Technical Specification

MEF 21

Abstract Test Suite
for
UNI Type 2

Part 1: Link OAM

July, 2008

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1. Abstract

This document is the first part of the Abstract Test Suite for User to Network Interface (UNI) Type 2. It defines test procedures based on a combination of requirements for Link OAM described in the UNI Type 2 Implementation Agreement and in clause 57 of [IEEE 802.3-2005]. The overall Abstract Test Suite for UNI Type 2 will be composed of the following parts: Link OAM, E-LMI, Service OAM, Protection, Enhanced UNI Attributes and L2CP handling.

2. Terminology

Term	Definition
DTE	Data Terminal Equipment
OAM	Operation Administration and maintenance
OAMPDU	Operation Administration and maintenance protocol data unit
PICS	Protocol implementation conformance statement
Service Frame	An Ethernet frame transmitted across the UNI toward the Service Provider or an Ethernet frame transmitted across the UNI toward the Subscriber.
TLV	Type length value
UNI	User to Network Interface
UNI-C	Compound architectural component on the Subscriber side of the UNI that represents all the functions required to connect a subscriber to a MEN
UNI-N	Compound architectural component on the Service Provider side of the UNI that represents all the functions required to connect a MEN to a MEN subscriber
User Network Interface	The physical demarcation point between the responsibility of the Service Provider and the responsibility of the Subscriber.

3. Scope

The Link OAM part of the Abstract Test Suite for UNI Type 2 describes test procedures based on a combination of the requirements for Link OAM described in the UNI Type 2 Implementation Agreement and in clause 57 of [IEEE 802.3-2005].

An overview of the different groups of requirements that compose Link OAM is provided as follows:

- OAM Discovery process initiation and DTE reactions
- Information OAMPDU exchange
- Event Notification OAMPDU exchange
- Variable Request & Response OAMPDU exchange
- Loopback Control OAMPDU exchange and DTE reactions
- Organization Specific OAMPDU exchange

The UNI Type 2 E-LMI, Service OAM, Protection, Enhanced UNI Attributes and L2CP handling functionalities are outside the scope of this Abstract Test Suite.

This document may be updated in the future to reflect new work done in the MEF Technical Committee.

4. Compliance Levels

The key words "**MUST**", "**MUST NOT**", "**REQUIRED**", "**SHALL**", "**SHALL NOT**", "**SHOULD**", "**SHOULD NOT**", "**RECOMMENDED**", "**MAY**", and "**OPTIONAL**" in this document are to be interpreted as described in RFC 2119. All key words **MUST** be use upper case, bold text.

5. Introduction

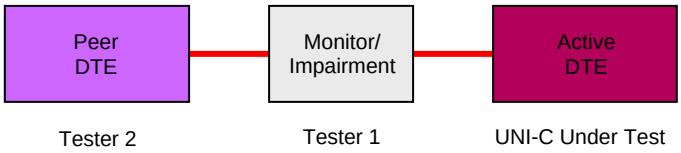
This document supplements the existing MEF test specifications MEF 9 *Abstract Test Suite for Ethernet Services at the UNI*, MEF 14 *Abstract Test Suite for Traffic Management Phase 1*, MEF 18 *Abstract Test Suite for Circuit Emulation Services* and MEF 19 *Abstract Test Suite for UNI Type 1*, by adding test procedures based on the requirements for Link OAM defined in the *User Network Interface (UNI) Type 2 Implementation Agreement*.

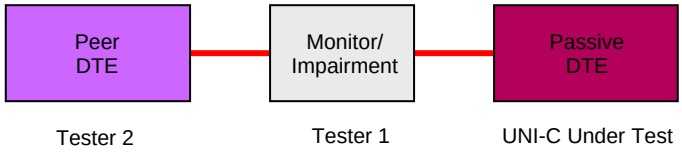
As with existing Abstract Test Suites, vendors can refer to the requirements and test procedures defined in this specification in the development and commercial cycles of their products and carriers can use them to ensure that the network elements they deploy or add to their existing network will have the ability to deliver Ethernet Services based on the MEF technical specifications.

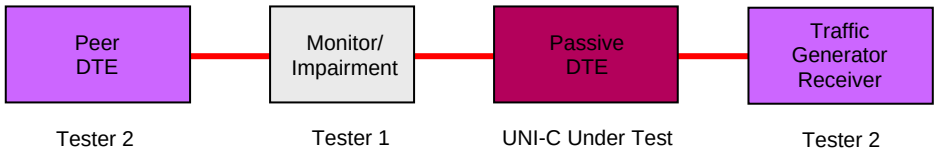
The requirements, framework and functional model on how the UNI reference point operates in a Metro Ethernet Network is defined on the Metro Ethernet Forum technical specification MEF 11 *User to Network Interface Requirements and Framework.*

6. Test Configuration for UNI-C Type 2 Link OAM

Although some UNI-C Test Cases may require very specific test configurations, most UNI-C Test Cases defined in this document are to be executed using one of the three following Test Configurations. Tester 1 and Tester 2 may be combined into a single test device.

