PLI Presentation

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### **CYBER INSURANCE TOPICS**





- **1.** The Problem: Cyber Attacks
- 2. Potential Solution: Cyber Insurance
- **3.** Types of Insurance Policies Providing Coverage
- 4. Best Practices



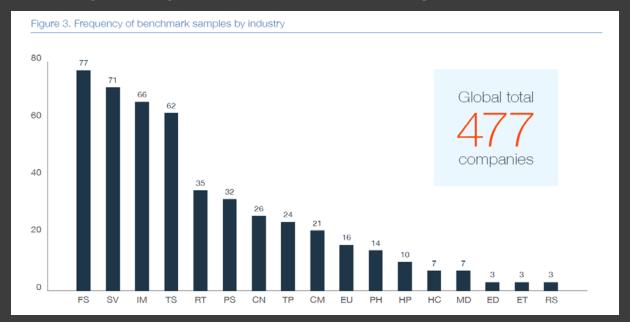
- Understanding past cyber attacks helps us understand risks to be insured
  - Published studies
  - Recent cyber attacks



- Published Studies (IBM Security Services The 2018 Cost of a Data Breach Study by the Ponemon Institute) ("IBM Report")
  - Looked at: (1) Typical Breach costs, and (2) Mega breach costs (over 1 million records) (Facebook and Equifax, etc.)
  - Types of costs:
    - 1. Detection and escalation
    - Post breach response (legal, regulatory investigations, credit report monitoring, product discounts)
    - 3. Notification costs
    - 4. Lost business costs



- IBM Report
  - Typical cyber breach costs (average \$3.9 million)

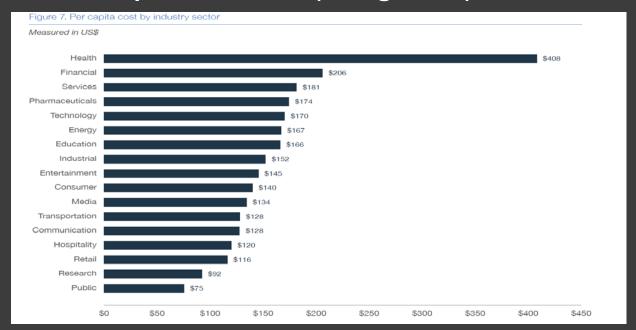


Highest – Financial services, Services, Industrial Manufacturing, Technology, Retail, Public Sector



IBM Report

Cost per stolen record (average \$148)

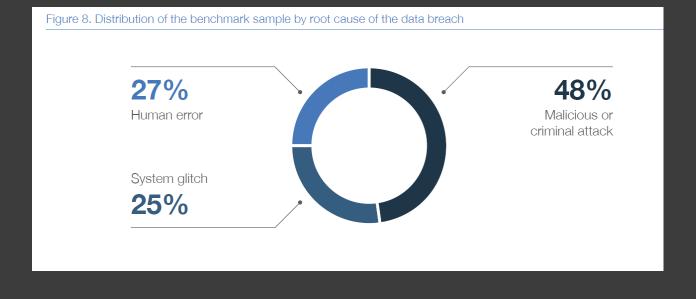


Highest costs per stolen record – Health, Financial, Services, Pharmaceuticals, Technology





