MEF

Technical Specification

MEF 36

Service OAM SNMP MIB for Performance Monitoring

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2 This document specifies the Performance Monitoring (PM) Management Information Base
3 (MIB) necessary to manage Service Operations, Administration, and Maintenance (OAM) im-
4 plementations that satisfy the Service OAM requirements and framework specified by MEF 17
5 [10], the Service OAM Performance Monitoring requirements as specified by SOAM-PM [13],
6 and the Service OAM management objects as specified by MEF 7.1 [6] which are applicable to
7 Performance Monitoring functions. Two non-MEF documents serve as the baseline documents
8 for this work: ITU-T Y.1731 [20] and IEEE 802.1ag [23].

9 # 2. Terminology

Term	Definition	Source
Availability Performance	A measure of the percentage of time within a specified time interval during which the frame loss is small	MEF 10.2.1 [7]
Backward	OAM information sent from the Responder MEP to the Controller MEP. For LM it indicates the frame counts/loss from the Responder MEP to the Controller MEP. For DM is indicates the delay and delay variation from the Responder MEP to the Controller MEP.	SOAM-PM [13]
BSS	Business Support System	
CCM	Continuity Check Message	IEEE Std 802.1ag [23]
CFM	Connectivity Fault Management	IEEE Std 802.1ag [23]
CHLI	Consecutive High Loss Interval, a sequence of small time intervals contained in T, each with high frame loss ratio	MEF 10.2.1 [7]
Controller MEP	The Controller MEP initiates SOAM PDUs, and receives responses from the Responder MEP.	SOAM-PM [13]
CoS	Class of Service	MEF 10.2 [8]
DM	Delay Measurement	
Dual-Ended	A type of process where a MEP sends measurement information to a peer MEP that will perform the calculations.	SOAM-PM [13]
EMS	Element Management System	MEF 7.1 [6]
ETH-DM	Ethernet Delay Measurement function	ITU-T Y.1731 [20]
ETH-LM	Ethernet Loss Measurement function	ITU-T Y.1731 [20]
ETH-SLM	Ethernet Synthetic Frame Loss Measurement function	ITU-T Y.1731 [20]
EVC	Ethernet Virtual Connection	MEF 10.2 [8]
FD	Frame Delay	MEF 10.2.1 [7]
FDR	Frame Delay Range	MEF 10.2.1 [7]
FLR	Frame Loss Ratio	MEF 10.2.1 [7]
FM	Fault Management	MEF 17 [10]

Term	Definition	Source
Forward	OAM information sent from the Controller MEP to the Responder MEP. For LM it indicates the frame counts/loss from the Controller MEP to the Responder MEP. For DM is indicates the delay and delay variation from the Controller MEP to the Responder MEP.	SOAM-PM [13]
HLI	High Loss Interval, a small time interval contained in T with a high frame loss ratio	MEF 10.2.1 [7]
IEEE	Institute of Electrical and Electronics Engineers	
IETF	Internet Engineering Task Force	
IFDV	Inter-Frame Delay Variation	MEF 10.2.1 [7]
ITU-T	International Telecommunication Union - Telecommunication Standardization Bureau	
LAN	Local Area Network	MEF 4 [5]
LM	Loss Measurement	ITU-T Y.1731 [20]
MAC	Media Access Control	IEEE Std 802.3 [24]
MA	Maintenance Association (equivalent to a MEG)	IEEE Std 802.1ag [23]
MD	Maintenance Domain (equivalent to a OAM Domain in MEF 17)	IEEE Std 802.1ag [23]
MD Level	Maintenance Domain Level (equivalent to a MEG level)	IEEE Std 802.1ag [23]
ME	Maintenance Entity	IEEE Std 802.1ag [23]
Measurement Bin	A Measurement Bin is a counter that stores the number of performance measurements falling within a specified range, during a Measurement Interval.	SOAM-PM [13]
Measurement Interval	A period of time during which measurements are taken. Measurements initiated during one Measurement Interval are kept separate from measurements taken during other Measurement Intervals. It is important to note that this is different from T.	SOAM-PM [13]
MEF	Metro Ethernet Forum	
MEG	Maintenance Entity Group (equivalent to a MA)	ITU-T Y.1731 [20]
MEG Level	Maintenance Entity Group Level (equivalent to MD Level)	ITU-T Y.1731 [20]
MEN	Metro Ethernet Network	MEF 4 [5]
MEP	Maintenance association End Point or MEG End Point	IEEE Std 802.1ag [23], ITU-T Y.1731 [20]
MFD	Mean Frame Delay	MEF 10.2.1 [7]
MIB	Management Information Base	RFC 2578 [2]
MIP	Maintenance domain Intermediate Point or MEG Intermediate Point	IEEE Std 802.1ag [23], ITU-T Y.1731 [20]
MP	Maintenance Point. One of either a MEP or a MIP.	IEEE Std 802.1ag [23]
NE	Network Element	MEF 4 [5]
NMS	Network Management System	MEF 7.1 [6]
OAM	Operations, Administration, and Maintenance	MEF 17 [10]

Term	Definition	Source
On-Demand	OAM actions that are initiated via manual intervention for a limited time to carry out diagnostics. On-Demand OAM can result in singular or periodic OAM actions during the diagnostic time interval	RFC 5951 [27]
One-way	A measurement performed in the forward or backward direction. For example from MEP A to MEP B or from MEP B to MEP A.	SOAM-PM [13]
OSS	Operations Support System	ITU-T Y.1731 [20]
PDU	Protocol Data Unit	IEEE Std 802.1ag [23]
PM	Performance Monitoring	SOAM-PM [13]
PM Function	A MEP capability specified for performance monitoring purposes (e.g., Single-Ended Delay, Single-Ended Synthetic Loss)	SOAM-PM [13]
PM Session	A PM Session is the application of a given PM Function between a given pair of MEPs and using a given CoS Frame Set over some (possibly indefinite) period of time.	SOAM-PM [13]
PM Solution	A PM Solution is a set of related requirements that when implemented allow a given set of performance metrics to be measured using a given set of PM functions.	SOAM-PM [13]
PM Tool	A generic term used to discuss the application of a PM Function.	SOAM-PM [13]
Proactive	OAM actions that are carried on continuously to permit timely reporting of fault and/or performance status.	RFC 5951 [27]
Resiliency Performance	The number of High Loss Intervals and Consecutive High Loss Intervals in T	MEF 10.2.1 [7]
Responder MEP	In a single-ended session, the Responder MEP receives SOAM PDUs, from the Controller MEP, and transmits a response to the Controller MEP.	SOAM-PM [13]
RFC	Request for Comment	
Service Frame	An Ethernet frame transmitted across the UNI toward the Service Provider or an Ethernet frame transmitted across the UNI toward the Subscriber	MEF 10.2 [8]
Single-Ended	A type of process where a MEP sends a measurement request and the peer MEP replies with the requested information so the originating MEP can calculate the measurement.	SOAM-PM [13]
Sink MEP	In a dual-ended session, the Sink MEP receives SOAM PDUs, from the Controller MEP and performs the performance calculations.	SOAM-PM [13]
SLM	Synthetic Loss Measurement	SOAM-PM [13]
SNMP	Simple Network Management Protocol	RFC 1157

Term	Definition	Source
SNMP Agent	An SNMP entity containing one or more command responder and/or notification originator applications (along with their associated SNMP engine). Typically implemented in an NE.	RFC 3411 [3]
SNMP Manager	An SNMP entity containing one or more command generator and/or notification receiver applications (along with their associated SNMP engine). Typically implemented in an EMS or NMS.	RFC 3411 [3]
SOAM	Service OAM	MEF 17 [10]
SOAM PDU	Service OAM frame, or Protocol Data Unit. Specifically, those PDUs defined in [IEEE 802.1ag], [ITU-T Y.1731], or MEF specifications.	SOAM-FM [12]
Synthetic Traffic	SOAM traffic that emulates service traffic in order to measure the performance experience. Delay measurements must use synthetic traffic, because user traffic does not contain standardized timestamp fields. Other measurements, such as Frame Loss, may also use synthetic frames for certain advantages (e.g., ability to measure loss in multipoint services).	SOAM-PM [13]
T	Time Interval for SLS Metrics. The time over which a Performance Metric is defined. T is at least as large as the Measurement Interval, and generally consists of multiple Measurement Intervals.	MEF 10.2.1 [7]
TC	Textual Conventions	RFC 4181 [4]
TLV	Type Length Value, a method of encoding Objects	
Two-way	A measurement of the performance of frames that flow from the Controller MEP to the Responder MEP and back again.	SOAM-PM [13]
UML	Unified Modeling Language	Object Management Group (OMG)
UTC	Coordinated Universal Time	SOAM-PM [13]
UNI	User-to-Network Interface	MEF 4 [5]
VLAN	Virtual LAN	IEEE Std 802.1Q [21]

10 **Table 1 – Terminology**

11 ## 3. Scope

12 The scope of this document is to provide the SNMP PM MIB that supports the Service OAM
13 (SOAM) Performance Monitoring functions that have been defined in MEF 17 [10], the *Service*
14 *OAM Requirements & Framework – Phase 1*, SOAM-PM [13], the *Service OAM Performance*
15 *Monitoring Phase 1 Implementation Agreement*, and MEF 7.1 [6], the *EMS-NMS Information*
16 *Model*.

17 This document includes the MIB necessary to support the MEF SOAM PM functionality: the
18 **MEF-SOAM-PM-MIB** that includes the SOAM PM MIB objects necessary to implement the

19   SOAM PM Implementation Agreement [13] and the SOAM PM concepts as presented in ITU-T
20   Y.1731 [20].

21   The primary purpose of this document is to provide a mechanism to enhance interoperability be-
22   tween equipment/software vendors and between Service Providers and/or Operators. This docu-
23   ment provides the Metro Ethernet Forum (MEF) SOAM PM functionality within the Metro
24   Ethernet Networks (MEN) via SNMP MIBs.

4. Compliance Levels

26   The key words "**MUST**", "**MUST NOT**", "**REQUIRED**", "**SHALL**", "**SHALL NOT**",
27   "**SHOULD**", "**SHOULD NOT**", "**RECOMMENDED**", "**MAY**", and "**OPTIONAL**" in this
28   document are to be interpreted as described in RFC 2119 [1]. All key words must be in upper
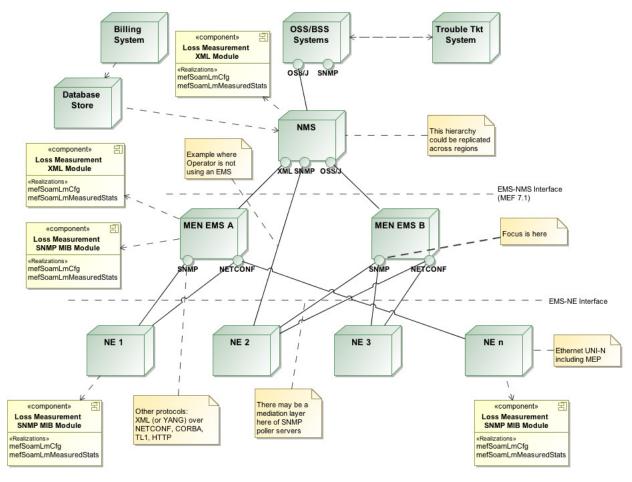29   case, bold text.

5. Introduction

5.1 The Basic Need

32   One of the aspects of defining Metro Ethernet Networks (MEN) is the need to ensure the com-
33   patibility between equipment/software vendors and equipment operators in order to facilitate in-
34   teroperability in local, metro, national, and international networks. One of the common ways to
35   do this is through a common management interface using publically available or enterprise spe-
36   cific SNMP MIBs.

37   A MIB is a collection of managed objects that can be used to provision an entity, query an entity
38   for status information, or define notifications that are sent to a Network Management System
39   (NMS) or an Element Management System (EMS). Collections of related objects are defined in
40   MIB modules which are written using an adapted subset of OSI's Abstract Syntax One, or ASN.1
41   [26]. Standards for MIB modules are set by IETF and documented in various RFCs, primary of
42   which are RFC 2578 *Structure of Management Information Version 2 (SMIv2)* and RFC 4181
43   *Guidelines for Authors and Reviewers of MIB Documents.*

5.2 The General Structure

45   A generalized system model is shown by Figure 1 that illustrates the relationship between the
46   OSS/BSS, NMS, EMS, and Network Elements (NE). The primary focus of this specification de-
47   fines the interaction between the EMS and the NE via SNMP using the MIB module defined in
48   this specification. Object names in the figure are for example only.

49

50 **Figure 1 – Generalized OSS/BSS-NMS-EMS-NE Model**

5.3 The Foundational Elements

52 MEF 10.2 [8] and MEF 10.2.1 [7] describe the Ethernet Service Attributes at the UNI reference
53 point including the performance attributes of Frame Delay (FD), Mean Frame Delay (MFD),
54 Frame Delay Range (FDR), Inter-Frame Delay Variation (IFDV), Frame Loss Ratio (FLR),
55 Availability Performance, and Resiliency Performance.

56 MEF 17 [10] provides the Service OAM requirements and framework. It defines the OAM com-
57 ponents and Service OAM requirements.

58 SOAM-FM [12] further defines the aspects of Service OAM requirements that deal with Fault
59 Management (FM) and their extensions as needed to support MEF SOAM FM requirements.

60 SOAM-FM builds upon two existing documents: Connectivity Fault Management as defined in
61 IEEE 802.1ag [23] and extended in ITU-T Y.1731 [20].

62 Service OAM Fault Management objects that provide the baseline for MIB objects defined in
63 this specification are found in MEF 7.1 [6].

64 SOAM-PM [13] further defines the aspects of Service OAM requirements that focus on Perfor-
65 mance Monitoring (PM) and their extensions as needed to support MEF SOAM PM require-
66 ments.

67 SOAM-PM builds upon two existing documents the ITU-T Y.1731 and ITU-T G.8021/Y.1341
68 [17].

69 MEF 7.1 draws heavily upon the models defined in ITU-T Q.840 [19].

70 The MEF-SOAM-TC MIB [15] defines the necessary global MEF SOAM Textual Conventions
71 used in this MIB.

72 The relationship between the various documents and the PM MIB presented in this specification
73 is illustrated by Figure 2. The UML models found in MEF 7.1 and G.8052 provide a baseline for
74 the SOAM MIBs. A number of the tables/objects in the MIB extend the IEEE CFM MIB objects
75 as well as providing new objects from ITU-T Y.1731 and the SOAM PM IA documents.
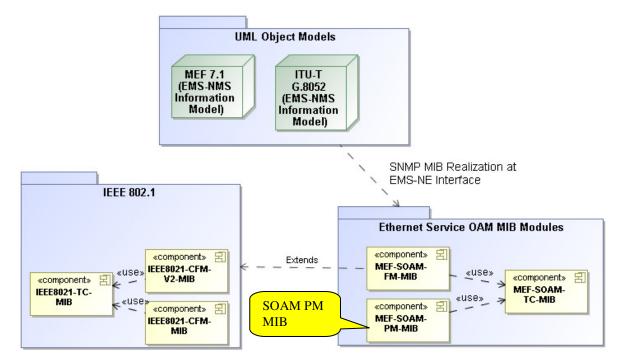

76

77 **Figure 2 – Relationship between 802.1 CFM MIBs, UML Models, and SOAM MIBs**

78 **5.4 Overview of the Performance Monitoring Process**

79 The Performance Monitoring process is made up of a number of Performance Monitoring in-
80 stances, known as PM Sessions. A PM Session can be initiated between two MEPs in a MEG
81 and be defined as either a Loss Measurement (LM) session or Delay Measurement (DM) session.

82 The LM session can be used to determine the performance metrics FLR, Availability, and Resili-
83 ency. The DM session can be used to determine the performance metrics FD, IFDV, FDR, and
84 MFD.

85 The PM Session is defined by the specific PM function (PM tool) being run, Start Time, Stop
86 Time, Message Period, Measurement Interval, and Repetition Time. The relationship of these
87 different items are depicted in Figure 3 and Figure 4 (Refer to section 9.1 in SOAM PM [13]).

88 • The Start Time is the time that the PM session begins and is applicable to On-Demand
89   PM sessions. For Proactive PM sessions the start time is not applicable as the PM ses-
90   sion begins as soon as the PM session is configured and enabled.

91 • The Stop Time is the time that the measurement ends and is applicable to On-Demand
92   PM sessions. For Proactive PM sessions the stop time is not applicable as the PM session
93   stops only when the PM session is disabled or deleted.

94 • The Message Period is the SOAM PDU transmission frequency (the time between
95   SOAM PDU transmissions).

96 • The Measurement Interval is the time period over which measurements are gathered and
97   then summarized. The Measurement Interval can align with the PM Session duration, but
98   it doesn't need to. SOAM PDUs during a PM Session are only transmitted during a
99   Measurement Interval.

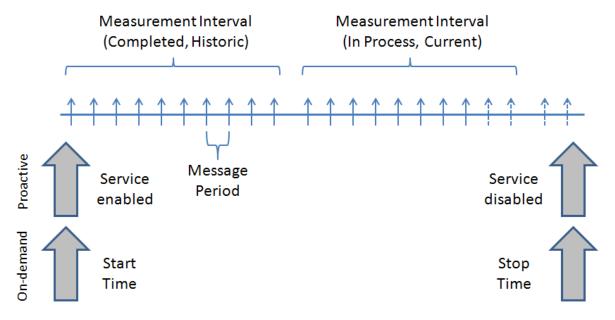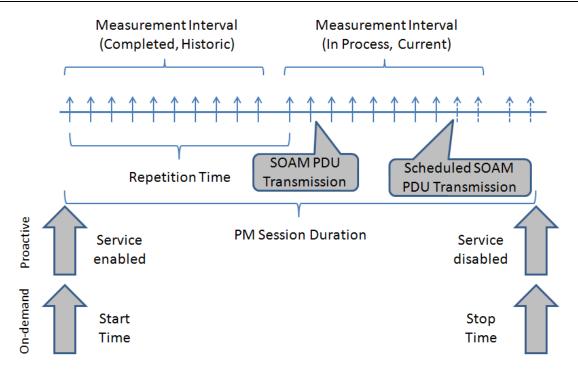100 • The Repetition Time is the time between the start times of the Measurement Intervals.

101
102 **Figure 3 - Relationship Between Different Timing Parameters**

Figure 4 - Relationship Between Measurement Interval and Repetion Time

105 To execute performance measurements, a PM Session is created through the use of the configu-
106 ration items in either the LM or DM tables.

107 The PM Session can be configured to run forever (Proactive/On-Demand) or for a period of time
108 (On-Demand). On-Demand types have a definitive start and stop time that can be relative or ab-
109 solute or can have a stop time of "forever". Proactive types begin immediately when a PM Ses-
110 sion is configured and enabled and end when the PM Session is deleted or disabled.

111 When a PM Session is completed, either through the session being disabled or the Stop Time be-
112 ing reached, the current Measurement Interval is stopped, if it in process at the time, and all the
113 in process calculations are finalized.

114 A PM Session can be dual-ended or single-ended. In a single-ended session a Controller MEP
115 sends SOAM PDUs towards a Responder MEP. The Responder MEP sends SOAM PDUs to-
116 wards the Controller MEP in response to receiving SOAM PDUs from the Controller MEP. Re-
117 sults from the Controller MEP to the Responder MEP are known as "forward" results and results
118 from the Responder MEP to the Controller MEP are "backward" results. All performance calcu-
119 lations are performed by the Controller MEP, and results are only available on the Controller
120 MEP.

121 In a dual-ended session a Controller MEP sends SOAM PDUs towards a Sink MEP. There are
122 no responses sent towards the Controller MEP. Results from the Controller MEP to Sink MEP
123 are known as "forward" results. All performance calculations are performed by the Sink MEP,
124 and results are only available on the Sink MEP.

125 PM Sessions of type LMM/LMR, SLM/SLR, or DMM/DMR are single-ended types. PM Ses-
126 sions of type 1DM and CCM are dual-ended types.

127   • Controller MEPs send SOAM PDUs of type LMM, SLM, DMM, CCM, or 1DM and re-
128   ceive SOAM PDUs of type LMR, SLR, and DMR.

129   • Responder MEPs send SOAM PDUs of type LMR, SLR, or DMR and receive SOAM
130   PDUs of type LMM, SLM, or DMM.

131   • Sink MEPs receive SOAM PDUs of type CCM or 1DM.

132

6. SOAM PM MIB Overview

134   The SOAM PM MIB is divided into a number of different object groupings: the PM MIB MEP
135   Objects, PM MIB Loss Measurement Objects, PM MIB Delay Measurement Objects, and
136   SOAM PM notifications.

137   This document treats the terms 'average' and 'arithmetic mean' as synonymous terms and consist-
138   ently uses 'average' in object names and definitions.

6.1 PM MIB Per MEP Objects

140   The PM MIB Per MEP Objects are defined in the *mefSoamPmMepTable*. The
141   *mefSoamPmMepTable* augments the *dot1agCfmMepEntry* found in the CFM MIB. It includes
142   objects that are locally defined for an individual MEP that are used throughout the specific PM
143   Sessions associated with the particular MEP.

144   • *mefSoamPmMepOperNextIndex* - indicates the next available index for row creation in
145   the LM and DM configuration tables of a PM session on a MEP

146   • *mefSoamPmMepLmSingleEndedResponder* - indicates whether single-ended Loss
147   Measurements (LMM) Responders are enabled on a MEP

148   • *mefSoamPmMepSlmSingleEndedResponder* - indicates whether single-ended Synthetic
149   Loss Measurements (SLM) Responders are enabled on a MEP

150   • *mefSoamPmMepDmSingleEndedResponder* - indicates whether single-ended Delay
151   Measurements (DMM) Responders are enabled on a MEP

6.2 PM MIB Loss Measurement (LM) Objects

153   The Loss Measurement Objects are defined in six separate tables: *mefSoamLmCfgTable*,
154   *mefLmMeasuredStatsTable*, *mefSoamLmCurrentAvailStatsTable*,
155   *mefSoamLmCurrentStatsTable*, *mefSoamLmHistoryAvailStatsTable*, and
156   *mefSoamLmHistoryStatsTable*.

6.2.1 LM Configuration Table

158   The *mefSoamLmCfgTable* includes configuration objects for the Loss Measurement PM ses-
159   sion. It uses the same indexes that a MEP configuration does: *dot1agCfmMdIndex*,
160   *dot1agCfmMaIndex*, and *dot1agCfmMepIdentifier*, as well as *mefSoamLmCfgIndex*, the spe-
161   cific LM session number on a MEP.

162 A Loss Measurement session is created on an existing MEP by first accessing the
163 *mefSoamPmMepOperNextIndex* object and using this value as the *mefSoamLmCfgIndex* dur-
164 ing row creation.

165 A single Loss Measurement session can be used to measure Frame Loss, Frame Loss Ratio, and
166 Availability between a given pair of MEPs, for a given CoS Frame Set.

167 Configuration/status options are organized into eight general categories.

168 • LM Session type, version, session enable, and counter enables:
169   o *mefSoamLmCfgType*
170   o *mefSoamCfgVersion*
171   o *mefSoamLmCfgEnabled*
172   o *mefSoamLmCfgMeasurementEnable*
173   o *mefSoamLmCfgSessionType*

174 • LM Session PDU transmission frequency and Measurement Interval size:
175   o *mefSoamLmCfgMessagePeriod*
176   o *mefSoamLmCfgMeasurementInterval*
177   o *mefSoamLmCfgNumIntervalsStored*

178 • LM Session PDU composition and length:
179   o *mefSoamLmCfgPriority*
180   o *mefSoamLmCfgFrameSize*
181   o *mefSoamLmCfgDataPattern*
182   o *mefSoamLmCfgTestTlvIncluded*
183   o *mefSoamLmCfgTestTlvPattern*

184 • LM Session peer partner selection:
185   o *mefSoamLmCfgDestMacAddress*
186   o *mefSoamLmCfgDestMepId*
187   o *mefSoamLmCfgDestIsMepId*

188 • LM Session start, stop, and repetition selection:
189   o *mefSoamLmCfgAlignMeasurementIntervals*
190   o *mefSoamLmCfgAlignMeasurementOffset*
191   o *mefSoamLmCfgStartTimeType*
192   o *mefSoamLmCfgFixedStartDateAndTime*
193   o *mefSoamLmCfgRelativeStartTime*
194   o *mefSoamLmCfgStopTimeType*

195   o *mefSoamLmCfgFixedStopDateAndTime*

196   o *mefSoamLmCfgRelativeStopTime*

197   o *mefSoamLmCfgRepetitionTime*

198   • LM Session availability configuration:

199   o *mefSoamLmCfgAvailabilityMeasurementInterval*

200   o *mefSoamLmCfgAvailabilityNumConsecutiveMeasPdus*

201   o *mefSoamLmCfgAvailabilityFlrThreshold*

202   o *mefSoamLmCfgAvailabilityNumConsecutiveIntervals*

203   o *mefSoamLmCfgAvailabilityNumConsecutiveHighFlr*

204   • LM Session parameters for status:

205   o *mefSoamLmCfgSessionStatus*

206   • LM Session history statistic table clear:

207   o *mefSoamLmCfgHistoryClear*

208 Alignment with MEF 10.2.1 is supported via the LM Session Availability configuration parame-
209 ters where:

210   • *mefSoamLmCfgAvailabilityNumConsecutiveIntervals* is equivalent to MEF 10.2.1 pa-
211   rameter "*n*".

212   • *mefSoamLmCfgAvailabilityFlrThreshold* is equivalent to MEF 10.2.1 parameter "*C*".

213   • *mefSoamLmCfgAvailabilityNumConsecutiveHighFlr* is equivalent to 'p'.

214   • *mefSoamLmCfgAvailabilityNumConsecutiveMeasPdus* times
215   *mefSoamLmCfgMessagePeriod* for SLM/LMM/CCM is equivalent to MEF 10.2.1 pa-
216   rameter "Δ*t*" .

217 **6.2.2 LM Measured Statistic Table**

218 The LM Measured Statistic Table, *mefSoamLmMeasuredStatsTable*, is created automatically
219 when a LM session is created and contains the Loss Measurement statistic information from the
220 last received SOAM PDU. It uses the same indexes as the *mefSoamLmCfgTable* table. It in-
221 cludes the forward and backward FLR stats, *mefSoamLmMeasuredStatsForwardFlr* and
222 *mefSoamLmMeasuredStatsBackwardFlr*, availability indicators
223 *mefSoamLmMeasuredStatsAvailForwardStatus* and
224 *mefSoamLmMeasuredStatsAvailBackwardStatus*, and last availability transition times,
225 *mefSoamLmMeasuredStatsAvailForwardLastTransitionTime* and
226 *mefSoamLmMeasuredStatsAvailBackwardLastTransitionTime*.

227 **6.2.3 LM Current Availability Statistic Table**

228 The LM Current Availability Statistic Table, *mefSoamLmCurrentAvailStatsTable*, is created
229 automatically when a LM session is created and contains the Availability statistics for the current

230 availability Measurement Interval. It uses the same indexes as the *mefSoamLmCfgTable* table,
231 but the Measurement Interval (*mefSoamLmCfgAvailabilityMeasurementInterval*) is independ-
232 ent of the interval used for the *mefSoamLmCurrentStatsTable*
233 (*mefSoamLmCfgMeasurementInterval*).

234 At the beginning of each availability Measurement Interval the values in the Current Availability
235 Statistic Table are copied to a new row in the *mefSoamLmHistoryAvailStatsTable* and the Cur-
236 rent Availability Statistic Table counter and status values are reset to zero and the start time is
237 updated to the new Measurement Interval start time.

238 The LM Current Availability Statistic Table objects are organized into four categories.

239 • LM Availability interval start time and elapsed time:

240 o *mefSoamLmCurrentAvailStatsStartTime*

241 o *mefSoamLmCurrentAvailStatsElapsedTime*

242 • LM Availability interval suspect status:

243 o *mefSoamLmCurrentAvailStatsSuspect*

244 • LM Availability high loss, and consecutive high loss:

245 o *mefSoamLmCurrentAvailStatsForwardHighLoss*

246 o *mefSoamLmCurrentAvailStatsBackwardHighLoss*

247 o *mefSoamLmCurrentAvailStatsForwardConsecutiveHighLoss*

248 o *mefSoamLmCurrentAvailStatsBackwardConsecutiveHighLoss*

249 • LM Availability available and unavailable indicator counters

250 o *mefSoamLmCurrentAvailStatsForwardAvailable*

251 o *mefSoamLmCurrentAvailStatsBackwardAvailable*

252 o *mefSoamLmCurrentAvailStatsForwardUnavailable*

253 o *mefSoamLmCurrentAvailStatsBackwardUnavailable*

254 • LM Availability flr counters

255 o *mefSoamLmCurrentAvailForwardMinFlr*

256 o *mefSoamLmCurrentAvailForwardMaxFlr*

257 o *mefSoamLmCurrentAvailForwardAvgFl*

258 o *mefSoamLmCurrentAvailBackwardMinFlr*

259 o *mefSoamLmCurrentAvailBackwardMaxFlr*

260 o *mefSoamLmCurrentAvailBackwardAvgFlr*

261 **6.2.4 LM Current Statistic Table**

262 The LM Current Statistic Table, *mefSoamLmCurrentStatsTable*, is created automatically when
263 a LM session is created and contains the currently enabled statistic counters and statuses for the

264 current Measurement Interval. It uses the same indexes as the ***mefSoamLmCfgTable*** table, but
265 the Measurement Interval (***mefSoamLmCfgMeasurementInterval***) is independent of the interval
266 used for the ***mefSoamLmCurrentAvailStatsTable***
267 (***mefSoamLmCfgAvailabilityMeasurementInterval***).

268 At the beginning of each Measurement Interval the values in the Current Statistic Table are cop-
269 ied to a new row in the ***mefSoamLmHistoryStatsTable*** and the Current Statistic Table counter
270 and status values are reset to zero and the start time is updated to the Measurement Interval start
271 time.

272 The LM Current Statistic Table objects are organized into five categories.

273 • LM interval start time and elapsed time:

274 o ***mefSoamLmCurrentStatsStartTime***

275 o ***mefSoamLmCurrentStatsElapsedTime***

276 • LM interval suspect status:

277 o ***mefSoamLmCurrentStatsSuspect***

278 • LM forward transmitted/received frames, minimum, maximum and average (arithmetic
279 mean) frame loss ratio, available and unavailable counters:

280 o ***mefSoamLmCurrentStatsForwardTransmittedFrames***

281 o ***mefSoamLmCurrentStatsForwardReceivedFrames***

282 o ***mefSoamLmCurrentStatsForwardMinFlr***

283 o ***mefSoamLmCurrentStatsForwardMaxFlr***

284 o ***mefSoamLmCurrentStatsForwardAvgFlr***

285 • LM backward transmitted/received frames, minimum, maximum and average (arithmetic
286 mean) frame loss ratio, available and unavailable counters

287 o ***mefSoamLmCurrentStatsBackwardTransmittedFrames***

288 o ***mefSoamLmCurrentStatsBackwardReceivedFrames***

289 o ***mefSoamLmCurrentStatsBackwardMinFlr***

290 o ***mefSoamLmCurrentStatsBackwardMaxFlr***

291 o ***mefSoamLmCurrentStatsBackwardAvgFlr***

292 • LM initiated and received measurement counts:

293 o ***mefSoamLmCurrentStatsSoamPdusSent***

294 o ***mefSoamLmCurrentStatsSoamPdusReceived***

295 **6.2.5 LM Availability History Statistic Table**

296 The LM Availability History Statistic Table, ***mefSoamLmHistoryAvailStatsTable***, is created au-
297 tomatically when the first availability Measurement Interval completes in a LM session. A new
298 row is created as each availability Measurement Interval is completed with the information from

299   the completed *mefSoamLmCurrentAvailStatsTable* entry. The duration of each availability
300   Measurement Interval is determined by *mefSoamLmCfgAvailabilityMeasurementInterval* and
301   is independent of the Measurement Interval used for the *mefSoamLmHistoryStatsTable*. The
302   oldest row can be deleted after a period of time, but is mandatory to be persistent for 32 complet-
303   ed Measurement Intervals and recommended to be persistent for 96 completed Measurement In-
304   tervals.

305   The LM Availability History Statistic Table uses the same indexes as the *mefSoamLmCfgTable*
306   table as well as the one additional index, the *mefSoamLmHistoryAvailStatsIndex* number.

307   The LM History Statistic Table contains the same four categories as the
308   *mefSoamLmCurrentAvailStatsTable* table, except the first category is interval <u>end</u> time and
309   elapsed time.

310   The objects are the same except they are listed as "History" instead of "Current".

6.2.6   LM History Statistic Table

312   The LM History Statistic Table, *mefSoamLmHistoryStatsTable*, is created automatically when
313   the first Measurement Interval completes in a LM session. A new row is created as each Meas-
314   urement Interval is completed with the information from the completed
315   *mefSoamLmCurrentStatsTable* entry. The duration of each Measurement Interval is determined
316   by *mefSoamLmCfgMeasurementInterval* and is independent of the availability Measurement
317   Interval used for the *mefSoamLmHistoryAvailStatsTable*. The oldest row can be deleted after a
318   period of time, but is mandatory to be persistent for 32 completed Measurement Intervals and
319   recommended to be persistent for 96 completed Measurement Intervals.

320   The LM History Statistic Table uses the same indexes as the *mefSoamLmCfgTable* table as well
321   as the one additional index, the *mefSoamLmHistoryStatsIndex* number.

322   The LM History Statistic Table contains the same five categories as the
323   *mefSoamLmCurrentStatsTable* table, except the first category is interval <u>end</u> time and elapsed
324   time.

325   The objects are the same except they are listed as "History" instead of "Current".

6.3   PM MIB Delay Measurement (DM) Objects

327   The Delay Measurement Objects are defined in three pairs of tables: *mefSoamDmCfgTable* and
328   *mefSoamDmCfgMeasBinTable, mefSoamDmCurrentStatsTable* and
329   *mefSoamDmCurrentStatsBinsTable,* and *mefSoamDmHistoryStatsTable* and
330   *mefSoamDmHistoryStatsBinsTable*, and the *mefDmMeasuredStatsTable*.

6.3.1   DM Configuration Table

332   The *mefSoamDmCfgTable* includes configuration objects for the Delay Measurement PM ses-
333   sion. It uses the same indexes that a MEP configuration does: *dot1agCfmMdIndex*,
334   *dot1agCfmMaIndex*, and *dot1agCfmMepIdentifier*, as well as *mefSoamDmCfgIndex*, the spe-
335   cific DM session number on a MEP.

336 A Delay Measurement session is created on an existing MEP by first accessing the
337 *mefSoamPmMepOperNextIndex* object and using this value as the *mefSoamDmCfgIndex* dur-
338 ing row creation.

339 A single Delay Measurement session tracks Frame Delay and Frame Delay Variation.

340 Configuration/status options are organized into eight general categories.

341 • DM Session type, session enable, and counter enables:
342   o *mefSoamDmCfgType*
343   o *mefSoamDmCfgVersion*
344   o *mefSoamDmCfgEnabled*
345   o *mefSoamDmCfgMeasurementEnable*
346   o *mefSoamDmCfgSessionType*

347 • DM Session PDU transmission frequency and Measurement Interval size:
348   o *mefSoamDmMessagePeriod*
349   o *mefSoamDmCfgMeasurementInterval*
350   o *mefSoamDmCfgNumIntervalsStored*

351 • DM Session PDU composition and length:
352   o *mefSoamDmCfgPriority*
353   o *mefSoamDmCfgFrameSize*
354   o *mefSoamDmCfgDataPattern*
355   o *mefSoamDmCfgTestTlvIncluded*
356   o *mefSoamDmCfgTestTlvPattern*

357 • DM Session peer partner selection:
358   o *mefSoamDmCfgDestMacAddress*
359   o *mefSoamDmCfgDestMepId*
360   o *mefSoamDmCfgDestIsMepId*
361   o *mefSoamDmCfgSourceMacAddress*

362 • DM Session start, stop, and repetition selection:
363   o *mefSoamDmCfgAlignMeasurementIntervals*
364   o *mefSoamDmCfgAlignMeasurementOffset*
365   o *mefSoamDmCfgStartTimeType*
366   o *mefSoamDmCfgFixedStartDateAndTime*
367   o *mefSoamDmCfgRelativeStartTime*
368   o *mefSoamDmCfgStopTimeType*

369   o   *mefSoamDmCfgFixedStopDateAndTime*

370   o   *mefSoamDmCfgRelativeStopTime*

371   o   *mefSoamDmCfgRepetitionTime*

372   •   DM Session status:

373   o   *mefSoamDmCfgSessionStatus*

374   •   DM Session measurement bin configuration:

375   o   *mefSoamDmCfgNumMeasBinsPerFrameDelayInterval*

376   o   *mefSoamDmCfgNumMeasBinsPerInterFrameDelayVariationInterval*

377   o   *mefSoamDmCfgInterFrameDelayVariationSelectionOffset*

378   o   *mefSoamDmCfgNumMeasBinsPerFrameDelayRangeInterval*

379   •   DM Session history statistic table clear:

380   o   *mefSoamDmCfgHistoryClear*

381   6.3.2   DM Configuration Bin Table

382   The *mefSoamDmCfgMeasBinTable* includes configuration objects for the Delay Measurement
383   Bin PM Session. It uses the same indexes as the *mefSoamDmCfgTable* as well as the
384   *mefSoamDmCfgMeasBinType* and *mefSoamDmCfgMeasBinNumber*. For each row the
385   *mefSoamDmCfgMeasBinLowerBound* is selected, which defines the lower boundary of each
386   bin. The set of bin boundaries indicates the time range for each of the defined bins.

387   The selection of five bins via either the *mefSoamDmCfgNumMeasBinsPerFrameDelayInterval*
388   or *mefSoamDmCfgNumMeasBinsPerInterFrameDelayVariationInterval* or
389   *mefSoamDmCfgNumMeasBinsPerFrameDelayRangeInterval* objects, results in the set of val-
390   ues for the *mefSoamDmCfgMeasBinLowerBound* of {0, 5000, 10000, 15000, 20000}. These
391   values creates bins with the following lower and upper boundaries:

392

Bin number	*mefSoamDmCfg MeasBinLowerBound*	Lower boundary	Upper boundary
1	0	≥ 0µs	< 5,000µs
2	5000	≥ 5,000µs	< 10,000µs
3	10000	≥ 10,000µs	< 15,000µs
4	15000	≥ 15,000µs	< 20,000µs
5	20000	≥ 20,000µs	< infinity

393   **Table 2 – Delay Measurement Bin Boundaries**

394   6.3.3   DM Measured Statistic Table

395 The DM Measured Statistic Table, ***mefSoamDmMeasuredStatsTable***, is created automatically
396 when a DM session is created and contains the Delay Measurement statistic information from the
397 last received SOAM PDU. It uses the same indexes as the ***mefSoamDmCfgTable*** table. It in-
398 cludes the one-way and two-way measurement stats,
399 ***mefSoamDmMeasuredStatsFrameDelayTwoWay***,
400 ***mefSoamDmMeasuredStatsFrameDelayForward***,
401 ***mefSoamDmMeasuredStatsFrameDelayBackward***, the frame variation measurement stats,
402 ***mefSoamDmMeasuredStatsIfdvTwoWay***, ***mefSoamDmMeasuredStatsIfdvForward***, and
403 ***mefSoamDmMeasuredStatsIfdvBackward***.

6.3.4 DM Current Statistic Table

405 The DM Current Statistic Table, ***mefSoamDmCurrentStatsTable***, is created automatically when
406 a DM session is created and contains the currently enabled statistic counters and statuses for the
407 current Measurement Interval. It uses the same indexes as the ***mefSoamDmCfgTable*** table.

408 At the beginning of each Measurement Interval the values in the Current Statistic Table are cop-
409 ied to a new row in the ***mefSoamDmHistoryStatsTable*** and the Current Statistic Table values
410 and statuses are reset to zero and the start time is updated to the Measurement Interval start time.

411 The DM Current Statistic Table objects are organized into six categories.

412 • DM interval start time and elapsed time:

413   o ***mefSoamDmCurrentStatsStartTime***

414   o ***mefSoamDmCurrentStatsElapsedTime***

415 • DM interval suspect status:

416   o ***mefSoamDmCurrentStatsSuspect***

417 • DM frame delay two-way, forward, and backward min, max, and average (arithmetic
418   mean) counters:

419   o ***mefSoamDmCurrentStatsFrameDelayTwoWayMin***

420   o ***mefSoamDmCurrentStatsFrameDelayTwoWayMax***

421   o ***mefSoamDmCurrentStatsFrameDelayTwoWayAvg***

422   o ***mefSoamDmCurrentStatsFrameDelayForwardMin***

423   o ***mefSoamDmCurrentStatsFrameDelayForwardMax***

424   o ***mefSoamDmCurrentStatsFrameDelayForwardAvg***

425   o ***mefSoamDmCurrentStatsFrameDelayBackwardMin***

426   o ***mefSoamDmCurrentStatsFrameDelayBackwardMax***

427   o ***mefSoamDmCurrentStatsFrameDelayBackwardAvg***

428 • DM inter frame delay variation two-way, forward, and backward min, max, and average
429   (arithmetic mean) counters:

430   o ***mefSoamDmCurrentStatsIfdvForwardMin***

431   o   *mefSoamDmCurrentStatsIfdvForwardMax*

432   o   *mefSoamDmCurrentStatsIfdvForwardAvg*

433   o   *mefSoamDmCurrentStatsIfdvBackwardMin*

434   o   *mefSoamDmCurrentStatsIfdvBackwardMax*

435   o   *mefSoamDmCurrentStatsIfdvBackwardAvg*

436   o   *mefSoamDmCurrentStatsIfdvTwoWayMin*

437   o   *mefSoamDmCurrentStatsIfdvTwoWayMax*

438   o   *mefSoamDmCurrentStatsIfdvTwoWayAvg*

439   •   DM frame delay range two-way, forward, and backward, max, and average (arithmetic
440   mean) counters:

441   o   *mefSoamDmCurrentStatsFrameDelayRangeForwardMax*

442   o   *mefSoamDmCurrentStatsFrameDelayRangeForwardAvg*

443   o   *mefSoamDmCurrentStatsFrameDelayRangeBackwardMax*

444   o   *mefSoamDmCurrentStatsFrameDelayRangeBackwardAvg*

445   o   *mefSoamDmCurrentStatsFrameDelayRangeTwoWayMax*

446   o   *mefSoamDmCurrentStatsFrameDelayRangeTwoWayAvg*

447   •   DM initiated and received measurement counts:

448   o   *mefSoamDmCurrentStatsSoamPdusSent*

449   o   *mefSoamDmCurrentStatsSoamPdusReceived*

450   **6.3.5 DM Current Statistic Bins Table**

451   The DM Current Statistic Bins Table, *mefSoamDmCurrentStatsBinsTable*, is created automati-
452   cally when a DM session is created and contains the currently enabled statistic bin counters for
453   the current Measurement Interval. It uses the same indexes as the
454   *mefSoamDmCfgMeasBinTable*.

455   At the beginning of each Measurement Interval the values in the Current Bin Statistic Table are
456   copied to a new row, one for each bin number, in the *mefSoamDmHistoryStatsBinsTable* and
457   the Current Statistic Bins Table values are reset to zero.

458   The DM Current Bin Statistic Table contains one object per row per bin,
459   *mefSoamDmCurrentStatsBinsCounter*, which indicates a count in the specific bin.

460   **6.3.6 DM History Statistic Table**

461   The DM History Statistic Table, *mefSoamDmHistoryStatsBinsTable*, is created automatically
462   when the first Measurement Interval completes in a DM session. A new row is created as each
463   Measurement Interval is completed with the information from the completed
464   *mefSoamDmCurrentStatsTable* entry. The oldest row can be deleted after a period of time, but

465 is mandatory to be persistent for 32 completed Measurement Intervals and recommended to be
466 persistent for 96 completed Measurement Intervals.

467 The DM History Statistic Table uses the same indexes as the *mefSoamDmCfgTable* table as well
468 as the one additional index, the *mefSoamDmHistoryStatsIndex* number.

469 The DM History Statistic Table contains the same five categories as the
470 *mefSoamDmCurrentStatsTable* table, except the first category is interval <u>end</u> time and elapsed
471 time.

472 The objects are the same except they are listed as "History" instead of "Current".

473   6.3.7 DM History Bin Statistic Table

474 The DM History Bin Statistic Table, *mefSoamDmHistoryStatsBinTable*, is created automatical-
475 ly when the first Measurement Interval completes in a DM session. One row for each bin is cre-
476 ated as each Measurement Interval is completed with the information from the completed
477 *mefSoamDmCurrentStatsBinsTable* entry. The oldest rows can be deleted after a period of time,
478 but it is mandatory to be persistent for 32 completed Measurement Intervals and recommended to
479 be persistent for 96 completed Measurement Intervals.

480 The DM History Statistic Bins Table uses the same indexes as the *mefSoamDmCfgBinsTable*
481 table as well as the one additional index the *mefSoamDmHistoryStatsIndex* number.

482 The DM History Bin Statistic Table contains the same object as the
483 *mefSoamDmCurrentStatsBinsTable* table, except it is listed as "History" instead of "Current".

484   6.4 PM MIB Threshold Configuration Objects

485 There are two threshold configuration tables: the *mefSoamDmThresholdCfgTable*, used for DM
486 thresholds, and the *mefSoamLmThresholdCfgTable*, used for the LM thresholds.

487 Each table configures a specific threshold for either the DM or LM PM Session.

488 The main purpose of the threshold notifications is to indicate when a specific performance pa-
489 rameter has not been met and to notify the EMS via an alarm.

490 If two managers try to "create" the same row at the same time, the first creation attempt would
491 succeed, the second creation attempt would result in an error. The second creation attempt would
492 then need to select a new index value to create a new row.

493 Two types of threshold crossings are supported: one that is generated when the value is above the
494 threshold during every Measurement Interval; and one that is generated when a threshold is ex-
495 ceeded (set) and again when the values falls below the threshold (clear). These two types are
496 described further below.

497 Both types of threshold crossing alarms can be supported.

498   6.4.1 Threshold Above

499 When a measurement value is above the threshold within a Measurement Interval **<u>and</u>** the specif-
500 ic measurement counter is enabled **<u>and</u>** the specific threshold is enabled **<u>and</u>** the threshold above

501 alarm is enabled **and** a PM MIB Above threshold notification has not already been generated
502 during this Measurement Interval, a PM MIB Above threshold notification is generated.

6.4.2 Threshold Set/Clear

504 When a measurement value exceeds the the threshold **and** the specific measurement counter is
505 enabled **and** the specific threshold is enabled **and** the threshold set-clear alarm is enabled **and**
506 the previous measurement value did not exceed the threshold a PM MIB Set threshold notifica-
507 tion is generated.

508 When a measurement value does not exceed the the threshold **and** the specific measurement
509 counter is enabled **and** the specific threshold is enabled **and** the threshold set-clear alarm is ena-
510 bled **and** the previous measurement value exceeded the threshold a PM MIB Clear threshold no-
511 tification is generated.

512 In the case of thresholds applied to a maximum or average (arithmetic mean) measurement coun-
513 ter, the previous measurement value is the value of the counter at the end of the preceding Meas-
514 urement Interval. In the case of thresholds applied to the last measured value, it is the previous
515 measured value.

6.4.3 LM Thresholds

517 The *mefSoamLmThresholdCfgTable* is configured after the LM instance is configured. Rows
518 are not automatically created. Each threshold enable is configured via the
519 *mefSoamLmThresholdCfgEnable* object, one bit for each type of threshold.

520 The following LM thresholds are supported:

521 • *mefSoamLmThresholdCfgMeasuredFlrForwardThreshold*

522 • *mefSoamLmThresholdCfgMaxFlrForwardThreshold*

523 • *mefSoamLmThresholdCfgAvgFlrForwardThreshold*

524 • *mefSoamLmThresholdCfgMeasuredFlrBackwardThreshold*

525 • *mefSoamLmThresholdCfgMaxFlrBackwardThreshold*

526 • *mefSoamLmThresholdCfgAvgFlrBackwardThreshold*

527 • *mefSoamLmThresholdCfgForwardHighLossThreshold*

528 • *mefSoamLmThresholdCfgForwardConsecutiveHighLossThreshold*

529 • *mefSoamLmThresholdCfgBackwardHighLossThreshold*

530 • *mefSoamLmThresholdCfgBackwardConsecutiveHighLossThreshold*

531 • *mefSoamLmThresholdCfgForwardUnavailCountThreshold*

532 • *mefSoamLmThresholdCfgForwardAvailRatioThreshold*

533 • *mefSoamLmThresholdCfgBackwardUnavailCountThreshold*

534 • *mefSoamLmThresholdCfgBackwardAvailRatioThreshold*

535 Maximum FLR, Unavailability, HLI, CHLI and Measured FLR thresholds are evaluated after
536 each measurement, and threshold crossings generate a notification immediately when the thresh-
537 old crossing is detected.

538 Average FLR thresholds and Availability Ratio are evaluated at the end of each Measurement
539 Interval and threshold crossings generate a notification at the end of the Measurement Interval
540 when the threshold crossing is detected.

541 For Set/Clear thresholds, the same threshold is used for setting and clearing (no hysteresis), and
542 no objects are defined for clearing the threshold by a management action.

543 **6.4.4 DM Thresholds**

544 The *mefSoamDmThresholdCfgTable* is configured after the DM instance is configured. Rows
545 are not automatically created. Each threshold enable is configured via the
546 *mefSoamDmThresholdCfgEnable* object, one bit for each type of threshold.

547 The following DM thresholds are supported:

548 • *mefSoamDmThresholdCfgMeasuredFrameDelayTwoWayThreshold*

549 • *mefSoamDmThresholdCfgMaxFrameDelayTwoWayThreshold*

550 • *mefSoamDmThresholdCfgAvgFrameDelayTwoWayThreshold*

551 • *mefSoamDmThresholdCfgMeasuredIfdvTwoWayThreshold*

552 • *mefSoamDmThresholdCfgMaxIfdvTwoWayThreshold*

553 • *mefSoamDmThresholdCfgAvgIfdvTwoWayThreshold*

554 • *mefSoamDmThresholdCfgMaxFrameDelayRangeTwoWayThreshold*

555 • *mefSoamDmThresholdCfgAvgFrameDelayRangeTwoWayThreshol*

556 • *mefSoamDmThresholdCfgMeasuredFrameDelayForwardThreshold*

557 • *mefSoamDmThresholdCfgMaxFrameDelayForwardThreshold*

558 • *mefSoamDmThresholdCfgAvgFrameDelayForwardThreshold*

559 • *mefSoamDmThresholdCfgMeasureIfdvForwardThreshold*

560 • *mefSoamDmThresholdCfgMaxIfdvForwardThreshold*

561 • *mefSoamDmThresholdCfgAvgIfdvForwardThreshold*

562 • *mefSoamDmThresholdCfgMaFrameDelayRangeForwardThreshold*

563 • *mefSoamDmThresholdCfgAvgFrameDelayRangeForwardThreshold*

564 • *mefSoamDmThresholdCfgMeasuredFrameDelayBackwardThreshold*

565 • *mefSoamDmThresholdCfgMaxFrameDelayBackwardThreshold*

566 • *mefSoamDmThresholdCfgAvgFrameDelayBackwardThreshold*

567 • *mefSoamDmThresholdCfgMeasuredIfdvBackwardThreshold*

568   • *mefSoamDmThresholdCfgMaxIfdvBackwardThreshold*

569   • *mefSoamDmThresholdCfgAvgIfdvBackwardThreshold*

570   • *mefSoamDmThresholdCfgMaxFrameDelayRangeBackwardThreshold*

571   • *mefSoamDmThresholdCfgAvgFrameDelayRangeBackwardThreshold*

572 Maximum Frame Delay and IFDV and Measured Frame Delay and IFDV thresholds are evaluat-
573 ed after each measurement, and threshold crossings generate a notification immediately when the
574 threshold crossing is detected.

575 Average Frame Delay and IFDV, and the Average and Maximum Frame Delay Range thresholds
576 are evaluated at the end of each Measurement Interval, and threshold crossings generate a notifi-
577 cation at the end of the Measurement Interval when the threshold crossing is detected.

578 For Set/Clear thresholds, the same threshold is used for setting and clearing (no hysteresis), and
579 no objects are defined for clearing the threshold by a management action.

580 ## 6.5 PM MIB Notifications

581 The following objects are specific to notifications and are included in the list of objects for the
582 specific SOAM PM notifications:

583   • *mefSoamPmNotificationObjDateAndTime* - contains the time and date at the time that
584   the notification event is detected

585   • *mefSoamPmNotificationObjThresholdId* - contains the Object Identifier of the object
586   that caused the generation of the threshold notification

587   • *mefSoamPmNotificationObjThresholdConfig* - contains the configured threshold value
588   of the object that caused the generation of the threshold notification

589   • *mefSoamPmNotificationObjThresholdValue* - contains the measured value of the object
590   at the time of generation of the notification

591   • *mefSoamPmNotificationObjSuspect* - contains the suspect flag for the current Measure-
592   ment Interval in which the notification was generated

593   • *mefSoamPmNotificationObjCrossingType* - contains the type of notification crossing

594   • *mefSoamPmNotificationObjDestinationMep* - contains the MAC address of the
595   destinion MEP associated with the notification event

596   • *mefSoamPmNotificationObjPriority* - contains the CoS priority associated with the noti-
597   fication event

598 The following objects configure notifications:

599   • *mefSoamPmNotificationCfgAlarmInterval* - contains the shortest time interval in se-
600   conds between the generation of the same notification type per PM Session.

