International Telecommunication Union

ITU-T G.8051/Y.1345

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Amendment 1

(06/2011)

SERIES G: TRANSMISSION SYSTEMS AND MEDIA, DIGITAL SYSTEMS AND NETWORKS

Packet over Transport aspects – Ethernet over Transport aspects

SERIES Y: GLOBAL INFORMATION INFRASTRUCTURE, INTERNET PROTOCOL ASPECTS AND NEXT-GENERATION NETWORKS

Internet protocol aspects – Transport

Management aspects of the Ethernet-over-Transport (EoT) capable network element

Amendment 1

Recommendation ITU-T G.8051/Y.1345 (2009) – Amendment 1

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For further details, please refer to the list of ITU-T Recommendations.

Recommendation ITU-T G.8051/Y.1345

Management aspects of the Ethernet-over-Transport (EoT) capable network element

Amendment 1

Summary

Amendment 1 to Recommendation ITU-T G.8051/Y.1345 (2009) aligns the Recommendation to Recommendation ITU-T G.8021/Y.1341 (2010) and its Amendment 1 (2011).

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T G.8051/Y.1345	2007-10-22	15
2.0	ITU-T G.8051/Y.1345	2009-11-13	15
2.1	ITU-T G.8051/Y.1345 (2009) Amd. 1	2011-06-06	15

FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

Recommendation ITU-T G.8051/Y.1345

Management aspects of the Ethernet-over-Transport (EoT) capable network element

Amendment 1

1) Scope

This amendment amends ITU-T G.8051/Y.1345 (2009) in order to align it to Rec. ITU-T G.8021/Y.1341 (10/2010) and its Amendment 1 (2/2011).

2) References

[ITU-T G.8021] Recommendation ITU-T G.8021/Y.1341 (2010), *Characteristics of Ethernet transport network equipment functional blocks*, plus its Amendment 1 (2011).

[ITU-T G.8051] Recommendation ITU-T G.8051/Y.1345 (2009), *Management aspects of the Ethernet-over-Transport (EoT) capable network element*.

3) Amendments to [ITU-T G.8051]

3.1) Changes to clause 2, *References*

Update the following reference as shown:

[ITU-T G.8021] Recommendation ITU-T G.8021/Y.1341 (20~~07~~10), *Characteristics of Ethernet transport network equipment functional blocks, ~~plus~~and its Amendment 1 (2009~~11~~) ~~and Amendment 2 (2010)~~*.

3.2) Changes to clause 4, *Abbreviations and acronyms*

Add the following acronyms:

APP Access Point Pool

COMMS Communication channel

DA Destination Address

DE Drop Eligibility

DEG Degraded

DEGM Degraded M

DEGTHR Degraded Threshold

DM Delay Measurement

ETHx Ethernet MAC layer network – x, x=s for section, x=p for path, x=t for TCM

P Priority

SA Source Address

SL Synthetic Loss

SLM Synthetic Loss Message

SLR Synthetic Loss Reply

TF Transmitted Frames

TFP Termination Flow Point

TFPP Termination Flow Point Pool

3.3) Changes to clause 7.2.1, *Fault cause persistency function – PRS*

Replace Table 7-1 (Inputs/outputs for the fault cause persistency function) with the following table:

Table 7-1 – Inputs/outputs for the fault cause persistency function

Atomic function (see [ITU-T G.8021])	**Input**	**Output**
ETHx_FT_Sk	cSSF cLCK cLOC[i] cMMG cUNM cUNP cUNPri cUNL cDEG cRDI~~[i]~~	fSSF fLCK fLOC[i] fMMG fUNM fUNP fUNPri fUNL fDEG fRDI
ETHG_FT_Sk	cLOC[i] cUNL cMMG cUNM cDEG cUNP cUNPr cRDI cSSF cLCK	fLOC[i] fUNL fMMG fUNM fDEG fUNP fUNPr fRDI fSSF fLCK
ETHx/ETH_A_Sk	cCSF	fCSF
ETYn-Np/ETH-LAG-Na_A_Sk	cPLL[1..Na] cTLL[1..Na]	fPLL[1..Na] fTLL[1..Na]
ETH-LAG_FT_Sk	cSSF	fSSF
ETYn_TT_Sk	cLOS cRDI cFDI	fLOS fRDI fFDI
Sn/ETH_A_Sk	cPLM cLFD cUPM cEXM cCSF	fPLM fLFD fUPM fEXM fCSF
Sn-X-L/ETH_A_Sk	cPLM cLFD cUPM cEXM cCSF	fPLM fLFD fUPM fEXM fCSF

Table 7-1 – Inputs/outputs for the fault cause persistency function

Atomic function (see [ITU-T G.8021])	**Input**	**Output**
Sm/ETH_A_Sk	cPLM cLFD cUPM cEXM cCSF	fPLM fLFD fUPM fEXM fCSF
Sm-X-L/ETH_A_Sk	cPLM cLFD cUPM cEXM cCSF	fPLM fLFD fUPM fEXM fCSF
Sn-X/ETC3_A_Sk	cPLM cLFD cUPM cEXM cCSF	fPLM fLFD fUPM fEXM fCSF
Pq/ETH_A_Sk	cPLM cLFD cUPM cEXM cCSF	fPLM fLFD fUPM fEXM fCSF
Pq-X-L/ETH_A_Sk	cPLM cLFD cUPM cEXM cCSF	fPLM fLFD fUPM fEXM fCSF
ODUkP/ETH_A_Sk	cPLM cLFD cUPM cEXM cCSF	fPLM fLFD fUPM fEXM fCSF
ODUkP-X-L/ETH_A_Sk	cVcPLM cLFD cUPM cEXM cCSF	fVcPLM fLFD fUPM fEXM fCSF
ODU2P/ETHPP-OS_A_Sk	cPLM cLFD cUPM cEXM cCSF	fPLM fLFD fUPM fEXM fCSF

3.4) Changes to clause 7.2.3, *Alarm reporting control function – ARC*

Replace Table 7-2 (ARC specifications for EoT) with the following table:

Table 7-2 – ARC specifications for EoT

Atomic function	Qualified problems	QoS reporting	Default state value
ETHx_FT_Sk	fSSF fLCK fLOC[i] fMMG fUNM fUNP fUNPri fUNL fDEG fRDI~~[i]~~	FFS	ALM
ETHG_FT_Sk	fLOC[i] fUNL fMMG fUNM fDEG fUNP fUNPr fRDI fSSF fLCK	FFS	ALM
ETHx/ETH_A_Sk	fCSF	FFS	ALM
ETYn-Np/ETH-LAG-Na_A_Sk	fPLL[1..Na] fTLL[1..Na]	FFS	ALM
ETH-LAG_FT_Sk	fSSF	FFS	ALM
ETYn_TT_Sk	fLOS fRDI fFDI	FFS	ALM
Sn/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	FFS	ALM
Sn-X-L/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	FFS	ALM
Sm/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	FFS	ALM

Table 7-2 – ARC specifications for EoT

Atomic function	Qualified problems	QoS reporting	Default state value
Sm-X-L/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	FFS	ALM
Sn-X/ETC3_A_Sk	fPLM fLFD fUPM fEXM fCSF	FFS	ALM
Pq/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	FFS	ALM
Pq-X-L/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	FFS	ALM
ODUkP/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	FFS	ALM
ODUkP-X-L/ETH_A_Sk	fVcPLM fLFD fUPM fEXM fCSF	FFS	ALM
ODU2P/ETHPP-OS_A_Sk	fPLM fLFD fUPM fEXM fCSF	FFS	ALM

3.5) Changes to clause 7.2.14, *Operational state function – OPS*

Replace Table 7-3 (Operational state function input and output signals for Ethernet) with the following table:

Table 7-3 – Operational state function input and output signals for Ethernet

Atomic function	Failure input (fZZZ value)	Operational state output (Enabled/Disabled) of the trail object
ETHx_FT_Sk	fSSF fLOC[i] fMMG fUNM fUNP fUNPri fUNL fRDI~~[i]~~	Enabled Enabled Enabled Enabled Enabled Enabled Enabled Enabled
ETHG_FT_Sk	fLOC[i] fUNL fMMG fUNM fDEG fUNP fUNPr fRDI fSSF fLCK	Enabled Enabled Enabled Enabled Enabled Enabled Enabled Enabled Enabled Enabled
ETHx/ETH_A_Sk	fCSF	Enabled
ETYn-Np/ETH-LAG-Na_A_Sk	fPLL[1..Na] fTLL[1..Na]	Enabled Enabled
ETH-LAG_FT_Sk	fSSF	Enabled
ETYn_TT_Sk	fLOS fRDI fFDI	Disabled Enabled Enabled
Sn/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	Enabled Enabled Enabled Enabled Enabled
Sn-X-L/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	Enabled Enabled Enabled Enabled Enabled
Sm/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	Enabled Enabled Enabled Enabled Enabled

