

The banner features a blue background with a pattern of white stars. On the left, there is a vertical strip showing the dome of the U.S. Capitol building. The text is centered in white, and the year '2016' is displayed in large, light blue digits on the right side.

AMERICAN ACADEMY *of* ACTUARIES Annual Meeting and Public Policy Forum

NOVEMBER 3-4, 2016 ★ CAPITAL HILTON WASHINGTON, D.C.



The Many Faces of Cyber Risk



Speakers

- Rade Musulin (moderator)
 - Member of the Academy's Cyber Risk Task Force
- Kevin McDonald
 - Chief Executive Officer at Greystaff Group
- Darin McMullen
 - Cyber Practice Leader at Aon
- Michael Newman
 - Senior Policy Analyst at Federal Insurance Office

The Many Faces of Cyber Risk

Kevin McDonald
Chief Executive Officer at Greystaff Group



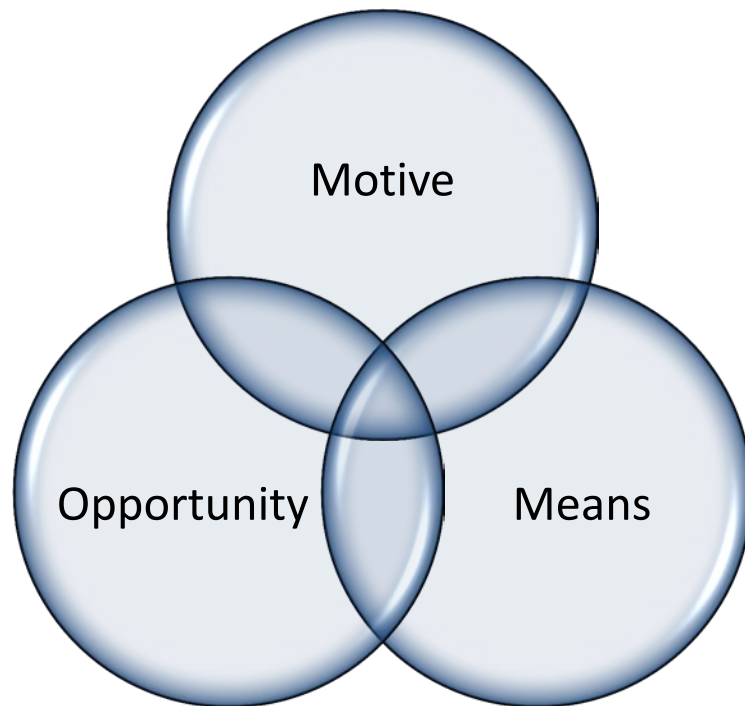
Cyber Risk Is a Growing Threat

- Data breaches have exposed personal and financial records of millions of people.
- Companies have lost intellectual property through data theft.
- Ransomware has been used to extort health care providers and small businesses.
- Hackers could shut down a public utility and cause massive business interruption.

