeaways

- **Accountability without rules is the dominant operating state (38%).** Organizations should prioritize establishing formal AI governance frameworks and policy guardrails.
- **The structural exposure remains significant.** The combined “no owner, no policy” segment (33%) together with the 38% “owner without policy” cohort leaves 71% of Indian BFSI organizations without both foundational AI governance elements in place.

“

Adoption became very fast. First it was business: ‘everyone is doing it, we also have to do something.’ So without thinking too much, they started using whatever AI they came across. The governance had not yet been established, and meanwhile the usage was already spreading everywhere.

CISO,

Leading India Asset Management Firm

**Source:** BCG x DSCI India CISO Survey 2026 (N=42); BCG analysis  
**Methodology:** Maturity matrix derived from survey responses assessing whether organizations have (i) a designated AI security owner and (ii) formal AI governance policies in place. “Has owner” includes dedicated AI security teams, responsible AI officers, or formally assigned CISO/IT risk ownership. “Has policy” includes organizations reporting fully defined or partially implemented AI governance policies. “No policy” includes policies under development, under evaluation, or absent. Quadrant percentages sum to 100% by construction.

# AI for Security | For 50%+ of Indian CISOs, speed and automation are emerging as the primary drivers of AI-for-security adoption

## Reasons for AI/ML adoption in cyber

Q. What are the primary objectives of your organization for AI/ML adoption within cybersecurity functions?

**69%** Faster threat detection, lower Mean-Time-to-Detect and Mean-Time-to-Respond

**52%** Automated triage and alert enrichment

**48%** Fraud detection at scale

**7%** have no formal AI/ML objectives for cyber

## AI for security ROI metrics

Q. How do you measure or expect to measure ROI on AI-enabled cybersecurity investments?

**57%** Reduction in Mean-Time-to-Detect and Mean-Time-to-Respond

**45%** Decrease in confirmed incidents or breaches

**43%** Cost avoidance: fraud and breach costs

**12%** have no plan to measure AI-security ROI

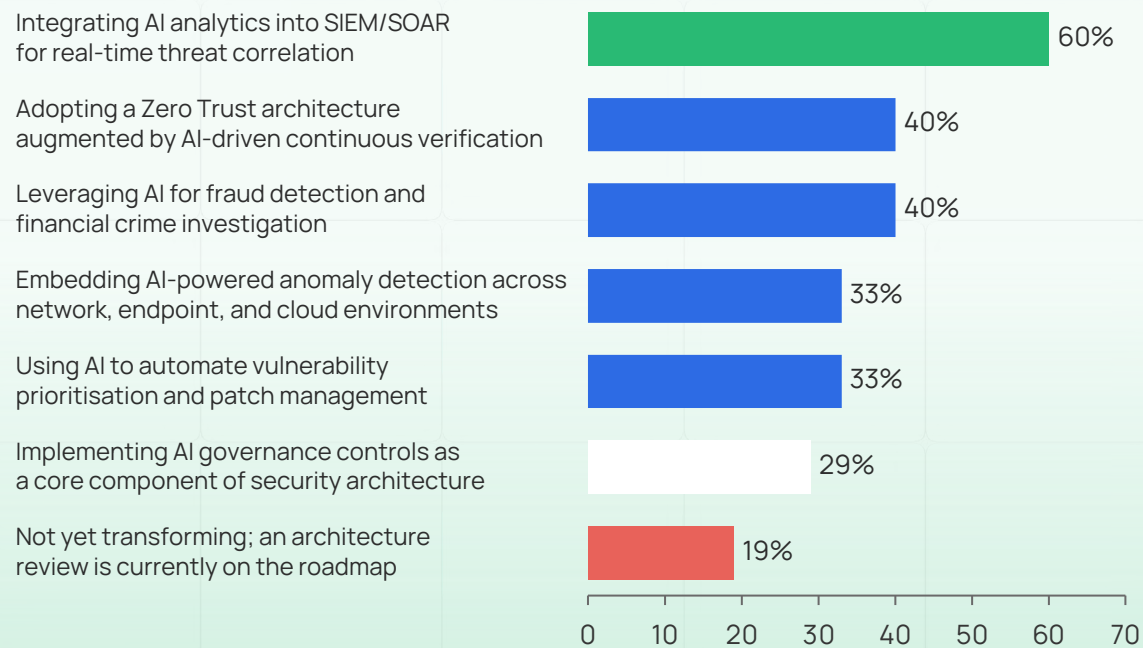
Source: BCG x DSCI India CISO Survey 2026 (N=42); BCG analysis

Methodology: Percentages are the share of respondents selecting the item; multi-select responses do not sum to 100%.

