

57.8 Protocol Implementation Conformance Statement (PICS) proforma for Clause 57, Operations, Administration and Maintenance (OAM)¹

57.8.1 Introduction

The supplier of a protocol implementation that is claimed to conform to 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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¹Copyright release for PICS proformas: Users of this standard may freely reproduce the PICS proforma in this annex so that it can be used for its intended purpose and may further publish the completed PICS.

57.8.2 Identification

57.8.2.1 Implementation identification

Supplier	
Contact point for enquiries about the PICS	
Implementation Name(s) and Version(s)	
Other information necessary for full identification—e.g., name(s) and version(s) for machines and/or operating systems; System Name(s)	
NOTES 1—Only the first three items are required for all implementations; other information may be completed as appropriate in meeting the requirements for the identification. 2—The terms Name and Version should be interpreted appropriately to correspond with a supplier’s terminology (e.g., Type, Series, Model).	

57.8.2.2 Protocol summary

Identification of protocol standard	IEEE Std 802.3ah-2004, Clause 57, Operations, Administration 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 <input type="checkbox"/> Yes <input type="checkbox"/> (See Clause 21; the answer Yes means that the implementation does not conform to the standard.)	

Date of Statement	
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57.8.2.3 Major capabilities/options

Item	Feature	Subclause	Value/Comment	Status	Support
*OM	OAM object class	<i>CROSS REF</i> 30.11		O	Yes <input type="checkbox"/> No <input type="checkbox"/>
*CSI	OAM client service interfaces	57.2.5.1		M	Yes <input type="checkbox"/> No <input type="checkbox"/>

Item	Feature	Subclause	Value/Comment	Status	Support
*ACT	Active mode	57.2.6	Active Mode of OAM must select either Active or Passive but not both	O\1	Yes [] No []
*PASS	Passive mode	57.2.6	Passive Mode of OAM must select either Active or Passive but not both	O\1	Yes [] No []
*LB	Remote loopback	57.1.2		O	Yes [] No []
*UNI	Unidirectional operation	57.1.2		O	Yes [] No []

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57.8.3 PICS proforma Tables for Operation, Administration and Maintenance (OAM)

57.8.3.1 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 sublayer	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
OFS2	OAMPDU.request primitive	57.2.5.2.3	Generated whenever OAMPDU is sent to peer entity	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
OFS3	Passive mode limited transmission	57.2.6.2	Cannot send Variable Request or Loopback Control OAMPDUs	PASS:M	Yes [<input type="checkbox"/> No [<input type="checkbox"/> N/A [<input type="checkbox"/>
OFS4	Effect of OAMPDU on a frame already submitted to subordinate sublayer	57.3.2.2	Has no effect	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
OFS5	OAMPDU transmission when local_tx is set to NONE	57.3.2.2	No OAMPDU transmission allowed	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
OFS6	OAMPDU transmission when local_tx is set to INFO	57.3.2.2	Only Information OAMPDUs can be transmitted	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
OFS7	All validly-formed, received OAMPDUs are sent to OAM client entity	57.3.3.1		M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
OFS8	Discovery state diagram	57.3.2.1	Implemented as defined in Figure 57-4	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
OFS9	OAMPDU Transmit state diagram	57.3.2.3	Implemented as defined in Figure 57-5	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
OFS10	Multiplexer state diagram	57.3.3	Implemented as defined in Figure 57-6	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
OFS11	Multiplexer	57.3.3	Provide transparent pass-through of frames from superior sublayer to subordinate sublayer	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
OFS16	Parser state diagram	57.3.4	Implemented as defined in Figure 57-7	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>

57.8.3.2 Event Notification Generation and Reception

Item	Feature	Subclause	Value/Comment	Status	Support
EV1	Critical Event generation	57.2.7.3	Generated by OAM_CTL.request primitive	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
EV2	Critical Event reception	57.2.7.4	Indicated via OAM_CTL.indication primitive	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
EV3	Link Event reception	57.2.7.4	Indicated via OAMPDU.indication primitive with all received Event Notification OAMPDUs	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>