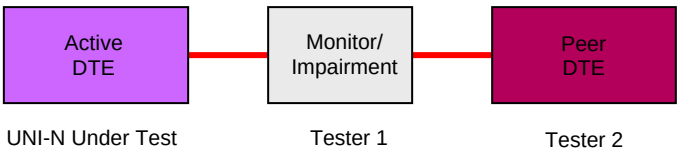


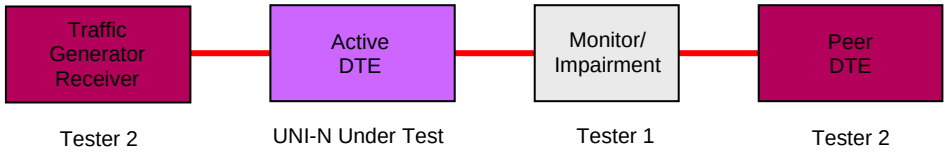




7. Test Configuration for UNI-N Type 2 Link OAM

Although some UNI-N Test Cases may require very specific test configurations, most UNI-N Test Cases defined in this document are to be executed using the one of the two following Test Configurations. Tester 1 and Tester 2 may be combined into a single test device.





8. Table of Link OAM Capabilities Active & Passive Mode Behavior

Capability Description	Active DTE	Passive DTE
Initiates OAM Discovery process	**Yes**	**No**
Reacts to OAM Discovery process initiation	**Yes**	**Yes**
Required to send Information OAMPDUs	**Yes**	**Yes**
Permitted to send Event Notification OAMPDUs	**Yes**	**Yes**
Permitted to send Variable Request OAMPDUs	**Yes**	**No**
Permitted to send Variable Response OAMPDUs	**Yes ***	**Yes**
Permitted to send Loopback Control OAMPDUs	**Yes**	**No**
Reacts to Loopback Control OAMPDUs	**Yes ***	**Yes**
Permitted to send Organization Specific OAMPDUs	**Yes**	**Yes**
*Requires the peer DTE to be in Active Mode		

Table 1: Link OAM Capabilities (from IEEE 802.3-2005)

9. Template for Abstract Test Cases for UNI Type 2 Link OAM

The following template is adopted for the definition of Abstract Test Cases for UNI Type 2 Link OAM

Abstract Test Suite for Link OAM	
Test Name	Name derived from reference document
Test Definition ID	A punctuated alphanumeric string assigned to each defined requirement and test procedure couple using the following convention: one letter defining the DTE Mode + four characters defining the UNI type + four characters defining the IEEE PICS number + 3 characters defining the MEF requirement number. Example: P-UNIC-OFS1-R26 (P: Passive DTE under test, UNIC: User Network Interface C under test, OFS1: OAM Functional Specification 1, R26 UNI Type 2 requirement 26)
Reference Document	MEF Reference document (and section and paragraph when useful for clarity) IEEE Reference document (and section and paragraph when useful for clarity)
Test Type	Functional, Conformance, Interoperability or Performance
Test Status	Mandatory, Optional or Recommended
MEF Requirement Description	Brief description of the MEF requirement that **MUST** or **SHOULD** be satisfied
IEEE Requirement Description	Brief description of the IEEE requirement that **MUST** or **SHOULD** be satisfied
Test Object	Succinct description of test purpose
Test Configuration	Succinct description of test bed configuration
Test Configuration Schematic	Test bed schematic. The variables can augment it.
Test Procedure	Succinct description of the test procedure
Units	Units can be time units, rates and counts in integers such as milliseconds, frames per second and numbers of valid frames. For the most part units used are defined in RFCs 2285, 2544, 2889
Variables	Variables such as number of UNIs, EVCs and CE-VLAN IDs and frame formats and lengths MUST be described
Results	Description of the textual, numerical and/or graphical format in which to display test results. Results can be Pass or Fail
Remarks	Description of any particular observations that might affect the test result

10. Abstract Test Cases for UNI-C Type 2 Link OAM

This section contains 138 Test Cases for UNI-C. The section is divided in 9 different subsections as follows:

Section 10.1
OAM Functional Specifications contains a total of 27 Test Cases covering the clause 57 of [IEEE 802.3-2005] Protocol Implementation Conformance Statement (PICS) OFS1 to OFS18 and the UNI Type 2 Requirements R26, R27 and Table 1.

