



An ECIA Guidance Document

International Cyber Security Advisory Report

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Managing Cyber Security for International Operations

Introduction:

ECIA members, electronic component manufacturers and distributors who have international operations face a broad spectrum of cyber risks that could potentially impact their business operations. These risks can be more complex and challenging due to their international scope. The following advisory report has been prepared as the result of a cooperative effort between electronic component manufacturers and their authorized distributors.

Four Key Areas of Awareness for Executives with International Operations

1. Cyber Threats

Cyber threats in foreign locations become more complex due to differing laws, languages, and customs. Some threats are more prominent than others depending on the country and may require different approaches and strategies to address them adequately. Key areas to be aware of:

a) **Cloud Security**

Foreign laws may require using a local service provider for cloud services. This can add complexity if the cloud service provider has different tools, support models, licensing, etc. Managing new systems could impact the speed of business efforts and potentially create a risk for IT systems if the new environment cannot be secured adequately.

b) **Phishing**

Phishing in a foreign language may leave the cyber team less effective if they cannot read the emails and their tools are unable to translate properly or understand how the attack is being conducted to protect against it. Local languages also need to be accounted for in phishing training to be effective.

c) **Data Localization**

Countries are increasingly requiring foreign businesses to keep their citizens' data in their country. IT systems may not be designed for this scenario. It can also put the company at risk if local data is accessed by foreign parties.

d) **Cyber Fraud**

Some countries do not have strict laws regarding intellectual property or computer crimes. They may target electronic component manufacturers and distributors to access corporate IP, steal data, commit payment fraud, or otherwise obtain components without paying (some of which violate OFAC rules).

e) **Cyber Espionage**

Some governments invest in cyber operations for economic gain, national security, or competitive advantage. Be informed about the threats in the countries you currently or expect to do business in. Unique investments in cyber may need to be made to protect your business.

2. International Governance

International Laws

Operating in foreign countries necessitates understanding applicable laws and regulations, such as the EU's GDPR, China's Cyber Security Law, China's Data Protection Law (PIPL) or the U.S. California laws (CCPA and CPRA). The engagement of a dedicated internal compliance team or external counsel specializing in international cyber security laws is vital to ensure alignment of your policies and procedures.

Since laws can quickly change, tracking of laws and regular training sessions are crucial to keep your team up to speed with updates and requirements. A robust data management strategy, encapsulating data collection, storage, usage, and transfer with a focus on privacy-by-design and data minimization strategies, is also essential.

Your incident response plan should incorporate steps to manage legal issues, for example notifying regulatory bodies and fulfilling specific disclosure requirements. Privacy Impact Assessments (PIAs) should be conducted to identify potential privacy issues in your operations and formulate risk mitigation strategies.

Lastly, routine external audits can identify gaps in your compliance and help maintain alignment with international cyber security and privacy laws. Keep in mind that this is a complex area and there can be significant penalties for non-compliance, including fines and reputational damage. It's crucial to work closely with legal professionals who specialize in this area to ensure that you're fully compliant.

Supply Chain Audits and Certifications

In the electronics components industry, securing the supply chain is an essential step in mitigating cybersecurity risks, particularly given the increasing complexity and interdependence of global supply networks. According to the European Union Agency for Cybersecurity (ENISA), supply chain cybersecurity must be addressed comprehensively through a combination of audits, risk assessments, and certifications to ensure that third-party suppliers adhere to rigorous security standards. ENISA's "Good Practices for Supply Chain Cybersecurity" emphasizes the importance of conducting regular audits to evaluate the security measures of suppliers and assess their adherence to best practices, such as those outlined in ISO/IEC 27001 or the Cybersecurity Maturity Model Certification (CMMC). These audits help identify vulnerabilities that could potentially be exploited by cybercriminals, ranging from insecure software components to compromised hardware.

Additionally, certifications provide formal acknowledgment that suppliers have implemented effective cybersecurity measures to protect against threats. ENISA recommends adopting a risk-based approach to supply chain management, encouraging businesses to not only assess the technical security controls of their suppliers but also their broader cybersecurity governance, including data protection policies, incident response plans, and resilience strategies. By incorporating these audit and certification

practices, electronics companies can strengthen their cybersecurity defenses, reduce the risk of supply chain attacks, and ensure the continued integrity of their products and services.

Artificial Intelligence Regulations

Regulation of artificial intelligence (AI) and large language models (LLMs) is noteworthy as an emerging area where regulations, including ones to address considerations that are directly and indirectly relevant to cybersecurity threats noted above, are still in development to address the rapid technological advancements and may vary from country to country.

“The challenges that AI presents are too multifaceted, the relevant actors too varied, and the geopolitical situation too complicated for any one global body to tackle by itself. Instead, many expect the emergence of overlapping institutions designed to advance and govern specific uses and impacts of AI.”

