Through a Lens Darkly

Why Seeing Yourself as the Adversaries See You is the Best Way to Understand Your Risk







Quick show of hands





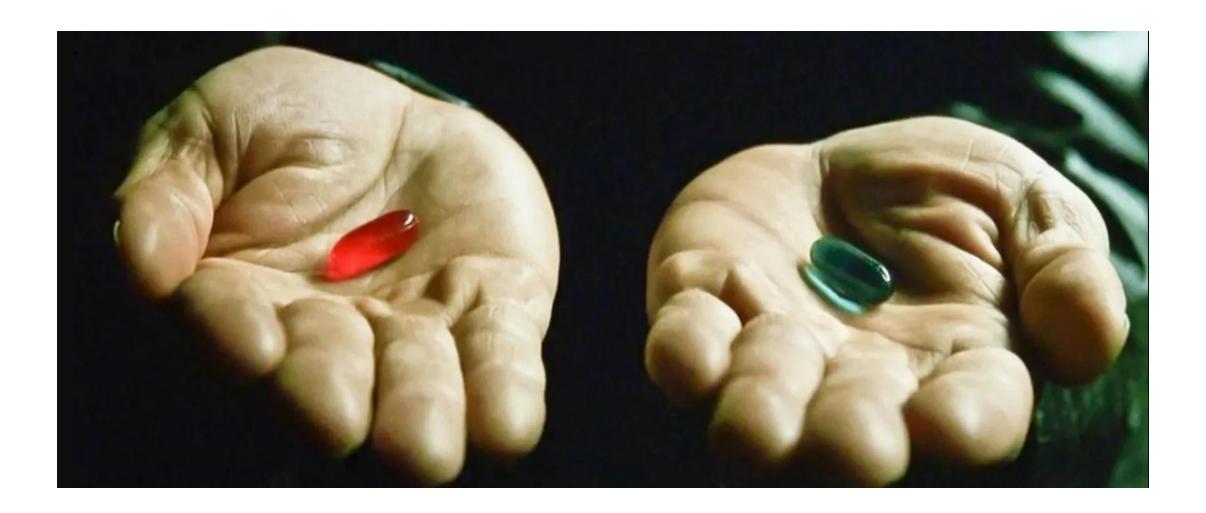
Who's who?







Red or Blue?





A little about me (that's not on LinkedIn)



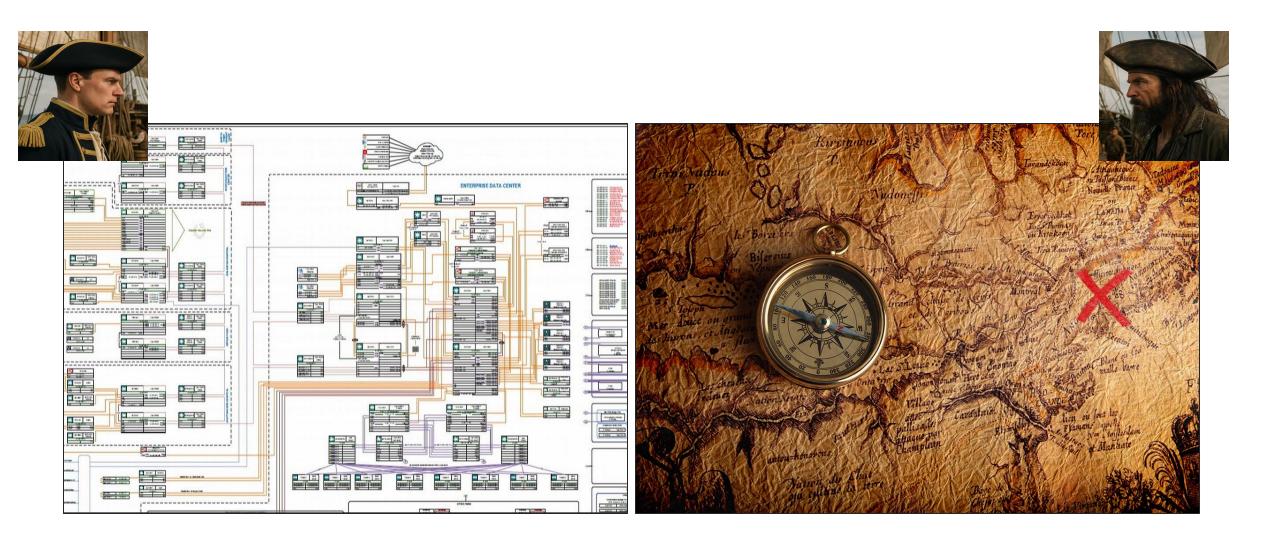


Why this matters? Role determines focus





Focus drives worldview





Let's make this more tangible





The difference in perspective

This is my local strip mall.