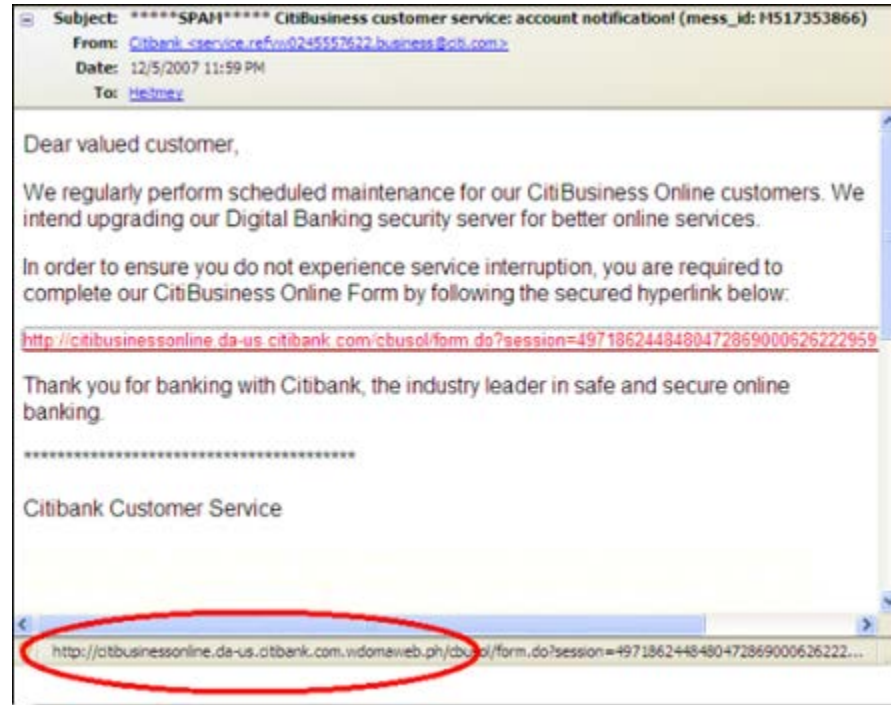
Enterprise Risk

- Insurers face their own enterprise risk, provide (or exclude) specific coverage for cyber risks, and must deal with substantial latent risk that is inherent in other coverages.
- How does an actuary take all of this into account?

Cybersecurity: Emerging Threats



Common Attacks – Phishing, Social Engineering, Drive By Infected Web, Infected USBs



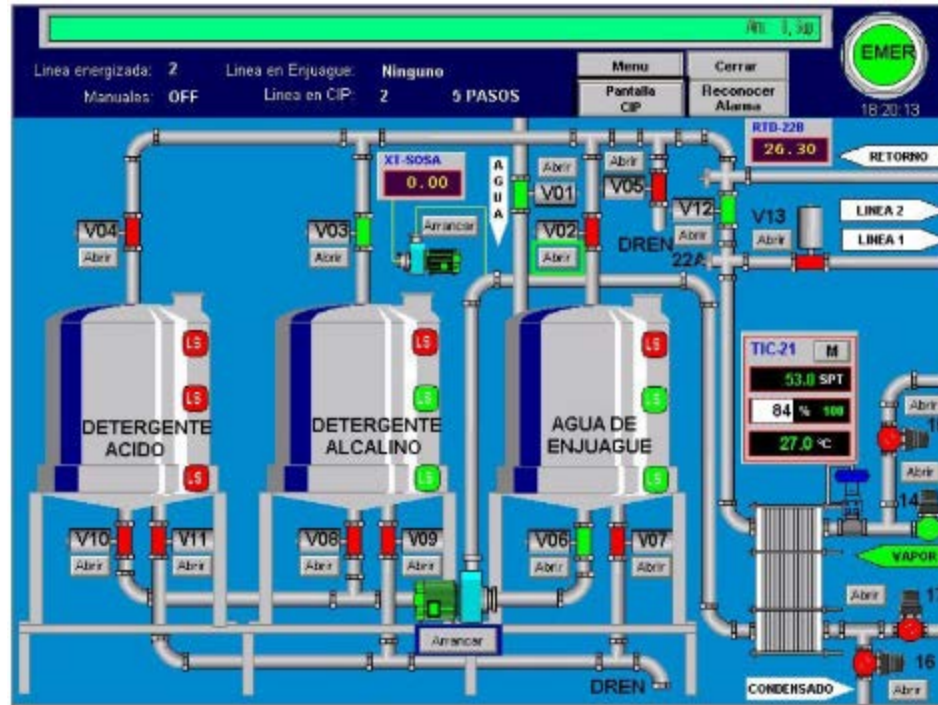
Results



Annual Meeting and Public Policy Forum

2016

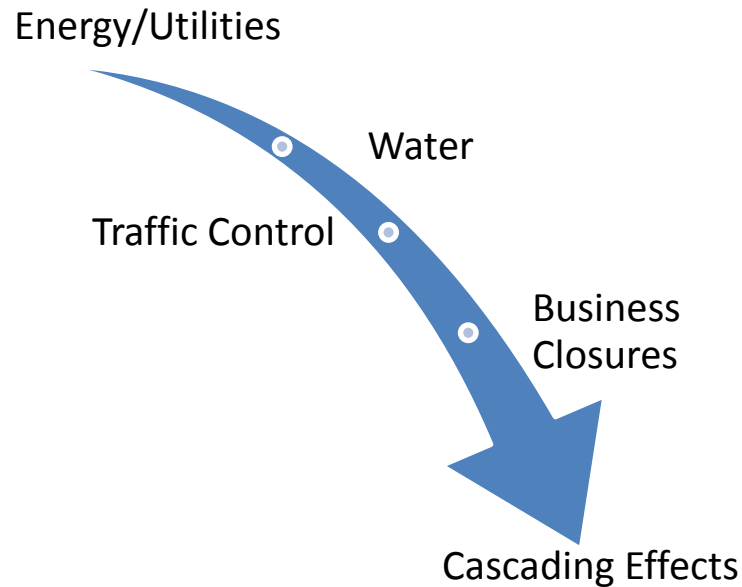
Or This....