601   • *mefSoamPmNotificationCfgAlarmEnable* - Enables/Disables specific types of notifica-
602   tion.

603 The following SOAM PM notifications can be generated:

604   • *mefSoamAvailabilityChange* - is sent when the state of the availability of the indicated
605   service changes

606   • *mefSoamLmSessionStartStop* - is sent when the state of the LM session changes

607   • *mefSoamDmSessionStartStop* - is sent when the state of the DM session changes

608   • *mefSoamPmThresholdCrossing* - is sent when the value of the threshold crossing object
609   from *mefSoamLmThresholdCfgTable* or *mefSoamDmThresholdCfgTable* as indicated
610   by the *mefSoamPmNotificationThresholdId* is crossed.

611   For a notification to be sent the applicable measurement counter needs to be enabled and for
612   threshold crossing notifications a threshold needs to be configured and crossed during a Meas-
613   urement Interval.

614   ## 6.6 PM MIB Conformance and Compliance

615   There are two conformances items: the *mefSoamPmMibCompliances* section and the
616   *mefSoamPmMibGroups* conformance group.

617   The units of conformance are organized into the following mandatory groups:

618   • *mefSoamPmMepMandatoryGroup*

619   • *mefSoamLmCfgMandatoryGroup*

620   • *mefSoamLmMeasuredStatsMandatoryGroup*

621   • *mefSoamLmCurrentAvailStatsMandatoryGroup*

622   • *mefSoamLmCurrentStatsMandatoryGroup*

623   • *mefSoamLmHistoryAvailStatsMandatoryGroup*

624   • *mefSoamLmHistoryStatsMandatoryGroup*

625   • *mefSoamDmCfgMandatoryGroup*

626   • *mefSoamDmCfgMeasBinMandatoryGroup*

627   • *mefSoamDmCurrentStatsMandatoryGroup*

628   • *mefSoamDmCurrentStatsBinsMandatoryGroup*

629   • *mefSoamDmHistoryStatsMandatoryGroup*

630   • *mefSoamDmHistoryStatsBinsMandatoryGroup*

631   • *mefSoamLmThresholdMandatoryGroup*

632   • *mefSoamDmThresholdMandatoryGroup*

633   • *mefSoamPmNotificationsMandatoryGroup*

634   • *mefSoamPmNotificationCfgMandatoryGroup*

635   • *mefSoamPmNotificationObjMandatoryGroup*

636   The units of conformance are organized into the following optional groups:

637 • *mefSoamPmMepOptionalGroup*

638 • *mefSoamLmCfgOptionalGroup*

639 • *mefSoamLmMeasuredStatsOptionalGroup*

640 • *mefSoamLmCurrentAvailStatsOptionalGroup*

641 • *mefSoamLmCurrentStatsOptionalGroup*

642 • *mefSoamLmHistoryAvailStatsOptionalGroup*

643 • *mefSoamLmHistoryStatsOptionalGroup*

644 • *mefSoamDmCfgOptionalGroup*

645 • *mefSoamDmMeasuredStatsOptionalGroup*

646 • *mefSoamDmCurrentStatsOptionalGroup*

647 • *mefSoamDmHistoryStatsOptionalGroup*

648 • *mefSoamLmThresholdOptionalGroup*

649 • *mefSoamDmThresholdOptionalGroup*

650 • *mefSoamPmNotificationsOptionalGroup*

651 • *mefSoamPmNotificationObjOptionalGroup*

652 There is one compliance group, *mefSoamPmMibCompliance*, that contains all the units of con-
653 formance groups.

7. SOAM PM MIB Requirements

655 The SOAM PM MIB defines the managed objects necessary to support SOAM PM functionality.
656 Its primary point of reference is the SOAM-PM Implementation Agreement [13].

657 The SOAM PM MIB implements the SOAM PM functionality as defined in the MEF 17 [10]
658 and the SOAM PM Implementation Agreement [13]. It includes much of the PM functionality
659 defined in ITU-T Y.1731 [20].

660 The SOAM PM MIB is divided into the following groups:

661 • *mefSoamPmMep* - defines the SOAM PM local MEP objects necessary to support the
662 general setup and configuration of SOAM PM functions at a MEP

663 • *mefSoamPmLmObjects* - defines the configuration objects necessary to the support the
664 Loss Measurement session and the current and history results tables

665 • *mefSoamPmDmObjects* - defines the configuration objects necessary to support the De-
666 lay Measurement session and the current and history results tables

667 • *mefSoamPmNotificationCfg* – defines the configuration objects necessary to control
668 generation of SOAM PM notifications

669 • *mefSoamPmNotificationObj* - defines the notification objects necessary to fully define
670 and report SOAM PM notifications

671   •   *mefSoamPmNotifications* - defines the notifications necessary to implement the SOAM
672   PM functionality

673

674   **[R1]**   The *mefSoamPmMep* group **SHALL** be supported for devices that are compli-
675   ant with SOAM PM functionality except for the
676   *mefSoamPmMepLmSingleEndedResponder* object.

677   **[D1]**   The *mefSoamPmMep* group **SHOULD** be supported for devices that are com-
678   pliant with SOAM PM functionality.

679   **[R2]**   The *mefSoamLmCfgTable* of the *mefSoamPmLmObjects* group **SHALL** be
680   supported for devices that are compliant with SOAM PM functionality except
681   for the mefSoamLmCfgVersion, mefSoamLmCfgTestTlvIncluded,
682   mefSoamLmCfgTestTlvPattern, mefSoamLmCfgAlignMeasurementIntervals,
683   mefSoamLmCfgAvailabilityNumConsecutiveHighFlr,
684   mefSoamLmCfgAlignMeasurementOffset objects.

685   **[D2]**   The *mefSoamLmCfgTable* of the *mefSoamPmLmObjects* group **SHOULD** be
686   supported for devices that are compliant with SOAM PM functionality.

687   **[R3]**   The *mefSoamLmMeasuredStatsTable* of the *mefSoamPmLmObjects* group
688   **SHALL** be supported for devices that are compliant with SOAM PM function-
689   ality except for the mefSoamLmMeasuredStatsForwardFlr,
690   mefSoamLmMeasuredStatsBackwardFlr,
691   mefSoamLmMeasuredStatsAvailForwardStatus,
692   mefSoamLmMeasuredStatsAvailBackwardStatus objects.

693   **[D3]**   The *mefSoamLmMeasuredStatsTable* of the *mefSoamPmLmObjects* group
694   **SHOULD** be supported for devices that are compliant with SOAM PM func-
695   tionality.

696   **[R4]**   The *mefSoamLmCurrentAvailStatsTable* of the *mefSoamPmLmObjects* group
697   **SHALL** be supported for devices that are compliant with SOAM PM function-
698   ality except for the mefSoamLmCurrentAvailStatsForwardHighLoss,
699   mefSoamLmCurrentAvailStatsBackwardHighLoss,
700   mefSoamLmCurrentAvailStatsForwardConsecutiveHighLoss,
701   mefSoamLmCurrentAvailStatsBackwardConsecutiveHighLoss,
702   mefSoamLmCurrentAvailStatsForwardMinFlr,
703   mefSoamLmCurrentAvailStatsForwardMaxFlr,
704   mefSoamLmCurrentAvailStatsForwardAvgFlr,
705   mefSoamLmCurrentAvailStatsBackwardMinFlr,
706   mefSoamLmCurrentAvailStatsBackwardMaxFlr,
707   mefSoamLmCurrentAvailStatsBackwardAvgFlr objects.

708   **[D4]**   The *mefSoamLmCurrentAvailStatsTable* of the *mefSoamPmLmObjects* group
709   **SHOULD** be supported for devices that are compliant with SOAM PM func-
710   tionality.

711   **[R5]**   The *mefSoamLmCurrentStatsTable* of the *mefSoamPmLmObjects* group
712   **SHALL** be supported for devices that are compliant with SOAM PM function-

713   ality except for the mefSoamLmCurrentStatsForwardTransmittedFrames,
714   mefSoamLmCurrentStatsForwardReceivedFrames,
715   mefSoamLmCurrentStatsBackwardTransmittedFrames,
716   mefSoamLmCurrentStatsBackwardReceivedFrames,
717   mefSoamLmCurrentStatsForwardMinFlr,
718   mefSoamLmCurrentStatsForwardMaxFlr,
719   mefSoamLmCurrentStatsForwardAvgFlr,
720   mefSoamLmCurrentStatsBackwardMinFlr,
721   mefSoamLmCurrentStatsBackwardMaxFlr,
722   mefSoamLmCurrentStatsBackwardAvgFlr, objects.

723   **[D5]**   The *mefSoamLmCurrentStatsTable* of the *mefSoamPmLmObjects* group
724   **SHOULD** be supported for devices that are compliant with SOAM PM func-
725   tionality.

726   **[R6]**   The *mefSoamLmHistoryAvailStatsTable* of the *mefSoamPmLmObjects* group
727   **SHALL** be supported for devices that are compliant with SOAM PM function-
728   ality except for the mefSoamLmHistoryAvailStatsForwardHighLoss,
729   mefSoamLmHistoryAvailStatsBackwardHighLoss,
730   mefSoamLmHistoryAvailStatsForwardConsecutiveHighLoss,
731   mefSoamLmHistoryAvailStatsBackwardConsecutiveHighLoss,
732   mefSoamLmHistoryAvailStatsForwardMinFlr,
733   mefSoamLmHistoryAvailStatsForwardMaxFlr,
734   mefSoamLmHistoryAvailStatsForwardAvgFlr,
735   mefSoamLmHistoryAvailStatsBackwardMinFlr,
736   mefSoamLmHistoryAvailStatsBackwardMaxFlr,
737   mefSoamLmHistoryAvailStatsBackwardAvgFlr objects.

738   **[D6]**   The *mefSoamLmHistoryAvailStatsTable* of the *mefSoamPmLmObjects* group
739   **SHOULD** be supported for devices that are compliant with SOAM PM func-
740   tionality.

741   **[R7]**   The *mefSoamLmHistoryStatsTable* of the *mefSoamPmLmObjects* group
742   **SHALL** be supported for devices that are compliant with SOAM PM function-
743   ality except for the mefSoamLmHistoryStatsForwardTransmittedFrames,
744   mefSoamLmHistoryStatsForwardReceivedFrames,
745   mefSoamLmHistoryStatsBackwardTransmittedFrames,
746   mefSoamLmHistoryStatsBackwardReceivedFrames,
747   mefSoamLmHistoryStatsForwardMinFlr,
748   mefSoamLmHistoryStatsForwardMaxFlr,
749   mefSoamLmHistoryStatsForwardAvgFlr,
750   mefSoamLmHistoryStatsBackwardMinFlr,
751   mefSoamLmHistoryStatsBackwardMaxFlr,
752   mefSoamLmHistoryStatsBackwardAvgFlr, objects.

753   **[D7]**   The *mefSoamLmHistoryStatsTable* of the *mefSoamPmLmObjects* group
754   **SHOULD** be supported for devices that are compliant with SOAM PM func-
755   tionality.

756	**[R8]**	The *mefSoamDmCfgTable* of the *mefSoamPmDmObjects* group **SHALL** be
757		supported for devices that are compliant with SOAM PM functionality except
758		for the mefSoamDmCfgVersion, mefSoamDmCfgTestTlvIncluded,
759		mefSoamDmCfgTestTlvPattern, mefSoamDmCfgSourceMacAddress,
760		mefSoamDmCfgAlignMeasurementOffset,
761		mefSoamDmCfgInterFrameDelayVariationSelectionOffset objects.
762	**[D8]**	The *mefSoamDmCfgTable* of the *mefSoamPmDmObjects* group **SHOULD** be
763		supported for devices that are compliant with SOAM PM functionality.
764	**[R9]**	The *mefSoamDmCfgMeasBinTable* of the *mefSoamPmDmObjects* group
765		**SHALL** be supported for devices that are compliant with SOAM PM function-
766		ality.
767	**[D9]**	The *mefSoamDmMeasuredStatsTable* of the *mefSoamPmDmObjects* group
768		**SHOULD** be supported for devices that are compliant with SOAM PM func-
769		tionality.
770	**[R10]**	The *mefSoamDmCurrentStatsTable* of the *mefSoamPmDmObjects* group
771		**SHALL** be supported for devices that are compliant with SOAM PM function-
772		ality except for the mefSoamDmCurrentStatsIfdvTwoWayMin,
773		mefSoamDmCurrentStatsIfdvTwoWayMax,
774		mefSoamDmCurrentStatsIfdvTwoWayAvg,
775		mefSoamDmCurrentStatsFrameDelayRangeTwoWayMax,
776		mefSoamDmCurrentStatsFrameDelayRangeTwoWayAvg objects.
777	**[D10]**	The *mefSoamDmCurrentStatsTable* of the *mefSoamPmDmObjects* group
778		**SHOULD** be supported for devices that are compliant with SOAM PM func-
779		tionality.
780	**[R11]**	The *mefSoamDmCurrentStatsBinsTable* of the *mefSoamPmDmObjects* group
781		**SHALL** be supported for devices that are compliant with SOAM PM function-
782		ality.
783	**[R12]**	The *mefSoamDmHistoryStatsTable* of the *mefSoamPmDmObjects* group
784		**SHALL** be supported for devices that are compliant with SOAM PM function-
785		ality except for the mefSoamDmHistoryStatsIfdvTwoWayMin,
786		mefSoamDmHistoryStatsIfdvTwoWayMax,
787		mefSoamDmHistoryStatsIfdvTwoWayAvg,
788		mefSoamDmHistoryStatsFrameDelayRangeTwoWayMax,
789		mefSoamDmHistoryStatsFrameDelayRangeTwoWayAvg objects.
790	**[D11]**	The *mefSoamDmHistoryStatsTable* of the *mefSoamPmDmObjects* group
791		**SHOULD** be supported for devices that are compliant with SOAM PM func-
792		tionality.
793	**[R13]**	The *mefSoamDmHistoryStatsBinsTable* of the *mefSoamPmDmObjects* group
794		**SHALL** be supported for devices that are compliant with SOAM PM function-
795		ality.
796	**[R14]**	The *mefSoamLmThresholdCfgTable* of the *mefSoamPmLmObjects* group
797		**SHALL** be supported for devices that are compliant with SOAM PM function-

798		ality except for the mefSoamLmThresholdCfgForwardHighLossThreshold,
799		mefSoamLmThresholdCfgForwardConsecutiveHighLossThreshold,
800		mefSoamLmThresholdCfgBackwardHighLossThreshold,
801		mefSoamLmThresholdCfgBackwardConsecutiveHighLossThreshold,
802		mefSoamLmThresholdCfgMeasuredFlrForwardThreshold,
803		mefSoamLmThresholdCfgMeasuredFlrBackwardThreshold objects.

804	**[D12]**	The *mefSoamLmThresholdCfgTable* of the *mefSoamPmLmObjects* group
805		**SHOULD** be supported for devices that are compliant with SOAM PM func-
806		tionality.

807	**[R15]**	The *mefSoamDmThresholdCfgTable* of the *mefSoamPmDmObjects* group
808		**SHALL** be supported for devices that are compliant with SOAM PM function-
809		ality except for the
810		mefSoamDmThresholdCfgMeasuredIfdvTwoWayThreshold,
811		mefSoamDmThresholdCfgMeasuredFrameDelayForwardThreshold,
812		mefSoamDmThresholdCfgMeasuredIfdvForwardThreshold,
813		mefSoamDmThresholdCfgMeasuredFrameDelayBackwardThreshold,
814		mefSoamDmThresholdCfgMeasuredIfdvBackwardThreshold,
815		mefSoamDmThresholdCfgMeasuredFrameDelayTwoWayThreshold,
816		mefSoamDmThresholdCfgMaxIfdvTwoWayThreshold,
817		mefSoamDmThresholdCfgAvgIfdvTwoWayThreshold,
818		mefSoamDmThresholdCfgMaxFrameDelayRangeTwoWayThreshold,
819		mefSoamDmThresholdCfgAvgFrameDelayRangeTwoWayThreshold objects.

820	**[D13]**	The *mefSoamDmThresholdCfgTable* of the *mefSoamPmDmObjects* group
821		**SHOULD** be supported for devices that are compliant with SOAM PM func-
822		tionality.

823	**[R16]**	The *mefSoamPmNotificationCfg* group **SHALL** be supported for devices that
824		are compliant with SOAM PM functionality.

825	**[R17]**	The *mefSoamPmNotificationObj* group **SHALL** be supported for devices that
826		are compliant with SOAM PM functionality, except for the
827		mefSoamPmNotificationObjThresholdConfig,
828		mefSoamPmNotificationObjThresholdId,
829		mefSoamPmNotificationObjThresholdValue,
830		mefSoamPmNotificationObjCrossingType objects.

831	**[D14]**	The *mefSoamPmNotificationObj* group **SHOULD** be supported for devices
832		that are compliant with SOAM PM functionality.

833	**[R18]**	The *mefSoamPmNotifications* group **SHALL** be supported for devices that are
834		compliant with SOAM PM functionality, except for the
835		mefSoamPmThresholdCrossingAlarm object.

836	**[D15]**	The *mefSoamPmNotifications* group **SHOULD** be supported for devices that
837		are compliant with SOAM PM functionality.
838		

839 **8. SOAM PM MIB Definitions**

```
840
841   MEF-SOAM-PM-MIB DEFINITIONS ::= BEGIN
842     IMPORTS
843       NOTIFICATION-TYPE, MODULE-IDENTITY, OBJECT-TYPE, Unsigned32,
844       Gauge32, enterprises
845               FROM SNMPv2-SMI        -- RFC 2578
846       RowStatus, TruthValue, MacAddress, DateAndTime, TimeInterval
847               FROM SNMPv2-TC         -- RFC 2579
848       OBJECT-GROUP, NOTIFICATION-GROUP, MODULE-COMPLIANCE
849               FROM SNMPv2-CONF       -- RFC 2580
850       dot1agCfmMdIndex, dot1agCfmMaIndex, dot1agCfmMepIdentifier, dot1agCfmMepEntry,
851       Dot1afCfmIndexIntegerNextFree, Dot1agCfmMepIdOrZero
852               FROM IEEE8021-CFM-MIB   -- IEEE 802.1ag
853       IEEE8021PriorityValue
854           FROM IEEE8021-TC-MIB    -- IEEE 802.1ap
855       MefSoamTcOperationTimeType, MefSoamTcDataPatternType, MefSoamTcTestPatternType,
856       MefSoamTcAvailabilityType, MefSoamTcDelayMeasurementBinType,
857       MefSoamTcMeasurementPeriodType, MefSoamTcSessionType, MefSoamTcStatusType
858               FROM MEF-SOAM-TC-MIB;
859
860   mefSoamPmMib MODULE-IDENTITY
861       LAST-UPDATED    "201201131200Z" -- January 13, 2012
862       ORGANIZATION    "Metro Ethernet Forum"
863       CONTACT-INFO
864          "Web URL: http://metroethernetforum.org/
865           E-mail:  mibs@metroethernetforum.org
866           Postal:  Metro Ethernet Forum
867                    6033 W. Century Boulevard, Suite 830
868                    Los Angeles, CA 90045
869                    U.S.A.
870           Phone:   +1 310-642-2800
871           Fax:     +1 310-642-2808"
872       DESCRIPTION
873               "This MIB module contains the management objects for the
874               management of Ethernet Services Operations, Administration
875               and Maintenance for Performance Monitoring.
876
877               Copyright 2010, 2011, 2012 Metro Ethernet Forum
878               All rights reserved.
879
880       ****************************************************************************
881       Reference Overview
882
883       A number of base documents have been used to create the Textual Conventions
884       MIB, the SOAM-PM MIB and SOAM-FM extension MIB. The following are the
885       abbreviations for the baseline documents:
886
887       [CFM] refers to 'Connectivity Fault Management', IEEE 802.1ag-2007,
888           December 2007
889       [MEF7.1] refers to MEF 7.1 'Phase 2 EMS-NMS Information Model',
890           October 2009
891       [MEF17] refers to MEF 17 'Service OAM Requirements & Framework – Phase 1',
892           April 2007
893       [MEF10.2.1] refers to MEF 10.2.1 'Ethernet Services Attributes Phase 2',
894           January 2011
895       [MEF SOAM-PM] refers to MEF 35 'Service OAM Performance Monitoring
896           Implementation Agreement', January 2012
897       [MEF SOAM-FM] refers to MEF 30 'Service OAM Fault Management Implementation
898           Agreement', January 2011
```

```
899        [Q.840.1] refers to 'ITU-T Requirements and analysis for NMS-EMS
900           management interface of Ethernet over Transport and Metro Ethernet
901           Network (EoT/MEN)', March 2007
902        [Y.1731] refers to ITU-T Y.1731 'OAM functions and mechanisms for Ethernet
903           based networks', February 2011
904        *****************************************************************************
905
906     Abbreviations Used
907
908     Term          Definition
909     Availability Performance   A measure of the percentage of time within a
910                       specified time interval during which the frame loss is small
911     Backward      OAM information sent from the Responder MEP to the Controller MEP. For
912                       LM it indicates the frame counts/loss from the Responder MEP to the
913                       Controller MEP. For DM is indicates the delay and delay variation
914                       from the Responder MEP to the Controller MEP.
915     BSS           Business Support System
916     CCM           Continuity Check Message
917     CFM           Connectivity Fault Management
918     CHLI          Consecutive High Loss Interval, a sequence of small time  intervals
919                   contained in T, each with high frame loss ratio
920     Controller MEP  The Controller MEP initiates SOAM PDUs, and receives responses
921                       from the Responder MEP.
922     CoS           Class of Service
923     DM            Delay Measurement
924     Dual-Ended    A type of process where a MEP sends measurement information to a peer
925                       MEP that will perform the calculations.
926     EMS           Element Management System
927     ETH-DM        Ethernet Delay Measurement function
928     ETH-LM        Ethernet Loss Measurement function
929     ETH-SLM       Ethernet Synthetic Frame Loss Measurement function
930     EVC           Ethernet Virtual Connection
931     FD            Frame Delay
932     FDR           Frame Delay Range
933     FLR           Frame Loss Ratio
934     FM            Fault Management
935     Forward       OAM information sent from the Controller MEP to the Responder MEP.
936                     For LM it indicates the frame counts/loss from the Controller MEP
937                     to the Responder MEP. For DM is indicates the delay and delay
938                     variation from the Controller MEP to the Responder MEP.
939     HLI           High Loss Interval, a small time interval contained in T with a
940                     high frame loss ratio
941     IEEE          Institute of Electrical and Electronics Engineers
942     IETF          Internet Engineering Task Force
943     IFDV          Inter-Frame Delay Variation
944     ITU-T         International Telecommunication Union - Telecommunication
945                     Standardization Bureau
946     LAN           Local Area Network
947     LM            Loss Measurement
948     MAC           Media Access Control
949     MA            Maintenance Association (equivalent to a MEG)
950     MD            Maintenance Domain (equivalent to a OAM Domain in MEF 17)
951     MD Level      Maintenance Domain Level (equivalent to a MEG level)
952     ME            Maintenance Entity
953     Measurement Bin   A Measurement Bin is a counter that stores the number of
954                       performance measurements falling within a specified range, during
955                       a Measurement Interval
956     Measurement Interval   A period of time during which measurements are taken.
957                     Measurements initiated during one Measurement Interval are kept
958                     separate from measurements taken during other Measurement Intervals.
959                     It is important to note that this is different from T.
960     MEF           Metro Ethernet Forum
961     MEG           Maintenance Entity Group (equivalent to a MA)
962     MEG Level     Maintenance Entity Group Level (equivalent to MD Level)
```