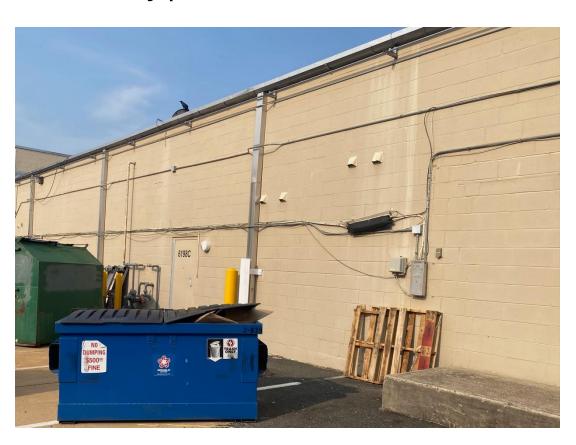
What does the average person see?





Where no one looks, no one sees

The only person here was homeless



The garage has been closed for years



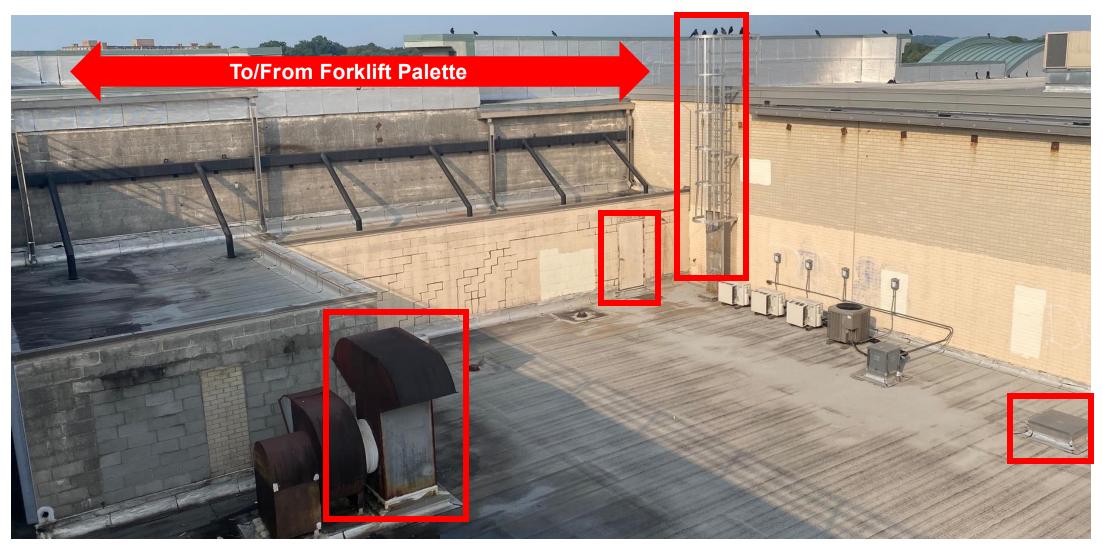


Go to the roof anyway – what don't you find?



