

MANAGING CYBER RISK



CYBER BY THE NUMBERS

MARKET OVERVIEW

\$445 billion: Estimated annual cost of cybercrime to the global economy.

\$120 billion: Expected size of the global cybersecurity market in 2017.

40 million: Number of people in the US who had their personal information stolen by hackers in 2014.

\$2 billion: Estimated size of the global cyber insurance market.

50% to 100%: Annual growth rate of the cyber insurance market.

CYBER RISK IS AN ENTERPRISE-WIDE CONCERN

Cybersecurity is no longer just an IT issue. It is an enterprise risk issue that must be considered and addressed by many stakeholders throughout the organization. Simply throwing money at the problem will not make it go away.

A cyber-attack or other event can cause severe disruption and damage across your organization. Marsh's approach to managing cyber risk is a multidimensional, comprehensive, and inclusive across the enterprise. Why? Because everyone has a stake in managing your cyber exposures.



DEFINING YOUR RISK

What are some of the key cyber risks that organizations face today?

Operational Disruption

Criminals attack your core systems, whether it's at the point of sale for a retailer, the billing system for a health care organization, the information processing system at a financial institution, or the automated machine line at a manufacturer. This can lead to disruption of daily operations and business processes, supply chain and vendor communication issues, and employee distraction or loss of trust.



Regulatory Compliance

The Securities and Exchange Commission, the Federal Trade Commission, the Department of Homeland Security, and dozens of other regulators now look at all aspects of cyber risk, from how you prepare for to how you respond to a data breach. No board can afford to be caught without a plan for a cyber breach or cyber-attack. The potential for fines and reputational damage has increased the burden on senior executives to put the right governance structure in place before a cyber event happens.



Lawsuits and Reputational Harm

It is now nearly guaranteed that if you lose confidential data someone will file a lawsuit against you. In many cases, class-action lawsuits have been started within hours of a breach. A thorough breach response plan can help retain trust in your organization and mitigate the damage that such lawsuits can do to your brand reputation and bottom line.



Employee Exposures

If you looked only outside the organization for cyber risks, you would miss a good portion of your exposure. A laptop misplaced or an unencrypted email sent by a good employee can reveal a large amount of sensitive data. The damage done by a rogue, disgruntled employee can be even greater.

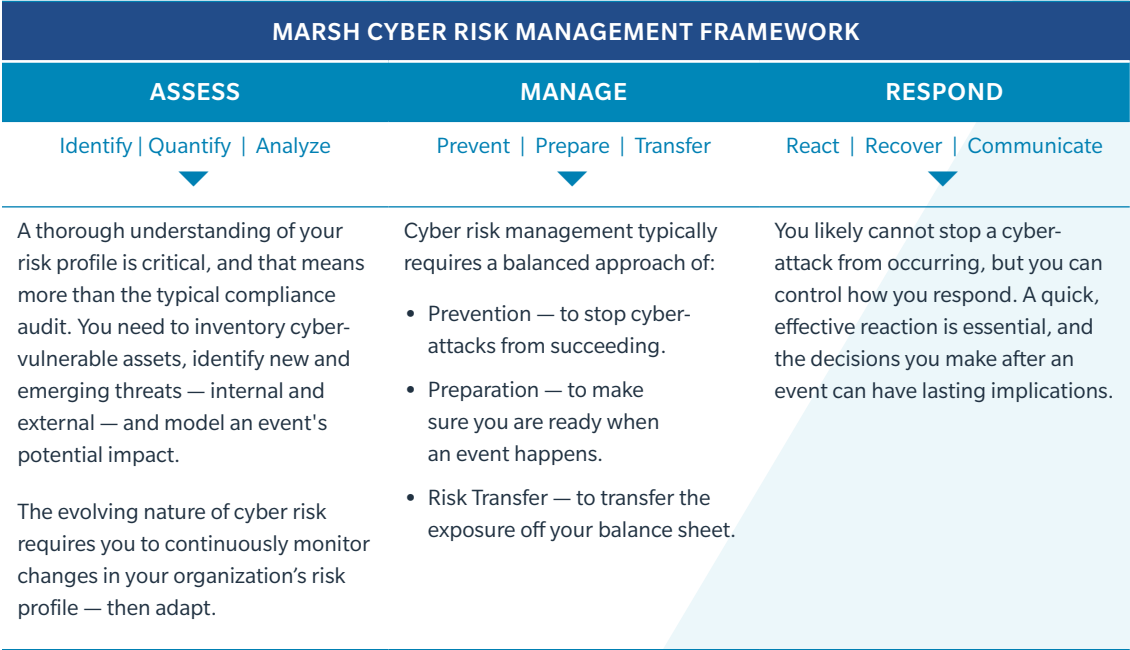


A FRAMEWORK TO MANAGE CYBER RISK

Finding new ways to transfer information, access networks, or use software have become the building blocks of modern business, but they bring unforeseen risks to your organization. Hackers attack your network. Criminals attempt to extort you. Rogue, disgruntled employees take malicious action. The list goes on. With no consistency in how cyber risk is viewed or quantified, you could end up underestimating your organization’s cyber risk exposure — leading to reputational damage and significant liability to customers, business partners, and yourself.