963	MEN	Metro Ethernet Network
964	MEP	Maintenance Association End Point or MEG End Point
965	MFD	Mean Frame Delay
966	MIB	Management Information Base
967	MIP	Maintenance Domain Intermediate Point or MEG Intermediate Point
968	MP	Maintenance Point. One of either a MEP or a MIP
969	NE	Network Element
970	NMS	Network Management System
971	OAM	Operations, Administration, and Maintenance
972	On-Demand	OAM actions that are initiated via manual intervention for a limited
973		time to carry out diagnostics. On-Demand OAM can result in
974		singular or periodic OAM actions during the diagnostic time
975		interval
976	One-way	A measurement performed in the forward or backward direction. For
977		example from MEP A to MEP B or from MEP B to MEP A.
978	OSS	Operations Support System
979	PDU	Protocol Data Unit
980	PM	Performance Monitoring
981	PM Function	A MEP capability specified for performance monitoring purposes
982		(e.g., Single-Ended Delay, Single-Ended Synthetic Loss)
983	PM Session	A PM Session is the application of a given PM Function between a given
984		pair of MEPs and using a given CoS Frame Set over some (possibly
985		indefinite) period of time.
986	PM Solution	A PM Solution is a set of related requirements that when implemented
987		allow a given set of performance metrics to be measured using a
988		given set of PM functions.
989	PM Tool	A generic term used to discuss the application of a PM Function.
990	Proactive	OAM actions that are carried on continuously to permit timely reporting
991		of fault and/or performance status.
992	Resiliency	Performance The number of High Loss Intervals and Consecutive High
993		Loss Intervals in T
994	Responder MEP	In a single-ended session, the Responder MEP receives SOAM PDUs,
995		from the Controller MEP, and transmits a response to the
996		Controller MEP. SOAM-PM
997	RFC	Request for Comment
998	Service Frame	An Ethernet frame transmitted across the UNI toward the Service
999		Provider or an Ethernet frame transmitted across the UNI toward
1000		the Subscriber
1001	Single-Ended	A type of process where a MEP sends a measurement request and the
1002		peer MEP replies with the requested information so the originating
1003		MEP can calculate the measurement.
1004	Sink MEP	In a dual-ended session, the Sink MEP receives SOAM PDUs, from the
1005		Controller MEP and performs the performance calculations.
1006	SLM	Synthetic Loss Measurement
1007	SNMP	Simple Network Management Protocol
1008	SNMP Agent	An SNMP entity containing one or more command responder and/or
1009		notification originator applications (along with their associated
1010		SNMP engine). Typically implemented in an NE.
1011	SNMP Manager	An SNMP entity containing one or more command generator and/or
1012		notification receiver applications (along with their associated
1013		SNMP engine). Typically implemented in an EMS or NMS.
1014	SOAM	Service OAM
1015	SOAM PDU	Service OAM frame, or Protocol Data Unit. Specifically, those PDUs
1016		defined in [IEEE 802.1ag], [ITU-T Y.1731], or MEF specifications
1017	Synthetic Traffic	SOAM traffic that emulates service traffic in order to measure
1018		the performance experience. Delay measurements must use synthetic
1019		traffic, because user traffic does not contain standardized
1020		timestamp fields. Other measurements, such as Frame Loss, may also
1021		use synthetic frames for certain advantages (e.g., ability to
1022		measure loss in multipoint services).
1023	T	Time Interval for SLS Metricss. The time over which a Performance
1024		Metric is defined. T is at least as large as the Measurement
1025		Interval, and generally consists of multiple Measurement

```
1026                Intervals.
1027  TC          Textual Conventions
1028  TLV         Type Length Value, a method of encoding Objects
1029  Two-way     A measurement of the performance of frames that flow from the
1030                Controller MEP to Responder MEP and back again.
1031  UML         Unified Modeling Language
1032  UTC         Coordinated Universal Time
1033  UNI         User-to-Network Interface
1034  VLAN        Virtual LAN
1035
1036  "
1037      REVISION        "201201131200Z" -- January 13, 2012
1038      DESCRIPTION
1039            "Initial Version."
1040      ::= { enterprises mef(15007) mefSoam(1) 3 }
1041
1042  -- ****************************************************************************
1043  -- Object definitions in the SOAM PM MIB Module
1044  -- ****************************************************************************
1045  mefSoamPmNotifications  OBJECT IDENTIFIER ::= { mefSoamPmMib 0 }
1046  mefSoamPmMibObjects     OBJECT IDENTIFIER ::= { mefSoamPmMib 1 }
1047  mefSoamPmMibConformance OBJECT IDENTIFIER ::= { mefSoamPmMib 2 }
1048
1049  -- ****************************************************************************
1050  -- Groups in the SOAM PM MIB Module
1051  -- ****************************************************************************
1052  mefSoamPmMep            OBJECT IDENTIFIER ::= { mefSoamPmMibObjects 1 }
1053  mefSoamPmLmObjects      OBJECT IDENTIFIER ::= { mefSoamPmMibObjects 2 }
1054  mefSoamPmDmObjects      OBJECT IDENTIFIER ::= { mefSoamPmMibObjects 3 }
1055  mefSoamPmNotificationCfg OBJECT IDENTIFIER ::= { mefSoamPmMibObjects 4 }
1056  mefSoamPmNotificationObj OBJECT IDENTIFIER ::= { mefSoamPmMibObjects 5 }
1057
1058  -- ****************************************************************************
1059  -- Ethernet MEP Performance Monitoring Configuration
1060  -- ****************************************************************************
1061
1062  mefSoamPmMepTable OBJECT-TYPE
1063      SYNTAX      SEQUENCE OF MefSoamPmMepEntry
1064      MAX-ACCESS  not-accessible
1065      STATUS      current
1066      DESCRIPTION
1067         "This table is an extension of the dot1agCfmMepTable and rows
1068          are automatically added or deleted from this table based upon row
1069          creation and destruction of the dot1agCfmMepTable.
1070
1071          This table represents the local MEP PM configuration table. The
1072          primary purpose of this table is provide local parameters for the
1073          SOAM PM function found in [Y.1731] and [MEF SOAM-PM] and instantiated
1074          at a MEP.
1075          "
1076      REFERENCE
1077         "[Y.1731], [MEF SOAM-PM]"
1078      ::= { mefSoamPmMep 1 }
1079
1080  mefSoamPmMepEntry OBJECT-TYPE
1081      SYNTAX      MefSoamPmMepEntry
1082      MAX-ACCESS  not-accessible
1083      STATUS      current
1084      DESCRIPTION
1085         "The conceptual row of mefSoamPmMepTable."
1086      AUGMENTS {
1087              dot1agCfmMepEntry
1088              }
1089      ::= { mefSoamPmMepTable 1 }
```

```
1090
1091    MefSoamPmMepEntry ::= SEQUENCE {
1092        mefSoamPmMepOperNextIndex               Dot1afCfmIndexIntegerNextFree,
1093        mefSoamPmMepLmSingleEndedResponder      TruthValue,
1094        mefSoamPmMepSlmSingleEndedResponder     TruthValue,
1095        mefSoamPmMepDmSingleEndedResponder      TruthValue
1096        }
1097
1098    mefSoamPmMepOperNextIndex OBJECT-TYPE
1099        SYNTAX      Dot1afCfmIndexIntegerNextFree
1100        MAX-ACCESS  read-only
1101        STATUS      current
1102        DESCRIPTION
1103          "This object contains an unused value for a PM session number on a
1104           MEP that can be used for either LM or DM sessions, or a zero to
1105           indicate that none exist. This value needs to be read in order to
1106           find an available index for row-creation of a PM session on a MEP and
1107           then used when a row is created. This value is automatically updated
1108           by the SNMP Agent after the row is created.
1109
1110           Referential integrity is necessary, i.e., the index needs to be
1111           persistent upon a reboot or restart of a device.  The index
1112           is never to be reused for other PM sessions on the same MEP while this
1113           session is active, or until it wraps to zero.  The index value keeps
1114           increasing up to that time. This is to facilitate access control based
1115           on a fixed index for an EMS, since the index is not reused.
1116
1117           This object is an extension of the dot1agCfmMepTable and the object is
1118           automatically added or deleted based upon row creation and destruction
1119           of the dot1agCfmMepTable.
1120          "
1121        ::= { mefSoamPmMepEntry 1 }
1122
1123    mefSoamPmMepLmSingleEndedResponder OBJECT-TYPE
1124        SYNTAX      TruthValue
1125        MAX-ACCESS  read-write
1126        STATUS      current
1127        DESCRIPTION
1128          "This object specifies whether the Loss Measurement (LMM) single-ended
1129           Responder is enabled.
1130
1131           The value 'true' indicates the single-ended Loss Measurement Responder
1132           is enabled and if a LMM message is received a LMR will be sent in reply.
1133
1134           The value 'false' indicates the single-ended Loss Measurement Responder
1135           is disabled. If a LMM message is received no response will be sent and
1136           the message will be discarded.
1137
1138           This object needs to be persistent upon reboot or restart of a device.
1139
1140           A MEP can be both a single-ended Responder and Controller simultaneously.
1141          "
1142        DEFVAL { true }
1143        ::= { mefSoamPmMepEntry 2 }
1144
1145    mefSoamPmMepSlmSingleEndedResponder OBJECT-TYPE
1146        SYNTAX      TruthValue
1147        MAX-ACCESS  read-write
1148        STATUS      current
1149        DESCRIPTION
1150          "This object specifies whether the Synthetic Loss Measurement (SLM)
1151           single-ended Responder is enabled.
1152
1153           The value 'true' indicates the single-ended SLM Responder is enabled and
```

```
1154              if a SLM message is received a SLR will be sent in reply.
1155
1156              The value 'false' indicates the single-ended SLM Responder is disabled.
1157              If a SLM message is received no response will be sent and the message
1158              will be discarded.
1159
1160              This object needs to be persistent upon reboot or restart of a device.
1161
1162              A MEP can be both a single-ended Responder and Controller simultaneously.
1163              "
1164          DEFVAL { true }
1165          ::= { mefSoamPmMepEntry 3 }
1166
1167      mefSoamPmMepDmSingleEndedResponder OBJECT-TYPE
1168          SYNTAX      TruthValue
1169          MAX-ACCESS  read-write
1170          STATUS      current
1171          DESCRIPTION
1172              "This object specifies whether the Delay Measurement (DMM) single
1173              ended Responder is enabled.
1174
1175              The value 'true' indicates the single-ended Delay Measurement Responder
1176              is enabled and if a DMM message is received a DMR will be sent in reply.
1177
1178              The value 'false' indicates the single-ended Delay Measurement Responder
1179              is disabled. If a DMM message is received no response will be sent and
1180              the message will be discarded.
1181
1182              This object needs to be persistent upon reboot or restart of a device.
1183
1184              A MEP can be both a single-ended Responder and Controller simultaneously.
1185              "
1186          DEFVAL { true }
1187          ::= { mefSoamPmMepEntry 4 }
1188
1189      -- ****************************************************************************
1190      -- Ethernet Loss Measurement Configuration Table
1191      -- ****************************************************************************
1192
1193      mefSoamLmCfgTable OBJECT-TYPE
1194          SYNTAX      SEQUENCE OF MefSoamLmCfgEntry
1195          MAX-ACCESS  not-accessible
1196          STATUS      current
1197          DESCRIPTION
1198              "This table includes configuration objects and operations for the
1199              Frame Loss Measurement function defined in [Y.1731] and [MEF SOAM-PM].
1200
1201              Each row in the table represents a Loss Measurement session for
1202              the defined MEP. This table uses four indices. The first three indices
1203              are the indices of the Maintenance Domain, MaNet, and MEP tables. The
1204              fourth index is the specific LM session on the selected MEP. A
1205              Loss Measurement session is created on an existing MEP by first
1206              accessing the mefSoamPmMepOperNextIndex object and using this value as
1207              the mefSoamLmCfgIndex in the row creation.
1208
1209              Some writable objects in this table are only applicable in certain cases
1210              (as described under each object), and attempts to write values for them
1211              in other cases will be ignored.
1212
1213              The writable objects in this table need to be persistent upon reboot
1214              or restart of a device.
1215              "
1216          REFERENCE
1217              "[MEF SOAM-PM] R68; [Y.1731]"
```

```
1218          ::= { mefSoamPmLmObjects 1 }
1219
1220   mefSoamLmCfgEntry OBJECT-TYPE
1221       SYNTAX      MefSoamLmCfgEntry
1222       MAX-ACCESS  not-accessible
1223       STATUS      current
1224       DESCRIPTION
1225              "The conceptual row of mefSoamLmCfgTable."
1226       INDEX { dot1agCfmMdIndex,
1227              dot1agCfmMaIndex,
1228              dot1agCfmMepIdentifier,
1229              mefSoamLmCfgIndex
1230           }
1231       ::= { mefSoamLmCfgTable 1 }
1232
1233   MefSoamLmCfgEntry ::= SEQUENCE {
1234       mefSoamLmCfgIndex                                 Unsigned32,
1235       mefSoamLmCfgType                                  INTEGER,
1236       mefSoamLmCfgVersion                               Unsigned32,
1237       mefSoamLmCfgEnabled                               TruthValue,
1238       mefSoamLmCfgMeasurementEnable                     BITS,
1239       mefSoamLmCfgMessagePeriod                         MefSoamTcMeasurementPeriodType,
1240
1241       mefSoamLmCfgPriority                              IEEE8021PriorityValue,
1242       mefSoamLmCfgFrameSize                             Unsigned32,
1243       mefSoamLmCfgDataPattern                           MefSoamTcDataPatternType,
1244       mefSoamLmCfgTestTlvIncluded                       TruthValue,
1245       mefSoamLmCfgTestTlvPattern                        MefSoamTcTestPatternType,
1246       mefSoamLmCfgMeasurementInterval                   Unsigned32,
1247       mefSoamLmCfgNumIntervalsStored                    Unsigned32,
1248
1249       mefSoamLmCfgDestMacAddress                        MacAddress,
1250       mefSoamLmCfgDestMepId                             Dot1agCfmMepIdOrZero,
1251       mefSoamLmCfgDestIsMepId                           TruthValue,
1252
1253       mefSoamLmCfgStartTimeType                         MefSoamTcOperationTimeType,
1254       mefSoamLmCfgFixedStartDateAndTime                 DateAndTime,
1255       mefSoamLmCfgRelativeStartTime                     TimeInterval,
1256       mefSoamLmCfgStopTimeType                          MefSoamTcOperationTimeType,
1257       mefSoamLmCfgFixedStopDateAndTime                  DateAndTime,
1258       mefSoamLmCfgRelativeStopTime                      TimeInterval,
1259       mefSoamLmCfgRepetitionTime                        Unsigned32,
1260       mefSoamLmCfgAlignMeasurementIntervals             TruthValue,
1261       mefSoamLmCfgAlignMeasurementOffset                Unsigned32,
1262
1263       mefSoamLmCfgAvailabilityMeasurementInterval       Unsigned32,
1264       mefSoamLmCfgAvailabilityNumConsecutiveMeasPdus    Unsigned32,
1265       mefSoamLmCfgAvailabilityFlrThreshold              Unsigned32,
1266       mefSoamLmCfgAvailabilityNumConsecutiveIntervals   Unsigned32,
1267       mefSoamLmCfgAvailabilityNumConsecutiveHighFlr     Unsigned32,
1268
1269       mefSoamLmCfgSessionType                           MefSoamTcSessionType,
1270       mefSoamLmCfgSessionStatus                         MefSoamTcStatusType,
1271
1272       mefSoamLmCfgHistoryClear                          TruthValue,
1273       mefSoamLmCfgRowStatus                             RowStatus
1274   }
1275
1276   mefSoamLmCfgIndex
1277   OBJECT-TYPE
1278       SYNTAX      Unsigned32(1..4294967295)
1279       MAX-ACCESS  not-accessible
1280       STATUS      current
1281       DESCRIPTION
```

```
1282            "An index to the Loss Measurement Configuration table which indicates
1283            the specific measurement session for the MEP.
1284
1285            mefSoamPmMepOperNextIndex needs to be inspected to find an
1286            available index for row-creation.
1287
1288            Referential integrity is necessary, i.e., the index needs to be
1289            persistent upon a reboot or restart of a device.  The index
1290            is never reused for other PM sessions on the same MEP while this
1291            session is active.  The index value keeps increasing until it
1292            wraps to 0. This is to facilitate access control based
1293            on a fixed index for an EMS, since the index is not reused.
1294            "
1295        ::= { mefSoamLmCfgEntry 1 }
1296
1297    mefSoamLmCfgType OBJECT-TYPE
1298        SYNTAX      INTEGER {
1299                        lmLmm  (1),
1300                        lmSlm  (2),
1301                        lmCcm  (3)
1302                    }
1303        MAX-ACCESS  read-create
1304        STATUS      current
1305        DESCRIPTION
1306            "This object specifies what type of Loss Measurement
1307            will be performed.
1308
1309            lmLmm(1)       LMM SOAM PDU generated and received LMR responses tracked
1310            lmSlm(2)       SLM SOAM PDU generated and received SLR responses tracked
1311            lmCcm(3)       CCM SOAM PDU generated and received CCM PDUs tracked
1312
1313            The lmSlm value is required. The lmLmm and lmCcm values are optional.
1314
1315            The lmCcm loss measurement values are only valid for a point-to-point
1316            MEG. Multipoint MEGs may give unreliable loss measurements.
1317
1318            This object can only be written at row creation time and cannot be
1319            modified once it has been created.
1320            "
1321        REFERENCE
1322            "[Y.1731] [MEF SOAM-PM] R51, R68, O7, R102"
1323        DEFVAL { lmSlm }
1324        ::= { mefSoamLmCfgEntry 2 }
1325
1326    mefSoamLmCfgVersion OBJECT-TYPE
1327        SYNTAX      Unsigned32
1328        MAX-ACCESS  read-create
1329        STATUS      current
1330        DESCRIPTION
1331            "This object indicates the version of the PDUs used to perform
1332            Loss Measurement.
1333
1334            The value is placed in the Version field of the PDU and indicates
1335            that the PDU format used is the format defined in Y.1731 with
1336            that version.
1337
1338            The exact PDUs to use are specified by this object in combination with
1339            mefSoamLmCfgType.
1340
1341            This object can only be written at row creation time and cannot be
1342            modified once it has been created.
1343            "
1344        REFERENCE
1345            "[Y.1731]"
```

```
1346            DEFVAL { 0 }
1347            ::= { mefSoamLmCfgEntry 3 }
1348
1349    mefSoamLmCfgEnabled OBJECT-TYPE
1350            SYNTAX        TruthValue
1351            MAX-ACCESS    read-create
1352            STATUS        current
1353            DESCRIPTION
1354               "This object specifies whether the Loss Measurement session
1355                is enabled.
1356
1357                The value 'true' indicates the Loss Measurement session is enabled and
1358                SOAM PDUs are sent and/or measurements are collected when the session
1359                is running according to the scheduling objects (start time, stop time,
1360                etc.).
1361
1362                The value 'false' indicates the Loss Measurement session is disabled
1363                and SOAM PDUs are not sent and/or measurements collected.
1364
1365                For a Loss Measurement session to be removed the row is
1366                deleted in order to release internal resources.
1367
1368                This object can written/modified after row creation time.
1369
1370                If the LM session is enabled it resumes after shutdown/restart.
1371
1372                If the LM session is disabled the current Measurement Interval is
1373                stopped, if it in process at the time, and all the in process calculations
1374                for the partially completed Measurement Interval are finalized.
1375
1376                This object does not affect whether the single-ended Responder is
1377                enabled or not, which is enabled or disabled by the
1378                mefSoamPmMepLmSingleEndedResponder and
1379                mefSoamPmMepSlmSingleEndedResponder objects.
1380               "
1381            REFERENCE
1382               "[MEF SOAM-PM] R4, R5, R6, O1, R12, R14"
1383            DEFVAL { true }
1384            ::= { mefSoamLmCfgEntry 4 }
1385
1386    mefSoamLmCfgMeasurementEnable OBJECT-TYPE
1387            SYNTAX        BITS {
1388                          bForwardTransmitedFrames(0),
1389                          bForwardReceivedFrames(1),
1390                          bForwardMinFlr(2),
1391                          bForwardMaxFlr(3),
1392                          bForwardAvgFlr(4),
1393                          bBackwardTransmitedFrames(5),
1394                          bBackwardReceivedFrames(6),
1395                          bBackwardMinFlr(7),
1396                          bBackwardMaxFlr(8),
1397                          bBackwardAvgFlr(9),
1398                          bSoamPdusSent(10),
1399                          bSoamPdusReceived (11),
1400
1401                          bAvailForwardHighLoss(12),
1402                          bAvailForwardConsecutiveHighLoss(13),
1403                          bAvailForwardAvailable(14),
1404                          bAvailForwardUnavailable(15),
1405                          bAvailForwardMinFlr(16),
1406                          bAvailForwardMaxFlr(17),
1407                          bAvailForwardAvgFlr(18),
1408
1409                          bAvailBackwardHighLoss(19),
```

```
1410                        bAvailBackwardConsecutiveHighLoss(20),
1411                        bAvailBackwardAvailable(21),
1412                        bAvailBackwardUnavailable(22),
1413                        bAvailBackwardMinFlr(23),
1414                        bAvailBackwardMaxFlr(24),
1415                        bAvailBackwardAvgFlr(25),
1416
1417                        bMeasuredStatsForwardMeasuredFlr(26),
1418                        bMeasuredStatsBackwardMeasuredFlr(27),
1419                        bMeasuredStatsAvailForwardStatus(28),
1420                        bMeasuredStatsAvailBackwardStatus(29)
1421                    }
1422        MAX-ACCESS  read-create
1423        STATUS      current
1424        DESCRIPTION
1425            "A vector of bits that indicates the type of SOAM LM counters found
1426             in the mefSoamLmMeasuredStatsTable, mefSoamLmCurrentStatsTable,
1427             mefSoamLmHistoryStatsTable, mefSoamLmCurrentAvailStatsTable and
1428             mefSoamLmHistoryAvailStatsTable that are enabled.
1429
1430             A bit set to '1' enables the specific SOAM LM counter. A bit set to
1431             '0' disables the SOAM LM counter.
1432
1433             If a particular SOAM LM counter is not supported the BIT value is
1434             set to '0'.
1435
1436             Not all SOAM LM counters are supported for all SOAM LM types.
1437
1438             This object can only be written at row creation time and cannot be
1439             modified once it has been created.
1440
1441             bForwardTransmitedFrames (0)
1442                 Enables/disables the mefSoamLmCurrentStatsForwardTransmittedFrames
1443                 and mefSoamLmHistoryStatsForwardTransmittedFrames counters.
1444             bForwardReceivedFrames(1)
1445                 Enables/disables the mefSoamLmCurrentStatsForwardReceivedFrames
1446                 and mefSoamLmHistoryStatsForwardReceivedFrames counters.
1447             bForwardMinFlr(2)
1448                 Enables/disables the mefSoamLmCurrentStatsForwardMinFlr
1449                 and mefSoamLmHistoryStatsForwardMinFlr counters.
1450             bForwardMaxFlr(3)
1451                 Enables/disables the mefSoamLmCurrentStatsForwardMaxFlr
1452                 and mefSoamLmHistoryStatsForwardMaxFlr counters.
1453             bForwardAvgFlr(4)
1454                 Enables/disables the mefSoamLmCurrentStatsForwardAvgFlr
1455                 and mefSoamLmHistoryStatsForwardAvgFlr counters.
1456             bBackwardTransmitedFrames(5)
1457                 Enables/disables the mefSoamLmCurrentStatsBackwardTransmittedFrames
1458                 and mefSoamLmHistoryStatsBackwardTransmittedFrames counters.
1459             bBackwardReceivedFrames(6)
1460                 Enables/disables the mefSoamLmCurrentStatsBackwardReceivedFrames
1461                 and mefSoamLmHistoryStatsBackwardReceivedFrames counters.
1462             bBackwardMinFlr(7)
1463                 Enables/disables the mefSoamLmCurrentStatsBackwardMinFlr
1464                 and mefSoamLmHistoryStatsBackwardMinFlr counters.
1465             bBackwardMaxFlr(8)
1466                 Enables/disables the mefSoamLmCurrentStatsBackwardMaxFlr
1467                 and mefSoamLmHistoryStatsBackwardMaxFlr counters.
1468             bBackwardAvgFlr(9)
1469                 Enables/disables the mefSoamLmCurrentStatsBackwardAvgFlr
1470                 and mefSoamLmHistoryStatsBackwardAvgFlr counters.
1471             bSoamPdusSent (10)
1472                 Enables/disables the mefSoamLmCurrentStatsSoamPdusSent
1473                 and mefSoamLmHistoryStatsSoamPdusSent counters.
```

```
1474              bSoamPdusReceivedbReceivedMeasurements (11)
1475                  Enables/disables the mefSoamLmCurrentStatsSoamPdusReceived
1476                  and mefSoamLmHistoryStatsSoamPdusReceived counters.
1477
1478              bAvailForwardHighLoss(12)
1479                  Enables/disables the mefSoamLmCurrentAvailStatsForwardHighLoss
1480                  and mefSoamLmHistoryAvailStatsForwardHighLoss counters.
1481              bAvailForwardConsecutiveHighLoss(13)
1482                  Enables/disables the mefSoamLmCurrentAvailStatsForwardConsecutiveHighLoss
1483                  and mefSoamLmHistoryAvailStatsForwardConsecutiveHighLoss counters.
1484              bAvailForwardAvailable(14)
1485                  Enables/disables the mefSoamLmCurrentAvailStatsForwardAvailable
1486                  and mefSoamLmHistoryAvailStatsForwardAvailable counters.
1487              bAvailForwardUnavailable(15)
1488                  Enables/disables the mefSoamLmCurrentAvailStatsForwardUnavailable
1489                  and mefSoamLmHistoryAvailStatsForwardUnavailable counters.
1490              bAvailForwardMinFlr(16)
1491                  Enables/disables the mefSoamLmCurrentAvailStatsForwardMinFlr
1492                  and mefSoamLmHistoryAvailStatsForwardMinFlr counters.
1493              bAvailForwardMaxFlr(17)
1494                  Enables/disables the mefSoamLmCurrentAvailStatsForwardMaxFlr
1495                  and mefSoamLmHistoryAvailStatsForwardMaxFlr counters.
1496              bAvailForwardAvgFlr(18)
1497                  Enables/disables the mefSoamLmCurrentAvailStatsForwardAvgFlr
1498                  and mefSoamLmHistoryAvailStatsForwardAvgFlr counters.
1499
1500              bAvailBackwardHighLoss(19)
1501                  Enables/disables the mefSoamLmCurrentAvailStatsBackwardHighLoss
1502                  and mefSoamLmHistoryAvailStatsBackwardHighLoss counters.
1503              bAvailBackwardConsecutiveHighLoss(20)
1504                  Enables/disables the mefSoamLmCurrentAvailStatsBackwardConsecutiveHighLoss
1505                  and mefSoamLmHistoryAvailStatsBackwardConsecutiveHighLoss counters.
1506              bAvailBackwardAvailable(21)
1507                  Enables/disables the mefSoamLmCurrentAvailStatsBackwardAvailable
1508                  and mefSoamLmHistoryAvailStatsBackwardAvailable counters.
1509              bAvailBackwardUnavailable(22)
1510                  Enables/disables the mefSoamLmCurrentAvailStatsBackwardUnavailable
1511                  and mefSoamLmHistoryAvailStatsBackwardUnavailable counters.
1512              bAvailBackwardMinFlr(23)
1513                  Enables/disables the mefSoamLmCurrentAvailStatsBackwardMinFlr
1514                  and mefSoamLmHistoryAvailStatsBackwardMinFlr counters.
1515              bAvailBackwardMaxFlr(24)
1516                  Enables/disables the mefSoamLmCurrentAvailStatsBackwardMaxFlr
1517                  and mefSoamLmHistoryAvailStatsBackwardMaxFlr counters.
1518              bAvailBackwardAvgFlr(25)
1519                  Enables/disables the mefSoamLmCurrentAvailStatsBackwardAvgFlr
1520                  and mefSoamLmHistoryAvailStatsBackwardAvgFlr counters.
1521
1522              bMeasuredStatsForwardMeasuredFlr(26)
1523                  Enables/disables the mefSoamLmMeasuredStatsForwardFlr counter.
1524              bMeasuredStatsBackwardMeasuredFlr(27)
1525                  Enables/disables the mefSoamLmMeasuredStatsBackwardFlr counter.
1526              bMeasuredStatsAvailForwardStatus(28)
1527                  Enables/disables the mefSoamLmMeasuredStatsAvailForwardStatus counter.
1528              bMeasuredStatsAvailBackwardStatus(29)
1529                  Enables/disables the mefSoamLmMeasuredStatsAvailBackwardStatus counter.
1530          "
1531      REFERENCE
1532          "[Y.1731]"
1533      DEFVAL { { } }
1534      ::= { mefSoamLmCfgEntry 5 }
1535
1536  mefSoamLmCfgMessagePeriod OBJECT-TYPE
1537      SYNTAX      MefSoamTcMeasurementPeriodType
```

```
1538        UNITS       "ms"
1539        MAX-ACCESS  read-create
1540        STATUS      current
1541        DESCRIPTION
1542           "This object specifies the interval between Loss Measurement
1543            OAM message transmission. For Loss Measurement monitoring
1544            applications the default value is 1 sec.
1545
1546            This object is not applicable if mefSoamLmCfgType is set to lmCcm
1547            and is ignored for that Loss Measurement Type.
1548
1549            This object can only be written at row creation time and cannot be
1550            modified once it has been created.
1551            "
1552        REFERENCE
1553           "[MEF SOAM-PM] R76, R77, D29, D30"
1554        DEFVAL { 1000 }
1555        ::= { mefSoamLmCfgEntry 6 }
1556
1557
1558    mefSoamLmCfgPriority OBJECT-TYPE
1559        SYNTAX      IEEE8021PriorityValue
1560        MAX-ACCESS  read-create
1561        STATUS      current
1562        DESCRIPTION
1563           "This object specifies the Loss Measurement OAM message priority
1564            as well as the priority of the service/OAM traffic to be monitored.
1565            Only frames of the same Class of Service are counted.
1566
1567            The default value is to be the value which yields the lowest frame
1568            loss.
1569
1570            This object is not applicable if mefSoamLmCfgType is set to lmCcm.
1571
1572            This object can only be written at row creation time and cannot be
1573            modified once it has been created.
1574            "
1575        REFERENCE
1576           "[MEF SOAM-PM] R1, R2, R71, D28, R72, R73, R105-R109, D45;
1577            [MEF 10.2.1] Section 6.8"
1578        ::= { mefSoamLmCfgEntry 7 }
1579
1580    mefSoamLmCfgFrameSize OBJECT-TYPE
1581        SYNTAX      Unsigned32 (64..9600)
1582        UNITS       "bytes"
1583        MAX-ACCESS  read-create
1584        STATUS      current
1585        DESCRIPTION
1586           "This object specifies the Loss Measurement frame size between
1587            64 bytes and the maximum transmission unit of the EVC.
1588
1589            The range of frame sizes from 64 through 2000 octets need to be
1590            supported, and the range of frame sizes from 2001 through 9600 octets
1591            is suggested be supported.
1592
1593            The adjustment to the frame size of the standard frame size is
1594            accomplished by the addition of a Data or Test TLV. A Data or Test TLV
1595            is only added to the frame if the frame size is greater than 64 bytes.
1596
1597            This object is only valid for the entity transmitting the Loss
1598            Measurement frames, type 'lmSlm', and is ignored by the
1599            entity receiving frames. It is not applicable for the 'lmCcm' or
1600            'lmLmm' types.
1601
```

```
1602                  This object can only be written at row creation time and cannot be
1603                  modified once it has been created.
1604                  "
1605          REFERENCE
1606             "[MEF SOAM-PM] R78, R79, D31, D32 [Y.1731]"
1607          DEFVAL { 64 }
1608          ::= { mefSoamLmCfgEntry 8 }
1609
1610   mefSoamLmCfgDataPattern OBJECT-TYPE
1611          SYNTAX       MefSoamTcDataPatternType
1612          MAX-ACCESS   read-create
1613          STATUS       current
1614          DESCRIPTION
1615             "This object specifies the LM data pattern included in a Data TLV
1616              when the size of the LM frame is determined by the
1617              mefSoamLmFrameSize object and mefSoamLmTestTlvIncluded is 'false'.
1618
1619              If the frame size object does not define the LM frame size or
1620              mefSoamLmTestTlvIncluded is 'true' the value of this object is
1621              ignored.
1622
1623              This object can only be written at row creation time and cannot be
1624              modified once it has been created.
1625              "
1626          DEFVAL { zeroPattern }
1627          ::= { mefSoamLmCfgEntry 9 }
1628
1629   mefSoamLmCfgTestTlvIncluded OBJECT-TYPE
1630          SYNTAX       TruthValue
1631          MAX-ACCESS   read-create
1632          STATUS       current
1633          DESCRIPTION
1634             "Indicates whether a Test TLV or Data TLV is included when the size
1635              of the LM frame is determined by the mefSoamLmFrameSize object.
1636
1637              A value of 'true' indicates that the Test TLV is to be included. A
1638              value of 'false' indicates that the Data TLV is to be included.
1639
1640              If the frame size object does not define the LM frame size
1641              the value of this object is ignored.
1642
1643              This object can only be written at row creation time and cannot be
1644              modified once it has been created.
1645              "
1646          REFERENCE
1647             "[Y.1731] 9.3"
1648          DEFVAL { false }
1649          ::= { mefSoamLmCfgEntry 10 }
1650
1651   mefSoamLmCfgTestTlvPattern OBJECT-TYPE
1652          SYNTAX       MefSoamTcTestPatternType
1653          MAX-ACCESS   read-create
1654          STATUS       current
1655          DESCRIPTION
1656             "This object specifies the type of test pattern to be
1657              sent in the LM frame Test TLV when the size of LM PDU is
1658              determined by the mefSoamLmFrameSize object and
1659              mefSoamLmTestTlvIncluded is 'true'. If the frame size object
1660              does not define the LM frame size or mefSoamLmTestTlvIncluded
1661              is 'false' the value of this object is ignored.
1662
1663              This object can only be written at row creation time and cannot be
1664              modified once it has been created.
1665              "
```

```
1666        DEFVAL { null }
1667        ::= { mefSoamLmCfgEntry 11 }
1668
1669   mefSoamLmCfgMeasurementInterval OBJECT-TYPE
1670        SYNTAX      Unsigned32 (1..525600)
1671        UNITS       "minutes"
1672        MAX-ACCESS  read-create
1673        STATUS      current
1674        DESCRIPTION
1675           "This object specifies the Measurement Interval for FLR statistics, in minutes.
1676
1677            A Measurement Interval of 15 minutes needs to be supported, other intervals
1678            may be supported.
1679
1680            This object can only be written at row creation time and cannot be
1681            modified once it has been created.
1682           "
1683        REFERENCE
1684           "[MEF SOAM-PM] R16, R17, R110, R111, D46"
1685        DEFVAL { 15 }
1686        ::= { mefSoamLmCfgEntry 12 }
1687
1688   mefSoamLmCfgNumIntervalsStored OBJECT-TYPE
1689        SYNTAX      Unsigned32 (2..1000)
1690        MAX-ACCESS  read-create
1691        STATUS      current
1692        DESCRIPTION
1693           "This object specifies the number of completed Measurement Intervals
1694            to store in the history statistic table (mefSoamLmHistoryStatsTable)
1695            and the history availability statistic table
1696            (mefSoamLmHistoryAvailStatsTable).
1697
1698            At least 32 completed Measurement Intervals need to be stored. 96
1699            Measurement Intervals are recommended to be stored.
1700
1701            This object can only be written at row creation time and cannot be
1702            modified once it has been created.
1703           "
1704        REFERENCE
1705           "[MEF SOAM-PM] R21, D8, D9"
1706        DEFVAL { 32 }
1707        ::= { mefSoamLmCfgEntry 13 }
1708
1709   mefSoamLmCfgDestMacAddress OBJECT-TYPE
1710        SYNTAX      MacAddress
1711        MAX-ACCESS  read-create
1712        STATUS      current
1713        DESCRIPTION
1714           "The Target or Destination MAC Address Field to be transmitted.
1715
1716            If mefSoamLmCfgType is 'lmCcm', the destination MAC address is always a
1717            multicast address indicating the level of the MEG: 01-80-c2-00-00-3y,
1718            where y is the level of the MEG. An error is returned if this object
1719            is set to any other value.
1720
1721            If mefSoamLmCfgType is 'lmLmm' or 'lmSlm', the destination address is
1722            the unicast address of the destination MEP. An error is returned if
1723            this object is set to a multicast address.
1724
1725            This address will be used if the value of the object
1726            mefSoamLmDestIsMepId is 'false'.
1727
1728            This object is only valid for the entity transmitting the
1729            SOAM LM frames and is ignored by the entity receiving
```

```
1730            SOAM LM frames.
1731
1732            This object can only be written at row creation time and cannot be
1733            modified once it has been created.
1734            "
1735     REFERENCE
1736        "[MEF SOAM-PM] R70, R104"
1737     ::= { mefSoamLmCfgEntry 14 }
1738
1739 mefSoamLmCfgDestMepId OBJECT-TYPE
1740     SYNTAX       Dot1agCfmMepIdOrZero
1741     MAX-ACCESS  read-create
1742     STATUS      current
1743     DESCRIPTION
1744        "The Maintenance Association End Point Identifier of
1745         another MEP in the same Maintenance Association to which
1746         the SOAM LM frame is to be sent.
1747
1748         This address will be used if the value of the column
1749         mefSoamLmDestIsMepId is 'true'. A value of zero
1750         means that the destination MEP ID has not been configured.
1751
1752         This object is only valid for the entity transmitting the Loss
1753         Measurement frames, types 'lmLmm' and 'lmSlm'. It is not applicable for
1754         the 'lmCcm' type.
1755
1756         This object can only be written at row creation time and cannot be
1757         modified once it has been created.
1758         "
1759     REFERENCE
1760        "[MEF SOAM-PM] R70, R104"
1761     DEFVAL { 0 }
1762     ::= { mefSoamLmCfgEntry 15 }
1763
1764 mefSoamLmCfgDestIsMepId OBJECT-TYPE
1765     SYNTAX       TruthValue
1766     MAX-ACCESS  read-create
1767     STATUS      current
1768     DESCRIPTION
1769        "A value of 'true' indicates that MEPID of the target MEP is used for
1770         SOAM LM frame transmission.
1771
1772         A value of 'false' indicates that the MAC address of the
1773         target MEP is used for SOAM LM frame transmission.
1774
1775         This object is only valid for the entity transmitting the Loss
1776         Measurement frames, types 'lmLmm' and 'lmSlm'. It is not applicable for
1777         the 'lmCcm' type.
1778
1779         This object can only be written at row creation time and cannot be
1780         modified once it has been created.
1781         "
1782     REFERENCE
1783        "[MEF SOAM-PM] R70, R104"
1784     DEFVAL { true }
1785     ::= { mefSoamLmCfgEntry 16 }
1786
1787 mefSoamLmCfgStartTimeType OBJECT-TYPE
1788     SYNTAX       MefSoamTcOperationTimeType
1789     MAX-ACCESS  read-create
1790     STATUS      current
1791     DESCRIPTION
1792        "This object specifies the type of start time of the SOAM LM
1793         session. The start time can be disabled (none), immediate, relative,
```

```
1794        or fixed.
1795
1796        The value of 'none' is illegal and a write error will be returned
1797        if this value is used.
1798
1799        The value of 'immediate' starts the SOAM LM session when the
1800        mefSoamLmCfgEnabled is true.
1801
1802        The value of 'fixed' starts the SOAM LM session when the
1803        mefSoamLmFixedStartDateAndTime is less than or equal to the current
1804        system date and time and mefSoamLmCfgEnabled is true. This value is used
1805        to implement an On-Demand fixed time PM session.
1806
1807        The value of 'relative' starts the SOAM LM session when the current
1808        system date and time minus the mefSoamLmRelativeStartTime is greater
1809        than or equal to the system date and time when the mefSoamLmStartTimeType
1810        object was written and mefSoamLmCfgEnabled is true. This value is used
1811        to implement an On-Demand relative time PM session.
1812
1813        This object can only be written at row creation time and cannot be
1814        modified once it has been created.
1815        "
1816    REFERENCE
1817        "[MEF SOAM-PM] R3, R7, R8, D1"
1818    DEFVAL { immediate }
1819    ::= { mefSoamLmCfgEntry 17 }
1820
1821 mefSoamLmCfgFixedStartDateAndTime OBJECT-TYPE
1822    SYNTAX      DateAndTime
1823    MAX-ACCESS  read-create
1824    STATUS      current
1825    DESCRIPTION
1826        "This object specifies the fixed start date/time for the
1827        SOAM Loss Measurement session. This object is used only used if
1828        mefSoamLmStartTimeType is 'fixed' and is ignored otherwise.
1829
1830        The default value is year 0000, month 01, day 01, time 00:00:00.00.
1831
1832        This object can only be written at row creation time and cannot be
1833        modified once it has been created.
1834        "
1835    REFERENCE
1836        "[MEF SOAM-PM] R9"
1837    DEFVAL { '0000010100000000'H }
1838    ::= { mefSoamLmCfgEntry 18 }
1839
1840 mefSoamLmCfgRelativeStartTime  OBJECT-TYPE
1841    SYNTAX      TimeInterval
1842    MAX-ACCESS  read-create
1843    STATUS      current
1844    DESCRIPTION
1845        "This object specifies the relative start time, from the
1846        current system time, for the SOAM LM session.  This
1847        object is used only if mefSoamLmStartTimeType is 'relative' and is
1848        ignored otherwise.
1849
1850        This object can only be written at row creation time and cannot be
1851        modified once it has been created.
1852        "
1853    REFERENCE
1854        "[MEF SOAM-PM] R9"
1855    DEFVAL { 0 }
1856    ::= { mefSoamLmCfgEntry 19 }
1857
```

```
1858   mefSoamLmCfgStopTimeType OBJECT-TYPE
1859       SYNTAX       MefSoamTcOperationTimeType
1860       MAX-ACCESS   read-create
1861       STATUS       current
1862       DESCRIPTION
1863          "This object specifies the type of stop time to terminate the
1864           SOAM LM session. The stop time can be forever (none), relative, or
1865           fixed.
1866
1867           The value of 'none' indicates that the SOAM LM session never ends once it
1868           has started unless it the session is disabled.
1869
1870           The value of 'immediate' is illegal and a write error will be returned
1871           if this value is used.
1872
1873           The value of 'fixed' stops the SOAM LM session when the
1874           mefSoamLmFixedStopDateAndTime is less than or equal
1875           to the current system date and time. This
1876           value is used to implement an On-Demand fixed time PM session.
1877
1878           The value of 'relative' stops the SOAM LM session when the time
1879           indicated by mefSoamLmRelativeStopTime has passed since the session
1880           start time as determined by the mefSoamLmCfgStartTimeType,
1881           mefSoamLmCfgFixedStartDateAndTime and mefSoamLmCfgRelativeStartTime
1882           objects. This value is used to implement an On-Demand relative time
1883           PM session.
1884
1885           This object can only be written at row creation time and cannot be
1886           modified once it has been created.
1887           "
1888       REFERENCE
1889          "[MEF SOAM-PM] R3, R10, D2"
1890       DEFVAL { none }
1891       ::= { mefSoamLmCfgEntry 20 }
1892
1893   mefSoamLmCfgFixedStopDateAndTime OBJECT-TYPE
1894       SYNTAX       DateAndTime
1895       MAX-ACCESS   read-create
1896       STATUS       current
1897       DESCRIPTION
1898          "This object specifies the fixed stop date/time for the
1899           SOAM Loss Measurement session. This object is used only used
1900           if mefSoamLmStopTimeType is 'fixed' and is ignored otherwise.
1901
1902           The default value is year 0000, month 01, day 01, time 00:00:00.00.
1903
1904           This object can only be written at row creation time and cannot be
1905           modified once it has been created.
1906           "
1907       REFERENCE
1908          "[MEF SOAM-PM] R10, R13"
1909       DEFVAL { '0000010100000000'H }
1910       ::= { mefSoamLmCfgEntry 21 }
1911
1912   mefSoamLmCfgRelativeStopTime OBJECT-TYPE
1913       SYNTAX       TimeInterval
1914       MAX-ACCESS   read-create
1915       STATUS       current
1916       DESCRIPTION
1917          "This object specifies the relative stop time, from the
1918           session start time, to stop the SOAM LM session.  This
1919           object is used only if mefSoamLmStopTimeType is 'relative' and is
1920           ignored otherwise.
1921
```

```
1922            This object can only be written at row creation time and cannot be
1923            modified once it has been created.
1924            "
1925       REFERENCE
1926          "[MEF SOAM-PM] R11"
1927       DEFVAL { 0 }
1928       ::= { mefSoamLmCfgEntry 22 }
1929
1930 mefSoamLmCfgRepetitionTime OBJECT-TYPE
1931       SYNTAX      Unsigned32 (0..31536000)
1932       UNITS       "seconds"
1933       MAX-ACCESS  read-create
1934       STATUS      current
1935       DESCRIPTION
1936          "This object specifies a configurable repetition time between
1937          Measurement Intervals in a Loss Measurement session, in seconds.
1938
1939          If the value is 0 (none), there is no time gap between the end of one
1940          Measurement Interval and the start of a new Measurement Interval.
1941          This is the normal usage case.
1942
1943          If the value is greater than 0 but less than or equal to the measurement
1944          interval, an error is returned.
1945
1946          If the value is greater than one Measurement Interval there is time gap
1947          between the end of one Measurement Interval and the start of the next
1948          Measurement Interval.  The repetition time specifies the time between
1949          the start of consecutive Measurement Intervals; hence the gap between
1950          the end of one Measurement Interval and the start of the next is equal
1951          to the difference between the repetition time and the measurement
1952          interval.  During this gap, no SOAM PDUs are sent for this session and
1953          no measurements are made.
1954
1955          This object can only be written at row creation time and cannot be
1956          modified once it has been created.
1957          "
1958       REFERENCE
1959          "[MEF SOAM-PM] R18, D3, R19, R20"
1960       DEFVAL { 0 }
1961       ::= { mefSoamLmCfgEntry 23 }
1962
1963 mefSoamLmCfgAlignMeasurementIntervals OBJECT-TYPE
1964       SYNTAX      TruthValue
1965       MAX-ACCESS  read-create
1966       STATUS      current
1967       DESCRIPTION
1968          "This object specifies whether the Measurement Intervals for
1969          the Loss Measurement session are aligned with a zero offset to
1970          real time.
1971
1972          The value 'true' indicates that each Measurement Interval starts
1973          at a time which is aligned to NE time source hour, if the repetition
1974          time (or the Measurement Interval, if the repetition time is 0) is
1975          a factor of an hour, i.e. 60min/15min = 4. For instance, a
1976          Measurement Interval/repetition time of 15 minutes would stop/start
1977          the Measurement Interval at 0, 15, 30, and 45 minutes of an hour. A
1978          Measurement Interval/Repetition Time of 7 minutes would not align
1979          to the hour since 7 minutes is NOT a factor of an hour, i.e.
1980          60min/7min = 8.6.  In this case the behavior is the same as if the
1981          object is set to 'false'.
1982
1983          The value 'false' indicates that the first Measurement Interval starts
1984          at an arbitrary time and each subsequent Measurement Interval starts
1985          at a time which is determined by mefSoamLmCfgRepetitionTime.
```

```
1986
1987            This object can only be written at row creation time and cannot be
1988            modified once it has been created.
1989            "
1990      REFERENCE
1991         "[MEF SOAM-PM] D4, D5, D6"
1992      DEFVAL { true }
1993      ::= { mefSoamLmCfgEntry 24 }
1994
1995  mefSoamLmCfgAlignMeasurementOffset OBJECT-TYPE
1996      SYNTAX      Unsigned32 (0..525600)
1997      UNITS       "minutes"
1998      MAX-ACCESS  read-create
1999      STATUS      current
2000      DESCRIPTION
2001         "This object specifies the offset in minutes from the time of day value
2002          if mefSoamLmCfgAlignMeasurementIntervals is 'true' and the repetition
2003          time is a factor of 60 minutes. If not, the value of this object
2004          is ignored.
2005
2006          If the Measurement Interval is 15 minutes and
2007          mefSoamLmCfgAlignMeasurementIntervals is true and if this object was
2008          set to 5 minutes, the Measurement Intervals would start at 5, 20, 35, 50
2009          minutes past each hour.
2010
2011          This object can only be written at row creation time and cannot be
2012          modified once it has been created.
2013          "
2014      REFERENCE
2015         "[MEF SOAM-PM] D7"
2016      DEFVAL { 0 }
2017      ::= { mefSoamLmCfgEntry 25 }
2018
2019  mefSoamLmCfgAvailabilityMeasurementInterval OBJECT-TYPE
2020      SYNTAX      Unsigned32 (1..525600)
2021      UNITS       "minutes"
2022      MAX-ACCESS  read-create
2023      STATUS      current
2024      DESCRIPTION
2025         "This object specifies the availability Measurement Interval in
2026          minutes.
2027
2028          A Measurement Interval of 15 minutes is to be supported, other intervals
2029          can be supported.
2030
2031          This object can only be written at row creation time and cannot be
2032          modified once it has been created.
2033          "
2034      REFERENCE
2035         "[MEF SOAM-PM] R16, R17"
2036      DEFVAL { 15 }
2037      ::= { mefSoamLmCfgEntry 26 }
2038
2039  mefSoamLmCfgAvailabilityNumConsecutiveMeasPdus OBJECT-TYPE
2040      SYNTAX      Unsigned32 (1..1000000)
2041      MAX-ACCESS  read-create
2042      STATUS      current
2043      DESCRIPTION
2044         "This object specifies a configurable number of consecutive
2045          loss measurement PDUs to be used in evaluating the
2046          availability/unavailability status of each availability
2047          indicator per MEF 10.2.1.  Loss Measurement PDUs (LMMs, CCMs or
2048          SLMs) are sent regularly with a period defined by
2049          mefSoamLmCfgMessagePeriod.  Therefore, this object, when
```

```
2050            multiplied by mefSoamLmCfgMessagePeriod, is equivalent to
2051            the Availability parameter of 'delta_t' as specified by MEF 10.2.1.
2052
2053            If the mefSoamLmCfgType is lmLMM or lmCCM, this object defines the
2054            number of LMM or CCM PDUs transmitted during each 'delta_t' period.
2055            The Availability flr for a given 'delta_t' can be calculated based
2056            on the counters in the last LMM/R or CCM during this 'delta_t' and
2057            the last LMM/R or CCM in the previous 'delta_t'.
2058
2059            If the mefSoamLmCfgType is lmSLM, this object defines the number
2060            of SLM PDUs transmitted during each 'delta_t' period.  The
2061            Availability flr for a given 'delta_t' is calculated based on the
2062            number of those SLM PDUs that are lost.
2063
2064            If the mefSoamLmCfgType is lmLMM or lmCCM, the number range of 1
2065            through 10 must be supported. The number range of 10 through 1000000
2066            may be supported, but is not mandatory.
2067
2068            If the mefSoamLmCfgType is lmSLM, the number range of 10 through
2069            100 must be supported. The number range of 100 through 1000000
2070            may be supported, but is not mandatory.
2071
2072            This object can only be written at row creation time and cannot be
2073            modified once it has been created.
2074          "
2075      REFERENCE
2076         "[MEF 10.2.1] Section 7.9.8; [MEF SOAM-PM] R80, D33, R81"
2077      DEFVAL { 10 }
2078      ::= { mefSoamLmCfgEntry 27 }
2079
2080  mefSoamLmCfgAvailabilityFlrThreshold OBJECT-TYPE
2081      SYNTAX      Unsigned32 (0..100000)
2082      UNITS       "milli-percent"
2083      MAX-ACCESS  read-create
2084      STATUS      current
2085      DESCRIPTION
2086         "This object specifies a configurable availability threshold to be
2087         used in evaluating the availability/unavailability status of an
2088         availability indicator per MEF 10.2.1. The availability threshold range
2089         of 0.00 (0) through 1.00 (100000) is supported. This parameter is
2090         equivalent to the Availability parameter of 'C' as specified by
2091         MEF 10.2.1.
2092
2093         Units are in milli-percent, where 1 indicates 0.001 percent.
2094
2095         This object can only be written at row creation time and cannot be
2096         modified once it has been created.
2097          "
2098      REFERENCE
2099         "[MEF 10.2.1] Section 7.9.8; [MEF SOAM-PM] R81, R82, D34"
2100      DEFVAL { 50000 }
2101      ::= { mefSoamLmCfgEntry 28 }
2102
2103  mefSoamLmCfgAvailabilityNumConsecutiveIntervals OBJECT-TYPE
2104      SYNTAX      Unsigned32 (1..1000)
2105      MAX-ACCESS  read-create
2106      STATUS      current
2107      DESCRIPTION
2108         "This object specifies a configurable number of consecutive
2109         availability indicators to be used to determine a change in the
2110         availability status as indicated by MEF 10.2.1. This parameter is
2111         equivalent to the Availability parameter of 'n' as specified
2112         by MEF 10.2.1.
2113
```

```
2114              The number range of 1 through 10 must be supported. The number range
2115              of 1 through 1000 may be supported, but is not mandatory.
2116
2117              This object can only be written at row creation time and cannot be
2118              modified once it has been created.
2119              "
2120         REFERENCE
2121            "[MEF 10.2.1] Section 7.9.8; [MEF SOAM-PM] R80, D33"
2122         DEFVAL { 10 }
2123         ::= { mefSoamLmCfgEntry 29 }
2124
2125  mefSoamLmCfgAvailabilityNumConsecutiveHighFlr OBJECT-TYPE
2126         SYNTAX      Unsigned32 (1..1000)
2127         MAX-ACCESS  read-create
2128         STATUS      current
2129         DESCRIPTION
2130            "This object specifies a configurable number of consecutive
2131            availability indicators to be used for assessing CHLI.  This
2132            parameter is equivalent to the Resilency parameter of 'p' as
2133            specified by MEF 10.2.1.
2134
2135            mefSoamLmCfgAvailabilityNumConsecutiveHighFlr must be strictly less than
2136            mefSoamLmCfgAvailabilityNumConsecutiveIntervals. If not, the count of high
2137            loss intervals over time, mefSoamLmAvailabilityHighLoss, and the count
2138            of consecutive high loss levels, mefSoamLmAvailabilityConsecutiveHighLoss,
2139            is disabled.
2140
2141            The number range of 1 through 10 must be supported. The number range
2142            of 1 through 1000 may be supported, but is not mandatory.
2143
2144            This object can only be written at row creation time and cannot be
2145            modified once it has been created.
2146            "
2147         REFERENCE
2148            "[MEF 10.2.1] Section 7.9.8; [MEF SOAM-PM] R86, D35, D36"
2149         DEFVAL { 5 }
2150         ::= { mefSoamLmCfgEntry 30 }
2151
2152  mefSoamLmCfgSessionType OBJECT-TYPE
2153         SYNTAX      MefSoamTcSessionType
2154         MAX-ACCESS  read-create
2155         STATUS      current
2156         DESCRIPTION
2157            "This object indicates whether the current session is defined to
2158            be 'Proactive' or 'On-Demand'. A value of 'proactive'
2159            indicates the current session is 'Proactive'. A value of 'onDemand'
2160            indicates the current session is 'On-Demand'.
2161
2162            This object can only be written at row creation time and cannot be
2163            modified once it has been created.
2164            "
2165         REFERENCE
2166            "[MEF SOAM-PM] R3"
2167         DEFVAL { proactive }
2168         ::= { mefSoamLmCfgEntry 31 }
2169
2170  mefSoamLmCfgSessionStatus OBJECT-TYPE
2171         SYNTAX      MefSoamTcStatusType
2172         MAX-ACCESS  read-only
2173         STATUS      current
2174         DESCRIPTION
2175            "This object indicates the current status of the LM session. A value
2176            of 'active' indicates the current LM session is active, i.e. the current
2177            time lies between the start time and the stop time, and
```

```
2178                mefSoamLmCfgEnabled is true. A value of 'notActive' indicates the
2179                current LM session is not active, i.e. it has not started yet, has
2180                stopped upon reaching the stop time, or is disabled.
2181                "
2182         ::= { mefSoamLmCfgEntry 32 }
2183
2184   mefSoamLmCfgHistoryClear OBJECT-TYPE
2185         SYNTAX       TruthValue
2186         MAX-ACCESS  read-create
2187         STATUS       current
2188         DESCRIPTION
2189            "This object when written clears the Loss Measurement history
2190             Table (mefSoamLmHistoryStatsTable) – all rows are deleted.
2191             When read the value always returns 'false'.
2192
2193             Writing this value does not change the current stat table,
2194             nor any of the items in the configuration table.
2195             Writing this value during row creation has no effect.
2196             "
2197         DEFVAL { false }
2198         ::= { mefSoamLmCfgEntry 33 }
2199
2200   mefSoamLmCfgRowStatus OBJECT-TYPE
2201         SYNTAX       RowStatus
2202         MAX-ACCESS  read-create
2203         STATUS       current
2204         DESCRIPTION
2205            "The status of the row.
2206
2207             The writable columns in a row cannot be changed if the row
2208             is active, except for mefSoamLmCfgHistoryClear and mefSoamLmCfgEnabled
2209             objects. All columns must have a valid value before a row
2210             can be activated.
2211             "
2212         ::= { mefSoamLmCfgEntry 34 }
2213
2214   -- ****************************************************************************
2215   -- Ethernet Loss Measurement Measured Statistic Table
2216   -- ****************************************************************************
2217
2218   mefSoamLmMeasuredStatsTable OBJECT-TYPE
2219         SYNTAX       SEQUENCE OF MefSoamLmMeasuredStatsEntry
2220         MAX-ACCESS  not-accessible
2221         STATUS       current
2222         DESCRIPTION
2223            "This object contains the last measured results for a SOAM Loss
2224             Measurement session.
2225
2226             Each row in the table represents a Loss Measurement session for
2227             the defined MEP. This table uses four indices. The first three indices
2228             are the indices of the Maintenance Domain, MaNet, and MEP tables. The
2229             fourth index is the specific LM session on the selected MEP.
2230
2231             Instances of this managed object are created automatically
2232             by the SNMP Agent when the Loss Measurement session is running.
2233
2234             Each object in this table applies only if the corresponding bit is set in
2235             mefSoamLmCfgMeasurementEnable.
2236
2237             The objects in this table do not need to be persistent upon reboot
2238             or restart of a device.
2239             "
2240         REFERENCE
2241            "[MEF SOAM-PM] R7, R15, 8D18"
```

```
2242          ::= { mefSoamPmLmObjects 2 }
2243
2244  mefSoamLmMeasuredStatsEntry OBJECT-TYPE
2245      SYNTAX      MefSoamLmMeasuredStatsEntry
2246      MAX-ACCESS  not-accessible
2247      STATUS      current
2248      DESCRIPTION
2249         "The conceptual row of mefSoamLmMeasuredStatsTable"
2250      INDEX       {
2251              dot1agCfmMdIndex,
2252              dot1agCfmMaIndex,
2253              dot1agCfmMepIdentifier,
2254              mefSoamLmCfgIndex
2255              }
2256      ::= { mefSoamLmMeasuredStatsTable 1 }
2257
2258  MefSoamLmMeasuredStatsEntry ::= SEQUENCE {
2259      mefSoamLmMeasuredStatsForwardFlr            Unsigned32,
2260      mefSoamLmMeasuredStatsBackwardFlr           Unsigned32,
2261      mefSoamLmMeasuredStatsAvailForwardStatus    MefSoamTcAvailabilityType,
2262      mefSoamLmMeasuredStatsAvailBackwardStatus   MefSoamTcAvailabilityType,
2263      mefSoamLmMeasuredStatsAvailForwardLastTransitionTime DateAndTime,
2264      mefSoamLmMeasuredStatsAvailBackwardLastTransitionTime  DateAndTime
2265  }
2266
2267  mefSoamLmMeasuredStatsForwardFlr OBJECT-TYPE
2268      SYNTAX      Unsigned32 (0..100000)
2269      UNITS       "milli-percent"
2270      MAX-ACCESS  read-only
2271      STATUS      current
2272      DESCRIPTION
2273         "This object contains the last frame loss ratio in the forward direction
2274          calculated by this MEP. The FLR value
2275          is a ratio that is expressed as a percent with a value of 0 (ratio
2276          0.00) through 100000 (ratio 1.00).
2277
2278          Units are in milli-percent, where 1 indicates 0.001 percent.
2279         "
2280      REFERENCE
2281         "[MEF SOAM-PM] D37"
2282      ::= { mefSoamLmMeasuredStatsEntry 1 }
2283
2284  mefSoamLmMeasuredStatsBackwardFlr OBJECT-TYPE
2285      SYNTAX      Unsigned32 (0..100000)
2286      UNITS       "milli-percent"
2287      MAX-ACCESS  read-only
2288      STATUS      current
2289      DESCRIPTION
2290         "This object contains the last frame loss ratio in the backward direction
2291          calculated by this MEP. The FLR value
2292          is a ratio that is expressed as a percent with a value of 0 (ratio
2293          0.00) through 100000 (ratio 1.00).
2294
2295          Units are in milli-percent, where 1 indicates 0.001 percent.
2296         "
2297      REFERENCE
2298         "[MEF SOAM-PM] D37"
2299      ::= { mefSoamLmMeasuredStatsEntry 2 }
2300
2301  mefSoamLmMeasuredStatsAvailForwardStatus OBJECT-TYPE
2302      SYNTAX      MefSoamTcAvailabilityType
2303      MAX-ACCESS  read-only
2304      STATUS      current
2305      DESCRIPTION
```

```
2306              "This object indicates the availability status (the outcome of the
2307               last known availability indicator) in the forward direction.
2308               Note that the status of an availability indicator is not known until
2309               the loss for a number of subsequent availability indicators has been
2310               calculated (as determined by
2311               mefSoamLmCfgAvailabilityNumConsecutiveIntervals)
2312              "
2313          REFERENCE
2314              "[MEF SOAM-PM] R83"
2315          ::= { mefSoamLmMeasuredStatsEntry 3 }
2316
2317  mefSoamLmMeasuredStatsAvailBackwardStatus OBJECT-TYPE
2318          SYNTAX      MefSoamTcAvailabilityType
2319          MAX-ACCESS  read-only
2320          STATUS      current
2321          DESCRIPTION
2322              "This object indicates the availability status (the outcome of the
2323               last availability indicator) in the backward direction.
2324               Note that the status of an availability indicator is not known until
2325               the loss for a number of subsequent availability indicators has been
2326               calculated (as determined by
2327               mefSoamLmCfgAvailabilityNumConsecutiveIntervals)
2328              "
2329          REFERENCE
2330              "[MEF SOAM-PM] R83"
2331          ::= { mefSoamLmMeasuredStatsEntry 4 }
2332
2333  mefSoamLmMeasuredStatsAvailForwardLastTransitionTime OBJECT-TYPE
2334          SYNTAX      DateAndTime
2335          MAX-ACCESS  read-only
2336          STATUS      current
2337          DESCRIPTION
2338              "This object indicates the time of the last transition
2339               between available and unavailable in the forward direction.
2340
2341               If there have been no transitions since the Loss Measurement
2342               Session was started, this is set to 0.
2343              "
2344          REFERENCE
2345              "[MEF SOAM-PM] R83"
2346          ::= { mefSoamLmMeasuredStatsEntry 5 }
2347
2348  mefSoamLmMeasuredStatsAvailBackwardLastTransitionTime OBJECT-TYPE
2349          SYNTAX      DateAndTime
2350          MAX-ACCESS  read-only
2351          STATUS      current
2352          DESCRIPTION
2353              "This object indicates the time of the last transition
2354               between available and unavailable in the backward direction.
2355
2356               If there have been no transitions since the Loss Measurement
2357               Session was started, this is set to 0.
2358              "
2359          REFERENCE
2360              "[MEF SOAM-PM] R83"
2361          ::= { mefSoamLmMeasuredStatsEntry 6 }
2362
2363  -- ****************************************************************************
2364  -- Ethernet Loss Measurement Current Availability Statistic Table
2365  -- ****************************************************************************
2366
2367  mefSoamLmCurrentAvailStatsTable OBJECT-TYPE
2368          SYNTAX      SEQUENCE OF MefSoamLmCurrentAvailStatsEntry
2369          MAX-ACCESS  not-accessible
```

```
2370         STATUS      current
2371         DESCRIPTION
2372            "This object contains the current results for a SOAM Loss Measurement
2373             session for availability statistics gathered during the interval
2374             indicated by mefSoamLmCfgAvailabilityMeasurementInterval.
2375
2376             Each row in the table represents a Loss Measurement session for
2377             the defined MEP. This table uses four indices. The first three indices
2378             are the indices of the Maintenance Domain, MaNet, and MEP tables. The
2379             fourth index is the specific LM session on the selected MEP.
2380
2381             Instances of this managed object are created automatically
2382             by the SNMP Agent when the Loss Measurement session is running.
2383
2384             The objects in this table apply regardless of the value of
2385             mefSoamLmCfgType unless otherwise specified in the object description.
2386
2387             Except for mefSoamLmCurrentAvailStatsIndex,
2388             mefSoamLmCurrentAvailStatsStartTime, mefSoamLmCurrentAvailStatsElapsedTime
2389             and mefSoamLmCurrentAvailStatsSuspect, each object in this table applies
2390             only if the corresponding bit is set in mefSoamLmCfgMeasurementEnable.
2391
2392             The objects in this table may be persistent upon reboot or restart
2393             of a device.
2394            "
2395         REFERENCE
2396            "[MEF SOAM-PM] D9, D18"
2397         ::= { mefSoamPmLmObjects 3 }
2398
2399 mefSoamLmCurrentAvailStatsEntry OBJECT-TYPE
2400         SYNTAX      MefSoamLmCurrentAvailStatsEntry
2401         MAX-ACCESS  not-accessible
2402         STATUS      current
2403         DESCRIPTION
2404            "The conceptual row of mefSoamLmCurrentAvailStatsTable"
2405         INDEX       {
2406                 dot1agCfmMdIndex,
2407                 dot1agCfmMaIndex,
2408                 dot1agCfmMepIdentifier,
2409                 mefSoamLmCfgIndex
2410                 }
2411         ::= { mefSoamLmCurrentAvailStatsTable 1 }
2412
2413 MefSoamLmCurrentAvailStatsEntry ::= SEQUENCE {
2414     mefSoamLmCurrentAvailStatsIndex                 Unsigned32,
2415     mefSoamLmCurrentAvailStatsStartTime             DateAndTime,
2416     mefSoamLmCurrentAvailStatsElapsedTime           TimeInterval,
2417     mefSoamLmCurrentAvailStatsSuspect               TruthValue,
2418
2419     mefSoamLmCurrentAvailStatsForwardHighLoss       Unsigned32,
2420     mefSoamLmCurrentAvailStatsBackwardHighLoss      Unsigned32,
2421     mefSoamLmCurrentAvailStatsForwardConsecutiveHighLoss  Unsigned32,
2422     mefSoamLmCurrentAvailStatsBackwardConsecutiveHighLoss  Unsigned32,
2423
2424     mefSoamLmCurrentAvailStatsForwardAvailable      Gauge32,
2425     mefSoamLmCurrentAvailStatsBackwardAvailable     Gauge32,
2426     mefSoamLmCurrentAvailStatsForwardUnavailable    Gauge32,
2427     mefSoamLmCurrentAvailStatsBackwardUnavailable   Gauge32,
2428     mefSoamLmCurrentAvailStatsForwardMinFlr         Unsigned32,
2429     mefSoamLmCurrentAvailStatsForwardMaxFlr         Unsigned32,
2430     mefSoamLmCurrentAvailStatsForwardAvgFlr         Unsigned32,
2431     mefSoamLmCurrentAvailStatsBackwardMinFlr        Unsigned32,
2432     mefSoamLmCurrentAvailStatsBackwardMaxFlr        Unsigned32,
2433     mefSoamLmCurrentAvailStatsBackwardAvgFlr        Unsigned32
```

```
2434   }
2435
2436   mefSoamLmCurrentAvailStatsIndex OBJECT-TYPE
2437       SYNTAX      Unsigned32
2438       MAX-ACCESS  read-only
2439       STATUS      current
2440       DESCRIPTION
2441         "The index for the current availability Measurement Interval for this
2442          PM session.  This value will become the value for
2443          mefSoamLmHistoryAvailStatsIndex once the Measurement Interval
2444          is completed.  The duration of the Measurement Interval is specified
2445          by mefSoamLmCfgAvailabilityMeasurementInterval.
2446
2447          Measurement Interval indexes are assigned sequentially by
2448          the SNMP Agent.  The first Measurement Interval that occurs after
2449          the session is started is assigned index 1.
2450         "
2451       ::= { mefSoamLmCurrentAvailStatsEntry 1 }
2452
2453   mefSoamLmCurrentAvailStatsStartTime OBJECT-TYPE
2454       SYNTAX      DateAndTime
2455       MAX-ACCESS  read-only
2456       STATUS      current
2457       DESCRIPTION
2458         "The time that the current Measurement Interval started.
2459         "
2460       REFERENCE
2461         "[MEF SOAM-PM] R87, R112"
2462       ::= { mefSoamLmCurrentAvailStatsEntry 2 }
2463
2464   mefSoamLmCurrentAvailStatsElapsedTime OBJECT-TYPE
2465       SYNTAX      TimeInterval
2466       MAX-ACCESS  read-only
2467       STATUS      current
2468       DESCRIPTION
2469         "The time that the current Measurement Interval has been running, in 0.01
2470          seconds.
2471         "
2472       REFERENCE
2473         "[MEF SOAM-PM] R24, R87, R112"
2474       ::= { mefSoamLmCurrentAvailStatsEntry 3 }
2475
2476   mefSoamLmCurrentAvailStatsSuspect OBJECT-TYPE
2477       SYNTAX      TruthValue
2478       MAX-ACCESS  read-only
2479       STATUS      current
2480       DESCRIPTION
2481         "Whether the Measurement Interval has been marked as suspect.
2482
2483          The object is set to false at the start of a measurement
2484          interval. It is set to true when there is a discontinuity in the
2485          performance measurements during the Measurement Interval.  Conditions
2486          for a discontinuity include, but are not limited to the following:
2487
2488          1 - The local time-of-day clock is adjusted by at least 10 seconds
2489          2 - The conducting of a performance measurement is halted before the
2490              current Measurement Interval is completed
2491          3 - A local test, failure, or reconfiguration that disrupts service
2492         "
2493       REFERENCE
2494         "[MEF SOAM-PM] R39, R40, R41"
2495       ::= { mefSoamLmCurrentAvailStatsEntry 4 }
2496
2497   mefSoamLmCurrentAvailStatsForwardHighLoss OBJECT-TYPE
```

```
2498        SYNTAX      Unsigned32
2499        MAX-ACCESS  read-only
2500        STATUS      current
2501        DESCRIPTION
2502           "This object is the number of high loss intervals (HLI) over
2503            time in the forward direction.
2504
2505            The value starts at 0 and increments for every HLI that occurs.
2506            This parameter is equivalent to 'L Sub T' found in MEF 10.2.1.
2507            "
2508        REFERENCE
2509           "[MEF 10.2.1] 6.9.9; [MEF SOAM-PM] R87"
2510        ::= { mefSoamLmCurrentAvailStatsEntry 5 }
2511
2512    mefSoamLmCurrentAvailStatsBackwardHighLoss OBJECT-TYPE
2513        SYNTAX      Unsigned32
2514        MAX-ACCESS  read-only
2515        STATUS      current
2516        DESCRIPTION
2517           "This object is the number of high loss intervals (HLI) over
2518            time in the backwards direction.
2519
2520            The value starts at 0 and increments for every HLI that occurs.
2521            This parameter is equivalent to 'L Sub T' found in MEF 10.2.1.
2522            "
2523        REFERENCE
2524           "[MEF 10.2.1] 6.9.9; [MEF SOAM-PM] R87"
2525        ::= { mefSoamLmCurrentAvailStatsEntry 6 }
2526
2527    mefSoamLmCurrentAvailStatsForwardConsecutiveHighLoss OBJECT-TYPE
2528        SYNTAX      Unsigned32
2529        MAX-ACCESS  read-only
2530        STATUS      current
2531        DESCRIPTION
2532           "This object is the number of consecutive high loss intervals
2533            (CHLI) over time in the forward direction.
2534
2535            The value starts at 0 and increments for every HLI that occurs
2536            that is determined to fall within a CHLI.
2537            This parameter is equivalent to 'B Sub T' found in MEF 10.2.1.
2538            "
2539        REFERENCE
2540           "[MEF 10.2.1] 6.9.9; [MEF SOAM-PM] R87"
2541        ::= { mefSoamLmCurrentAvailStatsEntry 7 }
2542
2543    mefSoamLmCurrentAvailStatsBackwardConsecutiveHighLoss OBJECT-TYPE
2544        SYNTAX      Unsigned32
2545        MAX-ACCESS  read-only
2546        STATUS      current
2547        DESCRIPTION
2548           "This object is the number of consecutive high loss intervals
2549            (CHLI) over time in the backward direction.
2550
2551            The value starts at 0 and increments for every HLI that occurs
2552            that is determined to fall within a CHLI.
2553            This parameter is equivalent to 'B Sub T' found in MEF 10.2.1.
2554            "
2555        REFERENCE
2556           "[MEF 10.2.1] 6.9.9; [MEF SOAM-PM] R87"
2557        ::= { mefSoamLmCurrentAvailStatsEntry 8 }
2558
2559    mefSoamLmCurrentAvailStatsForwardAvailable OBJECT-TYPE
2560        SYNTAX      Gauge32
2561        MAX-ACCESS  read-only
```

```
2562        STATUS      current
2563        DESCRIPTION
2564           "This object contains the number of availability indicators
2565            evaluated as available in the forward direction by this MEP during
2566            this Measurement Interval.
2567            "
2568        REFERENCE
2569           "[MEF SOAM-PM] R87; [MEF 10.2.1]"
2570        ::= { mefSoamLmCurrentAvailStatsEntry 9 }
2571
2572 mefSoamLmCurrentAvailStatsBackwardAvailable OBJECT-TYPE
2573        SYNTAX      Gauge32
2574        MAX-ACCESS  read-only
2575        STATUS      current
2576        DESCRIPTION
2577           "This object contains the number of availability indicators
2578            evaluated as available in the backward direction by this MEP during
2579            this Measurement Interval.
2580            "
2581        REFERENCE
2582           "[MEF SOAM-PM] R87"
2583        ::= { mefSoamLmCurrentAvailStatsEntry 10 }
2584
2585 mefSoamLmCurrentAvailStatsForwardUnavailable OBJECT-TYPE
2586        SYNTAX      Gauge32
2587        MAX-ACCESS  read-only
2588        STATUS      current
2589        DESCRIPTION
2590           "This object contains the number of availability indicators
2591            evaluated as unavailable in the forward direction by this MEP during
2592            this Measurement Interval.
2593            "
2594        REFERENCE
2595           "[MEF SOAM-PM] R87"
2596        ::= { mefSoamLmCurrentAvailStatsEntry 11 }
2597
2598 mefSoamLmCurrentAvailStatsBackwardUnavailable OBJECT-TYPE
2599        SYNTAX      Gauge32
2600        MAX-ACCESS  read-only
2601        STATUS      current
2602        DESCRIPTION
2603           "This object contains the number of availability indicators
2604            evaluated as unavailable in the backward direction by this MEP
2605            during this Measurement Interval.
2606            "
2607        REFERENCE
2608           "[MEF SOAM-PM] R87"
2609        ::= { mefSoamLmCurrentAvailStatsEntry 12 }
2610
2611 mefSoamLmCurrentAvailStatsForwardMinFlr OBJECT-TYPE
2612        SYNTAX      Unsigned32 (0..100000)
2613        UNITS       "milli-percent"
2614        MAX-ACCESS  read-only
2615        STATUS      current
2616        DESCRIPTION
2617           "This object contains the minimum one-way availability flr in the forward
2618            direction, from among the set of availability flr values calculated by
2619            the MEP in this Measurement Interval.  There is one availability flr
2620            value for each 'delta_t' time period within the Measurement Interval, as
2621            specified in MEF 10.2.1.
2622
2623            The flr value is a ratio that is expressed as a
2624            percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
2625
```

```
2626            Units are in milli-percent, where 1 indicates 0.001 percent.
2627            "
2628        REFERENCE
2629            "[MEF SOAM-PM] D37"
2630        ::= { mefSoamLmCurrentAvailStatsEntry 13 }
2631
2632 mefSoamLmCurrentAvailStatsForwardMaxFlr OBJECT-TYPE
2633        SYNTAX      Unsigned32 (0..100000)
2634        UNITS       "milli-percent"
2635        MAX-ACCESS  read-only
2636        STATUS      current
2637        DESCRIPTION
2638            "This object contains the maximum one-way availability flr in the forward
2639            direction, from among the set of availability flr values calculated by
2640            the MEP in this Measurement Interval.  There is one availability flr
2641            value for each 'delta_t' time period within the Measurement Interval, as
2642            specified in MEF 10.2.1.
2643
2644            The flr value is a ratio that is expressed as a
2645            percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
2646
2647            Units are in milli-percent, where 1 indicates 0.001 percent.
2648            "
2649        REFERENCE
2650            "[MEF SOAM-PM] D37"
2651        ::= { mefSoamLmCurrentAvailStatsEntry 14 }
2652
2653 mefSoamLmCurrentAvailStatsForwardAvgFlr OBJECT-TYPE
2654        SYNTAX      Unsigned32 (0..100000)
2655        UNITS       "milli-percent"
2656        MAX-ACCESS  read-only
2657        STATUS      current
2658        DESCRIPTION
2659            "This object contains the average one-way availability flr in the forward
2660            direction, from among the set of availability flr values calculated by
2661            the MEP in this Measurement Interval.  There is one availability flr
2662            value for each 'delta_t' time period within the Measurement Interval, as
2663            specified in MEF 10.2.1.
2664
2665            The flr value is a ratio that is expressed as a
2666            percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
2667
2668            Units are in milli-percent, where 1 indicates 0.001 percent.
2669            "
2670        REFERENCE
2671            "[MEF SOAM-PM] D37"
2672        ::= { mefSoamLmCurrentAvailStatsEntry 15 }
2673
2674 mefSoamLmCurrentAvailStatsBackwardMinFlr OBJECT-TYPE
2675        SYNTAX      Unsigned32 (0..100000)
2676        UNITS       "milli-percent"
2677        MAX-ACCESS  read-only
2678        STATUS      current
2679        DESCRIPTION
2680            "This object contains the minimum one-way availability flr in the backward
2681            direction, from among the set of availability flr values calculated by
2682            the MEP in this Measurement Interval.  There is one availability flr
2683            value for each 'delta_t' time period within the Measurement Interval, as
2684            specified in MEF 10.2.1.
2685
2686            The flr value is a ratio that is expressed as a
2687            percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
2688
2689            Units are in milli-percent, where 1 indicates 0.001 percent.
```

```
2690        "
2691      REFERENCE
2692        "[MEF SOAM-PM] D37"
2693      ::= { mefSoamLmCurrentAvailStatsEntry 16 }
2694
2695  mefSoamLmCurrentAvailStatsBackwardMaxFlr OBJECT-TYPE
2696      SYNTAX      Unsigned32 (0..100000)
2697      UNITS       "milli-percent"
2698      MAX-ACCESS  read-only
2699      STATUS      current
2700      DESCRIPTION
2701        "This object contains the maximum one-way availability flr in the backward
2702         direction, from among the set of availability flr values calculated by
2703         the MEP in this Measurement Interval.  There is one availability flr
2704         value for each 'delta_t' time period within the Measurement Interval, as
2705         specified in MEF 10.2.1.
2706
2707         The flr value is a ratio that is expressed
2708         as a percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
2709
2710         Units are in milli-percent, where 1 indicates 0.001 percent.
2711        "
2712      REFERENCE
2713        "[MEF SOAM-PM] D37"
2714      ::= { mefSoamLmCurrentAvailStatsEntry 17 }
2715
2716  mefSoamLmCurrentAvailStatsBackwardAvgFlr OBJECT-TYPE
2717      SYNTAX      Unsigned32 (0..100000)
2718      UNITS       "milli-percent"
2719      MAX-ACCESS  read-only
2720      STATUS      current
2721      DESCRIPTION
2722        "This object contains the average one-way availability flr in the backward
2723         direction, from among the set of availability flr values calculated by
2724         the MEP in this Measurement Interval.  There is one availability flr
2725         value for each 'delta_t' time period within the Measurement Interval, as
2726         specified in MEF 10.2.1.
2727
2728         The flr value is a ratio that is expressed as a
2729         percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
2730
2731         Units are in milli-percent, where 1 indicates 0.001 percent.
2732        "
2733      REFERENCE
2734        "[MEF SOAM-PM] D37"
2735      ::= { mefSoamLmCurrentAvailStatsEntry 18 }
2736
2737
2738  -- ****************************************************************************
2739  -- Ethernet Loss Measurement Current Statistic Table
2740  -- ****************************************************************************
2741
2742  mefSoamLmCurrentStatsTable OBJECT-TYPE
2743      SYNTAX      SEQUENCE OF MefSoamLmCurrentStatsEntry
2744      MAX-ACCESS  not-accessible
2745      STATUS      current
2746      DESCRIPTION
2747        "This table contains the results for the current Measurement
2748         Interval in a SOAM Loss Measurement session gathered during the interval
2749         indicated by mefSoamLmCfgMeasurementInterval.
2750
2751         A row in this table is created automatically
2752         by the SNMP Agent when the Loss Measurement session is configured.
2753
```

```
2754            Each row in the table represents the current statistics for a Loss
2755            Measurement session for the defined MEP. This table uses four indices.
2756            The first three indices are the indices of the Maintenance Domain, MaNet,
2757            and MEP tables. The fourth index is the specific LM session on the
2758            selected MEP. There may be more than one LM session per MEP. The
2759            main use case for this is to allow multiple CoS instances to be
2760            operating simultaneously for a MEP.
2761
2762            The objects in this table apply regardless of the value of
2763            mefSoamLmCfgType unless otherwise specified in the object description.
2764
2765            Except for mefSoamLmCurrentStatsIndex, mefSoamLmCurrentStatsStartTime,
2766            mefSoamLmCurrentStatsElapsedTime and mefSoamLmCurrentStatsSuspect,
2767            each object in this table applies only if the corresponding bit is set in
2768            mefSoamLmCfgMeasurementEnable.
2769
2770
2771            The objects in this table do not need to be persistent upon reboot or
2772            restart of a device.
2773          "
2774       REFERENCE
2775          "[MEF SOAM-PM] R7, R15, D9, D18"
2776       ::= { mefSoamPmLmObjects 4 }
2777
2778   mefSoamLmCurrentStatsEntry OBJECT-TYPE
2779       SYNTAX      MefSoamLmCurrentStatsEntry
2780       MAX-ACCESS  not-accessible
2781       STATUS      current
2782       DESCRIPTION
2783             "The conceptual row of mefSoamLmCurrentStatsTable"
2784       INDEX     {
2785               dot1agCfmMdIndex,
2786               dot1agCfmMaIndex,
2787               dot1agCfmMepIdentifier,
2788               mefSoamLmCfgIndex
2789               }
2790       ::= { mefSoamLmCurrentStatsTable 1 }
2791
2792   MefSoamLmCurrentStatsEntry ::= SEQUENCE {
2793       mefSoamLmCurrentStatsIndex                  Unsigned32,
2794       mefSoamLmCurrentStatsStartTime              DateAndTime,
2795       mefSoamLmCurrentStatsElapsedTime            TimeInterval,
2796       mefSoamLmCurrentStatsSuspect                TruthValue,
2797       mefSoamLmCurrentStatsForwardTransmittedFrames  Gauge32,
2798       mefSoamLmCurrentStatsForwardReceivedFrames  Gauge32,
2799       mefSoamLmCurrentStatsForwardMinFlr          Unsigned32,
2800       mefSoamLmCurrentStatsForwardMaxFlr          Unsigned32,
2801       mefSoamLmCurrentStatsForwardAvgFlr          Unsigned32,
2802       mefSoamLmCurrentStatsBackwardTransmittedFrames Gauge32,
2803       mefSoamLmCurrentStatsBackwardReceivedFrames Gauge32,
2804       mefSoamLmCurrentStatsBackwardMinFlr         Unsigned32,
2805       mefSoamLmCurrentStatsBackwardMaxFlr         Unsigned32,
2806       mefSoamLmCurrentStatsBackwardAvgFlr         Unsigned32,
2807       mefSoamLmCurrentStatsSoamPdusSent           Gauge32,
2808       mefSoamLmCurrentStatsSoamPdusReceived       Gauge32
2809   }
2810
2811   mefSoamLmCurrentStatsIndex OBJECT-TYPE
2812       SYNTAX      Unsigned32
2813       MAX-ACCESS  read-only
2814       STATUS      current
2815       DESCRIPTION
2816          "The index for the current Measurement Interval for this
2817          PM session.  This value will become the value for
```

```
2818            mefSoamLmHistoryStatsIndex once the Measurement Interval
2819            is completed.
2820
2821            Measurement Interval indexes are assigned sequentially by
2822            the SNMP Agent.  The first Measurement Interval that occurs after
2823            the session is started is assigned index 1.
2824            "
2825       ::= { mefSoamLmCurrentStatsEntry 1 }
2826
2827   mefSoamLmCurrentStatsStartTime OBJECT-TYPE
2828       SYNTAX     DateAndTime
2829       MAX-ACCESS read-only
2830       STATUS     current
2831       DESCRIPTION
2832          "The time that the current Measurement Interval started.
2833          "
2834       REFERENCE
2835          "[MEF SOAM-PM] R22, R87, R112"
2836       ::= { mefSoamLmCurrentStatsEntry 2 }
2837
2838   mefSoamLmCurrentStatsElapsedTime OBJECT-TYPE
2839       SYNTAX     TimeInterval
2840       MAX-ACCESS read-only
2841       STATUS     current
2842       DESCRIPTION
2843          "The time that the current Measurement Interval has been running, in 0.01
2844           seconds.
2845          "
2846       REFERENCE
2847          "[MEF SOAM-PM] R24, R87, R112"
2848       ::= { mefSoamLmCurrentStatsEntry 3 }
2849
2850   mefSoamLmCurrentStatsSuspect OBJECT-TYPE
2851       SYNTAX     TruthValue
2852       MAX-ACCESS read-only
2853       STATUS     current
2854       DESCRIPTION
2855         "Whether the Measurement Interval has been marked as suspect.
2856
2857          The object is set to false at the start of a measurement
2858          interval. It is set to true when there is a discontinuity in the
2859          performance measurements during the Measurement Interval.  Conditions
2860          for a discontinuity include, but are not limited to the following:
2861
2862          1 - The local time-of-day clock is adjusted by at least 10 seconds
2863          2 - The conducting of a performance measurement is halted before the
2864              current Measurement Interval is completed
2865          3 - A local test, failure, or reconfiguration that disrupts service
2866   "
2867       REFERENCE
2868          "[MEF SOAM-PM] R39, R40, R41"
2869       ::= { mefSoamLmCurrentStatsEntry 4 }
2870
2871   mefSoamLmCurrentStatsForwardTransmittedFrames OBJECT-TYPE
2872       SYNTAX     Gauge32
2873       MAX-ACCESS read-only
2874       STATUS     current
2875       DESCRIPTION
2876          "This object contains the number of frames transmitted in the
2877          forward direction by this MEP.
2878
2879          For a PM Session of types lmLmm and lmCcm this includes Ethernet
2880          Service Frames and SOAM PDUs that are in a higher MEG level only.
2881
```

```
2882                 For a PM Session of type lmSlm this includes the count of SOAM
2883                 ETH-SLM frames only.
2884                 "
2885            REFERENCE
2886                 "[MEF SOAM-PM] R69, R87, R112"
2887            ::= { mefSoamLmCurrentStatsEntry 5 }
2888
2889     mefSoamLmCurrentStatsForwardReceivedFrames OBJECT-TYPE
2890            SYNTAX      Gauge32
2891            MAX-ACCESS  read-only
2892            STATUS      current
2893            DESCRIPTION
2894                 "This object contains the number of frames received in the
2895                 forward direction by this MEP.
2896
2897                 For a PM Session of types lmLmm and lmCcm this includes Ethernet
2898                 Service Frames and SOAM PDUs that are in a higher MEG level only.
2899
2900                 For a PM Session of types lmSlm this includes the count of SOAM
2901                 ETH-SLM frames only.
2902                 "
2903            REFERENCE
2904                 "[MEF SOAM-PM] R69, R87, R112"
2905            ::= { mefSoamLmCurrentStatsEntry 6 }
2906
2907     mefSoamLmCurrentStatsForwardMinFlr OBJECT-TYPE
2908            SYNTAX      Unsigned32 (0..100000)
2909            UNITS       "milli-percent"
2910            MAX-ACCESS  read-only
2911            STATUS      current
2912            DESCRIPTION
2913                 "This object contains the minimum one-way frame loss
2914                 ratio in the forward direction calculated by this MEP for this
2915                 Measurement Interval. The FLR value is a ratio that is expressed as a
2916                 percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
2917
2918                 Units are in milli-percent, where 1 indicates 0.001 percent.
2919                 "
2920            REFERENCE
2921                 "[MEF SOAM-PM] D37"
2922            ::= { mefSoamLmCurrentStatsEntry 7 }
2923
2924     mefSoamLmCurrentStatsForwardMaxFlr OBJECT-TYPE
2925            SYNTAX      Unsigned32 (0..100000)
2926            UNITS       "milli-percent"
2927            MAX-ACCESS  read-only
2928            STATUS      current
2929            DESCRIPTION
2930                 "This object contains the maximum one-way frame loss
2931                 ratio in the forward direction calculated by this MEP for this
2932                 Measurement Interval. The FLR value is a ratio that is expressed as a
2933                 percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
2934
2935                 Units are in milli-percent, where 1 indicates 0.001 percent.
2936                 "
2937            REFERENCE
2938                 "[MEF SOAM-PM] D37"
2939            ::= { mefSoamLmCurrentStatsEntry 8 }
2940
2941     mefSoamLmCurrentStatsForwardAvgFlr OBJECT-TYPE
2942            SYNTAX      Unsigned32 (0..100000)
2943            UNITS       "milli-percent"
2944            MAX-ACCESS  read-only
2945            STATUS      current
```

```
2946        DESCRIPTION
2947           "This object contains the average one-way frame loss
2948            ratio in the forward direction calculated by this MEP for this
2949            Measurement Interval. The FLR value is a ratio that is expressed as a
2950            percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
2951
2952            Units are in milli-percent, where 1 indicates 0.001 percent.
2953           "
2954        REFERENCE
2955           "[MEF SOAM-PM] D37"
2956        ::= { mefSoamLmCurrentStatsEntry 9 }
2957
2958   mefSoamLmCurrentStatsBackwardTransmittedFrames OBJECT-TYPE
2959        SYNTAX      Gauge32
2960        MAX-ACCESS  read-only
2961        STATUS      current
2962        DESCRIPTION
2963           "This object contains the number of frames transmitted in the
2964            backward direction by this MEP.
2965
2966            For a PM Session of type lmLmm and lmCcm this includes Ethernet
2967            Service Frames and SOAM PDUs that are in a higher MEG level only.
2968
2969            For a PM Session of type lmSlm this includes the count of SOAM
2970            ETH-SLM frames only.
2971           "
2972        REFERENCE
2973           "[MEF SOAM-PM] R69, R87, R112"
2974        ::= { mefSoamLmCurrentStatsEntry 10 }
2975
2976   mefSoamLmCurrentStatsBackwardReceivedFrames OBJECT-TYPE
2977        SYNTAX      Gauge32
2978        MAX-ACCESS  read-only
2979        STATUS      current
2980        DESCRIPTION
2981           "This object contains the number of frames received in the
2982            backward direction by this MEP.
2983
2984            For a PM Session of type lmLmm this includes Ethernet
2985            Service Frames and SOAM PDUs that are in a higher MEG level only.
2986
2987            For a PM Session of type lmSlm this includes the count of SOAM
2988            ETH-SLM frames only.
2989           "
2990        REFERENCE
2991           "[MEF SOAM-PM] R69, R87, R112"
2992        ::= { mefSoamLmCurrentStatsEntry 11 }
2993
2994   mefSoamLmCurrentStatsBackwardMinFlr OBJECT-TYPE
2995        SYNTAX      Unsigned32 (0..100000)
2996        UNITS       "milli-percent"
2997        MAX-ACCESS  read-only
2998        STATUS      current
2999        DESCRIPTION
3000           "This object contains the minimum one-way frame loss
3001            ratio in the backward direction calculated by this MEP for
3002            this Measurement Interval. The FLR value is a ratio that is expressed as a
3003            percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3004
3005            Units are in milli-percent, where 1 indicates 0.001 percent.
3006           "
3007        REFERENCE
3008           "[MEF SOAM-PM] D37"
3009        ::= { mefSoamLmCurrentStatsEntry 12 }
```

```
3010
3011    mefSoamLmCurrentStatsBackwardMaxFlr OBJECT-TYPE
3012        SYNTAX      Unsigned32 (0..100000)
3013        UNITS       "milli-percent"
3014        MAX-ACCESS  read-only
3015        STATUS      current
3016        DESCRIPTION
3017           "This object contains the maximum one-way frame loss
3018            ratio in the backward direction calculated by this MEP for
3019            this Measurement Interval. The FLR value is a ratio that is expressed
3020            as a percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3021
3022            Units are in milli-percent, where 1 indicates 0.001 percent.
3023           "
3024        REFERENCE
3025           "[MEF SOAM-PM] D37"
3026        ::= { mefSoamLmCurrentStatsEntry 13 }
3027
3028    mefSoamLmCurrentStatsBackwardAvgFlr OBJECT-TYPE
3029        SYNTAX      Unsigned32 (0..100000)
3030        UNITS       "milli-percent"
3031        MAX-ACCESS  read-only
3032        STATUS      current
3033        DESCRIPTION
3034           "This object contains the average one-way frame loss
3035            ratio in the backward direction calculated by this MEP for
3036            this Measurement Interval. The FLR value is a ratio that is expressed as a
3037            percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3038
3039            Units are in milli-percent, where 1 indicates 0.001 percent.
3040           "
3041        REFERENCE
3042           "[MEF SOAM-PM] D37"
3043        ::= { mefSoamLmCurrentStatsEntry 14 }
3044
3045    mefSoamLmCurrentStatsSoamPdusSent OBJECT-TYPE
3046        SYNTAX      Gauge32
3047        MAX-ACCESS  read-only
3048        STATUS      current
3049        DESCRIPTION
3050           "This object contains the count of the number of SOAM PDUs sent
3051            during this Measurement Interval.
3052
3053            This object applies when mefSoamLmCfgType is lmLmm, lmSlm, or
3054            lmCcm. It indicates the number of LMM, CCM, or SLM SOAM frames
3055            transmitted.
3056           "
3057        REFERENCE
3058           "[MEF SOAM-PM] R69, R87, R112"
3059        ::= { mefSoamLmCurrentStatsEntry 15 }
3060
3061    mefSoamLmCurrentStatsSoamPdusReceived OBJECT-TYPE
3062        SYNTAX      Gauge32
3063        MAX-ACCESS  read-only
3064        STATUS      current
3065        DESCRIPTION
3066           "This object contains the count of the number of SOAM PDUs
3067            PDUs received in this Measurement Interval.
3068
3069            This object applies when mefSoamLmCfgType is lmLmm, lmSlm, or
3070            lmCcm. This object indicates the number of LMR, CCM, or SLR SOAM
3071            frames received.
3072           "
3073        REFERENCE
```

```
3074            "[MEF SOAM-PM] R69, R87, R112"
3075         ::= { mefSoamLmCurrentStatsEntry 16 }
3076
3077   -- ****************************************************************************
3078   -- Ethernet Loss Measurement Availability History Statistic Table
3079   -- ****************************************************************************
3080
3081   mefSoamLmHistoryAvailStatsTable OBJECT-TYPE
3082        SYNTAX       SEQUENCE OF MefSoamLmHistoryAvailStatsEntry
3083        MAX-ACCESS   not-accessible
3084        STATUS       current
3085        DESCRIPTION
3086          "This table contains the results for availability history Measurement
3087           Intervals in a SOAM Loss Measurement session.
3088
3089           Rows of this table object are created automatically
3090           by the SNMP Agent when the Loss Measurement session is running and a
3091           Measurement Interval is completed.
3092
3093           Each row in the table represents the history statistics for a Loss
3094           Measurement session availability Measurement Interval for the defined
3095           MEP. This table uses five indices. The first three indices are the indices of
3096           the Maintenance Domain, MaNet, and MEP tables. The fourth index is the
3097           specific LM session on the selected MEP. The fifth index index the
3098           specific Measurement Interval.
3099
3100           At least 32 completed Measurement Intervals are to be supported. 96
3101           completed Measurement Intervals are recommended to be supported. If
3102           there are at least 32 rows in the table and a new Measurement Interval
3103           completes and a new row is to be added to the table, the oldest completed
3104           Measurement Interval can be deleted (row deletion). If the availability
3105           Measurement Interval is other than 15 minutes then a minimum of 8 hours of
3106           completed Measurement Intervals are to be supported and 24 hours are
3107           recommended to be supported.
3108
3109           Except for mefSoamLmHistoryAvailStatsIndex,
3110           mefSoamLmHistoryAvailStatsEndTime, mefSoamLmHistoryAvailStatsElapsedTime and
3111           mefSoamLmHistoryAvailStatsSuspect, each object in this table applies only
3112           if the corresponding bit is set in mefSoamLmCfgMeasurementEnable.
3113
3114           The rows and objects in this table are to be persistent upon reboot
3115           or restart of a device.
3116          "
3117        REFERENCE
3118          "[MEF SOAM-PM] R7, R15, R21, D8, R25"
3119        ::= { mefSoamPmLmObjects 5 }
3120
3121   mefSoamLmHistoryAvailStatsEntry OBJECT-TYPE
3122        SYNTAX       MefSoamLmHistoryAvailStatsEntry
3123        MAX-ACCESS   not-accessible
3124        STATUS       current
3125        DESCRIPTION
3126              "The conceptual row of mefSoamLmHistoryAvailStatsTable"
3127        INDEX    {
3128                 dot1agCfmMdIndex,
3129                 dot1agCfmMaIndex,
3130                 dot1agCfmMepIdentifier,
3131                 mefSoamLmCfgIndex,
3132                 mefSoamLmHistoryAvailStatsIndex
3133                 }
3134        ::= { mefSoamLmHistoryAvailStatsTable 1 }
3135
3136   MefSoamLmHistoryAvailStatsEntry ::= SEQUENCE {
3137        mefSoamLmHistoryAvailStatsIndex                 Unsigned32,
```

```
3138        mefSoamLmHistoryAvailStatsEndTime                  DateAndTime,
3139        mefSoamLmHistoryAvailStatsElapsedTime              TimeInterval,
3140        mefSoamLmHistoryAvailStatsSuspect                  TruthValue,
3141        mefSoamLmHistoryAvailStatsForwardHighLoss          Unsigned32,
3142        mefSoamLmHistoryAvailStatsBackwardHighLoss         Unsigned32,
3143        mefSoamLmHistoryAvailStatsForwardConsecutiveHighLoss  Unsigned32,
3144        mefSoamLmHistoryAvailStatsBackwardConsecutiveHighLoss  Unsigned32,
3145
3146        mefSoamLmHistoryAvailStatsForwardAvailable         Gauge32,
3147        mefSoamLmHistoryAvailStatsBackwardAvailable        Gauge32,
3148        mefSoamLmHistoryAvailStatsForwardUnavailable       Gauge32,
3149        mefSoamLmHistoryAvailStatsBackwardUnavailable      Gauge32,
3150        mefSoamLmHistoryAvailStatsForwardMinFlr            Unsigned32,
3151        mefSoamLmHistoryAvailStatsForwardMaxFlr            Unsigned32,
3152        mefSoamLmHistoryAvailStatsForwardAvgFlr            Unsigned32,
3153        mefSoamLmHistoryAvailStatsBackwardMinFlr           Unsigned32,
3154        mefSoamLmHistoryAvailStatsBackwardMaxFlr           Unsigned32,
3155        mefSoamLmHistoryAvailStatsBackwardAvgFlr           Unsigned32
3156    }
3157
3158    mefSoamLmHistoryAvailStatsIndex OBJECT-TYPE
3159        SYNTAX      Unsigned32
3160        MAX-ACCESS  not-accessible
3161        STATUS      current
3162        DESCRIPTION
3163           "The index for the availability Measurement Interval within this
3164            PM session.
3165
3166            Measurement Interval indexes are assigned sequentially by
3167            the SNMP Agent.  The first Measurement Interval that occurs after
3168            the session is started is assigned index 1.  Measurement Intervals
3169            for availability (stored in this table) are based on
3170            mefSoamLmCfgAvailabilityMeasurementInterval and are indexed independently
3171            of Measurement Intervals for FLR (stored in mefSoamLmHistoryStatsTable).
3172
3173            Referential integrity is necessary, i.e., the index needs to be
3174            persistent upon a reboot or restart of a device.  The index
3175            is never reused while this session is active until it wraps to zero.
3176            The index value keeps increasing up to that time.
3177            "
3178        ::= { mefSoamLmHistoryAvailStatsEntry 1 }
3179
3180    mefSoamLmHistoryAvailStatsEndTime OBJECT-TYPE
3181        SYNTAX      DateAndTime
3182        MAX-ACCESS  read-only
3183        STATUS      current
3184        DESCRIPTION
3185           "The time that the Measurement Interval ended.
3186            "
3187        REFERENCE
3188           "[MEF SOAM-PM] R23, R87, R112"
3189        ::= { mefSoamLmHistoryAvailStatsEntry 2 }
3190
3191    mefSoamLmHistoryAvailStatsElapsedTime OBJECT-TYPE
3192        SYNTAX      TimeInterval
3193        MAX-ACCESS  read-only
3194        STATUS      current
3195        DESCRIPTION
3196           "The length of time that the Measurement Interval ran for,
3197            in 0.01 seconds.
3198            "
3199        REFERENCE
3200           "[MEF SOAM-PM] R24, R87, R112"
3201        ::= { mefSoamLmHistoryAvailStatsEntry 3 }
```

```
3202
3203    mefSoamLmHistoryAvailStatsSuspect OBJECT-TYPE
3204        SYNTAX      TruthValue
3205        MAX-ACCESS  read-only
3206        STATUS      current
3207        DESCRIPTION
3208            "Whether the Measurement Interval has been marked as suspect.
3209
3210            The object is set to true when there is a discontinuity in the
3211            performance measurements during the Measurement Interval.  Conditions
3212            for a discontinuity include, but are not limited to the following:
3213
3214            1 - The local time-of-day clock is adjusted by at least 10 seconds
3215            2 - The conducting of a performance measurement is halted before the
3216                current Measurement Interval is completed
3217            3 - A local test, failure, or reconfiguration that disrupts service
3218    "
3219        REFERENCE
3220            "[MEF SOAM-PM] R39, R40, R41, R42"
3221        ::= { mefSoamLmHistoryAvailStatsEntry 4 }
3222
3223    mefSoamLmHistoryAvailStatsForwardHighLoss OBJECT-TYPE
3224        SYNTAX      Unsigned32
3225        MAX-ACCESS  read-only
3226        STATUS      current
3227        DESCRIPTION
3228            "This object is the number of high loss intervals (HLI) over
3229            time in the forward direction.
3230
3231            The value starts at 0 and increments for every HLI that occurs.
3232            This parameter is equivalent to 'L Sub T' found in MEF 10.2.1.
3233            "
3234        REFERENCE
3235            "[MEF 10.2.1] 6.9.9; [MEF SOAM-PM] R87"
3236        ::= { mefSoamLmHistoryAvailStatsEntry 5 }
3237
3238    mefSoamLmHistoryAvailStatsBackwardHighLoss OBJECT-TYPE
3239        SYNTAX      Unsigned32
3240        MAX-ACCESS  read-only
3241        STATUS      current
3242        DESCRIPTION
3243            "This object is the number of high loss intervals (HLI) over
3244            time in the backward direction.
3245
3246            The value starts at 0 and increments for every HLI that occurs.
3247            This parameter is equivalent to 'L Sub T' found in MEF 10.2.1.
3248            "
3249        REFERENCE
3250            "[MEF 10.2.1] 6.9.9; [MEF SOAM-PM] R87"
3251        ::= { mefSoamLmHistoryAvailStatsEntry 6 }
3252
3253    mefSoamLmHistoryAvailStatsForwardConsecutiveHighLoss OBJECT-TYPE
3254        SYNTAX      Unsigned32
3255        MAX-ACCESS  read-only
3256        STATUS      current
3257        DESCRIPTION
3258            "This object is the number of consecutive high loss intervals
3259            (CHLI) over time in the forward direction.
3260
3261            The value starts at 0 and increments for every HLI that occurs
3262            that is determined to fall within a CHLI.
3263            This parameter is equivalent to 'B Sub T' found in MEF 10.2.1.
3264            "
3265        REFERENCE
```

```
3266        "[MEF 10.2.1] 6.9.9; [MEF SOAM-PM] R87"
3267      ::= { mefSoamLmHistoryAvailStatsEntry 7 }
3268
3269  mefSoamLmHistoryAvailStatsBackwardConsecutiveHighLoss OBJECT-TYPE
3270      SYNTAX        Unsigned32
3271      MAX-ACCESS  read-only
3272      STATUS        current
3273      DESCRIPTION
3274        "This object is the number of consecutive high loss intervals
3275         (CHLI) over time in the forward direction.
3276
3277         The value starts at 0 and increments for every HLI that occurs
3278         that is determined to fall within a CHLI.
3279         This parameter is equivalent to 'B Sub T' found in MEF 10.2.1.
3280        "
3281      REFERENCE
3282        "[MEF 10.2.1] 6.9.9; [MEF SOAM-PM] R87"
3283      ::= { mefSoamLmHistoryAvailStatsEntry 8 }
3284
3285  mefSoamLmHistoryAvailStatsForwardAvailable OBJECT-TYPE
3286      SYNTAX        Gauge32
3287      MAX-ACCESS  read-only
3288      STATUS        current
3289      DESCRIPTION
3290        "This object contains the number of availability indicators
3291         evaluated as available in the forward direction by this MEP during
3292         this Measurement Interval.
3293        "
3294      REFERENCE
3295        "[MEF SOAM-PM] R87; [MEF 10.2.1]"
3296      ::= { mefSoamLmHistoryAvailStatsEntry 9 }
3297
3298  mefSoamLmHistoryAvailStatsBackwardAvailable OBJECT-TYPE
3299      SYNTAX        Gauge32
3300      MAX-ACCESS  read-only
3301      STATUS        current
3302      DESCRIPTION
3303        "This object contains the number of availability indicators
3304         evaluated as available in the backward direction by this MEP during
3305         this Measurement Interval.
3306        "
3307      REFERENCE
3308        "[MEF SOAM-PM] R87"
3309      ::= { mefSoamLmHistoryAvailStatsEntry 10 }
3310
3311  mefSoamLmHistoryAvailStatsForwardUnavailable OBJECT-TYPE
3312      SYNTAX        Gauge32
3313      MAX-ACCESS  read-only
3314      STATUS        current
3315      DESCRIPTION
3316        "This object contains the number of availability indicators
3317         evaluated as unavailable in the forward direction by this MEP during
3318         this Measurement Interval.
3319        "
3320      REFERENCE
3321        "[MEF SOAM-PM] R87"
3322      ::= { mefSoamLmHistoryAvailStatsEntry 11 }
3323
3324
3325  mefSoamLmHistoryAvailStatsBackwardUnavailable OBJECT-TYPE
3326      SYNTAX        Gauge32
3327      MAX-ACCESS  read-only
3328      STATUS        current
3329      DESCRIPTION
```

```
3330          "This object contains the number of availability indicators
3331           evaluated as unavailable in the backward direction by this MEP
3332           during this Measurement Interval.
3333          "
3334      REFERENCE
3335         "[MEF SOAM-PM] R87"
3336      ::= { mefSoamLmHistoryAvailStatsEntry 12 }
3337
3338  mefSoamLmHistoryAvailStatsForwardMinFlr OBJECT-TYPE
3339      SYNTAX      Unsigned32 (0..100000)
3340      UNITS       "milli-percent"
3341      MAX-ACCESS  read-only
3342      STATUS      current
3343      DESCRIPTION
3344          "This object contains the minimum one-way availability flr in the forward
3345           direction, from among the set of availability flr values calculated by
3346           the MEP in this Measurement Interval.  There is one availability flr
3347           value for each 'delta_t' time period within the Measurement Interval, as
3348           specified in MEF 10.2.1.
3349
3350           The flr value is a ratio that is expressed as a
3351           percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3352
3353           Units are in milli-percent, where 1 indicates 0.001 percent.
3354          "
3355      REFERENCE
3356         "[MEF SOAM-PM] D37"
3357      ::= { mefSoamLmHistoryAvailStatsEntry 13 }
3358
3359  mefSoamLmHistoryAvailStatsForwardMaxFlr OBJECT-TYPE
3360      SYNTAX      Unsigned32 (0..100000)
3361      UNITS       "milli-percent"
3362      MAX-ACCESS  read-only
3363      STATUS      current
3364      DESCRIPTION
3365          "This object contains the maximum one-way availability flr in the forward
3366           direction, from among the set of availability flr values calculated by
3367           the MEP in this Measurement Interval.  There is one availability flr
3368           value for each 'delta_t' time period within the Measurement Interval, as
3369           specified in MEF 10.2.1.
3370
3371           The flr value is a ratio that is expressed as a
3372           percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3373
3374           Units are in milli-percent, where 1 indicates 0.001 percent.
3375          "
3376      REFERENCE
3377         "[MEF SOAM-PM] D37"
3378      ::= { mefSoamLmHistoryAvailStatsEntry 14 }
3379
3380  mefSoamLmHistoryAvailStatsForwardAvgFlr OBJECT-TYPE
3381      SYNTAX      Unsigned32 (0..100000)
3382      UNITS       "milli-percent"
3383      MAX-ACCESS  read-only
3384      STATUS      current
3385      DESCRIPTION
3386          "This object contains the average one-way availability flr in the forward
3387           direction, from among the set of availability flr values calculated by
3388           the MEP in this Measurement Interval.  There is one availability flr
3389           value for each 'delta_t' time period within the Measurement Interval, as
3390           specified in MEF 10.2.1.
3391
3392           The flr value is a ratio that is expressed as a
3393           percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
```

```
3394
3395          Units are in milli-percent, where 1 indicates 0.001 percent.
3396          "
3397      REFERENCE
3398         "[MEF SOAM-PM] D37"
3399      ::= { mefSoamLmHistoryAvailStatsEntry 15 }
3400
3401  mefSoamLmHistoryAvailStatsBackwardMinFlr OBJECT-TYPE
3402      SYNTAX       Unsigned32 (0..100000)
3403      UNITS        "milli-percent"
3404      MAX-ACCESS   read-only
3405      STATUS       current
3406      DESCRIPTION
3407         "This object contains the minimum one-way availability flr in the backward
3408          direction, from among the set of availability flr values calculated by
3409          the MEP in this Measurement Interval.  There is one availability flr
3410          value for each 'delta_t' time period within the Measurement Interval, as
3411          specified in MEF 10.2.1.
3412
3413          The flr value is a ratio that is expressed as a
3414          percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3415
3416          Units are in milli-percent, where 1 indicates 0.001 percent.
3417          "
3418      REFERENCE
3419         "[MEF SOAM-PM] D37"
3420      ::= { mefSoamLmHistoryAvailStatsEntry 16 }
3421
3422  mefSoamLmHistoryAvailStatsBackwardMaxFlr OBJECT-TYPE
3423      SYNTAX       Unsigned32 (0..100000)
3424      UNITS        "milli-percent"
3425      MAX-ACCESS   read-only
3426      STATUS       current
3427      DESCRIPTION
3428         "This object contains the maximum one-way availability flr in the backward
3429          direction, from among the set of availability flr values calculated by
3430          the MEP in this Measurement Interval.  There is one availability flr
3431          value for each 'delta_t' time period within the Measurement Interval, as
3432          specified in MEF 10.2.1.
3433
3434          The flr value is a ratio that is expressed
3435          as a percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3436
3437          Units are in milli-percent, where 1 indicates 0.001 percent.
3438        "
3439      REFERENCE
3440         "[MEF SOAM-PM] D37"
3441      ::= { mefSoamLmHistoryAvailStatsEntry 17 }
3442
3443  mefSoamLmHistoryAvailStatsBackwardAvgFlr OBJECT-TYPE
3444      SYNTAX       Unsigned32 (0..100000)
3445      UNITS        "milli-percent"
3446      MAX-ACCESS   read-only
3447      STATUS       current
3448      DESCRIPTION
3449         "This object contains the average one-way availability flr in the backward
3450          direction, from among the set of availability flr values calculated by
3451          the MEP in this Measurement Interval.  There is one availability flr
3452          value for each 'delta_t' time period within the Measurement Interval, as
3453          specified in MEF 10.2.1.
3454
3455          The flr value is a ratio that is expressed as a
3456          percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3457
```

```
3458              Units are in milli-percent, where 1 indicates 0.001 percent.
3459              "
3460          REFERENCE
3461            "[MEF SOAM-PM] D37"
3462          ::= { mefSoamLmHistoryAvailStatsEntry 18 }
3463
3464
3465     -- *****************************************************************************
3466     -- Ethernet Loss Measurement Loss History Statistic Table
3467     -- *****************************************************************************
3468
3469     mefSoamLmHistoryStatsTable OBJECT-TYPE
3470          SYNTAX        SEQUENCE OF MefSoamLmHistoryStatsEntry
3471          MAX-ACCESS    not-accessible
3472          STATUS        current
3473          DESCRIPTION
3474            "This table contains the results for history Measurement
3475             Intervals in a SOAM Loss Measurement session.
3476
3477             Rows of this table object are created automatically
3478             by the SNMP Agent when the Loss Measurement session is running and a
3479             Measurement Interval is completed.
3480
3481             Each row in the table represents the history statistics for a Loss
3482             Measurement session Measurement Interval for the defined MEP. This
3483             table uses five indices. The first three indices are the indices of
3484             the Maintenance Domain, MaNet, and MEP tables. The fourth index is the
3485             specific LM session on the selected MEP. The fifth index index the
3486             specific Measurement Interval.
3487
3488             At least 32 completed Measurement Intervals are to be supported. 96
3489             completed Measurement Intervals are recommended to be supported. If
3490             there are at least 32 rows in the table and a new Measurement Interval
3491             completes and a new row is to be added to the table, the oldest completed
3492             Measurement Interval may be deleted (row deletion). If the measurement
3493             interval is other than 15 minutes then a minimum of 8 hours of
3494             completed Measurement Intervals are to be supported and 24 hours are
3495             recommended to be supported.
3496
3497             Except for mefSoamLmHistoryStatsIndex, mefSoamLmHistoryStatsEndTime,
3498             mefSoamLmHistoryStatsElapsedTime and mefSoamLmHistoryStatsSuspect,
3499             each object in this table applies only if the corresponding bit is set in
3500             mefSoamLmCfgMeasurementEnable.
3501
3502             The rows and objects in this table are to be persistent upon reboot
3503             or restart of a device.
3504             "
3505          REFERENCE
3506            "[MEF SOAM-PM] R7, R15, R21, D8, R25"
3507          ::= { mefSoamPmLmObjects 6 }
3508
3509     mefSoamLmHistoryStatsEntry OBJECT-TYPE
3510          SYNTAX        MefSoamLmHistoryStatsEntry
3511          MAX-ACCESS    not-accessible
3512          STATUS        current
3513          DESCRIPTION
3514                "The conceptual row of mefSoamLmHistoryStatsTable"
3515          INDEX       {
3516                  dot1agCfmMdIndex,
3517                  dot1agCfmMaIndex,
3518                  dot1agCfmMepIdentifier,
3519                  mefSoamLmCfgIndex,
3520                  mefSoamLmHistoryStatsIndex
3521                  }
```

```
3522            ::= { mefSoamLmHistoryStatsTable 1 }
3523
3524    MefSoamLmHistoryStatsEntry ::= SEQUENCE {
3525        mefSoamLmHistoryStatsIndex                      Unsigned32,
3526        mefSoamLmHistoryStatsEndTime                    DateAndTime,
3527        mefSoamLmHistoryStatsElapsedTime                TimeInterval,
3528        mefSoamLmHistoryStatsSuspect                    TruthValue,
3529        mefSoamLmHistoryStatsForwardTransmittedFrames   Gauge32,
3530        mefSoamLmHistoryStatsForwardReceivedFrames      Gauge32,
3531        mefSoamLmHistoryStatsForwardMinFlr              Unsigned32,
3532        mefSoamLmHistoryStatsForwardMaxFlr              Unsigned32,
3533        mefSoamLmHistoryStatsForwardAvgFlr              Unsigned32,
3534        mefSoamLmHistoryStatsBackwardTransmittedFrames  Gauge32,
3535        mefSoamLmHistoryStatsBackwardReceivedFrames     Gauge32,
3536        mefSoamLmHistoryStatsBackwardMinFlr             Unsigned32,
3537        mefSoamLmHistoryStatsBackwardMaxFlr             Unsigned32,
3538        mefSoamLmHistoryStatsBackwardAvgFlr             Unsigned32,
3539        mefSoamLmHistoryStatsSoamPdusSent               Gauge32,
3540        mefSoamLmHistoryStatsSoamPdusReceived           Gauge32
3541    }
3542
3543    mefSoamLmHistoryStatsIndex OBJECT-TYPE
3544        SYNTAX      Unsigned32
3545        MAX-ACCESS  not-accessible
3546        STATUS      current
3547        DESCRIPTION
3548           "The index for the Measurement Interval within this
3549            PM session.
3550
3551            Measurement Interval indexes are assigned sequentially by
3552            the SNMP Agent.  The first Measurement Interval that occurs after
3553            the session is started is assigned index 1. Measurement Intervals
3554            for FLR (stored in this table) are based on
3555            mefSoamLmCfgMeasurementInterval and are indexed independently
3556            of Measurement Intervals for availability (stored in
3557            mefSoamLmHistoryAvailStatsTable).
3558
3559            Referential integrity is necessary, i.e., the index needs to be
3560            persistent upon a reboot or restart of a device.  The index
3561            is never reused while this session is active until it wraps to zero.
3562            The index value keeps increasing up to that time.
3563            "
3564        ::= { mefSoamLmHistoryStatsEntry 1 }
3565
3566    mefSoamLmHistoryStatsEndTime OBJECT-TYPE
3567        SYNTAX      DateAndTime
3568        MAX-ACCESS  read-only
3569        STATUS      current
3570        DESCRIPTION
3571           "The time that the Measurement Interval ended.
3572            "
3573        REFERENCE
3574           "[MEF SOAM-PM] R23, R87, R112"
3575        ::= { mefSoamLmHistoryStatsEntry 2 }
3576
3577    mefSoamLmHistoryStatsElapsedTime OBJECT-TYPE
3578        SYNTAX      TimeInterval
3579        MAX-ACCESS  read-only
3580        STATUS      current
3581        DESCRIPTION
3582           "The length of time that the Measurement Interval ran for,
3583            in 0.01 seconds.
3584            "
3585        REFERENCE
```

```
3586              "[MEF SOAM-PM] R24, R87, R112"
3587          ::= { mefSoamLmHistoryStatsEntry 3 }
3588
3589    mefSoamLmHistoryStatsSuspect OBJECT-TYPE
3590          SYNTAX       TruthValue
3591          MAX-ACCESS   read-only
3592          STATUS       current
3593          DESCRIPTION
3594              "Whether the Measurement Interval has been marked as suspect.
3595
3596              The object is set to true when there is a discontinuity in the
3597              performance measurements during the Measurement Interval.  Conditions
3598              for a discontinuity include, but are not limited to the following:
3599
3600              1 - The local time-of-day clock is adjusted by at least 10 seconds
3601              2 - The conducting of a performance measurement is halted before the
3602                  current Measurement Interval is completed
3603              3 - A local test, failure, or reconfiguration that disrupts service
3604    "
3605          REFERENCE
3606              "[MEF SOAM-PM] R39, R40, R41, R42"
3607          ::= { mefSoamLmHistoryStatsEntry 4 }
3608
3609    mefSoamLmHistoryStatsForwardTransmittedFrames OBJECT-TYPE
3610          SYNTAX       Gauge32
3611          MAX-ACCESS   read-only
3612          STATUS       current
3613          DESCRIPTION
3614              "This object contains the number of frames transmitted in the
3615              forward direction by this MEP.
3616
3617              For a PM Session of types lmLmm and lmCcm this includes Ethernet
3618              Service Frames and SOAM PDUs that are in a higher MEG level only.
3619
3620              For a PM Session of type lmSlm this includes the count of OAM
3621              ETH-SLM frames only.
3622              "
3623          REFERENCE
3624              "[MEF SOAM-PM] R69, R87, R112"
3625          ::= { mefSoamLmHistoryStatsEntry 5 }
3626
3627    mefSoamLmHistoryStatsForwardReceivedFrames OBJECT-TYPE
3628          SYNTAX       Gauge32
3629          MAX-ACCESS   read-only
3630          STATUS       current
3631          DESCRIPTION
3632              "This object contains the number of frames received in the
3633              forward direction by this MEP.
3634
3635              For a PM Session of types lmLmm and lmCcm this includes Ethernet
3636              Service Frames and SOAM PDUs that are in a higher MEG level only.
3637
3638              For a PM Session of type lmSlm this includes the count of OAM
3639              ETH-SLM frames only.
3640              "
3641          REFERENCE
3642              "[MEF SOAM-PM] R69, R87, R112"
3643          ::= { mefSoamLmHistoryStatsEntry 6 }
3644
3645    mefSoamLmHistoryStatsForwardMinFlr OBJECT-TYPE
3646          SYNTAX       Unsigned32 (0..100000)
3647          UNITS        "milli-percent"
3648          MAX-ACCESS   read-only
3649          STATUS       current
```

```
3650        DESCRIPTION
3651           "This object contains the minimum one-way frame loss
3652            ratio in the forward direction calculated by this MEP for this
3653            Measurement Interval. The FLR value is a ratio that is expressed as a
3654            percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3655
3656            Units are in milli-percent, where 1 indicates 0.001 percent.
3657           "
3658        REFERENCE
3659           "[MEF SOAM-PM] D37"
3660        ::= { mefSoamLmHistoryStatsEntry 7 }
3661
3662 mefSoamLmHistoryStatsForwardMaxFlr OBJECT-TYPE
3663        SYNTAX      Unsigned32 (0..100000)
3664        UNITS       "milli-percent"
3665        MAX-ACCESS  read-only
3666        STATUS      current
3667        DESCRIPTION
3668           "This object contains the maximum one-way frame loss
3669            ratio in the forward direction calculated by this MEP for this
3670            Measurement Interval. The FLR value is a ratio that is expressed as a
3671            percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3672
3673            Units are in milli-percent, where 1 indicates 0.001 percent.
3674           "
3675        REFERENCE
3676           "[MEF SOAM-PM] D37"
3677        ::= { mefSoamLmHistoryStatsEntry 8 }
3678
3679 mefSoamLmHistoryStatsForwardAvgFlr OBJECT-TYPE
3680        SYNTAX      Unsigned32 (0..100000)
3681        UNITS       "milli-percent"
3682        MAX-ACCESS  read-only
3683        STATUS      current
3684        DESCRIPTION
3685           "This object contains the average one-way frame loss
3686            ratio in the forward direction calculated by this MEP for this
3687            Measurement Interval. The FLR value is a ratio that is expressed as a
3688            percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3689
3690            Units are in milli-percent, where 1 indicates 0.001 percent.
3691           "
3692        REFERENCE
3693           "[MEF SOAM-PM] D37"
3694        ::= { mefSoamLmHistoryStatsEntry 9 }
3695
3696 mefSoamLmHistoryStatsBackwardTransmittedFrames OBJECT-TYPE
3697        SYNTAX      Gauge32
3698        MAX-ACCESS  read-only
3699        STATUS      current
3700        DESCRIPTION
3701           "This object contains the number of frames transmitted in the
3702            backward direction by this MEP.
3703
3704            For a PM Session of type lmLmm and lmCcm this includes Ethernet
3705            Service Frames and SOAM PDUs that are in a higher MEG level only.
3706
3707            For a PM Session of types lmSlm this includes the count of SOAM
3708            ETH-SLM frames only.
3709           "
3710        REFERENCE
3711           "[MEF SOAM-PM] D37"
3712        ::= { mefSoamLmHistoryStatsEntry 10 }
3713
```

```
3714    mefSoamLmHistoryStatsBackwardReceivedFrames OBJECT-TYPE
3715        SYNTAX      Gauge32
3716        MAX-ACCESS  read-only
3717        STATUS      current
3718        DESCRIPTION
3719           "This object contains the number of frames received in the
3720           backward direction by this MEP.
3721
3722           For a PM Session of type lmLmm and lmCcm this includes Ethernet
3723           Service Frames and SOAM PDUs that are in a higher MEG level only.
3724
3725           For a PM Session of types lmSlm this includes the count of SOAM
3726           ETH-SLM frames only.
3727           "
3728        REFERENCE
3729           "[MEF SOAM-PM] R69, R87, R112"
3730        ::= { mefSoamLmHistoryStatsEntry 11 }
3731
3732    mefSoamLmHistoryStatsBackwardMinFlr OBJECT-TYPE
3733        SYNTAX      Unsigned32 (0..100000)
3734        UNITS       "milli-percent"
3735        MAX-ACCESS  read-only
3736        STATUS      current
3737        DESCRIPTION
3738           "This object contains the minimum one-way frame loss
3739           ratio in the backward direction calculated by this MEP for
3740           this Measurement Interval. The FLR value is a ratio that is expressed as a
3741           percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3742
3743           Units are in milli-percent, where 1 indicates 0.001 percent.
3744           "
3745        REFERENCE
3746           "[MEF SOAM-PM] R69, R87, R112"
3747        ::= { mefSoamLmHistoryStatsEntry 12 }
3748
3749    mefSoamLmHistoryStatsBackwardMaxFlr OBJECT-TYPE
3750        SYNTAX      Unsigned32 (0..100000)
3751        UNITS       "milli-percent"
3752        MAX-ACCESS  read-only
3753        STATUS      current
3754        DESCRIPTION
3755           "This object contains the maximum one-way frame loss
3756           ratio in the backward direction calculated by this MEP for
3757           this Measurement Interval. The FLR value is a ratio that is expressed as a
3758           percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3759
3760           Units are in milli-percent, where 1 indicates 0.001 percent.
3761           "
3762        REFERENCE
3763           "[MEF SOAM-PM] D37"
3764        ::= { mefSoamLmHistoryStatsEntry 13 }
3765
3766    mefSoamLmHistoryStatsBackwardAvgFlr OBJECT-TYPE
3767        SYNTAX      Unsigned32 (0..100000)
3768        UNITS       "milli-percent"
3769        MAX-ACCESS  read-only
3770        STATUS      current
3771        DESCRIPTION
3772           "This object contains the average one-way frame loss
3773           ratio in the backward direction calculated by this MEP for
3774           this Measurement Interval. The FLR value is a ratio that is expressed as a
3775           percent with a value of 0 (ratio 0.00) through 100000 (ratio 1.00).
3776
3777           Units are in milli-percent, where 1 indicates 0.001 percent.
```

```
3778              "
3779          REFERENCE
3780              "[MEF SOAM-PM] D37"
3781          ::= { mefSoamLmHistoryStatsEntry 14 }
3782
3783      mefSoamLmHistoryStatsSoamPdusSent OBJECT-TYPE
3784          SYNTAX      Gauge32
3785          MAX-ACCESS  read-only
3786          STATUS      current
3787          DESCRIPTION
3788              "This object contains the count of the number of SOAM PDUs sent
3789               during this Measurement Interval.
3790
3791               This object applies when mefSoamLmCfgType is lmLmm, lmSlm,
3792               or lmCcm. It indicates the number of LMM, CCM, or SLM SOAM frames
3793               transmitted.
3794              "
3795          REFERENCE
3796              "[MEF SOAM-PM] R69, R87"
3797          ::= { mefSoamLmHistoryStatsEntry 15 }
3798
3799      mefSoamLmHistoryStatsSoamPdusReceived OBJECT-TYPE
3800          SYNTAX      Gauge32
3801          MAX-ACCESS  read-only
3802          STATUS      current
3803          DESCRIPTION
3804              "This object contains the count of the number of SOAM
3805               PDUs received in this Measurement Interval.
3806
3807               This object applies when mefSoamLmCfgType is lmLmm, lmSlm,
3808               or lmCcm. This object indicates the number of LMR, CCM, or SLR
3809               SOAM frames received.
3810              "
3811          REFERENCE
3812              "[MEF SOAM-PM] R69, R87"
3813          ::= { mefSoamLmHistoryStatsEntry 16 }
3814
3815      -- ****************************************************************************
3816      -- Ethernet Delay Measurement Configuration Table
3817      -- ****************************************************************************
3818
3819      mefSoamDmCfgTable OBJECT-TYPE
3820          SYNTAX       SEQUENCE OF MefSoamDmCfgEntry
3821          MAX-ACCESS   not-accessible
3822          STATUS       current
3823          DESCRIPTION
3824              "This table includes configuration objects and operations for the
3825               Delay Measurement function.
3826
3827               Each row in the table represents a Delay Measurement session for
3828               the defined MEP. This table uses four indices. The first three indices
3829               are the indices of the Maintenance Domain, MaNet, and MEP tables. The
3830               fourth index is the specific DM session on the selected MEP.
3831
3832               A Delay Measurement session is created on an existing MEP by first
3833               accessing the mefSoamDmOperNextIndex object and using this value as
3834               the mefSoamDmCfgIndex in the row creation.
3835
3836               Some writable objects in this table are only applicable in certain cases
3837               (as described under each object), and attempts to write values for them
3838               in other cases will be ignored.
3839
3840               The writable objects in this table need to be persistent upon reboot
3841               or restart of a device.
```

```
3842          "
3843      REFERENCE
3844          "[MEF SOAM-PM] R50; [Y.1731]"
3845      ::= { mefSoamPmDmObjects 1 }
3846
3847  mefSoamDmCfgEntry OBJECT-TYPE
3848      SYNTAX      MefSoamDmCfgEntry
3849      MAX-ACCESS  not-accessible
3850      STATUS      current
3851      DESCRIPTION
3852          "The conceptual row of mefSoamDmCfgTable."
3853      INDEX       {
3854              dot1agCfmMdIndex,
3855              dot1agCfmMaIndex,
3856              dot1agCfmMepIdentifier,
3857              mefSoamDmCfgIndex
3858              }
3859      ::= { mefSoamDmCfgTable 1 }
3860
3861  MefSoamDmCfgEntry ::= SEQUENCE {
3862      mefSoamDmCfgIndex                             Unsigned32,
3863      mefSoamDmCfgType                              INTEGER,
3864      mefSoamDmCfgVersion                           Unsigned32,
3865      mefSoamDmCfgEnabled                           TruthValue,
3866      mefSoamDmCfgMeasurementEnable                 BITS,
3867      mefSoamDmCfgMessagePeriod                     MefSoamTcMeasurementPeriodType,
3868
3869      mefSoamDmCfgPriority                          IEEE8021PriorityValue,
3870      mefSoamDmCfgFrameSize                         Unsigned32,
3871      mefSoamDmCfgDataPattern                       MefSoamTcDataPatternType,
3872      mefSoamDmCfgTestTlvIncluded                   TruthValue,
3873      mefSoamDmCfgTestTlvPattern                    MefSoamTcTestPatternType,
3874      mefSoamDmCfgMeasurementInterval               Unsigned32,
3875      mefSoamDmCfgNumIntervalsStored                Unsigned32,
3876
3877      mefSoamDmCfgDestMacAddress                    MacAddress,
3878      mefSoamDmCfgDestMepId                         Dot1agCfmMepIdOrZero,
3879      mefSoamDmCfgDestIsMepId                       TruthValue,
3880      mefSoamDmCfgSourceMacAddress                  MacAddress,
3881
3882      mefSoamDmCfgStartTimeType                     MefSoamTcOperationTimeType,
3883      mefSoamDmCfgFixedStartDateAndTime             DateAndTime,
3884      mefSoamDmCfgRelativeStartTime                 TimeInterval,
3885      mefSoamDmCfgStopTimeType                      MefSoamTcOperationTimeType,
3886      mefSoamDmCfgFixedStopDateAndTime              DateAndTime,
3887      mefSoamDmCfgRelativeStopTime                  TimeInterval,
3888      mefSoamDmCfgRepetitionTime                    Unsigned32,
3889
3890      mefSoamDmCfgAlignMeasurementIntervals         TruthValue,
3891      mefSoamDmCfgAlignMeasurementOffset            Unsigned32,
3892      mefSoamDmCfgNumMeasBinsPerFrameDelayInterval  Unsigned32,
3893      mefSoamDmCfgNumMeasBinsPerInterFrameDelayVariationInterval
3894                                                    Unsigned32,
3895      mefSoamDmCfgInterFrameDelayVariationSelectionOffset
3896                                                    Unsigned32,
3897      mefSoamDmCfgNumMeasBinsPerFrameDelayRangeInterval Unsigned32,
3898
3899      mefSoamDmCfgSessionType                       MefSoamTcSessionType,
3900      mefSoamDmCfgSessionStatus                     MefSoamTcStatusType,
3901      mefSoamDmCfgHistoryClear                      TruthValue,
3902      mefSoamDmCfgRowStatus                         RowStatus
3903  }
3904
3905  mefSoamDmCfgIndex
```

```
3906    OBJECT-TYPE
3907        SYNTAX      Unsigned32(1..4294967295)
3908        MAX-ACCESS  not-accessible
3909        STATUS      current
3910        DESCRIPTION
3911          "An index to the Delay Measurement Configuration table which indicates
3912           the specific measurement session for the MEP.
3913
3914           mefSoamPmMepOperNextIndex needs to be inspected to find an
3915           available index for row-creation.
3916
3917           Referential integrity is necessary, i.e., the index needs to be
3918           persistent upon a reboot or restart of a device.  The index
3919           is never reused for other PM sessions on the same MEP while this
3920           session is active.  The index value keeps increasing until it
3921           wraps to zero. This is to facilitate access control based
3922           on a fixed index for an EMS, since the index is not reused.
3923          "
3924        ::= { mefSoamDmCfgEntry 1 }
3925
3926    mefSoamDmCfgType OBJECT-TYPE
3927        SYNTAX      INTEGER {
3928                      dmDmm   (1),
3929                      dm1DmTx (2),
3930                      dm1DmRx (3)
3931                    }
3932        MAX-ACCESS  read-create
3933        STATUS      current
3934        DESCRIPTION
3935          "This object indicates what type of Delay Measurement is to
3936           be performed.
3937
3938           dmDmm(1)          DMM SOAM PDU generated, DMR responses received
3939                             (one-way or two-way measurements)
3940           dm1DmTx(2)        1DM SOAM PDU generated (one-way measurements are made by
3941                             the receiver)
3942           dm1DmRx(3)        1DM SOAM PDU received and tracked (one-way measurements)
3943
3944           The exact PDUs to use are specified by this object in combination with
3945           mefSoamDmCfgVersion.
3946
3947           The value dmDMM is required. The values dm1DmTx and dm1DmRx are optional.
3948
3949           This object can only be written at row creation time and cannot be
3950           modified once it has been created.
3951          "
3952        REFERENCE
3953          "[MEF SOAM-PM] R52, R53, R54, O5, R88"
3954        ::= { mefSoamDmCfgEntry 2 }
3955
3956    mefSoamDmCfgVersion OBJECT-TYPE
3957        SYNTAX      Unsigned32
3958        MAX-ACCESS  read-create
3959        STATUS      current
3960        DESCRIPTION
3961          "This object indicates the version of the PDUs used to perform
3962           Delay Measurement.
3963
3964           Version 0 indicates the PDU formats defined in Y.1731-2008.
3965           Version 1 indicates the PDU formats defined in Y.1731-2011.
3966
3967           The exact PDUs to use are specified by this object in combination with
3968           mefSoamDmCfgType.
3969
```

```
3970            This object can only be written at row creation time and cannot be
3971            modified once it has been created.
3972            "
3973        REFERENCE
3974            "[Y.1731]"
3975        DEFVAL { 0 }
3976        ::= { mefSoamDmCfgEntry 3 }
3977
3978 mefSoamDmCfgEnabled OBJECT-TYPE
3979        SYNTAX        TruthValue
3980        MAX-ACCESS    read-create
3981        STATUS        current
3982        DESCRIPTION
3983            "This object specifies whether the Delay Measurement session is
3984            enabled.
3985
3986            The value 'true' indicates the Delay Measurement session is enabled AND
3987            SOAM PDUs are sent and/or measurements are collected when the session
3988            is running according to the scheduling objects (start time, stop time,
3989            etc.).
3990
3991            The value 'false' indicates the Delay Measurement session is disabled
3992            AND SOAM PDUs are not sent and/or measurements collected.
3993
3994            For a Delay Measurement session to be removed the row is deleted in
3995            order to release internal resources.
3996
3997            This object can written/modified after row creation time.
3998
3999            If the DM session is enabled it resumes after shutdown/restart.
4000
4001            If the DM session is disabled the current Measurement Interval is
4002            stopped, if it in process at the time, and all the in process calculations
4003            for the partially completed Measurement Interval are finalized.
4004
4005            This object does not affect whether the single-ended Responder is
4006            enabled or not, which is enabled or disabled by the
4007            mefSoamPmMepDmSingleEndedResponder object.
4008            "
4009        REFERENCE
4010            "[MEF SOAM-PM] R4, R5, R6, O1, R12, R14"
4011        DEFVAL { true }
4012        ::= { mefSoamDmCfgEntry 4 }
4013
4014 mefSoamDmCfgMeasurementEnable OBJECT-TYPE
4015        SYNTAX        BITS {
4016                        bSoamPdusSent(0),
4017                        bSoamPdusReceived(1),
4018                        bFrameDelayTwoWayBins(2),
4019                        bFrameDelayTwoWayMin(3),
4020                        bFrameDelayTwoWayMax(4),
4021                        bFrameDelayTwoWayAvg(5),
4022                        bFrameDelayForwardBins(6),
4023                        bFrameDelayForwardMin(7),
4024                        bFrameDelayForwardMax(8),
4025                        bFrameDelayForwardAvg(9),
4026                        bFrameDelayBackwardBins(10),
4027                        bFrameDelayBackwardMin(11),
4028                        bFrameDelayBackwardMax(12),
4029                        bFrameDelayBackwardAvg(13),
4030                        bIfdvForwardBins(14),
4031                        bIfdvForwardMin(15),
4032                        bIfdvForwardMax(16),
4033                        bIfdvForwardAvg(17),
```

