

Automatiserad Pentesting

Security Validation
at the Heart of **CTEM**



**Controls not validated,
will degrade over time**

THREAT PREVENTION

CRISIS RESPONSE

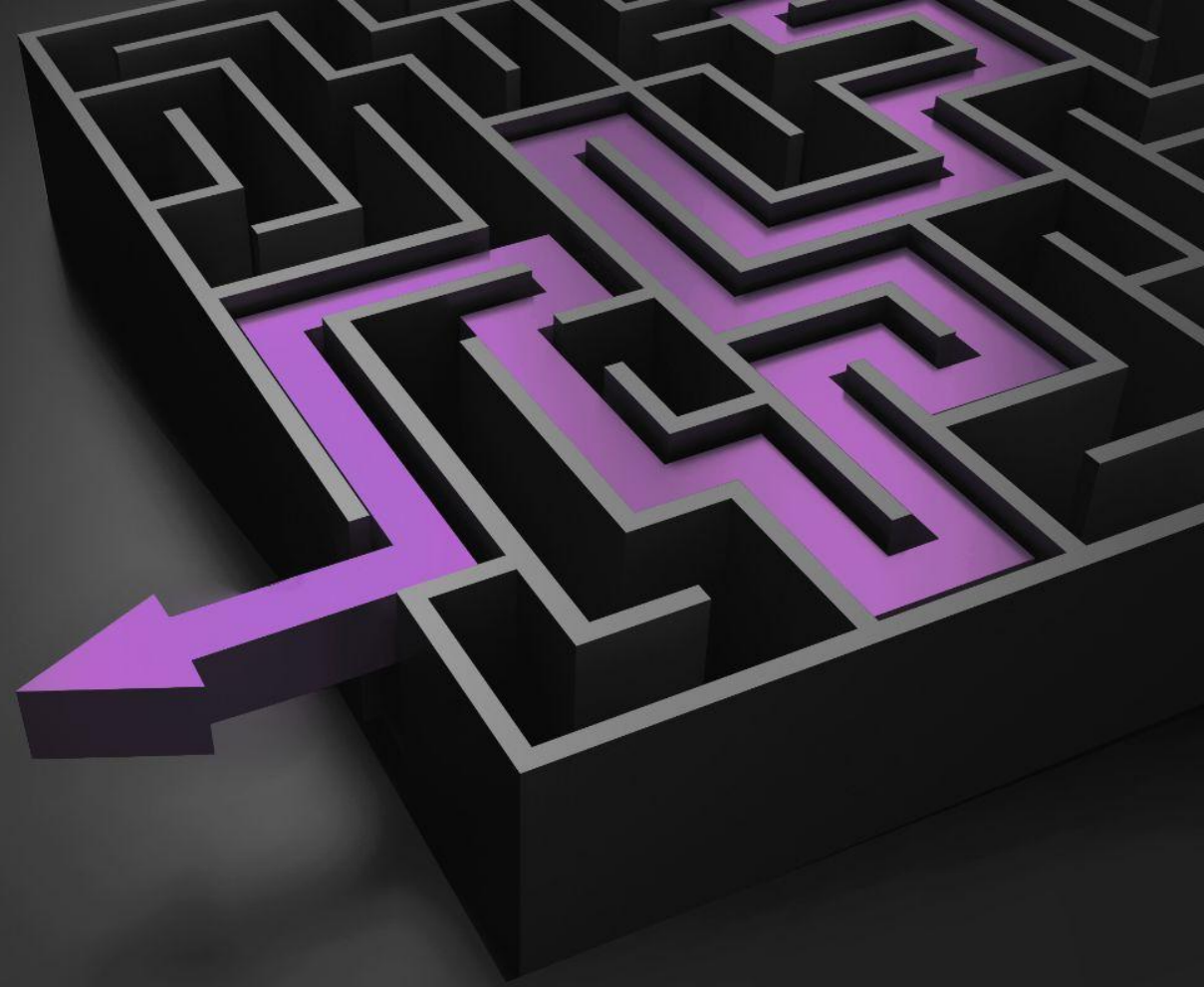
BOOM



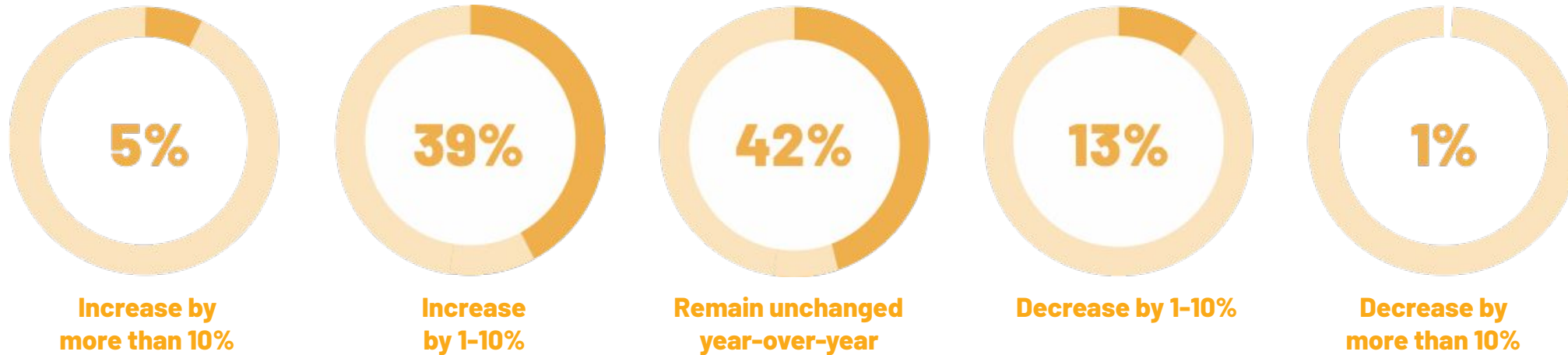
FINANCIAL IMPACT ASSESSMENT

REGULATOR INVESTIGATION

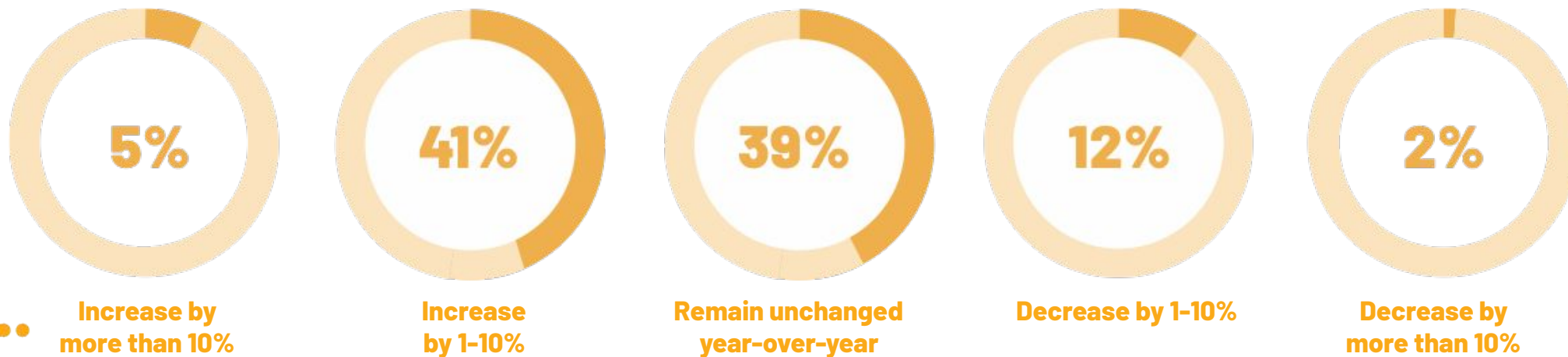
THE STATE OF PENTESTING 2024



