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Security Protocol and Data Model (SPDM) over MCTP Binding Specification

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Foreword

52 The *Security Protocol and Data Model (SPDM) over MCTP Binding Specification* (DSP0275) was
53 prepared by the Platform Management Components Intercommunications (PMCI) Working Group.

54 DMTF is a not-for-profit association of industry members dedicated to promoting enterprise and systems
55 management and interoperability. For information about the DMTF, see <http://www.dmtf.org>.

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58 Editor:

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- 62 • Lee Ballard – Dell Technologies
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Introduction

81 SPDM is designed to be an effective interface and data model that enables efficient access to low-level
82 security capabilities and operations. SPDM over MCTP binding defines the format of SPDM messages
83 transported over MCTP.

84 Document conventions

85 Typographical conventions

86 The following typographical conventions are used in this document:

- 87 • Document titles are marked in *italics*.
- 88 • ABNF rules are in monospaced font.

89 ABNF usage conventions

90 Format definitions in this document are specified using ABNF (see [RFC5234](#)), with the following
91 deviations:

- 92 • Literal strings are to be interpreted as case-sensitive Unicode characters, as opposed to the
93 definition in [RFC5234](#) that interprets literal strings as case-insensitive US-ASCII characters.

94 Deprecated material

95 Deprecated material is not recommended for use in new development efforts. Existing and new
96 implementations may use this material, but they shall move to the favored approach as soon as possible.
97 CIM service shall implement any deprecated elements as required by this document in order to achieve
98 backwards compatibility. Although CIM clients may use deprecated elements, they are directed to use the
99 favored elements instead.

100 Deprecated material should contain references to the last published version that included the deprecated
101 material as normative material and to a description of the favored approach.

102 The following typographical convention indicates deprecated material:

103 DEPRECATED

104 Deprecated material appears here.

105 DEPRECATED

106 In places where this typographical convention cannot be used (for example, tables or figures), the
107 "DEPRECATED" label is used alone.

108 Experimental material

109 Experimental material has yet to receive sufficient review to satisfy the adoption requirements set forth by
110 the DMTF. Experimental material is included in this document as an aid to implementers who are
111 interested in likely future developments. Experimental material may change as implementation
112 experience is gained. It is likely that experimental material will be included in an upcoming revision of the
113 document. Until that time, experimental material is purely informational.

114 The following typographical convention indicates experimental material:

115 **EXPERIMENTAL**

116 Experimental material appears here.

117 **EXPERIMENTAL**

118 In places where this typographical convention cannot be used (for example, tables or figures), the
119 "EXPERIMENTAL" label is used alone.

120

122 Security Protocol and Data Model (SPDM) over MCTP 123 Binding Specification

124 1 Scope

125 This document defines the format of Security Protocol and Data Model (SPDM) over MCTP messages.

126 This document specifies the following information:

- 127 • SPDM over MCTP binding
- 128 • common format for SPDM over MCTP messages

129 2 Normative references

130 The following referenced documents are indispensable for the application of this document. For dated or
131 versioned references, only the edition cited (including any corrigenda or DMTF update versions) applies.
132 For references without a date or version, the latest published edition of the referenced document
133 (including any corrigenda or DMTF update versions) applies.

134 DMTF DSP0236, *MCTP Base Specification 1.3.0*,
135 http://dmf.org/sites/default/files/standards/documents/DSP0236_1.3.0.pdf

136 DMTF DSP0239, *MCTP IDs and Codes 1.6.0*,
137 https://www.dmf.org/sites/default/files/standards/documents/DSP0239_1.6.0.pdf

138 DMTF DSP0274, *Security Protocol and Data Model (SPDM) Base Specification 0.9.0*
139 https://www.dmf.org/sites/default/files/standards/documents/DSP0274_0.9.0.pdf

140 IETF RFC5234, *ABNF: Augmented BNF for Syntax Specifications, January 2008*,
141 <http://tools.ietf.org/html/rfc5234>

142 ISO/IEC Directives, Part 2, *Principles and rules for the structure and drafting of ISO and IEC documents*,
143 <http://isotc.iso.org/livelink/livelink.exe?func=ll&objId=4230456&objAction=browse&sort=subtype>

144 3 Terms and definitions

145 In this document, some terms have a specific meaning beyond the normal English meaning. Those terms
146 are defined in this clause.

