MEF

Technical Specification

MEF 36

Service OAM SNMP MIB for Performance Monitoring

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1 # 1. Abstract

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 re-ceives 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 calcu-lations.	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.

MEF 36   **Page 5**
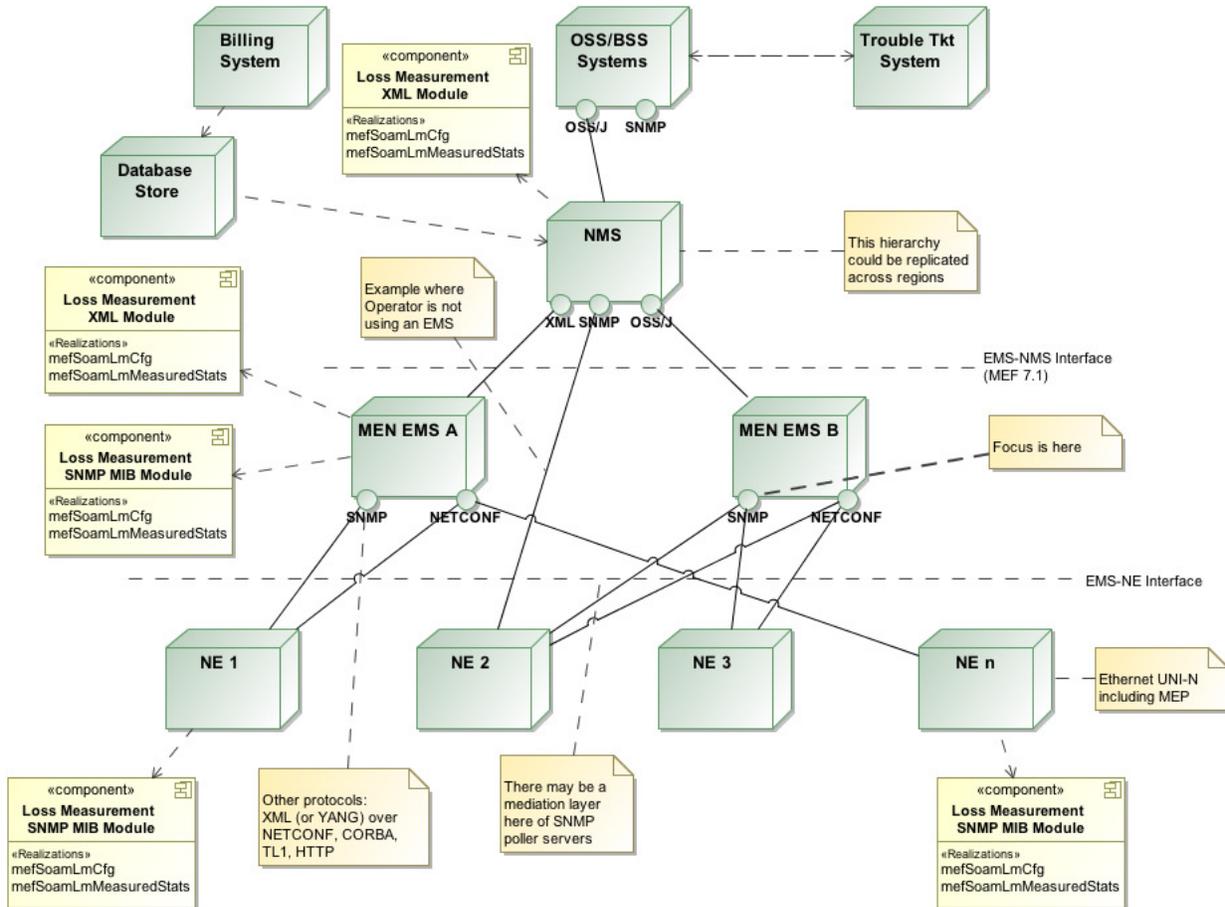
49

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

51   ## 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.
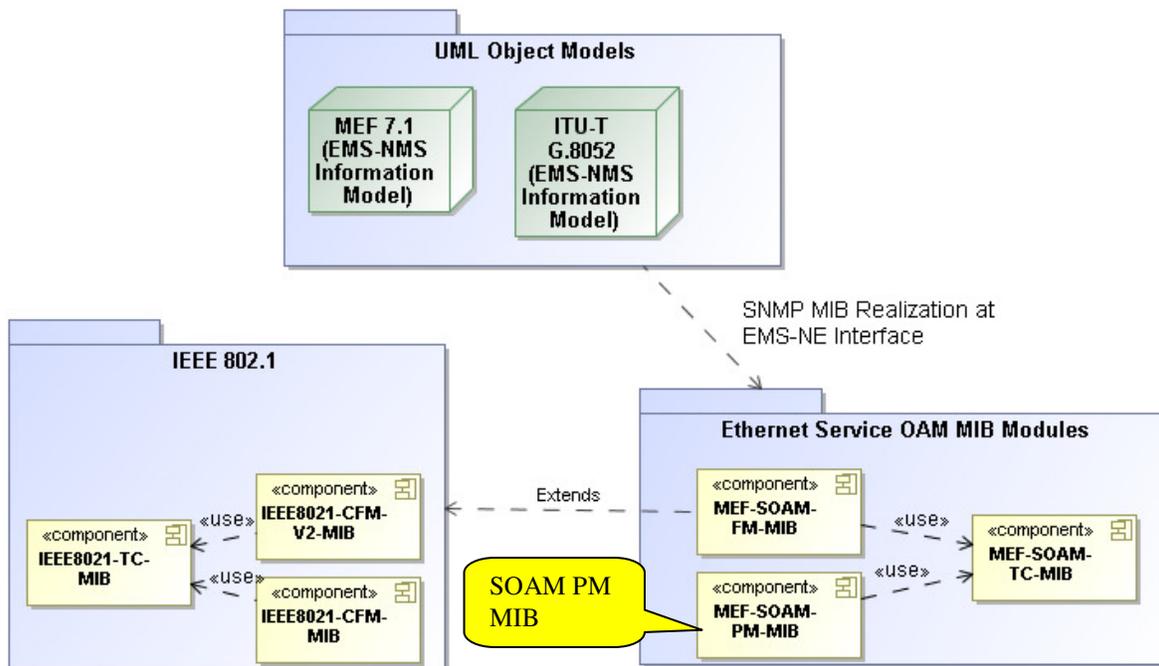
76

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.
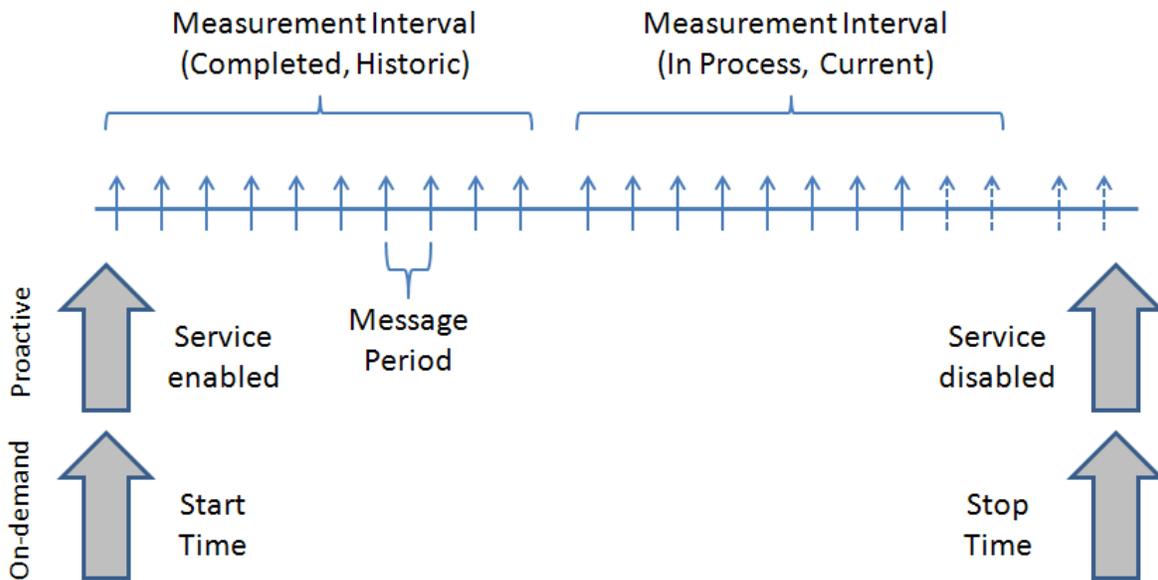
101

