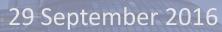


The second s

Tom Allen Head of Technology and Cyber Insurance



Cyber Heads of Cover – Non-physical damage

Liability

- Data protection: obligations which may arise under statute, contract or civil/common law. Typically, the theft or accidental release of commercially valuable data which harms a third party, and/or private/personal details
- Media liability: defamation and intellectual property infringement
- Regulatory proceedings/fines
- First Party Costs arising from Data Breach
 - Response services: Crisis management, legal assessment
 - Forensic investigation of the Loss
 - Mitigation: notification, remediation
- Business Interruption arising from a breach of network security
- Business Interruption caused by Insured's own errors ('system failure')
- Digital Asset Restoration
- Network Extortion



Global Market

- Commentary suggests global premium volume for Cyber Insurance ~USD3bn; I think a more realistic figure is +/- USD 1bn
- Global leaders are AIG and Beazley; significant market share held by XL, Chubb, Zurich
- Market penetration strongest by far in US, where mandatory notification laws have resulted in continuing publicity of data breaches: geographic share ~90% US/Canada
- Dominant industry verticals: Finance, Professions (incl. healthcare), Retail, Technology (eCommerce, Social Media)
 - ▶ These have recognised, or have had forced upon them, significant data protection risks
 - Emerging appetite in Utilities/critical infrastructure sectors
- Nascent market for Physical Damage cover



Market Losses by Type

- Data Protection:
 - Theft of financial data for resale on black market:
 - Target, Home Depot = losses in excess of insurance programmes
 - Uninsured financial sector losses
 - Numerous losses within programme limits some of which have resulted in publicised coverage disputes
 - Theft of medical data for resale to ???
 - Anthem, Premera = losses in excess of insurance programmes
 - Frequency and severity across the sector
 - Substantial penalty regimes in place, fines on a per-record basis
 - General data breach events
 - > All sectors but arguably the most significant in Tech sector: Adobe, LinkedIn, Yahoo [?]
 - Have presented novel theories; lots of litigation
 - Business Interruption
 - Relatively rare but several in the market presently
 - Cyber Extortion
 - Sideways' activity within retentions/primary layers: Cryptolocker et al



Elements of Loss

- Investigation*
 - Proof of Loss**
 - Basis of Liability
- Response
 - Disaster Recovery
 - Crisis Management
 - Legal Assessment
- Clean-up
 - Reconstitution
 - Mitigation
 - Liability*
 - Indemnity**

*Indicates the most volatile elements in losses seen so far

**Indicates the most disputed elements of cover to date

Loss Adjustment Challenges

- What factual event(s) trigger coverage?
 - Most policies are on a claims-made basis; some offer a mix of claims-made or occurrence depending on the heads of cover
 - Example of a loss discovered on the eve of policy renewal: Is the claim made when a breach takes place? When it is discovered? When it is disclosed?
- How is the loss valued?
 - Forensic investigation commissioned by or on behalf of the Insured is meant to establish the cause and extent of a breach
 - > This presently serves to establish what happened, but does not address the Financial impact on the Insured
 - Example of network interruption that disrupted flu vaccine dispensation
- How are clauses applied?
 - Example of war/terrorism exclusion where the identity of the perpetrator is unknown/disputed
- Discontinuity between primary and excess markets
 - No loss adjuster appointed for the market



Underwriting Complexity

- Dynamic nature of the subject: Technological innovation > new business models > rearrangement of values at risk > legal responses: legislation, regulation, contract > Insurance
 - 12-month contract based upon a snapshot view of risk in a context of continuallyevolving threat
- Paucity of historical/actuarial data
- Conceptual pricing models are feasible, but multiple elements are typically present in the same risk: Media, Data Protection, 1st Party dependencies and values, Liability risks etc.
- Novelty of clauses and lack of practical experience
- Difficulty identifying and assimilating risk information



Underwriting Challenges

- Underwriters need:
 - An understanding of the Insured's business model in order to *conceptualise* the risk;
 - Exposure data [of various types] in order to *price* the risk;
 - Risk control information to <u>assess</u> the risk; and
 - Sense of the loss context to *undertake* the risk.
- The present market placement process is built around high-level presentations of risk controls; other necessary elements do not receive the attention they deserve
- A transactional placing model suits the established market leaders and the big brokers, but I would argue that it is stifling innovation