# AI for Security | 60% of Indian BFSI firms are embedding AI into core detection and response operations

## Areas where AI is being embedded in cyber operations in Indian BFSI

Q. How is AI being embedded in your cybersecurity operations and architecture? (multi-select)



■ Mature deployment (60%+) 
 ■ Mid maturity (30 to 40%) 
 ■ Lagging (29%) 
 ■ Not started (19%)

## Where the opportunity lies

Zero Trust and fraud detection are under-deployed

Despite strong interest, only 40% of organizations report active deployment of AI-augmented Zero Trust or fraud detection capabilities.

Vulnerability and anomaly automation is still emerging

AI-led vulnerability prioritization and anomaly detection remain early-stage, with only one-third of firms reporting active deployment.

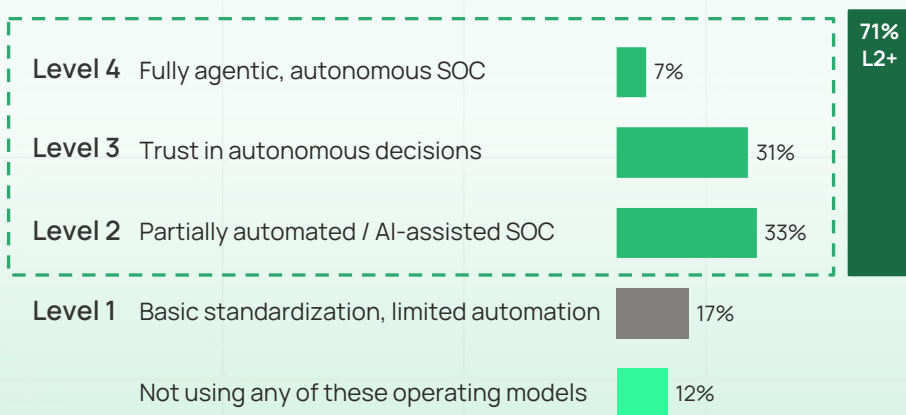
Source: BCG x DSCI India CISO Survey 2026 (N=42); BCG analysis

Methodology: Data is drawn from a single multi-select survey question; multi-select percentages do not sum to 100%

# AI for Security | 71% of Indian BFSI firms have reached AI-assisted SOC maturity or higher

## Where Indian BFSI sits on the SOC maturity ladder

Q. How would you assess your organization's current adoption of a 'SOC of the future' operating model? (single select)



“ Autonomous SOC is desired, but it's more like a WordPress thing: packaged and sold. It's more selling jargon than reality. we're only trusting AI with low-criticality items.

CISO, Leading Indian Life Insurer

## Can AI agents autonomously handle SOC analyst work?

Q. Over the next 2-3 years, what proportion of Tier 1 and Tier 2 SOC analyst work do you expect to be handled by AI agents autonomously?

### Tier 1: Alert triage, initial investigation

- 55% of CISOs expect AI agents to handle more than 25% of Tier-1 work
- 24% still expect less than 10% automation

### Tier 2: Incident correlation, escalation decisions

- 54% of CISOs expect AI agents to handle more than 25% of Tier-2 work
- 21% still expect less than 10% automation, the trust gap is narrower than expected