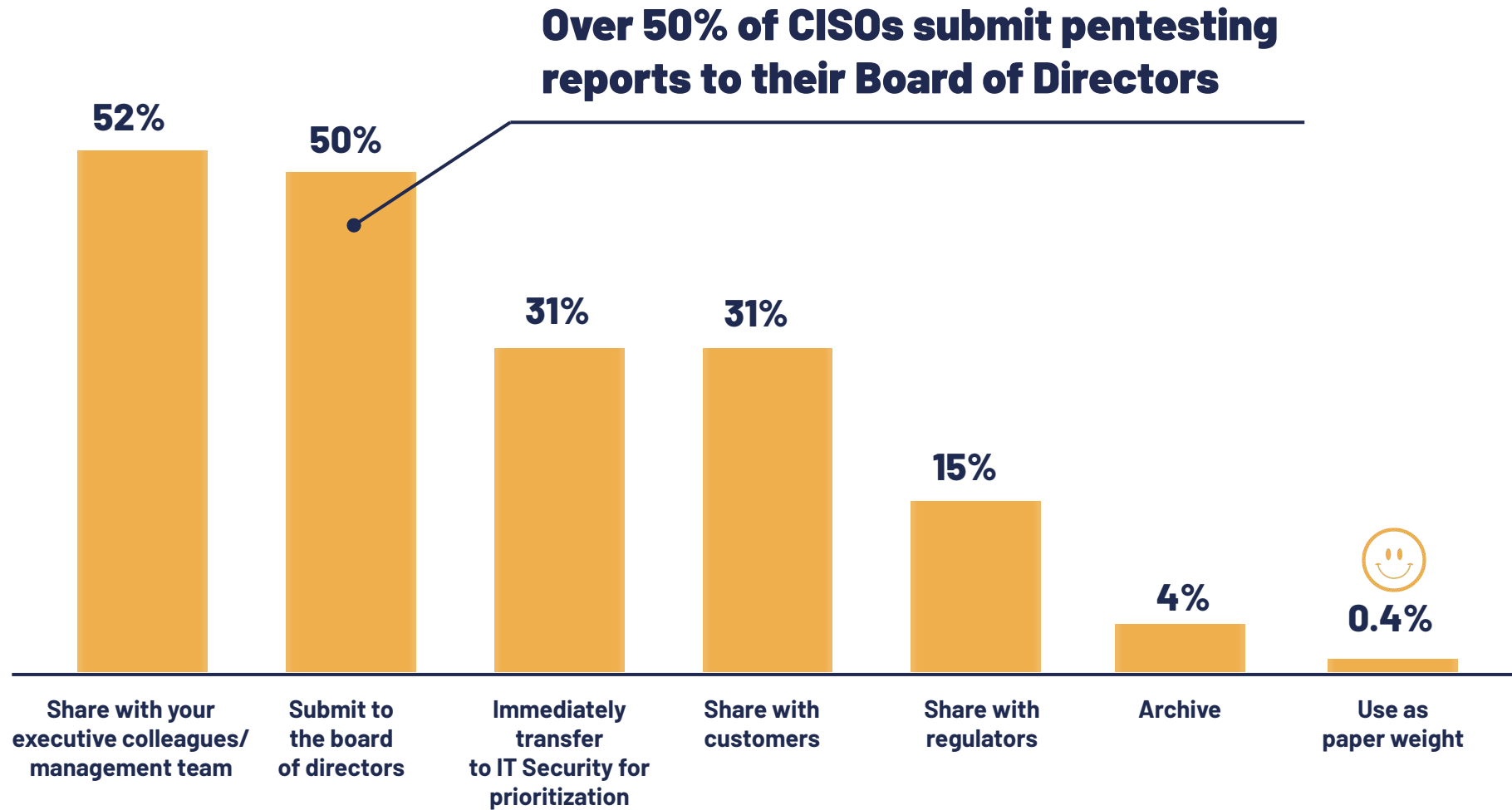
Your annual PENTESTING budget for 2024 is due to:



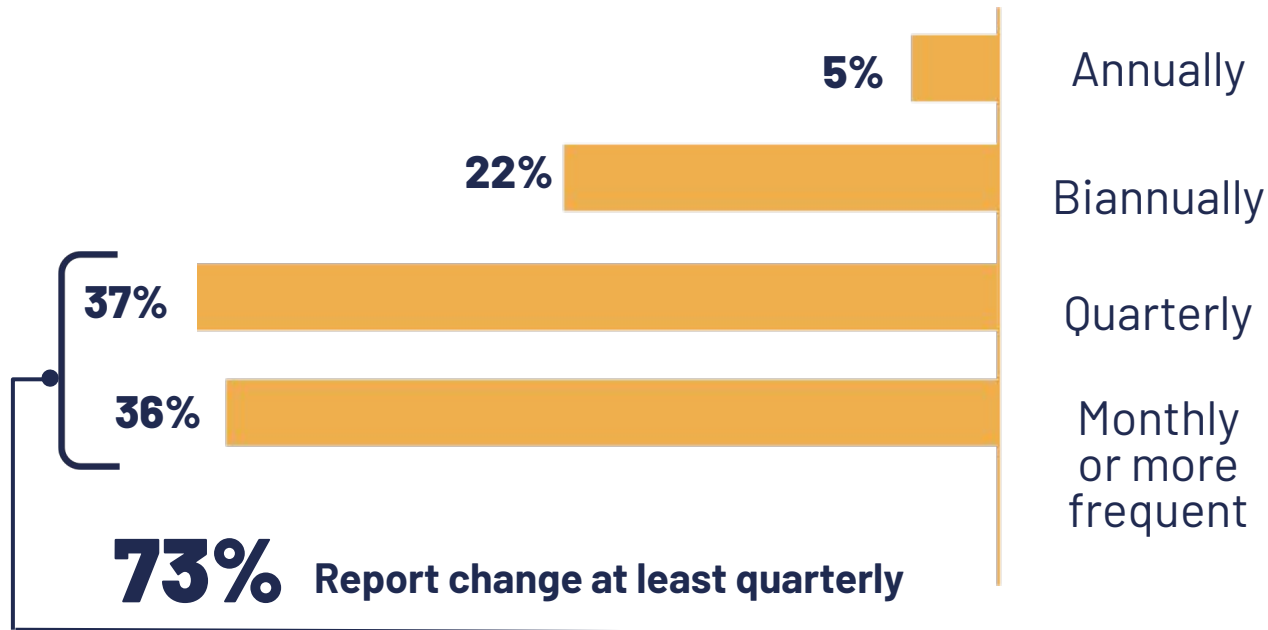
Your annual OVERALL IT Security budget for 2024 is due to:



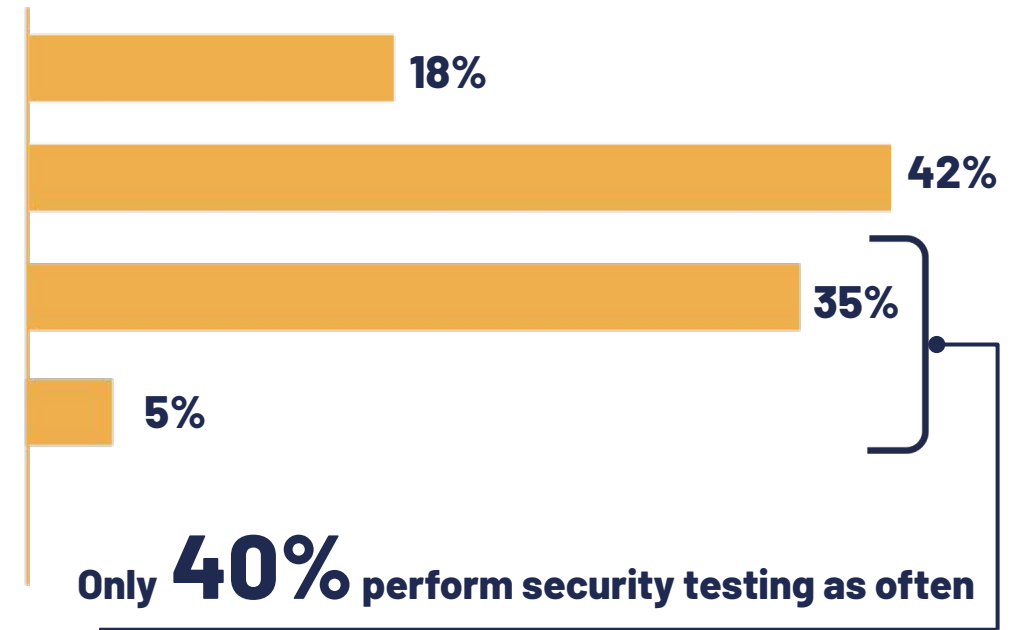
What CISOs do with their pentesting report



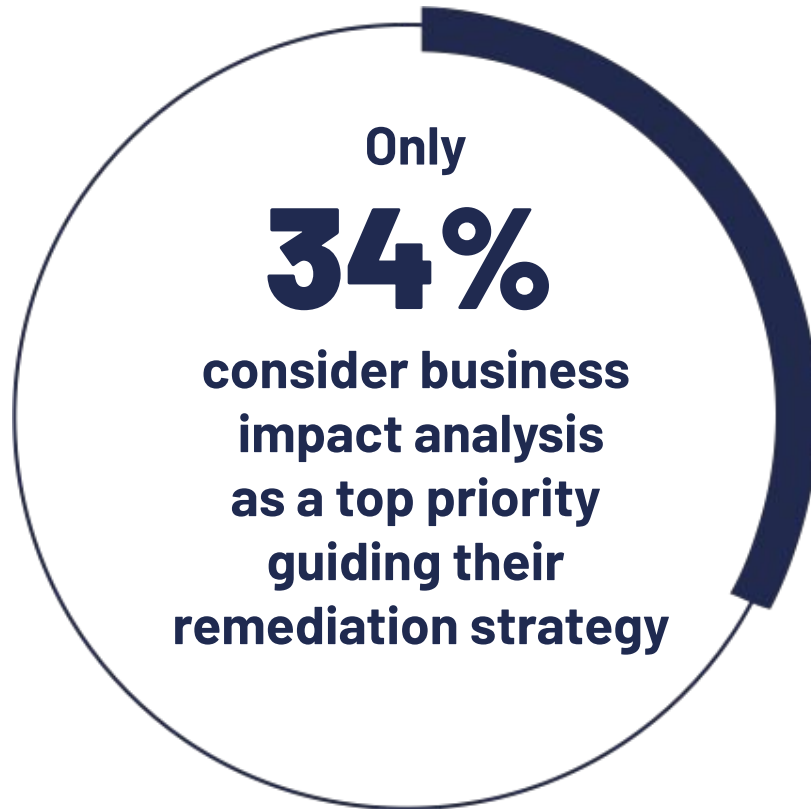
How often are you adding/subtracting resources to/from your network?



