

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

IEEE Computer Society

Sponsored by the  
Information Assurance Committee

**IEEE Std 1667™-2015**

(Revision of  
IEEE Std 1667-2009)

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

Sponsor

**Information Assurance Committee  
of the  
IEEE Computer Society**

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**Abstract:** Discovery, authentication, and authorization protocols between hosts and storage devices over multiple transports are defined in this standard. It specifies a new Silo Type Identifier (STID) allocation process that uses the IEEE Registration Authority.

**Keywords:** authentication, authorization, CF, compactflash, discovery, EMMC, IEEE 1667™, 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 BOT, USB

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# Introduction

This introduction is not part of IEEE Std 1667™-2015, IEEE Standard for Discovery, Authentication, and Authorization in Host Attachments of Storage Devices.

The following are included in this document:

- Front matter
- 12 clauses
- 11 annexes

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

- IEEE Std 1667-2006 (superseded by IEEE Std 1667-2009)
- IEEE Std 1667-2009 (superseded by IEEE Std 1667-2015)
- IEEE Std 1667-2015

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

Principal changes from IEEE Std 1667-2009 are as follows:

- Support for the Password, Smart Card Transport, and TCG Storage Transport silos
- Obsoleted support for the Certificate Authentication Silo
- Additional Probe Silo functionality
- General clarifications
- Support for interface transports: Serial ATA, USB BOT, UAS, CompactFlash, e•MMC, and UFS.

# Contents

1.	Overview .....	1
	1.1 Scope .....	1
	1.2 Purpose .....	1
	1.3 Conventions .....	1
2.	Normative references .....	8
3.	Definitions .....	10
4.	Special terms, acronyms, and abbreviations .....	11
	4.1 Special terms .....	11
	4.2 Acronyms and abbreviations .....	15
5.	Model .....	16
	5.1 How to use this standard .....	16
	5.2 Stack .....	17
	5.3 Silo Type Identifier (STID) .....	18
	5.4 Silo interactions .....	19
	5.5 Provisioning .....	20
	5.6 Authentication .....	20
	5.7 Authorization .....	20
6.	Host requirements .....	22
	6.1 Overview .....	22
	6.2 Host requirements for the Probe Silo .....	22
	6.3 Host requirements for the Password Silo .....	22
	6.4 Host requirements for the Smart Card Transport Silo .....	22
	6.5 Host requirements for the TCG Storage Transport Silo .....	22
7.	Addressable Command Target requirements .....	23
	7.1 General ACT requirements .....	23
	7.2 IEEE 1667 Reset types .....	23
8.	Status Codes .....	25
	8.1 Common Status Codes .....	25
	8.2 Success .....	26
	8.3 Failure .....	26
	8.4 Invalid Parameter Combination .....	26
	8.5 Invalid Parameter Length .....	26
	8.6 Inconsistent Payload Content Length .....	26
	8.7 Invalid Silo .....	26
	8.8 Incomplete Command Received .....	26
	8.9 Invalid Parameter .....	26
	8.10 No Probe .....	26
	8.11 Silo Interactions Error .....	27
	8.12 P_OUT/P_IN Sequence Rejection .....	27
	8.13 Invalid Command ID .....	27

9.	Password Silo.....	28
	9.1 Overview.....	28
	9.2 Model.....	28
	9.3 Status Codes.....	52
	9.4 IEEE 1667 Reset responses.....	57
	9.5 Commands.....	57
10.	Probe Silo.....	75
	10.1 Overview.....	75
	10.2 Model.....	75
	10.3 Status Codes.....	76
	10.4 IEEE 1667 Reset responses.....	76
	10.5 Commands.....	76
11.	Smart Card Transport Silo.....	78
	11.1 Overview.....	78
	11.2 Model.....	78
	11.3 Status Codes.....	81
	11.4 IEEE 1667 Reset responses.....	81
	11.5 Commands.....	86
12.	TCG Storage Transport Silo.....	88
	12.1 Overview.....	88
	12.2 Model.....	88
	12.3 Status Codes.....	90
	12.4 IEEE 1667 Reset responses.....	91
	12.5 Commands.....	91
	Annex A (informative) Bibliography.....	94
	Annex B (normative) IEEE 1667 over SCSI and ATA devices.....	95
	Annex C (normative) SAS transport.....	173
	Annex D (normative) ATA transport.....	177
	Annex E (normative) USB BOT transport.....	181
	Annex F (normative) USB UASP transport.....	185
	Annex G (normative) CompactFlash transport.....	190
	Annex H (normative) e•MMC transport.....	191
	Annex I (normative) UFS transport.....	195
	Annex J (informative) SCTS usage notes and examples of exchanges.....	199
	Annex K (informative) TCG Storage Transport Silo examples.....	208