57.8.3.3 Remote loopback timing considerations

Item	Feature	Subclause	Value/Comment	Status	Support
LT1	Delay from receiving valid Loopback Control OAMPDU with Enable Remote Loopback command, to transmission of loopback frames	57.2.8.6	Delay at MDI ≤ 1s	LB:M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
LT2	Delay from receiving valid Loopback Control OAMPDU with Enable Remote Loopback command, to transmission of Information OAMPDU with local_action set to LB	57.2.8.6	Delay at MDI ≤ 1s	LB:M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
LT1	Delay from receiving valid Loopback Control OAMPDU with Disable Remote Loopback command, to transmission of Information OAMPDU with local_action set to FWD	57.2.8.6	Delay at MDI ≤ 1s	LB:M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
LT2	Delay from receiving valid Loopback Control OAMPDU with Disable Remote Loopback command, to transmission of MAC Client frames	57.2.8.6	Delay at MDI ≤ 1s	LB:M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>

57.8.3.4 OAMPDUs

Item	Feature	Subclause	Value/Comment	Status	Support
PDU1	Tagging	57.4.2	OAMPDUs cannot be tagged	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
PDU2	OAMPDU structure	57.4.2	As defined in Figure 57-8 and field definitions	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>

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Item	Feature	Subclause	Value/Comment	Status	Support
PDU3	Minimum OAMPDU size	57.4.2	Support at least 64 octet OAMPDU's	M	Yes [] No []
PDU4	Information OAMPDU frame structure	57.4.3.1	shown in Figure 57-9	M	Yes [] No []
PDU5	Information OAMPDU	57.4.3.1	Consist of Information TLV containing local state and configuration information	M	Yes [] No []
PDU6	Information OAMPDU	57.4.3.1	Contains Remote Informaiton TLV if remote_state_valid = true	M	Yes [] No []
PDU7	Information OAMPDU	57.4.3.1	Data field's remaining octets set to zero	M	Yes [] No []
PDU8	Event Notification OAMPDU	57.4.3.2	shown in Figure 57-10	M	Yes [] No []
PDU9	Event Notification OAMPDU	57.4.3.2	Data field contains a sequence number encoded as 16-bit integer	M	Yes [] No []
PDU10	Event Notification OAMPDU	57.4.3.2	Data field contains a time stamp encoded as 16-bit integer, following the sequence number	M	Yes [] No []
PDU11	Event Notification OAMPDU	57.4.3.2	Data field containing one or more Event TLVs following the time stamp	M	Yes [] No []
PDU12	Variable Request OAMPDU	57.4.3.3	shown in Figure 57-11	!PASS: M	Yes [] No [] N/A []
PDU13	Variable Request OAMPDU	57.4.3.3	Data field contains one or more Variable Descriptors	!PASS: M	Yes [] No [] N/A []
PDU14	Variable Request OAMPDU received from passive devices	57.4.3.3	Respond with Variable Error 0x07 as defined in Table 57-13	M	Yes [] No []
PDU15	Variable Response OAMPDU	57.4.3.4	shown in Figure 57-12	M	Yes [] No []
PDU16	Variable Response OAMPDU	57.4.3.4	Data field contains one or more Variable Containers	M	Yes [] No []
PDU17	Variable Response OAMPDU timing consideration	57.4.3.4	Variable Response OAMPDU sent within one second of Variable Request OAMPDU reception	M	Yes [] No []
PDU18	Variable Response OAMPDU timing consideration when unable to retrieve one or more variables	57.4.3.4	Variable Response OAMPDU sent with error as defined in Table 57-13 within one second of Variable Request OAMPDU reception	M	Yes [] No []

Item	Feature	Subclause	Value/Comment	Status	Support
PDU19	Variable Response OAMPDU when unable to retrieve one or more variables	57.4.3.4	either a) return the appropriate Variable Error for the particular attribute(s) and return all other requested variables or b) return a Variable Error for the entire object	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
PDU20	Loopback Control OAMPDU	57.4.3.5	shown in Figure 57-13	!PASS * LB:M	Yes [<input type="checkbox"/> No [<input type="checkbox"/> N/A [<input type="checkbox"/>
PDU21	Loopback Control OAMPDU received from passive devices	57.4.3.5	Ignore Loopback Control OAMPDU	LB:M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
PDU22	Loopback Control OAMPDU	57.4.3.5	Data field contains a single Loopback Command from Table 57-5 followed by zeroes.	!PASS * LB:M	Yes [<input type="checkbox"/> No [<input type="checkbox"/> N/A [<input type="checkbox"/>
PDU23	Organization Specific OAMPDU	57.4.3.6	shown in Figure 57-14	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
PDU24	TLV with length 0x00 or 0x01	57.5.1	Considered invalid and ignored	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>

