0.1 Protocol Implementation Conformance Statement (PICS) proforma for Clause 57, Operations, Administration, and Maintenance (OAM)

0.1.1 Introduction

The supplier of a protocol implementation that is claimed to conform to IEEE Std 802.3af-2004, Clause 57 Operations, Administration, and Maintenance (OAM), shall complete the following Protocol Implementation Conformance Statement (PICS) proforma.

A detailed description of the symbols used in the PICS proforma, along with instructions for completing the PICS proforma, can be found in Clause 21.

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0.1.2 Identification

0.1.2.1 Implementation identification

Supplier[1]	
Contact point for enquiries about the PICS[1]	
Implementation Name(s) and Version(s)[1,3]	
Other information necessary for full identification—e.g., name(s) and version(s) for machines and/or operating systems; System Name(s)[2]	
1—Required for all implementations 2—May be completed as appropriate in meeting the requirements for the identification. 3—The terms Name and Version should be interpreted appropriately to correspond with a supplier's terminology (e.g., Type, Series, Model).	

0.1.2.2 Protocol summary

Identification of protocol standard	IEEE Std 802.3ah-2004, Clause 57, Operations Admin-istrations, and Maintenance (OAM)
Identification of amendments and corrigenda to this PICS proforma that have been completed as part of this PICS	
Have any Exception items been required? No [ ] Yes [ ] (See Clause 21; the answer Yes means that the implementation does not conform to the standard.)	
Date of Statement	

0.1.2.3 Major capabilities/options

Item	Feature	Subclause	Value/Comment	Status	Support
OM	OAM object class	33.1.1		O	Yes [ ] No [ ]
CSI	OAM client services interface	57.2.5.1		M	Yes [ ] No [ ]
PASS	Passive Mode	57.2.6		O	Yes [ ] No [ ]
LB	Loopback	57.1.2		O	Yes [ ] No [ ]
UNI	Unidirectional link	57.1.2		O	Yes [ ] No [ ]

0.1.3 PICS proforma tables for Operations, Administration, and Maintenance (OAM)

0.1.3.1 Functional Specifications

Item	Feature	Subclause	Value/Comment	Status	Support
OFS1	Disable or (re)enable of local_oam_enable	57.2.5.4.2	Resets OAM	M	Yes [ ] No [ ]
OFS2	OAMPDU.request primitive	57.2.5.2.3	Generated whenever OAMPDU is sent to peer entity	M	Yes [ ] No [ ]
OFS3	Passive Mode limited trans-mission	57.2.6.2	Cannot send Loopback Control or Variable Request OAMP-DUs	PASS:M	Yes [ ] No [ ] N/A[ ]
OFS4	OAMPDU transmission	57.3.2.2	Only when local_ok_to_tx is TRUE	M	Yes [ ] No [ ]
OFS5	Effect of OAMPDU on a frame already submitted to subordinate sublayer	57.3.2.2	Has no effect	M	Yes [ ] No [ ]
OFS6	Information OAMPDU trans-mission	57.3.2.2	When min_rate_timer or max_rate_timer expires	M	Yes [ ] No [ ]
OFS7	All validly-formed, received OAMPDUs are sent to OAM client entity	57.3.2.3		M	Yes [ ] No [ ]
OFS8	Discovery Process	57.3.2.1	Implemented as defined in Fig-ure 57-4	M	Yes [ ] No [ ]
OFS9	Multiplexer	57.3.3	Implemented as defined in Fig-ure 57-5	M	Yes [ ] No [ ]
OFS10	Multiplexer	57.3.3	Provide transparent pass-through of frames from supe-rior layer and control function	M	Yes [ ] No [ ]
OFS11	Unidirectional link	57.3.3	Only OAMPDUs may be transmitted	UNI:M	Yes [ ] No [ ] N/A[ ]
OFS12	Unidirectional link	57.3.3	MAC client frames are dis-carded	UNI:M	Yes [ ] No [ ] N/A[ ]
OFS13	Loopback	57.3.3	Only OAMPDUs and loop-back frame can be sent	LB:M	Yes [ ] No [ ] N/A[ ]
OFS14	Loopback	57.3.3	MAC client frames are dis-carded	LB:M	Yes [ ] No [ ] N/A[ ]
OFS15	Parser	57.3.3	Implemented as defined in Fig-ure 57-6	M	Yes [ ] No [ ]

