



# SLOVENSKI STANDARD

## SIST EN 18031-3:2024

01-oktober-2024

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### Skupne varnostne zahteve za radijsko opremo - 3. del: Z internetom povezana radijska oprema, ki obdeluje virtualni denar ali denarno vrednost

Common security requirements for radio equipment - Part 3: Internet connected radio equipment processing virtual money or monetary value

Gemeinsame Sicherheitsanforderungen für mit dem Internet verbundene Funkanlagen, die für die Datenverarbeitung im Zusammenhang mit virtuellen Währungen oder monetären Werten eingesetzt werden

Exigences de sécurité communes applicables aux équipements radioélectriques connectés à l'internet qui traitent une monnaie virtuelle ou de la valeur monétaire

**Ta slovenski standard je istoveten z: EN 18031-3:2024**

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## Common security requirements for radio equipment - Part 3: Internet connected radio equipment processing virtual money or monetary value

Exigences de sécurité communes applicables aux équipements radioélectriques - Partie 3 : Équipements radioélectriques connectés à l'internet qui traitent une monnaie virtuelle ou de la valeur monétaire

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This European Standard was approved by CEN on 1 August 2024.

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## European foreword

This document (EN 18031-3:2024) has been prepared by Technical Committee CEN/CENELEC JTC 13 “Cybersecurity and Data Protection”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2025, and conflicting national standards shall be withdrawn at the latest by February 2025.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a standardization request addressed to CEN-CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

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## EN 18031-3:2024 (E)

### Introduction

Vigilance is required from manufacturers to improve the overall resilience against cybersecurity threats caused by the increased connectivity of radio equipment [34] and the growing ability of malicious threat actors to cause harm to users, organizations, and society.

The security requirements presented in this baseline standard are developed to improve the ability of radio equipment to protect its security and financial assets against common cybersecurity threats and to mitigate publicly known exploitable vulnerabilities.

It is important to note that to achieve the overall cybersecurity of radio equipment, defence in depth best practices will be needed by both the manufacturer and user. In particular, no single measure will suffice to achieve the given objectives, indeed achieving even a single security objective will usually require a suite of mechanisms and measures. Throughout this document, the guidance material includes lists of examples. These examples given are only indicative possibilities, as there are other possibilities that are not listed, and even using the examples given will not be sufficient unless the mechanisms and measures chosen are implemented in a coordinated fashion.

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## 1 Scope

This document specifies common security requirements and related assessment criteria for internet connected radio equipment [35]. That equipment enables the holder or user to transfer money, monetary value or virtual currency [35] (hereinafter referred to as "equipment").

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp/>

### 3.1

#### access control mechanism

equipment functionality to grant, restrict or deny access to specific equipment's *resources*

Note 1 to entry: Access to specific equipment's resources can amongst others be:

- reading specific data; or
- writing specific data to equipment's persistent storage; or
- performing a specific equipment functionality such as recording audio.

### 3.2

#### authentication

provision of assurance that an *entity* is who or what it claims to be

Note 1 to entry: An entity can amongst others claim to be:

- a specific human, owner of a user account, device, or service; or
- a member of specific groups such as an authorized group to access a specific equipment's resource; or
- authorized by another entity to access a specific equipment's resource.

### 3.3

#### authentication mechanism

equipment functionality to verify that an *entity* is who or what it claims to be

Note 1 to entry: Typically, the verification is based on examining evidence from one or more elements of the categories:

- knowledge; and
- possession; and

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- inherence.

**3.4****authenticator**

something known or possessed, and controlled by an entity that is used for *authentication*

Note 1 to entry: Typically, it is a physical device or a password.

EXAMPLE A password or token can be used as an authenticator.

**3.5****assessment objective**

statement, provided as part of the assessment input, which defines the reasons for performing the assessment

[SOURCE: ISO/IEC 33001:2015, 3.2.6 [28]]

**3.6****best practice**

measures that have been shown to provide appropriate security for the corresponding use case

**3.7****brute force attack**

attack on a cryptosystem that employs a trial-and-error search of a set of keys, *passwords* or other data

**3.8****communication mechanism**

equipment functionality that allows communication via a *machine interface*

**3.9****confidential cryptographic key**

*confidential security parameter*, excluding *passwords*, which is used in the operation of a cryptographic algorithm or cryptographic protocol

**3.10****confidential financial data**

*financial data* whose disclosure can lead to fraud

**3.11****confidential financial function configuration**

*financial function configuration* whose disclosure can lead to fraud

**3.12****confidential security parameters**

*security parameter* whose disclosure can lead to fraud

**3.13****denial of service**

prevention or interruption of authorized access to an equipment *resource* or the delaying of the equipment operations and functions

[SOURCE: IEC 62443-1-1:2019, 3.2.42 [29]] modified

**3.14****device**

product external to the equipment

**3.15****entity**

user, *device*, equipment or service

**3.16****entropy**

measure of the disorder, randomness or variability in a closed system

**3.17****external interface**

*interface* of an equipment that is accessible from outside the equipment

**3.18****factory default state**

defined state where the configuration settings and configuration of the equipment is set to initial values

Note 1 to entry: A factory default state may include security updates, installed after the equipment being placed on the market.