How often does your organization conduct manual pentest assessments?



How are remediations prioritized?



Business impact analysis



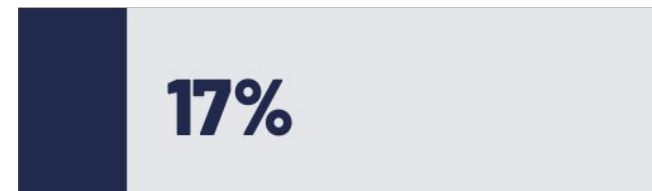
CVSS score criticality



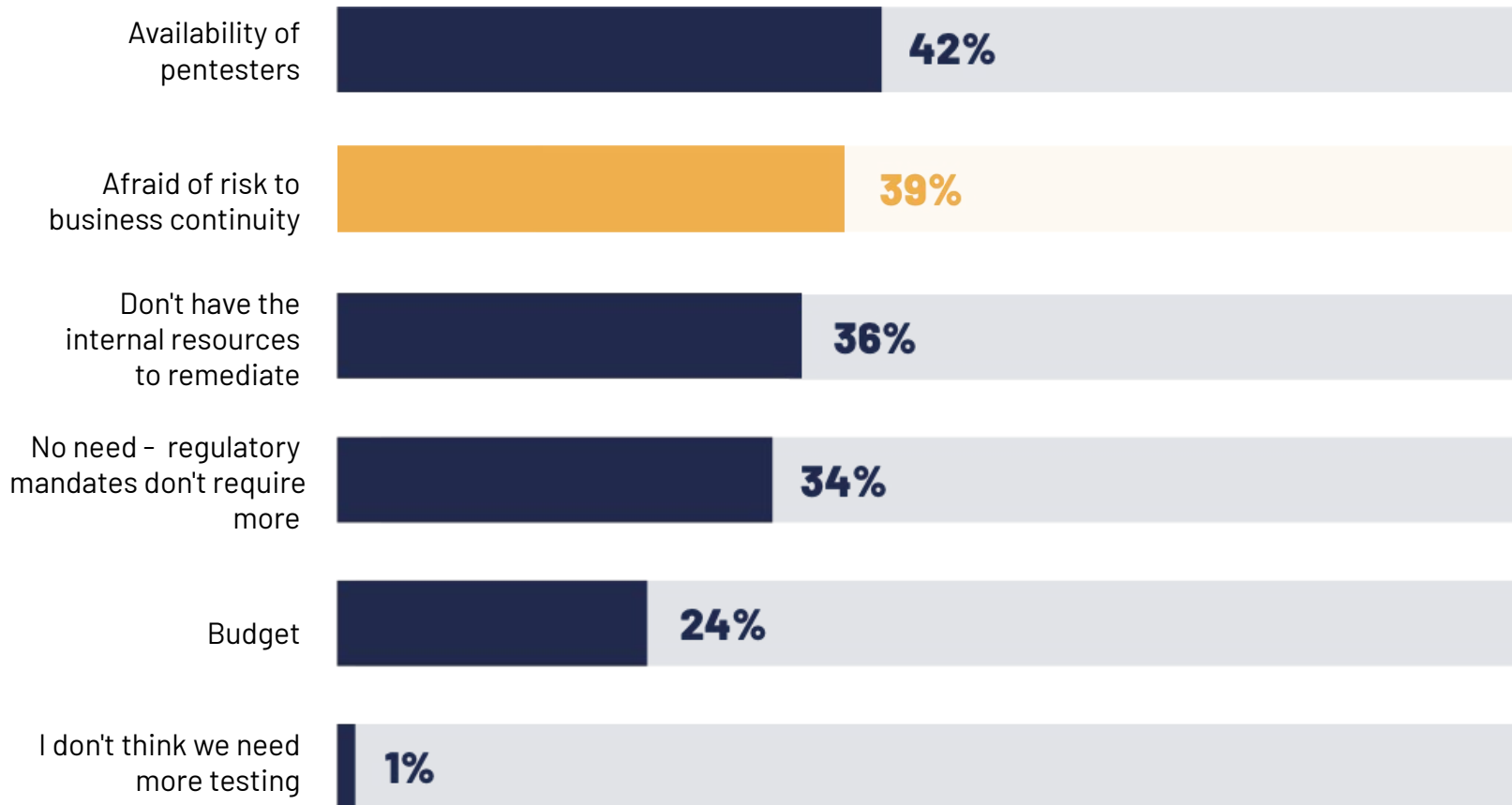
Vendor risk scoring



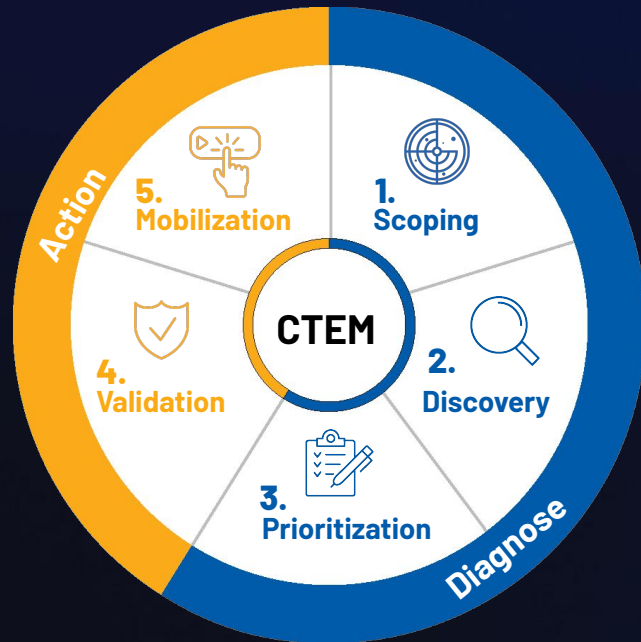
Chronology



Barriers to pentesting



Continuous Threat Exposure Management (CTEM)



By 2026, organizations that **prioritize** their security investments based on a **continuous exposure** management program will be 3x less likely to suffer a breach

