

---

---

**Information security management —  
Guidelines for cyber-insurance**

*Gestion de la sécurité de l'information — Lignes directrices pour la  
cyber-assurance*

Preview

Dit document mag slechts op een stand-alone PC worden geïnstalleerd. Gebruik op een netwerk is alleen toestaan als een aanvullende licentieovereenkomst voor netwerkgebruik met NEN is afgesloten. This document may only be used on a stand-alone PC. Use in a network is only permitted when a supplementary license agreement for us in a network with NEN has been concluded.



Reference number  
ISO/IEC 27102:2019(E)

© ISO/IEC 2019

Copyright  
Preview



**COPYRIGHT PROTECTED DOCUMENT**

© ISO/IEC 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Structure of this document</b> .....	<b>2</b>
<b>5 Overview of cyber-insurance and cyber-insurance policy</b> .....	<b>2</b>
5.1 Cyber-insurance.....	2
5.2 Cyber-insurance policy.....	3
<b>6 Cyber-risk and insurance coverage</b> .....	<b>3</b>
6.1 Risk management process and cyber-insurance.....	3
6.2 Cyber-incidents.....	4
6.2.1 General.....	4
6.2.2 Cyber-incident types.....	4
6.3 Business impact and insurable losses.....	4
6.3.1 Overview.....	4
6.3.2 Type of coverage.....	5
6.3.3 Liability.....	5
6.3.4 Incident response costs.....	5
6.3.5 Cyber-extortion costs.....	7
6.3.6 Business interruption.....	7
6.3.7 Legal and regulatory fines and penalties.....	7
6.3.8 Contractual penalties.....	7
6.3.9 Systems damage.....	8
6.4 Supplier risk.....	8
6.5 Silent or non-affirmative coverage in other insurance policies.....	8
6.6 Vendors and counsel for incident response.....	8
6.7 Cyber-insurance policy exclusions.....	8
6.8 Coverage amount limits.....	9
<b>7 Risk assessment supporting cyber-insurance underwriting</b> .....	<b>9</b>
7.1 Overview.....	9
7.2 Information collection.....	9
7.3 Cyber-risk assessment of the insured.....	10
7.3.1 General.....	10
7.3.2 Inherent cyber-risk assessment.....	10
7.3.3 Information security controls assessment.....	10
7.3.4 Review prior cyber-losses.....	11
<b>8 Role of ISMS in support of cyber-insurance</b> .....	<b>11</b>
8.1 Overview.....	11
8.2 ISMS as a source of information.....	12
8.2.1 ISMS.....	12
8.2.2 Planning.....	12
8.2.3 Support.....	13
8.2.4 Operation.....	13
8.2.5 Performance evaluation.....	14
8.2.6 Improvement.....	14
8.3 Sharing of information about risks and controls.....	14
8.4 Meeting cyber-insurance policy obligations.....	15
<b>Annex A (informative) Examples of ISMS documents for sharing</b> .....	<b>16</b>
<b>Bibliography</b> .....	<b>17</b>

## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)) or the IEC list of patent declarations received (see <http://patents.iec.ch>).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 27, *Information security, cybersecurity and privacy protection*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

Cyber-incidents can occur at any time with various potential impacts to an organization. For example, an organization's information and assets are under constant attack as cyber-threats become more pervasive, persistent and sophisticated.

The adoption of cyber-insurance to reduce the impacts of the consequences arising from a cyber-incident should be considered by an organization in addition to information security controls as part of an effective risk treatment approach.

Cyber insurance is no substitute for robust security and effective incident response plans, along with rigorous training of all employees.

Cyber insurance should be considered as an important component of an organization's overall security risk treatment plan to increase resilience.

Copyright  
Preview

Voorbeeld  
Preview

# Information security management — Guidelines for cyber-insurance

## 1 Scope

This document provides guidelines when considering purchasing cyber-insurance as a risk treatment option to manage the impact of a cyber-incident within the organization's information security risk management framework.

This document gives guidelines for:

- a) considering the purchase of cyber-insurance as a risk treatment option to share cyber-risks;
- b) leveraging cyber-insurance to assist manage the impact of a cyber-incident;
- c) sharing of data and information between the insured and an insurer to support underwriting, monitoring and claims activities associated with a cyber-insurance policy;
- d) leveraging an information security management system when sharing relevant data and information with an insurer.

This document is applicable to organizations of all types, sizes and nature to assist in the planning and purchase of cyber-insurance by the organization.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 27000, *Information technology — Security techniques — Information security management systems — Overview and vocabulary*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 27000 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

### 3.1

#### **cyber-incident**

cyber-event that involves a loss of information security or impacts business operations

### 3.2

#### **cyber-insurance**

insurance that covers or reduces financial loss to the *insured* (3.7) caused by a *cyber-incident* (3.1)

### 3.3

#### **cyber-insurance policy**

contract for *cyber-insurance* (3.2) coverage

3.4

**cyber-risk**

risk caused by a *cyber-threat* (3.5)

3.5

**cyber-threat**

threat that exploits a *cyberspace* (3.6)

3.6

**cyberspace**

interconnected digital environment of networks, services, systems, and processes

3.7

**insured**

entity that shares or considers sharing *cyber-risk* (3.4) with an insurer

**4 Structure of this document**

Guidelines are given in [Clauses 5](#) to [8](#).

