

IEEE Standard for a Custodian Framework of Cryptocurrency

IEEE Consumer Electronics Society

Developed by the
Blockchain Standards Committee

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Developed by the

Blockchain Standards Committee
of the
IEEE Consumer Electronics Society

Approved 3 June 2020

IEEE SA Standards Board

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Abstract: A framework of a custodian service for cryptocurrency and token assets is defined in this standard. Custodian reference technical architecture, business logic description, custodian service business models, digital asset evaluation criteria, operational procedure models, and regulatory requirement support models are included in this framework.

Keywords: blockchain, cryptocurrency, custodian, digital asset, IEEE 2140.5, token

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Introduction

This introduction is not part of IEEE Std 2140.5–2020, IEEE Standard for a Custodian Framework of Cryptocurrency.

This standard defines a standard framework of a custodian service for cryptocurrency and token assets. The framework includes a custodian reference technical architecture, business logic description, custodian service business models, digital asset evaluation criteria, operational procedure models, and regulatory requirement support models.

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Contents

1. Overview	9
1.1 Scope	9
1.2 Purpose	9
1.3 Word usage	9
2. Definitions, acronyms, and abbreviations	10
2.1 Definitions	10
2.2 Acronyms and abbreviations	11
3. Custodian service of cryptocurrency	11
3.1 Overview of custodian service of cryptocurrency	11
3.2 Dimensions of custodian service of cryptocurrency	12
4. Requirements to support custodian service of cryptocurrency	12
4.1 General requirements for a custodian service of cryptocurrency	12
4.2 Requirements for generic cryptocurrency standards upon blockchain projects	12
4.3 Requirements for a static model in custodian service	13
4.4 Requirements for cryptocurrency processing and management in a custodian service	13
4.5 Requirements for security audit and regulation for custodian service of cryptocurrency	13
5. A functional model to support cryptocurrency a custodian	13
5.1 Generic cryptocurrency standards	14
5.2 Custody model functions	15
5.3 Cryptocurrency processing and management function	15
5.4 Security audit and regulation functions	15
5.5 Custodian interface	15
6. Details on custody model functions	16
6.1 Generic custody model	16
6.2 Cryptocurrency model	17
6.3 Storage model	17
6.3.1 Multi-signature storage model	17
6.3.2 Hot wallet storage model	18
7. Details on cryptocurrency processing and management functions	18
7.1 Custodian services	18
7.2 Cryptocurrency usability	19
8. Details on security audit and regulation functions	19
Annex A (informative) Bibliography	21

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1. Overview

Asset custody mainly refers to custody services provided by third-party banks or securities firms in the financial and investment fields. For example, traditional equity investments or securities investment funds shall designate banks as third-party custodian institutions to complete fund raising to ensure that investors raise funds. The funds raised by investors are segregated from the funds owned by the fund management firm, and are held in custody by a fair third party, so as to avoid any theft or confusion.

Asset custody is a functional module of asset management and needs to meet the needs of asset escrow.

1.1 Scope

This standard defines a standard framework of a custodian service for cryptocurrency and digital assets. The framework includes a custodian reference technical architecture, business logic description, custodian service business models, digital asset evaluation criteria, operational procedure models, and regulatory requirement support models.

1.2 Purpose

There are no agreed frameworks for custodian services in token assets and cryptocurrency. This standard aims to provide a custodian framework with regulation, cryptocurrency processing and management in custody, and a reference technical architecture to support the framework.

1.3 Word usage

The word *shall* indicates mandatory requirements strictly to be followed in order to conform to the standard and from which no deviation is permitted (shall equals is required to).^{1,2}

The word *should* indicates that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required (should equals is recommended that).

The word *may* is used to indicate a course of action permissible within the limits of the standard (may equals is permitted to).

¹The use of the word *must* is deprecated and cannot be used when stating mandatory requirements, *must* is used only to describe unavoidable situations.

²The use of *will* is deprecated and cannot be used when stating mandatory requirements, *will* is only used in statements of fact.