**3.19****financial asset**

*sensitive financial data* or *confidential financial data* or *sensitive financial function configuration* or *confidential financial function configuration* or *financial functions*

**3.20****financial data**

data that represents, provides information about, or is processed for transferring money, monetary assets or virtual currencies [35]

**3.21****financial function**

equipment's functionality that processes *financial data*

**3.22****financial function configuration**

data processed by the equipment that defines the behaviour of the equipment's *financial functions*

**3.23****hard-coded**

*software* development practice of embedding data directly into the source code of a program or other executable object

**3.24****initialization**

process that configures the network connectivity of the equipment for operation

Note 1 to entry: Initialization can provide the possibility to configure authentication features for a user or for network access.

**EN 18031-3:2024 (E)****3.25****interface**

shared boundary across which *entities* exchange information

**3.26****justification**

documented information providing evidence that a claim is true under the assumption of common expertise.

Note 1 to entry: Such evidence can be supported for example by:

- a description of the equipment's intended equipment functionality,
- a descriptions of equipment's operational environment of use,
- a description of equipment's technical properties such as security measures
- an analysis of relevant risks related to the operation of the equipment within its reasonably foreseeable use and intended equipment functionality.

**3.27****log data**

record(s) of certain events (of processes) on a computing equipment

**3.28****logging mechanism**

equipment functionality to log internal activities

**3.29****machine interface**

*external interface* between the equipment and a service or *device*

**3.30****network interface**

*external interface* enabling the equipment to have or provide access to a network

Note 1 to entry: Examples for network interfaces are a LAN port (wired) or a wireless network interface enabling WLAN or short range wireless communication, e.g., using a 2.4 GHz antenna.

**3.31****operational state**

state in which the equipment is functioning normally according its intended equipment functionality [36] and within its intended operational environment of use

**3.32****optional service**

services which are not necessary to setup the equipment, and which are not part of the basic functionality but are still relevant for the intended equipment functionality [36] and are delivered as part of the factory default.

EXAMPLE An SSH service on the equipment is not required for basic functionality of the equipment, but it can be used to allow a remote access to the equipment.

**3.33****password**

sequence of characters (letters, numbers, or other symbols) used to authenticate an *entity*

Note 1 to entry: Personal identification numbers (PINs) are also considered a form of password.

**3.34****public security parameter**

*sensitive security parameter* that is not confidential

**3.35****resilient**

able to anticipate, withstand, recover from, and adapt to adverse conditions, stresses, attacks, or compromises on systems that use or are enabled by cyber *resources*.

[SOURCE: NIST SP 800-172 [30] ]

**3.36****resource**

functional unit or data item needed to perform required operations

[SOURCE: IEC [31]]

**3.37****risk**

combination of the probability of occurrence of harm and the severity of that harm

[SOURCE: ISO/IEC Guide 51:2014 [32]]

**3.38****security asset**

*sensitive security parameter* or *confidential security parameter* or *security function*

**3.39****security function**

functionality on the equipment that protects *security assets* or *financial assets* from being misused for fraud

**3.40****security parameter**

data processed by the equipment that defines the behaviour of the equipment's *security function*

**3.41****security strength**

number associated with the amount of work that is required to break a cryptographic algorithm or system

Note 1 to entry: The amount of work can for example be the number of operations required to break a cryptographic algorithm or system.

**3.42****sensitive financial data**

*financial data* whose manipulation can lead to fraud

**EN 18031-3:2024 (E)****3.43****sensitive financial function configuration**

*financial function configuration* whose unauthorized modification can lead to fraud

**3.44****sensitive security parameters**

*security parameter* whose manipulation can lead to fraud

**3.45****security update**

*software* update that addresses security vulnerabilities through software patches or other mitigations

**3.46****software**

assembly of programs, procedures, rules, documentation, and data, pertaining to the operation of an equipment

Note 1 to entry: Software also includes firmware.

**3.47****storage mechanism**

equipment functionality that allows to store information

**3.48****update mechanism**

equipment functionality that allows to change equipment's *software*

**3.49****user interface**

*external interface* between the equipment and a user

**3.50****vulnerability**

weakness, design, or implementation error that can lead to an unexpected, undesirable event compromising the security of the equipment, network, application, or protocol involved.

[SOURCE: (ITSEC) (definition given by ENISA, "computer system" has been replaced by "equipment") [33]]

**4 Abbreviations**

ACM	access control mechanism
API	application programming interface
AU	assessment unit
AUM	authentication mechanism
CCK	confidential cryptographic key(s)
CRY	cryptology
CSP	confidential security parameter
CWE	common weakness enumeration
DN	decision node
DT	decision tree
E	evidence
E.Info	evidence.information
E.Just	evidence.justification