Table 7-3 – Operational state function input and output signals for Ethernet

Atomic function	Failure input (fZZZ value)	Operational state output (Enabled/Disabled) of the trail object
Sm-X-L/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	Enabled Enabled Enabled Enabled Enabled
Sn-X/ETC3_A_Sk	fPLM fLFD fUPM fEXM fCSF	Enabled Enabled Enabled Enabled Enabled
Pq/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	Enabled Enabled Enabled Enabled Enabled
Pq-X-L/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	Enabled Enabled Enabled Enabled Enabled
ODUkP/ETH_A_Sk	fPLM fLFD fUPM fEXM fCSF	Enabled Enabled Enabled Enabled Enabled
ODUkP-X-L/ETH_A_Sk	fVcPLM fLFD fUPM fEXM fCSF	Enabled Enabled Enabled Enabled Enabled
ODU2P/ETHPP-OS_A_Sk	fPLM fLFD fUPM fEXM fCSF	Enabled Enabled Enabled Enabled Enabled

3.6) Changes to clause 8.5, *Flow termination*

Replace Table 8-2 (Provisioning and reporting for flow termination functions) with the following table:

Table 8-2 – Provisioning and reporting for flow termination functions

MI signal	Value range	Default value
Provisioning		
ETHx_FT_So_MI_MEL	0, 1, 2, 3, 4, 5, 6, 7	By agreement
ETHx_FT_So_MI_MEP_MAC	Per [ITU-T G.8021]	–
ETHx_FT_So_MI_CC_Enable	true, false	false
ETHx_FT_So_MI_LM_Enable	true, false	true
ETHx_FT_So_MI_MEG_ID	See Annex A of [ITU-T Y.1731]	–
ETHx_FT_So_MI_MEP_ID	0..8191; see Figure 9.2-3 of [ITU-T Y.1731]	–
ETHx_FT_So_MI_CC_Period	3.33 ms, 10 ms, 100 ms, 1 s, 10 s, 1 min, 10 min	3.3 ms for PS, 100 ms for PM, 1 s for FM
ETHx_FT_So_MI_CC_Pri	0, 1, 2, 3, 4, 5, 6, 7	7
ETHx_FT_So_MI_DM_Enable	true, false	false
ETHx_FT_So_MI_DM_MAC_DA	Per [ITU-T G.8021]	--
ETHx_FT_So_MI_DM_Test_ID	Non-negative integer (optional)	--
ETHx_FT_So_MI_DM_Length	Non-negative integer representing the number of bytes for the length of the padding TLV. Note that the total frame size of the DM PDU should be between 64 and 9216 bytes.	0
ETHx_FT_So_MI_DM_Period	100 ms, 1 s, 10 s	100 ms
ETHx_FT_So_MI_DM_Pri	0, 1, 2, 3, 4, 5, 6, 7	7
ETHx_FT_So_MI_1DM_Enable	true, false	false
ETHx_FT_So_MI_1DM_MAC_DA	Per [ITU-T G.8021]	--
ETHx_FT_So_MI_1DM_Test_ID	Non-negative integer (optional)	--
ETHx_FT_So_MI_1DM_Length	Non-negative integer representing the number of bytes for the length of the padding TLV. Note that the total frame size of the DM PDU should be between 64 and 9216 bytes.	0
ETHx_FT_So_MI_1DM_Period	100 ms, 1 s, 10 s	100 ms
ETHx_FT_So_MI_1DM_Pri	0, 1, 2, 3, 4, 5, 6, 7	7
ETHx_FT_So_MI_SL_Enable	true, false	false
ETHx_FT_So_MI_SL_MAC_DA	Per [ITU-T G.8021]	--
ETHx_FT_So_MI_SL_Test_ID	Non-negative integer (optional)	--
ETHx_FT_So_MI_SL_Length	Non-negative integer representing the number of bytes for the length of the padding TLV. Note that the total frame size of the DM PDU should be between 64 and 9216 bytes.	0
ETHx_FT_So_MI_SL_Period	100 ms, 1 s, 10 s	100 ms
ETHx_FT_So_MI_SL_Pri	0, 1, 2, 3, 4, 5, 6, 7	7

Table 8-2 – Provisioning and reporting for flow termination functions

MI signal	Value range	Default value
ETHx_FT_Sk_MI_CC_Enable	true, false	false
ETHx_FT_Sk_MI_LM_Enable	true, false	true
ETHx_FT_Sk_MI_1second	–	–
ETHx_FT_Sk_MI_LM_DEGM	2-10; see Table 7-1 of [ITU-T G.806]	10
ETHx_FT_Sk_MI_LM_M	2-10	10
ETHx_FT_Sk_MI_LM_DEGTHR	0% .. 100%; see Table 7-1 of [ITU-T G.806]	30%
ETHx_FT_Sk_MI_LM_TFMIN	FFS	FFS
ETHx_FT_Sk_MI_MEL	0, 1, 2, 3, 4, 5, 6, 7	By agreement
ETHx_FT_Sk_MI_MEG_ID	See Annex A of [ITU-T Y.1731]	–
ETHx_FT_Sk_MI_PeerMEP_ID[i]	List of peer MEP IDs; 0..8191 for each ID; see Figure 9.2-3 of [ITU-T Y.1731]	–
ETHx_FT_Sk_MI_CC_Period	3.33 ms, 10 ms, 100 ms, 1 s, 10 s, 1 min, 10 min	3.3 ms for PS, 100 ms for PM, 1 s for FM
ETHx_FT_Sk_MI_CC_Pri	0..7	7
ETHx_FT_Sk_MI_GetSvdCCM	(NOTE – Use to request the saved latest CCM frame that caused a defect to be raised.)	–
ETHx_FT_Sk_MI_1DM_Enable	true, false	false
ETHx_FT_Sk_MI_1DM_MAC_SA	Per [ITU-T G.8021]	–
ETHx_FT_Sk_MI_1DM_Test_ID	Non-negative integer (optional)	--
Reporting		
ETHx_FT_Sk_MI_SvdCCM	Last received CCM frame that caused defect	–
Provisioning		
ETHG_FT_So_MI_MEL	0, 1, 2, 3, 4, 5, 6, 7	By agreement
ETHG_FT_So_MI_MEP_MAC	Per [ITU-T G.8021]	–
ETHG_FT_So_MI_CC_Enable	true, false	false
ETHG_FT_So_MI_LM_Enable	true, false	true
ETHG_FT_So_MI_MEG_ID	See Annex A of [ITU-T Y.1731]	–
ETHG_FT_So_MI_MEP_ID	0..8191; see Figure 9.2-3 of [ITU-T Y.1731]	–
ETHG_FT_So_MI_CC_Period	3.33 ms, 10 ms, 100 ms, 1 s, 10 s, 1 min, 10 min	3.3 ms for PS, 100 ms for PM, 1 s for FM
ETHG_FT_So_MI_CC_Pri	0, 1, 2, 3, 4, 5, 6, 7	7
Provisioning		
ETHG_FT_Sk_MI_CC_Enable	true, false	false
ETHG_FT_Sk_MI_LM_Enable	true, false	true
ETHG_FT_Sk_MI_1Second	–	–
ETHG_FT_Sk_MI_LM_DEGM	2-10; see Table 7-1 of [ITU-T G.806]	10
ETHG_FT_Sk_MI_LM_M	2-10	10
ETHG_FT_Sk_MI_LM_DEGTHR	0% .. 100%; see Table 7-1 of [ITU-T G.806]	30%

Table 8-2 – Provisioning and reporting for flow termination functions

MI signal	Value range	Default value
ETHG_FT_Sk_MI_LM_TFMIN	FFS	FFS
ETHG_FT_Sk_MI_MEL	0, 1, 2, 3, 4, 5, 6, 7	By agreement
ETHG_FT_Sk_MI_MEG_ID	See Annex A of [ITU-T Y.1731]	–
ETHG_FT_Sk_MI_PeerMEP_ID[i]	List of peer MEP IDs; 0..8191 for each ID; see Figure 9.2-3 of [ITU-T Y.1731]	–
ETHG_FT_Sk_MI_CC_Period	3.33 ms, 10 ms, 100 ms, 1 s, 10 s, 1 min, 10 min	3.3 ms for PS, 100 ms for PM, 1 s for FM
ETHG_FT_Sk_MI_CC_Pri	0..7	7
ETHG_FT_Sk_MI_GetSvdCCM	(NOTE – Use to request the saved latest CCM frame that caused a defect to be raised.)	–
Reporting		
ETHG_FT_Sk_MI_SvdCCM	Last received CCM frame that caused defect	–
Provisioning		
ETH-LAG_FT_Sk_MI_SSF_Reported	true, false	true