CHALLENGES

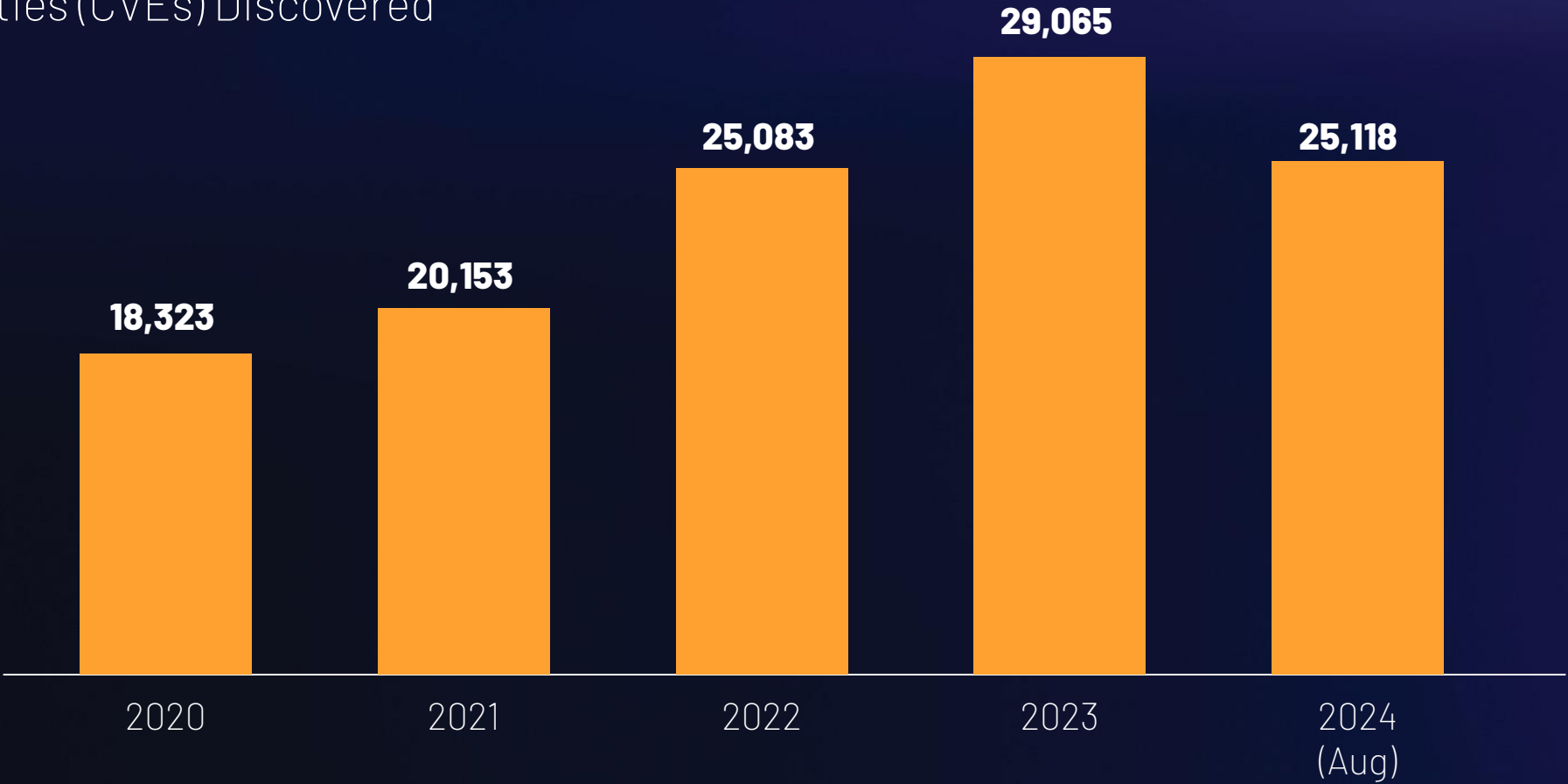
The traditional mindset

“...a vulnerability
is something
I can patch”



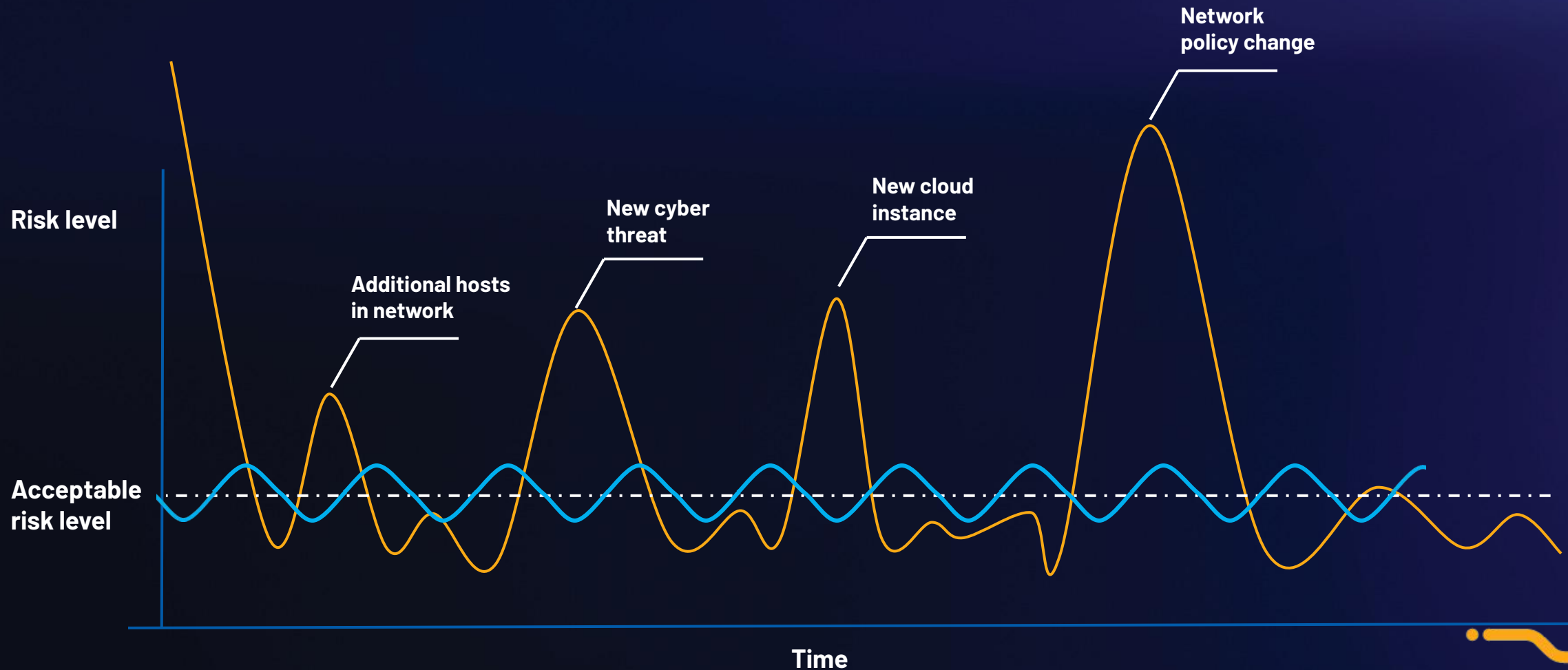
Reality Check – We Can Never be **Patch Perfect**

Vulnerabilities (CVEs) Discovered



Source: <https://www.cvedetails.com/>

Challenge #1: Constantly Changing Attack Surfaces and Risk Exposure



Challenge #2: Ineffective Remediation

with Traditional Vulnerability-Centric Approaches



Non-patchable attack surfaces will account for **over 50%** of enterprise exposure by 2026.

