



**LEVELING UP:  
HOW SHARING THREAT  
INTELLIGENCE MAKES YOU  
MORE COMPETITIVE**



**CYBER  
THREAT**  
ALLIANCE  
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# WHAT DO WE MEAN BY INFORMATION OR THREAT SHARING?

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**Different kinds of sharing serve different purposes:**

- > Technical data
- > Context
- > Attribution
- > Best practices
- > Defensive measures and mitigations
- > Strategic warning
- > Tactical warning
- > Situational Awareness

**We often act as if all organizations can share all of these information types all of the time – but that's not true.**

# WHAT HINDERS THREAT SHARING?



Volume and diversity of information poses a problem

Hard to directly measure the ROI on sharing



## Technical

Need an accepted standard and ability to separate signal from noise

## Business

Need to show a benefit to sharing

Four factors constrain threat sharing:

## Legal

Need clear frameworks on what is permissible

## Cultural

Need to change how competitive advantage is perceived



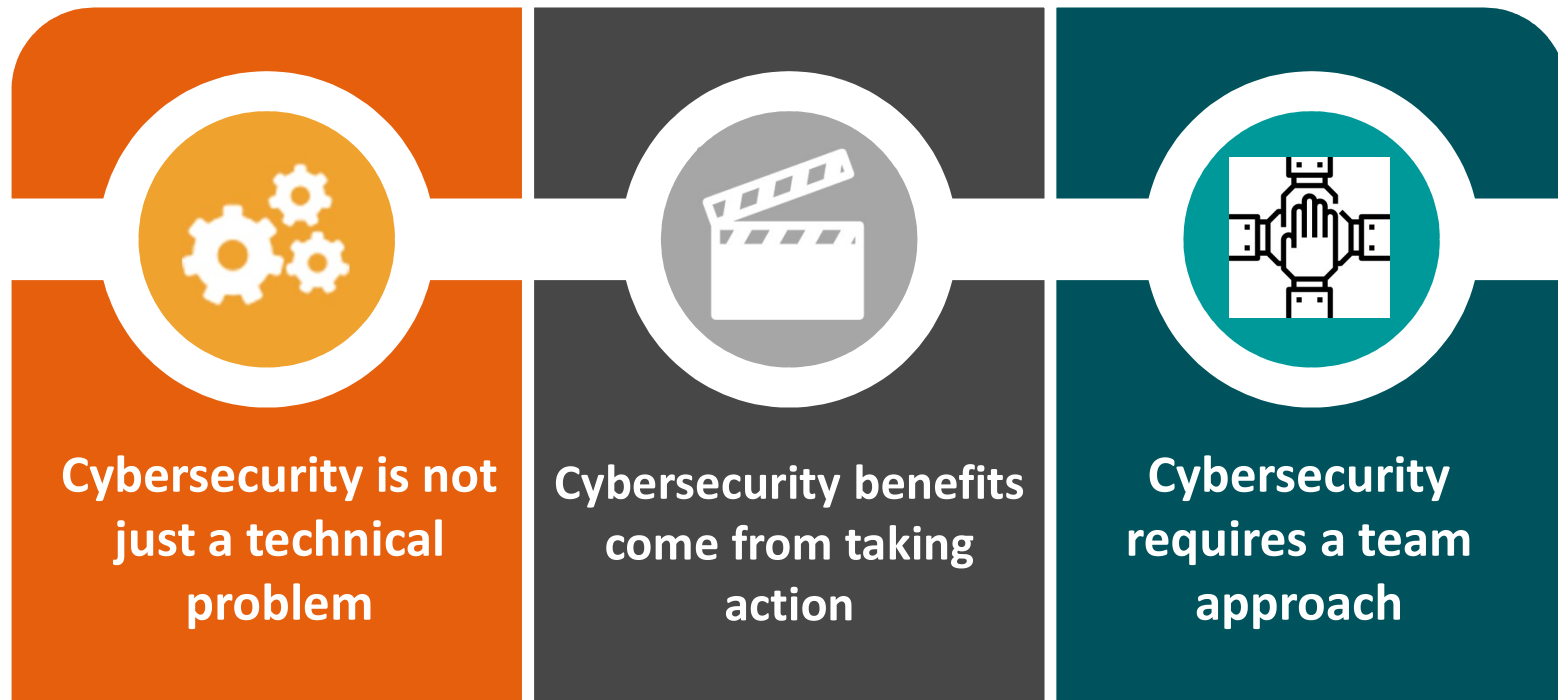
Anti-trust, privacy, GDPR, and other parameters can be unclear

We have to know more than the other guy for people to buy our stuff



# WHY DOES THREAT SHARING ENHANCE YOUR COMPETITIVE EDGE?

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**Cybersecurity is not just a technical problem**

Cybersecurity is also an economic, psychological, and human behavioral challenge; no organization has expertise in all these areas.

**Cybersecurity benefits come from taking action**

It's not what you know, but what you do with what you know.

**Cybersecurity requires a team approach**

We need to consider comparative advantage.

