Cyber Security:

Five Leadership Issues Worthy of Board and Executive Attention

Russell Reynolds Associates

Introduction

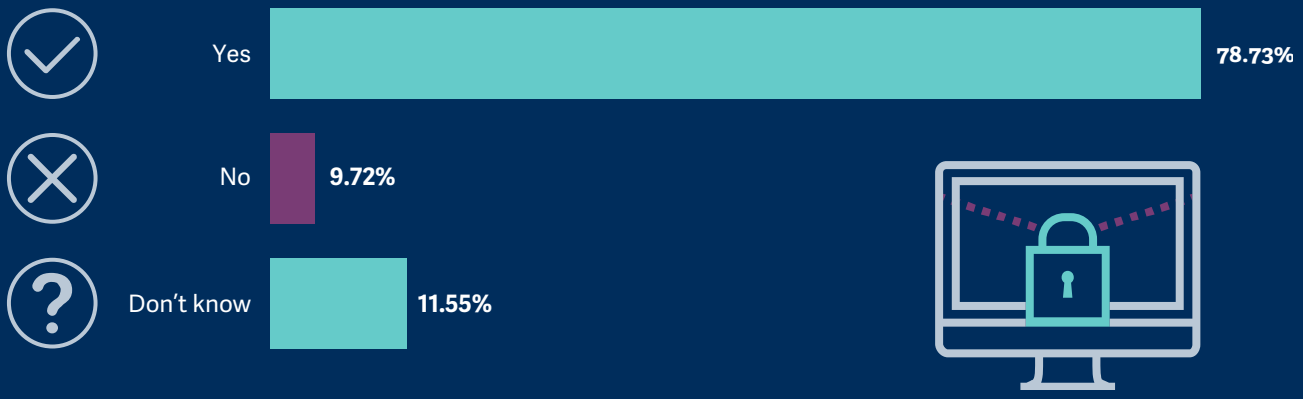
1. How effectively does your board discuss emerging risks like cyber security?
2. How effective is your chief information security officer (CISO) at clarifying the nature and urgency of cyber security risk with your board and executive team?
3. Does your CISO maintain a siloed technology view or a broader business/risk view?
4. How plugged-in is your CISO?
5. Do you have the right leadership and talent in place to protect your business?

Board Readiness

How effectively does your board address emerging risks like cyber security?

Successful security strategies require boards to play a fundamental role. While boards have focused on mitigating financial risk by way of audit committees, they must now broaden their focus to include emerging risks like cyber security. As cyber security becomes a greater concern, boards must play a more active role in navigating their firm through an increasingly complex and challenging environment.

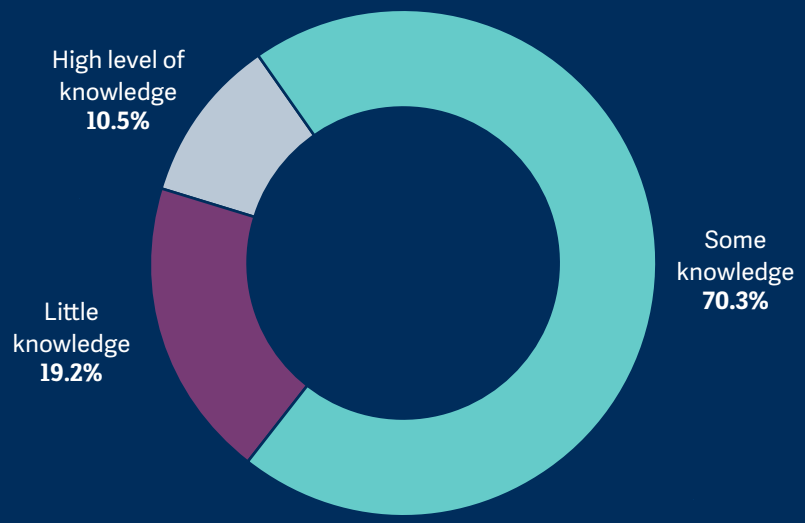
VIEW FROM CISOs: IS YOUR BOARD OF DIRECTORS CONCERNED WITH SECURITY?[1]



BOARD KNOWLEDGE OF EMERGING RISKS[2]

Despite changes in how boards view risk allocation—and additional focus on financial risk—most directors lack knowledge of emerging risks like cyber security.