Gartner®



MISCONFIGURATION



PRIVILEGES



HUMAN ERROR



LEAKED
CREDENTIALS

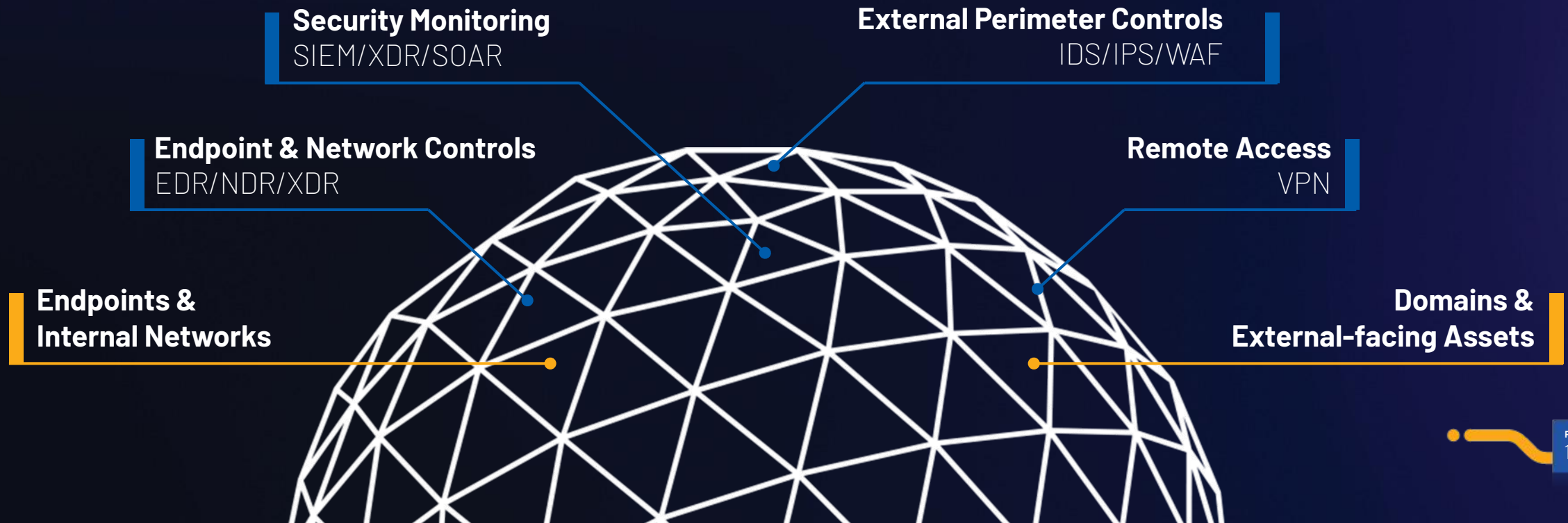


DATA
HYGIENE

Challenge #3: Security & Policy gaps

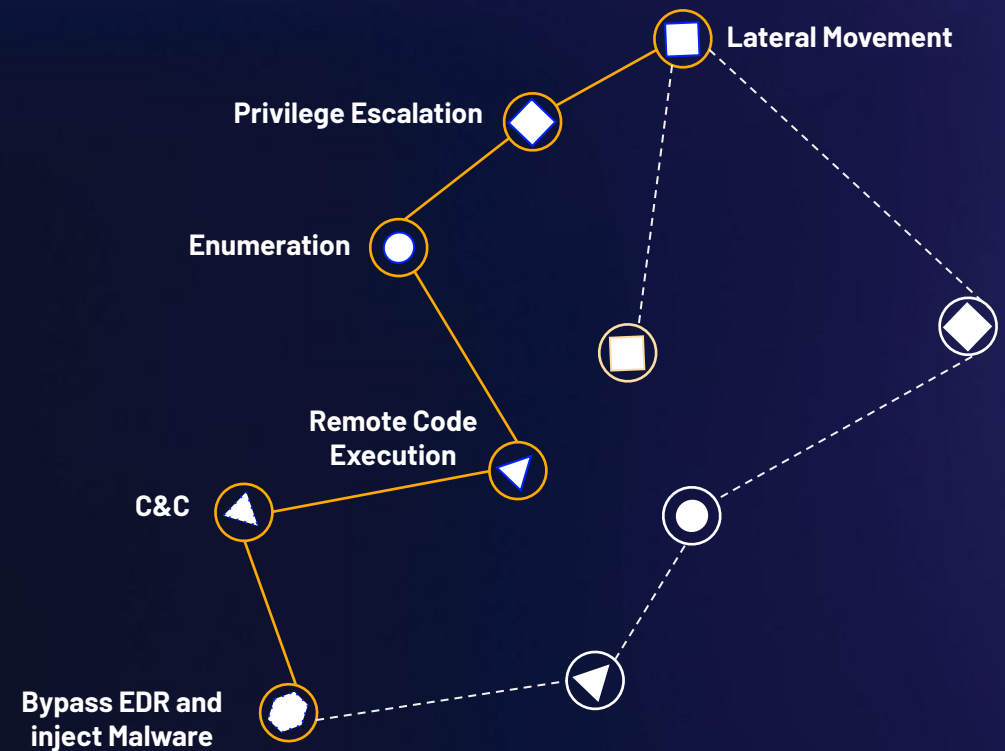
DO YOUR CYBER DEFENSES TRULY WORK TODAY

Against The Latest Threats?



Take the Attacker's View with **SECURITY VALIDATION**

Test your entire attack surface
Reveal true exposure
Prioritize fixes based on risk impact



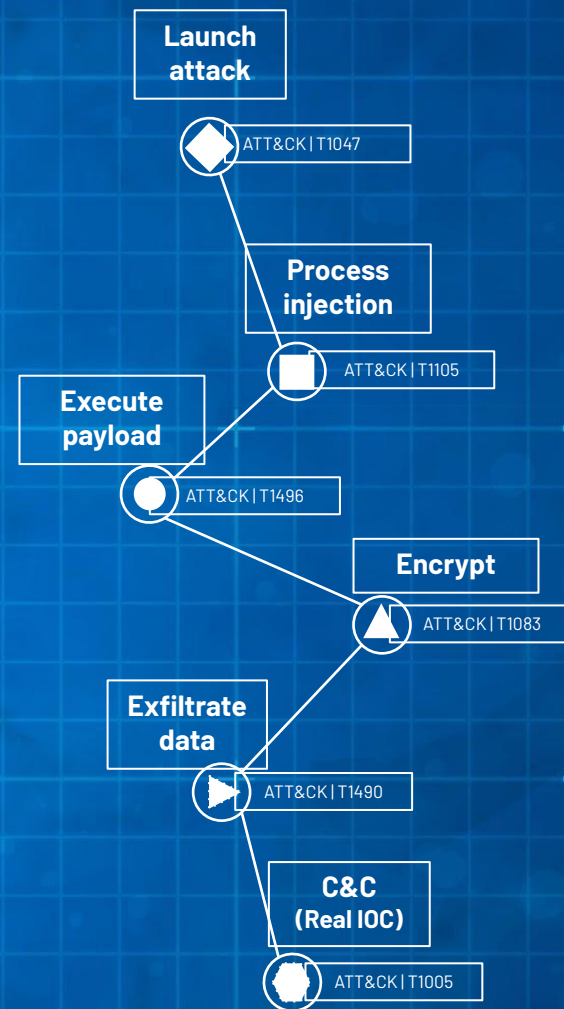
Ransomware Readiness Blueprint

Account Susceptibility



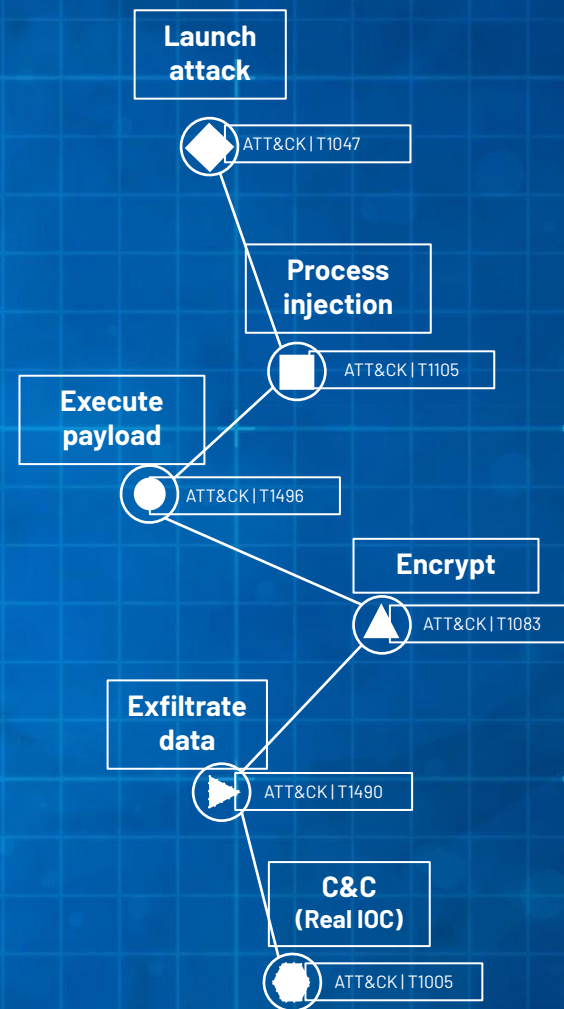
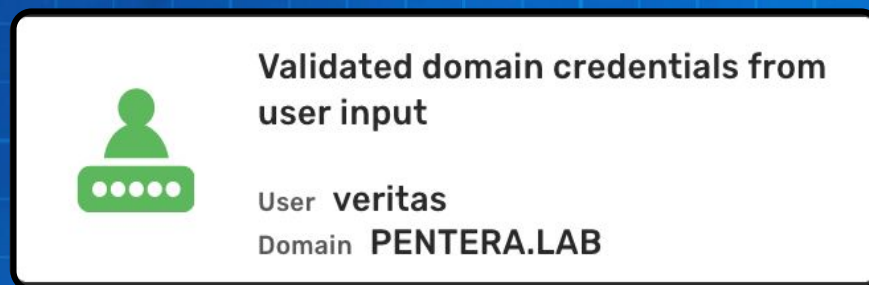
Credentials provided by the user
as an entry point