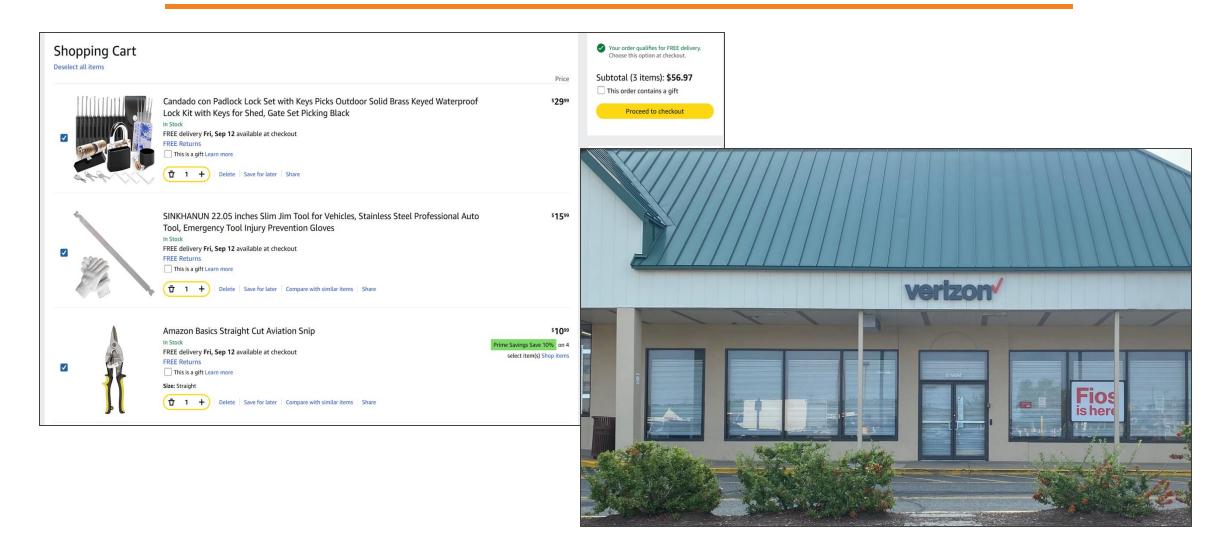


But look what you do find...



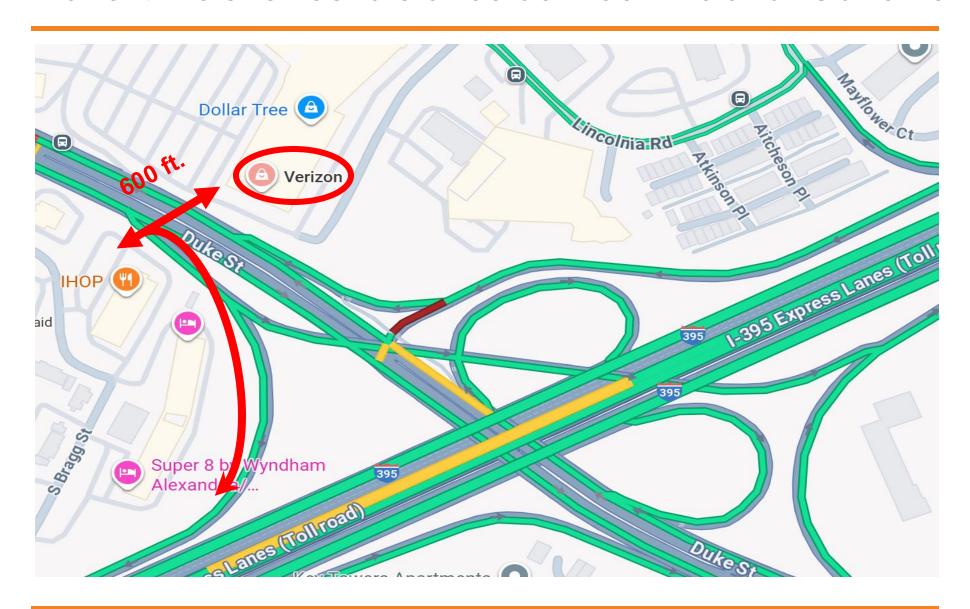


Let's talk LOE vs. ROI



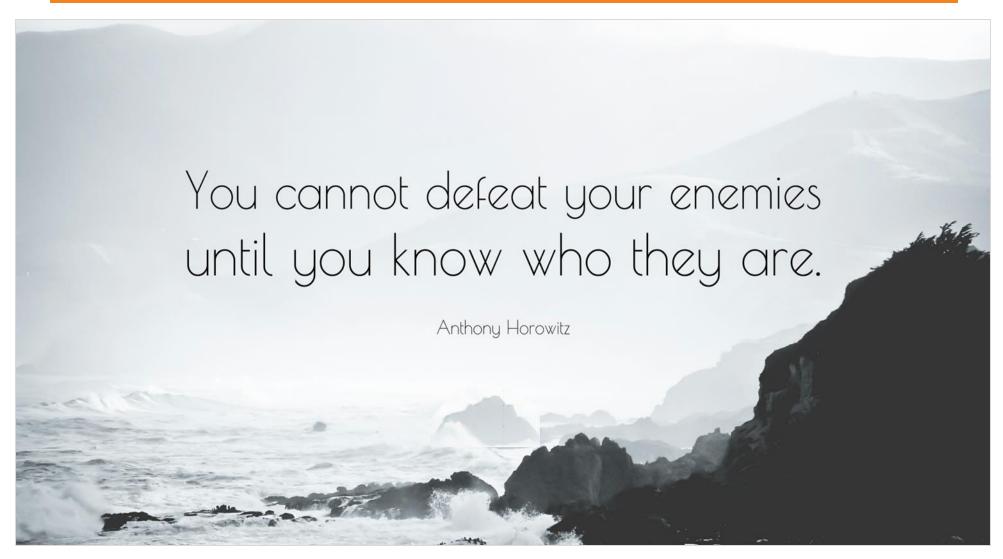


Exfiltration: the shortest distance between me and "Outta here!"