3.7) Changes to clause 8.6, *Adaptation*

Replace Table 8-3 (Provisioning and reporting for adaptation functions) with the following table:

Table 8-3 – Provisioning and reporting for adaptation functions

MI signal	Value range	Default value
ETHx/ETH_A_So **Provisioning**		
ETHx/ETH_A_So_MI_Active	true, false	true
ETHx/ETH_A_So_MI_MEP_MAC	6 byte Unicast MAC address	–
ETHx/ETH_A_So_MI_Client_MEL	0..7	–
ETHx/ETH_A_So_MI_LCK_Period	1 s, 1 min	1 s
ETHx/ETH_A_So_MI_LCK_Pri	0..7	7
ETHx/ETH_A_So_MI_Admin_State	LCK, Normal	Normal
ETHx/ETH_A_So_MI_MEL	0..7	–
ETHx/ETH_A_So_MI_APS_Pri	0..7	7
ETHx/ETH_A_So_MI_CSF_Enable	true, false	true
ETHx/ETH_A_So_MI_CSFrdifdiEnable	true, false	true
ETHx/ETH_A_Sk **Provisioning**		
ETHx/ETH_A_Sk_MI_Active	true, false	true
ETHx/ETH_A_Sk_MI_MEP_MAC	6-byte unicast MAC address	–
ETHx/ETH_A_Sk_MI_Client_MEL	0..7	–
ETHx/ETH_A_Sk_MI_LCK_Period	1 s, 1 min	1 s
ETHx/ETH_A_Sk_MI_LCK_Pri	0..7	7
ETHx/ETH_A_Sk_MI_Admin_State	LCK, Normal	Normal

Table 8-3 – Provisioning and reporting for adaptation functions

MI signal	Value range	Default value
ETHx/ETH_A_Sk_MI_AIS_Period	1 s, 1 min	1 s
ETHx/ETH_A_Sk_MI_AIS_Pri	0..7	7
ETHx/ETH_A_Sk_MI_MEL	0..7	7
ETHx/ETH_A_Sk_MI_CSF_Reported	true, false	true
ETHx/ETH_A_Sk_MI_CSFrdifdiEnable	true, false	true
ETHx/ETH-m_A_So **Provisioning**		
ETHx/ETH-m_A_So_MI_Active	true, false	true
ETHx/ETH-m_A_So_MI_MEP_MAC	6-byte unicast MAC address	–
ETHx/ETH-m_A_So_MI_Client_MEL[1…M]	0..7	–
ETHx/ETH-m_A_So_MI_LCK_Period[1…M] (for each of the 1 through M VLANs)	1 s, 1 min	1 s
ETHx/ETH-m_A_So_MI_LCK_Pri[1…M]	0..7	7
ETHx/ETH-m_A_So_MI_Admin_State	LCK, Normal	Normal
ETHx/ETH-m_A_So_MI_VLAN_Config[1…M]	(Note)	(Note)
ETHx/ETH-m_A_So_MI_Etype	2 byte integer ≥ 0x0600	S-Tag: 0x88a8 C-Tag: 0x8100
ETHx/ETH-m_A_So_PCP_Config	8P0D, 7P1D, 6P2D, 5P3D, 4P4D, DEI	8P0D
ETHx/ETH-m_A_So_MI_MEL	0..7	7
~~ETHx/ETH-m_A_So_Queue_Config~~	~~(Note)~~	~~(Note)~~
ETHx/ETH-m_A_Sk **Provisioning**		
ETHx/ETH-m_A_Sk_MI_Active	true, false	true
ETHx/ETH-m_A_Sk_MI_Admin_State	LCK, Normal	Normal
ETHx/ETH-m_A_Sk_MI_MEP_MAC	6-byte unicast MAC address	–
ETHx/ETH-m_A_Sk_MI_Client_MEL[1…M]	0..7	–
ETHx/ETH-m_A_Sk_MI_LCK_Period[1…M]	1 s, 1 min	1 s
ETHx/ETH-m_A_Sk_MI_LCK_Pri[1…M]	0..7	7
ETHx/ETH-m_A_Sk_MI_AIS_Period[1…M]	1 s, 1 min	1 s
ETHx/ETH-m_A_Sk_MI_AIS_Pri[1…M]	0..7	7
ETHx/ETH-m_A_Sk_MI_VLAN_Config[1…M]	(Note)	(Note)
ETHx/ETH-m_A_Sk_MI_P_Regenerate	(Note)	(Note)
ETHx/ETH-m_A_Sk_MI_PVID	(Note)	(Note)
ETHx/ETH-m_A_Sk_MI_PCP_Config	8P0D, 7P1D, 6P2D, 5P3D, 4P4D, DEI	8P0D
ETHx/ETH-m_A_Sk_MI_Etype	2 byte integer ≥ 0x0600	S-Tag: 0x88a8 C-Tag: 0x8100
ETHx/ETH-m_A_Sk_MI_MEL	0..7	–

Table 8-3 – Provisioning and reporting for adaptation functions

MI signal	Value range	Default value
ETHx/ETH-m_A_Sk_MI_Frametype_Config	AllowTaggedOnly; AllowUntaggedOnly; AllowAll	AllowUntaggedOnly
ETHx/ETH-m_A_Sk_MI_Filter_Config	(Note)	(Note)
ETHG/ETH_A_So **Provisioning**		
ETHG/ETH_A_So_MI_Active	true, false	true
ETHG/ETH_A_So_MI_MEP_MAC	6-byte unicast MAC address	–
ETHG/ETH_A_So_MI_Client_MEL[1…M]	0..7	–
ETHG/ETH_A_So_MI_LCK_Period[1…M]	1 s, 1 min	1 s
ETHG/ETH_A_So_MI_LCK_Pri[1…M]	0..7	7
ETHG/ETH_A_So_MI_Admin_State	LCK, Normal	Normal
ETHG/ETH_A_So_MI_MEL	0..7	–
ETHG/ETH_A_So_MI_APS_Pri	0..7	7
ETHG/ETH_A_Sk **Provisioning**		
ETHG/ETH_A_Sk_MI_Active	true, false	true
ETHG/ETH_A_Sk_MI_MEP_MAC	6-byte unicast MAC address	–
ETHG/ETH_A_Sk_MI_Client_MEL[1…M]	0..7	–
ETHG/ETH_A_Sk_MI_LCK~~/AIS~~_Period[1…M]	1 s, 1 min~~0..7~~	1 s~~7~~
ETHG/ETH_A_Sk_MI_LCK~~/AIS~~_Pri[1…M]	0..7	7
ETHG/ETH_A_Sk_MI_Admin_State	LCK, Normal	Normal
ETHG/ETH_A_Sk_MI_AIS_Period[1…M]	1 s, 1 min	1 s
ETHG/ETH_A_Sk_MI_AIS_Pri[1…M]	0..7	7
ETHG/ETH_A_Sk_MI_MEL	0..7	–
ETHx/ETHG_A_So **Provisioning**		
ETHx/ETHG_A_So_MI_Active	true, false	true
ETHx/ETHG_A_So_MI_MEP_MAC	6-byte unicast MAC address	–
ETHx/ETHG_A_So_MI_Client_MEL[1…M]	0..7	–
ETHx/ETHG_A_So_MI_LCK_Period[1…M] (for each of the 1 through M VLANs)	1 s, 1 min	1 s
ETHx/ETHG_A_So_MI_LCK_Pri[1…M]	0..7	7
ETHx/ETHG_A_So_MI_Admin_State	LCK, Normal	Normal
ETHx/ETHG_A_So_MI_VLAN_Config[1…M]	(Note)	(Note)
ETHx/ETHG_A_So_MI_Etype	2 byte integer ≥ 0x0600	S-Tag: 0x88a8 C-Tag: 0x8100
ETHx/ETHG_A_So_PCP_Config	8P0D, 7P1D, 6P2D, 5P3D, 4P4D, DEI	8P0D
ETHx/ETHG_A_So_MI_MEL	0..7	7
ETHx/ETHG_A_Sk **Provisioning**		
ETHx/ETHG_A_Sk_MI_Active	true, false	true
ETHx/ETHG_A_Sk_MI_Admin_State	LCK, Normal	Normal