User **veritas**
Context **PENTERA.LAB**



Ransomware Readiness Blueprint

Validate Credentials



Ransomware Readiness Blueprint

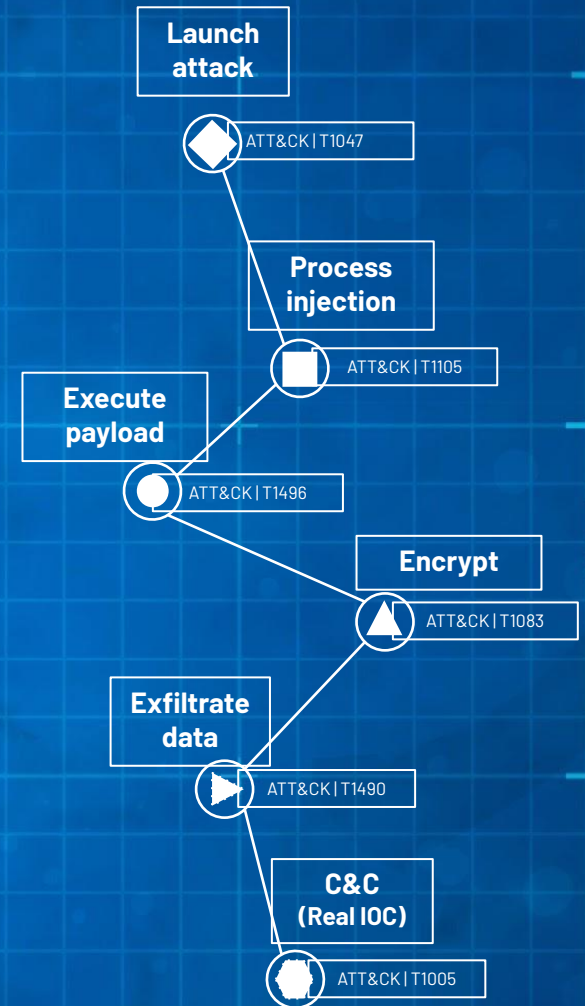
Privilege Escalation



Found a user with privileged RCE capabilities

7.1

Domain **PENTERA.LAB**
User **veritas**



Ransomware Readiness Blueprint

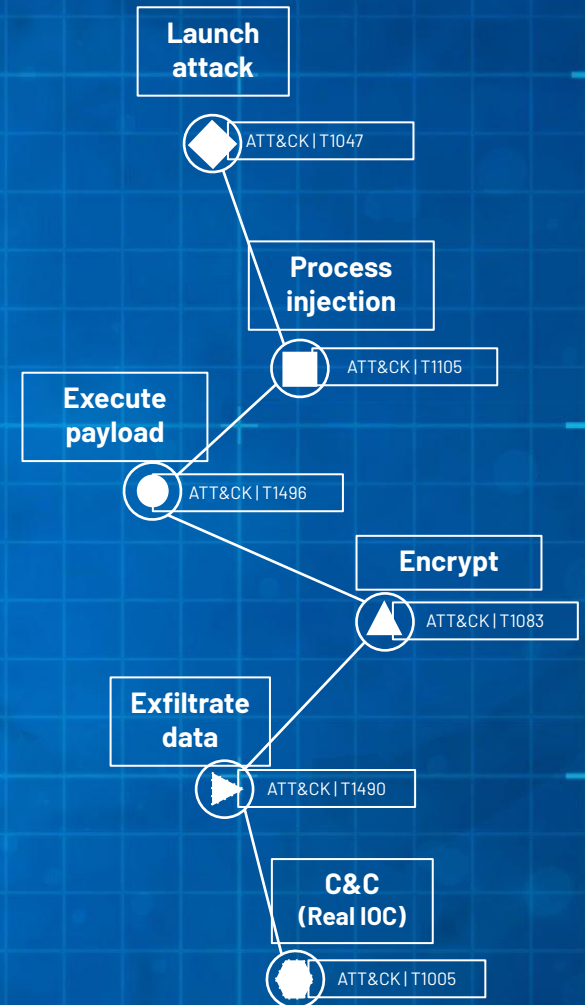
Remote Access



Opened remote control channel
on the host

3.3

Host 192.168.120.37



Ransomware Readiness Blueprint

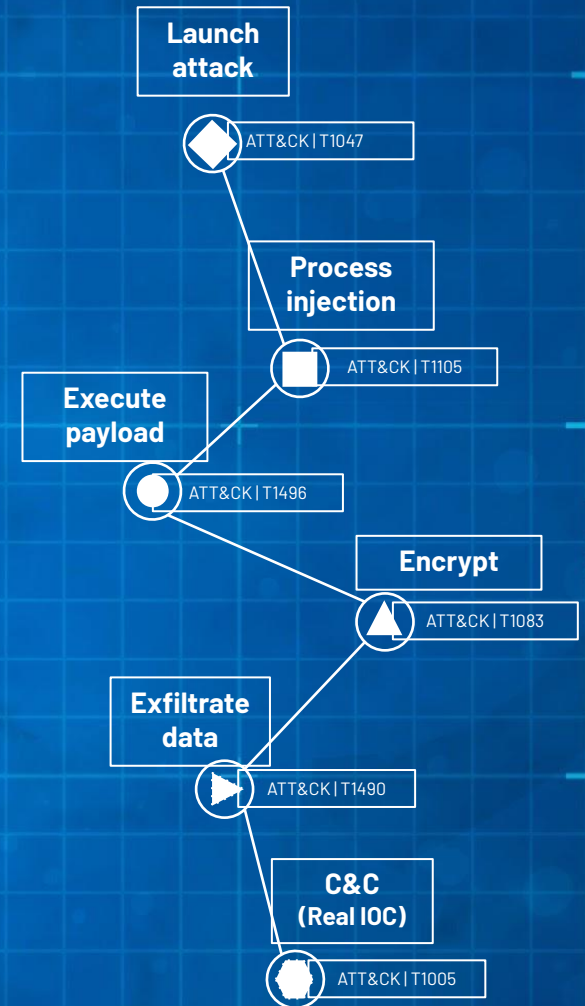
Lateral Movement



3.4

Uploaded malware to host over network protocol

Host 192.168.120.37



Ransomware Readiness Blueprint

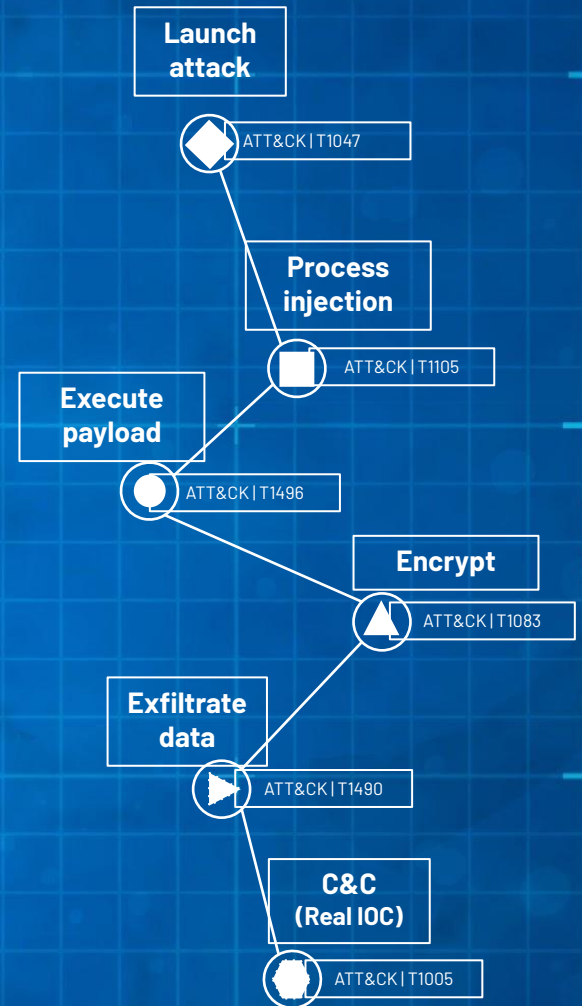
Encryption Preparation



Generated Encryption key

1.0

Host 192.168.120.37



Ransomware Readiness Blueprint

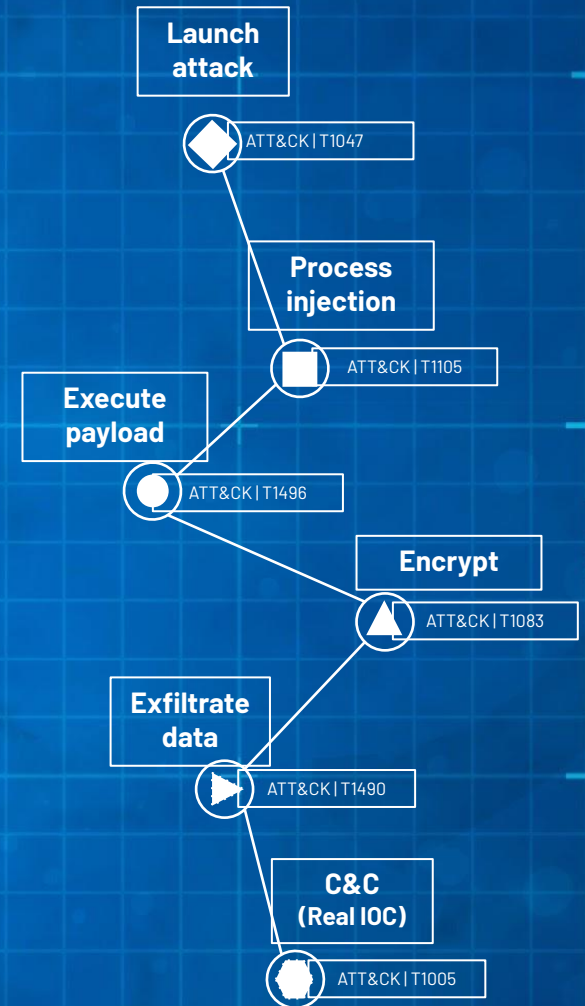
Identify Critical Data for Exfiltration



Enumerated files on the host

7.2

Host 192.168.120.37



Ransomware Readiness Blueprint

Bypass EDR & Encryption



Encrypted files on the host

9.2

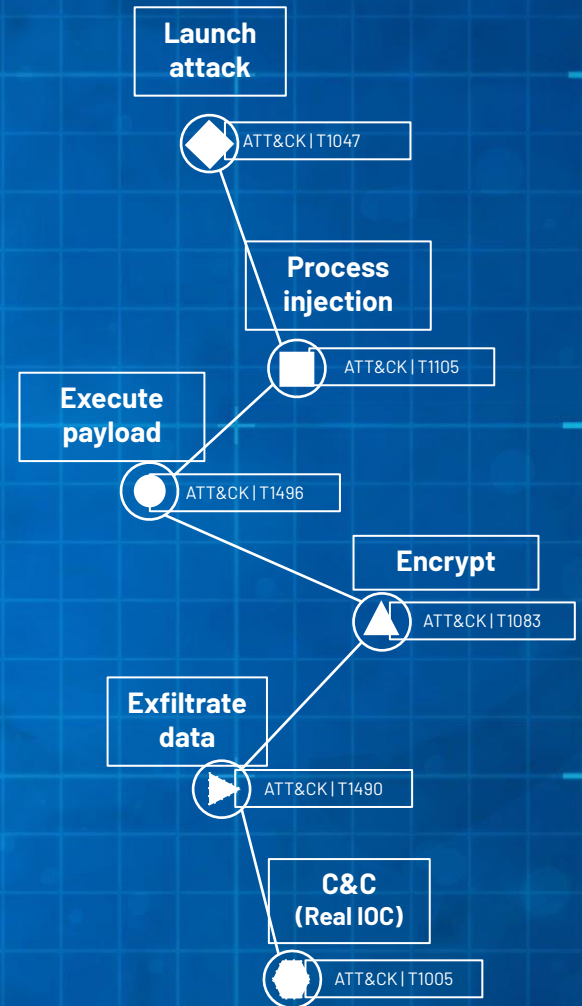
Host 192.168.120.37



AV did not block malicious payload

8.8

Host 192.168.120.37



Ransomware Readiness Blueprint