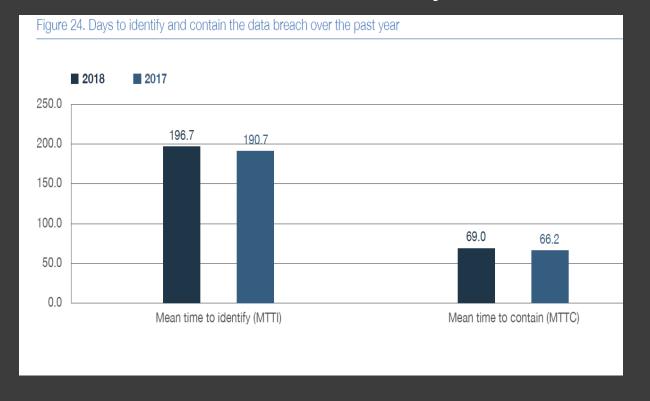
Root Causes





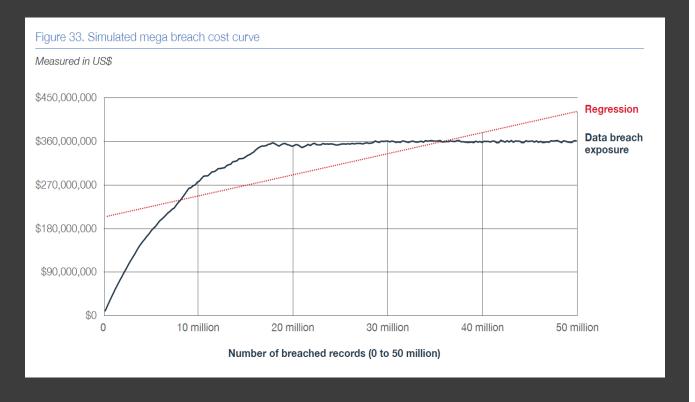
#### IBM Report

It takes a long time to identify and contain data breaches: 6 to 7 months to identify





- IBM Report
  - Mega Breaches (over 1 million records)





- Understanding past cyber attacks helps us understand risks to be insured
  - Equifax
  - Maersk
  - Marriott



Equifax (2017)



- Vulnerable web server enabled hackers to steal data
- Names, Addresses, Social Security numbers, birth dates, drivers licenses and credit card numbers stolen. 148 million consumers affected in breach



- Equifax (continued)
  - Lawsuits: 240 plus class action lawsuits; state AG lawsuits, etc.
  - Investigations: 60 plus government investigations (U.S. state attorneys general, federal agencies, British and Canadian Governments)
  - Reported losses: \$439 million through March2018 (could reach \$600 million)
  - \$4 billion hit to stock price
  - Insurance -- \$125 million xs \$7.5 million deductible; \$95 million recovered through Sept. 2018



A.P. Moller-Maersk (2017) (world's largest shipping conglomerate)



- Accidental victim of Russian Cyber-war with the Ukraine.
- Maersk Ukraine office infected with NotPetya virus.
- Virus completely disabled entire worldwide computing operation, halting operations.



- A.P. Moller-Maersk (2017) (continued)
  - Only one company computer was safe, located in Ghana (not operational due to power outage)
  - Took 10 days to rebuild entire network of 4,000 servers, 45,000 PCs, and 2,500 applications and close to 2 months to rebuild Maersk's entire network
  - Lost business and downtime, cost of rebuilding entire network, reimbursement of customers for expense of rerouting or storing marooned cargo. Cost \$300 million.



- A.P. Moller-Maersk (continued)
  - Other companies infected with same NotPetya virus:
    - Merck (\$300 million)
    - TNT Express (Federal express European subsidiary) (\$400 million)
    - Saint-Gobain (French construction company) (\$384 million)
    - Mondelez (parent company of Nabisco) (\$188 million)



- **Marriott** (2018)
  - Customer database breach



- Unidentified hackers stole personal information including passport numbers
- Up to 500 million customers potentially impacted.



- Marriott (continued)
  - Marriott could face \$200 million in fines and litigation expenses, and a potential fine of about \$450 million under Europe's General Data Protection Regulation (GDPR). Will pay for web-monitoring service
  - Legal Liability: Numerous investigations from state attorneys general, European regulators;
    Class action lawsuits



#### Summary:

- What makes up losses:
  - Government investigations (regulatory fines and penalties)
  - Lawsuit defense and settlement costs
  - Credit card reimbursements (PCI risks)
  - Notification and remediation costs
  - Forensic Investigations
  - Lost business (financial losses)
  - Interruption of business costs



