
Information technology — Security techniques — Vulnerability disclosure

*Technologies de l'information — Techniques de sécurité —
Divulcation de vulnérabilité*



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2014

All rights reserved. Unless otherwise specified, 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
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Abbreviated terms	2
5 Concepts	3
5.1 General	3
5.2 Interface between ISO/IEC 29147: Vulnerability disclosure and ISO/IEC 30111: Vulnerability handling processes	3
5.3 Products and online services	5
5.4 Stakeholders	6
5.5 Vulnerability disclosure process summary	7
5.6 Information exchange during vulnerability disclosure	8
5.7 Confidentiality of exchanged information	9
5.8 Vulnerability advisories	9
5.9 Vulnerability exploitation	9
6 Vulnerability disclosure policy considerations	10
6.1 General	10
6.2 Minimum policy aspects	10
6.3 Optional policy aspects	11
7 Receipt of vulnerability information	12
7.1 General	12
7.2 Potential vulnerability report and its secure receiving model	12
7.3 Acknowledgement of receipt from finder or a coordinator	12
7.4 Tracking incoming reports	12
7.5 On-going communication with finder	12
7.6 Detailed information	12
7.7 Support from coordinators	13
8 Possible vulnerability reporting among vendors	13
8.1 General	13
8.2 Typical cases calling for vulnerability reporting among vendors	13
8.3 Reporting of vulnerability information to other vendors	13
9 Dissemination of advisory	14
9.1 General	14
9.2 Purpose of advisory	14
9.3 Consideration in advisory disclosure	14
9.4 Timing of advisory release	14
9.5 Contents of advisory	15
9.6 Advisory communication	16
9.7 Advisory formats	17
9.8 Advisory authenticity	17
Annex A (informative) Details for handling vulnerability/advisory information	18
Annex B (informative) Sample policies, advisories, and global coordinators	26
Bibliography	34

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. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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.

ISO/IEC 29147 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 27, *IT Security techniques*.

Introduction

A vulnerability is a weakness of software, hardware, or online service that can be exploited. An exploitation of vulnerabilities results in a disruption of the confidentiality, integrity, or availability of the ICT system or related information assets, which may cause a breach of data privacy, interruption of operation of mission critical systems, and so on.

Vulnerabilities can be caused by both software or hardware design and programming flaws. Poor administrative processes and a lack of user awareness and education can also be a source of vulnerabilities, as can unforeseen changes in operating environments. Regardless of the cause, an exploitation of such vulnerabilities may result in real threats to mission-critical information systems. Individuals and organizations, including businesses and governments, rely heavily on hardware and software components used in operating systems, applications, networks, and critical national infrastructure. Vulnerabilities in these components increase risk to the information residing on them, thus increasing risks to users and owners of the information. In addition, the lack of awareness about these vulnerabilities also increases risk.

Inappropriate disclosure of a vulnerability could not only delay the deployment of the vulnerability resolution but also give attackers hints to exploit it. That is why vulnerability disclosure should be carried out appropriately.

Vulnerability disclosure is a process through which vendors and vulnerability finders may work cooperatively in finding solutions that reduce the risks associated with a vulnerability. It encompasses actions such as reporting, coordinating, and publishing information about a vulnerability and its resolution.

The goals of vulnerability disclosure include the following:

- a) ensuring that identified vulnerabilities are addressed;
- b) minimizing the risk from vulnerabilities;
- c) providing users with sufficient information to evaluate risks from vulnerabilities to their systems;
- d) setting expectations to promote positive communication and coordination among involved parties.

This International Standard provides guidelines for vendors to be included in their business processes when receiving information about potential vulnerabilities and distributing vulnerability resolution information.