To think how they think...





Each type of adversary has different goals, targets & TTPs





Their goals, targets & TTPs shape your risk







Dimension	Hacktivists	Cybercriminals	Nation-State Actors
Primary Motivation	Ideological, political & social causes	Financial gain	Geopolitical advantage, espionage, sabotage
Target Selection	Symbolic (gov's, firms, industries)	Opportunistic	Strategically valuable
Sophistication	Low-to-moderate; free hacker tools	Varies but moderate to high	High to untraceable
Common TTPs	Defacements, DDoS, leaks, doxxing	Phish, ransomware, cred theft, BEC	0-days, moles, LolBins, supply-chain
Resourcing	Un-/Self-funded	Profit-supported	State-backed, agency level funding
Organization	Volunteers, amateur collectives	Structured, professional businesses	Hierarchical, government-sponsored
Consequences	Embarrassment, reputational harm	Financial/operational loss, fines	NatSec risk, IP theft, kinetic conflict
Fear Factor	Aggravation, Embarrassment, \$	Reputation loss, ops disruption, \$\$	Existential threat to firms, industries \$\$\$
Examples	Anonymous, OpWallSt	Colonial Pipeline, Equifax, Target	SolarWinds, Stuxnet



Let's Be Honest





Problem #1: Structural Disadvantages

Some of what Good Guys have to worry about:

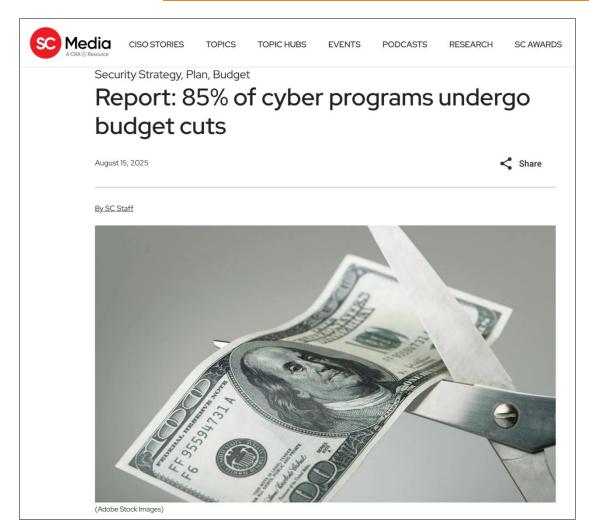
- 1. Operational stability/risk
- 2. Required Approvals
- 3. System interdependencies
- 4. Change freezes
- 5. BC/DR planning and rollback procedures
- 6. Skill shortages, holiday coverage and staffing
- 7. Team composition, turnover, careers and comp
- 8. Tooling costs, maintainability & integration
- 9. Fixed budgets amid expanding threats
- 10. Compliance (e.g. PCI; SOX; Graham-Leach-Bliley)
- 11. Oh, also compliance (e.g GDPR, CCPA/CCRA)
- 12. Then there's compliance (CMMC, NIST CSF, or maybe it's 800-53, or -171. Unless its ISO 27001?)

What Bad Guys have to worry about:

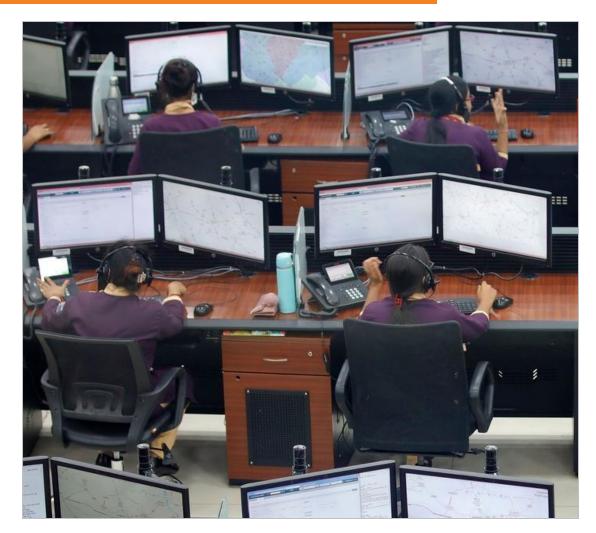
1. Getting what they want



Problem #2: Economics



Us = Cost Center



Them = Profit Center



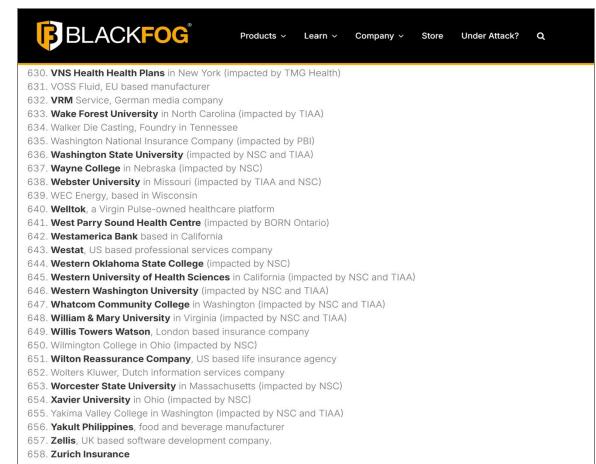
Problem #3: Time Scales – Ours...





Problem #3: Time Scales – vs. Theirs

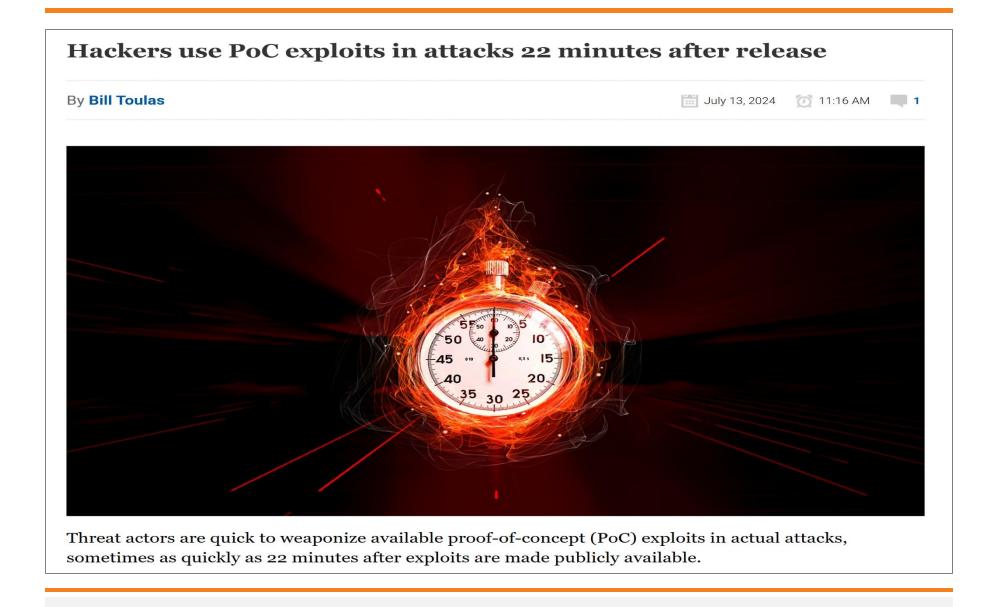




Hackers found a MovelT 0-day...and hit 500+ firms at once, three days before the flaw was announced, let alone patched



Problem #3: Time Scales – vs. Theirs





So we've thought about who we're up against

Now we can talk about how they might look at you





Example: EAS enumeration

How we might do it:

- IP address management (IPAM)
- Cloud asset management APIs
- Configuration management databases
- Web server logs
- Enterprise DNS

Our view is IT-centric, and often focuses on completeness, structure and clarity. This is entirely logical from our perspective

How they might do it:

- Passive DNS
- IP/ASN leasing and ownership hierarchy
- Certificate Transparency Logs e,g, Certstream
- OSINT tools e.g DNS dumpster, OSINT.sh etc.
- Global scanners, e.g. Shodan, Censys
- Open-Source tools, e.g. AMASS, Subfind3r etc.
- Active scanning e.g. ZMAP

Their view is opportunity-centric, and often focuses on exposed lowers, login pages, weak ciphers etc., entirely logical from their perspective



Scary story time





A framework for how I look at my assets (both ways)