Or This....



Collateral Damage from a Large Scale Cyber Attack



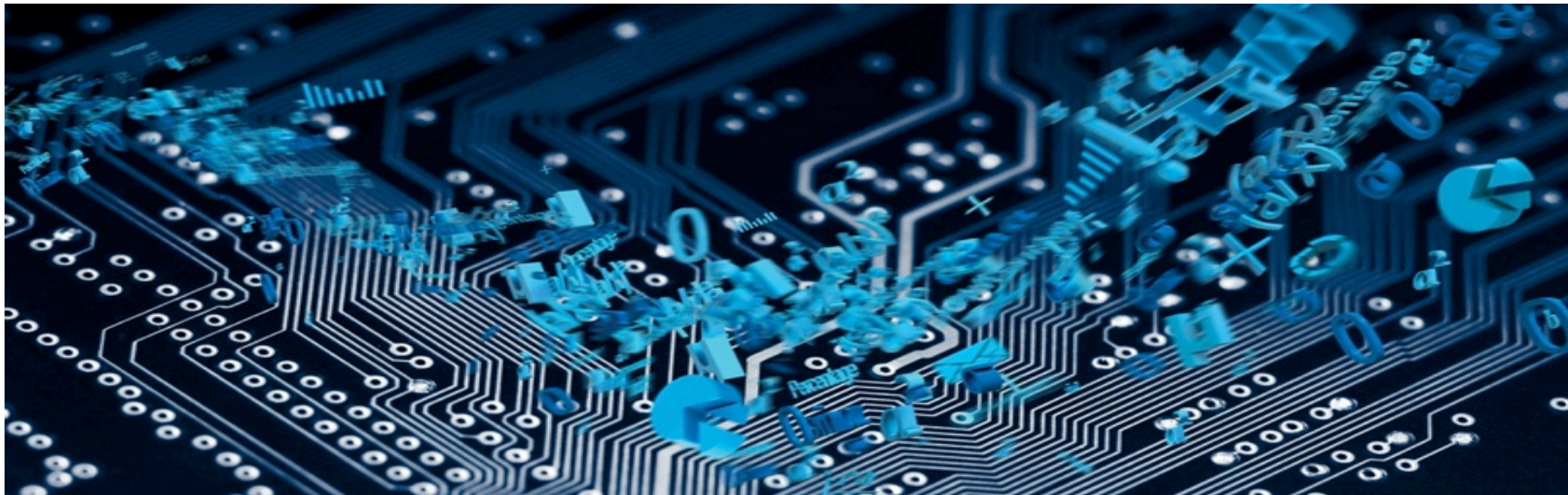
Why are Attackers Successful

- Won't Happen to Us
- Lack of Incentives or Perverse Incentives
- A Great Day When Nothing Happens

Possible Solutions – Carrots and a Few Sticks

- Grow Cyber Workforce
- Improve Risk Management
- Increase Regulation and Compliance Enforcement
- Leverage 3rd Party Assessments & Insurance Ratings
- Enhance Board Level Incentives





American Academy of Actuaries Annual Meeting

The Many Faces of **Cyber Risk**

Darin J. McMullen, Esq.
Aon E&O/Cyber Product Leader



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Prepared by Aon Risk Solutions



