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IEEE Standard for Discovery, Authentication, and Authorization in Host Attachments of Storage Devices

IEEE Computer Society

Sponsored by the
Information Assurance Committee

IEEE
3 Park Avenue
New York, NY 10016-5997
USA

IEEE Std 1667™-2018
(Revision of
IEEE Std 1667-2015)

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Abstract: Discovery, authentication, and authorization protocols between hosts and storage devices over multiple transports are defined in this standard.

Keywords: authentication, authorization, CF, CompactFlash®, discovery, *e*•MMC, IEEE 1667™, NVMe, NVM Express, password silo, probe silo, SAS, SATA, SCSI, SCTS, security, SILO, smart card transport silo, STID, storage, TCG storage transport silo, transport independent, trusted computing group, UAS, UFS, USB, USB BOT

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Introduction

This introduction is not part of IEEE Std 1667-2018, IEEE Standard for Discovery, Authentication, and Authorization in Host Attachments of Storage Devices.

The following are included in this document:

1) Front matter
2) Twelve clauses
3) Twelve annexes

This is the fourth published version of IEEE Std 1667, as follows:

1) IEEE Std 1667-2006 (superseded by IEEE Std 1667-2009)
2) IEEE Std 1667-2009
3) IEEE Std 1667-2015
4) This version, IEEE Std 1667-2018

This standard provides the following:

— Device-type independent protocol for discovering and using multiple interfaces
— Support for multiple applications (silos)
— A mechanism and ground rules for externally defined functional modules

The principal change from the 2015 version is as follows:

— Support for the NVM Express interface transport.

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IEEE Standard for Discovery, Authentication, and Authorization in Host Attachments of Storage Devices

1. Overview

1.1 Scope

This standard defines discovery, authentication, and authorization protocols between hosts and storage devices over multiple transports.

1.2 Purpose

This document does not contain a Purpose statement.

1.3 Conventions

1.3.1 Precedence

If a conflict arises among text, tables, or figures, the order of precedence to resolve the conflicts is first the tables, then the text, and finally the figures.

1.3.2 Keywords

1.3.2.1 may

A keyword that indicates flexibility of choice with no implied preference.

1.3.2.2 N/A

A keyword that indicates a field is not applicable, has no defined value, and should not be checked by the host or device.

1.3.2.3 optional

A keyword that describes features that are not required by this standard. However, if any optional feature defined by the standard is implemented, the feature shall be implemented in the way defined by the standard.