102　　　　　**Figure 3 - Relationship Between Different Timing Parameters**
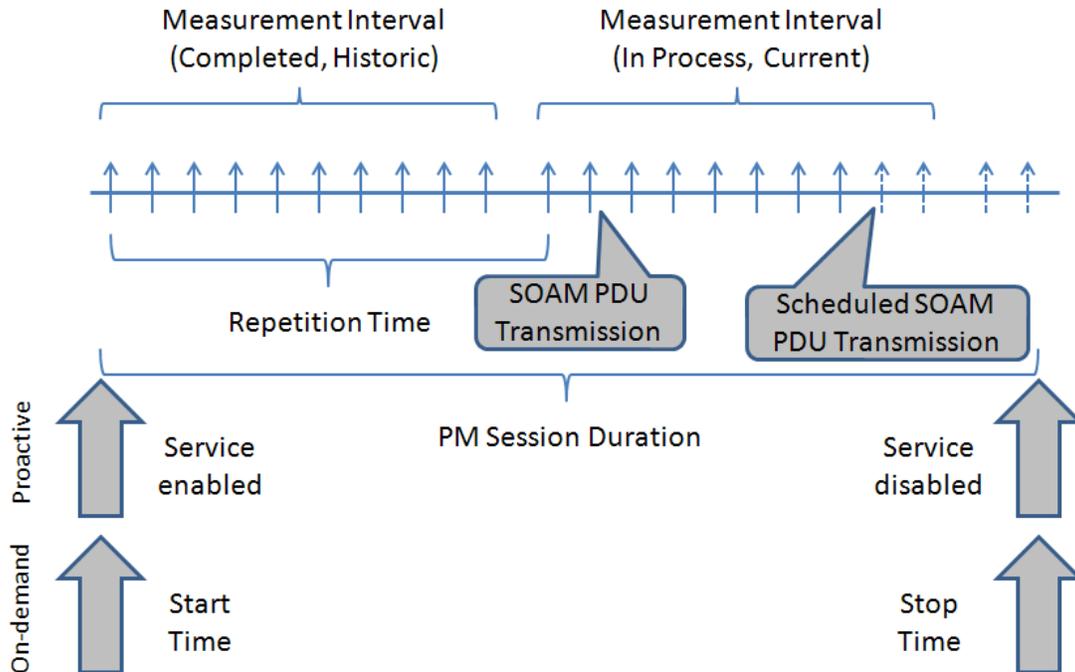
103

104 **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 | | ○ *mefSoamLmCfgFixedStopDateAndTime* |

195   ○ *mefSoamLmCfgFixedStopDateAndTime*

196   ○ *mefSoamLmCfgRelativeStopTime*

197   ○ *mefSoamLmCfgRepetitionTime*

198   • LM Session availability configuration:

199   ○ *mefSoamLmCfgAvailabilityMeasurementInterval*

200   ○ *mefSoamLmCfgAvailabilityNumConsecutiveMeasPdus*

201   ○ *mefSoamLmCfgAvailabilityFlrThreshold*

202   ○ *mefSoamLmCfgAvailabilityNumConsecutiveIntervals*

203   ○ *mefSoamLmCfgAvailabilityNumConsecutiveHighFlr*

204   • LM Session parameters for status:

205   ○ *mefSoamLmCfgSessionStatus*

206   • LM Session history statistic table clear:

207   ○ *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	$\geq 0\mu s$	$< 5,000\mu s$
2	5000	$\geq 5,000\mu s$	$< 10,000\mu s$
3	10000	$\geq 10,000\mu s$	$< 15,000\mu s$
4	15000	$\geq 15,000\mu s$	$< 20,000\mu s$
5	20000	$\geq 20,000\mu s$	$< $ 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".

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".

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.

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
```

```
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,
```

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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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