2016 Cyber Exposure Trends

IoT - The Internet of Things

Smart workplaces

Reliance on technology & increasing automation

Cloud Computing / Big Data Analytics

Increased use of outsourced service providers

Cloud provider risk oversight/security

Social Media

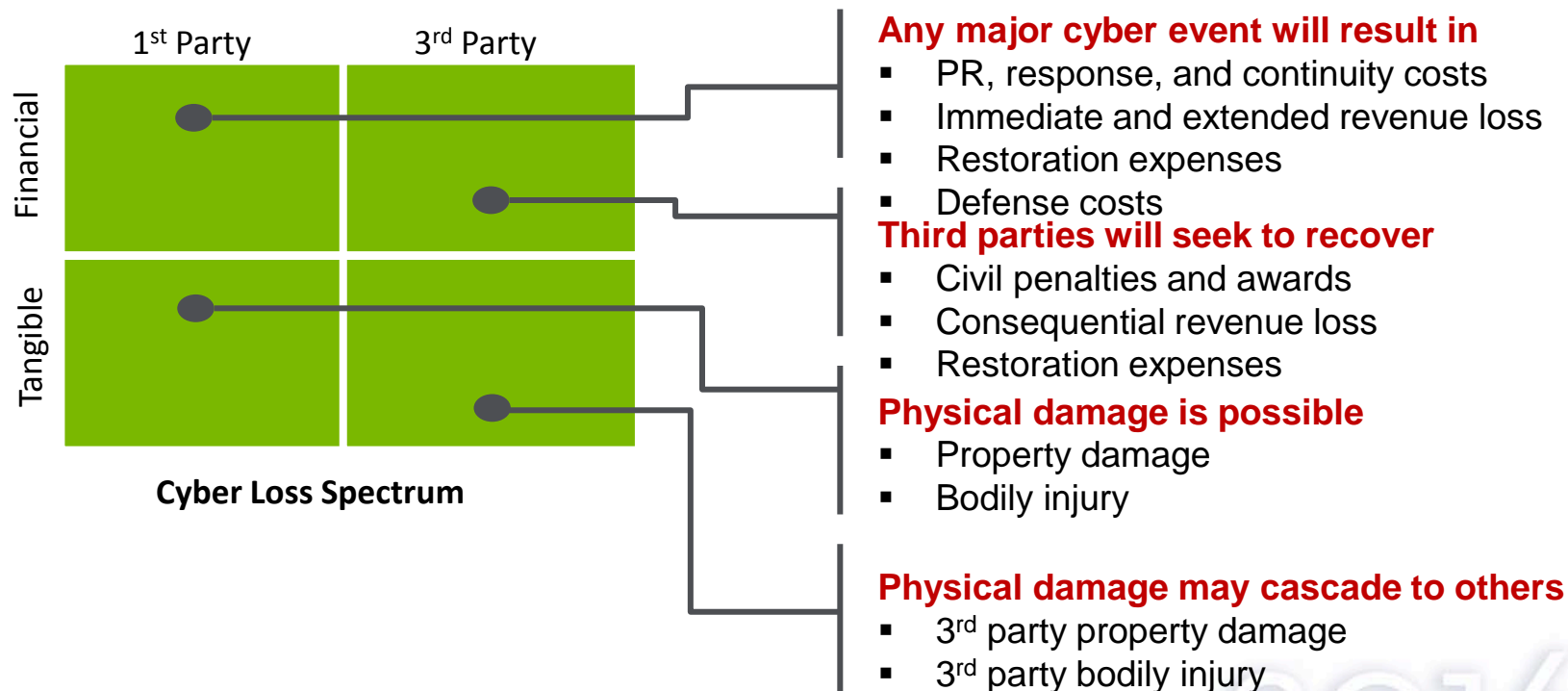
Social Engineering

Phishing / Spear Phishing

Ransomware / Malware / Cyber Heist

U.S. and International Regulatory Environment

Cyber Risk Impacts All Loss Quadrants



Scope of Cyber Insurance Coverage

Defense Costs + Damages + Regulator Fines

- Failure of Network Security
- Failure to Protect / Wrongful Disclosure of Information, including employee information
- Privacy or Security related regulator investigation
- All of the above when committed by an outsourcer
- Wrongful Collection of Information (some policies)
- Media content infringement / defamatory content

Liability Sections

Insured's Loss

- Network-related Business Interruption
- Extra Expense
- System Failure Business Interruption (some policies)
- Dependent Business Interruption (some policies)
- Intangible Asset damage

First Party Sections

Expenses Paid to Vendors

- Crisis Management
- Breach-related Legal Advice
- Call Center
- Credit Monitoring, Identity Monitoring, ID Theft Insurance
- Cyber Extortion Payments

Expense / Service Sections

Q & A