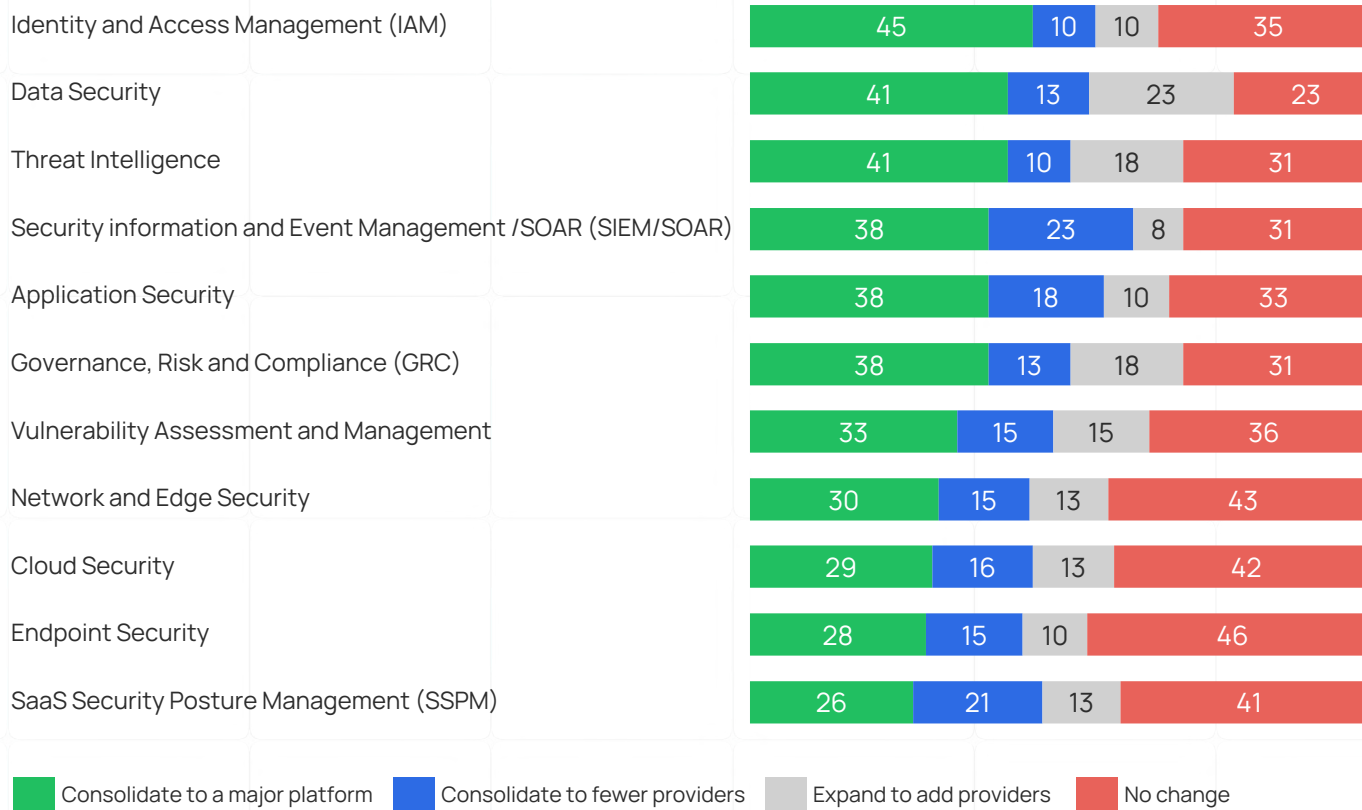
“ We have already gone ahead with deploying the autonomous SOC. That was a learning from a real incident

CISO, Indian Public Sector Bank

# Platform consolidation | Indian BFSI favors platform consolidation, with expansion focused on evolving AI-era capabilities

## Cybersecurity strategy for next 12 months, by solution category

Q. For each of the following 12 cybersecurity solution categories, what is your strategy over the next 12 months?



**Source:** BCG x DSCI India CISO Survey 2026 (N=42); BCG analysis  
**Methodology:** Analysis reflects expected vendor strategy across cybersecurity solution categories over the next 12 months. Results are shown across the four displayed response options, excluding “Don’t know / not applicable” selections. Categories are ranked by overall consolidation intent.

## Key Takeaways

- CISOs are actively consolidating in two categories where regulation and AI are forcing the move: IAM (45%) and Data Security (41%) onto a respective single major platforms.
- CISOs are aggressively rationalizing the SOC stack: SIEM/SOAR carries the highest combined consolidation appetite at 61% (38% + 23%), driven by SIEM market consolidation and the data plane requirements of an agentic SOC.
- CISOs have already consolidated in two categories where the platform play was won in prior cycles: Endpoint (46% no change) and Network and Edge (43% no change) reflect mature single vendor stacks.