147 The terms "shall" ("required"), "shall not", "should" ("recommended"), "should not" ("not recommended"),
148 "may", "need not" ("not required"), "can" and "cannot" in this document are to be interpreted as described
149 in [ISO/IEC Directives, Part 2](#), Clause 7. The terms in parentheses are alternatives for the preceding term,
150 for use in exceptional cases when the preceding term cannot be used for linguistic reasons. Note that
151 [ISO/IEC Directives, Part 2](#), Clause 7 specifies additional alternatives. Occurrences of such additional
152 alternatives shall be interpreted in their normal English meaning.

153 The terms "clause", "subclause", "paragraph", and "annex" in this document are to be interpreted as
154 described in [ISO/IEC Directives, Part 2](#), Clause 6.

155 The terms "normative" and "informative" in this document are to be interpreted as described in [ISO/IEC](#)
156 [Directives, Part 2](#), Clause 3. In this document, clauses, subclauses, or annexes labeled "(informative)" do
157 not contain normative content. Notes and examples are always informative elements.

158 The terms defined in [DSP0236](#), [DSP0239](#) and [DSP0274](#) apply to this document.

159 **4 Symbols and abbreviated terms**

160 The abbreviations defined in [DSP0236](#), [DSP0239](#) and [DSP0274](#) apply to this document.

161 **4.1**

162 **SPDM**

163 Security Protocol and Data Model

164 **5 SPDM over MCTP binding**

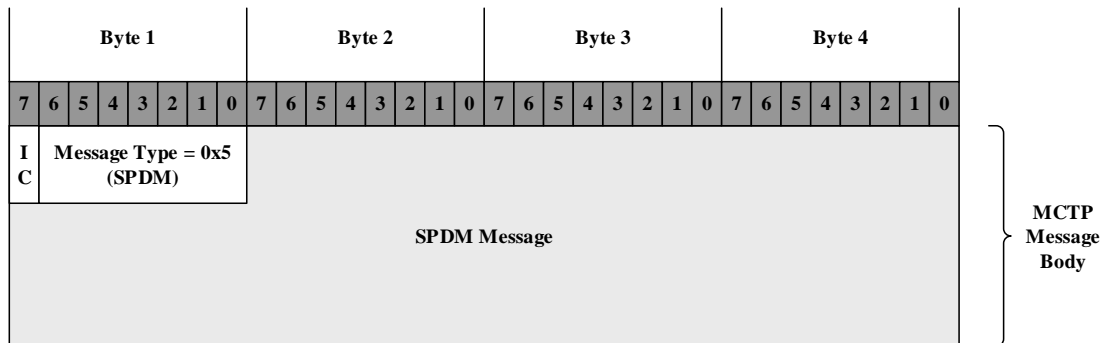
165 This specification defines how the Security protocol and data models transported over MCTP
 166 communications. SPDM is supported as a message type over MCTP. SPDM over MCTP binding defines
 167 the format of SPDM messages transported over MCTP. [DSP0274](#) defines the common fields for SPDM
 168 messages and their usage.

169 **5.1 SPDM over MCTP message fields**

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171 Figure 1 shows the fields of an MCTP message body carrying an SPDM message.

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175 **Figure 1 – SPDM over MCTP message fields**

176 Table 1 defines the fields for the SPDM over MCTP message.

177 **Table 1 – SPDM over MCTP message field descriptions**

Field Name	Field Size	Description
IC	1 bit	Message Integrity Check bit = 0b SPDM over MCTP messages do not include an overall Message Integrity check field.
Message Type	7 bits	SPDM = 0x05 (000_0101b) This field identifies the MCTP message as carrying a SPDM message.
SPDM Message	Variable	The base SPDM message fields are defined in DSP0274

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ANNEX A (informative)

Change log

Version	Date	Description
0.9.0	2019-05-30	Work in Progress release.

184

Bibliography

185 DMTF DSP4014, *DMTF Process for Working Bodies 2.6*,
186 https://www.dmtf.org/sites/default/files/standards/documents/DSP4014_2.6.pdf