The Question I Ask	What It Tells Me (Assuming the role of Attacker)	Why I Care (As the defender assessing risk)
Who am "I" in this scenario?	My goals, motivations, and therefore likely targets	Can inform my view of adversary sophistication, likely TTPs, Initial Access vectors and point to likely at-risk systems & data
What kind of asset is it?	Does the tech match either my targets of interest and/or my skills, toolset and knowledge, aka "Should/can I hit this?"	Everyone has finite resources, and work must be prioritized; my potential attacker may bias toward certain systems; use that intel & stack rank risk remediation work
Where do I think it's located?	Geography, ISP, physical owner etc. may influence my interest level, e.g. familiarity with security controls, insider access, DAB offers, likelihood of prosecution etc.	Security maturity almost always varies by location (by cloud, by data center, by country, facility or office) etc. Risk ranking drives intelligent prioritization
How important might it be?	Whatever says "more important" – naming conventions, login access, payment-related or core to customer journeys – says "worth more to ransom, hurts more if I break it."	Prioritizing importance to the business is obvious; What's not is whether <i>your</i> view of the importance aligns to what the attacker can observe and the likely conclusions THEY draw
How valuable is the stuff inside?	This is not quite the same as above; Importance to the victim is one axis of importance; market/sale value of data is another, and is distinct	Once again, attacker profile is key here; ATPs and hacktivists may be content to break things; criminals want to monetize; NOT the same priorities
What observable controls protect it?	The more layers of defense I can observe, the faster I will pivot to lower LOE options	My most valuable assets may be well-layered and protected; less hardened targets may be down my list, but high on the attackers; this leads to misaligned prioritization



The Big Question

"What then must we do?"

Leo Tolstoy



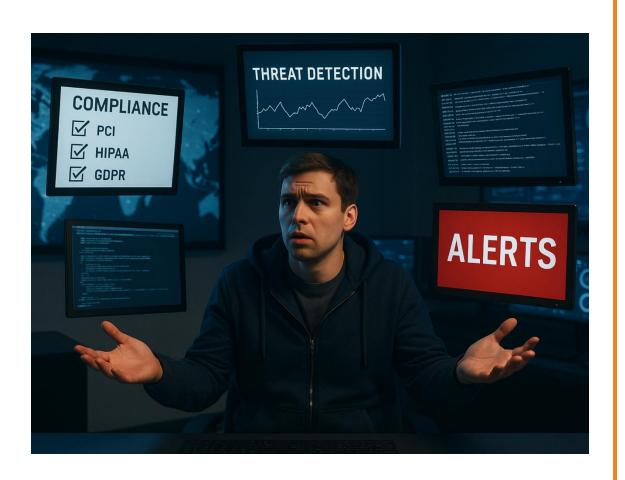
Use our new perspective to rebalance the scales





Problem #1: Structural Disadvantages

Problem: Bue Teams with too much to deal with



Options: Enlist "good bad guys"

- 1. Build a red team (in house, offshore etc.)
- 2. Hire outside pen-testers
- 3. Run TTX's and Attack Simulations
- 4. Script automated control validation tests
- 5. Start a VDP or Bug Bounty Program
- 6. Build and attack a "digital twin" or cyber range
- 7. Deploy honeypots and lures and hold CTFs



Problem #2: Economics

Problem: We're a cost center, they make profit



Options: Show sources of value that aren't all ROI

- Threat Detection & IR KPIs improved operational performance
- 2. Attacks stopped with loss estimates from similar/peer failures (e.g. MGM)
- 3. Fuse cyber and anti-fraud use cases to show revenue protection or recovery
- 4. Peer/industry benchmarking
- 5. Litigation-proofing
- 6. Compliance adherence/audit risk
- 7. Diligence preparedness for funding or M&A



Problem #3: Time Scales

Problem: Disciplined Ops vs. Smash & Grab



My view: This one is not easy, but it is simple

I believe there is only one way to compete on this field. You *must* invest in attacking your own estate, as hard and as often as you can afford.

- 1. Periodic, human-driven "gloves off" testing
- 2. Attack plans for *business logic exploitation*, not just technical vulnerabilities and control gaps
- 3. *Continuous, aggressive, automated* probing of your external attack surface
- 4. RCA metrics on findings; find the weak spots in your SDLC and *call out recurring problems*



Wrap Up





Downloadable Matrix Pages at opensourcery.io/blog/synercomm

Has this changed your view? Let me know





Thank you!