Director Understanding of Cyber Security Risks



1. "No Respect: Chief Information Security Officers Misunderstood and Underappreciated by their C-level Peers," ThreatTrack Security, 2014.
2. "2014-2015 Public Company Governance Survey," National Association of Corporate Directors.

KEY POINTS

- Being proactive by embracing a broader risk management approach and prioritizing key issues like cyber security are no longer options but a necessity.
- Managing risk is increasingly a board-wide function as focus on emerging threats like cyber security continues to increase.
- While boards give more of their attention to major risks like cyber security, most directors still lack a deep understanding of cyber security risk.

Clarifying Risk and Driving Urgency

How effective is your CISO at clarifying the nature and urgency of cyber security risk with your board and executive team?

As organizations continue to focus their attention on cyber security risks, CISOs will remain fundamental to developing and implementing the organization's security strategy and vision. With boards increasingly dependent on CISOs for both information and the execution of security strategy, organizations must have the right security leadership in place and the proper reporting structure to establish key communication channels with the broader leadership team and to protect the enterprise.

WHILE CYBER SECURITY IS A GROWING CONCERN, THERE STILL REMAINS A LACK OF COMMUNICATION BETWEEN THE EXECUTIVE TEAM AND THE CISO

26%

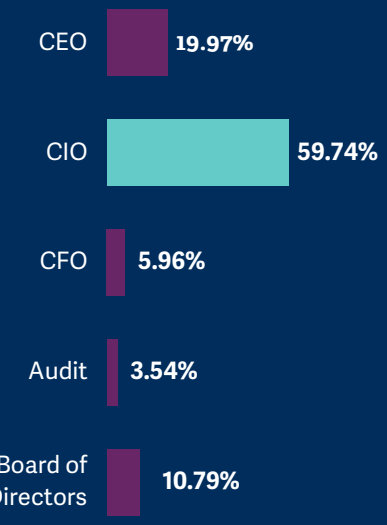
of respondents in a PricewaterhouseCoopers survey of over 500 executives and public officials said their CISO makes a security presentation to the board only once a year, while 30% of respondents said their senior security executive makes quarterly security presentations. 28% of respondents said their security leaders make no presentation at all.[2]

49%

of respondents in The Global State of Information Security Survey 2015 by PricewaterhouseCoopers said their organization had a cross-organizational team that regularly convenes to discuss, coordinate, and communicate information security issues.[3]

TO WHOM DOES SECURITY REPORT IN YOUR ORGANIZATION?[1]

Despite the prominence of cyber security threats, most CISOs continue to report to the CIO.



HAVING THE WRONG COMMUNICATION CHANNELS WITHIN AN ORGANIZATION HAS REAL FINANCIAL CONSEQUENCES[4]

14%

Organizations in which the CISO reported to the CIO experienced 14% more downtime due to cyber security incidents than those organizations in which the CISO reported directly to the CEO.

46%

Financial losses were 46% higher in organizations where the CISO reported to the CIO than when the CISO reported to the CEO. According to PwC's *The Global State of Information Security Survey 2014*, having the CISO report to almost any position in senior management other than the CIO (board of directors, CFO, etc.) reduced financial losses from cyber incidents.

1. State of Cyber security: Implications for 2015, ISACA and RSA Conference Study
2. US Cyber security: Progress Stalled – Key Findings from the 2015 US State of Cybercrime Survey, PwC, 2015
3. The Global State of Information Security Survey, PwC, 2015
4. The Global State of Information Security Survey, PwC, 2014

KEY POINTS

- Despite cyber security's growing prominence, there remains a lack of communication between security leaders and senior leadership.
- Many firms still don't have a proper reporting structure in place to establish better communication channels.
- Evidence suggests that having the CISO report to the CIO increases the likelihood and severity of security incidents.

IT Expert or Business Leader?

Does your CISO maintain a siloed technology view or a broader business/risk view?

CISOs must operate strategically, ensuring clearly visible alignment between business strategy and cyber security strategy. Top CISOs have an influential and compelling voice at board meetings and in executive committee discussions. And CISOs articulate cyber security strategy not as a simple cost of doing business but, instead, as a crucial enabler of business outcomes.

WHAT IS THE BIGGEST SKILL GAP YOU SEE IN TODAY'S SECURITY PROFESSIONALS?[1]

There is a prevailing sense that individuals in the CISO role are specialists with a narrow skill set.

