When the Ecosystem Works: Best Principles for ISAOs

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SURPRISING FACT

What is an Ecosystem?

- a complex network or interconnected system
- a biological community of interacting organisms and their physical environment

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Who plays a role?

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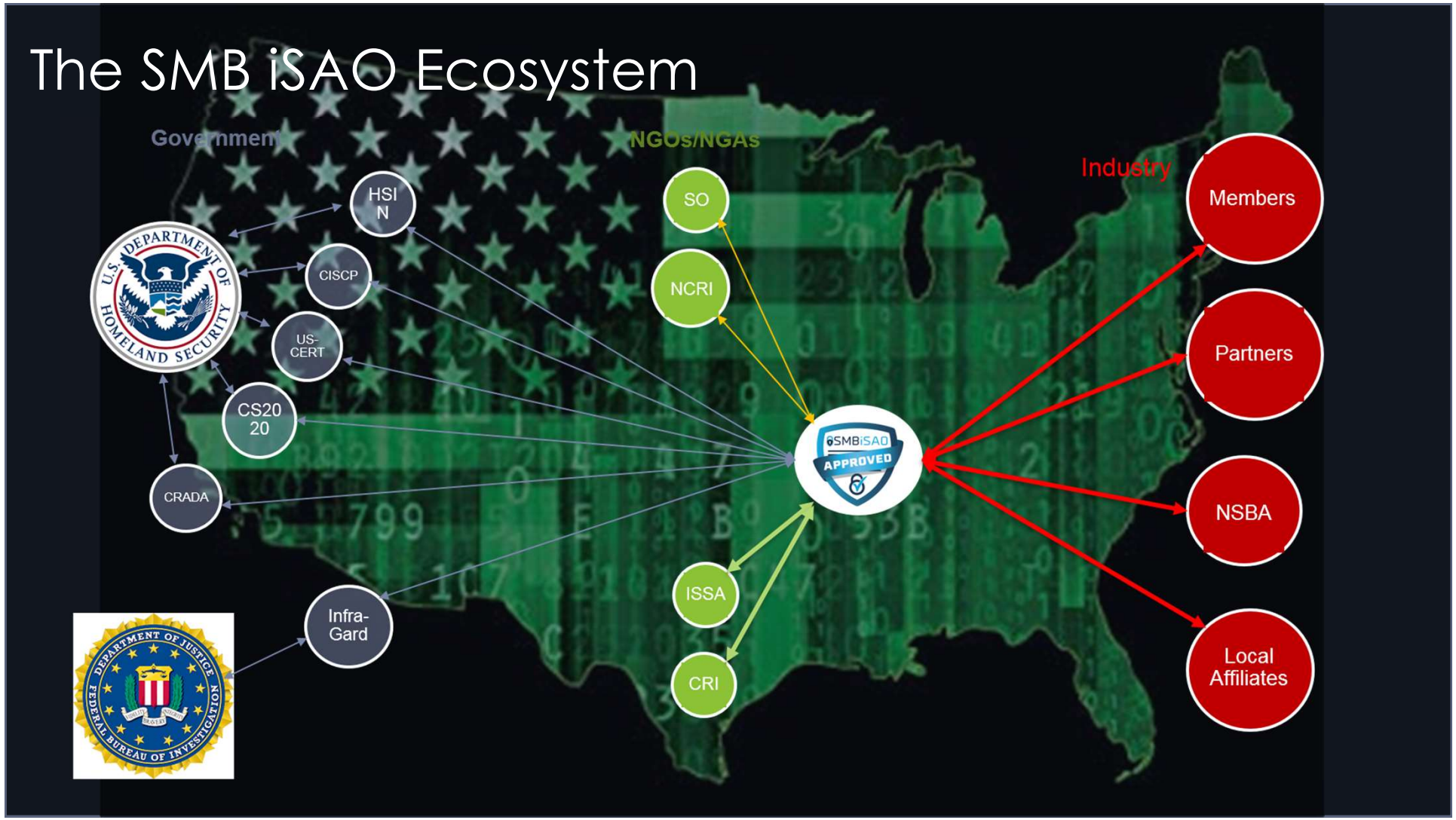
The SMB iSAO Ecosystem



What makes it work?

- Biological systems work because members don't deviate from genetically programmed roles.
- The Info Sharing Ecosystem involves people. People have choices.

