



Gov-X Innovation Challenge 2021

Cybersecurity isn't just about Technology

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ROBIN BARNWELL

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Background:

A seasoned security professional with over 15 years of experience leading teams across many security disciplines (Ops, Risk, Governance, Architecture), aligning security strategy to business value.



1.

WHAT IS CYBER?

Definition and scope





When I say the word **"cyber"**:

Computerised, Digital,
Networked, Advanced,
Futuristic, Robotic, Virtual



In reality **“cyber”**
is pretty old:

- 1940's Cybernetics
- Ancient Greece Kubernetes
 - steerman / governor

“ Cybersecurity is the **governance** of **people, processes and technology** to defend the value of an organisation”



2.

PEOPLE

Culture eats strategy for breakfast





We're all **PEOPLE**

- The attackers want something of value
- The defenders want to protect the clients
- The clients want to be safe

You need to understand people to secure people.



Why break into technology.....

when it's easier to hack a human



EQUIFAX BREACH

- ▶ 143 MILLION AMERICANS
- ▶ NAMES, ADDRESSES
- ▶ SOCIAL SECURITY NUMBERS



ebay HACKED

- Passwords compromised
- Encrypted but vulnerable
- PayPal not directly affected

KRON 4

UBER HUGE DATA LEAK

VICTIMS

- 57 MILLION UBER users
- 50 MILLION riders (names + addresses + phone numbers)
- 7 MILLION drivers (600,000 U.S. driver's license numbers)

\$100,000 HACKER PAYMENTS FOR NON-DISCLOSURE

- Websites
- Databases
- Firewalls
- Malware

- Usernames / Passwords
- Customer Data
- Social Engineering
- User error



Bad culture vs good culture

- One size fits all
 - Bypassing the controls
 - Awareness with no context
 - Ad Hoc
 - Not engaging
- Customized to the people
 - Trust in controls
 - Communicates the "why"
 - Continuous / Visible
 - Gamified



3.

PROCESS

Continuous testing / continuous monitoring



Continuous Testing

Test technology and people controls regularly and improve on testing metrics (eg Time to Breach, Time to Respond, Susceptible Users)

