

# CISO/Board Metrics (Security Scorecard)

## Core Security Metrics Library (CISO)

Metric	Strategic / Operational / Tactical	Audience (Board / CISO / Mgmt)	What it measures	How to calculate (summary)	Measurement points (Old / baseline)	Measurement points (New / continuous + AI)
<b>Material incident rate</b>	STRATEGIC	Board, CISO	Frequency of business-impacting security events	count per quarter + trend	incident register, PIRs	automated incident classification + impact tagging (impact_category, loss_estimate, downtime_hours)
<b>Business impact (loss / downtime)</b>	STRATEGIC	Board, CISO	Real-world consequence	sum loss + downtime, by incident class	finance + ops incident records	enriched mapping to services/apps + automated outage correlation
<b>Cyber risk trend (top risks)</b>	STRATEGIC	Board, CISO	Whether risk is rising or falling	top risks with likelihood/impact movement	risk register updates	continuous control scoring feeding risk register + AI-assisted risk narrative
<b>Control effectiveness score (top 10 controls)</b>	STRATEGIC	Board, CISO	Whether key controls work as intended	% passing tests / continuous checks	annual audits, point-in-time testing	continuous control monitoring (CCM): pass/fail + drift over time
<b>Attack surface exposure index</b>	STRATEGIC OPERATIONAL	CISO, Mgmt	How exposed you are to internet-borne attack	weighted count of exposed assets + criticality	CMDB + occasional scans	EASM/ASM feeds + real-time exposure changes + ownership mapping
<b>Crown jewel coverage</b>	STRATEGIC	Board, CISO	Whether critical apps/data have required controls	% crown jewels meeting baseline	spreadsheets + manual reviews	automated policy checks (MFA, logging, EDR, backups) per app/service
<b>Security spend efficiency(optional)</b>	STRATEGIC	Board, CISO	"Are we buying risk reduction?"	cost per avoided/mitigated risk / per incident trend	budget vs incidents (rough)	mapped investments to measurable control improvements and incident reductions



## Identity & Access (IAM) – typically the highest ROI set for CISOs

Metric	Strategic / Operational / Tactical	Audience	What it measures	How to calculate	Old measurement points	New measurement points
<b>MFA coverage (workforce)</b>	STRATEGIC OPERATIONAL	CISO, Mgmt	Reduction in account takeover risk	% users with MFA enforced	IAM reports, periodic checks	conditional access policy compliance + “actually used MFA” rate
<b>Phishing-resistant MFA coverage</b>	STRATEGIC	CISO	Strength against modern phishing	% users on FIDO2/WHfB/certs	IAM config review	auth method telemetry + per-role enforcement
<b>Privileged account protection</b>	STRATEGIC	CISO, Mgmt	Safety of admin paths	% privileged identities with MFA + PIM + JIT	manual privileged lists	continuous privileged inventory + JIT usage logs
<b>Privilege sprawl</b>	STRATEGIC OPERATIONAL	CISO, Mgmt	Over-entitlement risk	count/ratio privileged users over time	quarterly access reviews	entitlement graph + “unused privilege” detection
<b>Time to revoke access (joiner/mover/leaver)</b>	STRATEGIC OPERATIONAL	Mgmt	How quickly access is removed/changed	revoke_complete – HR termination_time	ticket timestamps	automated HR-to-IAM workflows + real-time deprovision telemetry
<b>Risky sign-in containment time</b>	OPERATIONAL	Mgmt	Speed to neutralize suspected compromise	containment – detection	SOC/ticket timestamps	identity protection alerts + automated session revoke + device posture tie-in