# Platform consolidation | BFSI CISOs are consolidating for integration, not cost- raising the bar for vendor relevance

## Reasons for consolidation for Indian BFSI CISOs

Q. For tools where you intend to consolidate, what is your top reason for doing so? (single-select)

1

52%

### Tighter integration/single pane of glass

CISOs are consolidating to reduce fragmentation and improve cross-domain visibility across security operations.

2

24%

### Reduce number of tools and vendors

Tool sprawl is creating operational complexity, making vendor simplification a priority for security teams.

3

24%

### Reduce cost

Cost remains a consideration, but is secondary to integration and operational efficiency in consolidation decisions.

## Key Takeaways

- Tighter integration emerges as the top reason for consolidation, ahead of tool reduction and cost savings
- The push to reduce tools and vendors reflects the growing burden of fragmented security stacks, alert fatigue, and integration overhead.
- Vendors providing solutions to Indian BFSI must demonstrate seamless integration with existing stacks, measurable operating efficiency, and strong compliance alignment. Point solutions will need a clear interoperability story to stay relevant.

Source: BCG x DSCI India CISO Survey 2026 (N=42); BCG analysis

03



## Path Forward

Five Fronts where Indian BFSI must  
Synchronize for a Stronger Cyber Defense

# The Synchronicity Imperative

Indian BFSI is operating on cyber models designed for the past - where threats evolved over months, vendors were easier to track, digital journeys were simpler, and the CISO could largely coordinate the response from within the security function.

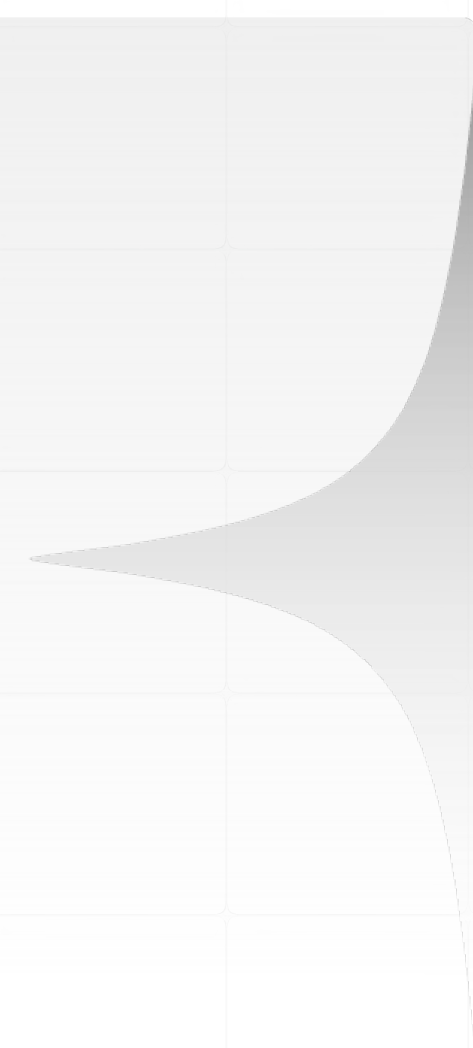
That world has changed.

In an increasingly AI-enabled environment, risk can move faster than traditional governance. Controls that are not seen at the same level of importance as business releases, aligned with technology modernization agenda, and built with a deep understanding of third-party dependencies will not be effective anymore. Employee awareness, customer actions for secure behaviours, and ecosystem syndicated intelligence will need to be strengthened to hold up at scale.

Cyber resilience can no longer be managed as a security-function agenda.

The attack surface has become too distributed for any single function to defend. When business, IT, risk, compliance, and security move at different speeds, digital and AI-led innovation can outpace the safeguards designed to protect it.

The next cyber operating model for Indian BFSI must therefore shift from a control-led function to a synchronized resilience system. It must be aligned to business value, built into day-to-day execution, extended to partners, understood by employees and customers, and strengthened through ecosystem collaboration.