Penetration Testing

People Testing

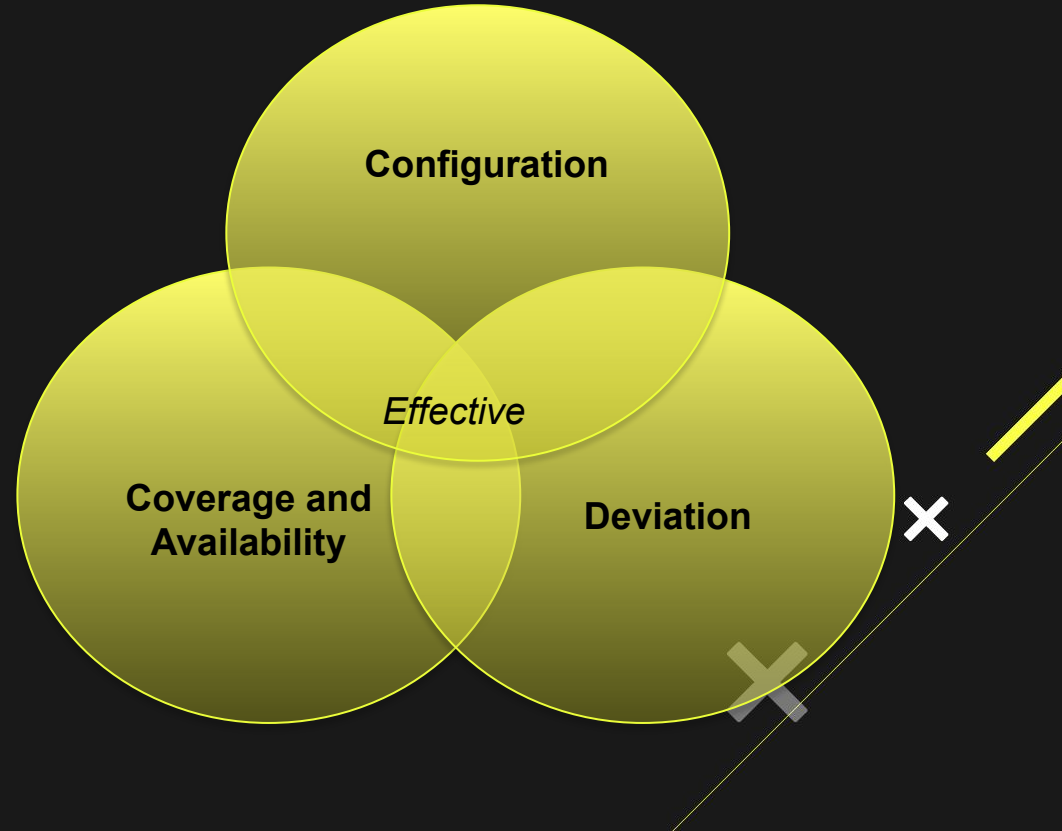
Red Teaming

Response Simulations



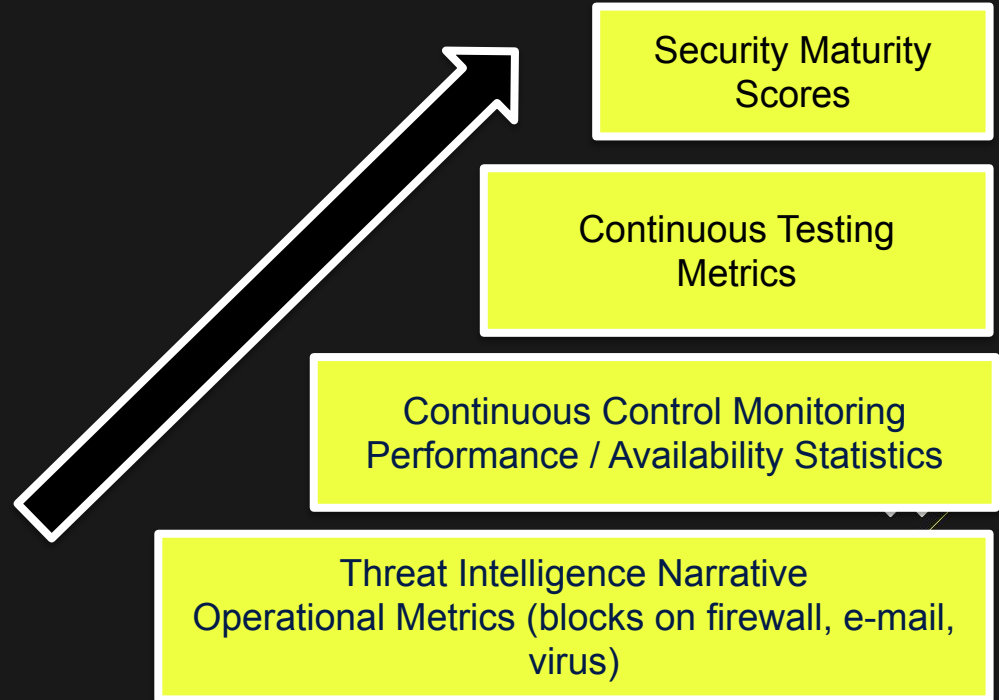
Continuous Monitoring

- Monitor for good configuration and alert on deviations
- Monitor coverage against acceptable appetite
- Monitor "back-door" processes



Metrics and Reporting

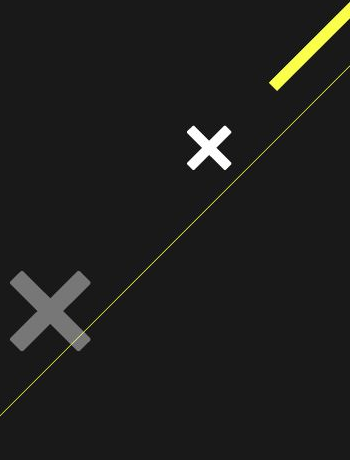
- Show metrics and reports often
- Share data with risk stakeholders for decision making
- Make metrics and thresholds simple to understand