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0.1.3.2 Event Notification Generation and Reception

Item	Feature	Subclause	Value/Comment	Status	Support
EVNT 1	Critical Event Generation	57.2.7.3	Generated by OAM_CTL.request primitive	M	Yes[] No[]
EVNT 2	Critical Event Reception	57.2.7.4	Indicated via OAM_CTL.indi-cate primitive	M	Yes[] No[]
EVNT 3	Non-Critical Event Reception	57.2.7.4	Indicated via OAMPDU.indi-cate primitive with all received Event Notification OAMPDUs	M	Yes[] No[]

0.1.3.3 OAM loopback timing considerations

Item	Feature	Subclause	Value/Comment	Status	Support
LOOP 1	(Delay from receiving valid-Loopback Control OAMPDU with non-zero loopback time, to transmission of loopback frames) * (Delay from receiv-ing valid Loopback Control OAMPDU with non-zero loop-back time, to transmission of loopback frames)	57.2.8.8	Delay at MDI ≤ 1s	LB:M	Yes [ ] No [ ] N/A[ ]
LOOP 2	(Delay from expiration of loop-back timer, to cessation of transmission of loopback frames) * (Delay from expira-tion of loop-back timer, to transmission of Information OAMPDU with loopback timer equal to zero and local_action set to DISCARD)	57.2.8.8	Delay at MDI ≤ 1s	LB:M	Yes [ ] No [ ] N/A[ ]
LOOP 3	(Delay from receiving valid Loopback Control OAMPDU with loopback timer equal to zero, to transmission of Infor-mation OAMPDU with loop-back timer equal to zero and local_action set to FWD) * (Delay from receiving valid Loopback Control OAMPDU with loopback timer equal to zero, to transmission of MAC Client frames)	57.2.8.8	Delay at MDI ≤ 1s	LB:M	Yes [ ] No [ ] N/A[ ]

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36   This is an unapproved IEEE Standards Draft, subject to change.

0.1.3.4 OAMPDUs

Item	Feature	Subclause	Value/Comment	Status	Support
PDU1	Tagging	57.4.2	OAMPDUs cannot be tagged	M	Yes [ ] No [ ]
PDU2	OAMPDU structure	57.4.2	As defined in Figure 57-7 and field definitions	M	Yes [ ] No [ ]
PDU3	Min OAMPDU size	57.4.2	Support at lease 64 byte OAMPDUs	M	Yes [ ] No [ ]
PDU4	Information OAMPDU	57.4.3.1	Consist of OAM_Information TLV containing local state and configuration information	M	Yes [ ] No [ ]
PDU5	Information OAMPDU	57.4.31	Data field's remaining octets set to zeros	M	Yes [ ] No [ ]
PDU6	Event Notification	57.4.3.2	Data field contains sequence number encoded as 16-bit unsigned integer	M	Yes [ ] No [ ]
PDU7	Event Notification	57.4.3.2	Data field contains one or more Event TLVs following the sequence number	M	Yes [ ] No [ ]
PDU8	Variable Request	57.4.3.3	Data field contain one or more Variable Descriptors	!PASS: M	Yes [ ] No [ ]
PDU9	Variable Response	57.4.3.4	Data field contains one or more Variable Containers	M	Yes [ ] No [ ]
PDU10	Variable Response OAMPDU timing consideration	57.4.3.4	Variable response sent within one second of variable request reception	M	Yes [ ] No [ ]
PDU11	Variable Response OAMPDU timing consideration when errors encountered	57.4.3.4	Variable response sent with error as defined in Table 57-13 within one second of variable request reception	M	Yes [ ] No [ ]
PDU12	Loopback Control	57.4.3.5	Data field contains the loop-back time encoded as 16-bit unsigned integer	!PASS * LB:M	Yes [ ] No [ ] N/A[ ]
PDU13	Vendor Specific: IANA	57.4.3.6	Data field contains the Private Enterprise number encoded as a 32-bit unsigned integer	O	Yes [ ] No [ ]
PDU14	Vendor Specific: OUI	57.4.3.7	Data field contains the Organizationally Unique Identifier encoded as a 24-bit unsigned integer	O	Yes [ ] No [ ]

