SLOVENSKI STANDARD
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Blokovno veriženje in tehnike razpršenih glavnih knjig - Slovar (ISO 22739:2020)

Blockchain and distributed ledger technologies - Vocabulary (ISO 22739:2020)

Blockchain und Technologien für verteilte elektronische Journale - Vokabular (ISO 22739:2020)

Chaîne de blocs et technologies de registres distribués - Vocabulaire (ISO 22739:2020)

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ICS:

01.040.35	Informacijska tehnologija. (Slovarji)	Information technology (Vocabularies)
35.030	Informacijska varnost	IT Security
35.040.99	Drugi standardi v zvezi s kodiranjem informacij	Other standards related to information coding
35.240.40	Uporabniške rešitve IT v bančništvu	IT applications in banking

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Blockchain and distributed ledger technologies — Vocabulary

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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).

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For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 307, *Blockchain and distributed ledger technologies*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document defines basic terms relating to blockchain and distributed ledger technologies to clarify the meaning of terms and concepts used in other document within the domain of ISO/TC 307 standards.

Clear, consistent and coherent standards require clear, consistent and coherent terminology. This document follows rules and guidelines set by ISO/TC 37, *Language and terminology,* for terminology standards.

This document applies to all types of organizations (e.g., commercial enterprises, government agencies, not-for-profit organizations). The target audience includes but is not limited to academics, solution architects, customers, users, tool developers, regulators, auditors and standards development organizations.

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Blockchain and distributed ledger technologies — Vocabulary

1   Scope

This document provides fundamental terminology for blockchain and distributed ledger technologies.

2   Normative references

There are no normative references in this document.

3   Terms and definitions

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
asset
anything that has value to a stakeholder

[SOURCE: ISO/TS 19299:2015, 3.3, modified — Note 1 to entry has been removed.]

3.2
block
structured data comprising *block data* ([3.3](#)) and a *block header* ([3.4](#))

3.3
block data
structured data comprising zero or more *transaction records* ([3.79](#)) or references to *transaction records* ([3.79](#))

3.4
block header
structured data that includes a *cryptographic link* ([3.16](#)) to the previous *block* ([3.2](#)) unless there is no previous *block* ([3.2](#))

Note 1 to entry: A block header can also contain a *timestamp* ([3.75](#)), a *nonce* ([3.51](#)), and other *DLT platform* ([3.29](#)) specific data, including a *hash value* ([3.39](#)) of corresponding *transaction records* ([3.79](#)).

3.5
block reward
reward given to *miners* ([3.48](#)) or *validators* ([3.83](#)) after a *block* ([3.2](#)) is *confirmed* ([3.8](#)) in a *blockchain system* ([3.7](#))

Note 1 to entry: A reward can be in the form of a *token* ([3.76](#)) or *cryptocurrency* ([3.14](#)).

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3.6
blockchain
distributed ledger ([3.22](#)) with *confirmed blocks* ([3.9](#)) organized in an append-only, sequential chain using *cryptographic links* ([3.16](#))

Note 1 to entry: Blockchains are designed to be tamper resistant and to create final, definitive and *immutable* ([3.40](#)) *ledger records* ([3.44](#)).

3.7
blockchain system
system that implements a *blockchain* ([3.6](#))

Note 1 to entry: A blockchain system is a type of *DLT system* ([3.30](#)).

3.8
confirmed
accepted by *consensus* ([3.11](#)) for inclusion in a *distributed ledger* ([3.22](#))

3.9
confirmed block
block ([3.2](#)) that has been *confirmed* ([3.8](#))

3.10
confirmed transaction
transaction ([3.77](#)) that has been *confirmed* ([3.8](#))

3.11
consensus
agreement among *DLT nodes* ([3.27](#)) that 1) a *transaction* ([3.77](#)) is *validated* ([3.81](#)) and 2) that the *distributed ledger* ([3.22](#)) contains a consistent set and ordering of *validated* ([3.81](#)) *transactions* ([3.77](#))

Note 1 to entry: Consensus does not necessarily mean that all *DLT nodes* ([3.27](#)) agree.

Note 2 to entry: The details regarding consensus differ among *DLT* ([3.23](#)) designs and this is a distinguishing characteristic between one design and another.

3.12
consensus mechanism
rules and procedures by which *consensus* ([3.11](#)) is reached

3.13
crypto-asset
digital asset ([3.20](#)) implemented using cryptographic techniques

3.14
cryptocurrency
crypto-asset ([3.13](#)) designed to work as a medium of value exchange

Note 1 to entry: Cryptocurrency involves the use of decentralized control and *cryptography* ([3.17](#)) to secure *transactions* ([3.77](#)), control the creation of additional *assets* ([3.1](#)), and verify the transfer of *assets* ([3.1](#)).

3.15
cryptographic hash function
function mapping binary strings of arbitrary length to binary strings of fixed length, such that it is computationally costly to find for a given output an input that maps to the output, it is computationally infeasible to find for a given input a second input that maps to the same output, and it is computationally infeasible to find any two distinct inputs that map to the same output

Note 1 to entry: Computational feasibility depends on the specific security requirements and environment.