## List of tables

Table 1—HEX ASCII conversion .....	3
Table 2—Acronyms and abbreviations .....	15
Table 3—Distribution of requirements in this standard .....	16
Table 4—STID values defined in this standard .....	18
Table 5—PROBE command interaction pool numbers .....	19
Table 6—High-level IEEE 1667 reset types .....	24
Table 7—Common Status Codes .....	25
Table 8—Password Silo commands .....	28
Table 9—SHA-256 digest calculation example .....	32
Table 10—PS commands in state B1: Not PS Blocked .....	40
Table 11—PS commands in state B2: User PS Blocked .....	42
Table 12—PS commands in state B3: Admin PS Blocked .....	43
Table 13—PS commands in state B4: Fully PS Blocked .....	44
Table 14—PS commands in state S2: Not Provisioned .....	46
Table 15—PS commands in state S3: Not Authorized .....	47
Table 16—PS commands in state S4: Authorized .....	49
Table 17—PS commands in state S5: Failed .....	49
Table 18—Variable field data format .....	50
Table 19— <b>FIELD IDENTIFIER</b> values .....	51
Table 20—Password Silo Status Codes .....	52
Table 21—Mutual authentication requirements for PS functions .....	57
Table 22—Reset PS Administrator Authentication Failure Count behavior .....	61
Table 23— <b>PS USER AUTHENTICATION FAILURE TRACKING</b> field values and behaviors .....	62
Table 24—ITMS subcommands .....	67
Table 25— <b>SILO STATE</b> field values .....	69
Table 26—Probe Silo commands .....	75
Table 27—Probe Silo Status Codes .....	76
Table 28—Smart Card Transport Silo commands .....	78
Table 29—SCTS Status Codes .....	81
Table 31—SCTS Explicit Reset commands .....	82
Table 30—Additional SCTS response for IEEE 1667 resets .....	82
Table 32—APDU command message format .....	84
Table 33—APDU response message format .....	85
Table 34—GET SCTS TRANSPORT MODE DESCRIPTION response parameters .....	86
Table 35—TCG Storage Transport Silo commands .....	88
Table 36—TCG Storage Transport Silo specific Status Codes .....	90
Table 37—TCG-SIIS error translations .....	91
Table 38—TCG Storage Transport Silo reset responses .....	91
Table B.1—P_IN/P_OUT transports .....	96
Table B.2—IEEE 1667 major and minor version reporting .....	100
Table B.3—Common IEEE 1667 Silo Status Code values .....	101
Table B.4—Common P_OUT payload .....	102
Table B.5—Common P_IN payload .....	103
Table B.6—Silo and transport power management interactions .....	104
Table B.7—Silo and transport reset interactions .....	105
Table B.8—Password Silo <b>COMMAND ID</b> field values .....	106
Table B.9—Password Silo Status Codes .....	106
Table B.10—AUTHORIZE FOR ACT ACCESS command P_OUT payload .....	108
Table B.11—CHANGE PASSWORD command P_OUT payload .....	109
Table B.12—CHANGE PASSWORD command P_IN payload .....	110
Table B.13—CONFIGURE PS ADMINISTRATOR command P_OUT payload .....	111

Table B.14—CONFIGURE PS ADMINISTRATOR command P_IN payload .....	112
Table B.15—CREATE PS USER command P_OUT payload.....	113
Table B.16—CREATE PS USER command P_IN payload.....	114
Table B.17—DELETE PS USER command P_OUT payload .....	115
Table B.18—DELETE PS USER command P_IN payload .....	115
Table B.19—INITIALIZE PS USER PASSWORD command P_OUT payload .....	116
Table B.20—INITIALIZE PS USER PASSWORD command P_IN payload .....	117
Table B.21—ITMS command P_OUT payload .....	117
Table B.22—ITMS command P_IN payload .....	118
Table B.23—MUTUAL AUTHENTICATION command P_OUT payload .....	118
Table B.24—MUTUAL AUTHENTICATION command P_IN payload .....	119
Table B.25—QUERY PASSWORD SILO INFORMATION command P_OUT payload .....	119
Table B.26—QUERY PASSWORD SILO INFORMATION command P_IN payload .....	120
Table B.27—REQUEST MUTUAL CHALLENGE command P_OUT payload.....	122
Table B.28—REQUEST MUTUAL CHALLENGE command P_IN payload.....	122
Table B.29—UNAUTHORIZE FOR ACT ACCESS command P_OUT payload .....	123
Table B.30—UNAUTHORIZE FOR ACT ACCESS command P_IN payload .....	123
Table B.31—Probe Silo <b>COMMAND ID</b> field values .....	124
Table B.32—Probe Silo <b>STATUS CODE</b> field values .....	124
Table B.33—CONFIGURE SILOS command P_OUT payload.....	125
Table B.34— <b>SILO UPDATE ELEMENT FIELD</b> .....	126
Table B.35—CONFIGURE SILOS command P_IN payload.....	127
Table B.36—PROBE command P_OUT payload.....	128
Table B.37— <b>HOST OS</b> field values.....	129
Table B.38— <b>HOST OS SPEFICATION</b> field for Microsoft Windows OS .....	130
Table B.39—PROBE command P_IN payload.....	131
Table B.40— <b>SILO LIST ELEMENT</b> field .....	132
Table B.41—SCTS <b>COMMAND ID</b> field values .....	134
Table B.42—SCTS <b>STATUS CODE</b> field values .....	134
Table B.43—SCTS Common P_IN Header for SCTS commands with variable length parameters .....	136
Table B.44—Command still processing P_IN payload.....	137
Table B.45—SCTS Transport Mode Identifiers.....	137
Table B.46—GET RESULTS command P_OUT payload.....	142
Table B.47—GET RESULTS command P_IN payload (SCTS Command Finished) .....	143
Table B.48—GET SILO CAPABILITIES command P_OUT payload .....	144
Table B.49—GET SILO CAPABILITIES command P_IN payload .....	145
Table B.50—GET SCTS TRANSPORT MODE DESCRIPTION command P_OUT payload .....	146
Table B.51—GET SCTS TRANSPORT MODE DESCRIPTION command P_IN payload .....	147
Table B.52—SCTS Transport Mode Description.....	147
Table B.53—CCID Transport Mode Description.....	148
Table B.54—ICCD Transport Mode Description.....	149
Table B.55—MESSAGE EXCHANGE command P_OUT payload .....	150
Table B.56—MESSAGE EXCHANGE command P_IN payload .....	151
Table B.57—SCTS RESET command P_OUT payload.....	152
Table B.58—SCTS RESET command P_IN payload .....	153
Table B.59—SET SCTS TRANSPORT MODE command P_OUT payload .....	154
Table B.60—SET SCTS TRANSPORT MODE command P_IN payload .....	154
Table B.61—TCG Storage Transport Silo <b>COMMAND ID</b> field values.....	155
Table B.62—TCG Storage Transport Silo Status Code Values .....	155
Table B.63—GET SILO CAPABILITIES command P_OUT payload .....	158
Table B.64—GET SILO CAPABILITIES command P_IN payload .....	159
Table B.65—GET TRANSFER RESULTS command P_OUT payload .....	161
Table C.66—GET TRANSFER RESULTS command P_IN payload .....	162
Table B.67—STACK RESET command P_OUT payload .....	164