#### Summary:

- **Average cost of data breach is \$3.86 million (IBM)**
- IBM Study raises issues on coverage:
  - Coverage for cyber incidents caused by human error and system glitches
  - Notification costs (highest for regulated industries)
  - Product discounts
  - Lost business
  - Timing implications (claims made coverage, proof of loss claims submission deadlines)
  - Early expenditures -- Detection and escalation costs



Opportunity for insurance companies



- 1997 \$0 premiums; today \$2.0 billion; expected to increase to \$7.5 billion by 2020 (PWC)
- 2017 premiums grew nearly 32 percent over 2016



- Opportunity for insurance companies
  - Lloyd's of London stated that cyber insurance sales would save the organization
  - Feeding frenzy of marketing and sales like no other we have seen in recent insurance history
    - "the [insurance] industry needs to sell the problem first, before discussing coverage" (Advisen)
    - "News of cyber related loss" was the top driver for growth in cyber insurance marketplace (Advisen)
  - Best's "the cyber insurance market represents a meaningful growth opportunity for insurers"



Cyber insurance is the "Wild, Wild West" of insurance



Unlike other kinds or insurance, stand-alone cyber insurance policies are unregulated



- Cyber insurance unregulated
  - Most insurance products are regulated
  - Require the filing and approval of forms with state insurance commissioners
  - Not cyber insurance sold on surplus lines market
  - With cyber, anything goes
    - Brokers sell problem "look at all of these cyber attacks and what they cost"
    - Insurers provide glossy sales and promotional material
    - Only way to determine coverage: analyze policy language / law relating to coverage



#### Who is leading the race?

#### Stand-Alone and Package Cyber Coverage Combined (Year-End 2015)

Rank	Company	Direct Written Premium (\$000)	Policies In-Force Claims Made	Policies In-Force Occurrence
1	American International Group	215,563	16,418	_
2	Chubb Limited	121,132	5,119	_
3	XL Group Ltd.	113,482	1,301	121
4	AXIS Capital Holdings Ltd.	83,223	3,067	_
5	Beazley Insurance Co.	68,954	13,324	_
6	Travelers Companies Inc.	65,026	31,887	_
7	CNA Financial Corp.	57,637	24,981	_
8	Allied World Assurance Co.	29,938	1,002	_
9	Berkshire Hathaway Inc.	20,467	72,909	8,715
10	Ironshore Inc.	17,272	1,615	_
	Industry	998,298	577,375	894,599

Note: Direct written premium includes both quantified and estimated premiums.

Source: SNL Financial via Fitch Ratings



- What is cyber liability insurance?
  - Covers risks of managing and controlling electronic data
  - Typically a combination of E&O, media liability, network security and privacy coverage
    - Storage, use and transmission of personal or private information or data
    - Computer / website risks
  - Insurance jargon is a problem



- Starting point: what kinds of things are represented as covered:
  - Liability flowing from data breach may include:
    - Costs of notifying costumers regarding data breach
    - Forensic investigations into cause of breach
    - Consumer lawsuits
    - Costs associated with regulatory investigations, fines, penalties
    - Loss of business and customers



Ending point: what is covered - Policy language is all that matters

COVERING

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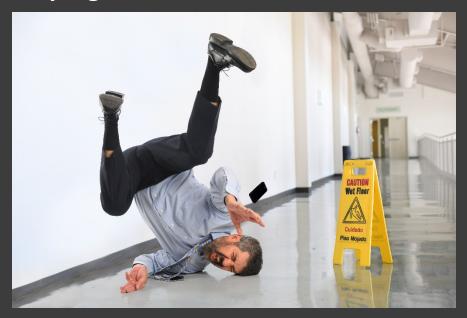
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- Kinds of insurance policies that can provide coverage for cyber losses
  - General liability insurance policies
  - Cyber endorsements to general liability and other liability insurance policies (E&O, etc.)
  - Commercial crime
  - Stand-alone cyber insurance policies



- **♦ 1.** General liability insurance policies
  - Every organization has them



Cover suits alleging "bodily injury," "property damage," "advertising injury" and "personal injury"



- **♦ 1.** General liability insurance policies
  - "Property damage" language providing coverage:
    - 17. "Property damage" means:
      - a. Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it; or
      - b. Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the "occurrence" that caused it.