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When it works

GOOD: Information Sharing

BETTER: Collect, share, analyze and create data into actionable intelligence

BEST: The whole is greater than the sum of its parts

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What makes it work?

What is looks like when it does *not* work:

- Does not produce actionable CTI;
- Submitting redacted reports with only an IP address
- No Push / No Pull
- Inefficient uses of classifications

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Participants in the ecosystem?

- Are leaders leading?
- Are members sharing?
- What is beyond minimum requirements of participation?
- How can we exceed standards?

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This is NOT an ecosystem:

Collecting data does not qualify you as an information sharing organization; it qualifies you as a collection agency.

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ISAO
Standards Organization

Looks Great On Paper!

…but obstacles loom…

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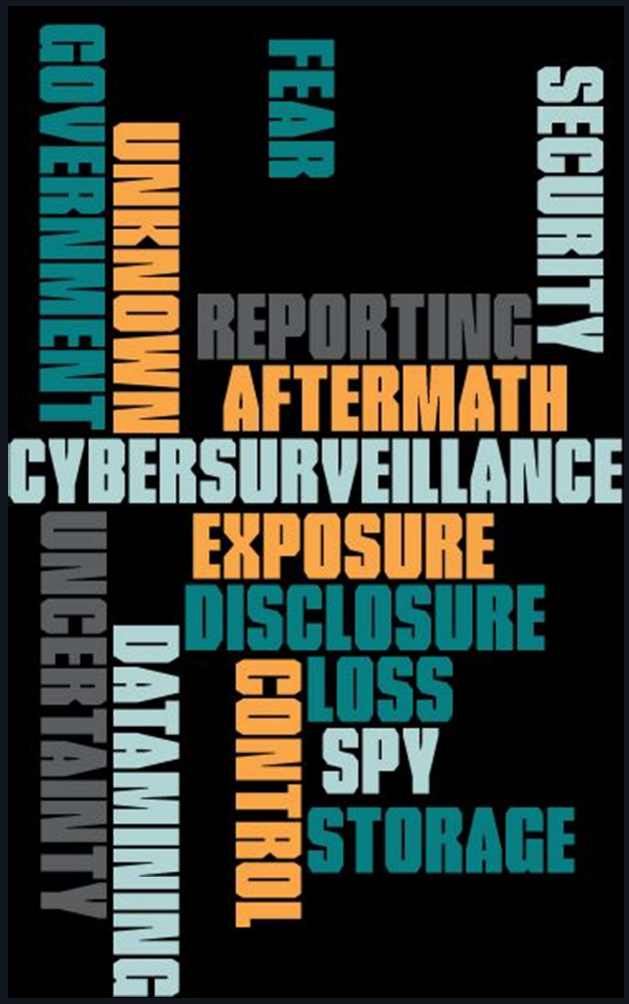
Obstacle: Trust

"Our civil liberties and right to privacy should not be the price we pay for security."



Sharing Obstacle: The Hacked Mindset

The information sharing ecosystem suffers from a common tragedy: everyone wants to receive CTI, but few are prepared to share, **especially** after a hack.

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Obstacle: The Corporate Mindset

Concerns:

- PR damage
- Losing customers
- Compliance regulations
- Fear of surveillance
- Losing stakeholder confidence
- Cost
- Incurring legal liabilities