While half of executives believed CISOs provide valuable guidance to leadership, nearly one-fifth view the role as primarily an advisor to the CIO on cyber security strategy.

The growing complexity of organizations requires CISOs to both protect the enterprise and support broader business objectives. Managing this balance is increasingly important, not just to the near-term health of the business but to the long-term clout of the CISO role, a role that many organizations have elevated and have included in broader strategic decision making.

62%

of CISOs developed their security strategy in conjunction with other strategies (primarily IT, risk and operations).[3]

28%

of executives said a decision by their CISO has hurt their business' bottom line.[2]

MANY CISOs STILL LACK THE CLOUT WITHIN THEIR ORGANIZATION TO UNDERSTAND THE BUSINESSES THEY PROTECT, THOUGH THIS UNDERSTANDING IS BECOMING INCREASINGLY IMPORTANT TO THEIR ROLE. [4]

61%

of executives did not believe their CISO would succeed in a non-information security leadership position within their organization.

68%

of executives did not agree that CISOs possessed broad awareness of organizational objectives and business needs outside of information security.

74%

of executives did not believe CISOs should be part of organizational leadership teams.

1. *State of Cybersecurity: Implications for 2015*, ISACA and RSA Conference Study
2. "No Respect: Chief Information. Security Officers Misunderstood and Underappreciated by their C-level Peers," ThreatTrack Security, 2014.
3. *Fortifying for the Future of Security*, IBM 2014 CISO Assessment.
4. "No Respect: Chief Information Security Officers Misunderstood and Underappreciated by their C-level Peers," ThreatTrack Security, 2014.

KEY POINTS

- The CISO role demands a strong understanding of the business, not just technical ability.
- There still remains a large number of security leaders who do not build their security strategy around the business.
- Many executives do not understand the CISO's new, expanding role, which makes it challenging for CISOs to exert influence across the company and align cyber strategy with business strategy.

Having a Strong Relationship Network

How plugged-in is your CISO?

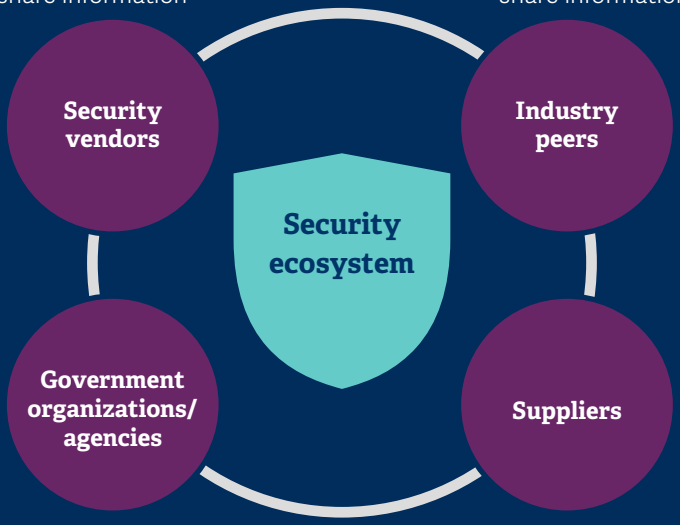
Information sharing has never been more essential. CISOs need a strong external network to better understand the extent of their vulnerabilities, to adopt best practices and to attract security talent. Being externally focused and proactive rather than internally focused is essential.

SHARING THREAT INFORMATION[1]

CISOs face an increasingly complex security ecosystem. Communication among members of the ecosystem is extremely important, but organizations still are underperforming in this area.

57%
of security vendors share information

51%
of industry peers share information



43%
of government organizations/agencies share information

22%
of suppliers share information

EXTERNAL COLLABORATION IS MORE IMPORTANT FOR MAINTAINING INDUSTRY BEST PRACTICES AND COUNTERING THREATS FROM THE SAME SOURCE[3]

62% vs. 42%

While 62% of security leaders strongly agreed that the risk level to their organization was increasing due to the number of interactions and connections with customers, suppliers and partners, only 42% of organizations were a member of a formal industry-related security forum/group.

86%

of security leaders believed industry-related security groups will become more necessary in the next three to five years.