For the purposes of this insurance, electronic data is not tangible property.



- **♦ 1.** General liability insurance policies
  - "Property damage" coverage
    - Scenario web based content causes computers to become non-functional
    - Key issue is there damage or loss of use of "tangible property"?
    - Text book example of what is covered NotPetya virus rendering computers unusable; but only responds to third-party liability



- **♦ 1.** General liability insurance policies
  - Leading "property damage" cases:
    - Eyeblaster, Inc. v. Federal Ins. Co., 613 F.3d 797 (8th Cir. 2010) ("Eyeblaster")





Retail Systems, Inc. v. CNA Ins. Co., 469 N.W.2d 735 (Minn. Ct. App. 1991) ("Retail Systems")



Ciber, Inc. v. Federal Ins. Co., 2018 WL 1203157 (D. Colo. 2018) ("Ciber, Inc.")





- **♦ 1.** General liability insurance policies
  - Eyeblaster leading "property damage" coverage case:
    - Key issue is there damage or loss of use of "tangible property"?
    - Underlying lawsuit alleged plaintiff's computer was infected with spyware when he visited an Eyeblaster site
       computer froze up.
    - Typical GL coverage for loss of use of tangible property not physically injured
    - Policy states electronic data is <u>not</u> "tangible property"
    - Caused computer to freeze; lost data on tax returns; repair costs incurred



- **♦ 1.** General liability insurance policies
  - Eyeblaster Leading "property damage" coverage case:
    - Court found coverage
    - Damage was to computer (loss of use), not to electronic data
    - Some GL policies exempt electronic data from definition of "tangible property" with respect to property damage coverage – not an Issue if there was "loss of use of tangible property."



- **♦ 1.** General liability insurance policies
  - Retail Systems leading "property damage" coverage case:
    - Lost computer tape, which included data
    - Technically, not a cyber-insurance case, but analysis applies
    - Broad definition of "tangible property"
    - Computer tapes and data are tangible property
    - Court found coverage
    - Court held that, "[a]t best, the policy's requirement that only tangible property is covered is ambiguous," and construed coverage in favor of policyholder



- **♦ 1.** General liability insurance policies
  - Ciber, Inc. recent "property damage" coverage case illustrating that coverage is factually dependent:
    - Plaintiff designed new software system which was defective and failed to operate properly
    - Court denied coverage where complaint alleged only inadequacies in the new software, and not loss of use of the computer systems
    - Case distinguished Eyeblaster, which found coverage where computer system no longer functioned after integration of software



- **♦ 1.** General liability insurance policies
  - "Personal and advertising injury" language providing coverage:
    - 14. "Personal and advertising injury" means injury, including consequential "bodily injury", arising out of one or more of the following offenses:
      - a. False arrest, detention or imprisonment;
      - b. Malicious prosecution;
      - c. The wrongful eviction from, wrongful entry into, or invasion of the right of private occupancy of a room, dwelling or premises that a person occupies, committed by or on behalf of its owner, landlord or lessor;
      - d. Oral or written publication, in any manner, of material that slanders or libels a person or organization or disparages a person's or organization's goods, products or services;
      - e. Oral or written publication, in any manner, of material that violates a person's right of privacy;
      - The use of another's advertising idea in your "advertisement"; or
      - g. Infringing upon another's copyright, trade dress or slogan in your "advertisement".



- **♦ 1.** General liability insurance policies
  - "Personal and advertising injury" coverage:
    - Scenario personal information published in a way that violates a person's privacy rights
    - Key issue Is there a "publication"?