# THREAT SHARING EXAMPLES FROM CTA: LEVELING UP IN THE SHARING GAME

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**WannaCry** threat sharing reduced the “fog of war”  
*We got to the right answer much more quickly*

**VPNFilter** threat sharing amplified our actions  
*Coordinated protections boosted impact*

**Automated sharing** enhanced outputs  
*All our members received information that was new to them*

# OKAY, WE'RE SHARING. SO NOW WHAT?

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- Build up sharing organizations
  - Focus technical sharing efforts on technically capable entities
  - Allow companies to share according to their comparative advantage
  
- Enable more robust sharing between sectors
  - Spread lessons learned across sectors
  - Create regular, cross-sector links
  
- Translate sharing into action
  - Use shared data to create outputs that systemically disrupt adversaries
  - Employ shared data to identify specific actions that different parts of the ecosystem should take



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**QUESTIONS?**



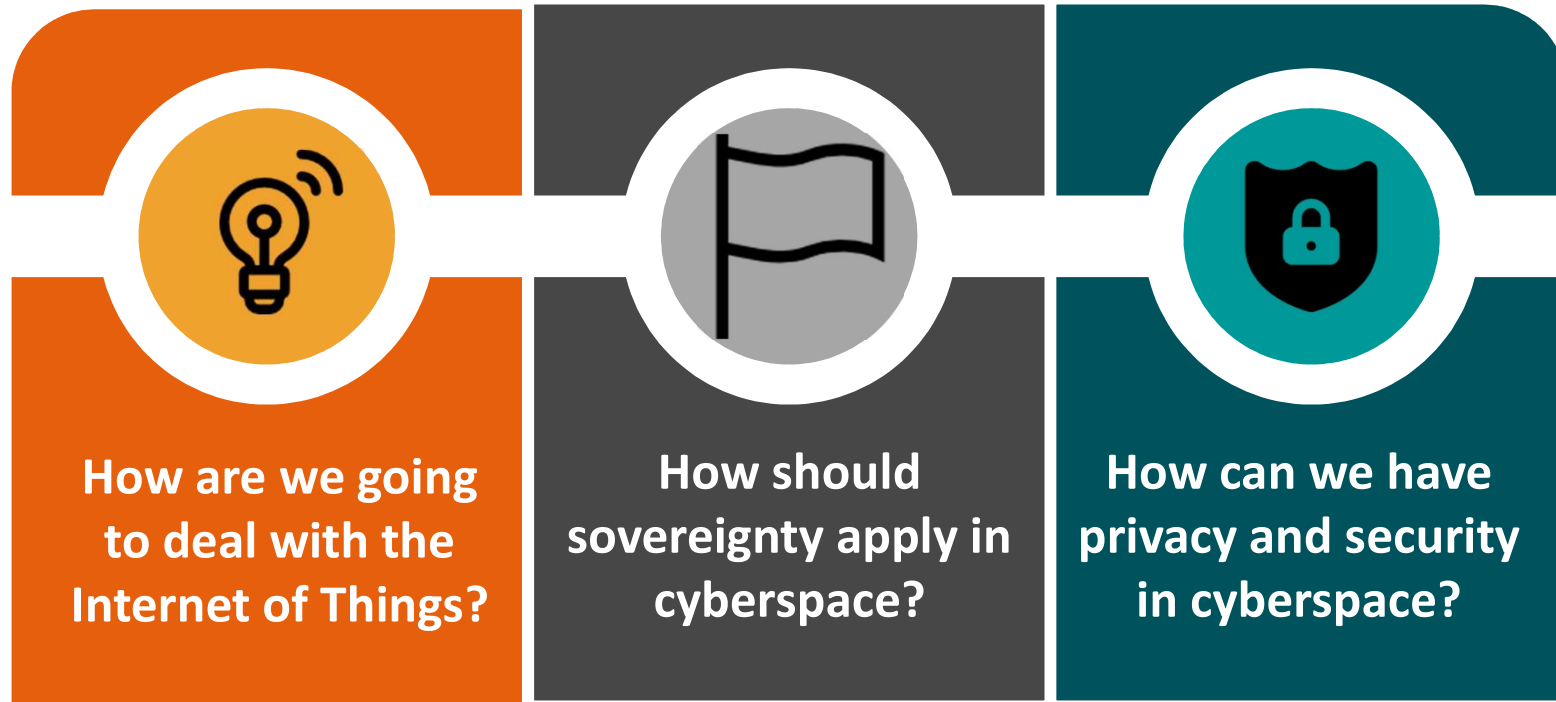
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**BACKUP SLIDES**



# WHAT ARE SOME KEY ISSUES DRIVING GLOBAL CYBERSECURITY POLICY?

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Once connected devices can kill people, regulation is inevitable.

We need new tools to manage friction in cyberspace.

Privacy and security should reinforce each other, but can be mutually destructive.

# TAKE ACTION INTERNALLY: BUILD A CYBER TOOL BOX

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Each element depends on the others to be effective

# TAKE ACTION EXTERNALLY: DON'T GO IT ALONE

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Information  
sharing

External  
expertise

Law enforcement,  
network defenders,  
and regulators

Organizations must reach across boundaries and engage with external actors

# NATION-STATE CYBER CAPABILITIES: BENEFITS, CONSTRAINTS, AND RISKS

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## Benefits

- > Effective
- > Relatively cheap and fast
- > Levels the playing field
- > Deniability

## Constraints

- > Intelligence dilemma
- > Third country conundrum
- > Bureaucratic challenges
- > Collateral damage uncertainty
- > Tool reuse

## Systemic Risks

- > Attribution difficulties
- > Offense favored over defense
- > Unintended consequences

# NATION-STATE CYBER CAPABILITIES: DEALING WITH THE SYSTEMIC RISK

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Analogies that **don't** apply:

Border security  
Missile defense  
Nuclear deterrence

Approaches having some promise:

Operational Collaboration  
Transparency  
International Norms  
Confidence-building measures  
Resilience