Marsh’s Cyber Risk Management Framework

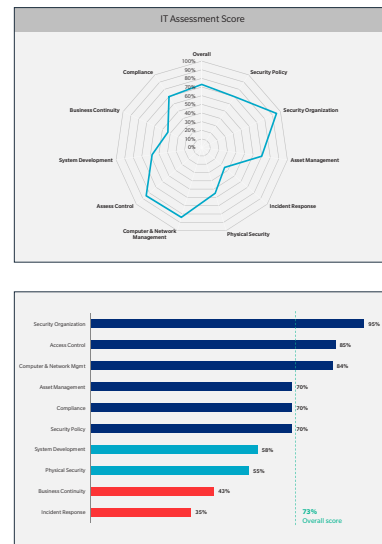
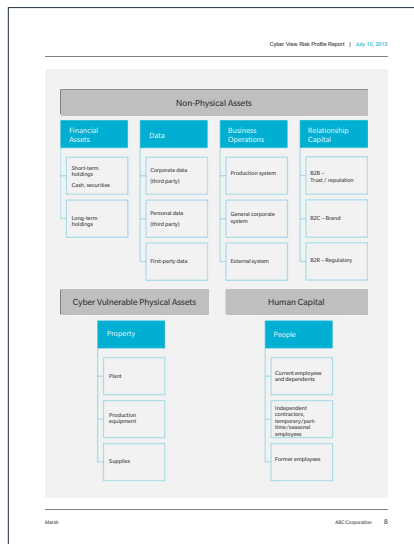
Our approach to managing cyber risk is comprehensive and accounts for the entire enterprise, from operations, compliance, legal, finance, communications, and IT to the board. Marsh’s Cyber Risk Management Framework is tailored to deliver the right mix of risk transfer and advisory solutions to help our clients assess, manage, and respond to their risk.



Marsh Cyber View

Marsh Cyber View is the first step in the assessment phase of our framework. It is designed to help clients answer common questions, such as: “How should I think about the cyber risks facing my organization.”

We assess your cyber risk by first inventorying your organization, giving you a concise, practical way to think about your cyber assets. Using proprietary tools, we present our findings in a comprehensive report that provides a snapshot assessment of your organization’s cyber risk. We combine threat modeling, control assessment, and impact analysis to inform your organization on your current cyber exposures, which can help you plan for the future.



OTHER TOOLS TO ASSESS YOUR CYBER RISK

Identify | Quantify | Analyze

MARSH CYBER IDEAL (IDENTIFY DAMAGES, EVALUATE, AND ASSESS LIMITS) MODEL: Helps to identify a range of potential outcomes stemming from a data breach, with a breakdown of the potential costs.

MARSH CYBER CONTROL ASSESSMENTS: Quantifies data security procedures into a confidential score or “grade.”

DESIGNING AND DELIVERING AN OPTIMAL CYBER RISK INSURANCE PROGRAM

Marsh Cyber Risk Transfer

Each client has a different risk profile, risk appetite, and strategy around insurance. Many organizations choose to purchase a risk transfer program not just as a solution for balance sheet protection, but for contractual evidence and compliance. Marsh works with you to design the best available program to meet your needs.

When designing a particular insurance program, we focus on addressing the risks that generate the greatest cost and exposure to the business. We review insurable versus uninsurable risks and analyze our placement strategy goals and objectives based on the market conditions, competitive landscape, timing, and available submission data. Today's insurance marketplace is dynamic; preparation is key. We help clients educate their colleagues to effectively share information when presenting their risk to insurers. Using the intellectual capital in our placement hubs from geographic, industry, and product line perspectives, we look for ways to minimize insurance costs. Marsh's risk transfer procurement process can ultimately present solutions and a cost benefit analysis to help your decision-making process.



TOOLS TO MANAGE AND RESPOND TO YOUR CYBER RISK

MARSH CYBER OASIS (OBJECTIVE ASSESSMENT SCORECARD OF INFORMATION SECURITY):