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4034                     bIfdvBackwardBins(18),
4035                     bIfdvBackwardMin(19),
4036                     bIfdvBackwardMax(20),
4037                     bIfdvBackwardAvg(21),
4038                     bIfdvTwoWayBins(22),
4039                     bIfdvTwoWayMin(23),
4040                     bIfdvTwoWayMax(24),
4041                     bIfdvTwoWayAvg(25),
4042                     bFrameDelayRangeForwardBins(26),
4043                     bFrameDelayRangeForwardMax(27),
4044                     bFrameDelayRangeForwardAvg(28),
4045                     bFrameDelayRangeBackwardBins(29),
4046                     bFrameDelayRangeBackwardMax(30),
4047                     bFrameDelayRangeBackwardAvg(31),
4048                     bFrameDelayRangeTwoWayBins(32),
4049                     bFrameDelayRangeTwoWayMax(33),
4050                     bFrameDelayRangeTwoWayAvg(34),
4051                     bMeasuredStatsFrameDelayTwoWay(35),
4052                     bMeasuredStatsFrameDelayForward(36),
4053                     bMeasuredStatsFrameDelayBackward(37),
4054                     bMeasuredStatsIfdvTwoWay(38),
4055                     bMeasuredStatsIfdvForward(39),
4056                     bMeasuredStatsIfdvBackward(40)
4057                 }
4058      MAX-ACCESS  read-create
4059      STATUS      current
4060      DESCRIPTION
4061        "A vector of bits that indicates the type of SOAM DM counters that
4062         are enabled.
4063
4064         A bit set to '1' enables the specific SOAM DM counter.
4065
4066         A bit set to '0' disables the SOAM DM counter.
4067
4068         If a particular SOAM DM counter is not supported the BIT value is
4069         set to '0'.
4070
4071         Not all SOAM DM counters are supported for all SOAM DM types.
4072
4073         This object can only be written at row creation time and cannot be
4074         modified once it has been created.
4075
4076         bSoamPdusSent(0)
4077             Enables/disables the mefSoamDmCurrentStatsSoamPdusSent
4078             and mefSoamDmHistoryStatsSoamPdusSent counters.
4079         bSoamPdusReceived(1)
4080             Enables/disables the mefSoamDmCurrentStatsSoamPdusReceived
4081             and mefSoamDmHistoryStatsSoamPdusReceived counters.
4082         bFrameDelayTwoWayBins(2)
4083             Enables/disables the mefSoamDmCurrentStatsBinsEntry counter
4084             and the mefSoamDmHistoryStatsBinsEntry counter
4085             when the mefSoamDmCfgMeasBinType is 'twoWayFrameDelay'.
4086         bFrameDelayTwoWayMin(3)
4087             Enables/disables the mefSoamDmCurrentStatsFrameDelayTwoWayMin
4088             and mefSoamDmHistoryStatsFrameDelayTwoWayMin counters.
4089         bFrameDelayTwoWayMax(4)
4090             Enables/disables the mefSoamDmCurrentStatsFrameDelayTwoWayMax
4091             and mefSoamDmHistoryStatsFrameDelayTwoWayMax counters.
4092         bFrameDelayTwoWayAvg(5)
4093             Enables/disables the mefSoamDmCurrentStatsFrameDelayTwoWayAvg
4094             and mefSoamDmHistoryStatsFrameDelayTwoWayAvg counters.
4095         bFrameDelayForwardBins(6)
4096             Enables/disables the mefSoamDmCurrentStatsBinsEntry counter
4097             and the mefSoamDmHistoryStatsBinsEntry counter
```