Table 8-3 – Provisioning and reporting for adaptation functions

MI signal	Value range	Default value
ETHx/ETHG_A_Sk_MI_MEP_MAC	6-byte unicast MAC address	–
ETHx/ETHG_A_Sk_MI_Client_MEL[1…M]	0..7	–
ETHx/ETHG_A_Sk_MI_LCK_Period[1…M]	1 s, 1 min	1 s
ETHx/ETHG_A_Sk_MI_LCK_Pri[1…M]	0..7	7
ETHx/ETHG_A_Sk_MI_AIS_Period[1…M]	1 s, 1 min	1 s
ETHx/ETHG_A_Sk_MI_AIS_Pri[1…M]	0..7	7
ETHx/ETHG_A_Sk_MI_VLAN_Config[1…M]	(Note)	(Note)
ETHx/ETHG_A_Sk_MI_P_Regenerate	(Note)	(Note)
ETHx/ETHG_A_Sk_MI_PVID	(Note)	(Note)
ETHx/ETHG_A_Sk_MI_PCP_Config	8P0D, 7P1D, 6P2D, 5P3D, 4P4D, DEI	8P0D
ETHx/ETHG_A_Sk_MI_Etype	2 byte integer ≥ 0x0600	S-Tag: 0x88a8 C-Tag: 0x8100
ETHx/ETHG_A_Sk_MI_MEL	0..7	–
ETHx/ETHG_A_Sk_MI_Frametype_Config	AllowTaggedOnly; AllowUntaggedOnly; AllowAll	AllowUntaggedOnly
ETHx/ETHG_A_Sk_MI_Filter_Config	(Note)	(Note)
ETHDi/ETH_A_So **Provisioning**		
~~ETHDi/ETH_A_So_MI_MEL~~	~~0..7~~	~~7~~
ETHDi/ETH_A_So_MI_Active	true, false	false
ETHDi/ETH_A_So_MI_RAPS_MEL	0..7	–
ETHDi/ETH_A_So_MI_RAPS_Pri	0..7	7
ETHDi/ETH_A_So_MI_MIP_MAC	6-byte MAC unicast address	–
ETHDi/ETH_A_Sk **Provisioning**		
ETHDi/ETH_A_Sk_MI_Active	true, false	false
ETHDi/ETH_A_Sk_MI_RAPS_MEL	0..7	–
ETYn-Np/ETH-LAG-Na_A_So **Provisioning**		
ETYn-Np/ETH-LAG-Na_A_So_MI_Active	true, false	true
ETYn-Np/ETH-LAG-Na_A_So_MI_TxPauseEnable	true, false	false
ETYn-Np/ETH-LAG-Na_A_So_ MI_Agg[1..Na]_AP_List	(Note)	(Note)
ETYn-Np/ETH-LAG-Na_A_So_ MI_AggPort[1..Np]_ ActorAdmin_State	See IEEE 802.3 clause 30.7.2.1.20	–
ETYn-Np/ETH-LAG-Na_A_So **Reporting**		
ETYn-Np/ETH-LAG-Na_A_So_ MI_Agg[1..Na]_ActorSystemID	See IEEE 802.3 clause 30.7.1.1.4	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_Agg[1..Na]_ActorSystemPriority	See IEEE 802.3 clause 30.7.1.1.5	–
ETYn-Np/ETH-LAG-Na_A_So_	See IEEE 802.3	–

Table 8-3 – Provisioning and reporting for adaptation functions

MI signal	Value range	Default value
MI_Agg[1..Na]_ActorOperKey	clause 30.7.1.1.8	
ETYn-Np/ETH-LAG-Na_A_So_ MI_Agg[1..Na]_PartnerSystemID	See IEEE 802.3 clause 30.7.1.1.10	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_Agg[1..Na]_PartnerSystemPriority	See IEEE 802.3 clause 30.7.1.1.11	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_Agg[1..Na]_PartnerOperKey	See IEEE 802.3 clause 30.7.1.1.12	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_Agg[1..Na]_DataRate	See IEEE 802.3 clause 30.7.1.1.16	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_Agg[1..Na]_CollectorMaxDelay	See IEEE 802.3 clause 30.7.1.1.32	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_AggPort[1..Np]_ActorOperKey	See IEEE 802.3 clause 30.7.2.1.5	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_AggPort[1..Np]_PartnerOperSystemPriority	See IEEE 802.3 clause 30.7.2.1.7	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_AggPort[1..Np]_PartnerOperSystemID	See IEEE 802.3 clause 30.7.2.1.9	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_AggPort[1..Np]_PartnerOperKey	See IEEE 802.3 clause 30.7.2.1.11	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_AggPort[1..Np]_ActorPort	See IEEE 802.3 clause 30.7.2.1.14	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_AggPort[1..Np]_ActorPortPriority	See IEEE 802.3 clause 30.7.2.1.15	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_AggPort[1..Np]_PartnerOperPort	See IEEE 802.3 clause 30.7.2.1.17	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_AggPort[1..Np]_PartnerOperPortPriority	See IEEE 802.3 clause 30.7.2.1.19	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_AggPort[1..Np]_ActorOperState	See IEEE 802.3 clause 30.7.2.1.21	–
ETYn-Np/ETH-LAG-Na_A_So_ MI_AggPort[1..Np]_PartnerOperState	See IEEE 802.3 clause 30.7.2.1.23	–
ETYn-Np/ETH-LAG-Na_A_Sk **Provisioning**		
ETYn-Np/ETH-LAG-Na_A_Sk_MI_Active	true, false	true
ETYn-Np/ETH-LAG-Na_A_Sk_MI_PLLThr[1..Na]	(Note)	(Note)
ETH-LAG/ETH_A_So **Provisioning**		
ETH-LAG/ETH_A_So_MI_Active	true, false	false
ETH-LAG/ETH_A_Sk **Provisioning**		
ETH-LAG/ETH_A_Sk_MI_Active	true, false	false
ETH-LAG/ETH_A_Sk_MI_FilterConfig	(Note)	(Note)
ETYn/ETH_A_So **Provisioning**		
ETYn/ETH_A_So_MI_Active	true, false	true
ETYn/ETH_A_So_MI_TxPauseEnable	true, false	false

Table 8-3 – Provisioning and reporting for adaptation functions

MI signal	Value range	Default value
ETYn/ETH_A_Sk **Provisioning**		
ETYn/ETH_A_Sk_MI_Active	true, false	true
ETYn/ETH_A_Sk_MI_FilterConfig	(Note)	(Note)
ETYn/ETH_A_Sk_MI_MAC_Length	1518, 1522, 2000	2000
ETY3/ETC3_A_So **Provisioning**		
ETY3/ETC3_A_So_MI_Active	true, false	true
ETY3/ETC3_A_Sk **Provisioning**		
ETY3/ETC3_A_Sk_MI_Active	true, false	true
ETY4/ ETHPP-OS_A_So **Provisioning**		
ETY4/ETHPP-OS_A_So_MI_Active	true, false	true
ETY4/ ETHPP-OS_A_Sk **Provisioning**		
ETY4/ETHPP-OS_A_Sk_MI_Active	true, false	true
Sn/ETH_A_So **Provisioning**		
Sn/ETH_A_So_MI_Active	true, false	true
Sn/ETH_A_So_MI_CSFEnable	true, false	true
Sn/ETH_A_So_MI_CSFrdifdiEnable	true, false	true
Sn/ETH_A_Sk **Provisioning**		
Sn/ETH_A_Sk_MI_Active	true, false	true
Sn/ETH_A_Sk_MI_FilterConfig	(Note)	(Note)
Sn/ETH_A_Sk_MI_CSF_Reported	true, false	false
Sn/ETH_A_Sk_MI_MAC_Length	1518, 1522, 2000	2000
Sn/ETH_A_Sk_MI_CSFrdifdiEnable	true, false	true
Sn/ETH_A_Sk **Reporting**		
Sn/ETH_A_Sk_MI_AcSL (see Table 9-11 of [ITU-T G.707])	0..255	–
Sn/ETH_A_Sk_MI_AcEXI (see Table 6-2 of [ITU-T G.7041])	0..15	–
Sn/ETH_A_Sk_MI_AcUPI (see Table 6-3 of [ITU-T G.7041])	0..255	–
Sn-X-L/ETH_A_So **Provisioning**		
Sn-X-L/ETH_A_So_MI_Active	true, false	true
Sn-X-L/ETH_A_So_MI_CSFEnable	true, false	true
Sn-X-L/ETH_A_So_MI_CSFrdifdiEnable	true, false	true
Sn-X-L/ETH_A_Sk **Provisioning**		
Sn-X-L/ETH_A_Sk_MI_Active	true, false	true
Sn-X-L/ETH_A_Sk_MI_FilterConfig	(Note)	(Note)
Sn-X-L/ETH_A_Sk_MI_CSF_Reported	true, false	false
Sn-X-L/ETH_A_Sk_MI_MAC_Length	1518, 1522, 2000	2000
Sn-X-L/ETH_A_Sk_MI_CSFrdifdiEnable	true, false	true