0.1.3.5 OAMPDU TLVs

Item	Feature	Subclause	Value/Comment	Status	Support
TLV1	OAM_Information TLV	57.4.3.1	Contains the following fields: TLV_type, OAM_Information_Length, State, Version, OAM_Configuration, OAMPDU_Configuration, Vendor Identifier, Reserved	M	Yes [ ] No [ ]
TLV2	OAM_Information TLV State field	57.4.3.1	As defined in Table 57-6	M	Yes [ ] No [ ]
TLV3	OAM_Information TLV Version field	57.4.3.1	Contains 0x01 to claim compliance to this specification	M	Yes [ ] No [ ]
TLV4	OAM_Information TLV OAM_Configuration field	57.4.3.1	As defined in Table 57-7	M	Yes [ ] No [ ]
TLV5	OAM_Information TLV OAMPDU_Configuration field	57.4.3.1	As defined in Table 57-8	M	Yes [ ] No [ ]
TLV6	OAM_Information TLV Vendor Identifier	57.4.3.1	As defined in Table 57-9	M	Yes [ ] No [ ]
TLV7	OAM_Information TLV Reserved field	57.4.3.1	Transmitted as zeros to complain compliance with this specification	M	Yes [ ] No [ ]
TLV8	OAM_Information TLV Reserved field	57.4.3.1	Ignored upon reception	M	Yes [ ] No [ ]
TLV9	Errored Symbol Period	57.5.1	Contains the following fields: TLV_type, Errored_Symbol_Period_Event_Length, Errored_Symbol_Window, Errored_Symbol_Threshold, Errored_Symbols	M	Yes [ ] No [ ]

Item	Feature	Subclause	Value/Comment	Status	Support
TLV10	Errored Frame Seconds	57.5.2	Contains the following fields: TLV_type, Errored_Frame_Seconds_Event_Length, Errored_Frame_Window, Errored_Frame_Threshold, Errored_Frames	M	Yes [ ] No [ ]
TLV11	Errored Frame Period	57.5.3	Contains the following fields: TLV_type, Errored_Frame_Period_Event_Length, Errored_Frame_Window, Errored_Frame_Threshold, Errored_Frames	M	Yes [ ] No [ ]
TLV12	Errored Frame Seconds Summary	57.5.4	Contains the following fields: TLV_type, Errored_Frame_Seconds_Summary_Event_Length, Errored_Frame_Seconds_Window, Errored_Frame_Seconds_Threshold, Errored_Frames_Seconds	M	Yes [ ] No [ ]
TLV13	Vendor Specific Event TLV	57.5.5	Contains the following fields: TLV_type, Vendor_Specific_Length, Vendor_Specific_Value	O	Yes [ ] No [ ]
TLV14	Variable Descriptor Structure	57.6.1	As defined in Table 57-11	M	Yes [ ] No [ ]
TLV15	Variable Branch	57.6.1	If an object or package is referenced, only the attribute within the object or package can be found within a Variable Container.	M	Yes [ ] No [ ]
TLV16	Variable Branch	57.6.1	Actions are not in Variable Containers	M	Yes [ ] No [ ]
TLV17	Variable Container Structure	57.6.2	As defined in Table 57-12	M	Yes [ ] No [ ]
TLV18	Variable Branch	57.6.2	If an object or package is referenced, only the attribute within the object or package can be found within a variable container.	M	Yes [ ] No [ ]
TLV19	Variable Branch	57.6.2	Actions are not in Variable Containers	M	Yes [ ] No [ ]

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0.1.3.6 Environmental specifications

Item	Feature	Subclause	Value/Comment	Status	Support
ENV	All Equipment	57.8	Conform to the requirements of CROSS REF 14.7 and applicable sections of ISO/IEC 11801: 1995	M	Yes [ ] No [ ]