Disable Recovery & Clean Up Tracks



Emulated Windows Event Log deletion

7.9

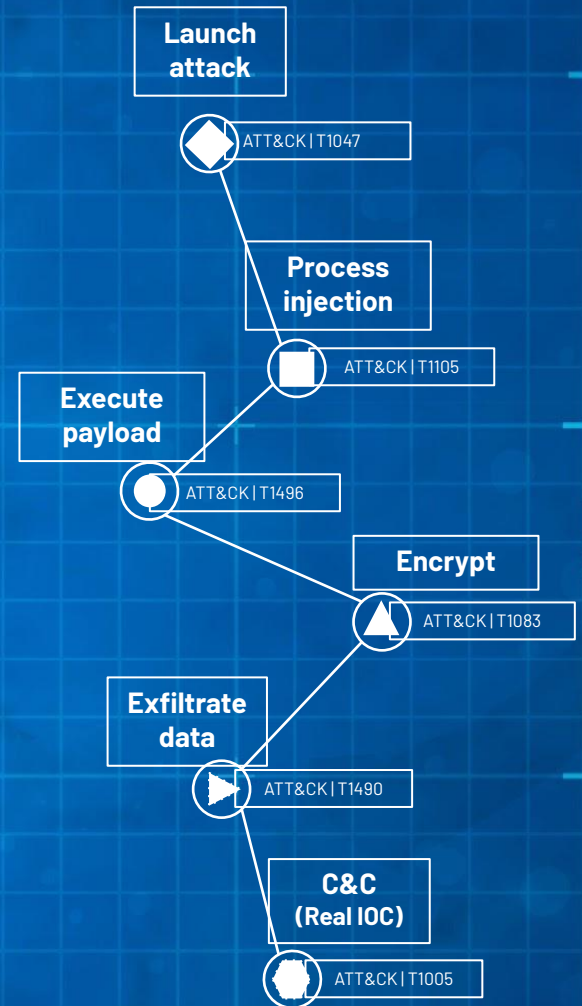
Host 192.168.120.37



Emulated deletion of shadow copies

7.9

Host 192.168.120.37



Ransomware Readiness Blueprint

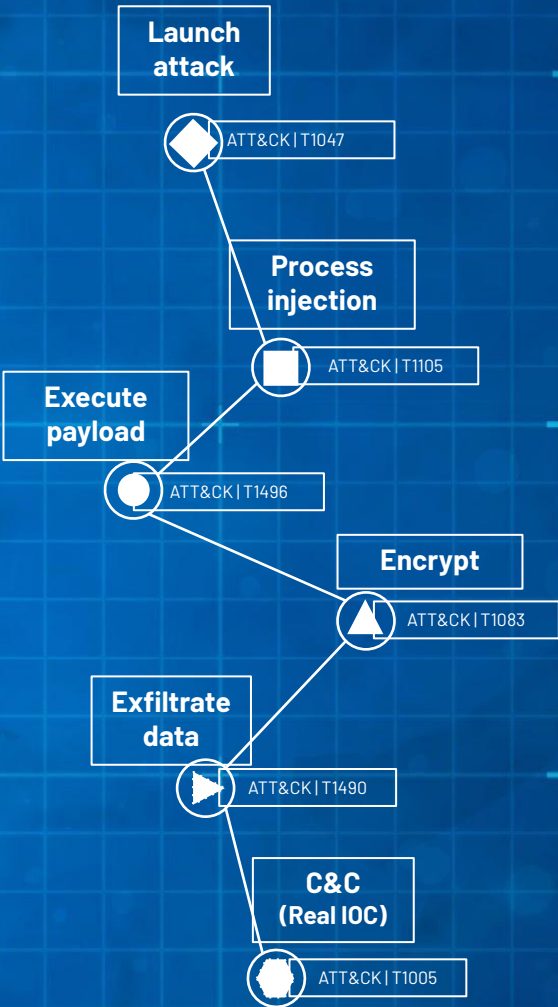
Establish Communication



1.2

Payload established connection
with Pentera's C2 server

Host 192.168.120.37



Ransomware Readiness Blueprint

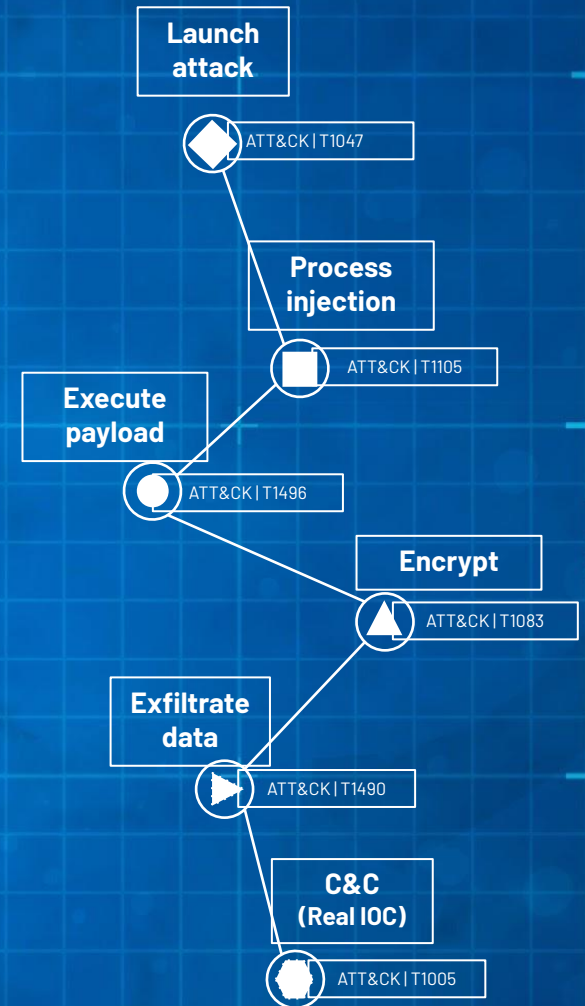
Exfiltrate the Crown Jewels



Exfiltrated data to a designated C2 server

7.5

Host 192.168.120.8



Didn't you
turn on the
XDR?

Yes, but
apparently just
in monitoring
mode



**HOW DO
OTHER
COMPANIES
REDUCE
EXPOSURE
?**

Making the financial case for Exposure Validation



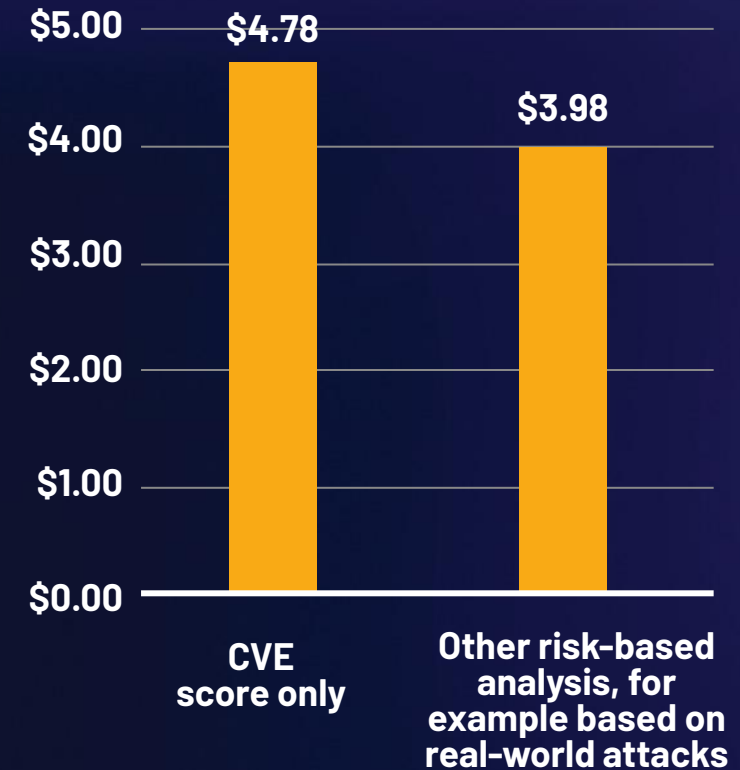
Severity Reduction Factor

Industry average cost of a breach in 2023:

- **\$4.45M** for organizations prioritizing vulnerabilities **by CVE score only**
- **\$3.98M** when **risk-based analysis** is used for prioritization

11% breach severity reduction with Exposure Validation

Cost of a data breach by vulnerability management prioritization approach



Probability Reduction Factor

Industry average
breach probability

VS.