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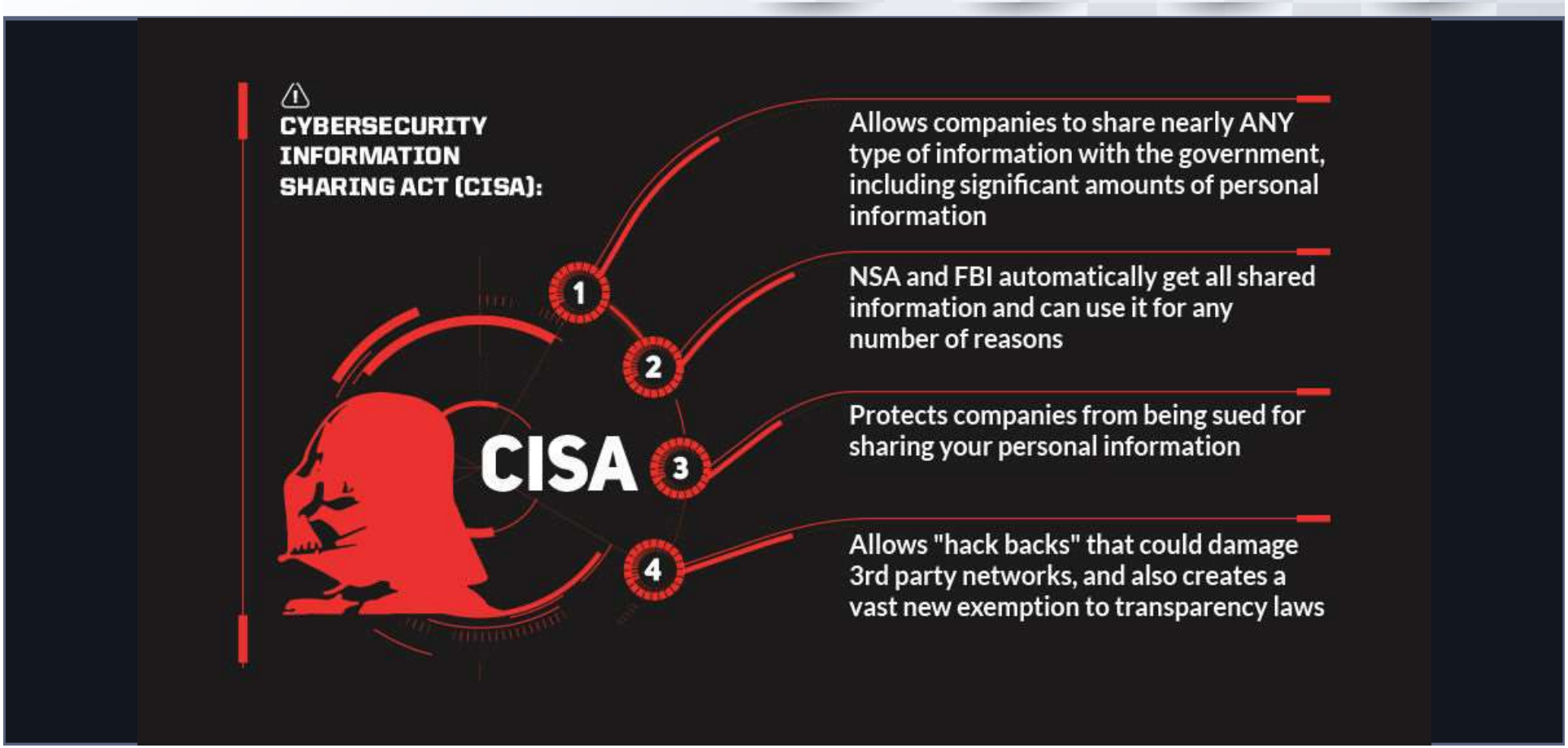
A Surveillance Bill In Disguise!



The Underlying Fear

Fear of reporting a breach is still greater than the fear of the breach itself.

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Obstacle: Logistics

- DHS AIS program integration
- Delays in distribution of attack indicators
- Private sector executives with clearance have access to classified data but can't share.

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Obstacle: Technical

- 500 shared instances can equal tens of thousands of threat indicators.
- "Scrubbed" or anonymized information = more difficult to use.
- Potential for human error.
- Anyone can start an ISAO.

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Meaningful Reporting

- Incident Reporting Form for:
  - attempts to gain unauthorized access to a system or its data,
  - unwanted disruption or denial of service, or
  - abuse or misuse of a system or data in violation of policy.
- Share indicators and defensive measures
- Report software vulnerabilities or Industrial Control System vulnerabilities
- Report phishing
- Report malware

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Solution: Keep it Simple

- Each ISAO and ISAC should operate in a trust environment with each other.
- Analysts need to be able to jump on the phone with one another and get more context than just a malicious IP.
  - Typical Sample Report : 192.168.1.1
  - Better Sample Report: Experienced a SYN Flood attack on port 45 from 192.168.1.1 on July 4th, 1776.

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The Human Factor

- ❑ You can't build and run an ISAO on technology.
- ❑ N-ISAC snapshot
- ❑ Cybersecurity is a team sport.

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People make it work, not technology.

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Solution: Keep it Simple

- Make it easy for people to do.
- Trust is critical.
- Testimonials and success story encourage sharing.
- Members of ISAOs and ISACs need to discerningly ingest and apply the intel received.
- The best intel is what you generate yourself. Having the ability to analyze intel prior to putting it into active monitoring mode is crucial.

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“Wars may be fought with weapons, but they are won by man.” --Patton

Questions? Find me at:

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