"External collaboration gives security leaders a chance to observe industry practices and evolve with their peers to better understand where the "good stuff" is happening... The reality of today's expansive threat landscape is that we can't fully protect everything. Other firms face the same challenge so hearing the perspectives of my peers helps to improve our strategies around our most sensitive information."[2]

John Taylor, former Global Head of IT Security, British American Tobacco

1. *Fortifying for the Future of Security*, IBM 2014 CISO Assessment.
2. Ibid.
3. ibid.

KEY POINTS

- Protecting not just the firm but the ecosystem is becoming increasingly essential for organizations.
- In order to protect the ecosystem, CISOs must be externally focused and proactively build a strong network of contacts among customers, suppliers, security vendors, and government agencies.
- Regular communication among the firm's existing stakeholders in the ecosystem is and will continue to be an important part of a sound security strategy.

Talent Is the Best Defense

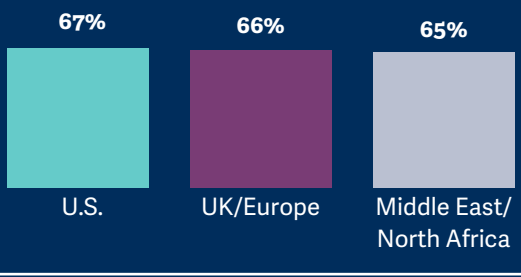
Do you have the right leadership and talent in place to protect your business?

The increasing complexity of cyber security threats requires new types of security leaders who can go beyond their traditionally narrow technical domains and understand how to protect the business in a holistic way. Cyber security leaders who can effectively do these things are scarce. With a high demand for talent and a low supply, knowing where to look for talent will become increasingly critical.

THE CYBER TALENT GAP WILL PERSIST[1]

A study by the Ponemon Institute for Raytheon in 2015 showed that the verdict across regions was the same: Organizations need more knowledgeable and experienced cyber security practitioners.

My Organization Needs More Knowledgeable and Experienced Cyber Security Practitioners



FACTORS THAT WILL HINDER IMPROVEMENT OVER THE NEXT THREE YEARS[2]

Organizations trying to prepare for the future face a number of challenges, including finding top talent. According to a major survey by the Ponemon Institute for Raytheon, the primary factor hindering improvement in cyber defense is the inability to hire and retain staff (45%), followed by a lack of actionable intelligence (44%) and the inability to curb employee-related security risks (43%).

WHERE DOES CYBER SECURITY TALENT COME FROM? CYBER SECURITY ARCHETYPES[3]:

Profile 1: Professional Services/Audit	Profile 2: General Technologists	Profile 3: Military or Law Enforcement Professionals	Profile 4: Cyber Security Threat Intelligence Specialists	Profile 5: Corporate Development/ Strategy Executives
Often holding a technical degree in engineering or computer science, these executives typically begin their career in the cyber security function of a large organization and climb their way to the top.	Frequently holding a technical degree in engineering or computer science, these executives normally begin their career in corporate IT (e.g., applications development) and migrate to a specialization in cyber security.	Less commonly holding a technical degree, these executives begin their career in the military or law enforcement, gaining technical expertise via experience and rising to a senior cyber security role before migrating to a senior position within the cyber security function of a corporation.	Cutting-edge cyber threat intelligence specialists who are extremely technical, often coming out of organizations like the National Security Agency or the broader intelligence community.	An emerging class of business leaders who are trained in cyber security and are positioned for broader risk management roles.

1. *2015 Global Megatrends in Cybersecurity*, Ponemon Institute for Raytheon, February 2015.
2. Ibid.
3. Russell Reynolds Associates proprietary study.

KEY POINTS

- As cyber security persists as a primary concern, the focus will shift heavily on talented leaders with both technical aptitude and business acumen.
- With a limited supply of talent, organizations must know where to find top talent in markets and sectors with which they may not be familiar, including the public sector.
- Developing bench strength below the CISO will become increasingly important as organizational challenges become more complex.

Russell Reynolds Associates is a global leader in assessment, recruitment and succession planning for boards of directors, chief executive officers and key roles within the C-suite. With more than 370 consultants in 46 offices around the world, we work closely with both public and private organizations across all industries and regions. We help our clients build boards and executive teams that can meet the challenges and opportunities presented by the digital, economic, environmental and political trends that are reshaping the global business environment.

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