Table 8-3 – Provisioning and reporting for adaptation functions

MI signal	Value range	Default value
Sn-X-L/ETH_A_Sk **Reporting**		
Sn-X-L/ETH_A_Sk_MI_AcSL (see Table 9-11 of [ITU-T G.707])	0..255	–
Sn-X-L/ETH_A_Sk_MI_AcEXI (see Table 6-2 of [ITU-T G.7041])	0..15	–
Sn-X-L/ETH_A_Sk_MI_AcUPI (see Table 6-3 of [ITU-T G.7041])	0..255	–
Sm/ETH_A_So **Provisioning**		
Sm/ETH_A_So_MI_Active	true, false	true
Sm/ETH_A_So_MI_CSFEnable	true, false	true
Sm/ETH_A_So_MI_CSFrdifdiEnable	true, false	true
Sm/ETH_A_Sk **Provisioning**		
Sm/ETH_A_Sk_MI_Active	true, false	true
Sm/ETH_A_Sk_MI_FilterConfig	(Note)	(Note)
Sm/ETH_A_Sk_MI_CSF_Reported	true, false	false
Sm/ETH_A_Sk_MI_MAC_Length	1518, 1522, 2000	2000
Sm/ETH_A_Sk_MI_CSFrdifdiEnable	true, false	true
Sm/ETH_A_Sk **Reporting**		
Sm/ETH_A_Sk_MI_AcSL (see Tables 9-12 and 9-13 of [ITU-T G.707])	0..255	–
Sm/ETH_A_Sk_MI_AcEXI (see Table 6-2 of [ITU-T G.7041])	0..15	–
Sm/ETH_A_Sk_MI_AcUPI (see Table 6-3 of [ITU-T G.7041])	0..255	–
Sm-X-L/ETH_A_So **Provisioning**		
Sm-X-L/ETH_A_So_MI_Active	true, false	true
Sm-X-L/ETH_A_So_MI_CSFEnable	true, false	true
Sm-X-L/ETH_A_So_MI_CSFrdifdiEnable	true, false	true
Sm-X-L/ETH_A_Sk **Provisioning**		
Sm-X-L/ETH_A_Sk_MI_Active	true, false	true
Sm-X-L/ETH_A_Sk_MI_FilterConfig	(Note)	(Note)
Sm-X-L/ETH_A_Sk_MI_CSF_Reported	true, false	false
Sm-X-L/ETH_A_Sk_MI_MAC_Length	1518, 1522, 2000	2000
Sm-X-L/ETH_A_Sk_MI_CSFrdifdiEnable	true, false	true
Sm-X-L/ETH_A_Sk **Reporting**		
Sm-X-L/ETH_A_Sk_MI_AcSL (see Tables 9-12 and 9-13 of [ITU-T G.707])	0..255	–
Sm-X-L/ETH_A_Sk_MI_AcEXI (see Table 6-2 of [ITU-T G.7041])	0..15	–
Sm-X-L/ETH_A_Sk_MI_AcUPI (see Table 6-3 of [ITU-T G.7041])	0..255	–

Table 8-3 – Provisioning and reporting for adaptation functions

MI signal	Value range	Default value
Sn-X/ETC3_A_So **Provisioning**		
Sn-X/ETC3_A_So_MI_Active	true, false	true
Sn-X/ETC3_A_So_MI_CSFEnable	true, false	true
Sn-X/ETC3_A_Sk **Provisioning**		
Sn-X/ETC3_A_Sk_MI_Active	true, false	true
Sn-X/ETC3_A_Sk_MI_CSF_Reported	true, false	false
Sn-X/ETC3_A_Sk **Reporting**		
Sn-X/ETC3_A_Sk_MI_AcSL (see Table 9-11 of [ITU-T G.707])	0..255	–
Sn-X/ETC3_A_Sk_MI_AcEXI (see Table 6-2 of [ITU-T G.7041])	0..15	–
Sn-X/ETC3_A_Sk_MI_AcPFI (see clause 6.1.3.1 of [ITU-T G.7041])	0 or 1	–
Sn-X/ETC3_A_Sk_MI_AcUPI (see Table 6-3 of [ITU-T G.7041])	0..255	–
Pq/ETH_A_So **Provisioning**		
Pq/ETH_A_So_MI_Active	true, false	true
Pq/ETH_A_So_MI_CSFEnable	true, false	true
Pq/ETH_A_So_MI_CSFrdifdiEnable	true, false	true
Pq/ETH_A_Sk **Provisioning**		
Pq/ETH_A_Sk_MI_Active		
Pq/ETH_A_Sk_MI_FilterConfig	(Note)	(Note)
Pq/ETH_A_Sk_MI_CSF_Reported	true, false	false
Pq/ETH_A_Sk_MI_MAC_Length	1518, 1522, 2000	2000
Pq/ETH_A_Sk_MI_CSFrdifdiEnable~~Reported~~	true, false	false
Pq/ETH_A_Sk **Reporting**		
Pq/ETH_A_Sk_MI_AcSL (see clause 2.1.2 of [ITU-T G.832])	0..7	–
Pq/ETH_A_Sk_MI_AcEXI (see Table 6-2 of [ITU-T G.7041])	0..15	–
Pq/ETH_A_Sk_MI_AcUPI (see Table 6-3 of [ITU-T G.7041])	0..255	–
Pq-X-L/ETH_A_So **Provisioning**		
Pq-X-L/ETH_A_So_MI_Active	true, false	true
Pq-X-L/ETH_A_So_MI_CSFEnable	true, false	true
Pq-X-L/ETH_A_So_MI_CSFrdifdiEnable	true, false	true
Pq-X-L/ETH_A_Sk **Provisioning**		
Pq-X-L/ETH_A_Sk_MI_Active	true, false	true
Pq-X-L/ETH_A_Sk_MI_FilterConfig	(Note)	(Note)
Pq-X-L/ETH_A_Sk_MI_CSF_Reported	true, false	false

Table 8-3 – Provisioning and reporting for adaptation functions

MI signal	Value range	Default value
Pq-X-L/ETH_A_Sk_MI_MAC_Length	1518, 1522, 2000	2000
Pq-X-L/ETH_A_Sk_MI_CSFrdifdiEnable~~Reported~~	true, false	false
Pq-X-L/ETH_A_Sk **Reporting**		
Pq-X-L/ETH_A_Sk_MI_AcSL (see clause 2.1.2 of [ITU-T G.832])	0..7	–
Pq-X-L/ETH_A_Sk_MI_AcEXI (see Table 6-2 of [ITU-T G.7041])	0..15	–
Pq-X-L/ETH_A_Sk_MI_AcUPI (see Table 6-3 of [ITU-T G.7041])	0..255	–
ODUkP/ETH_A_So **Provisioning**		
ODUkP/ETH_A_So_MI_Active	true, false	–true
ODUkP/ETH_A_So_MI_CSFEnable	true, false	true
ODUkP/ETH_A_So_MI_CSFrdifdiEnable	true, false	true
ODUkP/ETH_A_Sk **Provisioning**		
ODUkP/ETH_A_Sk_MI_Active	true, false	–true
ODUkP/ETH_A_Sk_MI_FilterConfig	(Note)	(Note)
ODUkP/ETH_A_Sk_MI_CSF_Reported	true, false	false
ODUkP/ETH_A_Sk_MI_MAC_Length	1518, 1522, 2000	2000
ODUkP/ETH_A_Sk_MI_CSFrdifdiEnable	true, false	true
ODUkP/ETH_A_Sk **Reporting**		
ODUkP/ETH_A_Sk_MI_AcPT (see Table 15-8 of [ITU-T G.709])	0..255	–
ODUkP/ETH_A_Sk_MI_AcEXI (see Table 6-2 of [ITU-T G.7041])	0..15	–
ODUkP/ETH_A_Sk_MI_AcUPI (see Table 6-3 of [ITU-T G.7041])	0..255	–
ODUkP-X-L/ETH_A_So **Provisioning**		
ODUkP-X-L/ETH_A_So_MI_Active	true, false	–true
ODUkP-X-L/ETH_A_So_MI_CSFEnable	true, false	true
ODUkP-X-L/ETH_A_So_MI_CSFrdifdiEnable	true, false	true
ODUkP-X-L/ETH_A_Sk **Provisioning**		
ODUkP-X-L/ETH_A_Sk_MI_Active	true, false	–true
ODUkP-X-L/ETH_A_Sk_MI_FilterConfig	(Note)	(Note)
ODUkP-X-L/ETH_A_Sk_MI_CSF_Reported	true, false	false
ODUkP-X-L/ETH_A_Sk_MI_MAC_Length	1518, 1522, 2000	2000
ODUkP-X-L/ETH_A_Sk_MI_CSFrdifdiEnable	true, false	true
ODUkP-X-L/ETH_A_Sk **Reporting**		
ODUkP-X-L/ETH_A_Sk_MI_AcVcPT (see Table 18-1 of [ITU-T G.709])	0..255	–

Table 8-3 – Provisioning and reporting for adaptation functions

MI signal	Value range	Default value
ODUkP-X-L/ETH_A_Sk_MI_AcEXI (see Table 6-2 of [ITU-T G.7041])	0..15	–
ODUkP-X-L/ETH_A_Sk_MI_AcUPI (see Table 6-3 of [ITU-T G.7041])	0..255	–
ODU2P/ETHPP-OS_A_So **Provisioning**		
ODU2P/ETHPP-OS_A_So_MI_Active	true, false	–true
ODU2P/ETHPP-OS_A_So_MI_CSFEnable	true, false	true
ODU2P/ETHPP-OS_A_Sk **Provisioning**		
ODU2P/ETHPP-OS_A_Sk_MI_Active	true, false	–true
ODU2P/ETHPP-OS_A_Sk_MI_CSF_Reported	true, false	false
ODUkP-X-L/ETH_A_Sk **Reporting**		
ODU2P/ETHPP-OS_A_Sk_MI_AcPT	0..255	–
ODU2P/ETHPP-OS_A_Sk_MI_AcEXI	0..15	–
ODU2P/ETHPP-OS_A_Sk_MI_AcUPI	0..255	–
NOTE – According to [ITU-T G.8021].		

