

# GUIDE TO SOUND PRACTICES FOR CYBER SECURITY (2019 Edition)

Executive Summary

Sponsored by

ALLEN & OVERY

# **Executive summary**

Cyber risk continues to dominate the headlines placing security issues at the top of businesses and regulatory authorities' agendas. Alongside the benefits of technological developments, alternative investment fund managers (referred to throughout the Guide generically as 'investment managers'), are faced with a host of new and evolving cyber security threats.

In today's world, cyber security is one of the greatest challenges facing businesses and it can be difficult to appreciate what exactly businesses should be concerned about in terms of cyber risk. Investment managers who have considered the extent of cyber risks in their business will already know that there is no one-size fits all solution: each investment manager's reaction must be appropriate to them and proportionate to their available resources. With this in mind, the Guide walks through the material considerations in the wider cyber debate to enable an investment manager to have informed discussions about what it needs to do within its own organisation to respond to the threat and continue to be an effective investment manager. The overall message is that doing nothing is not an option.

The Guide is not intended to be the solution to an investment manager's cyber security issues. The Guide seeks to enable those responsible for the implementation of a cyber security programme to understand the multitude of problems as well as to consider what is and what is not applicable The Guide also tries to differentiate to them. between what are seen as advanced defensive techniques and those which are more basic to enable some selection to be made between laver protection and something more base While there is an acknowledgement complex. of the most sophisticated of cyber threats and protection techniques, the focus of the Guide is to concentrate upon doing the most basic things well.

The Guide aims to help an investment manager to:

• understand its critical assets and the threats targeting these assets;

- assess what its cyber security objectives are in the context of its risk tolerance; and
- assess whether its current governance structure and existing policies and procedures are sufficient.

The Guide also looks to assist an investment manager in improving its understanding of the nature and scope of the cyber threats facing them and the developing regulatory context being applied to cyber security matters. For example, Section 2 of the Guide explores the nature and scope of the cyber threat facing an investment manager, looking at the types of attackers and what motivates them, and it also provides some real examples to illustrate the current threat environment.

The remainder of the Guide elaborates on the considerations relevant to the development, operation and maintenance of an effective cyber security programme. The Guide focuses on matters such as governance, employee-related considerations, the technology that can be used for data protection, threat prevention and threat detection and how these technologies can be developed in-house or using cloud services.

The main text of the Guide is written to be as jurisdiction neutral as possible in order for it to be of the most use to investment manager members around the world. However, where specific regulatory requirements apply to investment managers established or operating in certain regions or countries, the Working Group has striven to identify the requirements and relevant discussions of such requirements may also be found in the Appendices to the Guide.

We would like to thank the members of the Working Group, all of whom have volunteered their time and worked hard to produce this Guide. We intend to revise the Guide further as and when material developments occur.

# **Table of Contents**

#### Foreword

What's new in this version

- 1. Executive summary
- 2. Nature and scope of the cyber threat
- 2.1 Attack types
- 2.2 Traditional threat actors
  - 2.2.1 Nation states
  - 2.2.2 Organised criminal actors
  - 2.2.3 Opportunistic actors
- 2.3 Non-traditional threat actors
  - 2.3.1 Hacktivists
  - 2.3.2 Insiders
- 3. Regulatory and technical context
- 4. Initial considerations for a cyber security programme
- 4.1 Forming a business plan to address cyber security
- 4.2 Critical security defences
- 4.3 Culture Executive engagement and responsibility
- 5. Elements of an effective cyber security programme
- 5.1 Governance
  - 5.1.1 Oversight and accountability
  - 5.1.2 Policies and procedures
- 5.2 Employees
  - 5.2.1 Personal protection (basic)
  - 5.2.2 Home and mobile working and access controls (basic)
  - 5.2.3 Approving, managing and reviewing user privileges (basic)
  - 5.2.4 Education (basic)
- 5.3 Technology
  - 5.3.1 Data protection
  - 5.3.2 Protection measures
  - 5.3.3 Detection measures
  - 5.3.4 Audit and controls
  - 5.3.5 In-house development considerations
  - 5.3.6 Cloud service considerations
  - 5.3.7 Cloud native technology
  - 5.3.8 Certification
- 6. Ongoing assessments
- APPENDIX A Glossary of Common Attacks
- **APPENDIX B Threat Matrix**
- APPENDIX C Cyber Security Checklist
- APPENDIX D Data Privacy Laws
- APPENDIX E Working Group Members
- APPENDIX F About AIMA
- APPENDIX G About the Sponsor

Separate lists available on AIMA website

Cyber Security Resources

Government and Regulatory Links

## AIMA members have exclusive access to a growing library of industry references:

#### **Due Diligence Questionnaires:**

- Alternative Data Vendors
- Clearing Members
- Fund Administrators
- Fund Directors
- Investment Managers
- Liquid Alternative Funds
- Outsource Service Providers
- Prime Brokers
- Vendor Technology and Cyber Security

#### **Guides and Guidance Notes:**

- Expense Allocation
- Fund Directors' Guide
- Guide to Liquid Alternative Funds
- Guide to Managed Accounts
- Implementing MiFID II
- Side Letter Guidance

#### **Guides to Sound Practice:**

- Outsourcing by Investment Managers
- Business Continuity Management^
- Fund Administration
- Investor Relations
- Media Relations
- Operational Risk Management^
- OTC Derivatives Clearing
- Paying for Research
- Platforms\*
- Selecting a Prime Broker
- Valuation of Investment
- \* Forthcoming

^ Update in progress

Electronic copies of the full Guide to Sound Practices for Cyber Security (2019 Edition) are available to AIMA member contacts via the AIMA website. The electronic copies are subject to a limited licence and are reserved for the use of AIMA members only.

For further details on AIMA membership, please contact Fiona Treble (ftreble@aima.org), who will be able to assist you.

## **About AIMA**

The Alternative Investment Management Association (AIMA) is the global representative of the alternative investment industry, with around 2,000 corporate members in over 60 countries. AIMA's fund manager members collectively manage more than \$2 trillion in assets.

AIMA draws upon the expertise and diversity of its membership to provide leadership in industry initiatives such as advocacy, policy and regulatory engagement, educational programmes and sound practice guides. AIMA works to raise media and public awareness of the value of the industry.

AIMA set up the Alternative Credit Council (ACC) to help firms focused in the private credit and direct lending space. The ACC currently represents over 170 members that manage \$400 billion of private credit assets globally.

AIMA is committed to developing skills and education standards and is a co-founder of the Chartered Alternative Investment Analyst designation (CAIA) – the first and only specialised educational standard for alternative investment specialists. AIMA is governed by its Council (Board of Directors).

For further information, please visit AIMA's website, www.aima.org.



### **Disclaimer**

The Guide is not a substitute for specific advice, whether legal, regulatory, tax or other advice, nor for professional judgement. It does not seek to provide detailed advice or recommendations on the wider ranging corporate governance issues.

© The Alternative Investment Management Association Ltd (AIMA) 2019