- **♦ 1.** General liability insurance policies
  - "Personal and advertising injury" coverage leading cases
    - Travelers Indem. Co. of Am. v. Portal Healthcare
       Solutions, LLC, 35 F. Supp. 3d 765 (E.D. Va. 2014)
       (Portal Healthcare)
    - Recall Total Info. Mgmt. v. Federal Ins. Co., 83
       A.3d 664 (Conn. App. Ct. 2014) (Recall Total)



Zurich Am. Ins. Co. v. Sony Corp. of Am., Case No. 651982/2011 (N.Y. Sup. Ct) (Sony)





- **♦ 1.** General liability insurance policies
  - Portal Healthcare "personal and advertising injury" coverage case
    - Policyholder specialized in electronic safekeeping of medical records
    - Confidential patient records available on-line
    - Policy covered electronic publication of material that discloses information about a person's private life
    - Issue was whether there was "publication"
    - Court held yes, and ordered insurer to defend



- **♦ 1.** General liability insurance policies
  - Recall Total Case "personal and advertising injury" coverage case
    - Insured had vital records storage agreement with IBM
    - Tapes containing employment-related data fall of truck and are taken (not technically a cyber case)
    - IBM retained consultant, took remedial action (notification costs) and made demand for payment from insured
    - Personal injury coverage sought: "injury . . . caused by an offense . . . electronic, oral, written or other publication of material that ... violated a person's right to privacy"



- **♦ 1.** General liability insurance policies
  - Recall Total Case "personal and advertising injury" coverage case
    - Court held no coverage
    - No evidence info on tapes was "published" to anyone other than the thief;
    - Court stated,

"As the complaint and affidavits are entirely devoid of facts suggesting that the personal information actually was accessed, there has been no publication."



- **♦ 1.** General liability insurance policies
  - Advertising Injury cases Most recent creative attack by insurers -- no coverage because plaintiff insured did not publish information.
  - Sony -- 69 class action lawsuits; claims stemming from cyber attacks by hackers on PlayStation Network
    - Theft of users' personal and financial information
    - Trial court finds no coverage because Sony did not "publish" material resulting in privacy violation
    - Court reasoned that publication by third-party hackers does not trigger coverage
    - Questionable ruling; case settled during appeal



- **♦ 1.** General liability insurance policies
  - Two federal court decisions from M.D. Fla. following Sony decision
  - Data breaches caused by third-party hackers
    - Courts found no coverage because third-parties released personal information
    - Found, inexplicably, that coverage exists only where the insured publishes personal information





- **♦ 1.** General liability insurance policies
  - Cases finding coverage under GL policies are problematic for insurers, but they are fighting back hard
  - Industry sought regulatory approval for new endorsements limiting coverage
    - Example: CG 21 06 05 14: Excludes coverage for injury or damage arising out of access to or disclosure of confidential or personal information
  - Coverage is typically denied outright, based on new argument that policyholder must publish data itself (not insurance policy based, but has taken hold by some courts)



- **♦ 1.** General liability insurance policies
  - Lessons learned:
    - Coverage is provided for certain kinds of cases including:
      - Loss of use of third-party computer systems
      - Internet publication of personal information
    - On renewal, refuse endorsements diminishing coverage
    - If you have a cyber claim, analyze it for coverage under GL policies, even if separate cyber-only policies were purchased
    - More than one policy may apply
    - Provide notice to GL carriers, even if frowned upon by insurance brokers



- **2.** Cyber liability endorsements
  - **❖** Added on to other policies: GL, E&O, etc.
  - Coverage depends on endorsement

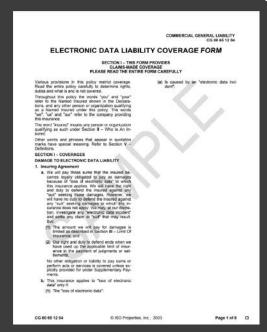


- 2. Cyber liability endorsements
  - **❖ ISO Electronic Data Liability endorsement** 
    - Adds electronic data to definition of property damage





- 2. Cyber liability endorsements
  - ❖ ISO Electronic Data Liability Coverage Form
    - Claims-made add-on coverage



Express coverage for "loss of electronic data"



- 2. Cyber liability endorsements
  - Cyber endorsements may have holes
  - Leading Case: Camp's Grocery, Inc. v. State Farm Firm & Cas. Co., Case No. 4:16-cv-0204-JEO, 2016 WL 6217161 (N.D. Ala. Oct. 25, 2016) ("Camp's Grocery")