3.8) Changes to clause 8.7, *Connection*

Replace Table 8-4 (Provisioning and reporting for connection functions) with the following table:

Table 8-4 – Provisioning and reporting for connection functions

MI signal	Value range	Default value
ETH_C **Provisioning**		
ETH_C_MI_Create_FF	(Note)	(Note)
ETH_C_MI_Modify_FF	(Note)	(Note)
ETH_C_MI_Delete_FF	(Note)	(Note)
ETH_C **Provisioning per Flow Forwarding process**		
ETH_C_MI_FF_Set_PortIds	(Note)	(Note)
ETH_C_MI_FF_ConnectionType	(Note)	(Note)
ETH_C_ MI_FF_Flush_Learned	–	–
ETH_C_ MI_FF_Flush_Config	–	–
ETH_C_ MI_FF_Group_Default	(Note)	(Note)
ETH_C_ MI_FF_ETH_FF	(Note)	(Note)
ETH_C_ MI_FF_Ageing	10 to 10^6 seconds	300 seconds
ETH_C_MI_FF_Learning	(Note)	(Note)
ETH_C_MI_FF_STP_Learning_State[i] (for each port)	true, false	true
~~ETH_C_MI_FF_Flow_Port_Group[j]~~	~~true, false~~	~~false~~

Table 8-4 – Provisioning and reporting for connection functions

MI signal	Value range	Default value
ETH_C **Provisioning per SNC/S protection process**		
ETH_C_MI_PS_WorkingPortId	(Note)	(Note)
ETH_C_MI_PS_ProtectionPortId	(Note)	(Note)
ETH_C_MI_PS_ProtType	(Note)	(Note)
ETH_C_MI_PS_OperType	(Note)	(Note)
ETH_C_MI_PS_HoTime	(Note)	(Note)
ETH_C_MI_PS_WTR	(Note)	(Note)
ETH_C_MI_PS_ExtCMD	(Note)	(Note)
ETH_C **Provisioning per Ring protection process**		
ETH_C_MI_RAPS_RPL_Owner_Node	(Note)	(Note)
ETH_C_MI_RAPS_RPL_Neighbour_Node	(Note)	(Note)
ETH_C_MI_RAPS_Propagate_TC[1…M]	(Note)	(Note)
ETH_C_MI_RAPS_Compatible_Version	(Note)	(Note)
ETH_C_MI_RAPS_Revertive	(Note)	(Note)
ETH_C_MI_RAPS_Sub_Ring_Without_Virtual_Channel	(Note)	(Note)
ETH_C_MI_RAPS_HoTime	(Note)	(Note)
ETH_C_MI_RAPS_WTR	(Note)	(Note)
ETH_C_MI_RAPS_GuardTime	(Note)	(Note)
ETH_C_MI_RAPS_ExtCMD	(Note)	(Note)
NOTE – According to [ITU-T G.8021].		

3.9) Changes to clause 8.8, *Diagnostic*

Replace Table 8-5 (Provisioning and reporting for diagnostic functions) with the following table:

Table 8-5 – Provisioning and reporting for diagnostic functions

MI signal	Value range	Default value
Provisioning of Diagnostic Flow Termination Source for MEP		
ETHDe_FT_So_MI_LM_Start(DA,P,Period)	(Notes 1 and 2)	–
ETHDe_FT_So_MI_LM_Terminate	–	–
ETHDe_FT_So_MI_LB_Discover(~~DA,DE,~~P)	(Note 2)	–
ETHDe_FT_So_MI_LB_Series(DA,DE,P,~~TLV,~~N,Length,Period)	(Notes 1 and 2)	–
ETHDe_FT_So_MI_LB_Test(DA,DE,P,Pattern, Length, Period)	(Notes 1 and 2)	–
ETHDe_FT_So_MI_LB_Test_Terminate	–	–
ETHDe_FT_So_MI_DM_Start(DA,P,Test_ID,Length,Period)	(Notes 1 and 2)	–
ETHDe_FT_So_MI_DM_Terminate	–	–
ETHDe_FT_So_MI_1DM_Start(DA,P,Test_ID,Length,Period)	(Notes 1 and 2)	–
ETHDe_FT_So_MI_1DM_Terminate	–	–
ETHDe_FT_So_MI_TST~~est~~(DA,DE,P,Pattern, Length, Period)	(Notes 1 and 2)	–
ETHDe_FT_So_MI_TST~~est~~_Terminate	–	–

Table 8-5 – Provisioning and reporting for diagnostic functions

MI signal	Value range	Default value
ETHDe_FT_So_MI_LT(TA,TTL,P)	(Note 1)	–
ETHDe_FT_So_MI_MEP_MAC	6 byte MAC unicast address	–
ETHDe_FT_So_MI_MEL	0..7	–
ETHDe_FT_So_MI_MEP_ID	0..8191; see Figure 9.2-3 of [ITU-T Y.1731]	–
ETHDe_FT_So_MI_LM_Pri	0..7	–
ETHDe_FT_So_MI_SL_Start(DA,P,Test_ID,Length,Period)	(Notes 1 and 2)	–
ETHDe_FT_So_MI_SL_Terminate	–	–
Reporting of Diagnostic Flow Termination Source for MEP		
ETHDe_FT_So_MI_LM_Result(N_TF, N_LF, F_TF, F_LF)	(Note 1)	–
ETHDe_FT_So_MI_LB_Discover_Result(MACs)	6 byte MAC unicast address	–
ETHDe_FT_So_MI_DM_Result(count,B_FD[],F_FD[],N_FD[])		
ETHDe_FT_So_MI_LB_Series_Result(REC,ERR,OO)	(Note 1)	–
ETHDe_FT_So_MI_LB_Test_Result(Sent, REC, CRC, BER~~R~~, OO)	(Note 1)	–
~~ETHDe_FT_So_MI_DM_Result(Delay,Variation)~~	~~(Note 1)~~	~~–~~
ETHDe_FT_So_MI_TST~~est~~_Result(Sent)	(Note 1)	–
ETHDe_FT_So_MI_LT_Results(Results)	(Note 1)	–
ETHDe_FT_So_MI_SL_Result(N_TF,N_LF,F_TF,F_LF)	(Note 1)	–
Provisioning of Diagnostic Flow Termination Sink for MEP		
ETHDe_FT_Sk_MI_Active	true, false	false
ETHDe_FT_Sk_MI_LMM_Pri	0..7	7
ETHDe_FT_Sk_MI_MEL	0..7	–
ETHDe_FT_Sk_MI_MEP_MAC	6 byte Unicast MAC address	–
ETHDe_FT_Sk_MI_1DM_Start(SA, Test_ID)	6 byte Unicast MAC address, Non-negative integer	–
ETHDe_FT_Sk_MI_1DM_Terminate	–	–
ETHDe_FT_Sk_MI_TST_Start(SA, pattern)	(Note 1)	–
ETHDe_FT_Sk_MI_TST_Terminate	–	–
Reporting of Diagnostic Flow Termination Sink for MEP		
~~ETHDe_FT_Sk_MI_1DM_Result(Delay, Variation)~~	~~(Note 1)~~	~~–~~
ETHDe_FT_Sk_MI_1DM_Result(count,N_FD[])	(Note 1)	–
ETHDe_FT_Sk_MI_TST_Result(REC, CRC, BER, OO)	(Note 1)	–

Table 8-5 – Provisioning and reporting for diagnostic functions

MI signal	Value range	Default value
Provisioning of Diagnostic Flow Termination Source for MIP		
ETHDi_FT_So_MI_MEL	0..7	–
ETHDi_FT_So_MI_~~MEG~~MIP_MAC	6 byte MAC unicast address	–
Provisioning of Diagnostic Flow Termination Sink for MIP		
ETHDi_FT_Sk_MI_MEL	0..7	–
ETHDi_FT_Sk_MI_~~MEG~~MIP_MAC	6 byte MAC unicast address	–
NOTE 1 – According to [ITU-T G.8021]. NOTE 2 – DA is 6-byte MAC address, P is 0..7, DE is 0..1.		