Source: [*“Envisioning a Global Regime Complex to Govern Artificial Intelligence”*](#)

While some regulations on AI may not explicitly address cybersecurity topics, they may address uses such as deep fakes and misinformation campaigns that are relevant and impactful to cybersecurity.

3. An International Response Plan and Scheduled Tests

In managing cyber threats, the identification and prevention of threats are critical. Equally crucial are swift and accurate detection, response, and recovery from threats.

“According to CrowdStrike’s 2024 Global Threat Report, the average breakout time¹ for interactive eCrime intrusion activity in 2023 was 62 minutes. The fastest recorded breakout time was 2 minutes and 7 seconds. 70% of incidents still take more than 12 hours to resolve.

Upon threat detection, containment measures should be activated to limit spread along with recovery systems and procedures in place, including frequent data backups and the segregation of compromised network areas.

Next is the eradication of the threat by addressing the root cause, and possibly reinstalling system software.

The recovery phase then involves restoring affected systems back into the business environment, monitoring for signs of weakness or compromise, and restoring from clean and known good backups to prevent reinfection.

Every incident, regardless of size, should be documented and analyzed to glean lessons for future responses. It is recommended you conduct annual international testing of your

¹ “CrowdStrike defines breakout time as the time it takes for an attacker to move from a compromised host to other systems on a network.”

response plan, defining clear objectives and including representatives from various organizational sectors internationally. Be aware that time zone differences, languages, varying levels of cyber security maturity, and disparate notification requirements across countries may present challenges that need to be factored into your plan and well-tested.

Additionally, after significant changes in the business (like a merger or a new product launch), it can be beneficial to retest the plan. Smaller tests or drills can be conducted more frequently, such as quarterly. Testing should ideally be done in a way that simulates a real-world attack scenario as closely as possible and involves all the relevant stakeholders (IT, legal, PR, etc.). Following each test, it is essential to review the results, identify any gaps or issues, and update the plan accordingly.

4. Allocating Resources to Protect International Operations

Determining the appropriate level of cyber security investment involves considering multiple factors:

- a) Initially, assess industry benchmarks, comparing your cyber security spending to averages for similar-sized organizations in your sector and consider how investment may need to adjust to trends in your sector.

(example below from 2024 Verizon Data Breach Investigations Report)

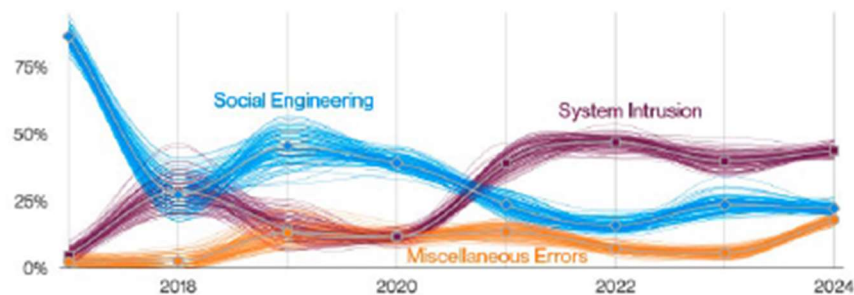
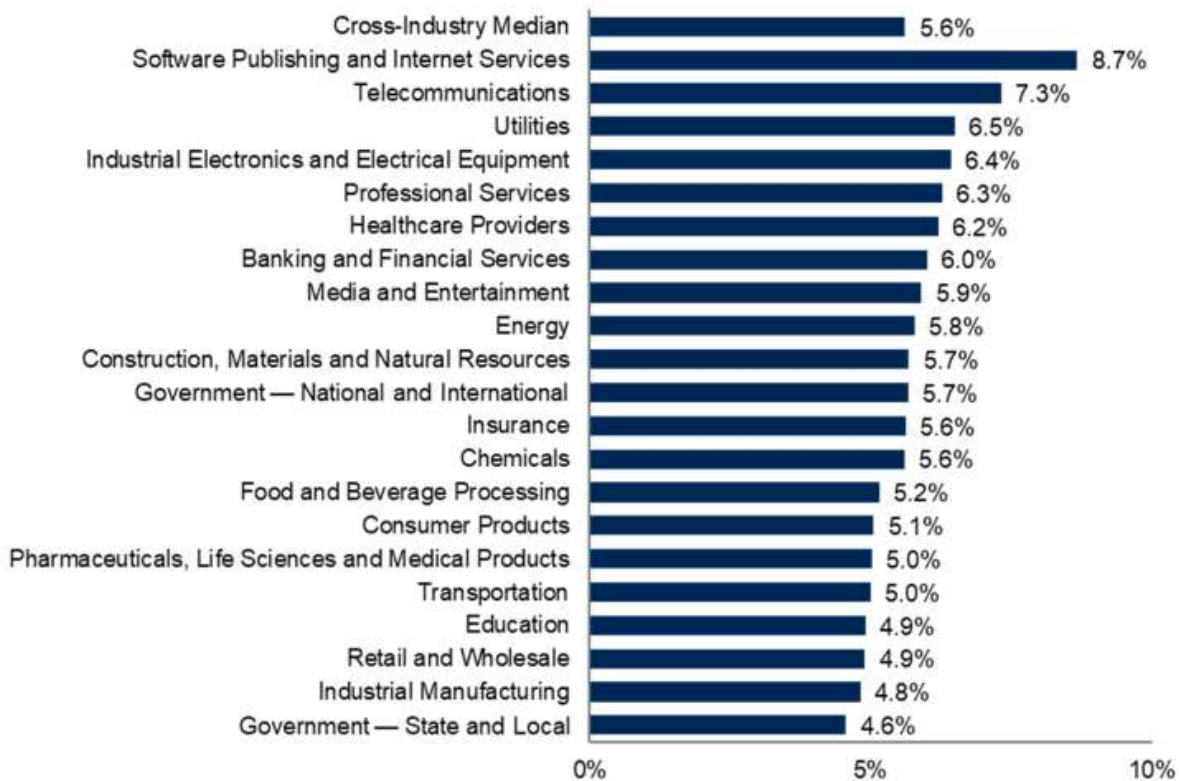