#### 2. Cyber liability endorsements

- Camp's Grocery
  - Hackers accessed network and compromised customer credit and debit card information
  - Credit unions file suit for losses to cardholder accounts, interest, transaction fees, lost customers, diminished good will
  - Coverage sought under Computer Progams and Electronic Data extension
  - Court finds extensions apply only to first-party coverage; not third-party liability claims (no duty to defend or indemnify against third-party lawsuits)



#### 2. Cyber liability endorsements

- Lessons learned:
  - Cyber endorsements must be closely analyzed to ensure comprehensive coverage
  - In some situations, cyber endorsements should be requested as a matter of course – even if stand alone cyber coverage is purchased
  - Depending on business needs, cyber liability endorsements may not provide the amount of coverage desired



- **♦ 3. Commercial crime** 
  - Optional coverage section for crime coverage found in D&O/Executive Management Policies:
    - Computer fraud coverage
    - Funds transfer fraud coverage
    - Forgery coverage



#### **♦ 3. Commercial crime**

- Medidata Solutions, Inc. v. Federal Ins. Co. (S.D.N.Y. 2017), aff'd (2d. Cir. 2018)
  - Spoofing
  - Email purportedly from company's president directing wire transfer
  - Court finds coverage under Computer Fraud Coverage Section
  - Manipulation of e-mail system triggers coverage





#### 3. Commercial crime

- American Tooling Center v. Travelers (6<sup>th</sup> Cir. 2018)
  - Transferred funds in response to fraudulent emails from purported vendor
  - Sought coverage under computer fraud provision
  - Covered "direct" loss of money or property due to Computer Fraud
  - Loss was "direct"



- Causing employee to fraudulently enter wire transfer was "computer fraud"
- Medidata and American Tooling expand coverage over several prior 9<sup>th</sup> circuit cases



#### **♦ 3. Commercial crime**

- Lessons learned:
  - Email scams "spoofing" are becoming more and more sophisticated
  - Endorsements are valuable for spoofing losses
  - Case law is rapidly developing; coverage may be more problematic in certain jurisdictions



- **4.** Stand alone cyber insurance policies
  - Scope of coverage
    - Third-Party
    - First-Party
  - Claims are on the rise (Best's):
    - **2016 5,595**
    - **2017 9,017**
  - Developing case law; inconsistent policy language makes it hard to draw conclusions as to coverage



- 4. Stand alone cyber insurance policies
  - "All risk" cyber coverage not yet available in the market
  - Insurers describe coverage like this:





- **4.** Stand alone cyber insurance policies
  - Scope of coverage: third-party
    - Network security
      - Viruses / malware
    - Data protection
      - Lawsuits for failure to protect customer data or private information
        - Data typically includes personally-identifiable information & corporate information
        - Coverage includes defense and settlement costs
      - Regulatory proceedings / investigations stemming from privacy breaches



- 4. Stand alone cyber insurance policies
  - Scope of coverage: third-party (cont'd)
    - Third-party errors and omissions
      - Third-party liability arising from technology services
    - Media liability
      - Copyright infringement
      - Trademark
      - Defamation



- **4.** Stand alone cyber insurance policies
  - Scope of coverage: first-party (cont'd)
    - Costs of responding to cyber breach
      - Forensic investigation into cause
    - Costs of notification
    - Credit monitoring for customers
    - Public relations / crisis management
    - Contingent business interruption
      - Loss of data at third party location causes business interruption for insured
    - Data recovery costs



- **4.** Stand alone cyber insurance policies
  - Scope of coverage: first-party (con't)
    - First-party cyber extortion expense
    - Theft of goods, services or money over the internet
      - "Social engineering"
    - Network business interruption



- 4. Stand alone cyber insurance policies
  - Case law is rapidly developing
  - Shocking what some insurance carriers have done
  - Look at two cases:
    - P.F. Chang's China Bistro, Inc. v. Federal Ins. Co.,
       No. CV-15-01322-PHX-SMM, 2016 WL 3055111
       (D. Ariz. May 31, 2016) ("P.F. Chang's")