3.10) Changes to clause 8.9, *Traffic conditioning and shaping*

Replace Table 8-6 (Provisioning for traffic conditioning and shaping functions) with the following table:

Table 8-6 – Provisioning for traffic conditioning and shaping functions

MI signal	Value range	Default value
ETH_TCS_So **Provisioning**		
ETH_TCS_So_MI_PrioConfig	(Note)	(Note)
ETH_TCS_So_MI_QueueConfig[]	(Note)	(Note)
ETH_TCS_So_MI_SchedConfig	(Note)	(Note)
ETH_TCS_Sk **Provisioning**		
ETH_TCS_Sk_MI_PrioConfig	(Note)	(Note)
ETH_TCS_Sk_MI_CondConfig[]	(Note)	(Note)
ETH_GTCS_So **Provisioning**		
ETH_GTCS_So_MI_PrioConfig[]	(Note)	(Note)
ETH_GTCS_So_MI_QueueConfig[][]	(Note)	(Note)
ETH_GTCS_So_MI_SchedConfig[]	(Note)	(Note)
NOTE – According to [ITU-T G.8021].		

3.11) Changes to clause 10.2, *Performance monitoring functions*

In the number list, replace items 16) and 17) with the following new items 16) and 17):

16) If on-demand LM (i.e., LMM/LMR) is supported, for each on-demand LM session the Ethernet NE should:

   – Receive from the transport plane the raw measurements (i.e., N_TF, N_LF, F_TF, F_LF) for each OAM period. Note that according to the definition of near-end and far-end frame loss in clause 8.1 of [ITU-T Y.1731], for a MEP, N_TF and N_LF refer to the transmitted and lost ingress frames, while F_TF and F_LF refer to the transmitted and lost egress frames.

– Store the respective cumulative statistics (TN_TF, TN_LF, TF_TF, TF_LF) and FLRs (TN_FLR=TN_LF/TN~~F~~_TF, TF_FLR=TF_LF/TF~~N~~_TF). The stored statistics shall be available for retrieval by the management system.

– At the end of the on-demand session, report the statistics to the management system.

Figures 10-2 and 10-3 illustrate the derivation of the on-demand (single-ended) and proactive (dual-ended) loss measurement from the counter values.

NOTE 1 – An on-demand LM or DM session could be a single series of OAM messages or a single instance of OAM message. A single instance OAM could be considered as a special case of a single series OAM.