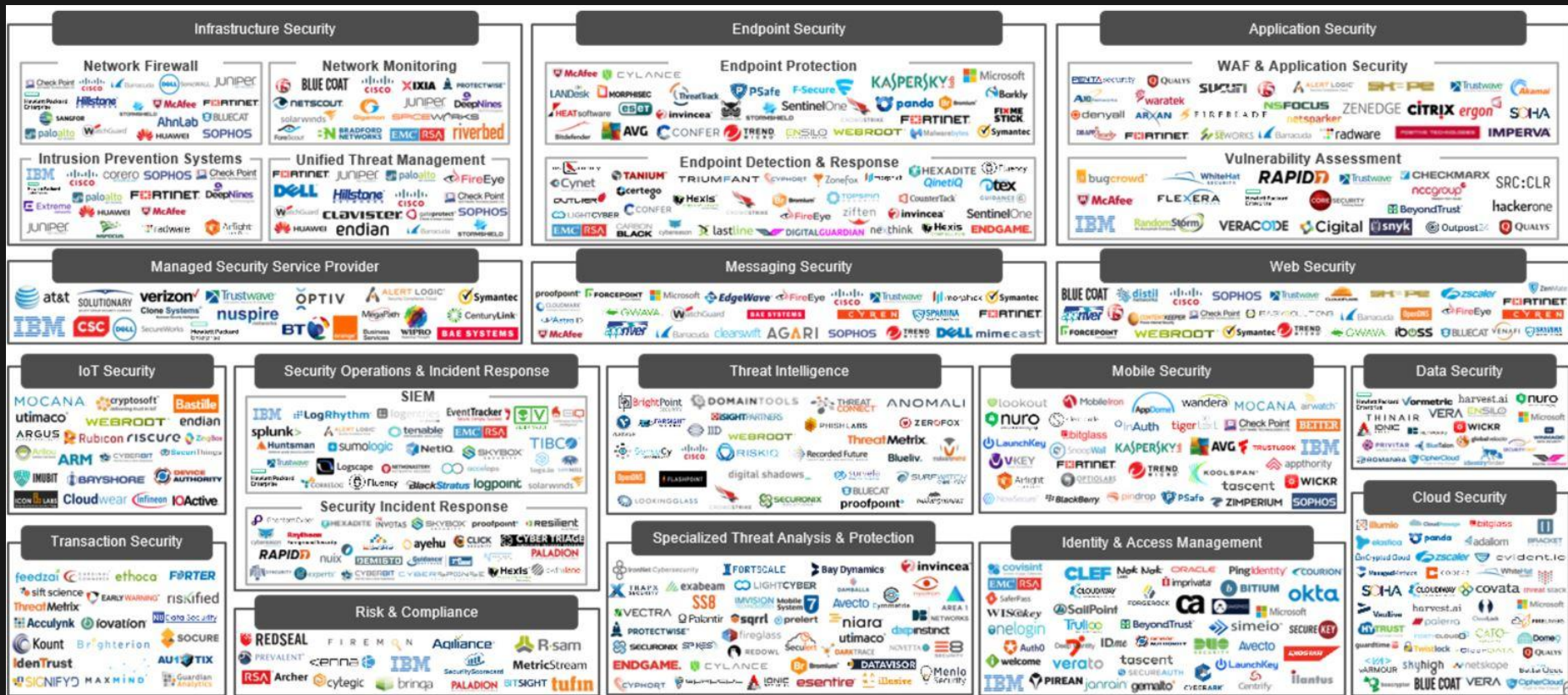
4.