## Endpoint & Device Security

Metric	Strategic/Operational	Audience	What it measures	How to calculate	Old measurement points	New measurement points
<b>EDR coverage</b>	STRATEGIC	CISO, Mgmt	Visibility + detection capability	% endpoints reporting healthy	asset lists + EDR console	continuous heartbeat + “coverage by criticality”
<b>Endpoint health compliance</b>	OPERATIONAL	Mgmt	Whether endpoints are in policy	% meeting baseline (disk, AV, tamper, FW)	occasional audits	continuous posture assessment + drift alerts
<b>Patch compliance (critical)</b>	STRATEGIC OPERATIONAL	CISO, Mgmt	Exposure to known exploitation	% critical patches within SLA	monthly patch reports	real-time patch telemetry + exploitability weighting
<b>Mean time to remediate critical endpoint vuln</b>	OPERATIONAL	Mgmt	Remediation speed	remediated – discovered	scanner timestamps	scanner + EDR + CMDB correlation with ownership
<b>Unsupported OS / EOL footprint</b>	STRATEGIC	CISO	Structural risk	count of EOL assets by criticality	periodic inventory	continuous inventory + network discovery
<b>Device isolation / containment success</b>	OPERATIONAL	Mgmt	Effectiveness of response action	% isolation actions succeed	SOC notes	EDR action logs + automated verification

## Vulnerability & Exposure Management

Metric	Strategic	Audience	What it measures	How to calculate	Old measurement points	New measurement points
<b>Critical vuln exposure (internet-facing)</b>	STRATEGIC	Board, CISO	"How close to headline risk are we?"	count of exploitable critical vulns on exposed assets	scanner + manual tagging	EASM + KEV/exploit intel + service criticality weighting
<b>Time-to-remediate by severity</b>	OPERATIONAL	Mgmt	Operational performance	median + p90 remediation time	scan cycles	continuous scanning + ticket automation
<b>KEV / exploited-in-the-wild backlog</b>	STRATEGIC OPERATIONAL	CISO, Mgmt	Risk tied to active threat	count + age of KEV items open	manual KEV crosswalk	automated KEV matching + aging dashboard
<b>Exception rate</b>	OPERATIONAL	CISO, Mgmt	Where policy is being bypassed	exceptions count + duration	spreadsheet exceptions	workflow-based exceptions with expiry + compensating controls tracked
<b>Risk-based vuln score</b>	STRATEGIC	CISO	Prioritization quality	weighted score by exploitability + asset criticality	CVSS-only	EPSS/KEV + business criticality + exposure + control context

## Email & Collaboration Security (high-frequency breach vector)

Metric	Strategic/Operational	Audience	What it measures	How to calculate	Old measurement points	New measurement points
<b>DMARC enforcement</b>	STRATEGIC	CISO	Brand + spoofing protection	DMARC policy level + % passing	DNS checks	continuous monitoring + aggregate report trends
<b>Phish click rate / report rate</b>	STRATEGIC OPERATIONAL	CISO, Mgmt	User resilience	clicks per campaign; reports per 1,000 users	periodic simulations	continuous campaign telemetry + real phish reporting
<b>Mailbox takeover rate</b>	STRATEGIC	Board, CISO	Outcome: compromise frequency	count per month/quarter	incident tickets	identity + email telemetry correlation
<b>Time to contain BEC</b>	OPERATIONAL	Mgmt	Speed to stop financial fraud	detection → revoke sessions/rules reset	manual steps tracked	automated playbooks + time-stamped actions

## Cloud & SaaS Security Posture

Metric	Strategic	Audience	What it measures	How to calculate	Old measurement points	New measurement points
<b>Cloud misconfiguration exposure</b>	STRATEGIC	CISO, Mgmt	Preventable cloud risk	count of critical findings open	CSPM periodic scans	continuous CSPM + IaC policy-as-code gating
<b>Public storage exposure</b>	STRATEGIC	Board, CISO	High-impact data risk	count of public buckets/containers	occasional audits	continuous discovery + auto-remediation evidence
<b>Cloud identity posture</b>	STRATEGIC OPERATIONAL	CISO, Mgmt	Privilege and auth strength in cloud	% privileged roles w/ JIT + MFA	manual role reviews	continuous role graph + drift alerts
<b>Logging coverage for cloud control plane</b>	OPERATIONAL	Mgmt	Forensics and detection readiness	% subscriptions/accounts with required logs on	config review	continuous policy compliance + "last event received"