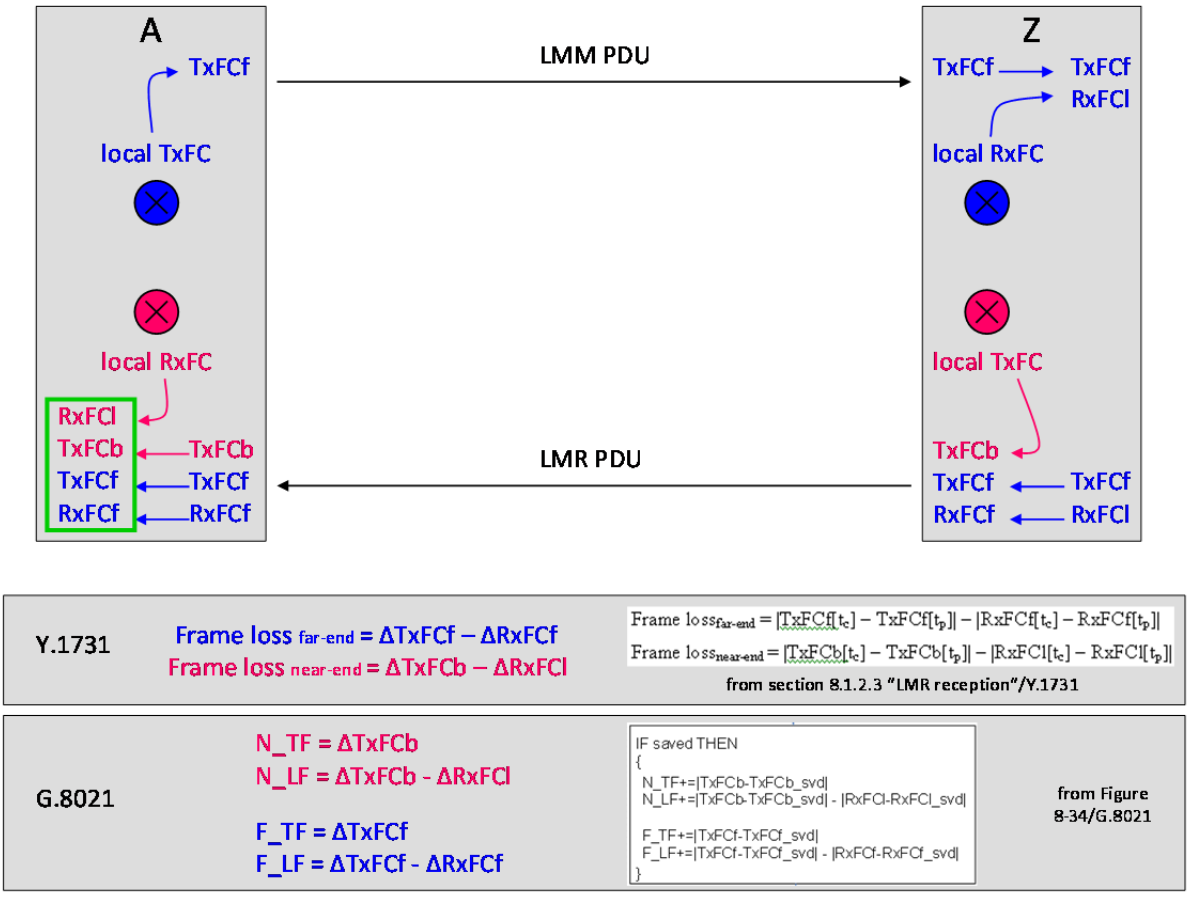

Figure 10-2 – Single-ended loss measurement

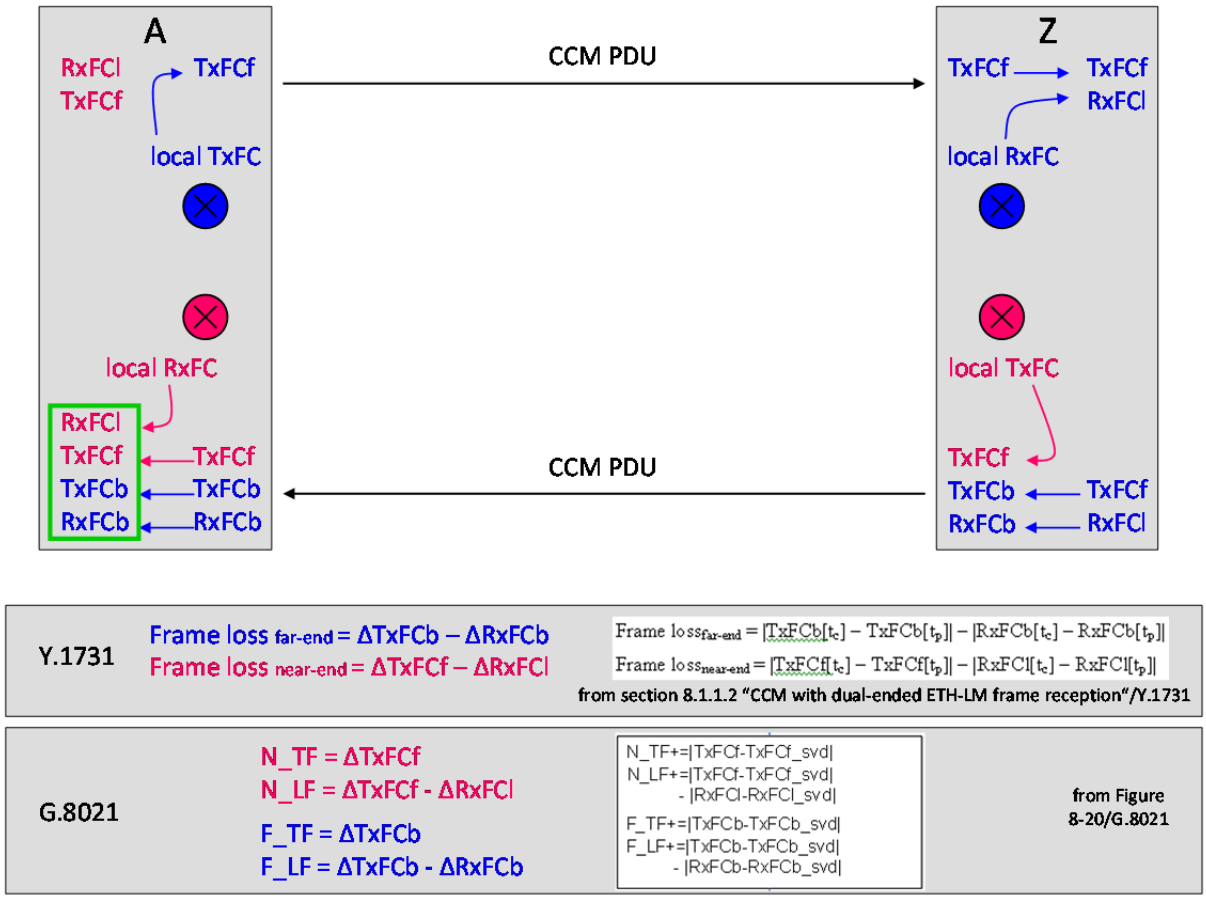

Figure 10-3 – Dual-ended loss measurement

17) If proactive LM (~~i.e., LMM/LMR or~~ CCM-based) is supported, for each proactive LM session the Ethernet NE should:

- Receive from the transport plane the raw measurements (i.e., N_TF, N_LF, F_TF, F_LF) for each OAM period.
- Calculate the FLRs (N_FLR=N_LF/N~~F~~_TF, F_FLR=F-LF/F~~N~~_TF) for each OAM period; store the temporal minimum, average, and maximum statistics (mN_FLR, aN_FLR, xN_FLR, mF_FLR, aF_FLR, xF_FLR) in the current 15-minute and 24-hour registers. The stored statistics shall be available for retrieval by the management system.
- At the maturity of the current 15-minute and 24-hour periods, the statistics in the current registers shall move to the history registers and then reset the current registers to zeros. See detailed requirements in [ITU-T G.7710].

In the number list, add a note at the end of item 19) as follows:

19) If proactive 1-way DM (i.e., 1DM) is supported, for each proactive 1-way DM session the Ethernet NE should:

- Receive from the transport plane the raw time stamps for each OAM period.
- Compute the near-end measurements (N_FD, N_FDV) for each OAM period; store the temporal minimum, average, and maximum (N_FD, N_FDV) in the current 15-minute and 24-hour registers. The stored statistics shall be available for retrieval by the management system.

– At the maturity of the current 15-minute and 24-hour periods, the statistics in the current registers shall move to the history registers and then reset the current registers to zeros. See detailed requirements in [ITU-T G.7710].

NOTE 2 – Version 1 of the 1DM PDU format has been defined in the 2011 Revision of Rec. ITU-T Y.1731 to support both proactive and on-demand 1-way DM applications, in which proactive and on-demand 1DM applications are distinguished by using the Type bit of the Flags field of the 1DM PDU. Proactive 1DM application is configured at the ETHx flow termination functions (ETHx_FT) with the Type bit set to 1, while the on-demand 1DM application is configured at the ETH diagnostic flow termination function (ETHDe_FT) with the Type bit being set to 0. See clause 8.1.11 of [ITU-T G.8021] for details.

In the number list, add a note at the end of item 21) as follows:

21) If proactive 2-way DM (i.e., DMM/DMR) is supported, for each proactive 2-way DM session the Ethernet NE should:

– Receive from the transport plane the raw time stamps for each OAM period.

– Compute the measurements (N_FD, F_FD, B_FD; N_FDV, F_FDV, B_FDV) for each OAM period; store the temporal minimum, average, and maximum for each type of the measurements (N_FD, F_FD, B_FD; N_FDV, F_FDV, B_FDV) for the current 15-minute and 24-hour registers. The stored statistics shall be available for retrieval by the management system.

– At the maturity of the current 15-minute and 24-hour periods, the statistics in the current registers shall move to the history registers and then reset current registers to zeros. See detailed requirements in [ITU-T G.7710].

NOTE 3 – Version 1 of the DMM PDU format has been defined in the 2011 Revision of Rec. ITU-T Y.1731 to support both proactive and on-demand 2-way DM applications, in which proactive and on-demand 2-way DM applications are distinguished by using the Type bit of the Flags field of the DMM PDU. Proactive 2-way DM application is configured at the ETHx flow termination functions (ETHx_FT) with the Type bit set to 1, while the on-demand 2-way DM application is configured at the ETH diagnostic flow termination function (ETHDe_FT) with the Type bit being set to 0. See clause 8.1.10 of [ITU-T G.8021] for details.

Replace Table 10-1 (PM management information) with the following table:

Table 10-1 – PM management information

PM management information	ITU-T G.8021 function
ETH_FT_Sk_MI_pN_LF~~L~~ ETH_FT_Sk_MI_pN_TF ETH_FT_Sk_MI_pF_LF~~L~~ ETH_FT_Sk_MI_pF_TF ETH_FT_Sk_MI_pF_DS ETH_FT_Sk_MI_pN_DS ETH_FT_Sk_MI_pB_FD ETH_FT_Sk_MI_pB_FDV ETH_FT_Sk_MI_pF_FD ETH_FT_Sk_MI_pF_FDV ETH_FT_Sk_MI_pN_FD ETH_FT_Sk_MI_pN_FDV	ETHx_FT_Sk
ETHx_FT_So_MI_pN_TF ETHx_FT_So_MI_pN_LF ETHx_FT_So_MI_pF_TF ETHx_FT_So_MI_pF_LF	ETHDe_FT_So

Table 10-1 – PM management information

PM management information	ITU-T G.8021 function
ETHG_FT_Sk_MI_pN_TF ETHG_FT_Sk_MI_pN_LF ETHG_FT_Sk_MI_pF_TF ETHG_FT_Sk_MI_pF_LF ETHG_FT_Sk_MI_pF_DS ETHG_FT_Sk_MI_pN_DS	ETHG_FT_Sk
ETYn-Np/ETH-LAG-Na_A_So_MI_pAggOctetsTxOK[1..Na] ETYn-Np/ETH-LAG-Na_A_So_MI_pAggFramesTxOK[1..Na] ETYn-Np/ETH-LAG-Na_A_So_MI_pFramesTransmittedOK[1..Np] ETYn-Np/ETH-LAG-Na_A_So_MI_pOctetsTransmittedOK[1..Np]	ETYn-Np/ETH-LAG-Na_A_So
ETYn-Np/ETH-LAG-Na_A_Sk_MI_pAggOctetsRxOK[1..Na] ETYn-Np/ETH-LAG-Na_A_Sk_MI_pAggFramesRxOK[1..Na] ETYn-Np/ETH-LAG-Na_A_Sk_MI_pFramesReceivedOK[1..Np] ETYn-Np/ETH-LAG-Na_A_Sk_MI_pOctetsReceivedOK[1..Np] ETYn-Np/ETH-LAG-Na_A_Sk_MI_pFCSErrors[1..Np]	ETYn-Np/ETH-LAG-Na_A_Sk
ETYn/ETH_A_So_MI_pFramesTransmittedOK ETYn/ETH_A_So_MI_pOctetsTransmittedOK	ETYn/ETH_A_So
ETYn/ETH_A_Sk_MI_pErrors ETYn/ETH_A_Sk_MI_pFramesReceivedOK ETYn/ETH_A_Sk_MI_pOctetsReceivedOK	ETYn/ETH_A_Sk
Sn/ETH_A_Sk_MI_pFCSErrors	Sn/ETH_A_Sk
Sn-X-L/ETH_A_Sk_MI_pFCSError	Sn-X-L/ETH_A_Sk
Sm/ETH_A_Sk_MI_pFCSError	Sm/ETH_A_Sk
Sm-X-L/ETH_A_Sk_MI_pFCSError	Sm-X-L/ETH_A_Sk
Sn-X/ETC3_A_Sk_MI_pCRC16Errors	Sn-X/ETC3_A_Sk
Pq/ETH_A_Sk_MI_pFCSError	Pq/ETH_A_Sk
Pq-X-L/ETH_A_Sk_MI_pFCSError	Pq-X-L/ETH_A_Sk
ODUkP/ETH_A_Sk_MI_pFCSErrors	ODUkP/ETH_A_Sk
ODUkP-X-L/ETH_A_Sk_MI_pFCSError	ODUkP-X-L/ETH_A_Sk
ODU2P/ETHPP-OS_A_Sk_MI_pFCSErrors ODU2P/ETHPP-OS_A_Sk_MI_pCRC16Errors	ODU2P/ETHPP-OS_A_Sk

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