

# DIN EN ISO/IEC 27002:2017-06 (E)

## Information technology - Security techniques - Code of practice for information security controls (ISO/IEC 27002:2013 including Cor 1:2014 and Cor 2:2015)

---

<b>Contents</b>		<b>Page</b>
European foreword .....		6
Foreword .....		7
0	Introduction .....	8
1	Scope .....	10
2	Normative references .....	10
3	Terms and definitions .....	10
4	Structure of this standard .....	10
4.1	Clauses .....	10
4.2	Control categories .....	10
5	Information security policies .....	11
5.1	Management direction for information security .....	11
5.1.1	Policies for information security .....	11
5.1.2	Review of the policies for information security .....	12
6	Organization of information security .....	13
6.1	Internal organization .....	13
6.1.1	Information security roles and responsibilities .....	13
6.1.2	Segregation of duties .....	13
6.1.3	Contact with authorities .....	14
6.1.4	Contact with special interest groups .....	14
6.1.5	Information security in project management .....	15
6.2	Mobile devices and teleworking .....	15
6.2.1	Mobile device policy .....	15
6.2.2	Teleworking .....	16
7	Human resource security .....	18
7.1	Prior to employment .....	18
7.1.1	Screening .....	18
7.1.2	Terms and conditions of employment .....	18
7.2	During employment .....	19
7.2.1	Management responsibilities .....	19
7.2.2	Information security awareness, education and training .....	20
7.2.3	Disciplinary process .....	21
7.3	Termination and change of employment .....	22
7.3.1	Termination or change of employment responsibilities .....	22
8	Asset management .....	22
8.1	Responsibility for assets .....	22
8.1.1	Inventory of assets .....	22
8.1.2	Ownership of assets .....	23
8.1.3	Acceptable use of assets .....	23
8.1.4	Return of assets .....	24
8.2	Information classification .....	24
8.2.1	Classification of information .....	24

8.2.2	Labelling of information .....	25
8.2.3	Handling of assets .....	25
8.3	Media handling .....	26
8.3.1	Management of removable media .....	26
8.3.2	Disposal of media .....	27
8.3.3	Physical media transfer .....	27
9	Access control .....	28
9.1	Business requirements of access control .....	28
9.1.1	Access control policy .....	28
9.1.2	Access to networks and network services .....	29
9.2	User access management .....	30
9.2.1	User registration and de-registration .....	30
9.2.2	User access provisioning .....	30
9.2.3	Management of privileged access rights .....	31
9.2.4	Management of secret authentication information of users .....	31
9.2.5	Review of user access rights .....	32
9.2.6	Removal or adjustment of access rights .....	32
9.3	User responsibilities .....	33
9.3.1	Use of secret authentication information .....	33
9.4	System and application access control .....	34
9.4.1	Information access restriction .....	34
9.4.2	Secure log-on procedures .....	35
9.4.3	Password management system .....	35
9.4.4	Use of privileged utility programs .....	36
9.4.5	Access control to program source code .....	37
10	Cryptography .....	37
10.1	Cryptographic controls .....	37
10.1.1	Policy on the use of cryptographic controls .....	37
10.1.2	Key management .....	38
11	Physical and environmental security .....	39
11.1	Secure areas .....	39
11.1.1	Physical security perimeter .....	40
11.1.2	Physical entry controls .....	40
11.1.3	Securing offices, rooms and facilities .....	41
11.1.4	Protecting against external and environmental threats .....	41
11.1.5	Working in secure areas .....	42
11.1.6	Delivery and loading areas .....	42
11.2	Equipment .....	42
11.2.1	Equipment siting and protection .....	43
11.2.2	Supporting utilities .....	43
11.2.3	Cabling security .....	44
11.2.4	Equipment maintenance .....	44
11.2.5	Removal of assets .....	45
11.2.6	Security of equipment and assets off-premises .....	45
11.2.7	Secure disposal or re-use of equipment .....	46
11.2.8	Unattended user equipment .....	46
11.2.9	Clear desk and clear screen policy .....	47
12	Operations security .....	47
12.1	Operational procedures and responsibilities .....	47
12.1.1	Documented operating procedures .....	47
12.1.2	Change management .....	48
12.1.3	Capacity management .....	49
12.1.4	Separation of development, testing and operational environments .....	49
12.2	Protection from malware .....	50
12.2.1	Controls against malware .....	50
12.3	Backup .....	51
12.3.1	Information backup .....	51
12.4	Logging and monitoring .....	52