Pentera customer
breach probability



Customer data -
230 customer years



Public breach data -
VERIS Community DB +
online research



**Pentera customers have
81% lower probability of being breached**

Qualitative ROI



Cybersecurity employee satisfaction and retention



Improved day-to-day security operations



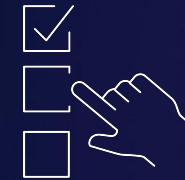
Improved communication with management



Support for compliance processes



Reduced cyber insurance premiums

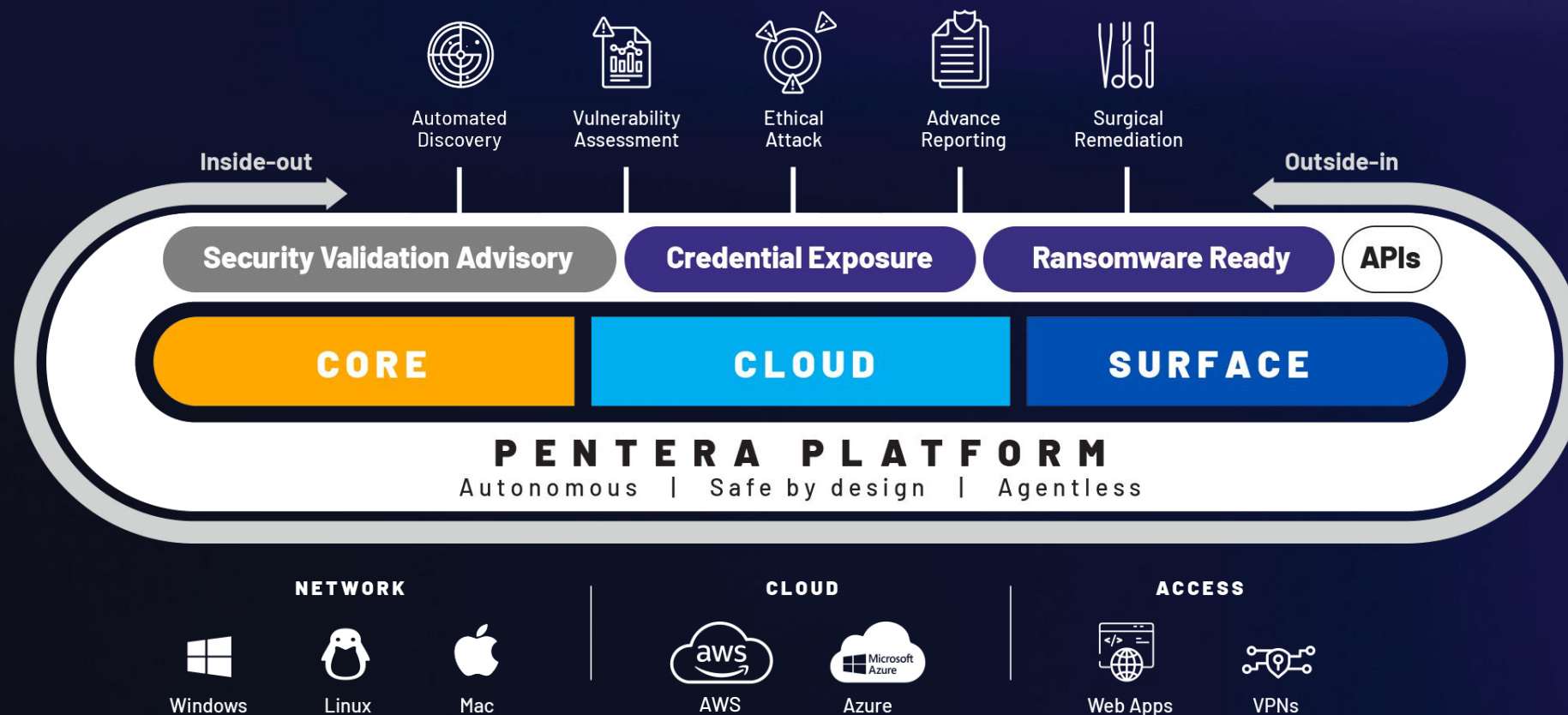


Evidence for security product evaluations (bake-offs)

The Platform

One Platform for All Your Validation and Exposure Management Needs

Pentera Platform: Total Security Validation



1-Day Proof of Value (PoV)

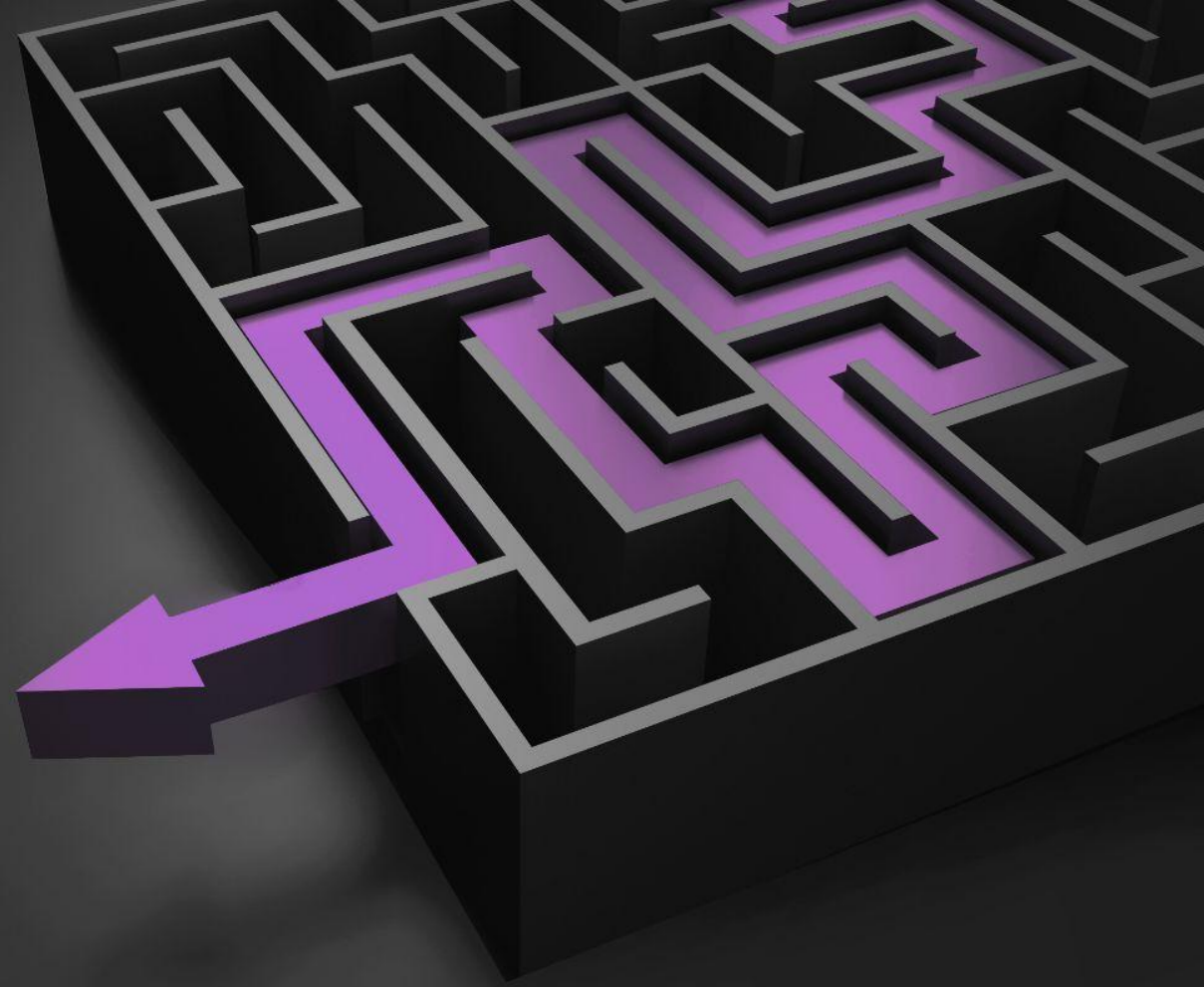


PoV fundamentals:

- Save and controlled
- Pentera Core: No learning phase: no artificial intelligence requiring cloud data matching
- Pentera Core: On-prem approach – all information stays



**All systems check,
ready for takeoff!**



THANK YOU!