```
4098            when the mefSoamDmCfgMeasBinType is 'forwardFrameDelay'.
4099        bFrameDelayForwardMin(7)
4100            Enables/disables the mefSoamDmCurrentStatsFrameDelayForwardMin
4101            and mefSoamDmHistoryStatsFrameDelayForwardMin counters.
4102        bFrameDelayForwardMax(8)
4103            Enables/disables the mefSoamDmCurrentStatsFrameDelayForwardMax
4104            and mefSoamDmHistoryStatsFrameDelayForwardMax counters.
4105        bFrameDelayForwardAvg(9)
4106            Enables/disables the mefSoamDmCurrentStatsFrameDelayForwardAvg
4107            and mefSoamDmHistoryStatsFrameDelayForwardAvg counters.
4108        bFrameDelayBackwardBins(10)
4109            Enables/disables the mefSoamDmCurrentStatsBinsEntry counter
4110            and the mefSoamDmHistoryStatsBinsEntry counter
4111            when the mefSoamDmCfgMeasBinType is 'backwardFrameDelay'.
4112        bFrameDelayBackwardMin(11)
4113            Enables/disables the mefSoamDmCurrentStatsFrameDelayBackwardMin
4114            and mefSoamDmHistoryStatsFrameDelayBackwardMin counters.
4115        bFrameDelayBackwardMax(12)
4116            Enables/disables the mefSoamDmCurrentStatsFrameDelayBackwardMax
4117            and mefSoamDmHistoryStatsFrameDelayBackwardMax counters.
4118        bFrameDelayBackwardAvg(13)
4119            Enables/disables the mefSoamDmCurrentStatsFrameDelayBackwardAvg
4120            and mefSoamDmHistoryStatsFrameDelayBackwardAvg counters.
4121        bIfdvForwardBins(14)
4122            Enables/disables the mefSoamDmCurrentStatsBinsEntry counter
4123            and the mefSoamDmHistoryStatsBinsEntry counter
4124            when the mefSoamDmCfgMeasBinType is 'forwardIfdv'.
4125        bIfdvForwardMin(15)
4126            Enables/disables the mefSoamDmCurrentStatsIfdvForwardMin
4127            and mefSoamDmHistoryStatsIfdvForwardMin counters.
4128        bIfdvForwardMax(16)
4129            Enables/disables the mefSoamDmCurrentStatsIfdvForwardMax
4130            and mefSoamDmHistoryStatsIfdvForwardMax counters.
4131        bIfdvForwardAvg(17)
4132            Enables/disables the mefSoamDmCurrentStatsIfdvForwardAvg
4133            and mefSoamDmHistoryStatsIfdvForwardAvg counters.
4134        bIfdvBackwardBins(18)
4135            Enables/disables the mefSoamDmCurrentStatsBinsEntry counter
4136            and the mefSoamDmHistoryStatsBinsEntry counter
4137            when the mefSoamDmCfgMeasBinType is 'backwardIfdv'.
4138        bIfdvBackwardMin(19)
4139            Enables/disables the mefSoamDmCurrentStatsIfdvBackwardMin
4140            and mefSoamDmHistoryStatsIfdvBackwardMin counters.
4141        bIfdvBackwardMax(20)
4142            Enables/disables the mefSoamDmCurrentStatsIfdvBackwardMax
4143            and mefSoamDmHistoryStatsIfdvBackwardMax counters.
4144        bIfdvBackwardAvg(21)
4145            Enables/disables the mefSoamDmCurrentStatsIfdvBackwardAvg
4146            and mefSoamDmHistoryStatsIfdvBackwardAvg counters.
4147        bIfdvTwoWayBins(22)
4148            Enables/disables the mefSoamDmCurrentStatsBinsEntry counter
4149            and the mefSoamDmHistoryStatsBinsEntry counter
4150            when the mefSoamDmCfgMeasBinType is 'twoWayIfdv'.
4151        bIfdvTwoWayMin(23)
4152            Enables/disables the mefSoamDmCurrentStatsIfdvTwoWayMin
4153            and mefSoamDmHistoryStatsIfdvTwoWayMin counters.
4154        bIfdvTwoWayMax(24)
4155            Enables/disables the mefSoamDmCurrentStatsIfdvTwoWayMax
4156            and mefSoamDmHistoryStatsIfdvTwoWayMax counters.
4157        bIfdvTwoWayAvg(25)
4158            Enables/disables the mefSoamDmCurrentStatsIfdvTwoWayAvg
4159            and mefSoamDmHistoryStatsIfdvTwoWayAvg counters.
4160        bFrameDelayRangeForwardBins(26)
4161            Enables/disables the mefSoamDmCurrentStatsBinsEntry counter
```

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4162                 and the mefSoamDmHistoryStatsBinsEntry counter
4163                 when the mefSoamDmCfgMeasBinType is 'forwardFrameDelayRange'.
4164             bFrameDelayRangeForwardMax(27)
4165                 Enables/disables the mefSoamDmCurrentStatsFrameDelayRangeForwardMax
4166                 and mefSoamDmHistoryStatsFrameDelayRangeForwardMax counters.
4167             bFrameDelayRangeForwardAvg(28)
4168                 Enables/disables the mefSoamDmCurrentStatsFrameDelayRangeForwardAvg
4169                 and mefSoamDmHistoryStatsFrameDelayRangeForwardAvg counters.
4170             bFrameDelayRangeBackwardBins(29)
4171                 Enables/disables the mefSoamDmCurrentStatsBinsEntry counter
4172                 and the mefSoamDmHistoryStatsBinsEntry counter
4173                 when the mefSoamDmCfgMeasBinType is 'backwardFrameDelayRange'.
4174             bFrameDelayRangeBackwardMax(30)
4175                 Enables/disables the mefSoamDmCurrentStatsFrameDelayRangeBackwardMax
4176                 and mefSoamDmHistoryStatsFrameDelayRangeBackwardMax counters.
4177             bFrameDelayRangeBackwardAvg(31)
4178                 Enables/disables the mefSoamDmCurrentStatsFrameDelayRangeBackwardAvg
4179                 and mefSoamDmHistoryStatsFrameDelayRangeBackwardAvg counters.
4180             bFrameDelayRangeTwoWayBins(32)
4181                 Enables/disables the mefSoamDmCurrentStatsBinsEntry counter
4182                 and the mefSoamDmHistoryStatsBinsEntry counter
4183                 when the mefSoamDmCfgMeasBinType is 'twoWayFrameDelayRange'.
4184             bFrameDelayRangeTwoWayMax(33)
4185                 Enables/disables the mefSoamDmCurrentStatsFrameDelayRangeTwoWayMax
4186                 and mefSoamDmHistoryStatsFrameDelayRangeTwoWayMax counters.
4187             bFrameDelayRangeTwoWayAvg(34)
4188                 Enables/disables the mefSoamDmCurrentStatsFrameDelayRangeTwoWayAvg
4189                 and mefSoamDmHistoryStatsFrameDelayRangeTwoWayAvg counters.
4190             bMeasuredStatsFrameDelayTwoWay(35)
4191                 Enables/disables the mefSoamDmMeasuredStatsFrameDelayTwoWay
4192                 counter.
4193             bMeasuredStatsFrameDelayForward(36)
4194                 Enables/disables the mefSoamDmMeasuredStatsFrameDelayForward
4195                 counter.
4196             bMeasuredStatsFrameDelayBackward(37)
4197                 Enables/disables the mefSoamDmMeasuredStatsFrameDelayBackward
4198                 counter.
4199             bMeasuredStatsIfdvTwoWay(38)
4200                 Enables/disables the mefSoamDmMeasuredStatsIfdvTwoWay
4201                 counter.
4202             bMeasuredStatsIfdvForward(39)
4203                 Enables/disables the mefSoamDmMeasuredStatsIfdvForward
4204                 counter.
4205             bMeasuredStatsIfdvBackward(40)
4206                 Enables/disables the mefSoamDmMeasuredStatsIfdvBackward
4207                 counter.
4208             "
4209         REFERENCE
4210             "[MEF SOAM-PM]"
4211         DEFVAL { { } }
4212         ::= { mefSoamDmCfgEntry 5 }
4213
4214     mefSoamDmCfgMessagePeriod OBJECT-TYPE
4215         SYNTAX      MefSoamTcMeasurementPeriodType
4216         UNITS       "ms"
4217         MAX-ACCESS  read-create
4218         STATUS      current
4219         DESCRIPTION
4220             "This object specifies the interval between Delay Measurement
4221             OAM message transmission. For Delay Measurement monitoring
4222             applications, the default value is 100ms.
4223
4224             This object can only be written at row creation time and cannot be
4225             modified once it has been created.
```

```
4226            "
4227        REFERENCE
4228            "[MEF SOAM-PM] R61, R62, D22, R95, R96, D39"
4229        DEFVAL { 100 }
4230        ::= { mefSoamDmCfgEntry 6 }
4231
4232    mefSoamDmCfgPriority OBJECT-TYPE
4233        SYNTAX      IEEE8021PriorityValue
4234        MAX-ACCESS  read-create
4235        STATUS      current
4236        DESCRIPTION
4237            "This object specifies the priority of frames with
4238            Delay Measurement OAM message information.
4239
4240            The default value is to be the value which yields the lowest frame
4241            loss.
4242
4243            This object can only be written at row creation time and cannot be
4244            modified once it has been created.
4245            "
4246        REFERENCE
4247            "[MEF SOAM-PM] R1, R2, R56, D21, R57, R58, R90-R94, D28;
4248            [MEF 10.2.1] Section 6.8"
4249        ::= { mefSoamDmCfgEntry 7 }
4250
4251    mefSoamDmCfgFrameSize OBJECT-TYPE
4252        SYNTAX      Unsigned32
4253        MAX-ACCESS  read-create
4254        STATUS      current
4255        DESCRIPTION
4256            "This object specifies the Delay Measurement frame size between
4257            64 bytes and the maximum transmission unit of the EVC.
4258
4259            The range of frame sizes from 64 through 2000 octets need to be
4260            supported, and the range of frame sizes from 2001 through 9600 octets
4261            is suggested to be supported.
4262
4263            The adjustment to the frame size of the standard frame size is
4264            accomplished by the addition of a Data or Test TLV. A Data or Test TLV
4265            is only added to the frame if the frame size is greater than 64 bytes.
4266
4267            This object is only valid for the entity transmitting the Delay
4268            Measurement frames (dmDmm, dm1DmTx) and is ignored by the entity
4269            receiving frames.
4270
4271            In addition, this object is not valid when mefSoamDmCfgVersion is 0.
4272
4273            This object can only be written at row creation time and cannot be
4274            modified once it has been created.
4275            "
4276        REFERENCE
4277            "[MEF SOAM-PM] R63, R64, D23, D24, R97, R98, D40, D41"
4278        DEFVAL { 64 }
4279        ::= { mefSoamDmCfgEntry 8 }
4280
4281    mefSoamDmCfgDataPattern OBJECT-TYPE
4282        SYNTAX      MefSoamTcDataPatternType
4283        MAX-ACCESS  read-create
4284        STATUS      current
4285        DESCRIPTION
4286            "This object specifies the DM data pattern included in a Data TLV
4287            when the size of the DM frame is determined by the
4288            mefSoamDmFrameSize object and mefSoamDmTestTlvIncluded is 'false'.
4289            If the frame size object does not define the DM frame size or
```

```
4290            mefSoamDmTestTlvIncluded is 'true' the value of this object is
4291            ignored.
4292
4293            This object can only be written at row creation time and cannot be
4294            modified once it has been created.
4295            "
4296        DEFVAL { zeroPattern }
4297        ::= { mefSoamDmCfgEntry 9 }
4298
4299    mefSoamDmCfgTestTlvIncluded OBJECT-TYPE
4300        SYNTAX      TruthValue
4301        MAX-ACCESS  read-create
4302        STATUS      current
4303        DESCRIPTION
4304            "Indicates whether a Test TLV or Data TLV is included when the size
4305            of the DM frame is determined by the mefSoamDmFrameSize object.
4306            A value of 'true' indicates that the Test TLV is to be included. A
4307            value of 'false' indicates that the Data TLV is to be included.
4308
4309            If the frame size object does not define the DM frame size
4310            the value of this object is ignored.
4311
4312            This object can only be written at row creation time and cannot be
4313            modified once it has been created.
4314            "
4315        REFERENCE
4316            "[Y.1731] 9.3"
4317        DEFVAL { false }
4318        ::= { mefSoamDmCfgEntry 10 }
4319
4320    mefSoamDmCfgTestTlvPattern OBJECT-TYPE
4321        SYNTAX      MefSoamTcTestPatternType
4322        MAX-ACCESS  read-create
4323        STATUS      current
4324        DESCRIPTION
4325            "This object specifies the type of test pattern to be
4326            sent in the DM frame Test TLV when the size
4327            of DM PDU is determined by the mefSoamDmFrameSize object and
4328            mefSoamDmTestTlvIncluded is 'true'. If the frame size object
4329            does not define the DM frame size or mefSoamDmTestTlvIncluded
4330            is 'false' the value of this object is ignored.
4331
4332            This object can only be written at row creation time and cannot be
4333            modified once it has been created.
4334            "
4335        DEFVAL { null }
4336        ::= { mefSoamDmCfgEntry 11 }
4337
4338    mefSoamDmCfgMeasurementInterval OBJECT-TYPE
4339        SYNTAX      Unsigned32 (1..1440)
4340        UNITS       "minutes"
4341        MAX-ACCESS  read-create
4342        STATUS      current
4343        DESCRIPTION
4344            "This object specifies a Measurement Interval in minutes.
4345
4346            A Measurement Interval 15 minutes needs to be supported, other intervals
4347            may be supported.
4348
4349            This object can only be written at row creation time and cannot be
4350            modified once it has been created.
4351            "
4352        REFERENCE
4353            "[MEF SOAM-PM] R16, R17"
```

```
4354        DEFVAL { 15 }
4355        ::= { mefSoamDmCfgEntry 12 }
4356
4357    mefSoamDmCfgNumIntervalsStored OBJECT-TYPE
4358        SYNTAX      Unsigned32 (2..1000)
4359        MAX-ACCESS  read-create
4360        STATUS      current
4361        DESCRIPTION
4362           "This object specifies the number of completed Measurement Intervals
4363            to store in the history statistic table.
4364
4365            At least 32 completed Measurement Intervals are to be stored. 96
4366            Measurement Intervals are recommended to be stored.
4367
4368            This object can only be written at row creation time and cannot be
4369            modified once it has been created.
4370           "
4371        REFERENCE
4372           "[MEF SOAM-PM] R21, D8, D9"
4373        DEFVAL { 32 }
4374        ::= { mefSoamDmCfgEntry 13 }
4375
4376    mefSoamDmCfgDestMacAddress OBJECT-TYPE
4377        SYNTAX      MacAddress
4378        MAX-ACCESS  read-create
4379        STATUS      current
4380        DESCRIPTION
4381           "The Target or Destination MAC Address Field to be transmitted.
4382
4383            If mefSoamDmCfgType is 'dmDmm', the destination address is to be the
4384            unicast address of the destination MEP. An error is returned if this
4385            object is set to a multicast address.
4386
4387            If mefSoamDmCfgType is 'dm1DmTx', the destination address is normally the
4388            unicast address of the destination MEP, but can be a multicast address
4389            indicating the level of the MEG: 01-80-c2-00-00-3y, where y is the
4390            level of the MEG.  An error is returned if this object is set to any
4391            other multicast address.
4392
4393            If mefSoamDmCfgType is 'dm1DmRx', this object is ignored.
4394
4395            This address will be used if the value of the object
4396            mefSoamDmDestIsMepId is 'false'.
4397
4398            This object is only valid for the entity transmitting the
4399            SOAM DM frames and is ignored by the entity receiving
4400            SOAM DM frames.
4401
4402            This object can only be written at row creation time and cannot be
4403            modified once it has been created.
4404           "
4405        REFERENCE
4406           "[MEF SOAM-PM] R55, R89"
4407        ::= { mefSoamDmCfgEntry 14 }
4408
4409    mefSoamDmCfgDestMepId OBJECT-TYPE
4410        SYNTAX      Dot1agCfmMepIdOrZero
4411        MAX-ACCESS  read-create
4412        STATUS      current
4413        DESCRIPTION
4414           "The Maintenance Association End Point Identifier of
4415            another MEP in the same Maintenance Association to which
4416            the SOAM DM frame is to be sent.
4417
```

```
4418              This address will be used if the value of the column
4419              mefSoamDmDestIsMepId is 'true'. A value of zero
4420              means that the destination MEP ID has not been configured.
4421
4422              This object is only valid for the entity transmitting the Delay
4423              Measurement frames, types 'dmDmm' and 'dm1DmTx'. It is not applicable
4424              for the 'dm1DmRx' type.
4425
4426              This object can only be written at row creation time and cannot be
4427              modified once it has been created.
4428              "
4429          REFERENCE
4430              "[MEF SOAM-PM] R55, R89"
4431          DEFVAL { 0 }
4432          ::= { mefSoamDmCfgEntry 15 }
4433
4434      mefSoamDmCfgDestIsMepId OBJECT-TYPE
4435          SYNTAX        TruthValue
4436          MAX-ACCESS  read-create
4437          STATUS        current
4438          DESCRIPTION
4439              "A value of 'true' indicates that MEPID of the target MEP is used for
4440              SOAM DM frame transmission.
4441
4442              A value of 'false' indicates that the destination MAC address of the
4443              target MEP is used for SOAM DM frame transmission.
4444
4445              This object is only valid for the entity transmitting the Delay
4446              Measurement frames, types 'dmDmm' and 'dm1DmTx'. It is not applicable
4447              for the 'dm1DmRx type.
4448
4449              This object can only be written at row creation time and cannot be
4450              modified once it has been created.
4451              "
4452          REFERENCE
4453              "[MEF SOAM-PM] R55, R89"
4454          DEFVAL { true }
4455          ::= { mefSoamDmCfgEntry 16 }
4456
4457      mefSoamDmCfgSourceMacAddress OBJECT-TYPE
4458          SYNTAX        MacAddress
4459          MAX-ACCESS  read-create
4460          STATUS        current
4461          DESCRIPTION
4462              "The Source MAC Address Field of the received SOAM DM session PDUs.
4463
4464              If mefSoamDmCfgType is dm1DmRx this object indicates the source
4465              address of the dm1DmTx DM session.
4466
4467              This object is only valid for mefSoamDmCfgType set to dm1DmRx. It is
4468              ignored for mefSoamDmCfgType set to dmDmm or dm1DmTx.
4469
4470              This object can only be written at row creation time and cannot be
4471              modified once it has been created.
4472              "
4473          REFERENCE
4474              "[MEF SOAM-PM] R55, R89"
4475          ::= { mefSoamDmCfgEntry 17 }
4476
4477      mefSoamDmCfgStartTimeType OBJECT-TYPE
4478          SYNTAX        MefSoamTcOperationTimeType
4479          MAX-ACCESS  read-create
4480          STATUS        current
4481          DESCRIPTION
```

```
4482              "This object specifies the type of start time of the SOAM DM
4483               session. The start time can be disabled (none), immediate, relative,
4484               or fixed.
4485
4486               The value of 'none' is illegal and a write error will be returned
4487               if this value is used.
4488
4489               The value of 'immediate' starts the SOAM DM session when the
4490               mefSoamDmCfgEnabled is true.
4491
4492               The value of 'fixed' starts the SOAM DM session when the
4493               mefSoamDmFixedStartDateAndTime is less than or equal to the current
4494               system date and time and mefSoamDmCfgEnabled is true. This value is used
4495               to implement an On-Demand fixed time PM session.
4496
4497               The value of 'relative' starts the SOAM DM session when the current
4498               system date and time minus the mefSoamDmRelativeStartTime is greater than
4499               or equal to the system date and time when the mefSoamDmStartTimeType
4500               object was written and mefSoamDmCfgEnabled is true. This value is used
4501               to implement an On-Demand relative time PM session.
4502
4503               This object can only be written at row creation time and cannot be
4504               modified once it has been created.
4505               "
4506          REFERENCE
4507              "[MEF SOAM-PM] R3, R7, R8, D1"
4508          DEFVAL { immediate }
4509          ::= { mefSoamDmCfgEntry 18 }
4510
4511   mefSoamDmCfgFixedStartDateAndTime OBJECT-TYPE
4512          SYNTAX       DateAndTime
4513          MAX-ACCESS  read-create
4514          STATUS       current
4515          DESCRIPTION
4516              "This object specifies the fixed start date/time for the
4517               SOAM Delay Measurement session. This object is used only used if
4518               mefSoamDmStartTimeType is 'fixed' and is ignored otherwise.
4519
4520               The default value is year 0000, month 01, day 01, time 00:00:00.00.
4521
4522               This object can only be written at row creation time and cannot be
4523               modified once it has been created.
4524               "
4525          REFERENCE
4526              "[MEF SOAM-PM] R9"
4527          DEFVAL { '0000010100000000'H }
4528          ::= { mefSoamDmCfgEntry 19 }
4529
4530   mefSoamDmCfgRelativeStartTime  OBJECT-TYPE
4531          SYNTAX       TimeInterval
4532          MAX-ACCESS  read-create
4533          STATUS       current
4534          DESCRIPTION
4535              "This object specifies the relative start time, from
4536               the current system time, for the SOAM DM session. This
4537               object is used only if mefSoamDmStartTimeType is 'relative'
4538               and is ignored otherwise.
4539
4540               This object can only be written at row creation time and cannot be
4541               modified once it has been created.
4542               "
4543          REFERENCE
4544              "[MEF SOAM-PM] R9"
4545          DEFVAL { 0 }
```

```
4546          ::= { mefSoamDmCfgEntry 20 }
4547
4548   mefSoamDmCfgStopTimeType OBJECT-TYPE
4549       SYNTAX      MefSoamTcOperationTimeType
4550       MAX-ACCESS  read-create
4551       STATUS      current
4552       DESCRIPTION
4553          "This object specifies the type of stop time to terminate the
4554           SOAM DM session. The stop time can be forever (none), relative, or
4555           fixed.
4556
4557           The value of 'none' indicates that the SOAM DM session never ends once it
4558           has started unless the session is disabled.
4559
4560           The value of 'immediate' is illegal and a write error will be returned
4561           if this value is used.
4562
4563           The value of 'fixed' stops the SOAM DM session when the
4564           mefSoamDmFixedStopDateAndTime is less than or equal
4565           to the current system date. This
4566           value is used to implement an On-Demand fixed time PM session.
4567
4568           The value of 'relative' stops the SOAM DM session when the time
4569           indicated by mefSoamDmRelativeStopTime has passed since the session
4570           start time as determined by the mefSoamDmCfgStartTimeType,
4571           mefSoamDmCfgFixedStartDateAndTime and mefSoamDmCfgRelativeStartTime
4572           objects.
4573           This value is used to implement an On-Demand relative time PM session.
4574
4575           This object can only be written at row creation time and cannot be
4576           modified once it has been created.
4577          "
4578       REFERENCE
4579          "[MEF SOAM-PM] R3, R10, D2"
4580       DEFVAL { none }
4581       ::= { mefSoamDmCfgEntry 21 }
4582
4583   mefSoamDmCfgFixedStopDateAndTime OBJECT-TYPE
4584       SYNTAX      DateAndTime
4585       MAX-ACCESS  read-create
4586       STATUS      current
4587       DESCRIPTION
4588          "This object specifies the fixed stop date/time for the
4589           SOAM Delay Measurement session. This object is used only used
4590           if mefSoamDmStopTimeType is 'fixed' and is ignored otherwise.
4591
4592           The default value is year 0000, month 01, day 01, time 00:00:00.00.
4593
4594           This object can only be written at row creation time and cannot be
4595           modified once it has been created.
4596          "
4597       REFERENCE
4598          "[MEF SOAM-PM] R10, R13"
4599       DEFVAL { '0000010100000000'H }
4600       ::= { mefSoamDmCfgEntry 22 }
4601
4602   mefSoamDmCfgRelativeStopTime OBJECT-TYPE
4603       SYNTAX      TimeInterval
4604       MAX-ACCESS  read-create
4605       STATUS      current
4606       DESCRIPTION
4607          "This object specifies the relative stop time, from the
4608           session start time, to stop the SOAM DM session.  This
4609           object is used only if mefSoamDmStopTimeType is 'relative' and is
```

```
4610            ignored otherwise.
4611
4612            This object can only be written at row creation time and cannot be
4613            modified once it has been created.
4614            "
4615        REFERENCE
4616            "[MEF SOAM-PM] R11"
4617        DEFVAL { 0 }
4618        ::= { mefSoamDmCfgEntry 23 }
4619
4620    mefSoamDmCfgRepetitionTime OBJECT-TYPE
4621        SYNTAX      Unsigned32 (0..31536000)
4622        UNITS       "seconds"
4623        MAX-ACCESS  read-create
4624        STATUS      current
4625        DESCRIPTION
4626            "This object specifies a configurable repetition time between
4627            Measurement Intervals in a Delay Measurement session in seconds.
4628
4629            If the value is 0 (none), there is no time gap between the end of one
4630            Measurement Interval and the start of a new Measurement Interval.
4631            This is the normal usage case.
4632
4633            If the value is greater than one Measurement Interval there is time gap
4634            between the end of one Measurement Interval and the start of the next
4635            Measurement Interval.  The repetition time specifies the time between
4636            the start of consecutive Measurement Intervals; hence the gap between
4637            the end of one Measurement Interval and the start of the next is equal
4638            to the difference between the repetition time and the measurement
4639            interval.  During this gap, no SOAM PDUs are sent for this session and
4640            no measurements are made.
4641
4642            If the value is greater 0 but less than or equal to the measurement
4643            interval, an error is returned.
4644
4645            This object can only be written at row creation time and cannot be
4646            modified once it has been created.
4647            "
4648        REFERENCE
4649            "[MEF SOAM-PM] R18, D3, R19, R20"
4650        DEFVAL { 0 }
4651        ::= { mefSoamDmCfgEntry 24 }
4652
4653    mefSoamDmCfgAlignMeasurementIntervals OBJECT-TYPE
4654        SYNTAX      TruthValue
4655        MAX-ACCESS  read-create
4656        STATUS      current
4657        DESCRIPTION
4658            "This object specifies whether the Measurement Intervals for
4659            the Delay Measurement session are aligned with a zero offset to
4660            real time.
4661
4662            The value 'true' indicates that each Measurement Interval starts
4663            at a time which is aligned to NE time source hour, if the repetition
4664            time (or the Measurement Interval, if the repetition time is 0) is
4665            a factor of an hour, i.e. 60min/15min = 4. For instance, a
4666            Measurement Interval/Repetition Time of 15 minutes would stop/start
4667            the Measurement Interval at 0, 15, 30, and 45 minutes of an hour. A
4668            Measurement Interval/Repetition Time of 7 minutes would not align
4669            to the hour since 7 minutes is NOT a factor of an hour, i.e.
4670            60min/7min = 8.6.  In this case the behavior is the same as if the
4671            object is set to 'false'.
4672
4673            The value 'false' indicates that the first Measurement Interval starts
```

```
4674            at an arbitrary time and each subsequent Measurement Interval starts
4675            at a time which is determined by mefSoamLmCfgRepetitionTime.
4676
4677            This object can only be written at row creation time and cannot be
4678            modified once it has been created.
4679            "
4680        REFERENCE
4681            "[MEF SOAM-PM] D4, D5, D6"
4682        DEFVAL { true }
4683        ::= { mefSoamDmCfgEntry 25 }
4684
4685    mefSoamDmCfgAlignMeasurementOffset OBJECT-TYPE
4686        SYNTAX       Unsigned32 (0..525600)
4687        UNITS        "minutes"
4688        MAX-ACCESS   read-create
4689        STATUS       current
4690        DESCRIPTION
4691            "This object specifies the offset in minutes from the time of day value
4692            if mefSoamDmCfgAlignMeasurementIntervals is 'true' and the repetition
4693            time is a factor of 60 minutes. If not, the value of this object
4694            is ignored.
4695
4696            If the Measurement Interval is 15 minutes and
4697            mefSoamDmCfgAlignMeasurementIntervals is true and if this object was
4698            set to 5 minutes, the Measurement Intervals would start at 5, 20, 35, 50
4699            minutes past each hour.
4700
4701            This object can only be written at row creation time and cannot be
4702            modified once it has been created.
4703            "
4704        REFERENCE
4705            "[MEF SOAM-PM] D7"
4706        DEFVAL { 0 }
4707        ::= { mefSoamDmCfgEntry 26 }
4708
4709    mefSoamDmCfgNumMeasBinsPerFrameDelayInterval OBJECT-TYPE
4710        SYNTAX       Unsigned32 (2..100)
4711        MAX-ACCESS   read-create
4712        STATUS       current
4713        DESCRIPTION
4714            "This object specifies the number of measurement bins
4715            per Measurement Interval for Frame Delay measurements.
4716
4717            At least 3 bins are to be supported; at least 10 bins are recommended
4718            to be supported.
4719
4720            This object can only be written at row creation time and cannot be
4721            modified once it has been created.
4722            "
4723        REFERENCE
4724            "[MEF SOAM-PM] R27, D11, R28, D12"
4725        DEFVAL { 3 }
4726        ::= { mefSoamDmCfgEntry 27 }
4727
4728    mefSoamDmCfgNumMeasBinsPerInterFrameDelayVariationInterval OBJECT-TYPE
4729        SYNTAX       Unsigned32 (2..100)
4730        MAX-ACCESS   read-create
4731        STATUS       current
4732        DESCRIPTION
4733            "This object specifies the number of measurement bins
4734            per Measurement Interval for Inter-Frame Delay Variation
4735            measurements.
4736
4737            The minimum number of measurement bins to be supported is 2. The
```

```
4738          desired number of measurements bins to be supported is 10.
4739
4740          This object can only be written at row creation time and cannot be
4741          modified once it has been created.
4742          "
4743      REFERENCE
4744          "[MEF SOAM-PM] R29, D13, R30, D14"
4745      DEFVAL { 2 }
4746      ::= { mefSoamDmCfgEntry 28 }
4747
4748  mefSoamDmCfgInterFrameDelayVariationSelectionOffset OBJECT-TYPE
4749      SYNTAX      Unsigned32 (1..100)
4750      MAX-ACCESS  read-create
4751      STATUS      current
4752      DESCRIPTION
4753          "This object specifies the selection offset for
4754          Inter-Frame Delay Variation measurements.  If this value
4755          is set to n, then the IFDV is calculated by taking the
4756          difference in frame delay between frame F and frame (F+n).
4757
4758          This object can only be written at row creation time and cannot be
4759          modified once it has been created.
4760          "
4761      REFERENCE
4762          "[MEF SOAM-PM] O4, D25, O6, D42"
4763      DEFVAL { 1 }
4764      ::= { mefSoamDmCfgEntry 29 }
4765
4766  mefSoamDmCfgNumMeasBinsPerFrameDelayRangeInterval OBJECT-TYPE
4767      SYNTAX      Unsigned32 (2..100)
4768      MAX-ACCESS  read-create
4769      STATUS      current
4770      DESCRIPTION
4771          "This object specifies the number of measurement bins
4772          per Measurement Interval for Frame Delay Range measurements.
4773
4774          At least 2 bins are to be supported; at least 10 bins are recommended
4775          to be supported.
4776
4777          This object can only be written at row creation time and cannot be
4778          modified once it has been created.
4779          "
4780      REFERENCE
4781          "[MEF SOAM-PM] R31, D15, R32, D16"
4782      DEFVAL { 2 }
4783      ::= { mefSoamDmCfgEntry 30 }
4784
4785  mefSoamDmCfgSessionType OBJECT-TYPE
4786      SYNTAX      MefSoamTcSessionType
4787      MAX-ACCESS  read-create
4788      STATUS      current
4789      DESCRIPTION
4790          "This object indicates whether the current session is defined to
4791          be 'Proactive' or 'On-Demand'. A value of 'proactive'
4792          indicates the current session is 'Proactive'. A value of 'onDemand'
4793          indicates the current session is 'On-Demand'.
4794
4795          This object can only be written at row creation time and cannot be
4796          modified once it has been created.
4797          "
4798      REFERENCE
4799          "[MEF SOAM-PM] R3"
4800      DEFVAL { proactive }
4801      ::= { mefSoamDmCfgEntry 31 }
```

```
4802
4803    mefSoamDmCfgSessionStatus OBJECT-TYPE
4804        SYNTAX      MefSoamTcStatusType
4805        MAX-ACCESS  read-only
4806        STATUS      current
4807        DESCRIPTION
4808           "This object indicates the current status of the DM session. A value
4809            of 'active' indicates the current DM session is active, i.e. the current
4810            time lies between the start time and the stop time, and
4811            mefSoamDmCfgEnabled is true. A value of 'notActive' indicates the
4812            current DM session is not active, i.e. it has not started yet, has
4813            stopped upon reaching the stop time, or is disabled.
4814           "
4815        ::= { mefSoamDmCfgEntry 32 }
4816
4817    mefSoamDmCfgHistoryClear OBJECT-TYPE
4818        SYNTAX      TruthValue
4819        MAX-ACCESS  read-create
4820        STATUS      current
4821        DESCRIPTION
4822           "This object when written clears the Delay Measurement history
4823            tables (mefSoamDmHistoryStatsTable and mefSoamDmHistoryStatsBinsTable)
4824            - all rows are deleted.  When read the value always returns 'false'.
4825
4826            Writing this value does not change the current stat table,
4827            nor any of the items in the configuration table.
4828
4829            Writing this object at row creation has no effect.
4830           "
4831        DEFVAL { false }
4832        ::= { mefSoamDmCfgEntry 33 }
4833
4834    mefSoamDmCfgRowStatus OBJECT-TYPE
4835        SYNTAX      RowStatus
4836        MAX-ACCESS  read-create
4837        STATUS      current
4838        DESCRIPTION
4839           "The status of the row.
4840
4841            The writable columns in a row cannot be changed if the row
4842            is active, except for mefSoamDmCfgEnabled and mefSoamDmCfgHistoryClear
4843            objects. All columns are to have a valid value before a row
4844            can be activated.
4845           "
4846        ::= { mefSoamDmCfgEntry 34 }
4847
4848    -- ********************************************************************************
4849    -- Ethernet Delay Measurement Bin Configuration Table
4850    -- ********************************************************************************
4851
4852    mefSoamDmCfgMeasBinTable OBJECT-TYPE
4853        SYNTAX      SEQUENCE OF MefSoamDmCfgMeasBinEntry
4854        MAX-ACCESS  not-accessible
4855        STATUS      current
4856        DESCRIPTION
4857           "This table includes configuration objects for the Delay Measurement
4858            bins to collect stats.
4859
4860            Each row in the table is automatically created when the Delay
4861            Measurement session is defined for the selected MEP. The number of rows
4862            created is based upon three items: the DM type, the number of bins
4863            defined for each type, and whether bins are enabled for each type.
4864
4865            The first four indices are the same as used to create the DM session:
```

```
4866            Maintenance Domain, MaNet, MEP identification, and mefSoamDmCfgIndex. The
4867            fifth index is the type of bin, and the sixth index is the bin number.
4868
4869            For a dmDmm session all nine types of bins can be created. For a dm1DmmTx
4870            session no bins are created. For a dm1DmmRx session only types
4871            forwardFrameDelay, forwardIfdv, and forwardFrameDelayRange can be created.
4872
4873            The number of bins created for a bin type is based upon: the
4874            mefSoamDmCfgNumMeasBinsPerFrameDelayInterval object, the
4875            mefSoamDmCfgNumMeasBinsPerInterFrameDelayVariationInterval object, the
4876            mefSoamDmCfgNumMeasBinsPerFrameDelayRangeInterval object, and
4877            the mefSoamDmCfgMeasurementEnable object.
4878
4879            For instance, if a dmDmm session with Bins per Frame Delay Interval
4880            set to 5, Bins per Frame Delay Variation Interval set to 3, and Frame
4881            Delay Range set to 2 (default), all of the appropriate bits set in
4882            mefSoamDmMeasurementCfgEnable, the following number of rows would be
4883            created:
4884
4885            For bin types TwoWayFrameDelay(1), forwardFrameDelay(2), and
4886            backwardFrameDelay(3) = 5 bins * 3 types = 15 rows
4887
4888            For bin types TwoWayIfdv(4), forwardIfdv(5), backwardIfdv(6) =
4889            3 bins * 3 types = 9 rows.
4890
4891            For bins types twoWayFrameDelayRange(7), forwardFrameDelayRange(8),
4892            backwardFrameDelayRange(9) =
4893            2 bins * 3 types = 6 rows.
4894
4895            This gives a total of 30 rows created for the DMM session example.
4896
4897            Each value in the bin defaults to 5000us greater than the previous bin,
4898            with the first bin default value set to 0.
4899
4900            For the delay example above (5 bins), the following default values
4901            would be written to the bins:
4902                 bin 1:     0  (range is 0us <= measurement < 5,000us)
4903                 bin 2:  5000  (range is 5,000us <= measurement < 10,000us)
4904                 bin 3: 10000  (range is 10,000us <= measurement < 15,000us)
4905                 bin 4: 15000  (range is 15,000us <= measurement < 20,000us)
4906                 bin 5: 20000  (range is 20,000us <= measurement < infinity)
4907
4908            For the delay variation example above (3 bins), the following default
4909            values would be written to the bins:
4910                 bin 1:     0  (range is 0us <= measurement < 5,000us)
4911                 bin 2:  5000  (range is 5,000us <= measurement < 10,000us)
4912                 bin 3: 10000  (range is 10,000us <= measurement < infinity)
4913
4914            For the frame delay range example above (2 bins), the following default
4915            values would be written to the bins:
4916                 bin 1:     0  (range is 0us <= measurement < 5,000us)
4917                 bin 2:  5000  (range is 5,000us <= measurement < infinity)
4918
4919            The writable objects in this table need to be persistent upon reboot
4920            or restart of a device.
4921
4922            Rows are only created if the corresponding measurement type has been enabled
4923            via the mefSoamDmCfgMeasurementEnable object.
4924          "
4925        REFERENCE
4926          "[MEF SOAM-PM] R34, R36, R37, D17, R38, R65, D26, D27, R99, D43, D44"
4927        ::= { mefSoamPmDmObjects 2 }
4928
4929  mefSoamDmCfgMeasBinEntry OBJECT-TYPE
```

```
4930        SYNTAX      MefSoamDmCfgMeasBinEntry
4931        MAX-ACCESS  not-accessible
4932        STATUS      current
4933        DESCRIPTION
4934              "The conceptual row of mefSoamDmCfgMeasBinTable."
4935        INDEX     {
4936                   dot1agCfmMdIndex,
4937                   dot1agCfmMaIndex,
4938                   dot1agCfmMepIdentifier,
4939                   mefSoamDmCfgIndex,
4940                   mefSoamDmCfgMeasBinType,
4941                   mefSoamDmCfgMeasBinNumber
4942                   }
4943        ::= { mefSoamDmCfgMeasBinTable 1 }
4944
4945    MefSoamDmCfgMeasBinEntry ::= SEQUENCE {
4946        mefSoamDmCfgMeasBinType               MefSoamTcDelayMeasurementBinType,
4947        mefSoamDmCfgMeasBinNumber             Unsigned32,
4948        mefSoamDmCfgMeasBinLowerBound         Unsigned32
4949    }
4950
4951    mefSoamDmCfgMeasBinType OBJECT-TYPE
4952        SYNTAX      MefSoamTcDelayMeasurementBinType
4953        MAX-ACCESS  not-accessible
4954        STATUS      current
4955        DESCRIPTION
4956           "This object specifies whether the bin number is for
4957            Frame Delay or Inter-Frame Delay Variation.
4958           "
4959        ::= { mefSoamDmCfgMeasBinEntry 1 }
4960
4961    mefSoamDmCfgMeasBinNumber OBJECT-TYPE
4962        SYNTAX      Unsigned32
4963        MAX-ACCESS  not-accessible
4964        STATUS      current
4965        DESCRIPTION
4966           "This object specifies the bin number for the
4967            configured boundary.  The first bin has bin number 1.
4968           "
4969        ::= { mefSoamDmCfgMeasBinEntry 2 }
4970
4971    mefSoamDmCfgMeasBinLowerBound OBJECT-TYPE
4972        SYNTAX      Unsigned32
4973        UNITS       "microseconds (us)"
4974        MAX-ACCESS  read-write
4975        STATUS      current
4976        DESCRIPTION
4977           "This object specifies the lower boundary for a
4978            measurement bin. The upper boundary is defined by the next bin
4979            value or infinite for the last bin defined.
4980            The measurement boundary for each measurement bin is to
4981            be larger than the measurement boundary of the preceding
4982            measurement bin. By default, the next bin is set to 5000us larger
4983            than the lower bin boundary.
4984
4985            The values in a bin boundary object represents the time range
4986            used to segregate delay data into the appropriate statistical
4987            data bin. For five bins with default values, each bin has the
4988            following time range:
4989
4990            bin 1 =     0, range is 0us <= measurement < 5,000us
4991            bin 2 =  5000, range is 5,000us <= measurement < 10,000us
4992            bin 3 = 10000, range is 10,000us <= measurement < 15,000us
4993            bin 4 = 15000, range is 15,000us <= measurement < 20,000us
```

```
4994            bin 5 = 20000, range is 20,000us <= measurement < infinity
4995
4996            The first bin boundary (mefSoamDmCfgBinNumber set to 1) always contains
4997            the value of 0. Attempting to write a non-zero value to this bin will
4998            result in an error.
4999            "
5000       REFERENCE
5001            "[MEF SOAM-PM] R33, R35, D17"
5002       ::= { mefSoamDmCfgMeasBinEntry 3 }
5003
5004
5005  -- ****************************************************************************
5006  -- Ethernet Delay Measurement Measured Statistic Table
5007  -- ****************************************************************************
5008
5009  mefSoamDmMeasuredStatsTable OBJECT-TYPE
5010       SYNTAX       SEQUENCE OF MefSoamDmMeasuredStatsEntry
5011       MAX-ACCESS   not-accessible
5012       STATUS       current
5013       DESCRIPTION
5014            "This object contains the last measured results for a SOAM Delay
5015            Measurement session.
5016
5017            Each row in the table represents a Delay Measurement session for
5018            the defined MEP. This table uses four indices. The first three indices
5019            are the indices of the Maintenance Domain, MaNet, and MEP tables. The
5020            fourth index is the specific DM session on the selected MEP.
5021
5022            Instances of this managed object are created automatically
5023            by the SNMP Agent when the Delay Measurement session is running.
5024
5025            Each object in this table applies only if the corresponding bit is set in
5026            mefSoamDmCfgMeasurementEnable.
5027
5028            The objects in this table do not need to be persistent upon reboot or restart
5029            of a device.
5030            "
5031       REFERENCE
5032            "[MEF SOAM-PM] R7, R15, D18"
5033       ::= { mefSoamPmDmObjects 3 }
5034
5035  mefSoamDmMeasuredStatsEntry OBJECT-TYPE
5036       SYNTAX       MefSoamDmMeasuredStatsEntry
5037       MAX-ACCESS   not-accessible
5038       STATUS       current
5039       DESCRIPTION
5040            "The conceptual row of mefSoamDmMeasuredStatsTable"
5041       INDEX       {
5042                    dot1agCfmMdIndex,
5043                    dot1agCfmMaIndex,
5044                    dot1agCfmMepIdentifier,
5045                    mefSoamDmCfgIndex
5046                    }
5047       ::= { mefSoamDmMeasuredStatsTable 1 }
5048
5049  MefSoamDmMeasuredStatsEntry ::= SEQUENCE {
5050       mefSoamDmMeasuredStatsFrameDelayTwoWay      Unsigned32,
5051       mefSoamDmMeasuredStatsFrameDelayForward     Unsigned32,
5052       mefSoamDmMeasuredStatsFrameDelayBackward    Unsigned32,
5053       mefSoamDmMeasuredStatsIfdvTwoWay            Unsigned32,
5054       mefSoamDmMeasuredStatsIfdvForward           Unsigned32,
5055       mefSoamDmMeasuredStatsIfdvBackward          Unsigned32
5056  }
5057
```

```
5058    mefSoamDmMeasuredStatsFrameDelayTwoWay OBJECT-TYPE
5059        SYNTAX       Unsigned32
5060        UNITS        "microseconds"
5061        MAX-ACCESS   read-only
5062        STATUS       current
5063        DESCRIPTION
5064           "This object contains the two-way frame delay calculated by this
5065            MEP from the last received SOAM PDU.
5066
5067            This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
5068           "
5069        REFERENCE
5070           "[MEF SOAM-PM] R66"
5071        ::= { mefSoamDmMeasuredStatsEntry 1 }
5072
5073    mefSoamDmMeasuredStatsFrameDelayForward OBJECT-TYPE
5074        SYNTAX       Unsigned32
5075        UNITS        "microseconds"
5076        MAX-ACCESS   read-only
5077        STATUS       current
5078        DESCRIPTION
5079           "This object contains the frame delay in the forward direction
5080            calculated by this MEP from the last received SOAM PDU. The value of this
5081            object may not be accurate in the absence of sufficiently precise clock
5082            synchronization.
5083
5084            This object is undefined is mefSoamDmCfgType is dm1DmTx.
5085           "
5086        REFERENCE
5087           "[MEF SOAM-PM] R66"
5088        ::= { mefSoamDmMeasuredStatsEntry 2 }
5089
5090    mefSoamDmMeasuredStatsFrameDelayBackward OBJECT-TYPE
5091        SYNTAX       Unsigned32
5092        UNITS        "microseconds"
5093        MAX-ACCESS   read-only
5094        STATUS       current
5095        DESCRIPTION
5096           "This object contains the frame delay in the backward direction
5097            calculated by this MEP from the last received SOAM PDU. The value of this
5098            object may not be accurate in the absence of sufficiently precise clock
5099            synchronization.
5100
5101            This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
5102           "
5103        REFERENCE
5104           "[MEF SOAM-PM] R66"
5105        ::= { mefSoamDmMeasuredStatsEntry 3 }
5106
5107    mefSoamDmMeasuredStatsIfdvTwoWay OBJECT-TYPE
5108        SYNTAX       Unsigned32
5109        UNITS        "microseconds"
5110        MAX-ACCESS   read-only
5111        STATUS       current
5112        DESCRIPTION
5113           "This object contains the last two-way inter-frame delay
5114            interval calculated by this MEP.
5115
5116            The value of this object is undefined when mefSoamDmCfgType
5117            is dm1DmTx or dm1DmRx.
5118           "
5119        REFERENCE
5120           "[MEF SOAM-PM] R66"
5121        ::= { mefSoamDmMeasuredStatsEntry 4 }
```

```
5122
5123   mefSoamDmMeasuredStatsIfdvForward OBJECT-TYPE
5124       SYNTAX       Unsigned32
5125       UNITS        "microseconds"
5126       MAX-ACCESS   read-only
5127       STATUS       current
5128       DESCRIPTION
5129          "This object contains the last one-way inter-frame delay
5130           interval in the forward direction calculated by this MEP.
5131
5132           The value of this object is undefined when mefSoamDmCfgType
5133           is dm1DmTx.
5134           "
5135       REFERENCE
5136          "[MEF SOAM-PM] R66"
5137       ::= { mefSoamDmMeasuredStatsEntry 5 }
5138
5139   mefSoamDmMeasuredStatsIfdvBackward OBJECT-TYPE
5140       SYNTAX       Unsigned32
5141       UNITS        "microseconds"
5142       MAX-ACCESS   read-only
5143       STATUS       current
5144       DESCRIPTION
5145          "This object contains the last one-way inter-frame delay
5146           interval in the backward direction calculated by this MEP.
5147
5148           The value of this object is undefined when mefSoamDmCfgType
5149           is dm1DmTx or dm1DmRx.
5150           "
5151       REFERENCE
5152          "[MEF SOAM-PM] R66"
5153       ::= { mefSoamDmMeasuredStatsEntry 6 }
5154
5155
5156   -- ****************************************************************************
5157   -- Ethernet Delay Measurement Current Statistic Table
5158   -- ****************************************************************************
5159
5160   mefSoamDmCurrentStatsTable OBJECT-TYPE
5161       SYNTAX       SEQUENCE OF MefSoamDmCurrentStatsEntry
5162       MAX-ACCESS   not-accessible
5163       STATUS       current
5164       DESCRIPTION
5165          "This table contains the results for the current Measurement
5166           Interval in a SOAM Delay Measurement session gathered during the interval
5167           indicated by mefSoamLmCfgMeasurementInterval.
5168
5169           A row in this table is created automatically
5170           by the SNMP Agent when the Delay Measurement session is configured.
5171
5172           Each row in the table represents the current statistics for a Delay
5173           Measurement session for the defined MEP. This table uses four indices.
5174           The first three indices are the indices of the Maintenance Domain, MaNet,
5175           and MEP tables. The fourth index is the specific DM session on the
5176           selected MEP. There can be more than one DM session per MEP.
5177
5178           The objects in this table apply regardless of the value of
5179           mefSoamDmCfgType unless otherwise specified in the object description.
5180           Backward and two-way statistic objects are undefined if mefSoamDmCfgType
5181           is dm1DmRx.
5182
5183           Except for mefSoamDmCurrentStatsIndex, mefSoamDmCurrentStatsStartTime
5184           mefSoamDmCurrentStatsElapsedTime and mefSoamDmCurrentStatsSuspect,
5185           each object in this table applies only if the corresponding bit is set in
```

```
5186              mefSoamDmCfgMeasurementEnable.
5187
5188              The objects in this table do not need to be persistent upon reboot or
5189              restart of a device.
5190              "
5191       REFERENCE
5192          "[MEF SOAM-PM] R7, R15, D9, D18"
5193       ::= { mefSoamPmDmObjects 4 }
5194
5195   mefSoamDmCurrentStatsEntry OBJECT-TYPE
5196       SYNTAX      MefSoamDmCurrentStatsEntry
5197       MAX-ACCESS  not-accessible
5198       STATUS      current
5199       DESCRIPTION
5200              "The conceptual row of mefSoamDmCurrentStatsTable"
5201       INDEX     {
5202                 dot1agCfmMdIndex,
5203                 dot1agCfmMaIndex,
5204                 dot1agCfmMepIdentifier,
5205                 mefSoamDmCfgIndex
5206                 }
5207       ::= { mefSoamDmCurrentStatsTable 1 }
5208
5209   MefSoamDmCurrentStatsEntry ::= SEQUENCE {
5210       mefSoamDmCurrentStatsIndex                        Unsigned32,
5211       mefSoamDmCurrentStatsStartTime                    DateAndTime,
5212       mefSoamDmCurrentStatsElapsedTime                  TimeInterval,
5213       mefSoamDmCurrentStatsSuspect                      TruthValue,
5214       mefSoamDmCurrentStatsFrameDelayTwoWayMin          Unsigned32,
5215       mefSoamDmCurrentStatsFrameDelayTwoWayMax          Unsigned32,
5216       mefSoamDmCurrentStatsFrameDelayTwoWayAvg          Unsigned32,
5217       mefSoamDmCurrentStatsFrameDelayForwardMin         Unsigned32,
5218       mefSoamDmCurrentStatsFrameDelayForwardMax         Unsigned32,
5219       mefSoamDmCurrentStatsFrameDelayForwardAvg         Unsigned32,
5220       mefSoamDmCurrentStatsFrameDelayBackwardMin        Unsigned32,
5221       mefSoamDmCurrentStatsFrameDelayBackwardMax        Unsigned32,
5222       mefSoamDmCurrentStatsFrameDelayBackwardAvg        Unsigned32,
5223       mefSoamDmCurrentStatsIfdvForwardMin               Unsigned32,
5224       mefSoamDmCurrentStatsIfdvForwardMax               Unsigned32,
5225       mefSoamDmCurrentStatsIfdvForwardAvg               Unsigned32,
5226       mefSoamDmCurrentStatsIfdvBackwardMin              Unsigned32,
5227       mefSoamDmCurrentStatsIfdvBackwardMax              Unsigned32,
5228       mefSoamDmCurrentStatsIfdvBackwardAvg              Unsigned32,
5229       mefSoamDmCurrentStatsIfdvTwoWayMin                Unsigned32,
5230       mefSoamDmCurrentStatsIfdvTwoWayMax                Unsigned32,
5231       mefSoamDmCurrentStatsIfdvTwoWayAvg                Unsigned32,
5232       mefSoamDmCurrentStatsFrameDelayRangeForwardMax    Unsigned32,
5233       mefSoamDmCurrentStatsFrameDelayRangeForwardAvg    Unsigned32,
5234       mefSoamDmCurrentStatsFrameDelayRangeBackwardMax   Unsigned32,
5235       mefSoamDmCurrentStatsFrameDelayRangeBackwardAvg   Unsigned32,
5236       mefSoamDmCurrentStatsFrameDelayRangeTwoWayMax     Unsigned32,
5237       mefSoamDmCurrentStatsFrameDelayRangeTwoWayAvg     Unsigned32,
5238       mefSoamDmCurrentStatsSoamPdusSent                 Gauge32,
5239       mefSoamDmCurrentStatsSoamPdusReceived             Gauge32
5240   }
5241
5242   mefSoamDmCurrentStatsIndex OBJECT-TYPE
5243       SYNTAX      Unsigned32
5244       MAX-ACCESS  read-only
5245       STATUS      current
5246       DESCRIPTION
5247          "The index for the current Measurement Interval for this
5248          PM session.  This value will become the value for
5249          mefSoamDmHistoryStatsIndex once the Measurement Interval
```

```
5250            is completed.
5251
5252            Measurement Interval indexes are assigned sequentially by
5253            the SNMP Agent.  The first Measurement Interval that occurs after
5254            the session is started is assigned index 1.
5255            "
5256        ::= { mefSoamDmCurrentStatsEntry 1 }
5257
5258    mefSoamDmCurrentStatsStartTime OBJECT-TYPE
5259        SYNTAX       DateAndTime
5260        MAX-ACCESS   read-only
5261        STATUS       current
5262        DESCRIPTION
5263           "The time that the current Measurement Interval started.
5264            "
5265        REFERENCE
5266           "[MEF SOAM-PM] R22, R66, R100"
5267        ::= { mefSoamDmCurrentStatsEntry 2 }
5268
5269    mefSoamDmCurrentStatsElapsedTime OBJECT-TYPE
5270        SYNTAX       TimeInterval
5271        MAX-ACCESS   read-only
5272        STATUS       current
5273        DESCRIPTION
5274           "The time that the current Measurement Interval has been running, in 0.01
5275            seconds.
5276            "
5277        REFERENCE
5278           "[MEF SOAM-PM] R24, R66, R100"
5279        ::= { mefSoamDmCurrentStatsEntry 3 }
5280
5281    mefSoamDmCurrentStatsSuspect OBJECT-TYPE
5282        SYNTAX       TruthValue
5283        MAX-ACCESS   read-only
5284        STATUS       current
5285        DESCRIPTION
5286           "Whether the Measurement Interval has been marked as suspect.
5287
5288            The object is to be set to false at the start of a measurement
5289            interval. It is set to true when there is a discontinuity in the
5290            performance measurements during the Measurement Interval.  Conditions
5291            for a discontinuity include, but are not limited to the following:
5292
5293            1 - The local time-of-day clock is adjusted by at least 10 seconds
5294            2 - The conducting of a performance measurement is halted before the
5295                current Measurement Interval is completed
5296            3 - A local test, failure, or reconfiguration that disrupts service
5297    "
5298        REFERENCE
5299           "[MEF SOAM-PM] R39, R40, R41"
5300        ::= { mefSoamDmCurrentStatsEntry 4 }
5301
5302    mefSoamDmCurrentStatsFrameDelayTwoWayMin OBJECT-TYPE
5303        SYNTAX       Unsigned32
5304        UNITS        "microseconds"
5305        MAX-ACCESS   read-only
5306        STATUS       current
5307        DESCRIPTION
5308           "This object contains the minimum two-way frame delay
5309            calculated by this MEP for this Measurement Interval.
5310
5311            This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
5312            "
5313        REFERENCE
```

```
5314          "[MEF SOAM-PM] R66"
5315      ::= { mefSoamDmCurrentStatsEntry 5 }
5316
5317  mefSoamDmCurrentStatsFrameDelayTwoWayMax OBJECT-TYPE
5318      SYNTAX      Unsigned32
5319      UNITS       "microseconds"
5320      MAX-ACCESS  read-only
5321      STATUS      current
5322      DESCRIPTION
5323          "This object contains the maximum two-way frame delay
5324           calculated by this MEP for this Measurement Interval.
5325
5326           This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
5327          "
5328      REFERENCE
5329          "[MEF SOAM-PM] R66"
5330      ::= { mefSoamDmCurrentStatsEntry 6 }
5331
5332  mefSoamDmCurrentStatsFrameDelayTwoWayAvg OBJECT-TYPE
5333      SYNTAX      Unsigned32
5334      UNITS       "microseconds"
5335      MAX-ACCESS  read-only
5336      STATUS      current
5337      DESCRIPTION
5338          "This object contains the average two-way frame delay
5339           calculated by this MEP for this Measurement Interval.
5340
5341           This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
5342          "
5343      REFERENCE
5344          "[MEF SOAM-PM] R66"
5345      ::= { mefSoamDmCurrentStatsEntry 7 }
5346
5347  mefSoamDmCurrentStatsFrameDelayForwardMin OBJECT-TYPE
5348      SYNTAX      Unsigned32
5349      UNITS       "microseconds"
5350      MAX-ACCESS  read-only
5351      STATUS      current
5352      DESCRIPTION
5353          "This object contains the minimum one-way frame delay
5354           in the forward direction calculated by this MEP for this
5355           Measurement Interval. The value of this object may not be accurate
5356           in the absence of sufficiently precise clock synchronization.
5357
5358           This object is undefined is mefSoamDmCfgType is dm1DmTx.
5359          "
5360      REFERENCE
5361          "[MEF SOAM-PM] R67, R101"
5362      ::= { mefSoamDmCurrentStatsEntry 8 }
5363
5364  mefSoamDmCurrentStatsFrameDelayForwardMax OBJECT-TYPE
5365      SYNTAX      Unsigned32
5366      UNITS       "microseconds"
5367      MAX-ACCESS  read-only
5368      STATUS      current
5369      DESCRIPTION
5370          "This object contains the maximum one-way frame delay
5371           in the forward direction calculated by this MEP for this
5372           Measurement Interval. The value of this object may not be accurate
5373           in the absence of sufficiently precise clock synchronization.
5374
5375           This object is undefined is mefSoamDmCfgType is dm1DmTx.
5376          "
5377      REFERENCE
```

```
5378          "[MEF SOAM-PM] R67, R101"
5379       ::= { mefSoamDmCurrentStatsEntry 9 }
5380
5381   mefSoamDmCurrentStatsFrameDelayForwardAvg OBJECT-TYPE
5382       SYNTAX        Unsigned32
5383       UNITS         "microseconds"
5384       MAX-ACCESS  read-only
5385       STATUS        current
5386       DESCRIPTION
5387          "This object contains the average one-way frame delay
5388           in the forward direction calculated by this MEP for this
5389           Measurement Interval. The value of this object may not be accurate
5390           in the absence of sufficiently precise clock synchronization.
5391
5392           This object is undefined is mefSoamDmCfgType is dm1DmTx.
5393          "
5394       REFERENCE
5395          "[MEF SOAM-PM] R67, R101"
5396       ::= { mefSoamDmCurrentStatsEntry 10 }
5397
5398   mefSoamDmCurrentStatsFrameDelayBackwardMin OBJECT-TYPE
5399       SYNTAX        Unsigned32
5400       UNITS         "microseconds"
5401       MAX-ACCESS  read-only
5402       STATUS        current
5403       DESCRIPTION
5404          "This object contains the minimum one-way frame delay
5405           in the backward direction calculated by this MEP for this
5406           Measurement Interval. The value of this object may not be accurate
5407           in the absence of sufficiently precise clock synchronization.
5408
5409           This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
5410          "
5411       REFERENCE
5412          "[MEF SOAM-PM] R67"
5413       ::= { mefSoamDmCurrentStatsEntry 11 }
5414
5415   mefSoamDmCurrentStatsFrameDelayBackwardMax OBJECT-TYPE
5416       SYNTAX        Unsigned32
5417       UNITS         "microseconds"
5418       MAX-ACCESS  read-only
5419       STATUS        current
5420       DESCRIPTION
5421          "This object contains the maximum one-way frame delay
5422           in the backward direction calculated by this MEP for this
5423           Measurement Interval. The value of this object may not be accurate
5424           in the absence of sufficiently precise clock synchronization.
5425
5426           This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
5427          "
5428       REFERENCE
5429          "[MEF SOAM-PM] R67"
5430       ::= { mefSoamDmCurrentStatsEntry 12 }
5431
5432   mefSoamDmCurrentStatsFrameDelayBackwardAvg OBJECT-TYPE
5433       SYNTAX        Unsigned32
5434       UNITS         "microseconds"
5435       MAX-ACCESS  read-only
5436       STATUS        current
5437       DESCRIPTION
5438          "This object contains the average one-way frame delay
5439           in the backward direction calculated by this MEP for this
5440           Measurement Interval. The value of this object may not be accurate
5441           in the absence of sufficiently precise clock synchronization.
```

```
5442
5443            This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
5444            "
5445        REFERENCE
5446            "[MEF SOAM-PM] R67"
5447        ::= { mefSoamDmCurrentStatsEntry 13 }
5448
5449 mefSoamDmCurrentStatsIfdvForwardMin OBJECT-TYPE
5450     SYNTAX      Unsigned32
5451     UNITS       "microseconds"
5452     MAX-ACCESS  read-only
5453     STATUS      current
5454     DESCRIPTION
5455        "This object contains the minimum one-way inter-frame delay
5456         interval in the forward direction calculated by this MEP for this
5457         Measurement Interval.
5458
5459         The value of this object is undefined when mefSoamDmCfgType
5460         is dm1DmTx.
5461         "
5462     REFERENCE
5463        "[MEF SOAM-PM] R66, R100"
5464     ::= { mefSoamDmCurrentStatsEntry 14 }
5465
5466 mefSoamDmCurrentStatsIfdvForwardMax OBJECT-TYPE
5467     SYNTAX      Unsigned32
5468     UNITS       "microseconds"
5469     MAX-ACCESS  read-only
5470     STATUS      current
5471     DESCRIPTION
5472        "This object contains the maximum one-way inter-frame delay
5473         interval in the forward direction calculated by this MEP for this
5474         Measurement Interval.
5475
5476         The value of this object is undefined when mefSoamDmCfgType
5477         is dm1DmTx.
5478         "
5479     REFERENCE
5480        "[MEF SOAM-PM] R66, R100"
5481     ::= { mefSoamDmCurrentStatsEntry 15 }
5482
5483 mefSoamDmCurrentStatsIfdvForwardAvg OBJECT-TYPE
5484     SYNTAX      Unsigned32
5485     UNITS       "microseconds"
5486     MAX-ACCESS  read-only
5487     STATUS      current
5488     DESCRIPTION
5489        "This object contains the average one-way inter-frame delay
5490         interval in the forward direction calculated by this MEP for this
5491         Measurement Interval.
5492
5493         The value of this object is undefined when mefSoamDmCfgType
5494         is dm1DmTx.
5495         "
5496     REFERENCE
5497        "[MEF SOAM-PM] R66, R100"
5498     ::= { mefSoamDmCurrentStatsEntry 16 }
5499
5500 mefSoamDmCurrentStatsIfdvBackwardMin OBJECT-TYPE
5501     SYNTAX      Unsigned32
5502     UNITS       "microseconds"
5503     MAX-ACCESS  read-only
5504     STATUS      current
5505     DESCRIPTION
```

```
5506            "This object contains the minimum one-way inter-frame delay
5507             interval in the backward direction calculated by this MEP for this
5508             Measurement Interval.
5509
5510             The value of this object is undefined when mefSoamDmCfgType
5511             is dm1DmTx or dm1DmRx.
5512            "
5513        REFERENCE
5514           "[MEF SOAM-PM] R66"
5515        ::= { mefSoamDmCurrentStatsEntry 17 }
5516
5517 mefSoamDmCurrentStatsIfdvBackwardMax OBJECT-TYPE
5518        SYNTAX      Unsigned32
5519        UNITS       "microseconds"
5520        MAX-ACCESS  read-only
5521        STATUS      current
5522        DESCRIPTION
5523           "This object contains the maximum one-way inter-frame delay
5524            interval in the backward direction calculated by this MEP for this
5525            Measurement Interval.
5526
5527            The value of this object is undefined when mefSoamDmCfgType
5528            is dm1DmTx or dm1DmRx.
5529           "
5530        REFERENCE
5531           "[MEF SOAM-PM] R66"
5532        ::= { mefSoamDmCurrentStatsEntry 18 }
5533
5534 mefSoamDmCurrentStatsIfdvBackwardAvg OBJECT-TYPE
5535        SYNTAX      Unsigned32
5536        UNITS       "microseconds"
5537        MAX-ACCESS  read-only
5538        STATUS      current
5539        DESCRIPTION
5540           "This object contains the average one-way inter-frame delay
5541            interval in the backward direction calculated by this MEP for this
5542            Measurement Interval.
5543
5544            The value of this object is undefined when mefSoamDmCfgType
5545            is dm1DmTx or dm1DmRx.
5546           "
5547        REFERENCE
5548           "[MEF SOAM-PM] R66"
5549        ::= { mefSoamDmCurrentStatsEntry 19 }
5550
5551 mefSoamDmCurrentStatsIfdvTwoWayMin OBJECT-TYPE
5552        SYNTAX      Unsigned32
5553        UNITS       "microseconds"
5554        MAX-ACCESS  read-only
5555        STATUS      current
5556        DESCRIPTION
5557           "This object contains the minimum two-way inter-frame delay
5558            interval calculated by this MEP for this
5559            Measurement Interval.
5560
5561            The value of this object is undefined when mefSoamDmCfgType
5562            is dm1DmTx or dm1DmRx.
5563           "
5564        ::= { mefSoamDmCurrentStatsEntry 20 }
5565
5566 mefSoamDmCurrentStatsIfdvTwoWayMax OBJECT-TYPE
5567        SYNTAX      Unsigned32
5568        UNITS       "microseconds"
5569        MAX-ACCESS  read-only
```

```
5570        STATUS      current
5571        DESCRIPTION
5572           "This object contains the maximum two-way inter-frame delay
5573            interval calculated by this MEP for this
5574            Measurement Interval.
5575
5576            The value of this object is undefined when mefSoamDmCfgType
5577            is dm1DmTx or dm1DmRx.
5578            "
5579        ::= { mefSoamDmCurrentStatsEntry 21 }
5580
5581   mefSoamDmCurrentStatsIfdvTwoWayAvg OBJECT-TYPE
5582        SYNTAX      Unsigned32
5583        UNITS       "microseconds"
5584        MAX-ACCESS  read-only
5585        STATUS      current
5586        DESCRIPTION
5587           "This object contains the average two-way inter-frame delay
5588            interval calculated by this MEP for this
5589            Measurement Interval.
5590
5591            The value of this object is undefined when mefSoamDmCfgType
5592            is dm1DmTx or dm1DmRx.
5593            "
5594        ::= { mefSoamDmCurrentStatsEntry 22 }
5595
5596   mefSoamDmCurrentStatsFrameDelayRangeForwardMax OBJECT-TYPE
5597        SYNTAX      Unsigned32
5598        UNITS       "microseconds"
5599        MAX-ACCESS  read-only
5600        STATUS      current
5601        DESCRIPTION
5602           "This object contains the maximum one-way frame delay range
5603            in the forward direction calculated by this MEP for this
5604            Measurement Interval.
5605
5606            The value of this object is undefined when mefSoamDmCfgType
5607            is dm1DmTx.
5608            "
5609        REFERENCE
5610           "[MEF SOAM-PM] R66, R100"
5611        ::= { mefSoamDmCurrentStatsEntry 23 }
5612
5613   mefSoamDmCurrentStatsFrameDelayRangeForwardAvg OBJECT-TYPE
5614        SYNTAX      Unsigned32
5615        UNITS       "microseconds"
5616        MAX-ACCESS  read-only
5617        STATUS      current
5618        DESCRIPTION
5619           "This object contains the average one-way frame delay range
5620            in the forward direction calculated by this MEP for this
5621            Measurement Interval.
5622
5623            The value of this object is undefined when mefSoamDmCfgType
5624            is dm1DmTx.
5625            "
5626        REFERENCE
5627           "[MEF SOAM-PM] R66, R100"
5628        ::= { mefSoamDmCurrentStatsEntry 24 }
5629
5630   mefSoamDmCurrentStatsFrameDelayRangeBackwardMax OBJECT-TYPE
5631        SYNTAX      Unsigned32
5632        UNITS       "microseconds"
5633        MAX-ACCESS  read-only
```

```
5634        STATUS      current
5635        DESCRIPTION
5636           "This object contains the maximum one-way frame delay range
5637            in the backward direction calculated by this MEP for this
5638            Measurement Interval.
5639
5640            The value of this object is undefined when mefSoamDmCfgType
5641            is dm1DmTx or dm1DmRx.
5642           "
5643        REFERENCE
5644           "[MEF SOAM-PM] R66"
5645        ::= { mefSoamDmCurrentStatsEntry 25 }
5646
5647    mefSoamDmCurrentStatsFrameDelayRangeBackwardAvg OBJECT-TYPE
5648        SYNTAX      Unsigned32
5649        UNITS       "microseconds"
5650        MAX-ACCESS  read-only
5651        STATUS      current
5652        DESCRIPTION
5653           "This object contains the average one-way frame delay range
5654            in the backward direction calculated by this MEP for this
5655            Measurement Interval.
5656
5657            The value of this object is undefined when mefSoamDmCfgType
5658            is dm1DmTx or dm1DmRx.
5659           "
5660        REFERENCE
5661           "[MEF SOAM-PM] R66"
5662        ::= { mefSoamDmCurrentStatsEntry 26 }
5663
5664    mefSoamDmCurrentStatsFrameDelayRangeTwoWayMax OBJECT-TYPE
5665        SYNTAX      Unsigned32
5666        UNITS       "microseconds"
5667        MAX-ACCESS  read-only
5668        STATUS      current
5669        DESCRIPTION
5670           "This object contains the maximum two-way frame delay range
5671            calculated by this MEP for this Measurement Interval.
5672
5673            The value of this object is undefined when mefSoamDmCfgType
5674            is dm1DmTx or dm1DmRx.
5675           "
5676        ::= { mefSoamDmCurrentStatsEntry 27 }
5677
5678    mefSoamDmCurrentStatsFrameDelayRangeTwoWayAvg OBJECT-TYPE
5679        SYNTAX      Unsigned32
5680        UNITS       "microseconds"
5681        MAX-ACCESS  read-only
5682        STATUS      current
5683        DESCRIPTION
5684           "This object contains the average two-way frame delay range
5685            calculated by this MEP for this Measurement Interval.
5686
5687            The value of this object is undefined when mefSoamDmCfgType
5688            is dm1DmTx or dm1DmRx.
5689           "
5690        ::= { mefSoamDmCurrentStatsEntry 28 }
5691
5692    mefSoamDmCurrentStatsSoamPdusSent OBJECT-TYPE
5693        SYNTAX      Gauge32
5694        MAX-ACCESS  read-only
5695        STATUS      current
5696        DESCRIPTION
5697           "This object contains the count of the number of SOAM PDUs sent
```

```
5698              during this Measurement Interval.
5699
5700              This object applies when mefSoamDmCfgType is dmDmm or dm1DmTx and
5701              is undefined if mefSoamDmCfgType is dm1DmRx. It indicates the
5702              number of DMM or 1DM SOAM frames transmitted.
5703              "
5704         REFERENCE
5705            "[MEF SOAM-PM] R66, R100"
5706         ::= { mefSoamDmCurrentStatsEntry 29 }
5707
5708 mefSoamDmCurrentStatsSoamPdusReceived OBJECT-TYPE
5709       SYNTAX      Gauge32
5710       MAX-ACCESS  read-only
5711       STATUS      current
5712       DESCRIPTION
5713          "This object contains the count of the number of SOAM
5714          PDUs received in this Measurement Interval.
5715
5716          This object indicates the number of DMR and 1DM SOAM frames
5717          received. This object applies when mefSoamDmCfgType is dmDmm or
5718          dm1DmRx and is undefined if mefSoamDmCfgType is dm1DmTx.
5719          "
5720       REFERENCE
5721          "[MEF SOAM-PM] R66, R100"
5722       ::= { mefSoamDmCurrentStatsEntry 30 }
5723
5724 -- *****************************************************************************
5725 -- Ethernet Delay Measurement Current Bin Statistic Table
5726 -- *****************************************************************************
5727
5728 mefSoamDmCurrentStatsBinsTable OBJECT-TYPE
5729       SYNTAX      SEQUENCE OF MefSoamDmCurrentStatsBinsEntry
5730       MAX-ACCESS  not-accessible
5731       STATUS      current
5732       DESCRIPTION
5733          "This table contains the result bins for the current Measurement
5734          Interval in a SOAM Delay Measurement session.
5735
5736          Each row in the table represents the current bin statistics for a
5737          Delay Measurement session for the defined MEP. This table uses six
5738          indices. The first three indices are the indices of the Maintenance
5739          Domain, MaNet, and MEP tables. The fourth index is the specific DM
5740          session on the selected MEP. The fifth index indicates bin type and
5741          the sixth indicates the specific bin number.
5742
5743          A row in this table is created automatically by the SNMP Agent when
5744          the Delay Measurement session is configured and the bin counter value
5745          is set to 0.
5746
5747          The objects in this table are ignored if mefSoamDmCfgType is 1DmTx.
5748
5749          This table applies only if the corresponding bit is set in
5750          mefSoamDmCfgMeasurementEnable.
5751
5752          The objects in this table do not need to be persistent upon reboot
5753          or restart of a device.
5754          "
5755       REFERENCE
5756          "[MEF SOAM-PM] R7, R15, D9"
5757       ::= { mefSoamPmDmObjects 5 }
5758
5759 mefSoamDmCurrentStatsBinsEntry OBJECT-TYPE
5760       SYNTAX      MefSoamDmCurrentStatsBinsEntry
5761       MAX-ACCESS  not-accessible
```

```
5762        STATUS      current
5763        DESCRIPTION
5764            "The conceptual row of mefSoamDmCurrentStatsBinsTable"
5765        INDEX       {
5766                dot1agCfmMdIndex,
5767                dot1agCfmMaIndex,
5768                dot1agCfmMepIdentifier,
5769                mefSoamDmCfgIndex,
5770                mefSoamDmCfgMeasBinType,
5771                mefSoamDmCfgMeasBinNumber
5772                }
5773        ::= { mefSoamDmCurrentStatsBinsTable 1 }
5774
5775    MefSoamDmCurrentStatsBinsEntry ::= SEQUENCE {
5776        mefSoamDmCurrentStatsBinsCounter                Gauge32
5777    }
5778
5779    mefSoamDmCurrentStatsBinsCounter OBJECT-TYPE
5780        SYNTAX      Gauge32
5781        MAX-ACCESS  read-only
5782        STATUS      current
5783        DESCRIPTION
5784            "This object contains the count of the number of completed
5785            measurements initiated in this Measurement Interval whose value
5786            falls within the range specified for this bin (that is, greater
5787            than or equal to the measurement boundary for the bin, and
5788            (unless the bin is the last bin) less than the measurement
5789            boundary for the following bin.
5790                "
5791        REFERENCE
5792            "[MEF SOAM-PM] R66, R67, R100, R101"
5793        ::= { mefSoamDmCurrentStatsBinsEntry 1 }
5794
5795
5796    -- ****************************************************************************
5797    -- Ethernet Delay Measurement History Statistic Table
5798    -- ****************************************************************************
5799
5800    mefSoamDmHistoryStatsTable OBJECT-TYPE
5801        SYNTAX      SEQUENCE OF MefSoamDmHistoryStatsEntry
5802        MAX-ACCESS  not-accessible
5803        STATUS      current
5804        DESCRIPTION
5805            "This table contains the results for history Measurement
5806            Intervals in a SOAM Delay Measurement session.
5807
5808            Rows of this table are created automatically
5809            by the SNMP Agent when the Delay Measurement session is running and a
5810            Measurement Interval is completed.
5811
5812            Each row in the table represents the Measurement Interval history
5813            statistics for a Delay Measurement session for the defined MEP. This
5814            table uses five indices. The first three indices are the indices of
5815            the Maintenance Domain, MaNet, and MEP tables. The fourth index is the
5816            specific DM session on the selected MEP. The fifth index is the
5817            Measurement Interval.
5818
5819            At least 32 completed Measurement Intervals are to be supported. 96
5820            completed Measurement Intervals are recommended to be supported. If
5821            there are at least 32 rows in the table and a new Measurement Interval
5822            completes and a new row is to be added to the table, the oldest completed
5823            Measurement Interval can be deleted (row deletion). If the measurement
5824            interval is other than 15 minutes then a minimum of 8 hours of
5825            completed Measurement Intervals are to be supported and 24 hours are
```

```
5826              recommended to be supported.
5827
5828              The objects in this table apply regardless of the value of
5829              mefSoamDmCfgType unless otherwise specified in the object description.
5830              Backward and two-way statistic objects are undefined if mefSoamDmCfgType
5831              is dm1DmRx.
5832
5833              Except for mefSoamDmHistoryStatsIndex, mefSoamDmHistoryStatsEndTime,
5834              mefSoamDmHistoryStatsElapsedTime and mefSoamDmHistoryStatsSuspect,
5835              each object in this table applies only if the corresponding bit is set in
5836              mefSoamDmCfgMeasurementEnable.
5837
5838              The rows and objects in this table are to be persistent upon reboot
5839              or restart of a device.
5840            "
5841        REFERENCE
5842            "[MEF SOAM-PM] R7, R15, R21, D8, R25"
5843        ::= { mefSoamPmDmObjects 6 }
5844
5845   mefSoamDmHistoryStatsEntry OBJECT-TYPE
5846        SYNTAX      MefSoamDmHistoryStatsEntry
5847        MAX-ACCESS  not-accessible
5848        STATUS      current
5849        DESCRIPTION
5850              "The conceptual row of mefSoamDmHistoryStatsTable"
5851        INDEX      {
5852                dot1agCfmMdIndex,
5853                dot1agCfmMaIndex,
5854                dot1agCfmMepIdentifier,
5855                mefSoamDmCfgIndex,
5856                mefSoamDmHistoryStatsIndex
5857                }
5858        ::= { mefSoamDmHistoryStatsTable 1 }
5859
5860   MefSoamDmHistoryStatsEntry ::= SEQUENCE {
5861        mefSoamDmHistoryStatsIndex                       Unsigned32,
5862        mefSoamDmHistoryStatsEndTime                     DateAndTime,
5863        mefSoamDmHistoryStatsElapsedTime                 TimeInterval,
5864        mefSoamDmHistoryStatsSuspect                     TruthValue,
5865        mefSoamDmHistoryStatsFrameDelayTwoWayMin         Unsigned32,
5866        mefSoamDmHistoryStatsFrameDelayTwoWayMax         Unsigned32,
5867        mefSoamDmHistoryStatsFrameDelayTwoWayAvg         Unsigned32,
5868        mefSoamDmHistoryStatsFrameDelayForwardMin        Unsigned32,
5869        mefSoamDmHistoryStatsFrameDelayForwardMax        Unsigned32,
5870        mefSoamDmHistoryStatsFrameDelayForwardAvg        Unsigned32,
5871        mefSoamDmHistoryStatsFrameDelayBackwardMin       Unsigned32,
5872        mefSoamDmHistoryStatsFrameDelayBackwardMax       Unsigned32,
5873        mefSoamDmHistoryStatsFrameDelayBackwardAvg       Unsigned32,
5874        mefSoamDmHistoryStatsIfdvForwardMin              Unsigned32,
5875        mefSoamDmHistoryStatsIfdvForwardMax              Unsigned32,
5876        mefSoamDmHistoryStatsIfdvForwardAvg              Unsigned32,
5877        mefSoamDmHistoryStatsIfdvBackwardMin             Unsigned32,
5878        mefSoamDmHistoryStatsIfdvBackwardMax             Unsigned32,
5879        mefSoamDmHistoryStatsIfdvBackwardAvg             Unsigned32,
5880        mefSoamDmHistoryStatsIfdvTwoWayMin               Unsigned32,
5881        mefSoamDmHistoryStatsIfdvTwoWayMax               Unsigned32,
5882        mefSoamDmHistoryStatsIfdvTwoWayAvg               Unsigned32,
5883        mefSoamDmHistoryStatsFrameDelayRangeForwardMax   Unsigned32,
5884        mefSoamDmHistoryStatsFrameDelayRangeForwardAvg   Unsigned32,
5885        mefSoamDmHistoryStatsFrameDelayRangeBackwardMax  Unsigned32,
5886        mefSoamDmHistoryStatsFrameDelayRangeBackwardAvg  Unsigned32,
5887        mefSoamDmHistoryStatsFrameDelayRangeTwoWayMax    Unsigned32,
5888        mefSoamDmHistoryStatsFrameDelayRangeTwoWayAvg    Unsigned32,
5889        mefSoamDmHistoryStatsSoamPdusSent                Gauge32,
```

```
5890        mefSoamDmHistoryStatsSoamPdusReceived             Gauge32
5891    }
5892
5893    mefSoamDmHistoryStatsIndex OBJECT-TYPE
5894        SYNTAX        Unsigned32
5895        MAX-ACCESS  not-accessible
5896        STATUS        current
5897        DESCRIPTION
5898           "The index for the Measurement Interval within this
5899            PM session.
5900
5901            Measurement Interval indexes are assigned sequentially by
5902            the SNMP Agent.  The first Measurement Interval that occurs after
5903            the session is started is assigned index 1.
5904
5905            Referential integrity is necessary, i.e., the index needs to be
5906            persistent upon a reboot or restart of a device.  The index
5907            is never reused while this session is active until it wraps to zero.
5908            The index value keeps increasing up to that time.
5909            "
5910        ::= { mefSoamDmHistoryStatsEntry 1 }
5911
5912    mefSoamDmHistoryStatsEndTime OBJECT-TYPE
5913        SYNTAX        DateAndTime
5914        MAX-ACCESS  read-only
5915        STATUS        current
5916        DESCRIPTION
5917           "The time that the Measurement Interval ended.
5918            "
5919        REFERENCE
5920           "[MEF SOAM-PM] R23, R66, R100"
5921        ::= { mefSoamDmHistoryStatsEntry 2 }
5922
5923    mefSoamDmHistoryStatsElapsedTime OBJECT-TYPE
5924        SYNTAX        TimeInterval
5925        MAX-ACCESS  read-only
5926        STATUS        current
5927        DESCRIPTION
5928           "The length of time that the Measurement Interval ran for,
5929            in 0.01 seconds.
5930            "
5931        REFERENCE
5932           "[MEF SOAM-PM] R66, R100"
5933        ::= { mefSoamDmHistoryStatsEntry 3 }
5934
5935    mefSoamDmHistoryStatsSuspect OBJECT-TYPE
5936        SYNTAX        TruthValue
5937        MAX-ACCESS  read-only
5938        STATUS        current
5939        DESCRIPTION
5940           "Whether the Measurement Interval has been marked as suspect.
5941
5942            The object is set to true when there is a discontinuity in the
5943            performance measurements during the Measurement Interval.  Conditions
5944            for a discontinuity include, but are not limited to the following:
5945
5946            1 - The local time-of-day clock is adjusted by at least 10 seconds
5947            2 - The conducting of a performance measurement is halted before the
5948                current Measurement Interval is completed
5949            3 - A local test, failure, or reconfiguration that disrupts service
5950            "
5951        REFERENCE
5952           "[MEF SOAM-PM] R39, R40, R41, R42"
5953        ::= { mefSoamDmHistoryStatsEntry 4 }
```

```
5954
5955   mefSoamDmHistoryStatsFrameDelayTwoWayMin OBJECT-TYPE
5956       SYNTAX      Unsigned32
5957       UNITS       "microseconds"
5958       MAX-ACCESS  read-only
5959       STATUS      current
5960       DESCRIPTION
5961          "This object contains the minimum two-way frame delay
5962           calculated by this MEP for this Measurement Interval.
5963
5964           This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
5965          "
5966       REFERENCE
5967          "[MEF SOAM-PM] R66"
5968       ::= { mefSoamDmHistoryStatsEntry 5 }
5969
5970   mefSoamDmHistoryStatsFrameDelayTwoWayMax OBJECT-TYPE
5971       SYNTAX      Unsigned32
5972       UNITS       "microseconds"
5973       MAX-ACCESS  read-only
5974       STATUS      current
5975       DESCRIPTION
5976          "This object contains the maximum two-way frame delay
5977           calculated by this MEP for this Measurement Interval.
5978
5979           This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
5980          "
5981       REFERENCE
5982          "[MEF SOAM-PM] R66"
5983       ::= { mefSoamDmHistoryStatsEntry 6 }
5984
5985   mefSoamDmHistoryStatsFrameDelayTwoWayAvg OBJECT-TYPE
5986       SYNTAX      Unsigned32
5987       UNITS       "microseconds"
5988       MAX-ACCESS  read-only
5989       STATUS      current
5990       DESCRIPTION
5991          "This object contains the average two-way frame delay
5992           calculated by this MEP for this Measurement Interval.
5993
5994           This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
5995          "
5996       REFERENCE
5997          "[MEF SOAM-PM] R66"
5998       ::= { mefSoamDmHistoryStatsEntry 7 }
5999
6000   mefSoamDmHistoryStatsFrameDelayForwardMin OBJECT-TYPE
6001       SYNTAX      Unsigned32
6002       UNITS       "microseconds"
6003       MAX-ACCESS  read-only
6004       STATUS      current
6005       DESCRIPTION
6006          "This object contains the minimum one-way frame delay
6007           in the forward direction calculated by this MEP for this
6008           Measurement Interval. The value of this object may not be accurate
6009           in the absence of sufficiently precise clock synchronization.
6010
6011           This object is undefined is mefSoamDmCfgType is dm1DmTx.
6012          "
6013       REFERENCE
6014          "[MEF SOAM-PM] R66, R100"
6015       ::= { mefSoamDmHistoryStatsEntry 8 }
6016
6017   mefSoamDmHistoryStatsFrameDelayForwardMax OBJECT-TYPE
```

```
6018        SYNTAX      Unsigned32
6019        UNITS       "microseconds"
6020        MAX-ACCESS  read-only
6021        STATUS      current
6022        DESCRIPTION
6023           "This object contains the maximum one-way frame delay
6024            in the forward direction calculated by this MEP for this
6025            Measurement Interval. The value of this object may not be accurate
6026            in the absence of sufficiently precise clock synchronization.
6027
6028            This object is undefined is mefSoamDmCfgType is dm1DmTx.
6029            "
6030        REFERENCE
6031           "[MEF SOAM-PM] R66, R100"
6032        ::= { mefSoamDmHistoryStatsEntry 9 }
6033
6034    mefSoamDmHistoryStatsFrameDelayForwardAvg OBJECT-TYPE
6035        SYNTAX      Unsigned32
6036        UNITS       "microseconds"
6037        MAX-ACCESS  read-only
6038        STATUS      current
6039        DESCRIPTION
6040           "This object contains the average one-way frame delay
6041            in the forward direction calculated by this MEP for this
6042            Measurement Interval. The value of this object may not be accurate
6043            in the absence of sufficiently precise clock synchronization.
6044
6045            This object is undefined is mefSoamDmCfgType is dm1DmTx.
6046            "
6047        REFERENCE
6048           "[MEF SOAM-PM] R66, R100"
6049        ::= { mefSoamDmHistoryStatsEntry 10 }
6050
6051    mefSoamDmHistoryStatsFrameDelayBackwardMin OBJECT-TYPE
6052        SYNTAX      Unsigned32
6053        UNITS       "microseconds"
6054        MAX-ACCESS  read-only
6055        STATUS      current
6056        DESCRIPTION
6057           "This object contains the minimum one-way frame delay
6058            in the backward direction calculated by this MEP for this
6059            Measurement Interval. The value of this object may not be accurate
6060            in the absence of sufficiently precise clock synchronization.
6061
6062            This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
6063            "
6064        REFERENCE
6065           "[MEF SOAM-PM] R66"
6066        ::= { mefSoamDmHistoryStatsEntry 11 }
6067
6068    mefSoamDmHistoryStatsFrameDelayBackwardMax OBJECT-TYPE
6069        SYNTAX      Unsigned32
6070        UNITS       "microseconds"
6071        MAX-ACCESS  read-only
6072        STATUS      current
6073        DESCRIPTION
6074           "This object contains the maximum one-way frame delay
6075            in the backward direction calculated by this MEP for this
6076            Measurement Interval. The value of this object may not be accurate
6077            in the absence of sufficiently precise clock synchronization.
6078
6079            This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
6080            "
6081        REFERENCE
```

```
6082        "[MEF SOAM-PM] R66"
6083      ::= { mefSoamDmHistoryStatsEntry 12 }
6084
6085  mefSoamDmHistoryStatsFrameDelayBackwardAvg OBJECT-TYPE
6086      SYNTAX       Unsigned32
6087      UNITS        "microseconds"
6088      MAX-ACCESS   read-only
6089      STATUS       current
6090      DESCRIPTION
6091        "This object contains the average one-way frame delay
6092         in the backward direction calculated by this MEP for this
6093         Measurement Interval. The value of this object may not be accurate
6094         in the absence of sufficiently precise clock synchronization.
6095
6096         This object is undefined is mefSoamDmCfgType is dm1DmTx or dm1DmRx.
6097        "
6098      REFERENCE
6099        "[MEF SOAM-PM] R66"
6100      ::= { mefSoamDmHistoryStatsEntry 13 }
6101
6102  mefSoamDmHistoryStatsIfdvForwardMin OBJECT-TYPE
6103      SYNTAX       Unsigned32
6104      UNITS        "microseconds"
6105      MAX-ACCESS   read-only
6106      STATUS       current
6107      DESCRIPTION
6108        "This object contains the minimum one-way inter-frame delay
6109         interval in the forward direction calculated by this MEP for this
6110         Measurement Interval.
6111
6112         The value of this object is undefined when mefSoamDmCfgType
6113         is dm1DmTx.
6114        "
6115      REFERENCE
6116        "[MEF SOAM-PM] R66, R100"
6117      ::= { mefSoamDmHistoryStatsEntry 14 }
6118
6119  mefSoamDmHistoryStatsIfdvForwardMax OBJECT-TYPE
6120      SYNTAX       Unsigned32
6121      UNITS        "microseconds"
6122      MAX-ACCESS   read-only
6123      STATUS       current
6124      DESCRIPTION
6125        "This object contains the maximum one-way inter-frame delay
6126         interval in the forward direction calculated by this MEP for this
6127         Measurement Interval.
6128
6129         The value of this object is undefined when mefSoamDmCfgType
6130         is dm1DmTx.
6131        "
6132      REFERENCE
6133        "[MEF SOAM-PM] R66, R100"
6134      ::= { mefSoamDmHistoryStatsEntry 15 }
6135
6136  mefSoamDmHistoryStatsIfdvForwardAvg OBJECT-TYPE
6137      SYNTAX       Unsigned32
6138      UNITS        "microseconds"
6139      MAX-ACCESS   read-only
6140      STATUS       current
6141      DESCRIPTION
6142        "This object contains the average one-way inter-frame delay
6143         interval in the forward direction calculated by this MEP for this
6144         Measurement Interval.
6145
```

```
6146              The value of this object is undefined when mefSoamDmCfgType
6147              is dm1DmTx.
6148              "
6149         REFERENCE
6150            "[MEF SOAM-PM] R66, R100"
6151         ::= { mefSoamDmHistoryStatsEntry 16 }
6152
6153  mefSoamDmHistoryStatsIfdvBackwardMin OBJECT-TYPE
6154         SYNTAX      Unsigned32
6155         UNITS       "microseconds"
6156         MAX-ACCESS  read-only
6157         STATUS      current
6158         DESCRIPTION
6159            "This object contains the minimum one-way inter-frame delay
6160             interval in the backward direction calculated by this MEP for this
6161             Measurement Interval.
6162
6163             The value of this object is undefined when mefSoamDmCfgType
6164             is dm1DmTx or dm1DmRx.
6165             "
6166         REFERENCE
6167            "[MEF SOAM-PM] R66"
6168         ::= { mefSoamDmHistoryStatsEntry 17 }
6169
6170  mefSoamDmHistoryStatsIfdvBackwardMax OBJECT-TYPE
6171         SYNTAX      Unsigned32
6172         UNITS       "microseconds"
6173         MAX-ACCESS  read-only
6174         STATUS      current
6175         DESCRIPTION
6176            "This object contains the maximum one-way inter-frame delay
6177             interval in the backward direction calculated by this MEP for this
6178             Measurement Interval.
6179
6180             The value of this object is undefined when mefSoamDmCfgType
6181             is dm1DmTx or dm1DmRx.
6182             "
6183         REFERENCE
6184            "[MEF SOAM-PM] R66"
6185         ::= { mefSoamDmHistoryStatsEntry 18 }
6186
6187  mefSoamDmHistoryStatsIfdvBackwardAvg OBJECT-TYPE
6188         SYNTAX      Unsigned32
6189         UNITS       "microseconds"
6190         MAX-ACCESS  read-only
6191         STATUS      current
6192         DESCRIPTION
6193            "This object contains the average one-way inter-frame delay
6194             interval in the backward direction calculated by this MEP for this
6195             Measurement Interval.
6196
6197             The value of this object is undefined when mefSoamDmCfgType
6198             is dm1DmTx or dm1DmRx.
6199             "
6200         REFERENCE
6201            "[MEF SOAM-PM] R66"
6202         ::= { mefSoamDmHistoryStatsEntry 19 }
6203
6204  mefSoamDmHistoryStatsIfdvTwoWayMin OBJECT-TYPE
6205         SYNTAX      Unsigned32
6206         UNITS       "microseconds"
6207         MAX-ACCESS  read-only
6208         STATUS      current
6209         DESCRIPTION
```

```
6210              "This object contains the minimum two-way inter-frame delay
6211               interval calculated by this MEP for this
6212               Measurement Interval.
6213
6214               The value of this object is undefined when mefSoamDmCfgType
6215               is dm1DmTx or dm1DmRx.
6216              "
6217          ::= { mefSoamDmHistoryStatsEntry 20 }
6218
6219     mefSoamDmHistoryStatsIfdvTwoWayMax OBJECT-TYPE
6220          SYNTAX       Unsigned32
6221          UNITS        "microseconds"
6222          MAX-ACCESS   read-only
6223          STATUS       current
6224          DESCRIPTION
6225              "This object contains the maximum two-way inter-frame delay
6226               interval calculated by this MEP for this
6227               Measurement Interval.
6228
6229               The value of this object is undefined when mefSoamDmCfgType
6230               is dm1DmTx or dm1DmRx.
6231              "
6232          ::= { mefSoamDmHistoryStatsEntry 21 }
6233
6234     mefSoamDmHistoryStatsIfdvTwoWayAvg OBJECT-TYPE
6235          SYNTAX       Unsigned32
6236          UNITS        "microseconds"
6237          MAX-ACCESS   read-only
6238          STATUS       current
6239          DESCRIPTION
6240              "This object contains the average two-way inter-frame delay
6241               interval calculated by this MEP for this
6242               Measurement Interval.
6243
6244               The value of this object is undefined when mefSoamDmCfgType
6245               is dm1DmTx or dm1DmRx.
6246            "
6247          ::= { mefSoamDmHistoryStatsEntry 22 }
6248
6249     mefSoamDmHistoryStatsFrameDelayRangeForwardMax OBJECT-TYPE
6250          SYNTAX       Unsigned32
6251          UNITS        "microseconds"
6252          MAX-ACCESS   read-only
6253          STATUS       current
6254          DESCRIPTION
6255              "This object contains the maximum one-way Frame Delay Range
6256               in the forward direction calculated by this MEP for this
6257               Measurement Interval.
6258
6259               The value of this object is undefined when mefSoamDmCfgType
6260               is dm1DmTx.
6261              "
6262          REFERENCE
6263              "[MEF SOAM-PM] R66, R100"
6264          ::= { mefSoamDmHistoryStatsEntry 23 }
6265
6266     mefSoamDmHistoryStatsFrameDelayRangeForwardAvg OBJECT-TYPE
6267          SYNTAX       Unsigned32
6268          UNITS        "microseconds"
6269          MAX-ACCESS   read-only
6270          STATUS       current
6271          DESCRIPTION
6272              "This object contains the average one-way Frame Delay Range
6273               in the forward direction calculated by this MEP for this
```

```
6274            Measurement Interval.
6275
6276            The value of this object is undefined when mefSoamDmCfgType
6277            is dm1DmTx.
6278            "
6279        REFERENCE
6280            "[MEF SOAM-PM] R66, R100"
6281        ::= { mefSoamDmHistoryStatsEntry 24 }
6282
6283  mefSoamDmHistoryStatsFrameDelayRangeBackwardMax OBJECT-TYPE
6284        SYNTAX      Unsigned32
6285        UNITS       "microseconds"
6286        MAX-ACCESS  read-only
6287        STATUS      current
6288        DESCRIPTION
6289            "This object contains the maximum one-way Frame Delay Range
6290            in the backward direction calculated by this MEP for this
6291            Measurement Interval.
6292
6293            The value of this object is undefined when mefSoamDmCfgType
6294            is dm1DmTx or dm1DmRx.
6295            "
6296        REFERENCE
6297            "[MEF SOAM-PM] R66"
6298        ::= { mefSoamDmHistoryStatsEntry 25 }
6299
6300  mefSoamDmHistoryStatsFrameDelayRangeBackwardAvg OBJECT-TYPE
6301        SYNTAX      Unsigned32
6302        UNITS       "microseconds"
6303        MAX-ACCESS  read-only
6304        STATUS      current
6305        DESCRIPTION
6306            "This object contains the average one-way Frame Delay Range
6307            in the backward direction calculated by this MEP for this
6308            Measurement Interval.
6309
6310            The value of this object is undefined when mefSoamDmCfgType
6311            is dm1DmTx or dm1DmRx.
6312            "
6313        REFERENCE
6314            "[MEF SOAM-PM] R66"
6315        ::= { mefSoamDmHistoryStatsEntry 26 }
6316
6317  mefSoamDmHistoryStatsFrameDelayRangeTwoWayMax OBJECT-TYPE
6318        SYNTAX      Unsigned32
6319        UNITS       "microseconds"
6320        MAX-ACCESS  read-only
6321        STATUS      current
6322        DESCRIPTION
6323            "This object contains the maximum two-way Frame Delay Range
6324            calculated by this MEP for this Measurement Interval.
6325
6326            The value of this object is undefined when mefSoamDmCfgType
6327            is dm1DmTx or dm1DmRx.
6328            "
6329        ::= { mefSoamDmHistoryStatsEntry 27 }
6330
6331  mefSoamDmHistoryStatsFrameDelayRangeTwoWayAvg OBJECT-TYPE
6332        SYNTAX      Unsigned32
6333        UNITS       "microseconds"
6334        MAX-ACCESS  read-only
6335        STATUS      current
6336        DESCRIPTION
6337            "This object contains the average two-way Frame Delay Range
```

```
6338                calculated by this MEP for this Measurement Interval.
6339
6340                The value of this object is undefined when mefSoamDmCfgType
6341                is dm1DmTx or dm1DmRx.
6342              "
6343         ::= { mefSoamDmHistoryStatsEntry 28 }
6344
6345    mefSoamDmHistoryStatsSoamPdusSent OBJECT-TYPE
6346         SYNTAX      Gauge32
6347         MAX-ACCESS  read-only
6348         STATUS      current
6349         DESCRIPTION
6350            "This object contains the count of the number of SOAM PDUs sent
6351             during this Measurement Interval.
6352
6353             This object applies when mefSoamDmCfgType is dmDmm or dm1DmTx and
6354             is undefined if mefSoamDmCfgType is dm1DmRx. It indicates the
6355             number of DMM or 1DM SOAM frames transmitted.
6356            "
6357         REFERENCE
6358            "[MEF SOAM-PM] R66, R100"
6359         ::= { mefSoamDmHistoryStatsEntry 29 }
6360
6361    mefSoamDmHistoryStatsSoamPdusReceived OBJECT-TYPE
6362         SYNTAX      Gauge32
6363         MAX-ACCESS  read-only
6364         STATUS      current
6365         DESCRIPTION
6366            "This object contains the count of the number of SOAM
6367             PDUs received in this Measurement Interval.
6368
6369             This object indicates the number of DMR and 1DM SOAM frames
6370             received. This object applies when mefSoamDmCfgType is dmDmm or
6371             dm1DmRx and is undefined if mefSoamDmCfgType is dm1DmTx.
6372            "
6373         REFERENCE
6374            "[MEF SOAM-PM] R66, R100"
6375         ::= { mefSoamDmHistoryStatsEntry 30 }
6376
6377    -- ****************************************************************************
6378    -- Ethernet Delay Measurement Bin History Statistic Table
6379    -- ****************************************************************************
6380
6381    mefSoamDmHistoryStatsBinsTable OBJECT-TYPE
6382         SYNTAX      SEQUENCE OF MefSoamDmHistoryStatsBinsEntry
6383         MAX-ACCESS  not-accessible
6384         STATUS      current
6385         DESCRIPTION
6386            "This table contains the result bins for the history Measurement
6387             Intervals in a SOAM Delay Measurement session.
6388
6389             Rows of this table are created automatically
6390             by the SNMP Agent when the Delay Measurement session is running and a
6391             Measurement Interval is completed.
6392
6393             Each row in the table represents the Measurement Interval history
6394             statistics for a specific bin in a Delay Measurement session for the
6395             defined MEP. This table uses seven indices. The first three indices
6396             are the indices of the Maintenance Domain, MaNet, and MEP tables. The
6397             fourth index is the specific DM session on the selected MEP. The
6398             fifth index is the Measurement Interval. The sixth index is the
6399             specific bin type. The seventh index is the specific bin number.
6400
6401             Rows in this table pertaining to a given Measurement Interval are
```

```
6402          deleted when (and only when) the corresponding row in the
6403          mefSoamDmHistoryStatsTable is deleted.
6404
6405          The objects in this table are ignored if mefSoamDmCfgType is 1DmTx.
6406
6407          This table applies only if the corresponding bit is set in
6408          mefSoamDmCfgMeasurementEnable.
6409
6410          The objects in this table need to be persistent upon reboot
6411          or restart of a device.
6412          "
6413      REFERENCE
6414          "[MEF SOAM-PM] R7, R15, R21, D8, R66, R67"
6415      ::= { mefSoamPmDmObjects 7 }
6416
6417  mefSoamDmHistoryStatsBinsEntry OBJECT-TYPE
6418      SYNTAX      MefSoamDmHistoryStatsBinsEntry
6419      MAX-ACCESS  not-accessible
6420      STATUS      current
6421      DESCRIPTION
6422              "The conceptual row of mefSoamDmHistoryStatsBinsTable"
6423      INDEX       {
6424              dot1agCfmMdIndex,
6425              dot1agCfmMaIndex,
6426              dot1agCfmMepIdentifier,
6427              mefSoamDmCfgIndex,
6428              mefSoamDmHistoryStatsIndex,
6429              mefSoamDmCfgMeasBinType,
6430              mefSoamDmCfgMeasBinNumber
6431              }
6432      ::= { mefSoamDmHistoryStatsBinsTable 1 }
6433
6434  MefSoamDmHistoryStatsBinsEntry ::= SEQUENCE {
6435      mefSoamDmHistoryStatsBinsCounter              Gauge32
6436  }
6437
6438  mefSoamDmHistoryStatsBinsCounter OBJECT-TYPE
6439      SYNTAX      Gauge32
6440      MAX-ACCESS  read-only
6441      STATUS      current
6442      DESCRIPTION
6443        "This object contains the count of the number of completed
6444         measurements initiated in this Measurement Interval whose value
6445         falls within the range specified for this bin (that is, greater
6446         than or equal to the measurement boundary for the bin, and
6447         (unless the bin is the last bin) less than the measurement
6448         boundary for the following bin.
6449         "
6450      REFERENCE
6451        "[MEF SOAM-PM] R66, R67, R100, R101"
6452      ::= { mefSoamDmHistoryStatsBinsEntry 1 }
6453
6454  -- ****************************************************************************
6455  -- Performance Measurement Loss Threshold Configuration Table
6456  -- ****************************************************************************
6457
6458  mefSoamLmThresholdCfgTable OBJECT-TYPE
6459      SYNTAX      SEQUENCE OF MefSoamLmThresholdCfgEntry
6460      MAX-ACCESS  not-accessible
6461      STATUS      current
6462      DESCRIPTION
6463        "This table contains the list of Loss Measurement configuration threshold
6464         values for LM Performance Monitoring.
6465
```

```
6466            The main purpose of the threshold configuration table is to configure
6467            threshold alarm notifications indicating that a specific performance
6468            metric is not being met.
6469
6470            Each row in the table represents a Loss Measurement session threshold
6471            set for the defined MEP. This table uses five indices. The first three
6472            indices are the indices of the Maintenance Domain, MaNet, and MEP tables.
6473            The fourth index is the specific LM session on the selected MEP. The
6474            fifth index is the specific threshold set number.
6475
6476            Rows in this table are not created automatically. A row is created in
6477            this table to set up a threshold set on a configured MEP that has a
6478            configured LM session.
6479
6480            If two managers try to 'create' the same row at the same time, the first
6481            creation would succeed, the second creation attempt would result in an
6482            error. The second creation attempt would then need to select a new index
6483            value to successfully create a new row.
6484
6485            An NE needs to support at least one threshold set for NE SOAM PM compliance. A
6486            second threshold set on the NE is desirable. More than two threshold
6487            sets can be configured on the NE if supported on the NE.
6488
6489            All the objects in the row have a default value that disables the
6490            particular threshold measurement. In order to enable a threshold
6491            measurement the particular bit in the mefSoamLmThresholdCfgEnable object
6492            is to be set to '1' and the selected threshold measurement is to have
6493            a threshold value configured. Non-configured threshold measurements
6494            are disabled by default.
6495
6496            The writable objects in this table need to be persistent upon reboot
6497            or restart of a device.
6498          "
6499      ::= { mefSoamPmLmObjects 7 }
6500
6501  mefSoamLmThresholdCfgEntry OBJECT-TYPE
6502      SYNTAX      MefSoamLmThresholdCfgEntry
6503      MAX-ACCESS  not-accessible
6504      STATUS      current
6505      DESCRIPTION
6506            "The conceptual row of mefSoamLmThresholdCfgTable."
6507      INDEX       {
6508                  dot1agCfmMdIndex,
6509                  dot1agCfmMaIndex,
6510                  dot1agCfmMepIdentifier,
6511                  mefSoamLmCfgIndex,
6512                  mefSoamLmThresholdCfgIndex
6513                  }
6514      ::= {mefSoamLmThresholdCfgTable 1 }
6515
6516  MefSoamLmThresholdCfgEntry ::= SEQUENCE {
6517      mefSoamLmThresholdCfgIndex                          Unsigned32,
6518      mefSoamLmThresholdCfgEnable                         BITS,
6519      mefSoamLmThresholdCfgMeasuredFlrForwardThreshold    Unsigned32,
6520      mefSoamLmThresholdCfgMaxFlrForwardThreshold         Unsigned32,
6521      mefSoamLmThresholdCfgAvgFlrForwardThreshold         Unsigned32,
6522      mefSoamLmThresholdCfgMeasuredFlrBackwardThreshold   Unsigned32,
6523      mefSoamLmThresholdCfgMaxFlrBackwardThreshold        Unsigned32,
6524      mefSoamLmThresholdCfgAvgFlrBackwardThreshold        Unsigned32,
6525      mefSoamLmThresholdCfgForwardHighLossThreshold       Unsigned32,
6526      mefSoamLmThresholdCfgForwardConsecutiveHighLossThreshold  Unsigned32,
6527      mefSoamLmThresholdCfgBackwardHighLossThreshold      Unsigned32,
6528      mefSoamLmThresholdCfgBackwardConsecutiveHighLossThreshold  Unsigned32,
6529      mefSoamLmThresholdCfgForwardUnavailCountThreshold   Unsigned32,
```

```
6530        mefSoamLmThresholdCfgForwardAvailRatioThreshold      Unsigned32,
6531        mefSoamLmThresholdCfgBackwardUnavailCountThreshold   Unsigned32,
6532        mefSoamLmThresholdCfgBackwardAvailRatioThreshold     Unsigned32,
6533        mefSoamLmThresholdCfgRowStatus                       RowStatus
6534    }
6535
6536    mefSoamLmThresholdCfgIndex OBJECT-TYPE
6537        SYNTAX      Unsigned32(1..4294967295)
6538        MAX-ACCESS  not-accessible
6539        STATUS      current
6540        DESCRIPTION
6541          "The index of the threshold number for the specific LM
6542           threshold entry.
6543
6544           An index value of '1' needs to be supported. Other index values
6545           can also be supported.
6546          "
6547        ::= { mefSoamLmThresholdCfgEntry 1 }
6548
6549    mefSoamLmThresholdCfgEnable OBJECT-TYPE
6550        SYNTAX      BITS {
6551                       bMefSoamLmMeasuredFlrForwardThreshold(0),
6552                       bMefSoamLmMaxFlrForwardThreshold(1),
6553                       bMefSoamLmAvgFlrForwardThreshold(2),
6554                       bMefSoamLmMeasuredFlrBackwardThreshold(3),
6555                       bMefSoamLmMaxFlrBackwardThreshold(4),
6556                       bMefSoamLmAvgFlrBackwardThreshold(5),
6557                       bMefSoamLmForwardHighLossThreshold(6),
6558                       bMefSoamLmForwardConsecutiveHighLossThreshold(7),
6559                       bMefSoamLmBackwardHighLossThreshold(8),
6560                       bMefSoamLmBackwardConsecutiveHighLossThreshold(9),
6561                       bMefSoamLmUnavailForwardThreshold(10),
6562                       bMefSoamLmAvailRatioForwardThreshold(11),
6563                       bMefSoamLmUnavailBackwardThreshold(12),
6564                       bMefSoamLmAvailRatioBackwardThreshold(13)
6565                    }
6566        MAX-ACCESS  read-create
6567        STATUS      current
6568        DESCRIPTION
6569          "A vector of bits that indicates the type of SOAM LM thresholds
6570           notifications that are enabled.
6571
6572           A bit set to '1' enables the specific SOAM LM threshold notification
6573           and when the specific counter is enabled and the threshold is crossed a
6574           notification is generated.
6575
6576           A bit set to '0' disables the specific SOAM LM threshold notification.
6577
6578           If a particular SOAM LM threshold is not supported the BIT value is
6579           set to '0'.
6580
6581           bMefSoamLmMeasuredFlrForwardThreshold(0)
6582                   Enables/disables measured frame loss forward ratio threshold
6583                   notification. The notification is sent immediately when the
6584                   mefSoamLmMeasuredStatsForwardFlr value is
6585                   greater than or equal to the threshold value.
6586           bMefSoamLmMaxFlrForwardThreshold(1)
6587                   Enables/disables maximum frame loss forward ratio threshold
6588                   notification. The notification is sent immediately when the
6589                   mefSoamLmCurrentStatsForwardMaxFlr value is greater
6590                   than or equal to threshold value in a Measurement Interval.
6591           bMefSoamLmAvgFlrForwardThreshold(2)
6592                   Enables/disables average frame loss forward ratio threshold
6593                   notification. The notification is sent when at the end of a
```

```
6594                      Measurement Interval if the
6595                      mefSoamLmCurrentStatsForwardAvgFlr value is greater
6596                      than or equal to the threshold value.
6597          bMefSoamLmMeasuredFlrBackwardThreshold(3)
6598                      Enables/disables measured frame loss backward ratio threshold
6599                      notification. The notification is sent immediately when the
6600                      mefSoamLmMeasuredStatsBackwardFlr value is
6601                      greater than or equal to the threshold value.
6602          bMefSoamLmMaxFlrBackwardThreshold(4)
6603                      Enables/disables maximum frame loss backward ratio threshold
6604                      notification. The notification is sent immediately when the
6605                      mefSoamLmCurrentStatsBackwardMaxFlr value is greater
6606                      than or equal to threshold value in a Measurement Interval.
6607          bMefSoamLmAvgFlrBackwardThreshold(5)
6608                      Enables/disables average frame loss backward ratio threshold
6609                      notification. The notification is sent when at the end of a
6610                      Measurement Interval if the
6611                      mefSoamLmCurrentStatsBackwardAvgFlr value is
6612                      greater than or equal to the threshold value.
6613          bMefSoamLmForwardHighLossThreshold(6)
6614                      Enables/disables forward high loss threshold
6615                      notification. The notification is sent immediately when the
6616                      mefSoamLmCurrentAvailStatsForwardHighLoss value is
6617                      greater than or equal to the threshold value in a measurement
6618                      interval.
6619          bMefSoamLmForwardConsecutiveHighLossThreshold(7)
6620                      Enables/disables forward consecutive high loss threshold
6621                      notification. The notification is sent immediately when the
6622                      mefSoamLmCurrentAvailStatsForwardConsecutiveHighLoss value is
6623                      greater than or equal to the threshold value in a measurement
6624                      interval.
6625          bMefSoamLmBackwardHighLossThreshold(8)
6626                      Enables/disables backward high loss threshold
6627                      notification. The notification is sent immediately when the
6628                      mefSoamLmCurrentAvailStatsBackwardHighLoss value is
6629                      greater than or equal to the threshold value in a measurement
6630                      interval.
6631          bMefSoamLmBackwardConsecutiveHighLossThreshold(9)
6632                      Enables/disables backward consecutive high loss threshold
6633                      notification. The notification is sent immediately when the
6634                      mefSoamLmCurrentAvailStatsBackwardConsecutiveHighLoss value is
6635                      greater than or equal to the threshold value in a measurement
6636                      interval.
6637          bMefSoamLmUnavailForwardThreshold(10)
6638                      Enables/disables unavailable forward threshold
6639                      notification. The notification is sent immediately when the
6640                      mefSoamLmCurrentAvailStatsForwardUnavailable value is
6641                      greater than or equal to threshold value in a Measurement Interval.
6642          bMefSoamLmAvailRatioForwardThreshold(11)
6643                      Enables/disables availability ratio forward threshold
6644                      notification. The notification is sent immediately when the
6645                      availability ratio is greater than or equal to threshold value
6646                      in a Measurement Interval.  The availability ratio can be calculated
6647                      from the values of mefSoamLmCurrentAvailStatsForwardAvailable and
6648                      mefSoamLmCurrentAvailStatsForwardUnavailable.
6649          bMefSoamLmUnavailBackwardThreshold(12)
6650                      Enables/disables unavailable backward threshold
6651                      notification. The notification is sent immediately when the
6652                      mefSoamLmCurrentAvailStatsBackwardUnavailable value is
6653                      greater than or equal to threshold value in a Measurement Interval.
6654          bMefSoamLmAvailRatioBackwardThreshold(13)
6655                      Enables/disables availability ratio backward threshold
6656                      notification. The notification is sent immediately when the
6657                      availability ratio is greater than or equal to threshold value
```

```
6658                    in a Measurement Interval.  The availability ratio can be calculated
6659                    from the values of mefSoamLmCurrentAvailStatsBackwardAvailable and
6660                    mefSoamLmCurrentAvailStatsBackwardUnavailable.
6661              "
6662          DEFVAL { { } }
6663          ::= { mefSoamLmThresholdCfgEntry 2 }
6664
6665  mefSoamLmThresholdCfgMeasuredFlrForwardThreshold OBJECT-TYPE
6666          SYNTAX      Unsigned32 (0..100000)
6667          UNITS       "milli-percent"
6668          MAX-ACCESS  read-create
6669          STATUS      current
6670          DESCRIPTION
6671             "This object is used to set the measured forward frame loss ratio
6672              threshold value that will be used to determine if a threshold
6673              notification is generated.
6674              "
6675          DEFVAL { 100000 }
6676          ::= { mefSoamLmThresholdCfgEntry 3 }
6677
6678  mefSoamLmThresholdCfgMaxFlrForwardThreshold OBJECT-TYPE
6679          SYNTAX      Unsigned32 (0..100000)
6680          UNITS       "milli-percent"
6681          MAX-ACCESS  read-create
6682          STATUS      current
6683          DESCRIPTION
6684             "This object is used to set the maximum forward frame loss ratio
6685              threshold value that will be used to determine if a threshold
6686              notification is generated.
6687              "
6688          DEFVAL { 100000 }
6689          ::= { mefSoamLmThresholdCfgEntry 4 }
6690
6691  mefSoamLmThresholdCfgAvgFlrForwardThreshold OBJECT-TYPE
6692          SYNTAX      Unsigned32 (0..100000)
6693          UNITS       "milli-percent"
6694          MAX-ACCESS  read-create
6695          STATUS      current
6696          DESCRIPTION
6697             "This object is used to set the average forward frame loss ratio
6698              threshold value that will be used to determine if a threshold
6699              notification is generated.
6700              "
6701          DEFVAL { 100000 }
6702          ::= { mefSoamLmThresholdCfgEntry 5 }
6703
6704  mefSoamLmThresholdCfgMeasuredFlrBackwardThreshold OBJECT-TYPE
6705          SYNTAX      Unsigned32 (0..100000)
6706          UNITS       "milli-percent"
6707          MAX-ACCESS  read-create
6708          STATUS      current
6709          DESCRIPTION
6710             "This object is used to set the measured backward frame loss ratio
6711              threshold value that will be used to determine if a threshold
6712              notification is generated.
6713              "
6714          DEFVAL { 100000 }
6715          ::= { mefSoamLmThresholdCfgEntry 6 }
6716
6717  mefSoamLmThresholdCfgMaxFlrBackwardThreshold OBJECT-TYPE
6718          SYNTAX      Unsigned32 (0..100000)
6719          UNITS       "milli-percent"
6720          MAX-ACCESS  read-create
6721          STATUS      current
```

```
6722        DESCRIPTION
6723            "This object is used to set the maximum backward frame loss ratio
6724             threshold value that will be used to determine if a threshold
6725             notification is generated.
6726            "
6727        DEFVAL { 100000 }
6728        ::= { mefSoamLmThresholdCfgEntry 7 }
6729
6730    mefSoamLmThresholdCfgAvgFlrBackwardThreshold OBJECT-TYPE
6731        SYNTAX      Unsigned32 (0..100000)
6732        UNITS       "milli-percent"
6733        MAX-ACCESS  read-create
6734        STATUS      current
6735        DESCRIPTION
6736            "This object is used to set the average backward frame loss ratio
6737             threshold value that will be used to determine if a threshold
6738             notification is generated.
6739            "
6740        DEFVAL { 100000 }
6741        ::= { mefSoamLmThresholdCfgEntry 8 }
6742
6743    mefSoamLmThresholdCfgForwardHighLossThreshold OBJECT-TYPE
6744        SYNTAX      Unsigned32
6745        MAX-ACCESS  read-create
6746        STATUS      current
6747        DESCRIPTION
6748            "This object is used to set the forward high loss threshold value that
6749             will be used to determine if a threshold notification is generated.
6750            "
6751        DEFVAL { 4294967295 }
6752        ::= { mefSoamLmThresholdCfgEntry 9 }
6753
6754    mefSoamLmThresholdCfgForwardConsecutiveHighLossThreshold OBJECT-TYPE
6755        SYNTAX      Unsigned32
6756        MAX-ACCESS  read-create
6757        STATUS      current
6758        DESCRIPTION
6759            "This object is used to set the consecutive forward high loss
6760             threshold value that will be used to determine if a threshold
6761             notification is generated.
6762            "
6763        DEFVAL { 4294967295 }
6764        ::= { mefSoamLmThresholdCfgEntry 10 }
6765
6766    mefSoamLmThresholdCfgBackwardHighLossThreshold OBJECT-TYPE
6767        SYNTAX      Unsigned32
6768        MAX-ACCESS  read-create
6769        STATUS      current
6770        DESCRIPTION
6771            "This object is used to set the backward high loss threshold value that
6772             will be used to determine if a threshold notification is generated.
6773            "
6774        DEFVAL { 4294967295 }
6775        ::= { mefSoamLmThresholdCfgEntry 11 }
6776
6777    mefSoamLmThresholdCfgBackwardConsecutiveHighLossThreshold OBJECT-TYPE
6778        SYNTAX      Unsigned32
6779        MAX-ACCESS  read-create
6780        STATUS      current
6781        DESCRIPTION
6782            "This object is used to set the consecutive backward high loss
6783             threshold value that will be used to determine if a threshold
6784             notification is generated.
6785            "
```

```
6786        DEFVAL { 4294967295 }
6787        ::= { mefSoamLmThresholdCfgEntry 12 }
6788
6789  mefSoamLmThresholdCfgForwardUnavailCountThreshold OBJECT-TYPE
6790        SYNTAX      Unsigned32
6791        MAX-ACCESS  read-create
6792        STATUS      current
6793        DESCRIPTION
6794          "This object is used to set the forward unavailability
6795           threshold value that will be used to determine if a threshold
6796           notification is generated.
6797          "
6798        DEFVAL { 4294967295 }
6799        ::= { mefSoamLmThresholdCfgEntry 13 }
6800
6801  mefSoamLmThresholdCfgForwardAvailRatioThreshold OBJECT-TYPE
6802        SYNTAX      Unsigned32 (0..100000)
6803        UNITS       "milli-percent"
6804        MAX-ACCESS  read-create
6805        STATUS      current
6806        DESCRIPTION
6807          "This object is used to set the forward availability/total time
6808           ratio threshold value that will be used to determine if a threshold
6809           notification is generated if the ratio drops below the configured
6810           value.
6811
6812           The ratio value is expressed as a percent with a value of 0 (ratio
6813           0.00) through 100000 (ratio 1.00)
6814
6815           Units are in milli-percent, where 1 indicates 0.001 percent.
6816          "
6817        DEFVAL { 0 }
6818        ::= { mefSoamLmThresholdCfgEntry 14 }
6819
6820  mefSoamLmThresholdCfgBackwardUnavailCountThreshold OBJECT-TYPE
6821        SYNTAX      Unsigned32
6822        MAX-ACCESS  read-create
6823        STATUS      current
6824        DESCRIPTION
6825          "This object is used to set the backward unavailability
6826           threshold value that will be used to determine if a threshold
6827           notification is generated.
6828          "
6829        DEFVAL { 4294967295 }
6830        ::= { mefSoamLmThresholdCfgEntry 15 }
6831
6832  mefSoamLmThresholdCfgBackwardAvailRatioThreshold OBJECT-TYPE
6833        SYNTAX      Unsigned32 (0..100000)
6834        UNITS       "milli-percent"
6835        MAX-ACCESS  read-create
6836        STATUS      current
6837        DESCRIPTION
6838          "This object is used to set the backward availability/total time
6839           ratio threshold value that will be used to determine if a threshold
6840           notification is generated if the ratio drops below the configured
6841           value.
6842
6843           The ratio value is expressed as a percent with a value of 0 (ratio
6844           0.00) through 100000 (ratio 1.00)
6845
6846           Units are in milli-percent, where 1 indicates 0.001 percent.
6847          "
6848        DEFVAL { 0 }
6849        ::= { mefSoamLmThresholdCfgEntry 16 }
```

```
6850
6851  mefSoamLmThresholdCfgRowStatus OBJECT-TYPE
6852      SYNTAX      RowStatus
6853      MAX-ACCESS  read-create
6854      STATUS      current
6855      DESCRIPTION
6856         "The status of the row.
6857
6858          The writable columns in a row cannot be changed if the row
6859          is active. All columns are to have a valid value before a row
6860          can be activated.
6861          "
6862      ::= { mefSoamLmThresholdCfgEntry 17 }
6863
6864
6865  -- ******************************************************************************
6866  -- Performance Measurement Delay Threshold Configuration Table
6867  -- ******************************************************************************
6868
6869  mefSoamDmThresholdCfgTable OBJECT-TYPE
6870      SYNTAX      SEQUENCE OF MefSoamDmThresholdCfgEntry
6871      MAX-ACCESS  not-accessible
6872      STATUS      current
6873      DESCRIPTION
6874         "This table contains the list of Delay Measurement threshold configuration
6875          values for DM Performance Monitoring.
6876
6877          The main purpose of the threshold configuration table is to configure
6878          threshold alarm notifications indicating that a specific performance
6879          metric is not being met.
6880
6881          Each row in the table represents a Delay Measurement session threshold
6882          set for the defined MEP. This table uses five indices. The first three
6883          indices are the indices of the Maintenance Domain, MaNet, and MEP tables.
6884          The fourth index is the specific DM session on the selected MEP. The
6885          fifth index is the specific threshold set number.
6886
6887          Rows in this table are not created automatically. A row is created in
6888          this table to set up a threshold set on a configured MEP that has a
6889          configured DM session.
6890
6891          An NE needs to support at least one threshold set for NE SOAM PM compliance. A
6892          second threshold set on the NE is desirable. More than two threshold
6893          sets on the NE can be configured if supported on the NE.
6894
6895          All the objects in the row have a default value that disables the
6896          particular threshold measurement. In order to enable a threshold
6897          measurement the particular bit in the mefSoamDmThresholdCfgEnable object
6898          is to be set to '1' and the selected threshold measurement is to have
6899          a threshold value configured. Non-configured threshold measurements
6900          are disabled by default.
6901
6902          The writable objects in this table need to be persistent upon reboot
6903          or restart of a device.
6904          "
6905      ::= { mefSoamPmDmObjects 8 }
6906
6907  mefSoamDmThresholdCfgEntry OBJECT-TYPE
6908      SYNTAX      MefSoamDmThresholdCfgEntry
6909      MAX-ACCESS  not-accessible
6910      STATUS      current
6911      DESCRIPTION
6912             "The conceptual row of mefSoamDmThresholdCfgTable."
6913      INDEX       {
```

```
6914                dot1agCfmMdIndex,
6915                dot1agCfmMaIndex,
6916                dot1agCfmMepIdentifier,
6917                mefSoamDmCfgIndex,
6918                mefSoamDmThresholdCfgIndex
6919                }
6920      ::= {mefSoamDmThresholdCfgTable 1 }
6921
6922  MefSoamDmThresholdCfgEntry ::= SEQUENCE {
6923      mefSoamDmThresholdCfgIndex                                Unsigned32,
6924      mefSoamDmThresholdCfgEnable                               BITS,
6925      mefSoamDmThresholdCfgMeasuredFrameDelayTwoWayThreshold    Unsigned32,
6926      mefSoamDmThresholdCfgMaxFrameDelayTwoWayThreshold         Unsigned32,
6927      mefSoamDmThresholdCfgAvgFrameDelayTwoWayThreshold         Unsigned32,
6928      mefSoamDmThresholdCfgMeasuredIfdvTwoWayThreshold          Unsigned32,
6929      mefSoamDmThresholdCfgMaxIfdvTwoWayThreshold               Unsigned32,
6930      mefSoamDmThresholdCfgAvgIfdvTwoWayThreshold               Unsigned32,
6931      mefSoamDmThresholdCfgMaxFrameDelayRangeTwoWayThreshold    Unsigned32,
6932      mefSoamDmThresholdCfgAvgFrameDelayRangeTwoWayThreshold    Unsigned32,
6933      mefSoamDmThresholdCfgMeasuredFrameDelayForwardThreshold   Unsigned32,
6934      mefSoamDmThresholdCfgMaxFrameDelayForwardThreshold        Unsigned32,
6935      mefSoamDmThresholdCfgAvgFrameDelayForwardThreshold        Unsigned32,
6936      mefSoamDmThresholdCfgMeasuredIfdvForwardThreshold         Unsigned32,
6937      mefSoamDmThresholdCfgMaxIfdvForwardThreshold              Unsigned32,
6938      mefSoamDmThresholdCfgAvgIfdvForwardThreshold              Unsigned32,
6939      mefSoamDmThresholdCfgMaxFrameDelayRangeForwardThreshold   Unsigned32,
6940      mefSoamDmThresholdCfgAvgFrameDelayRangeForwardThreshold   Unsigned32,
6941      mefSoamDmThresholdCfgMeasuredFrameDelayBackwardThreshold  Unsigned32,
6942      mefSoamDmThresholdCfgMaxFrameDelayBackwardThreshold       Unsigned32,
6943      mefSoamDmThresholdCfgAvgFrameDelayBackwardThreshold       Unsigned32,
6944      mefSoamDmThresholdCfgMeasuredIfdvBackwardThreshold        Unsigned32,
6945      mefSoamDmThresholdCfgMaxIfdvBackwardThreshold             Unsigned32,
6946      mefSoamDmThresholdCfgAvgIfdvBackwardThreshold             Unsigned32,
6947      mefSoamDmThresholdCfgMaxFrameDelayRangeBackwardThreshold  Unsigned32,
6948      mefSoamDmThresholdCfgAvgFrameDelayRangeBackwardThreshold  Unsigned32,
6949
6950      mefSoamDmThresholdCfgRowStatus                            RowStatus
6951  }
6952
6953  mefSoamDmThresholdCfgIndex OBJECT-TYPE
6954      SYNTAX      Unsigned32(1..4294967295)
6955      MAX-ACCESS  not-accessible
6956      STATUS      current
6957      DESCRIPTION
6958        "The index of the threshold number for the specific DM
6959         threshold entry.
6960
6961         An index value of '1' is to be supported. Other index values
6962         can be supported.
6963        "
6964      ::= { mefSoamDmThresholdCfgEntry 1 }
6965
6966  mefSoamDmThresholdCfgEnable OBJECT-TYPE
6967      SYNTAX      BITS {
6968                  bMefSoamDmMeasuredFrameDelayTwoWayThreshold(0),
6969                  bMefSoamDmMaxFrameDelayTwoWayThreshold(1),
6970                  bMefSoamDmAvgFrameDelayTwoWayThreshold(2),
6971                  bMefSoamDmMeasuredIfdvTwoWayThreshold(3),
6972                  bMefSoamDmMaxIfdvTwoWayThreshold(4),
6973                  bMefSoamDmAvgIfdvTwoWayThreshold(5),
6974                  bMefSoamDmMaxFrameDelayRangeTwoWayThreshold(6),
6975                  bMefSoamDmAvgFrameDelayRangeTwoWayThreshold(7),
6976                  bMefSoamDmMeasuredFrameDelayForwardThreshold(8),
6977                  bMefSoamDmMaxFrameDelayForwardThreshold(9),
```

