This is a preview of "ISO/IEC 24759:2017". Click here to purchase the full version from the ANSI store.

Third edition 2017-03

Information technology — Security techniques — Test requirements for cryptographic modules

Technologies de l'information — Techniques de sécurité — Exigences d'essai pour modules cryptographiques



ISO/IEC 24759:2017(E)

This is a preview of "ISO/IEC 24759:2017". Click here to purchase the full version from the ANSI store.



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2017, Published in Switzerland

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 Ch. de Blandonnet 8 • CP 401 CH-1214 Vernier, Geneva, Switzerland Tel. +41 22 749 01 11 Fax +41 22 749 09 47 copyright@iso.org www.iso.org This is a preview of "ISO/IEC 24759:2017". Click here to purchase the full version from the ANSI store.

CO	Ontents				
Fore	eword		v		
1	Scop	e	1		
2	-	native references			
_					
3		s and definitions			
4	Symb	Symbols and abbreviated terms			
5	Docu	ment organization	1		
	5.1	General	1		
	5.2	Assertions and security requirements	2		
6	Secu	Security requirements			
	6.1	General			
	6.2	Cryptographic module specification			
		6.2.1 Cryptographic module specification general requirements	3		
		6.2.2 Types of cryptographic modules	3		
		6.2.3 Cryptographic boundary			
	6.3	Cryptographic module interfaces			
	0.5	6.3.1 Cryptographic module interfaces general requirements			
		6.3.2 Types of interfaces			
		6.3.3 Definition of interfaces			
		6.3.4 Trusted channel			
	6.4	Roles, services, and authentication			
		6.4.1 Roles, services, and authentication general requirements			
		6.4.2 Roles			
		6.4.3 Services			
	(F	6.4.4 Authentication			
	6.5 6.6	Software/Firmware security			
	0.0	6.6.1 Operational environment general requirements			
		6.6.2 Operating system requirements for limited or non-modifiable	5 /		
		operational environments	57		
		6.6.3 Operating system requirements for modifiable operational environments			
	6.7	Physical security	68		
		6.7.1 Physical security embodiments	68		
		6.7.2 Physical security general requirements			
		6.7.3 Physical security requirements for each physical security embodiment	75		
	6.0	6.7.4 Environmental failure protection/testing			
	6.8 6.9	Non-invasive security			
	6.9	Sensitive security parameter management general requirements	91		
		6.9.2 Random bit generators	92		
		6.9.3 Sensitive security parameter generation			
		6.9.4 Sensitive security parameter establishment			
		6.9.5 Sensitive security parameter entry and output			
		6.9.6 Sensitive security parameter storage			
		6.9.7 Sensitive security parameter zeroisation			
	6.10	Self-tests			
		6.10.1 Self-test general requirements			
		6.10.2 Pre-operational self-tests			
	6.11	6.10.3 Conditional self-testsLife-cycle assurance			
	0.11	6.11.1 Life-cycle assurance general requirements			
		6.11.2 Configuration management			
		0 0	-		

ISO/IEC 24759:2017(E)

This is a preview of "ISO/IEC 24759:2017". Click here to purchase the full version from the ANSI store.

	6.11.3	Design Finite state model	121
	6.11.4	Finite state model	121
	6.11.5	Development	125
	6.11.6	Vendor testing	129
	6.11.7	Delivery and operation End of life	130
	6.11.9	Guidance documents	132
6.12	Mitigat	ion of other attacks	133
6.13	Documentation requirements		134
6.14	Cryptographic module security policy		134
6.15	Approved security functions		
6.16	Approved sensitive security parameter generation and establishment methods		
6.17	Approved authentication mechanisms		
6.18	Approv	ed non-invasive attack mitigation test metrics	135

This is a preview of "ISO/IEC 24759:2017". Click here to purchase the full version from the ANSI store.

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 | TC 1.

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 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 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).

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

For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by ISO/IEC JTC 1, *Information technology*, Subcommittee SC 27, *IT Security techniques*.

This third edition cancels and replaces the second edition (ISO/IEC 24759:2014), of which it constitutes a minor revision. It also incorporates the Technical Corrigendum ISO/IEC 24759:2014/Cor.1:2015.

The main changes compared to the previous edition (plus other minor editorial modifications) are as follows:

- References to ISO/IEC 19790:2012 have been corrected throughout:
- <u>6.2.3.2</u>: AS02.15, AS02.16, AS02.17 and AS02.18 modified;
- <u>6.3.3</u>: AS03.04, AS03.07, AS03.10 and AS03.15 modified;
- 6.3.4: AS03.19 modified:
- <u>6.4.1</u>: AS04.02 modified;
- 6.4.2; AS04.05, AS04.06 and AS04.07 modified;
- <u>6.4.3.1</u>: AS04.11, AS04.13 and AS04.14;
- 6.4.3.2 and AS04.20:
- 6.4.4: AS04.39, AS04.40 and AS04.42 modified;
- <u>6.5</u>: AS05.05, AS05.06, AS05.07, AS05.08, AS05.13, AS05.17 and AS05.18 modified;
- <u>6.8</u>: AS08.04 modified;
- 6.10.1: AS10.17 modified.

ISO/IEC 24759:2017(E)

This is a preview of "ISO/IEC 24759:2017". Click here to purchase the full version from the ANSI store.