Table B.68—STACK RESET command P_IN payload .....	164
Table B.69—TPER RESET command P_OUT payload .....	166
Table B.70—TPER RESET command P_IN payload .....	166
Table B.71—TRANSFER command P_OUT payload .....	168
Table B.72—TRANSFER command P_IN payload .....	169
Table C.1—SCSI power management transition interactions .....	174
Table C.2—SAS events mapped to IEEE 1667 Resets .....	174
Table C.3—IEEE 1667 P_IN and P_OUT CDBs.....	175
Table D.1—ATA power management transition interactions .....	178
Table D.2—ATA events mapped to IEEE 1667 Resets .....	178
Table D.3—ATA P_IN/P_OUT command .....	179
Table E.1—USB events mapped to IEEE 1667 Resets .....	182
Table E.2—IEEE 1667 P_IN and P_OUT CDBs.....	183
Table F.1—UAS events mapped to IEEE 1667 Resets .....	187
Table F.2—IEEE 1667 P_IN and P_OUT CDBs .....	188
Table H.1— <i>e</i> •MMC power management transition interactions .....	192
Table H.2— <i>e</i> •MMC events mapped to IEEE 1667 Resets .....	192
Table H.3— <i>e</i> •MMC CMD23 command block.....	193
Table H.4— <i>e</i> •MMC CMD54 and CMD53 structure.....	194
Table I.1—UFS power management transition interactions .....	196
Table I.2—UFS events mapped to IEEE 1667 resets .....	197
Table I.3—IEEE 1667 P_IN and P_OUT CDBs.....	198

## List of figures

Figure 1—State diagram convention .....	6
Figure 2—Sequence figure notation .....	7
Figure 3—Example of layer relationships for IEEE 1667 .....	17
Figure 4—IEEE 1667 ACT structure(s) .....	23
Figure 5—Challenge validation flow .....	34
Figure 6—Digest validation flow .....	35
Figure 7—Mutual authentication state diagram .....	37
Figure 8—PS Blocked state transition diagram .....	39
Figure 9—Password Silo authorization for media access state diagram .....	45
Figure 10—Examples of Smart Card Transport Silos .....	79
Figure 11—Examples of TCG Storage Transport Silo configurations .....	89
Figure B.1—P_OUT/P_IN Command pairing state diagram .....	98
Figure B.2—SCTS long processing commands state diagram .....	139
Figure J.1—Example of an SCTS CCID startup sequence .....	201
Figure J.2—Example of an SCTS APDU startup sequence .....	203
Figure J.3—Long silo commands P_OUT/P_IN flow (Host) .....	204
Figure J.4—GET RESULTS fragmentation scheme .....	205
Figure J.5—Example of a MESSAGE EXCHANGE with a long processing silo command .....	206
Figure K.1—Example of a typical TRANSFER and GET TRANSFER RESULTS sequence .....	208
Figure K.2—Example of a long-running command .....	210
Figure K.3—Example of a P_LENGTH shorter than available results .....	212
Figure K.4—Example of an error on a TRANSFER command .....	213

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## 1. Overview

### 1.1 Scope

This standard defines discovery, authentication, and authorization protocols between hosts and storage devices over multiple transports. This standard specifies a new Silo Type Identifier (STID) allocation process that uses the IEEE Registration Authority.

### 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.