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6978                      bMefSoamDmAvgFrameDelayForwardThreshold(10),
6979                      bMefSoamDmMeasuredIfdvForwardThreshold(11),
6980                      bMefSoamDmMaxIfdvForwardThreshold(12),
6981                      bMefSoamDmAvgIfdvForwardThreshold(13),
6982                      bMefSoamDmMaxFrameDelayRangeForwardThreshold(14),
6983                      bMefSoamDmAvgFrameDelayRangeForwardThreshold(15),
6984                      bMefSoamDmMeasuredFrameDelayBackwardThreshold(16),
6985                      bMefSoamDmMaxFrameDelayBackwardThreshold(17),
6986                      bMefSoamDmAvgFrameDelayBackwardThreshold(18),
6987                      bMefSoamDmMeasuredIfdvBackwardThreshold(19),
6988                      bMefSoamDmMaxIfdvBackwardThreshold(20),
6989                      bMefSoamDmAvgIfdvBackwardThreshold(21),
6990                      bMefSoamDmMaxFrameDelayRangeBackwardThreshold(22),
6991                      bMefSoamDmAvgFrameDelayRangeBackwardThreshold(23)
6992                  }
6993        MAX-ACCESS  read-create
6994        STATUS      current
6995        DESCRIPTION
6996           "A vector of bits that indicates the type of SOAM DM threshold
6997           notifications that are enabled.
6998
6999           A bit set to '1' enables the specific SOAM DM threshold notification
7000           and when the specific counter is enabled and the threshold is crossed a
7001           notification is generated.
7002
7003           A bit set to '0' disables the specific SOAM DM threshold notification.
7004
7005           If a particular SOAM DM threshold is not supported the BIT value is
7006           set to '0'.
7007
7008           bMefSoamDmMeasuredFrameDelayTwoWayThreshold(0)
7009                   Enables/disables measured frame two-way delay threshold
7010                   notification. The notification is sent immediately when the
7011                   mefSoamDmMeasuredStatsFrameDelayTwoWay value is
7012                   greater than or equal to threshold value.
7013           bMefSoamDmMaxFrameDelayTwoWayThreshold(1)
7014                   Enables/disables maximum frame two-way delay threshold
7015                   notification. The notification is sent immediately when the
7016                   mefSoamDmCurrentStatsFrameDelayTwoWayMax value is
7017                   greater than or equal to threshold value in a Measurement Interval.
7018           bMefSoamDmAvgFrameDelayTwoWayThreshold(2)
7019                   Enables/disables average frame two-way delay threshold
7020                   notification. The notification is sent when at the end of a
7021                   Measurement Interval if the
7022                   mefSoamDmCurrentStatsFrameDelayTwoWayAvg value is
7023                   greater than or equal to the threshold value.
7024           bMefSoamDmMeasuredIfdvTwoWayThreshold(3)
7025                   Enables/disables measured frame IFDV two-way threshold
7026                   notification. The notification is sent immediately when the
7027                   mefSoamDmMeasuredStatsIfdvTwoWay value is greater
7028                   than or equal to threshold value.
7029           bMefSoamDmMaxIfdvTwoWayThreshold(4)
7030                   Enables/disables maximum frame IFDV two-way threshold
7031                   notification. The notification is sent immediately when the
7032                   mefSoamDmCurrentStatsIfdvTwoWayMax value is greater
7033                   than or equal to threshold value in a Measurement Interval.
7034           bMefSoamDmAvgIfdvTwoWayThreshold(5)
7035                   Enables/disables average frame IFDV two-way threshold
7036                   notification. The notification is sent when at the end of a
7037                   Measurement Interval if the
7038                   mefSoamDmCurrentStatsIfdvTwoWayAvg value is
7039                   greater than or equal to the threshold value.
7040           bMefSoamDmMaxFrameDelayRangeTwoWayThreshold(6)
7041                   Enables/disables maximum Frame Delay Range two-way threshold
```