Figure 66. Top patterns over time in Manufacturing industry breaches

- b) The cross-industry median for IT security spend as a percentage of total IT spending is 5.6% and 8.7% on the high end for technology companies.
(per Gartner study below)

IT Security Spending as a Percent of Total IT Spending

By Industry



Source: Gartner (2024)

ID: 822104

Gartner

- c) Regular risk assessments will pinpoint areas of heightened vulnerability requiring more resources. Weigh the cost of potential breaches, including indirect costs such as reputational damage and loss of customer trust, against the expense of your cyber security measures to calculate the ROI.
- d) Ensuring sufficient investment to comply with regulations in each operating country is essential, as non-compliance can lead to significant penalties. Keep abreast of the ever-evolving threat landscape, investing enough to counter emerging cyber-attacks. Also, evaluate your resource allocation to ensure you focus on the most vulnerable and business-critical areas of your operations. These considerations can guide strategic cyber security investment.
- e) Consider the distinct threat and attack trends specific to the countries or regions your organization services and those of suppliers and customers. These may be consistent across regions or vary significantly.

(per 2024 Verizon Data Breach Investigations Report below)

Region	Frequency	Top patterns	Threat actors	Actor motives	Data compromised
APAC	2,130 incidents, 523 with confirmed data disclosure	System Intrusion, Social Engineering and Basic Web Application Attacks represent 95% of breaches	External (98%), Internal (2%) (breaches)	Financial (75%), Espionage (25%) (breaches)	Credentials (69%), Internal (37%), Secrets (24%), Other (17%) (breaches)
EMEA	8,302 incidents, 6,005 with confirmed data disclosure	Miscellaneous Errors, System Intrusion and Social Engineering represent 87% of breaches	External (51%), Internal (49%) (breaches)	Financial (94%), Espionage (6%) (breaches)	Personal (64%), Other (36%), Internal (33%), Credentials (20%) (breaches)
NA	16,619 incidents, 1,877 with confirmed data disclosure	System Intrusion, Social Engineering and Basic Web Application Attacks represent 91% of breaches	External (93%), Internal (8%) (breaches)	Financial (97%), Espionage (4%) (breaches)	Personal (50%), Credentials (26%), Internal (19%), Other (16%) (breaches)

Table 3. At a glance for regions

Finally, remember that spending more money on cyber security does not necessarily make you more secure. It is crucial to ensure that the money is spent effectively on measures that genuinely improve your cyber security posture. This might include hiring skilled personnel, investing in advanced security tools, or regular staff training.

A critical part of making your security awareness training most effective is to support local languages for the recipient to ensure higher retention of content. Working with a cyber security consultant can be useful to ensure your resources are allocated effectively.

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Global Industry Practices Committee

The Global Industry Practices Committee (GIPC) provides a forum to discuss processes in the authorized channel that drive best practices within our industry. The GIPC members on this committee work to identify common global problems and issues, formally organize with Subject Matter Experts to research the issues, provide guidance and areas for consideration, and then help drive adoption with the ECIA Board of Directors and Councils. This activity results in the construction of guidelines, specifications, position papers and best practice documents for the electronic components authorized channel. The Committee is made up of executives from four Distributors, four Manufacturers, one Manufacturer’s Representative and two ECIA representatives.

Seven Areas of Focus

Technology Solutions – Business Operations – Environmental Compliance – International Trade Compliance – IT Security/Privacy Standards – Logistics Services - Quality

If you are interested in participating in an SME Pool or would like additional information, please contact Don Elario: Email: delario@ecianow.org