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57.8.3.5 Information TLVs

Item	Feature	Subclause	Value/Comment	Status	Support
IT1	Local Information TLV	57.5.2.1	Contains the following fields: Information_Type, Information_Length, State, Version, OAM_Configuration, OAMPDU_Configuration, Vendor_Identifier	M	Yes [] No []
IT2	Remote Information TLV	57.5.2.2	Contains the following fields: Information_Type, Information_Length, State, Version, OAM_Configuration, OAMPDU_Configuration, Vendor_Identifier	M	Yes [] No []
IT3	Local Information TLV State field	57.5.2.1	As defined in Table 57–6	M	Yes [] No []
IT4	Remote Information TLV State field	57.5.2.2	As defined in Table 57–6	M	Yes [] No []
IT5	Information TLV State field	57.5.2.1	Reserved bits are zero on transmission	M	Yes [] No []
IT6	Information TLV State field	57.5.2.1	Reserved bits are ingnored on reception	M	Yes [] No []
IT7	Information TLV State field	57.5.2.1	Parser Action 0x03 is not transmitted	M	Yes [] No []
IT8	Local Information TLV Version field	57.5.2.1	Contains 0x01 to claim compliance to this specification	M	Yes [] No []
IT9	Remote Information TLV Version field	57.5.2.2	Contains 0x01 to claim compliance to this specification	M	Yes [] No []
IT10	Local Information TLV OAM_Configuration field	57.5.2.1	As defined in Table 57–7	M	Yes [] No []
IT11	Remote Information TLV OAM_Configuration field	57.5.2.2	As defined in Table 57–7	M	Yes [] No []
IT12	Information TLV OAM_Configuration field	57.5.2.1	Reserved bits are zero on transmission	M	Yes [] No []
IT13	Information TLV OAM_Configuration field	57.5.2.1	Reserved bits are ingnored on reception	M	Yes [] No []
IT14	Local Information TLV OAMPDU_Configuration field	57.5.2.1	As defined in Table 57–8	M	Yes [] No []
IT15	Remote Information TLV OAMPDU_Configuration field	57.5.2.2	As defined in Table 57–8	M	Yes [] No []
IT16	Information TLV OAMPDU_Configuration field	57.5.2.2	Reserved bits are zero on transmission	M	Yes [] No []
IT17	Information TLV OAMPDU_Configuration field	57.5.2.2	Reserved bits are ingnored on reception	M	Yes [] No []
IT18	Local Information TLV Vendor_Identifier field	57.5.2.1	As defined in Table 57–9	M	Yes [] No []

Item	Feature	Subclause	Value/Comment	Status	Support
IT19	Remote Information TLV Vendor_Identifier field	57.5.2.2	As defined in Table 57-9	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>

57.8.4 Event TLVs

Item	Feature	Subclause	Value/Comment	Status	Support
ET1	Errored Symbol Period Event TLV	57.5.3.1	Contains the following fields: Event_Type, Event_Length, Time Stamp, Errored_Symbol_Window, Errored_Symbol_Threshold, Errored_Symbols	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
ET2	Errored Frame Seconds Event TLV	57.5.3.2	Contains the following fields: Event_Type, Event_Length, Event_Time_Stamp, Errored_Frame_Window, Errored_Frame_Threshold, Errored_Frames	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
ET3	Errored Frame Period Event TLV	57.5.3.3	Contains the following fields: Event_Type, Event_Length, Time Stamp, Errored_Frame_Window, Errored_Frame_Threshold, Errored_Frames	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
ET4	Errored Frame Seconds Summary Event TLV	57.5.3.4	Contains the following fields: Event_Type, Event_Length, Time Stamp, Errored_Frame_Seconds_Window, Errored_Frame_Seconds_Threshold, Errored_Frame_Seconds	M	Yes [<input type="checkbox"/> No [<input type="checkbox"/>
ET5	Vendor Specific Event TLV	57.5.3.5	Contains the following fields: Event_Type, Vendor_Specific_Length, Vendor_Specific_Value	O	Yes [<input type="checkbox"/> No [<input type="checkbox"/>

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57.8.5 Variables Descriptors and Containers

Item	Feature	Subclause	Value/Comment	Status	Support
VAR1	Variable Descriptor structure	57.6.1	As defined in Table 57–11	O	Yes [] No []
VAR2	Variable Branch	57.7	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 []
VAR3	Variable Branch	57.7	Actions are not found in Variable Containers	M	Yes [] No []
VAR4	Variable Container structure	57.6.2	As defined in Table 57–12	O	Yes [] No []
VAR5	Variable Branch	57.7	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 []
VAR6	Variable Branch	57.7	Actions are not found in Variable Containers	M	Yes [] No []

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