








# Enhanced insurance capabilities to handle cyber accumulation risk

The unique characteristics of cyber risk imply that exposure measurement and modelling approaches that have been developed for other perils cannot easily be transferred to cyber risk. The insurance industry has made progress in developing the technical capabilities to handle these distinct characteristics of cyber risk, but there is still some way to go.



Read the full report *Advancing Accumulation Risk Management in Cyber Insurance* online at [www.genevaassociation.org](http://www.genevaassociation.org)

 CYBER RISK CHARACTERISTIC	 INSURANCE INDUSTRY RESPONSE	 ONGOING ISSUES
 <p>Exposures are hard to define / measure.</p>	Development of data protocols combining basic company information with digital risk indicators; Advanced data analytics which analyse the characteristics that drive cyber risk.	Technical nature of exposures very different from other classes, may result in talent shortage for the industry.
 <p>Scarce claims data, not representative of future vulnerabilities.</p>	Combination of in-house underwriting, accumulation modelling and cyber security research and expertise, with specialised external capabilities; In larger companies, traditional risk engineering functions evolving to include cyber and technology skills.	May be wrong-footed by unseen threats or trends deviating from expectations.
 <p>Threats constantly evolve, spread widely and rapidly, and can recur.</p>	Application of novel approaches, such as exploring similarities between the mathematics of epidemiology and the spread of malware through computer systems.	
 <p>High inter-connectivity with potentially unbounded exposure.</p>	Use of publicly accessible digital information to map cloud connections and digital supply chains; Employment of machine learning (ML) instead of conventional regression techniques to assess relationships between claims and multi-dimension exposure.	Malware still a major threat; Non-affirmative cover exposure not assessed; Yet to assess ML effectiveness.