When should I pay attention?

• Unpacking the term ‘cybersecurity’.
• How we can think about the problem and the solutions.
• How NTIA works with stakeholders to address ecosystem-wide cybersecurity challenges.
• Some basic advice on how to stay safe online
Uh oh…
Topics discussed in *Economist* cover article

- Critical Infrastructure
- Economic Espionage
- Intelligence Community
- Cyber Terrorism
- Cyber Crime
- Technology Issues
- International Law & Policy
- US Law & Policy
- Military Strategy

*Distribution of paragraph by topic*

*Economist, July 1, 2010*
“cybersecurity”
“cybersecurity”

- Conflict
- Crime
- Competitiveness
Threats
Value at risk
Risks

How did we get here?
Complexity
Connectivity
Private Sector Role
Securing Insecurity
Confidentiality
Integrity
Availability
C onfidentiality
I ntegrity
A vailability

Resilience
Thinking about Security Technology
Thinking about Security Technology

ANTIVIRUS + FIREWALL
Thinking about Security
Organizational Change
Thinking about Security Organizational Change

• Identify
• Protect
• Detect
• Respond
• Recover

(NIST Framework)
Thinking about Security Markets
Security is Expensive
Asymmetric Information
Tragedy of the Commons
Driving Private Behavior

Prescribed process

Risk Analysis

Deterrence
Risk Evaluation Principles
Risk Evaluation
Requirements
So what do we do?
So what do we do?
Multistakeholder Process
THIS MAN WAS TALKED TO DEATH.
Multistakeholder Process

• Open
• Transparent
• Consensus-based
• Results-oriented
Vulnerability Disclosure

I hacked the Dutch government and all I got was this lousy t-shirt
Vulnerability Disclosure
Vulnerability Disclosure
Internet of Things
The ‘S’ in ‘IoT’
The ‘S’ in ‘IoT’
“Just build things securely!”
Patching
tl;dr

• Cybersecurity is a complex issue, covering a range of fields, requiring multiple tools and approaches.
• We need to understand the technical, organizational, and market aspects.
• Commerce is making a difference!
• NTIA uses multistakeholder processes to catalyze industry action.
What you can do:

• Make sure your devices are up to date.
• Use a password manager and 2-Factor authentication
• Back up data and files frequently
• Be careful with your connections: plugging in phones or connecting to wifi networks in strange places
Thank You!

afriedman@ntia.doc.gov