## Data Security & Privacy

Metric	Strategic	Audience	What it measures	How to calculate	Old measurement points	New measurement points
<b>Sensitive data discovery coverage</b>	STRATEGIC	CISO	Where sensitive data lives	% repositories scanned/classified	manual classification	continuous DLP/classification + discovery scanning
<b>Data exfiltration detection time</b>	STRATEGIC OPERATIONAL	CISO, Mgmt	How fast you detect major leakage	detection – exfil start (or proxy)	incident review estimates	network + endpoint + SaaS telemetry correlation + AI-assisted triage
<b>DLP policy effectiveness</b>	OPERATIONAL	Mgmt	Whether DLP is tuned	true blocks vs noise; override rate	manual sampling	continuous DLP outcomes + false positive labeling
<b>Key management / encryption coverage</b>	STRATEGIC	CISO	Baseline data protection	% critical systems encrypted + keys managed	audit checks	continuous config compliance + key rotation telemetry
<b>Privacy incident rate</b>	STRATEGIC	Board, CISO	Regulatory risk	count and severity	privacy incident log	integrated security+privacy classification + response timelines

## Resilience (Ransomware readiness, recovery, continuity)

Metric	Strategic	Audience	What it measures	How to calculate	Old measurement points	New measurement points
<b>Backup coverage for crown jewels</b>	STRATEGIC	Board, CISO	Ability to recover critical services	% crown jewels backed up to policy	manual mapping	continuous backup policy compliance
<b>Restore success rate (tested)</b>	STRATEGIC OPERATIONAL	Board, CISO	"Backups that restore" reality	successful restore tests / tests run	occasional tabletop claims	automated restore tests + evidence artifacts
<b>RPO/RTO attainment (tested)</b>	STRATEGIC	Board, CISO	Business continuity capability	% services meeting targets	annual DR exercises	continuous DR evidence + recovery telemetry
<b>Ransomware containment time</b>	STRATEGIC OPERATIONAL	Board, CISO	Whether you can stop spread fast	detection → isolate/contain	incident timestamps	EDR action logs + network segmentation events + approval gates
<b>Immutable backup adoption</b>	STRATEGIC	CISO	Protection against backup wiping	% critical backups immutable	policy review	continuous configuration evidence

## Third-Party & Supply Chain

Metric	Strategic	Audience	What it measures	How to calculate	Old measurement points	New measurement points
<b>Critical vendor coverage</b>	STRATEGIC	CISO	Whether key vendors are assessed/monitored	% critical vendors reviewed	annual questionnaires	continuous monitoring + attestation freshness
<b>Vendor risk remediation time</b>	OPERATIONAL	Mgmt	Speed to fix vendor findings	close time – finding date	email chains	workflow timestamps + SLA
<b>Concentration risk</b>	STRATEGIC	Board, CISO	Single points of vendor failure	count of crown jewels per vendor	manual mapping	dependency mapping + service criticality

## Governance & Program Health

Metric	Strategic	Audience	Board, CISO	How to calculate	Old measurement points	New measurement points
<b>Policy compliance (top policies)</b>	STRATEGIC OPERATIONAL	CISO, Mgmt	Whether key security policies are followed	% compliant controls	audits	continuous policy-as-code checks
<b>Security training completion + effectiveness</b>	OPERATIONAL	Mgmt	Whether people are improving	completion + phish performance shift	LMS stats	role-based training + behavioral telemetry
<b>Security debt index</b>	STRATEGIC	CISO	Accumulated risk from known gaps	weighted backlog (EOL, KEV, misconfigs)	manual aggregation	automated scoring from vuln/CSPM/ASM sources
<b>Time-to-close audit findings</b>	OPERATIONAL	Board, CISO	Governance execution	close date – finding date	audit tracker	workflow + evidence attachments
<b>Security OKR delivery</b>	STRATEGIC	Board, CISO	Execution against plan	% OKRs on track	quarterly updates	automated evidence from control telemetry
<b>Budget</b>	OPERATIONAL	Board, CISO	Execution against plan	% of budget allocated  % of budget overspend	Accounts	