Columbia Cas. Co. v. Cottage Health System, No. 2:15-cv-03432 (May 7, 2015) (Complaint) ("Cottage Health")





- 4. Stand alone cyber insurance policies
  - P.F. Chang's
    - Hackers obtain and post 60,000 credit card numbers
    - Fees incurred to third-party credit card processor
      - Fraud recovery fee: \$1.7 million
      - Operational reimbursement: \$163,122
      - Case management fee; \$50,000
    - Certain fees covered by policy's insuring agreements:
      - Privacy Notification Expense
      - Extra Expense



- 4. Stand alone cyber insurance policies
  - P.F. Chang's
    - Court held that coverage for all assessments excluded
    - Why: P.F. Chang's, like every other retailer in the world, has contracts with the credit card companies, and pursuant to those contracts, they were obligated to pay back the credit card companies for fraud losses
    - This is the major risk retailers want to insure, and the second largest cyber-insurer (Chubb) denied coverage based on seemingly senseless argument:
      - Assumption of liability under contract
      - And, court bought it



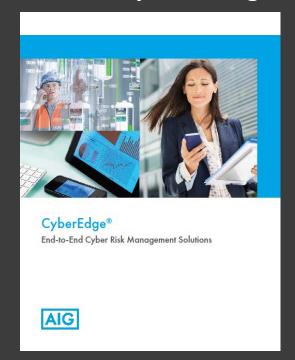
- **4.** Stand alone cyber insurance policies
  - Cottage Health (case dismissed for lack of jurisdiction, subject to arbitration)
    - Insurer denied coverage based on exclusion:
      - Failure to follow minimum required practices
        - "failure . . . to continuously implement the procedures and risk controls identified in the insured's application . . ."



Implications: Could render cyber coverage worthless in many situations, i.e., NotPetya virus.



- 4. Stand alone cyber insurance policies lessons learned
  - Don't be enticed by marketing materials:





- 4. Stand alone cyber insurance policies lessons learned
  - Starting point: what kinds of things are represented as covered:
    - Liability for the spread of viruses and malware (network security)
    - Cyber theft, extortion, fraud (social engineering)
    - Copyright or trademark infringement, invasion of privacy, disparagement (media liability)



- 4. Stand alone cyber insurance policies lessons learned
  - Ending point: what is covered focus on policy language
    - Insurance policy meaning requires a legal determination as to what is or is not covered
    - Case law seldom follows insurance industry custom and practice
    - An ever-changing body of case law on cyber insurance can make it difficult to stay up to date
    - Insurance brokers are an excellent starting point for discussion, but insurance brokers cannot practice law (or interpret what may or may not be covered)

#### 4. BEST PRACTICES



#### Procuring coverage:

- We are still in the "Wild, Wild West"
- Some policyholders may be placing too much emphasis on marketing materials (from brokers and insurers)
- policies sold as broad, but, may contain onerous language and exclusions
  - Use of best industry practices for preventing cyberincidents
  - Application related exclusions
  - Limited coverage grants in light of liability

#### 4. BEST PRACTICES



- Procuring coverage (cont.):
  - **Assess what risks are important**
  - Understand whether or not those risks are covered
  - Insurance brokers are great at putting together competing products for review
  - Understanding what policies cover is for lawyers, and this is not an easy task
  - If you retain outside counsel, select counsel without insurance company conflicts

#### 4. BEST PRACTICES



#### Claims:

- Some insurers are aggressively fighting valid claims, asserting exclusions that were never intended to preclude coverage
- Policy language controls
- Evaluate coverage under multiple lines of insurance
   CGL, E&O, D&O, Cyber-specific
- Provide notice under correct policies, which may or may not be current policies
- Evaluate potential claims prior to policy expiration
- **❖** For significant claims, consider hiring outside counsel
- Policyholder claim mistakes are not uncommon



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