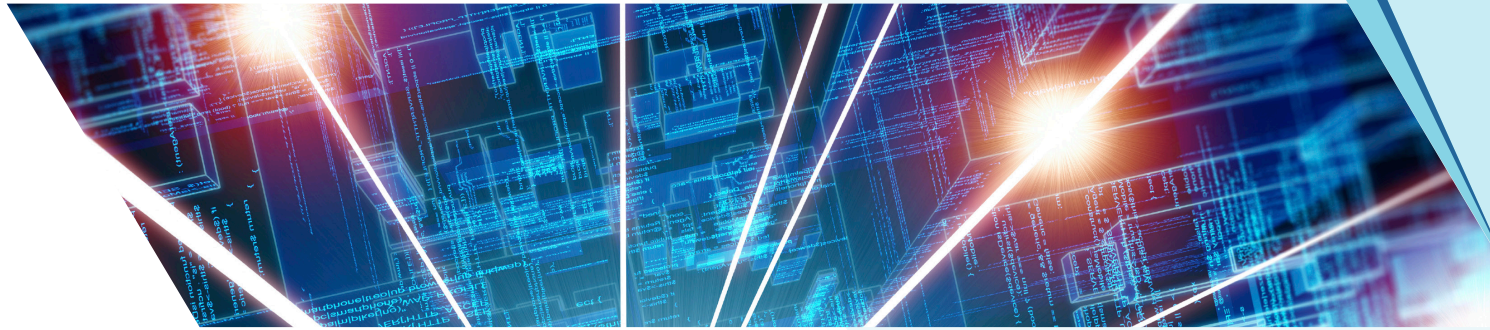
Provides underwriting information to insurers in order to improve the process for acquiring or renewing a cyber insurance program.

MARSH RISK MAPPING: Prioritizes the likelihood and severity of risks and aligns risk management with organizational objectives.

MARSH BENCHMARKING: Tailors industry-specific and custom reports to give you confidence in your risk management program and pricing.

INSURANCE PROGRAM DESIGN AND PLACEMENT: Builds a customized cyber insurance program that aligns with risk management and organizational objectives.

CLAIMS ADVISORY SERVICES: Streamlines the claims process with a focus on maximizing insurance recoveries.



Marsh Cyber Risk Advisory

Marsh's cyber risk advisory provides actionable intelligence that your management team can use to make informed risk-based decisions in an increasingly connected economy. Marsh brings together world-class expertise across the diverse areas of cybersecurity, preparedness, and claims and crisis management — from risk analyses and vulnerability assessments to incident response and loss recovery. We collaborate with specialist cyber assessment firms and other experts, enabling us to deliver comprehensive solutions to your organization.

TOOLS TO MANAGE AND RESPOND TO YOUR CYBER RISK

MARSH CYBER MONITOR: Presents a cyber risk “picture,” which can help you understand the probability of a cyber-attack.

CRISIS MANAGEMENT: Provides real-time cyber crisis management response that can help you organize your response, develop a proactive response management strategy, provide strategy and implementation guidance, and ensure effective coordination with all relevant parties.

CYBER-RELATED INSURANCE CLAIMS MANAGEMENT: Helps your organization identify and properly “bucket” costs to facilitate the potential recovery against insurance policies and assists your organization with insurance recoveries from another party's cyber incident.

POST-INCIDENT REVIEW AND CONTINUOUS IMPROVEMENT: Evaluates the response to and recovery from an event and identifies gaps to be addressed and best practices to be replicated.

Why Marsh Cyber?

A trusted advisor, innovator, and market maker for cyber risk.

Cyber risk is evolving so rapidly that only a trusted advisor, innovator, and market maker can help you surmount the largest cybersecurity threats today, and those of tomorrow. We evaluate every client according to the Marsh Cyber Risk Management Framework so that you can assess, manage, and respond to risks with the right mixture of risk transfer and advisory solutions.

ADVISOR: Our approach to managing cyber risk is multidimensional, comprehensive, and inclusive. We consider the perspective of all stakeholders in the organization ranging from the board to risk management, IT, legal, and communications.

INNOVATOR: Marsh is a recognized leader in cyber innovation, beginning with the creation of the first cloud-computing coverage, the first stochastic model of a data breach (Marsh Cyber IDEAL), and the first cyber catastrophe program (Marsh Cyber CAT) designed for large risks capable of taking \$100 million+ self-insured retentions. We also formed strategic partnerships with FireEye and Cyence to develop proprietary cyber solutions that help to quantify and manage your cyber risk.

MARKET MAKER: Having shaped the direction of some of the earliest forms of cyber insurance, we continually look to bridge gaps that exist in traditional coverage when it comes to cyber risk. As the leader in cyber risk placement, Marsh has placed more than \$200 million of cyber risk premiums into the US market and more than \$250 million into the global market annually.

Marsh is one of the Marsh & McLennan Companies, together with Guy Carpenter, Mercer, and Oliver Wyman.

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CYBER BY THE NUMBERS

MARSH

25+: Global experts in network security and privacy, E&O, and media liability.

1,400: Network security/privacy and E&O clients.

90%+: Client retention rate.

5: Hub locations mapped to key insurer decision makers: New York, San Francisco, Chicago, London, and Bermuda.

\$250 million+: Cyber premiums placed globally.

5% to 10%: Estimated Marsh cyber market share.

1,300+: Cyber IDEAL models run annually.

For further information, please contact your local Marsh office or visit our website at marsh.com.

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