# Synchronicity is the operating model for cybersecurity in the age of AI

## The Five Fronts for building a *synchronized* Enterprise

### Business

Cyber priorities must follow the business – not the org chart



Investment, patching and controls flow to where business exposure is highest and given same or higher priority as new releases

### Cross-functional Teams

Cybersecurity is no longer a CISO-only agenda



Business, Risk, Legal, compliance, and IT must operate as one coordinated team, not serial handoffs

### Vendors

A bank is only as secure as its weakest vendor



Third-party risk most under-managed attack surface - must be triaged, segmented and managed as 1st party risk and not left in vendor silos

### Humans

Human action is the fastest source of risk and the slowest to upgrade



Insider risk and customer fraud are defended as one program, with one dashboard, one named owner

### Ecosystem

Collective defense is faster than individual defense



Threat intelligence, playbooks and response are shared across peers, regulators and CERT-In

Source: BCG analysis

## Pillar 1

# Cyber risk lives where business risk lives

In Indian BFSI, cybersecurity is still treated as an IT risk function with a compliance overlay. A posture that worked when threats moved in months and regulators rewarded audit closure. With India now the second-most-attacked BFSI sector, the risk has become too distributed for this model. The gap is not an investment or technical problem. It is a governance problem.

The launch of a new digital lending product, digital rail expansion, or an Account Aggregator integration each carries cyber exposure that only the business owner can quantify, yet at Indian BFSI cybersecurity decisions and funding are not synchronized with where the business is taking risk. Business releases are prioritized over patching and security updates, without considering the massive downside & cost of poor security management – with significant business and reputation at risk if these attack scenarios materialize.

Regulators have recognized this faster than most boards. The RBI's 2025 Cybersecurity Mandates make board accountability explicit and require quantified risk appetite, a signal that cyber is no longer an IT problem to delegate, but a business risk to govern. However, 40% of BFSI CXOs still report board oversight, cyber risk appetite measurement and reporting is ad hoc or reactive.

In Indian BFSI, cybersecurity must be synchronized with where the business is taking risk. Growth without alignment with cybersecurity scales fragility, not resilience.

Source: BCG x DSCI India CISO Survey 2026 (N=42)

## Key actions to achieve Synchronicity with Business

- ✦ Adopt a board-approved cyber risk appetite statement with monetary loss tolerance, defined at critical business service, product, channel and customer journey, not just at enterprise level.
- ✦ Quantify cyber loss exposure and set explicit risk-weighted capital reserves against quantified cyber loss tolerance.
- ✦ Reframe annual cyber reporting from controls coverage to business-loss-avoided and integrate cyber risk into the enterprise risk dashboard alongside credit, market, and operational risk.
- ✦ Tie every digital release gate to a quantified and measured cyber risk score and build cyber loss tolerance into product-level business cases before approval.
- ✦ Prioritize “high risk” business domains – to identify the finite set of components where damages can be prohibitive for business, and create capacity for security updates in tandem with business releases to avoid exposure.

## Pillar 2

# Make cyber a cross-functional management system, not a CISO workload

In Indian BFSI, most institutions still approach cybersecurity and IT disruptions as isolated technical failures rather than as fundamental business risks. IT teams, security experts, and business leaders work with different goals, different processes, different vocabularies, and most discover the gap only after an incident exposes it.

Indian BFSI should consider establishing a CEO reporting CXO-level cybersecurity operating model with clear decision rights and a board-visible discipline with named owners across Business, Technology, Risk, Legal, and Operations.

A realistic simulation is a litmus test. A bank can publish a perfect cyber strategy and still fail the first time a real incident demands cross-functional coordination.

Run a CEO-chaired cyber simulation with CSO, CIO, CRO, General Counsel, COO, and the heads of Retail and Wholesale in the room, with an unscripted Indian-context scenario, such as UPI outage, account aggregator compromise. The roles people cannot fill, the decisions that stall, and the questions that go unanswered are the synchronization backlog.

This is not a Cybersecurity project – it is an organization-wide capability that spans every function touching the software.

Your cyber strategy looks flawless on paper. However, it may fail the first time it needs a CFO and COO to agree in under an hour.