```
7042              notification. The notification is sent immediately when the
7043              mefSoamDmCurrentStatsFrameDelayRangeTwoWayMax value is greater
7044              than or equal to threshold value in a Measurement Interval.
7045        bMefSoamDmAvgFrameDelayRangeTwoWayThreshold(7)
7046              Enables/disables average Frame Delay Range two-way threshold
7047              notification. The notification is sent when at the end of a
7048              Measurement Interval if the
7049              mefSoamDmCurrentStatsFrameDelayRangeTwoWayAvg value is
7050              greater than or equal to the threshold value.
7051        bMefSoamDmMeasuredFrameDelayForwardThreshold(8)
7052              Enables/disables measured forward frame delay threshold
7053              notification. The notification is sent immediately when the
7054              mefSoamDmMeasuredStatsFrameDelayForward value is
7055              greater than or equal to threshold value.
7056        bMefSoamDmMaxFrameDelayForwardThreshold(9)
7057              Enables/disables maximum forward frame delay threshold
7058              notification. The notification is sent immediately when the
7059              mefSoamDmCurrentStatsFrameDelayForwardMax value is
7060              greater than or equal to threshold value in a Measurement Interval.
7061        bMefSoamDmAvgFrameDelayForwardThreshold(10)
7062              Enables/disables average forward frame delay threshold
7063              notification. The notification is sent when at the end of a
7064              Measurement Interval if the
7065              mefSoamDmCurrentStatsFrameDelayForwardAvg value is
7066              greater than or equal to the threshold value.
7067        bMefSoamDmMeasuredIfdvForwardThreshold(11)
7068              Enables/disables measured frame IFDV forward threshold
7069              notification. The notification is sent immediately when the
7070              mefSoamDmMeasuredStatsIfdvForward value is greater
7071              than or equal to threshold value.
7072        bMefSoamDmMaxIfdvForwardThreshold(12)
7073              Enables/disables maximum frame IFDV forward threshold
7074              notification. The notification is sent immediately when the
7075              mefSoamDmCurrentStatsIfdvForwardMax value is greater
7076              than or equal to threshold value in a Measurement Interval.
7077        bMefSoamDmAvgIfdvForwardThreshold(13)
7078              Enables/disables average frame IFDV forward threshold
7079              notification. The notification is sent when at the end of a
7080              Measurement Interval if the
7081              mefSoamDmCurrentStatsIfdvForwardAvg value is
7082              greater than or equal to the threshold value.
7083        bMefSoamDmMaxFrameDelayRangeForwardThreshold(14)
7084              Enables/disables maximum Frame Delay Range forward threshold
7085              notification. The notification is sent immediately when the
7086              mefSoamDmCurrentStatsFrameDelayRangeForwardMax value is greater
7087              than or equal to threshold value in a Measurement Interval.
7088        bMefSoamDmAvgFrameDelayRangeForwardThreshold(15)
7089              Enables/disables average Frame Delay Range forward threshold
7090              notification. The notification is sent when at the end of a
7091              Measurement Interval if the
7092              mefSoamDmCurrentStatsFrameDelayRangeForwardAvg value is
7093              greater than or equal to the threshold value.
7094        bMefSoamDmMeasuredFrameDelayBackwardThreshold(16)
7095              Enables/disables measured backward frame delay threshold
7096              notification. The notification is sent immediately when the
7097              mefSoamDmMeasuredStatsFrameDelayBackward value is
7098              greater than or equal to threshold value.
7099        bMefSoamDmMaxFrameDelayBackwardThreshold(17)
7100              Enables/disables maximum backward frame delay threshold
7101              notification. The notification is sent immediately when the
7102              mefSoamDmCurrentStatsFrameDelayBackwardMax value is
7103              greater than or equal to threshold value in a
7104              Measurement Interval.
7105        bMefSoamDmAvgFrameDelayBackwardThreshold(18)
```

```
7106                    Enables/disables average backward frame delay threshold
7107                    notification. The notification is sent when at the end of a
7108                    Measurement Interval if the
7109                    mefSoamDmCurrentStatsFrameDelayBackwardAvg value is
7110                    greater than or equal to the threshold value.
7111          bMefSoamDmMeasuredIfdvBackwardThreshold(19)
7112                    Enables/disables measured frame IFDV backward threshold
7113                    notification. The notification is sent immediately when the
7114                    mefSoamDmMeasuredStatsIfdvBackward value is greater
7115                    than or equal to threshold value.
7116          bMefSoamDmMaxIfdvBackwardThreshold(20)
7117                    Enables/disables maximum frame IFDV backward threshold
7118                    notification. The notification is sent immediately when the
7119                    mefSoamDmCurrentStatsIfdvBackwardMax value is greater
7120                    than or equal to threshold value in a Measurement Interval.
7121          bMefSoamDmAvgIfdvBackwardThreshold(21)
7122                    Enables/disables average frame IFDV backward threshold
7123                    notification. The notification is sent when at the end of a
7124                    Measurement Interval if the
7125                    mefSoamDmCurrentStatsIfdvBackwardAvg value is greater
7126                    than or equal to the threshold value.
7127          bMefSoamDmMaxFrameDelayRangeBackwardThreshold(22)
7128                    Enables/disables maximum Frame Delay Range backward threshold
7129                    notification. The notification is sent immediately when the
7130                    mefSoamDmCurrentStatsFrameDelayRangeBackwardMax value is greater
7131                    than or equal to threshold value in a Measurement Interval.
7132          bMefSoamDmAvgFrameDelayRangeBackwardThreshold(23)
7133                    Enables/disables average Frame Delay Range backward threshold
7134                    notification. The notification is sent when at the end of a
7135                    Measurement Interval if the
7136                    mefSoamDmCurrentStatsFrameDelayRangeBackwardAvg value is greater
7137                    than or equal to the threshold value.
7138          "
7139      DEFVAL { { } }
7140      ::= { mefSoamDmThresholdCfgEntry 2 }
7141
7142 mefSoamDmThresholdCfgMeasuredFrameDelayTwoWayThreshold OBJECT-TYPE
7143      SYNTAX      Unsigned32
7144      UNITS       "microseconds"
7145      MAX-ACCESS  read-create
7146      STATUS      current
7147      DESCRIPTION
7148         "This object is used to set the measurement two-way delay threshold
7149          value that will be used to determine if a threshold notification is
7150          generated.
7151          "
7152      DEFVAL { 4294967295 }
7153      ::= { mefSoamDmThresholdCfgEntry 3 }
7154
7155 mefSoamDmThresholdCfgMaxFrameDelayTwoWayThreshold OBJECT-TYPE
7156      SYNTAX      Unsigned32
7157      UNITS       "microseconds"
7158      MAX-ACCESS  read-create
7159      STATUS      current
7160      DESCRIPTION
7161         "This object is used to set the maximum two-way delay threshold
7162          value that will be used to determine if a threshold notification is
7163          generated.
7164          "
7165      DEFVAL { 4294967295 }
7166      ::= { mefSoamDmThresholdCfgEntry 4 }
7167
7168 mefSoamDmThresholdCfgAvgFrameDelayTwoWayThreshold OBJECT-TYPE
7169      SYNTAX      Unsigned32
```

```
7170        UNITS       "microseconds"
7171        MAX-ACCESS  read-create
7172        STATUS      current
7173        DESCRIPTION
7174          "This object is used to set the average two-way delay threshold
7175           value that will be used to determine if a threshold notification is
7176           generated.
7177          "
7178        DEFVAL { 4294967295 }
7179        ::= { mefSoamDmThresholdCfgEntry 5 }
7180
7181    mefSoamDmThresholdCfgMeasuredIfdvTwoWayThreshold OBJECT-TYPE
7182        SYNTAX      Unsigned32
7183        UNITS       "microseconds"
7184        MAX-ACCESS  read-create
7185        STATUS      current
7186        DESCRIPTION
7187          "This object is used to set the measurement two-way IFDV threshold
7188           value that will be used to determine if a threshold notification is
7189           generated.
7190          "
7191        DEFVAL { 4294967295 }
7192        ::= { mefSoamDmThresholdCfgEntry 6 }
7193
7194    mefSoamDmThresholdCfgMaxIfdvTwoWayThreshold OBJECT-TYPE
7195        SYNTAX      Unsigned32
7196        UNITS       "microseconds"
7197        MAX-ACCESS  read-create
7198        STATUS      current
7199        DESCRIPTION
7200          "This object is used to set the maximum two-way IFDV threshold
7201           value that will be used to determine if a threshold notification is
7202           generated.
7203          "
7204        DEFVAL { 4294967295 }
7205        ::= { mefSoamDmThresholdCfgEntry 7 }
7206
7207    mefSoamDmThresholdCfgAvgIfdvTwoWayThreshold OBJECT-TYPE
7208        SYNTAX      Unsigned32
7209        UNITS       "microseconds"
7210        MAX-ACCESS  read-create
7211        STATUS      current
7212        DESCRIPTION
7213          "This object is used to set the average two-way IFDV threshold
7214           value that will be used to determine if a threshold notification is
7215           generated.
7216          "
7217        DEFVAL { 4294967295 }
7218        ::= { mefSoamDmThresholdCfgEntry 8 }
7219
7220    mefSoamDmThresholdCfgMaxFrameDelayRangeTwoWayThreshold OBJECT-TYPE
7221        SYNTAX      Unsigned32
7222        UNITS       "microseconds"
7223        MAX-ACCESS  read-create
7224        STATUS      current
7225        DESCRIPTION
7226          "This object is used to set the maximum two-way Frame Delay Range threshold
7227           value that will be used to determine if a threshold notification is
7228           generated.
7229          "
7230        DEFVAL { 4294967295 }
7231        ::= { mefSoamDmThresholdCfgEntry 9 }
7232
7233    mefSoamDmThresholdCfgAvgFrameDelayRangeTwoWayThreshold OBJECT-TYPE
```

```
7234        SYNTAX      Unsigned32
7235        UNITS       "microseconds"
7236        MAX-ACCESS  read-create
7237        STATUS      current
7238        DESCRIPTION
7239          "This object is used to set the average two-way Frame Delay Range threshold
7240           value that will be used to determine if a threshold notification is
7241           generated.
7242           "
7243        DEFVAL { 4294967295 }
7244        ::= { mefSoamDmThresholdCfgEntry 10 }
7245
7246    mefSoamDmThresholdCfgMeasuredFrameDelayForwardThreshold OBJECT-TYPE
7247        SYNTAX      Unsigned32
7248        UNITS       "microseconds"
7249        MAX-ACCESS  read-create
7250        STATUS      current
7251        DESCRIPTION
7252          "This object is used to set the measurement forward delay threshold
7253           value that will be used to determine if a threshold notification is
7254           generated.
7255           "
7256        DEFVAL { 4294967295 }
7257        ::= { mefSoamDmThresholdCfgEntry 11 }
7258
7259    mefSoamDmThresholdCfgMaxFrameDelayForwardThreshold OBJECT-TYPE
7260        SYNTAX      Unsigned32
7261        UNITS       "microseconds"
7262        MAX-ACCESS  read-create
7263        STATUS      current
7264        DESCRIPTION
7265          "This object is used to set the maximum forward delay threshold
7266           value that will be used to determine if a threshold notification is
7267           generated.
7268           "
7269        DEFVAL { 4294967295 }
7270        ::= { mefSoamDmThresholdCfgEntry 12 }
7271
7272    mefSoamDmThresholdCfgAvgFrameDelayForwardThreshold OBJECT-TYPE
7273        SYNTAX      Unsigned32
7274        UNITS       "microseconds"
7275        MAX-ACCESS  read-create
7276        STATUS      current
7277        DESCRIPTION
7278          "This object is used to set the average forward delay threshold
7279           value that will be used to determine if a threshold notification is
7280           generated.
7281           "
7282        DEFVAL { 4294967295 }
7283        ::= { mefSoamDmThresholdCfgEntry 13 }
7284
7285    mefSoamDmThresholdCfgMeasuredIfdvForwardThreshold OBJECT-TYPE
7286        SYNTAX      Unsigned32
7287        UNITS       "microseconds"
7288        MAX-ACCESS  read-create
7289        STATUS      current
7290        DESCRIPTION
7291          "This object is used to set the measurement IFDV threshold
7292           value that will be used to determine if a threshold notification is
7293           generated.
7294           "
7295        DEFVAL { 4294967295 }
7296        ::= { mefSoamDmThresholdCfgEntry 14 }
7297
```

```
7298   mefSoamDmThresholdCfgMaxIfdvForwardThreshold OBJECT-TYPE
7299       SYNTAX      Unsigned32
7300       UNITS       "microseconds"
7301       MAX-ACCESS  read-create
7302       STATUS      current
7303       DESCRIPTION
7304          "This object is used to set the maximum IFDV threshold
7305           value that will be used to determine if a threshold notification is
7306           generated.
7307           "
7308       DEFVAL { 4294967295 }
7309       ::= { mefSoamDmThresholdCfgEntry 15 }
7310
7311   mefSoamDmThresholdCfgAvgIfdvForwardThreshold OBJECT-TYPE
7312       SYNTAX      Unsigned32
7313       UNITS       "microseconds"
7314       MAX-ACCESS  read-create
7315       STATUS      current
7316       DESCRIPTION
7317          "This object is used to set the average IFDV threshold
7318           value that will be used to determine if a threshold notification is
7319           generated.
7320           "
7321       DEFVAL { 4294967295 }
7322       ::= { mefSoamDmThresholdCfgEntry 16 }
7323
7324   mefSoamDmThresholdCfgMaxFrameDelayRangeForwardThreshold OBJECT-TYPE
7325       SYNTAX      Unsigned32
7326       UNITS       "microseconds"
7327       MAX-ACCESS  read-create
7328       STATUS      current
7329       DESCRIPTION
7330          "This object is used to set the maximum Frame Delay Range threshold
7331           value that will be used to determine if a threshold notification is
7332           generated.
7333           "
7334       DEFVAL { 4294967295 }
7335       ::= { mefSoamDmThresholdCfgEntry 17 }
7336
7337   mefSoamDmThresholdCfgAvgFrameDelayRangeForwardThreshold OBJECT-TYPE
7338       SYNTAX      Unsigned32
7339       UNITS       "microseconds"
7340       MAX-ACCESS  read-create
7341       STATUS      current
7342       DESCRIPTION
7343          "This object is used to set the average Frame Delay Range threshold
7344           value that will be used to determine if a threshold notification is
7345           generated.
7346           "
7347       DEFVAL { 4294967295 }
7348       ::= { mefSoamDmThresholdCfgEntry 18 }
7349
7350   mefSoamDmThresholdCfgMeasuredFrameDelayBackwardThreshold OBJECT-TYPE
7351       SYNTAX      Unsigned32
7352       UNITS       "microseconds"
7353       MAX-ACCESS  read-create
7354       STATUS      current
7355       DESCRIPTION
7356          "This object is used to set the measurement backward delay threshold
7357           value that will be used to determine if a threshold notification is
7358           generated.
7359           "
7360       DEFVAL { 4294967295 }
7361       ::= { mefSoamDmThresholdCfgEntry 19 }
```

```
7362
7363    mefSoamDmThresholdCfgMaxFrameDelayBackwardThreshold OBJECT-TYPE
7364        SYNTAX      Unsigned32
7365        UNITS       "microseconds"
7366        MAX-ACCESS  read-create
7367        STATUS      current
7368        DESCRIPTION
7369           "This object is used to set the maximum backward delay threshold
7370            value that will be used to determine if a threshold notification is
7371            generated.
7372            "
7373        DEFVAL { 4294967295 }
7374        ::= { mefSoamDmThresholdCfgEntry 20 }
7375
7376    mefSoamDmThresholdCfgAvgFrameDelayBackwardThreshold OBJECT-TYPE
7377        SYNTAX      Unsigned32
7378        UNITS       "microseconds"
7379        MAX-ACCESS  read-create
7380        STATUS      current
7381        DESCRIPTION
7382           "This object is used to set the average backward delay threshold
7383            value that will be used to determine if a threshold notification is
7384            generated.
7385            "
7386        DEFVAL { 4294967295 }
7387        ::= { mefSoamDmThresholdCfgEntry 21 }
7388
7389    mefSoamDmThresholdCfgMeasuredIfdvBackwardThreshold OBJECT-TYPE
7390        SYNTAX      Unsigned32
7391        UNITS       "microseconds"
7392        MAX-ACCESS  read-create
7393        STATUS      current
7394        DESCRIPTION
7395           "This object is used to set the measurement backward IFDV threshold
7396            value that will be used to determine if a threshold notification is
7397            generated.
7398            "
7399        DEFVAL { 4294967295 }
7400        ::= { mefSoamDmThresholdCfgEntry 22 }
7401
7402    mefSoamDmThresholdCfgMaxIfdvBackwardThreshold OBJECT-TYPE
7403        SYNTAX      Unsigned32
7404        UNITS       "microseconds"
7405        MAX-ACCESS  read-create
7406        STATUS      current
7407        DESCRIPTION
7408           "This object is used to set the maximum backward IFDV threshold
7409            value that will be used to determine if a threshold notification is
7410            generated.
7411            "
7412        DEFVAL { 4294967295 }
7413        ::= { mefSoamDmThresholdCfgEntry 23 }
7414
7415    mefSoamDmThresholdCfgAvgIfdvBackwardThreshold OBJECT-TYPE
7416        SYNTAX      Unsigned32
7417        UNITS       "microseconds"
7418        MAX-ACCESS  read-create
7419        STATUS      current
7420        DESCRIPTION
7421           "This object is used to set the average backward IFDV threshold
7422            value that will be used to determine if a threshold notification is
7423            generated.
7424            "
7425        DEFVAL { 4294967295 }
```