[Clause 5](#) provides information and a general description of cyber-insurance; [Clause 6](#) discusses cyber-risk of an organization that can be covered under a cyber-insurance policy. Both [Clause 5](#) and [Clause 6](#) are of relevance to both the organization and an insurer.

[Clause 7](#) describes the generic risk assessment an insurer typically undertakes as part of its cyber-insurance underwriting and [Clause 8](#) describes the use of an information security management system (ISMS) by an insured to produce data, information and documentation that can be shared with an insurer.

[Annex A](#) provides examples of ISMS documents that an insured can provide to an insurer.

**5 Overview of cyber-insurance and cyber insurance policy**

**5.1 Cyber-insurance**

Cyber-insurance is a risk treatment option that can compensate the insured against potentially significant financial losses associated with a cyber-incident. Cyber-insurance is provided by an insurer who underwrites risks by signing and accepting liability, thus guaranteeing payment to the insured in case loss or damage occurs.

Cyber-insurance is designed to compensate for losses from a variety of cyber-incidents, for example: data breaches, business interruption, and network damage.

Adoption of cyber-insurance can assist the insured to:

- a) minimize the impact of a cyber-incident;
- b) provide funding mechanisms for recovery from major losses;
- c) assist the return to normal operations; and
- d) increase resilience of the insured business to cyber-incidents.

The insured can be required to demonstrate their compliance with any conditions imposed by the cyber-insurance policy relating to the on-going management of the cyber-risk covered.



## 5.2 Cyber-insurance policy

Contractual terms for cyber-insurance are given in a cyber-insurance policy. A cyber-insurance policy can be either a stand-alone policy or be included as special endorsements as a part of general liability, property or other insurance policy.

Coverage offered by a cyber-insurance policy typically takes a wide perspective and covers a broad range of threats that can cause financial or other forms of impact. Impact can occur through loss of confidentiality, integrity, or availability of information or systems irrespective of the exact cause of a cyber-incident and whether it was accidental or deliberate. Cyber-insurance coverage varies quite a lot between different cyber-insurance products, is not standardized and varies depending on:

- a) needs of the insured;
- b) limitations posed by laws and regulations;
- c) generally accepted market practices;
- d) business decisions of an insurer.

Cyber-insurance policies cover certain costs associated with cyber-incidents and can provide access to services that support the insured after a cyber-incident. These services include, for example, evaluating the impact of the attack; implementation of response and recovery plans; legal expertise; forensics expertise; public relations and communications support; customer notification; and restoration of business operations after a cyber-incident.

Cyber-insurance coverage offers the ability to recover some or all internal and external costs of the cyber-incident and varies depending on the specific policies and endorsements selected by the insured.

## 6 Cyber-risk and insurance coverage

### 6.1 Risk management process and cyber-insurance

A cyber-insurance policy generally allows the insured to reduce losses from cyber-risks through the sharing of these risks with an insurer.

An organization should be protected from cyber-risks by using a process that actively predicts, identifies, assesses, treats and responds to cyber-incidents as part of an effective risk management approach.

The risk assessment process should include appropriate translation of cyber-risks into business terms to highlight the business consequences of cyber-incidents. Such translation can allow risk treatment decisions to determine how risks are to be treated through:

- a) avoidance;
- b) removing the threat;
- c) changing the likelihood or consequences of the risk;
- d) retaining the risk; or
- e) sharing the risk with other parties, such as insurers.

Risk treatment decisions should consider the incorporation of cyber-insurance, to improve resilience against such risks. The risk management process provides information on risks and business consequences to align a cyber-insurance policy with the security risk management strategy and risk acceptance criteria of the organization.

# ALTIJD DE ACTUELE NORM IN UW BEZIT HEBBEN?

**Nooit meer zoeken in de systemen en uzelf de vraag stellen:  
'Is ISO/IEC 27102:2019 en de laatste versie?'**

Via het digitale platform NEN Connect heeft u altijd toegang tot de meest actuele versie van deze norm. Vervallen versies blijven ook beschikbaar. **U en uw collega's** kunnen de norm via NEN Connect makkelijk raadplagen, online en offline.

Kies voor slimmer werken en bekijk onze mogelijkheden op [www.nenconnect.nl](http://www.nenconnect.nl).

## Heeft u vragen?

Onze Klantenservice is bereikbaar maandag tot en met vrijdag, van 8.30 tot 17.00 uur.

Telefoon: 015 2 690 391

E-mail: [klantenservice@nen.nl](mailto:klantenservice@nen.nl)

