RMS Cyber Solutions

Unparalleled Risk Analytics that Drive Improved Risk Selection, Pricing, Portfolio Diversification, Reinsurance Optimization, and Silent Cyber Risk Quantification

Cyber: An Extraordinary Growth Opportunity

Cyber insurance has been a strong performer in a challenging market cycle, providing consistent top-line growth at a time when little is available. However, there is systemic risk lurking beneath that growth – as evidenced by events such as WannaCry and Shadowbrokers. Therefore, appropriate risk management is critical to ensure long-term profitability.

RMS® is partnering with many leading insurers across underwriting and portfolio management, and throughout the insurance transfer chain, to quantify cyber risk and unlock this huge market opportunity.

Benefit From Unprecedented Multidimensional Risk Assessment

The RMS cyber model uses a multidimensional assessment to identify and quantify key risk variables that determine the frequency and severity of cyber-attacks. This includes a thorough assessment of threat-actor groups, human vulnerabilities, digital assets at risk, outside-in vulnerabilities, historical cyber incidents, loss process footprints, and the interplay with insurance contract terms. This proprietary research is embedded within an innovative risk modeling framework that can be used to model both individual and portfolio-level risks.

A key foundational component is the RMS Cyber Exposure Data Schema. This open-source data structure allows (re)insurers capture exposure data, both silent and affirmative using a common syntax. RMS also provides data on each insured company through a global database of over 13M companies.

RMS Cyber Solutions also provide scenarios to assist companies in assessing their exposure to Cyber Physical attacks, enabling insurers to look for potential cyber-induced losses within their wider portfolio of risks. The RMS cyber model integrates with an RMS EDM dataset of property exposure to identify loss potential in insurance lines of commercial property, marine, energy, industrial facilities, and facultative, together with multiline potential.
The Building Blocks for Quantifying Cyber Risk

- **Threat Landscape**: Defines different threat-actor groups, motivations, resources, skill sets, and modus operandi.
- **Attack Vectors/Loss Mechanism**: Categorizes cyber loss processes including their scalability and determines the size and footprint of the event.
- **Company Vulnerabilities**: Defines susceptibility of a company to a specific cyber attack, considering human, as well as IT vulnerabilities.
- **Digital Assets**: Quantifies the value of key revenue-dependent digital processes, data, and financial assets at risk.
- **Insurance Losses**: Calculates the insurance loss considering coverage limit and deductible information.

RMS Cyber Solutions Use Cases

**Underwriting**

The RMS cyber model helps underwriters assess cyber risks, providing the confidence to accurately and competitively price policies. The tool accurately determines technical pricing based on several factors including company size, business sector, jurisdiction, and cyber security processes.

This model is built upon an analysis of over 75,000 cyber incidents and calibrated against insurance loss experience. Underwriters also benefit from partnerships with BitSight and SecurityScorecard, as well as detailed risk segmentation. The model enables insurers to move from a qualitative to a quantitative pricing approach, providing a fast and robust risk assessment.

**Portfolio Management**

With the potential for systemic cyber events to wipe out years’ worth of premiums, it’s critical for insurers to quantify the tail risk.

Many insurers employ homegrown cyber risk models to determine portfolio probable maximum losses (PML), often adopting crude assumptions leading to overconservative allocation of risk capital or restrictions on coverage. With the RMS cyber risk model, insurers can use best-in-class risk modeling, built on top of a robust framework to determine appropriate levels of risk capital. This more accurate view frees up capital to write more business.

In addition, the RMS solution supports insurers to formulate strategies for growth. Through the creation of what-if portfolios carriers can stress different product designs and underwriting guidelines to define a resilient growth strategy.

**Find Out More**

For more information, visit [www.rms.com](http://www.rms.com), email [sales@rms.com](mailto:sales@rms.com), or contact your RMS sales representative.