## Key actions to achieve cross- functional Synchronicity

- ✦ Create a CEO-chaired Cyber Resilience Group with clear decision rights across Business, Technology, Risk, Legal, Compliance, Operations and Communications.
- ✦ Run a CXO cyber extreme event simulation with an unscripted scenario, and convert every failed decision or unclear ownership into a tracked remediation backlog.
- ✦ Embed security leaders into each business unit building cyber fluency into Business Units, and set shared cross-functional KPIs across Business, Tech, Risk, Legal, Operations.
- ✦ Define one enterprise RACI for product launch, cloud onboarding, patch exceptions, AI use cases, breach response and regulator or customer communication.
- ✦ Build playbooks for Cyber resilience and material vulnerability event management with enterprise-wide coordination, and embed defensive automation to manage the scale and complexity.

## Pillar 3

### Vendor risk is now a “first party” and systemic risk

Indian BFSI's vendor ecosystem is uniquely concentrated. A handful of providers support various digital journeys – e.g., UPI and the payments which, Aggregator network, shared core banking platforms, large LOS Platforms and third-party KYC and AML providers. A single failure now halts dozens of institutions simultaneously.

The breach of a leading sales engagement platform in August 2025, which cascaded across 700-plus organizations in ten days through a single AI integration, was a demonstration of the new playbook. 95% of India's top financial institutions were linked to a third-party breach in the past year<sup>1</sup>.

Indian regulation has caught up faster than most others. The RBI's 2025 outsourcing directions for NBFCs require vendors to meet the same resilience standards as banks.

Regulation alone does not create synchronicity. Most Indian BFSI institutions still treat it as an annual onboarding exercise, risk assessed at procurement, then reviewed six to twelve months later, with little visibility into what changed in between.

The shift required is from annual to continuous, risk-tiered orchestration.

Third parties are no longer outside the enterprise. They are part of the cyber operating model and must be governed as extensions of business risk.

1. SecurityScorecard, India's Financial Supply Chain Cybersecurity Threat Report 2025

## Key actions to achieve third party Synchronicity

- ✦ Build a live critical-vendor dashboard and dependency maps that shows which vendor failure halts business line, customer journeys, control gaps, incidents, subcontractors (4<sup>th</sup> parties), and exit readiness.
- ✦ Replace annual vendor reviews with continuous monitoring, using threat intelligence, external exposure signals and remediation tracking.
- ✦ Rewrite critical vendor contracts to include patch SLAs, breach notification timelines, audit rights, subcontractor approval, log support and joint recovery testing.
- ✦ Run joint failure simulations with the critical vendors, covering ransomware, cloud outage, API compromise, data breach and payment disruption scenarios.

## Pillar 4

### The human attack surface, inside the bank and outside

In Indian BFSI, employees and customers are now targeted by the same threat actors, the same AI tools, and the same playbook. The fastest-growing cyber risk is the gap between human behavior and the controls designed to govern it on both sides of the counter.

Inside the bank, shadow AI has tripled in twelve months: 15% of employees used corporate AI tools in 2025; 45% do today<sup>1</sup>. Outside the bank, the same AI tools are being weaponized against customers. The RBI Annual Report 2023-24 logged INR 13K Cr in fraud losses across 36,075 cases, with roughly 40% digital or cyber-related<sup>2</sup>.

Most Indian banks defend the inside and outside as separate programs, insider risk owned by security and HR, customer fraud owned by branch operations and customer experience.

The threat actors do not see the distinction. The same generative AI tools that enable an employee to leak data to a public LLM also enable a fraudster to impersonate a relationship manager to that same customer.

The attacker sees one target. Your organization chart sees two teams. That gap is the vulnerability.

1. Verizon DBIR 2026 2. RBI Annual Report 2023-24; Deloitte India Banking Fraud Survey

## Key actions to achieve human Synchronicity

- ✦ Set up an insider-risk cell across HR, Legal, Compliance, IT and Security to triage negligent, compromised and malicious employee behavior.
- ✦ Integrate cyber, fraud and customer operations to detect AI-assisted impersonation, mule accounts, remote access scams and social engineering patterns.
- ✦ Give customers real-time journey warnings, one-click freeze and reporting options, and plain-language guidance at high-risk transaction moments.
- ✦ Establish a unified human-risk control view across employees and customers, correlating access, data, device and transaction signals to detect insider misuse, impersonation, mule activity, remote-access scams and unusual behavior early.
- ✦ Build advanced cyber awareness and AI-savviness amongst employees and customers to avoid risk due to human behaviors, and as AI adoption grows treat AI Agents as extended humans and high-risk vectors.