TECHNOLOGY

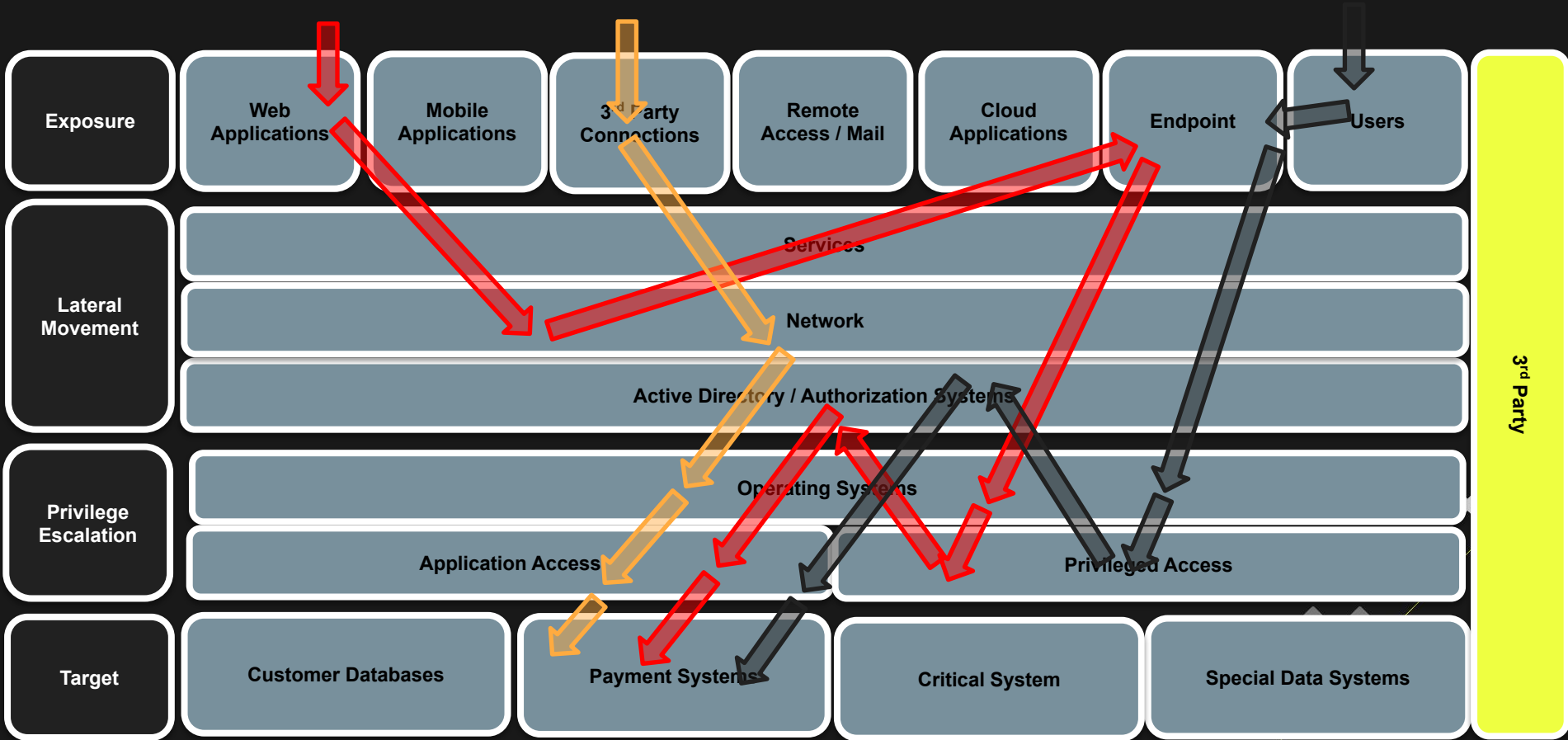
Pick your battles



Technology is **complicated**



Prioritise based on **attack path**





In Summary...

- Security is governance of people, process and technology
- Culture can make or break a security strategy
- Continuously Test and Monitor security controls
- Choose technology strategically based on threat





THANK YOU!

Any questions?

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