```
7426        ::= { mefSoamDmThresholdCfgEntry 24 }
7427
7428    mefSoamDmThresholdCfgMaxFrameDelayRangeBackwardThreshold OBJECT-TYPE
7429        SYNTAX       Unsigned32
7430        UNITS        "microseconds"
7431        MAX-ACCESS   read-create
7432        STATUS       current
7433        DESCRIPTION
7434           "This object is used to set the maximum backward Frame Delay Range threshold
7435            value that will be used to determine if a threshold notification is
7436            generated.
7437            "
7438        DEFVAL { 4294967295 }
7439        ::= { mefSoamDmThresholdCfgEntry 25 }
7440
7441    mefSoamDmThresholdCfgAvgFrameDelayRangeBackwardThreshold OBJECT-TYPE
7442        SYNTAX       Unsigned32
7443        UNITS        "microseconds"
7444        MAX-ACCESS   read-create
7445        STATUS       current
7446        DESCRIPTION
7447           "This object is used to set the average backward Frame Delay Range threshold
7448            value that will be used to determine if a threshold notification is
7449            generated.
7450            "
7451        DEFVAL { 4294967295 }
7452        ::= { mefSoamDmThresholdCfgEntry 26 }
7453
7454    mefSoamDmThresholdCfgRowStatus OBJECT-TYPE
7455        SYNTAX       RowStatus
7456        MAX-ACCESS   read-create
7457        STATUS       current
7458        DESCRIPTION
7459           "The status of the row.
7460
7461            The writable columns in a row cannot be changed if the row
7462            is active. All columns are to have a valid value before a row
7463            can be activated.
7464            "
7465        ::= { mefSoamDmThresholdCfgEntry 27 }
7466
7467    -- ****************************************************************************
7468    -- Notification Configuration Objects
7469    -- ****************************************************************************
7470
7471    mefSoamPmNotificationCfgAlarmInterval OBJECT-TYPE
7472        SYNTAX       Unsigned32 (0..60)
7473        UNITS        "Seconds"
7474        MAX-ACCESS   read-write
7475        STATUS       current
7476        DESCRIPTION
7477           "A value indicating the shortest time interval in seconds between the
7478            generation of the same notification type per PM session to the list of
7479            notification destinations. An agent generates the first notification
7480            of given type for a given PM session immediately. An agent is not to
7481            generate a second specific notification of the same type for the same
7482            MEP for the same session until the time interval has expired. A value of zero
7483            indicates that all notifications are sent immediately upon detection
7484            of the condition.
7485            "
7486        DEFVAL {5}
7487        ::= { mefSoamPmNotificationCfg 1 }
7488
7489    mefSoamPmNotificationCfgAlarmEnable OBJECT-TYPE
```

```
7490          SYNTAX       BITS {
7491                          bAvailabilityChangeAlarm(0),
7492                          bLmSessionStartStopAlarm(1),
7493                          bDmSessionStartStopAlarm(2),
7494                          bPmThresholdAboveAlarm(3),
7495                          bPmThresholdSetClearAlarm(4)
7496                       }
7497          MAX-ACCESS  read-write
7498          STATUS      current
7499          DESCRIPTION
7500             "A vector of bits that indicates whether a specific notification is
7501              enabled.
7502
7503              A bit set to '1' enables the specific notification generation.
7504
7505              A bit set to '0' disables the specific notification.
7506
7507              If a particular alarm is not supported the BIT value of the enable/disable
7508              is set to '0'.
7509
7510              bAvailabilityChangeAlarm(0)  enables/disables mefSoamAvailabilityChangeAlarm
7511              bLmSessionStartStopAlarm(1)  enables/disables mefSoamLmSessionStartStopAlarm
7512              bDmSessionStartStopAlarm(2)  enables/disables mefSoamDmSessionStartStopAlarm
7513              bPmThresholdAboveAlarm(3)    enables/disables mefSoamPmThresholdAboveAlarm
7514              bPmThresholdSetClearAlarm(4) enables/disables mefSoamPmThresholdSetClearAlarm
7515             "
7516          DEFVAL { { } }
7517          ::= { mefSoamPmNotificationCfg 2 }
7518
7519    -- ****************************************************************************
7520    -- Notification Data Objects
7521    -- ****************************************************************************
7522
7523    mefSoamPmNotificationObjDateAndTime OBJECT-TYPE
7524          SYNTAX       DateAndTime
7525          MAX-ACCESS  accessible-for-notify
7526          STATUS      current
7527          DESCRIPTION
7528             "This object contains the time and date at the time that
7529              the notification event is detected, not the time of the notification
7530              generation.
7531
7532              This object is used only for notifications. The mechanism to set and keep
7533              current the date and time is not specified.
7534             "
7535          ::= { mefSoamPmNotificationObj 1 }
7536
7537    mefSoamPmNotificationObjThresholdId OBJECT-TYPE
7538          SYNTAX       OBJECT IDENTIFIER
7539          MAX-ACCESS  accessible-for-notify
7540          STATUS      current
7541          DESCRIPTION
7542             "The Object Identifier of the object that caused the generation of the
7543              notification from the mefSoamLmThresholdEntry or mefSoamDmThresholdEntry.
7544
7545              This object is only used for the notification.
7546             "
7547          ::= { mefSoamPmNotificationObj 2 }
7548
7549    mefSoamPmNotificationObjThresholdConfig OBJECT-TYPE
7550          SYNTAX       Unsigned32
7551          MAX-ACCESS  accessible-for-notify
7552          STATUS      current
7553          DESCRIPTION
```

```
7554              "The configured threshold value of the object that caused the generation
7555               of the notification.
7556
7557               This object is only used for the notification.
7558              "
7559          ::= { mefSoamPmNotificationObj 3 }
7560
7561    mefSoamPmNotificationObjThresholdValue OBJECT-TYPE
7562        SYNTAX       Unsigned32
7563        MAX-ACCESS   accessible-for-notify
7564        STATUS       current
7565        DESCRIPTION
7566              "The measured value of the object at the time of the generation of the
7567               Notification, from the mefSoamLmMeasuredStatsTable,
7568               mefSoamLmCurrentStatsTable, mefSoamLmCurrentAvailStatsTable,
7569               mefSoamDmMeasuredStatsTable or mefSoamDmCurrentStatsTable.
7570
7571               This object is only used for the notification.
7572              "
7573          ::= { mefSoamPmNotificationObj 4 }
7574
7575    mefSoamPmNotificationObjSuspect OBJECT-TYPE
7576        SYNTAX       TruthValue
7577        MAX-ACCESS   accessible-for-notify
7578        STATUS       current
7579        DESCRIPTION
7580              "The suspect flag for the current Measurement Interval in which the
7581               notification was generated from the mefSoamLmCurrentStatsTable,
7582               mefSoamLmCurrentAvailStatsTable, or mefSoamDmCurrentStatsTable.
7583
7584               This object is only used for the notification.
7585              "
7586          ::= { mefSoamPmNotificationObj 5 }
7587
7588    mefSoamPmNotificationObjCrossingType OBJECT-TYPE
7589        SYNTAX       INTEGER {
7590                        aboveAlarm     (1),
7591                        setAlarm       (2),
7592                        clearAlarm     (3)
7593                     }
7594        MAX-ACCESS   accessible-for-notify
7595        STATUS       current
7596        DESCRIPTION
7597              "The Notification Crossing Type of the object that caused the generation
7598               of the notification from the mefSoamLmThresholdEntry or
7599               mefSoamDmThresholdEntry.
7600
7601               aboveAlarm(1)    indicates that the crossing type alarm was an above
7602                                threshold
7603
7604               setAlarm(2)      indicates that the crossing type alarm was a set
7605                                threshold
7606
7607               clearAlarm(3)    indicates that the crossing type alarm was a clear
7608                                threshold
7609
7610               This object is only used for the notification.
7611              "
7612          ::= { mefSoamPmNotificationObj 6 }
7613
7614    mefSoamPmNotificationObjDestinationMep OBJECT-TYPE
7615        SYNTAX MacAddress
7616        MAX-ACCESS   accessible-for-notify
7617        STATUS       current
```

```
7618            DESCRIPTION
7619               "The MAC address of the Destination MEP associated the notification found
7620                in either the mefSoamDmCfgTable or mefSoamLmCfgTable.
7621
7622                This object is only used for the notification.
7623                "
7624            ::= { mefSoamPmNotificationObj 7 }
7625
7626    mefSoamPmNotificationObjPriority OBJECT-TYPE
7627            SYNTAX MacAddress
7628            MAX-ACCESS  accessible-for-notify
7629            STATUS      current
7630            DESCRIPTION
7631               "The CoS priority of the associated notification found
7632                in either the mefSoamDmCfgTable or mefSoamLmCfgTable.
7633
7634                This object is only used for the notification.
7635                "
7636            ::= { mefSoamPmNotificationObj 8 }
7637
7638
7639    -- ********************************************************************************
7640    -- NOTIFICATIONS (TRAPS)
7641    -- ********************************************************************************
7642
7643    mefSoamAvailabilityChangeAlarm NOTIFICATION-TYPE
7644            OBJECTS     {
7645                        mefSoamPmNotificationObjDateAndTime,
7646                        mefSoamLmMeasuredStatsAvailForwardStatus,
7647                        mefSoamLmMeasuredStatsAvailBackwardStatus,
7648                        mefSoamLmMeasuredStatsAvailForwardLastTransitionTime,
7649                        mefSoamLmMeasuredStatsAvailBackwardLastTransitionTime,
7650                        mefSoamLmCurrentAvailStatsForwardAvailable,
7651                        mefSoamLmCurrentAvailStatsForwardUnavailable,
7652                        mefSoamLmCurrentAvailStatsBackwardAvailable,
7653                        mefSoamLmCurrentAvailStatsBackwardUnavailable,
7654                        mefSoamPmNotificationObjDestinationMep,
7655                        mefSoamPmNotificationObjPriority
7656                        }
7657            STATUS      current
7658            DESCRIPTION
7659               "An mefSoamAvailabilityChangeAlarm notification is sent when the state of
7660                mefSoamLmMeasuredStatsAvailForwardStatus or
7661                mefSoamLmMeasuredStatsAvailBackwardStatus changes.
7662
7663                The management entity that receives the notification can identify
7664                the system from the network source address of the notification,
7665                and can identify the PM session reporting the change
7666                by the indices in the OID
7667                mefSoamLmMeasuredStatsAvailForwardLastTransitionTime, including
7668                dot1agCfmMdIndex, dot1agCfmMaIndex, dot1agCfmMepIdentifier, and
7669                mefSoamLmCfgIndex.
7670
7671                An agent is not to generate more than one mefSoamAvailabilityChangeAlarm
7672                'notification-event' in a given time interval per PM session as
7673                specified by the mefSoamPmNotificationCfgAlarmInterval.  A
7674                'notification-event' is the transmission of a single notification to
7675                a list of notification destinations.
7676
7677                If additional availability state changes occur within the
7678                mefSoamPmNotificationCfgAlarmInterval period, then notification
7679                generation for these changes are suppressed by the agent until
7680                the current alarm interval expires. At the end of an alarm interval
7681                period, one notification-event is generated if any availability
```

```
7682              state changes occurred since the start of the alarm interval period.
7683              In such a case, another alarm interval period is started right away.
7684            "
7685        REFERENCE
7686            "[MEF SOAM-PM] R83, R84"
7687        ::= { mefSoamPmNotifications 1 }
7688
7689  mefSoamLmSessionStartStopAlarm NOTIFICATION-TYPE
7690        OBJECTS      {
7691                  mefSoamLmCfgSessionStatus,
7692                  mefSoamPmNotificationObjDateAndTime,
7693                  mefSoamPmNotificationObjDestinationMep
7694                  }
7695        STATUS      current
7696        DESCRIPTION
7697            "An mefSoamLmSessionStartStopAlarm notification is sent when the state of
7698            mefSoamLmCfgSessionStatus changes.
7699
7700            The management entity that receives the notification can identify
7701            the system from the network source address of the notification,
7702            and can identify the individual PM session reporting the start/stop
7703            by the indices in the OID mefSoamLmCfgSessionStatus, including
7704            dot1agCfmMdIndex, dot1agCfmMaIndex, dot1agCfmMepIdentifier, and
7705            mefSoamLmCfgIndex.
7706
7707            An agent is not to generate more than one mefSoamLmSessionStartStopAlarm
7708            'notification-event' in a given time interval per LM session as specified
7709            by the mefSoamPmNotificationCfgAlarmInterval.  A 'notification-event' is
7710            the transmission of a single notification to a list of notification
7711            destinations.
7712
7713            If additional operational state changes occur within the
7714            mefSoamPmNotificationCfgAlarmInterval period, then notification
7715            generation for these changes are be suppressed by the agent until
7716            the current alarm interval expires. At the end of an alarm interval
7717            period, one notification-event is generated if any operational
7718            state changes occurred since the start of the alarm interval period. In
7719            such a case, another alarm interval period is started right away.
7720            "
7721        ::= { mefSoamPmNotifications 2 }
7722
7723  mefSoamDmSessionStartStopAlarm NOTIFICATION-TYPE
7724        OBJECTS      {
7725                  mefSoamDmCfgSessionStatus,
7726                  mefSoamPmNotificationObjDateAndTime,
7727                  mefSoamPmNotificationObjDestinationMep
7728                  }
7729        STATUS      current
7730        DESCRIPTION
7731            "An mefSoamDmSessionStartStopAlarm notification is sent when the state of
7732            mefSoamDmCfgSessionStatus changes.
7733
7734            The management entity that receives the notification can identify
7735            the system from the network source address of the notification,
7736            and can identify the individual PM session reporting the start/stop
7737            by the indices in the OID mefSoamDmCfgSessionStatus, including
7738            dot1agCfmMdIndex, dot1agCfmMaIndex, dot1agCfmMepIdentifier, and
7739            mefSoamDmCfgIndex.
7740
7741            An agent is not to generate more than one mefSoamDmSessionStartStopAlarm
7742            'notification-event' in a given time interval per DM session as specified
7743            by mefSoamPmNotificationCfgAlarmInterval.  A 'notification-event' is the
7744            transmission of a single notification to a list of notification
7745            destinations.
```

```
7746
7747            If additional operational state changes occur within the
7748            mefSoamPmNotificationCfgAlarmInterval period, then notification generation
7749            for these changes are suppressed by the agent until the current alarm
7750            interval expires. At the end of an alarm interval period, one
7751            notification-event is generated if any operational state changes
7752            occurred since the start of the alarm interval period. In such a case,
7753            another alarm interval period is started right away.
7754            "
7755        ::= { mefSoamPmNotifications 3 }
7756
7757  mefSoamPmThresholdCrossingAlarm NOTIFICATION-TYPE
7758        OBJECTS       {
7759                    mefSoamPmNotificationObjCrossingType,
7760                    mefSoamPmNotificationObjThresholdId,
7761                    mefSoamPmNotificationObjThresholdConfig,
7762                    mefSoamPmNotificationObjThresholdValue,
7763                    mefSoamPmNotificationObjSuspect,
7764                    mefSoamPmNotificationObjDateAndTime,
7765                    mefSoamPmNotificationObjDestinationMep
7766                    }
7767        STATUS      current
7768        DESCRIPTION
7769          "An mefSoamPmThresholdCrossingAlarm notification is sent if the
7770          following conditions are met for a particular type.
7771
7772          For an aboveAlarm five conditions need to be met:
7773
7774          a) measurement of the parameter is enabled via mefSoamLmCfgMeasurementEnable
7775             for a LM crossing or mefSoamDmCfgMeasurementEnable for a DM crossing;
7776             and
7777
7778          b) the parameter threshold is configured in the mefSoamLmThresholdCfgTable
7779             or mefSoamDmThresholdCfgTable; and
7780
7781          c) the threshold crossing type of bPmThresholdAboveAlarm is enabled;
7782             and
7783
7784          d) the measured value of the parameter exceeds the value configured in
7785             the mefSoamLmThresholdCfgTable for a LM crossing entry or
7786             mefSoamDmThresholdCfgTable for a DM crossing entry for a type of
7787             bPmThresholdAboveAlarm; and
7788
7789          e) no previous mefSoamPmThresholdCrossingAlarm notifications with type
7790             aboveAlarm have been sent relating to the same threshold in the
7791             mefSoamLmThresholdCfgTable or mefSoamDmThresholdCfgTable and the
7792             same parameter, during this Measurement Interval.
7793
7794          For a setAlarm five conditions need to be met:
7795
7796          a) measurement of the parameter is enabled via mefSoamLmCfgMeasurementEnable
7797             for a LM crossing or mefSoamDmCfgMeasurementEnable for a DM crossing;
7798             and
7799
7800          b) the parameter threshold is configured in the mefSoamLmThresholdCfgTable
7801             or mefSoamDmThresholdCfgTable; and
7802
7803          c) the threshold crossing type of bPmThresholdSetClearAlarm is enabled;
7804             and
7805
7806          d) the measured value of the parameter exceeds the value configured in
7807             the mefSoamLmThresholdCfgTable for a LM crossing entry or
7808             mefSoamDmThresholdCfgTable for a DM crossing entry for a type of
7809             bPmThresholdSetClearAlarm for the Measurement Interval; and
```

```
7810
7811        e) the previous measured value did not
7812           exceed the value configured in the mefSoamLmThresholdCfgTable for
7813           a LM crossing entry or mefSoamDmThresholdCfgTable for a DM crossing
7814           entry for a type of bPmThresholdSetClearAlarm.
7815
7816        For a clearAlarm five conditions need to be met:
7817
7818        a) measurement of the parameter is enabled via mefSoamLmCfgMeasurementEnable
7819           for a LM crossing or mefSoamDmCfgMeasurementEnable for a DM crossing;
7820           and
7821
7822        b) the parameter threshold is configured in the mefSoamLmThresholdCfgTable
7823           or mefSoamDmThresholdCfgTable; and
7824
7825        c) the threshold crossing type of bPmThresholdSetClearAlarm is enabled;
7826           and
7827
7828        d) the measured value of the parameter did not exceed the value configured
7829           in the mefSoamLmThresholdCfgTable for a LM crossing entry or
7830           mefSoamDmThresholdCfgTable for a DM crossing entry for a type of
7831           bPmThresholdSetClearAlarm for the Measurement Interval; and
7832
7833        e) the previous measured value did
7834           exceed the value configured in the mefSoamLmThresholdCfgTable for
7835           a LM crossing entry or mefSoamDmThresholdCfgTable for a DM crossing
7836           entry for a type of bPmThresholdSetClearAlarm.
7837
7838        In the case of thresholds applied to a maximum or average measurement
7839        counter, the previous measured value is the value of the counter at the
7840        end of the preceding Measurement Interval.  In the case of thresholds
7841        applied to the last measured value, it is the previous measured value.
7842
7843        The management entity that receives the notification can identify
7844        the system from the network source address of the notification,
7845        and can identify the LM or DM session reporting the threshold
7846        crossing by the indices in the mefSoamPmNotificationCfgThresholdId object,
7847        including dot1agCfmMdIndex, dot1agCfmMaIndex, dot1agCfmMepIdentifier,
7848        and the mefSoamLmCfgIndex or mefSoamDmCfgIndex.
7849
7850        An agent is not to generate more than one mefSoamLmThresholdCrossingAlarm
7851        'notification-event' of a given type per LM or DM session as specified
7852        by mefSoamPmNotificationCfgAlarmInterval. A 'notification-event' is the
7853        transmission of a single notification to a list of notification
7854        destinations.
7855
7856        If additional threshold crossing events occur within the
7857        mefSoamPmNotificationCfgAlarmInterval period, then notification
7858        generation for these changes are suppressed by the agent until
7859        the current alarm interval expires. At the end of an alarm interval
7860        period, one notification-event is generated if any threshold
7861        crossing events occurred since the start of the alarm interval period.
7862        In such a case, another alarm interval period is started right away.
7863        "
7864     ::= { mefSoamPmNotifications 4 }
7865
7866
7867  -- ********************************************************************************
7868  -- SOAM-PM MIB Module - Conformance Information
7869  -- ********************************************************************************
7870
7871  mefSoamPmMibCompliances OBJECT IDENTIFIER ::= { mefSoamPmMibConformance 1 }
7872  mefSoamPmMibGroups      OBJECT IDENTIFIER ::= { mefSoamPmMibConformance 2 }
7873
```

```
7874     -- ******************************************************************
7875     -- SOAM-PM MIB Units of conformance
7876     -- ******************************************************************
7877
7878     mefSoamPmMepMandatoryGroup OBJECT-GROUP
7879         OBJECTS {
7880           mefSoamPmMepOperNextIndex,
7881           mefSoamPmMepSlmSingleEndedResponder,
7882           mefSoamPmMepDmSingleEndedResponder
7883         }
7884         STATUS      current
7885         DESCRIPTION
7886           "Mandatory objects for the Service OAM PM MEP group."
7887         ::= { mefSoamPmMibGroups 1 }
7888
7889     mefSoamPmMepOptionalGroup OBJECT-GROUP
7890         OBJECTS {
7891           mefSoamPmMepLmSingleEndedResponder
7892         }
7893         STATUS      current
7894         DESCRIPTION
7895           "Optional objects for the Service OAM PM MEP group."
7896         ::= { mefSoamPmMibGroups 2 }
7897
7898     mefSoamLmCfgMandatoryGroup OBJECT-GROUP
7899         OBJECTS {
7900           mefSoamLmCfgType,
7901           mefSoamLmCfgEnabled,
7902           mefSoamLmCfgMeasurementEnable,
7903           mefSoamLmCfgMessagePeriod,
7904           mefSoamLmCfgPriority,
7905           mefSoamLmCfgFrameSize,
7906           mefSoamLmCfgDataPattern,
7907           mefSoamLmCfgMeasurementInterval,
7908           mefSoamLmCfgNumIntervalsStored,
7909
7910           mefSoamLmCfgDestMacAddress,
7911           mefSoamLmCfgDestMepId,
7912           mefSoamLmCfgDestIsMepId,
7913
7914           mefSoamLmCfgStartTimeType,
7915           mefSoamLmCfgFixedStartDateAndTime,
7916           mefSoamLmCfgRelativeStartTime,
7917           mefSoamLmCfgStopTimeType,
7918           mefSoamLmCfgFixedStopDateAndTime,
7919           mefSoamLmCfgRelativeStopTime,
7920           mefSoamLmCfgRepetitionTime,
7921
7922           mefSoamLmCfgAvailabilityMeasurementInterval,
7923           mefSoamLmCfgAvailabilityNumConsecutiveMeasPdus,
7924           mefSoamLmCfgAvailabilityFlrThreshold,
7925           mefSoamLmCfgAvailabilityNumConsecutiveIntervals,
7926           mefSoamLmCfgSessionType,
7927           mefSoamLmCfgSessionStatus,
7928           mefSoamLmCfgHistoryClear,
7929           mefSoamLmCfgRowStatus
7930         }
7931         STATUS      current
7932         DESCRIPTION
7933           "Mandatory objects for the Service OAM LM Configuration group."
7934         ::= { mefSoamPmMibGroups 3 }
7935
7936     mefSoamLmCfgOptionalGroup OBJECT-GROUP
7937         OBJECTS {
```

```
7938          mefSoamLmCfgVersion,
7939          mefSoamLmCfgTestTlvIncluded,
7940          mefSoamLmCfgTestTlvPattern,
7941          mefSoamLmCfgAlignMeasurementIntervals,
7942          mefSoamLmCfgAvailabilityNumConsecutiveHighFlr,
7943          mefSoamLmCfgAlignMeasurementOffset
7944       }
7945       STATUS       current
7946       DESCRIPTION
7947          "Optional objects for the Service OAM LM Configuration group."
7948       ::= { mefSoamPmMibGroups 4 }
7949
7950   mefSoamLmMeasuredStatsMandatoryGroup OBJECT-GROUP
7951       OBJECTS {
7952          mefSoamLmMeasuredStatsAvailForwardLastTransitionTime,
7953          mefSoamLmMeasuredStatsAvailBackwardLastTransitionTime
7954       }
7955       STATUS       current
7956       DESCRIPTION
7957          "Mandatory objects for the Service OAM LM Measured Stats group."
7958       ::= { mefSoamPmMibGroups 5 }
7959
7960   mefSoamLmMeasuredStatsOptionalGroup OBJECT-GROUP
7961       OBJECTS {
7962          mefSoamLmMeasuredStatsForwardFlr,
7963          mefSoamLmMeasuredStatsBackwardFlr,
7964          mefSoamLmMeasuredStatsAvailForwardStatus,
7965          mefSoamLmMeasuredStatsAvailBackwardStatus
7966       }
7967       STATUS       current
7968       DESCRIPTION
7969          "Optional objects for the Service OAM LM Measured Stats group."
7970       ::= { mefSoamPmMibGroups 6 }
7971
7972   mefSoamLmCurrentAvailStatsMandatoryGroup OBJECT-GROUP
7973       OBJECTS {
7974          mefSoamLmCurrentAvailStatsIndex,
7975          mefSoamLmCurrentAvailStatsStartTime,
7976          mefSoamLmCurrentAvailStatsElapsedTime,
7977          mefSoamLmCurrentAvailStatsSuspect,
7978          mefSoamLmCurrentAvailStatsForwardAvailable,
7979          mefSoamLmCurrentAvailStatsBackwardAvailable,
7980          mefSoamLmCurrentAvailStatsForwardUnavailable,
7981          mefSoamLmCurrentAvailStatsBackwardUnavailable
7982       }
7983       STATUS       current
7984       DESCRIPTION
7985          "Mandatory objects for the Service OAM LM Current Availability group."
7986       ::= { mefSoamPmMibGroups 7 }
7987
7988   mefSoamLmCurrentAvailStatsOptionalGroup OBJECT-GROUP
7989       OBJECTS {
7990          mefSoamLmCurrentAvailStatsForwardHighLoss,
7991          mefSoamLmCurrentAvailStatsBackwardHighLoss,
7992          mefSoamLmCurrentAvailStatsForwardConsecutiveHighLoss,
7993          mefSoamLmCurrentAvailStatsBackwardConsecutiveHighLoss,
7994          mefSoamLmCurrentAvailStatsForwardMinFlr,
7995          mefSoamLmCurrentAvailStatsForwardMaxFlr,
7996          mefSoamLmCurrentAvailStatsForwardAvgFlr,
7997          mefSoamLmCurrentAvailStatsBackwardMinFlr,
7998          mefSoamLmCurrentAvailStatsBackwardMaxFlr,
7999          mefSoamLmCurrentAvailStatsBackwardAvgFlr
8000       }
8001       STATUS       current
```

```
8002        DESCRIPTION
8003            "Optional objects for the Service OAM LM Current Availabilty Stats group."
8004        ::= { mefSoamPmMibGroups 8 }
8005
8006    mefSoamLmCurrentStatsMandatoryGroup OBJECT-GROUP
8007        OBJECTS {
8008          mefSoamLmCurrentStatsIndex,
8009          mefSoamLmCurrentStatsStartTime,
8010          mefSoamLmCurrentStatsElapsedTime,
8011          mefSoamLmCurrentStatsSuspect,
8012          mefSoamLmCurrentStatsSoamPdusSent,
8013          mefSoamLmCurrentStatsSoamPdusReceived
8014        }
8015        STATUS      current
8016        DESCRIPTION
8017            "Mandatory objects for the Service OAM LM current statistics group."
8018        ::= { mefSoamPmMibGroups 9 }
8019
8020    mefSoamLmCurrentStatsOptionalGroup OBJECT-GROUP
8021        OBJECTS {
8022          mefSoamLmCurrentStatsForwardTransmittedFrames,
8023          mefSoamLmCurrentStatsForwardReceivedFrames,
8024          mefSoamLmCurrentStatsBackwardTransmittedFrames,
8025          mefSoamLmCurrentStatsBackwardReceivedFrames,
8026          mefSoamLmCurrentStatsForwardMinFlr,
8027          mefSoamLmCurrentStatsForwardMaxFlr,
8028          mefSoamLmCurrentStatsForwardAvgFlr,
8029          mefSoamLmCurrentStatsBackwardMinFlr,
8030          mefSoamLmCurrentStatsBackwardMaxFlr,
8031          mefSoamLmCurrentStatsBackwardAvgFlr
8032        }
8033        STATUS      current
8034        DESCRIPTION
8035            "Optional objects for the Service OAM LM Current Stats group."
8036        ::= { mefSoamPmMibGroups 10 }
8037
8038    mefSoamLmHistoryAvailStatsMandatoryGroup OBJECT-GROUP
8039        OBJECTS {
8040          mefSoamLmHistoryAvailStatsEndTime,
8041          mefSoamLmHistoryAvailStatsElapsedTime,
8042          mefSoamLmHistoryAvailStatsSuspect,
8043          mefSoamLmHistoryAvailStatsForwardAvailable,
8044          mefSoamLmHistoryAvailStatsBackwardAvailable,
8045          mefSoamLmHistoryAvailStatsForwardUnavailable,
8046          mefSoamLmHistoryAvailStatsBackwardUnavailable
8047        }
8048        STATUS      current
8049        DESCRIPTION
8050            "Mandatory objects for the Service OAM Availability LM history
8051             statistics group.
8052            "
8053        ::= { mefSoamPmMibGroups 11 }
8054
8055    mefSoamLmHistoryAvailStatsOptionalGroup OBJECT-GROUP
8056        OBJECTS {
8057          mefSoamLmHistoryAvailStatsForwardHighLoss,
8058          mefSoamLmHistoryAvailStatsBackwardHighLoss,
8059          mefSoamLmHistoryAvailStatsForwardConsecutiveHighLoss,
8060          mefSoamLmHistoryAvailStatsBackwardConsecutiveHighLoss,
8061          mefSoamLmHistoryAvailStatsForwardMinFlr,
8062          mefSoamLmHistoryAvailStatsForwardMaxFlr,
8063          mefSoamLmHistoryAvailStatsForwardAvgFlr,
8064          mefSoamLmHistoryAvailStatsBackwardMinFlr,
8065          mefSoamLmHistoryAvailStatsBackwardMaxFlr,
```

```
8066               mefSoamLmHistoryAvailStatsBackwardAvgFlr
8067           }
8068       STATUS      current
8069       DESCRIPTION
8070           "Optional objects for the Service OAM Availability LM history
8071            statistics group.
8072           "
8073       ::= { mefSoamPmMibGroups 12 }
8074
8075   mefSoamLmHistoryStatsMandatoryGroup OBJECT-GROUP
8076       OBJECTS {
8077         mefSoamLmHistoryStatsEndTime,
8078         mefSoamLmHistoryStatsElapsedTime,
8079         mefSoamLmHistoryStatsSuspect,
8080         mefSoamLmHistoryStatsSoamPdusSent,
8081         mefSoamLmHistoryStatsSoamPdusReceived
8082       }
8083       STATUS      current
8084       DESCRIPTION
8085           "Mandatory objects for the Service OAM LM history statistics group."
8086       ::= { mefSoamPmMibGroups 13 }
8087
8088   mefSoamLmHistoryStatsOptionalGroup OBJECT-GROUP
8089       OBJECTS {
8090         mefSoamLmHistoryStatsForwardTransmittedFrames,
8091         mefSoamLmHistoryStatsForwardReceivedFrames,
8092         mefSoamLmHistoryStatsBackwardTransmittedFrames,
8093         mefSoamLmHistoryStatsBackwardReceivedFrames,
8094         mefSoamLmHistoryStatsForwardMinFlr,
8095         mefSoamLmHistoryStatsForwardMaxFlr,
8096         mefSoamLmHistoryStatsForwardAvgFlr,
8097         mefSoamLmHistoryStatsBackwardMinFlr,
8098         mefSoamLmHistoryStatsBackwardMaxFlr,
8099         mefSoamLmHistoryStatsBackwardAvgFlr
8100       }
8101       STATUS      current
8102       DESCRIPTION
8103           "Optional objects for the Service OAM LM History Stats group."
8104       ::= { mefSoamPmMibGroups 14 }
8105
8106   mefSoamDmCfgMandatoryGroup OBJECT-GROUP
8107       OBJECTS {
8108         mefSoamDmCfgType,
8109         mefSoamDmCfgEnabled,
8110         mefSoamDmCfgMeasurementEnable,
8111         mefSoamDmCfgMessagePeriod,
8112
8113         mefSoamDmCfgPriority,
8114         mefSoamDmCfgFrameSize,
8115         mefSoamDmCfgDataPattern,
8116         mefSoamDmCfgMeasurementInterval,
8117         mefSoamDmCfgNumIntervalsStored,
8118
8119         mefSoamDmCfgDestMacAddress,
8120         mefSoamDmCfgDestMepId,
8121         mefSoamDmCfgDestIsMepId,
8122
8123         mefSoamDmCfgStartTimeType,
8124         mefSoamDmCfgFixedStartDateAndTime,
8125         mefSoamDmCfgRelativeStartTime,
8126         mefSoamDmCfgStopTimeType,
8127         mefSoamDmCfgFixedStopDateAndTime,
8128         mefSoamDmCfgRelativeStopTime,
8129         mefSoamDmCfgRepetitionTime,
```

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8130
8131         mefSoamDmCfgAlignMeasurementIntervals,
8132         mefSoamDmCfgNumMeasBinsPerFrameDelayInterval,
8133         mefSoamDmCfgNumMeasBinsPerInterFrameDelayVariationInterval,
8134         mefSoamDmCfgNumMeasBinsPerFrameDelayRangeInterval,
8135         mefSoamDmCfgSessionType,
8136         mefSoamDmCfgSessionStatus,
8137         mefSoamDmCfgHistoryClear,
8138         mefSoamDmCfgRowStatus
8139       }
8140       STATUS      current
8141       DESCRIPTION
8142         "Mandatory objects for the Service OAM DM configuration group."
8143       ::= { mefSoamPmMibGroups 15 }
8144
8145  mefSoamDmCfgOptionalGroup OBJECT-GROUP
8146       OBJECTS {
8147         mefSoamDmCfgVersion,
8148         mefSoamDmCfgTestTlvIncluded,
8149         mefSoamDmCfgTestTlvPattern,
8150         mefSoamDmCfgSourceMacAddress,
8151         mefSoamDmCfgAlignMeasurementOffset,
8152         mefSoamDmCfgInterFrameDelayVariationSelectionOffset
8153       }
8154       STATUS      current
8155       DESCRIPTION
8156         "Optional objects for the Service OAM DM Configuration group."
8157       ::= { mefSoamPmMibGroups 16 }
8158
8159  mefSoamDmCfgMeasBinMandatoryGroup OBJECT-GROUP
8160       OBJECTS {
8161         mefSoamDmCfgMeasBinLowerBound
8162  }
8163       STATUS      current
8164       DESCRIPTION
8165         "Mandatory objects for the Service OAM DM measurement bin configuration
8166          group."
8167       ::= { mefSoamPmMibGroups 17 }
8168
8169  mefSoamDmMeasuredStatsOptionalGroup OBJECT-GROUP
8170       OBJECTS {
8171         mefSoamDmMeasuredStatsFrameDelayTwoWay,
8172         mefSoamDmMeasuredStatsFrameDelayForward,
8173         mefSoamDmMeasuredStatsFrameDelayBackward,
8174         mefSoamDmMeasuredStatsIfdvTwoWay,
8175         mefSoamDmMeasuredStatsIfdvForward,
8176         mefSoamDmMeasuredStatsIfdvBackward
8177       }
8178       STATUS      current
8179       DESCRIPTION
8180         "Optional objects for the Service OAM DM Measured Stats group."
8181       ::= { mefSoamPmMibGroups 18 }
8182
8183  mefSoamDmCurrentStatsMandatoryGroup OBJECT-GROUP
8184       OBJECTS {
8185         mefSoamDmCurrentStatsIndex,
8186         mefSoamDmCurrentStatsStartTime,
8187         mefSoamDmCurrentStatsElapsedTime,
8188         mefSoamDmCurrentStatsSuspect,
8189         mefSoamDmCurrentStatsFrameDelayTwoWayMin,
8190         mefSoamDmCurrentStatsFrameDelayTwoWayMax,
8191         mefSoamDmCurrentStatsFrameDelayTwoWayAvg,
8192         mefSoamDmCurrentStatsFrameDelayForwardMin,
8193         mefSoamDmCurrentStatsFrameDelayForwardMax,
```

```
8194        mefSoamDmCurrentStatsFrameDelayForwardAvg,
8195        mefSoamDmCurrentStatsFrameDelayBackwardMin,
8196        mefSoamDmCurrentStatsFrameDelayBackwardMax,
8197        mefSoamDmCurrentStatsFrameDelayBackwardAvg,
8198        mefSoamDmCurrentStatsIfdvForwardMin,
8199        mefSoamDmCurrentStatsIfdvForwardMax,
8200        mefSoamDmCurrentStatsIfdvForwardAvg,
8201        mefSoamDmCurrentStatsIfdvBackwardMin,
8202        mefSoamDmCurrentStatsIfdvBackwardMax,
8203        mefSoamDmCurrentStatsIfdvBackwardAvg,
8204        mefSoamDmCurrentStatsFrameDelayRangeForwardMax,
8205        mefSoamDmCurrentStatsFrameDelayRangeForwardAvg,
8206        mefSoamDmCurrentStatsFrameDelayRangeBackwardMax,
8207        mefSoamDmCurrentStatsFrameDelayRangeBackwardAvg,
8208        mefSoamDmCurrentStatsSoamPdusSent,
8209        mefSoamDmCurrentStatsSoamPdusReceived
8210      }
8211      STATUS      current
8212      DESCRIPTION
8213        "Mandatory objects for the Service OAM DM current statistics group."
8214      ::= { mefSoamPmMibGroups 19 }
8215
8216  mefSoamDmCurrentStatsOptionalGroup OBJECT-GROUP
8217      OBJECTS {
8218        mefSoamDmCurrentStatsIfdvTwoWayMin,
8219        mefSoamDmCurrentStatsIfdvTwoWayMax,
8220        mefSoamDmCurrentStatsIfdvTwoWayAvg,
8221        mefSoamDmCurrentStatsFrameDelayRangeTwoWayMax,
8222        mefSoamDmCurrentStatsFrameDelayRangeTwoWayAvg
8223      }
8224      STATUS      current
8225      DESCRIPTION
8226        "Optional objects for the Service OAM DM current statistics group."
8227      ::= { mefSoamPmMibGroups 20 }
8228
8229  mefSoamDmCurrentStatsBinsMandatoryGroup OBJECT-GROUP
8230      OBJECTS {
8231        mefSoamDmCurrentStatsBinsCounter
8232  }
8233      STATUS      current
8234      DESCRIPTION
8235        "Mandatory objects for the Service OAM DM current statistics bin
8236         group."
8237      ::= { mefSoamPmMibGroups 21 }
8238
8239  mefSoamDmHistoryStatsMandatoryGroup OBJECT-GROUP
8240      OBJECTS {
8241        mefSoamDmHistoryStatsEndTime,
8242        mefSoamDmHistoryStatsElapsedTime,
8243        mefSoamDmHistoryStatsSuspect,
8244        mefSoamDmHistoryStatsFrameDelayTwoWayMin,
8245        mefSoamDmHistoryStatsFrameDelayTwoWayMax,
8246        mefSoamDmHistoryStatsFrameDelayTwoWayAvg,
8247        mefSoamDmHistoryStatsFrameDelayForwardMin,
8248        mefSoamDmHistoryStatsFrameDelayForwardMax,
8249        mefSoamDmHistoryStatsFrameDelayForwardAvg,
8250        mefSoamDmHistoryStatsFrameDelayBackwardMin,
8251        mefSoamDmHistoryStatsFrameDelayBackwardMax,
8252        mefSoamDmHistoryStatsFrameDelayBackwardAvg,
8253        mefSoamDmHistoryStatsIfdvForwardMin,
8254        mefSoamDmHistoryStatsIfdvForwardMax,
8255        mefSoamDmHistoryStatsIfdvForwardAvg,
8256        mefSoamDmHistoryStatsIfdvBackwardMin,
8257        mefSoamDmHistoryStatsIfdvBackwardMax,
```

```
8258             mefSoamDmHistoryStatsIfdvBackwardAvg,
8259             mefSoamDmHistoryStatsFrameDelayRangeForwardMax,
8260             mefSoamDmHistoryStatsFrameDelayRangeForwardAvg,
8261             mefSoamDmHistoryStatsFrameDelayRangeBackwardMax,
8262             mefSoamDmHistoryStatsFrameDelayRangeBackwardAvg,
8263             mefSoamDmHistoryStatsSoamPdusSent,
8264             mefSoamDmHistoryStatsSoamPdusReceived
8265         }
8266         STATUS       current
8267         DESCRIPTION
8268            "Mandatory objects for the Service OAM DM history statistics group."
8269         ::= { mefSoamPmMibGroups 22 }
8270
8271    mefSoamDmHistoryStatsOptionalGroup OBJECT-GROUP
8272         OBJECTS {
8273           mefSoamDmHistoryStatsIfdvTwoWayMin,
8274           mefSoamDmHistoryStatsIfdvTwoWayMax,
8275           mefSoamDmHistoryStatsIfdvTwoWayAvg,
8276           mefSoamDmHistoryStatsFrameDelayRangeTwoWayMax,
8277           mefSoamDmHistoryStatsFrameDelayRangeTwoWayAvg
8278         }
8279         STATUS       current
8280         DESCRIPTION
8281            "Optional objects for the Service OAM DM history statistics group."
8282         ::= { mefSoamPmMibGroups 23 }
8283
8284    mefSoamDmHistoryStatsBinsMandatoryGroup OBJECT-GROUP
8285         OBJECTS {
8286           mefSoamDmHistoryStatsBinsCounter
8287    }
8288         STATUS       current
8289         DESCRIPTION
8290            "Mandatory objects for the Service OAM DM history statistics
8291             bin group."
8292         ::= { mefSoamPmMibGroups 24 }
8293
8294    mefSoamLmThresholdMandatoryGroup OBJECT-GROUP
8295         OBJECTS {
8296           mefSoamLmThresholdCfgEnable,
8297           mefSoamLmThresholdCfgMaxFlrForwardThreshold,
8298           mefSoamLmThresholdCfgAvgFlrForwardThreshold,
8299           mefSoamLmThresholdCfgMaxFlrBackwardThreshold,
8300           mefSoamLmThresholdCfgAvgFlrBackwardThreshold,
8301           mefSoamLmThresholdCfgForwardUnavailCountThreshold,
8302           mefSoamLmThresholdCfgForwardAvailRatioThreshold,
8303           mefSoamLmThresholdCfgBackwardUnavailCountThreshold,
8304           mefSoamLmThresholdCfgBackwardAvailRatioThreshold,
8305           mefSoamLmThresholdCfgRowStatus
8306         }
8307         STATUS       current
8308         DESCRIPTION
8309            "Mandatory objects for the Service OAM LM threshold group."
8310         ::= { mefSoamPmMibGroups 25 }
8311
8312    mefSoamLmThresholdOptionalGroup OBJECT-GROUP
8313         OBJECTS {
8314           mefSoamLmThresholdCfgForwardHighLossThreshold,
8315           mefSoamLmThresholdCfgForwardConsecutiveHighLossThreshold,
8316           mefSoamLmThresholdCfgBackwardHighLossThreshold,
8317           mefSoamLmThresholdCfgBackwardConsecutiveHighLossThreshold,
8318           mefSoamLmThresholdCfgMeasuredFlrForwardThreshold,
8319           mefSoamLmThresholdCfgMeasuredFlrBackwardThreshold
8320         }
8321         STATUS       current
```

```
8322          DESCRIPTION
8323             "Optional objects for the Service OAM LM Threshold group."
8324          ::= { mefSoamPmMibGroups 26 }
8325
8326   mefSoamDmThresholdMandatoryGroup OBJECT-GROUP
8327          OBJECTS {
8328            mefSoamDmThresholdCfgEnable,
8329            mefSoamDmThresholdCfgMaxFrameDelayTwoWayThreshold,
8330            mefSoamDmThresholdCfgAvgFrameDelayTwoWayThreshold,
8331            mefSoamDmThresholdCfgMaxFrameDelayForwardThreshold,
8332            mefSoamDmThresholdCfgAvgFrameDelayForwardThreshold,
8333            mefSoamDmThresholdCfgMaxIfdvForwardThreshold,
8334            mefSoamDmThresholdCfgAvgIfdvForwardThreshold,
8335            mefSoamDmThresholdCfgMaxFrameDelayRangeForwardThreshold,
8336            mefSoamDmThresholdCfgAvgFrameDelayRangeForwardThreshold,
8337            mefSoamDmThresholdCfgMaxFrameDelayBackwardThreshold,
8338            mefSoamDmThresholdCfgAvgFrameDelayBackwardThreshold,
8339            mefSoamDmThresholdCfgMaxIfdvBackwardThreshold,
8340            mefSoamDmThresholdCfgAvgIfdvBackwardThreshold,
8341            mefSoamDmThresholdCfgMaxFrameDelayRangeBackwardThreshold,
8342            mefSoamDmThresholdCfgAvgFrameDelayRangeBackwardThreshold,
8343            mefSoamDmThresholdCfgRowStatus
8344          }
8345          STATUS      current
8346          DESCRIPTION
8347             "Mandatory objects for the Service OAM DM threshold group."
8348          ::= { mefSoamPmMibGroups 27 }
8349
8350   mefSoamDmThresholdOptionalGroup OBJECT-GROUP
8351          OBJECTS {
8352            mefSoamDmThresholdCfgMeasuredIfdvTwoWayThreshold,
8353            mefSoamDmThresholdCfgMeasuredFrameDelayTwoWayThreshold,
8354            mefSoamDmThresholdCfgMeasuredFrameDelayForwardThreshold,
8355            mefSoamDmThresholdCfgMeasuredIfdvForwardThreshold,
8356            mefSoamDmThresholdCfgMeasuredFrameDelayBackwardThreshold,
8357            mefSoamDmThresholdCfgMeasuredIfdvBackwardThreshold,
8358            mefSoamDmThresholdCfgMaxIfdvTwoWayThreshold,
8359            mefSoamDmThresholdCfgAvgIfdvTwoWayThreshold,
8360            mefSoamDmThresholdCfgMaxFrameDelayRangeTwoWayThreshold,
8361            mefSoamDmThresholdCfgAvgFrameDelayRangeTwoWayThreshold
8362          }
8363          STATUS      current
8364          DESCRIPTION
8365             "Optional objects for the Service OAM DM threshold group."
8366          ::= { mefSoamPmMibGroups 28 }
8367
8368
8369   mefSoamPmNotificationsMandatoryGroup NOTIFICATION-GROUP
8370          NOTIFICATIONS {
8371            mefSoamAvailabilityChangeAlarm,
8372            mefSoamLmSessionStartStopAlarm,
8373            mefSoamDmSessionStartStopAlarm
8374          }
8375          STATUS      current
8376          DESCRIPTION
8377             "Mandatory notifications for the SOAM PM Notifications group."
8378          ::= { mefSoamPmMibGroups 29 }
8379
8380   mefSoamPmNotificationsOptionalGroup NOTIFICATION-GROUP
8381          NOTIFICATIONS {
8382                  mefSoamPmThresholdCrossingAlarm
8383          }
8384          STATUS      current
8385          DESCRIPTION
```

```
8386              "Optional objects for the Service OAM PM Notifications group."
8387         ::= { mefSoamPmMibGroups 30 }
8388
8389    mefSoamPmNotificationCfgMandatoryGroup OBJECT-GROUP
8390         OBJECTS {
8391           mefSoamPmNotificationCfgAlarmInterval,
8392           mefSoamPmNotificationCfgAlarmEnable
8393         }
8394         STATUS      current
8395         DESCRIPTION
8396              "Mandatory objects for the SOAM PM Notification Configuration group."
8397         ::= { mefSoamPmMibGroups 31 }
8398
8399    mefSoamPmNotificationObjMandatoryGroup OBJECT-GROUP
8400         OBJECTS {
8401           mefSoamPmNotificationObjDateAndTime,
8402           mefSoamPmNotificationObjSuspect,
8403           mefSoamPmNotificationObjDestinationMep,
8404           mefSoamPmNotificationObjPriority
8405
8406         }
8407         STATUS      current
8408         DESCRIPTION
8409              "Mandatory objects for the SOAM PM Notification Object group."
8410         ::= { mefSoamPmMibGroups 32 }
8411
8412    mefSoamPmNotificationObjOptionalGroup OBJECT-GROUP
8413         OBJECTS {
8414           mefSoamPmNotificationObjThresholdConfig,
8415           mefSoamPmNotificationObjThresholdId,
8416           mefSoamPmNotificationObjThresholdValue,
8417           mefSoamPmNotificationObjCrossingType
8418         }
8419         STATUS      current
8420         DESCRIPTION
8421              "Optional objects for the Service OAM PM Notifications group."
8422         ::= { mefSoamPmMibGroups 33 }
8423
8424
8425    -- ********************************************************************
8426    -- SOAM-PM MIB Module Compliance statements
8427    -- ********************************************************************
8428
8429    mefSoamPmMibCompliance MODULE-COMPLIANCE
8430         STATUS      current
8431         DESCRIPTION "The compliance statement for the Ethernet Service OAM PM MIB."
8432         MODULE
8433             MANDATORY-GROUPS {
8434                 mefSoamPmMepMandatoryGroup,
8435                 mefSoamLmCfgMandatoryGroup,
8436                 mefSoamLmMeasuredStatsMandatoryGroup,
8437                 mefSoamLmCurrentAvailStatsMandatoryGroup,
8438                 mefSoamLmCurrentStatsMandatoryGroup,
8439                 mefSoamLmHistoryAvailStatsMandatoryGroup,
8440                 mefSoamLmHistoryStatsMandatoryGroup,
8441                 mefSoamDmCfgMandatoryGroup,
8442                 mefSoamDmCfgMeasBinMandatoryGroup,
8443                 mefSoamDmCurrentStatsMandatoryGroup,
8444                 mefSoamDmCurrentStatsBinsMandatoryGroup,
8445                 mefSoamDmHistoryStatsMandatoryGroup,
8446                 mefSoamDmHistoryStatsBinsMandatoryGroup,
8447                 mefSoamLmThresholdMandatoryGroup,
8448                 mefSoamDmThresholdMandatoryGroup,
8449                 mefSoamPmNotificationsMandatoryGroup,
```

```
8450                mefSoamPmNotificationCfgMandatoryGroup,
8451                mefSoamPmNotificationObjMandatoryGroup
8452            }
8453
8454        GROUP mefSoamPmMepOptionalGroup
8455        DESCRIPTION "The mefSoamPmMepOptionalGroup is an optional requirement."
8456
8457        GROUP mefSoamLmCfgOptionalGroup
8458        DESCRIPTION "The mefSoamLmCfgOptionalGroup is an optional requirement."
8459
8460        GROUP mefSoamLmMeasuredStatsOptionalGroup
8461        DESCRIPTION "The mefSoamLmMeasuredStatsOptionalGroup is an optional requirement."
8462
8463        GROUP mefSoamLmCurrentAvailStatsOptionalGroup
8464        DESCRIPTION "The mefSoamLmCurrentAvailStatsOptionalGroup is an optional
8465            requirement."
8466
8467        GROUP mefSoamLmCurrentStatsOptionalGroup
8468        DESCRIPTION "The mefSoamLmCurrentStatsOptionalGroup is an optional requirement."
8469
8470        GROUP mefSoamLmHistoryAvailStatsOptionalGroup
8471        DESCRIPTION "The mefSoamLmCurrentStatsOptionalGroup is an optional requirement."
8472
8473        GROUP mefSoamLmHistoryStatsOptionalGroup
8474        DESCRIPTION "The mefSoamLmHistoryStatsOptionalGroup is an optional requirement."
8475
8476        GROUP mefSoamDmCfgOptionalGroup
8477        DESCRIPTION "The mefSoamDmCfgOptionalGroup is an optional requirement."
8478
8479        GROUP mefSoamDmMeasuredStatsOptionalGroup
8480        DESCRIPTION "The mefSoamDmMeasuredStatsOptionalGroup is an optional requirement."
8481
8482        GROUP mefSoamDmCurrentStatsOptionalGroup
8483        DESCRIPTION "The mefSoamDmCurrentStatsOptionalGroup is an optional requirement."
8484
8485        GROUP mefSoamDmHistoryStatsOptionalGroup
8486        DESCRIPTION "The mefSoamDmHistoryStatsOptionalGroup is an optional requirement."
8487
8488        GROUP mefSoamLmThresholdOptionalGroup
8489        DESCRIPTION "The mefSoamLmThresholdOptionalGroup is an optional requirement."
8490
8491        GROUP mefSoamDmThresholdOptionalGroup
8492        DESCRIPTION "The mefSoamDmThresholdOptionalGroup is an optional requirement."
8493
8494        GROUP mefSoamPmNotificationsOptionalGroup
8495        DESCRIPTION "The mefSoamPmNotificationsOptionalGroup is an optional requirement."
8496
8497        GROUP mefSoamPmNotificationObjOptionalGroup
8498        DESCRIPTION "The mefSoamPmNotificationObjOptionalGroup is an optional
8499            requirement."
8500        ::= { mefSoamPmMibCompliances 1 }
8501
8502
8503    END
8504
8505
```

8506

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