## Pillar 5

# Collective defense is faster than individual defense

Cybersecurity is one of the few domains where rivals share, because the threat actor does not care which bank's logo is on the phishing email.

Indian BFSI has the rails. Most banks ride them passively. CERT-In was established to coordinate sector incident response and intelligence sharing.

What is missing is consistent, active participation. Most banks consume intelligence without contributing to it, and most institutions treat sector drills as compliance events rather than strategic capability tests.

Attackers operate as a coordinated economy, dark-web marketplaces, exploit-as-a-service offerings, shared infrastructure, common playbooks. By contrast, defenders still organize firm-by-firm.

The economics of collective defense are compelling: a single bank's threat intelligence might catch the second attack, while a shared sector view catches the first.

The weakest link gets most targeted - Syndicated response architecture and mechanisms will be an important defense move for the "middle Indian BFSIs" where attacks can create material losses, however defense investments and sophistication will still lag best-in-class peers.

Attackers share infrastructure, playbooks, and intel. Defenders still compete. That asymmetry is why offense wins.

## Key actions to achieve Ecosystem Synchronicity

- ✦ Create a threat intelligence cell that both consumes and contributes intelligence through IB-CART, FS-ISAC, CERT-In and relevant regulators.
- ✦ Make ecosystem contribution a board KPI, e.g. Indicators of Compromise (IOCs) submitted per quarter, incidents disclosed within mandated windows, cross-sector exercises completed.
- ✦ Run regular sector or consortium cyber drills with banks, insurers, payment entities, cloud providers, critical vendors, regulators and law enforcement.
- ✦ Build harmonized reporting frameworks and shared playbooks for sector-wide scenarios such as payment disruption, common vendor compromise, malicious apps, credential leaks and mule networks.

# Action agenda | Path forward for industry leaders (I/II)

01

## CEO and The Board

- Charter a CEO-chaired Cyber Resilience Council with named CXO decision rights
- Mandate annual CEO-led cyber stress test with board -tracked remediation actions
- Measure cyber performance through business-loss avoided, replacing controls coverage
- Approve a multi-year path to the 1.4-1.6 percent of revenue cyber spend benchmark
- Review vendor concentration risks quarterly

02

## CIO, CTO & CDO

- Gate major digital releases (UPI, AA, digital lending) using quantified cyber risk assessments
- Adopt Zero Trust across identity, network, endpoint and application
- Compress patching cycles based on business-critical risk exposure
- Jointly govern AI deployment readiness with the CISO
- Treat every API and shared service as a monitored and tested control point

03

## CISO

- Translate cyber risk into measurable financial business impact
- Embed security into operating models, not just technology stacks
- Replace annual vendor reviews with continuous monitoring and failure simulations
- Consolidate identity risk and fraud monitoring into a unified enterprise view
- Shift organization from passive threat consumption to active cyber defense contribution

Source: BCG Analysis

## Action agenda | Path forward for industry leaders (II/II)

### 04 — ✨

#### CRO & CFO

- Define board-approved cyber risk appetite across products, channels and customer journeys
- Elevate cyber to the enterprise risk dashboard alongside credit and market risk
- Quantify cyber risk exposure by business line and scenario
- Stress-test critical vendors against outage and ransomware disruption scenarios
- Link cyber investment, insurance and ecosystem exposure to quantified risk outcomes

### 05 — ✨

#### Business, Operations & Legal

- Assign quantified cyber loss tolerance to each business unit
- Embed cyber reviews into all products and business approvals
- Integrate insider risk, fraud and workforce awareness into a unified human-risk program
- Build customer trust programs around awareness & real-time fraud alerts
- Align legal, operational and business teams on incident response accountability

Source: BCG Analysis

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