First edition 2018-08

Security and resilience — Authenticity, integrity and trust for products and documents — General principles for product fraud risk and countermeasures



Reference number ISO 22380:2018(E)



## **COPYRIGHT PROTECTED DOCUMENT**

## © ISO 2018

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 Website: www.iso.org

Published in Switzerland

Contents Foreword Introduction			Page
2		native references	
3		is and definitions	
4	General principles for product fraud risk and countermeasures		
•	4.1	Evaluation of situational context of product fraud	2
		4.1.1 Considering the product fraud opportunities	
		4.1.2 Evaluating the product fraud risk	2
	4.2	Classification of intention and motive of product fraud	3
	4.3	Classification of product fraud activities	
	4.4	Classification of product fraudsters	5
	4.5	Profiling and conducting a risk assessment of product fraud	6
		4.5.1 Profiling product fraud	
		4.5.2 Risk assessment	6
	4.6	Selection and implementation of countermeasures	
		4.6.1 Approaches and strategies	
		4.6.2 Selecting countermeasures based on ROSI and risk level	9
	4.7	Effectiveness assessment of countermeasures	
Annex	<b>x A</b> (in	formative) Examples of profiling, risk assessment and countermeasures	
Annex B (informative) Decision making on security countermeasure investments			
Bibliography			

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="https://www.iso.org/directives">www.iso.org/directives</a>).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO 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 <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

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 <u>www.iso</u> .org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 292, Security and resilience.

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 <u>www.iso.org/members.html</u>.

## Introduction

There is evidence that virtually every type of product fraud has been committed, including counterfeiting of infant formula, prescription drugs, consumer goods and after-market parts for automobiles, aircraft and nuclear power plants. A large number of individuals or organized criminal groups are committing product fraud, with various motivations, such as financial gain, which is threatening global public health and safety. The public health and safety risks associated with product fraud are diverse and significant when the products are distributed through legitimate global supply chains. Examples include lethal amounts of melamine in infant formula, medicines with little or no active ingredients, aircraft replacement parts that fail and substandard electrical cords that catch fire.

Classical crime prevention strategies begin with an analysis of the situational contexts of a criminal offence in order to find the structural opportunity of a particular crime. Next, specific types of crime are classified according to modus operandi (MO) together with types of criminal intention and motive. Then, the types of criminal offenders and their behaviours are examined to determine how to prevent or deter the crime.

This document starts with understanding the external and internal situational context of product fraud. It considers causes of the fraud, such as product marketplaces and product fraud-related opportunities. It then examines the intentions and motives for product fraud, the types of product fraud, the types of product fraudsters and strategic countermeasures that can be taken against product fraud.

A better understanding and classification of intentions and motives, product fraud activities and fraudsters leads to a better selection of countermeasures. Product fraud countermeasures include profiling product fraud, risk assessment and the selection/implementation of bespoke countermeasures.

Figure 1 illustrates how a strategy for product fraud countermeasures and control as a continual process starts from an analysis of the situational context of product fraud, moves through several classifications of product fraud and fraudsters, and results in the selection/implementation of bespoke countermeasures and their effective assessment.

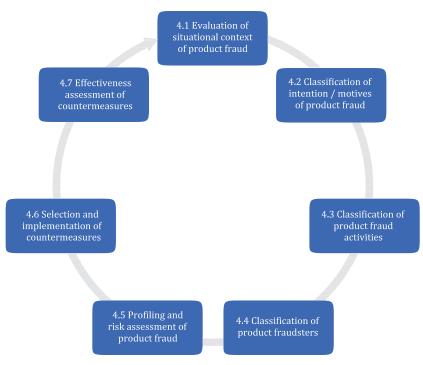


Figure 1 — The continual process for a product fraud countermeasures and control strategy