

INTERNATIONAL
STANDARD

ISO/IEC
27018

Second edition
2019-01

**Information technology — Security
techniques — Code of practice for
protection of personally identifiable
information (PII) in public clouds
acting as PII processors**

Technologies de l'information — Techniques de sécurité — Code de bonnes pratiques pour la protection des informations personnelles identifiables (PII) dans l'informatique en nuage public agissant comme processeur de PII



Reference number
ISO/IEC 27018:2019(E)

© ISO/IEC 2019



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
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	vi
Introduction	vii
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Overview	3
4.1 Structure of this document	3
4.2 Control categories	4
5 Information security policies	4
5.1 Management direction for information security	4
5.1.1 Policies for information security	4
5.1.2 Review of the policies for information security	5
6 Organization of information security	5
6.1 Internal organization	5
6.1.1 Information security roles and responsibilities	5
6.1.2 Segregation of duties	5
6.1.3 Contact with authorities	5
6.1.4 Contact with special interest groups	5
6.1.5 Information security in project management	5
6.2 Mobile devices and teleworking	5
7 Human resource security	5
7.1 Prior to employment	5
7.2 During employment	5
7.2.1 Management responsibilities	6
7.2.2 Information security awareness, education and training	6
7.2.3 Disciplinary process	6
7.3 Termination and change of employment	6
8 Asset management	6
9 Access control	6
9.1 Business requirements of access control	6
9.2 User access management	6
9.2.1 User registration and de-registration	7
9.2.2 User access provisioning	7
9.2.3 Management of privileged access rights	7
9.2.4 Management of secret authentication information of users	7
9.2.5 Review of user access rights	7
9.2.6 Removal or adjustment of access rights	7
9.3 User responsibilities	7
9.3.1 Use of secret authentication information	7
9.4 System and application access control	7
9.4.1 Information access restriction	7
9.4.2 Secure log-on procedures	8
9.4.3 Password management system	8
9.4.4 Use of privileged utility programs	8
9.4.5 Access control to program source code	8
10 Cryptography	8
10.1 Cryptographic controls	8
10.1.1 Policy on the use of cryptographic controls	8
10.1.2 Key management	8

11	Physical and environmental security	8
11.1	Secure areas.....	8
11.2	Equipment.....	9
11.2.1	Equipment siting and protection.....	9
11.2.2	Supporting utilities.....	9
11.2.3	Cabling security	9
11.2.4	Equipment maintenance.....	9
11.2.5	Removal of assets.....	9
11.2.6	Security of equipment and assets off-premises.....	9
11.2.7	Secure disposal or re-use of equipment.....	9
11.2.8	Unattended user equipment.....	9
11.2.9	Clear desk and clear screen policy.....	9
12	Operations security	9
12.1	Operational procedures and responsibilities.....	9
12.1.1	Documented operating procedures.....	10
12.1.2	Change management.....	10
12.1.3	Capacity management.....	10
12.1.4	Separation of development, testing and operational environments.....	10
12.2	Protection from malware.....	10
12.3	Backup.....	10
12.3.1	Information backup.....	10
12.4	Logging and monitoring.....	11
12.4.1	Event logging.....	11
12.4.2	Protection of log information.....	11
12.4.3	Administrator and operator logs.....	11
12.4.4	Clock synchronization.....	12
12.5	Control of operational software.....	12
12.6	Technical vulnerability management.....	12
12.7	Information systems audit considerations.....	12
13	Communications security	12
13.1	Network security management.....	12
13.2	Information transfer	12
13.2.1	Information transfer policies and procedures.....	12
13.2.2	Agreements on information transfer	12
13.2.3	Electronic messaging	12
13.2.4	Confidentiality or non-disclosure agreements	12
14	System acquisition, development and maintenance	13
15	Supplier relationships	13
16	Information security incident management	13
16.1	Management of information security incidents and improvements.....	13
16.1.1	Responsibilities and procedures.....	13
16.1.2	Reporting information security events	13
16.1.3	Reporting information security weaknesses.....	13
16.1.4	Assessment of and decision on information security events	13
16.1.5	Response to information security incidents	14
16.1.6	Learning from information security incidents.....	14
16.1.7	Collection of evidence.....	14
17	Information security aspects of business continuity management	14
18	Compliance	14
18.1	Compliance with legal and contractual requirements.....	14
18.2	Information security reviews.....	14
18.2.1	Independent review of information security.....	14
18.2.2	Compliance with security policies and standards	14
18.2.3	Technical compliance review	14

Annex A (normative) Public cloud PII processor extended control set for PII protection.....	15
Bibliography	23