12.4.1	Event logging .....	52
12.4.2	Protection of log information .....	53
12.4.3	Administrator and operator logs .....	54
12.4.4	Clock synchronisation .....	54
12.5	Control of operational software .....	54
12.5.1	Installation of software on operational systems .....	54
12.6	Technical vulnerability management .....	55
12.6.1	Management of technical vulnerabilities .....	55
12.6.2	Restrictions on software installation .....	57
12.7	Information systems audit considerations .....	57
12.7.1	Information systems audit controls .....	57
13	Communications security .....	58
13.1	Network security management .....	58
13.1.1	Network controls .....	58
13.1.2	Security of network services .....	58
13.1.3	Segregation in networks .....	59
13.2	Information transfer .....	59
13.2.1	Information transfer policies and procedures .....	60
13.2.2	Agreements on information transfer .....	61
13.2.3	Electronic messaging .....	61
13.2.4	Confidentiality or non-disclosure agreements .....	62
14	System acquisition, development and maintenance .....	63
14.1	Security requirements of information systems .....	63
14.1.1	Information security requirements analysis and specification .....	63
14.1.2	Securing application services on public networks .....	64
14.1.3	Protecting application services transactions .....	65
14.2	Security in development and support processes .....	66
14.2.1	Secure development policy .....	66
14.2.2	System change control procedures .....	66
14.2.3	Technical review of applications after operating platform changes .....	67
14.2.4	Restrictions on changes to software packages .....	68
14.2.5	Secure system engineering principles .....	68
14.2.6	Secure development environment .....	69
14.2.7	Outsourced development .....	69
14.2.8	System security testing .....	70
14.2.9	System acceptance testing .....	70
14.3	Test data .....	71
14.3.1	Protection of test data .....	71
15	Supplier relationships .....	71
15.1	Information security in supplier relationships .....	71
15.1.1	Information security policy for supplier relationships .....	71
15.1.2	Addressing security within supplier agreements .....	72
15.1.3	Information and communication technology supply chain .....	74
15.2	Supplier service delivery management .....	75
15.2.1	Monitoring and review of supplier services .....	75
15.2.2	Managing changes to supplier services .....	75
16	Information security incident management .....	76
16.1	Management of information security incidents and improvements .....	76
16.1.1	Responsibilities and procedures .....	76
16.1.2	Reporting information security events .....	77
16.1.3	Reporting information security weaknesses .....	78
16.1.4	Assessment of and decision on information security events .....	78
16.1.5	Response to information security incidents .....	78
16.1.6	Learning from information security incidents .....	79
16.1.7	Collection of evidence .....	79
17	Information security aspects of business continuity management .....	80
17.1	Information security continuity .....	80

17.1.1	Planning information security continuity .....	80
17.1.2	Implementing information security continuity .....	81
17.1.3	Verify, review and evaluate information security continuity .....	82
17.2	Redundancies .....	82
17.2.1	Availability of information processing facilities .....	82
18	Compliance .....	83
18.1	Compliance with legal and contractual requirements .....	83
18.1.1	Identification of applicable legislation and contractual requirements .....	83
18.1.2	Intellectual property rights .....	83
18.1.3	Protection of records .....	84
18.1.4	Privacy and protection of personally identifiable information .....	85
18.1.5	Regulation of cryptographic controls .....	85
18.2	Information security reviews .....	86
18.2.1	Independent review of information security .....	86
18.2.2	Compliance with security policies and standards .....	86
18.2.3	Technical compliance review .....	87
	Bibliography .....	88