Section 10.2
Event Notification Generation and Reception contains a total of 8 Test Cases covering the Protocol Implementation Conformance Statement (PICS) EV1 to EV3 and the UNI Type 2 Requirements R26, R27 and Table 1.

Section 10.3
OAMPDUs contains a total of 21 Test Cases covering the Protocol Implementation Conformance Statement (PICS) PDU1 to PDU22 and the UNI Type 2 Requirements R26, R27 and Table 1.

Section 10.4
Local Information TLVs contains a total of 18 Test Cases covering the Protocol Implementation Conformance Statement (PICS) LIT1 to LIT12 and the UNI Type 2 Requirements R26, R27 and Table1.

Section 10.5
Remote Information TLVs contains a total of 8 Test Cases covering the Protocol Implementation Conformance Statement (PICS) RIT1 and the UNI Type 2 Requirements R26 and Table 1.

Section 10.6
Remote Information TLVs contains a total of 2 Test Cases covering the Protocol Implementation Conformance Statement (PICS) OIT1 & OIT2 and the UNI Type 2 Requirements R26 and Table 1.

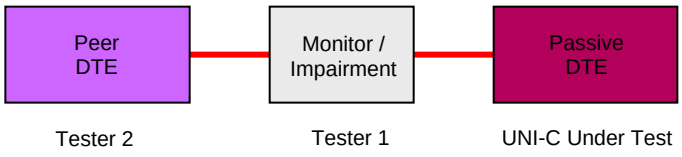
Section 10.7
Link Events TLVs contains a total of 8 Test Cases covering the Protocol Implementation Conformance Statement (PICS) ET1 to ET8 and the UNI Type 2 Requirements R26 and Table 1.

Section 10.8
Variable Descriptors and Containers contains a total of 9 Test Cases covering the Protocol Implementation Conformance Statement (PICS) VAR1 to VAR11 and the UNI Type 2 Requirements R26, R27 and Table1.

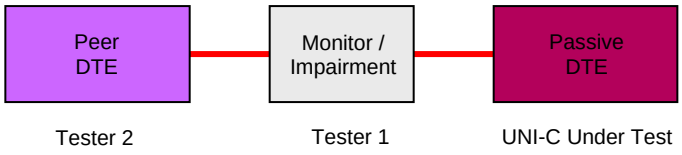
Section 10.9
Additional Conformance Tests contains a total of 37 Test Cases covering IEEE 802.3-2005 clause 57 additional requirements ACT1 to ACT35 and the UNI Type 2 Requirements R26, R27, R29, R31 and Table1.

10.1 OAM Functional Specifications

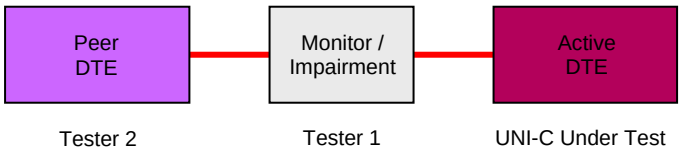
TEST CASE 1CP: Passive mode limited transmission – Variable request OAMPDUs

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	Passive mode limited transmission – Variable request OAMPDUs
Test Definition ID	P-UNIC-OFS1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.9.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	A device configured in Passive mode **MUST NOT** send Variable Request OAMPDUs
Test Object	Determine if a device configured in Passive mode sends Variable Request OAMPDUs
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate a Variable Request from the Passive DTE (UNI-C) and use the Tester 1 to monitor the transmitted OAMPDU (if any) and verify that the aOAMVariableRequestTx counter value = 0 then continu to monitor the Variable Request OAMPDUs during all the testing activities and verify that non of them are transmitted by the Passive DTE (UNI-C)
Units	OAMPDU Code field value, aOAMVariableRequestTx counter value
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

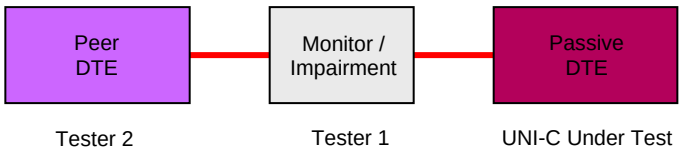
TEST CASE 2CP: Passive mode limited transmission – Loopback control OAMPDUs

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	Passive mode limited transmission – Loopback Control OAMPDUs
Test Definition ID	P-UNIC-OFS1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.9.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	A device configured in Passive mode **MUST NOT** send Loopback Control OAMPDUs
Test Object	Determine if a device configured in Passive mode sends Loopback Control OAMPDUs
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate an OAM Remote Loopback from the Passive DTE (UNI-C) and use the Tester 1 to monitor the transmitted OAMPDU (if any) and verify that the aOAMLoopbackControlTx counter value = 0 then continu to monitor the Loopback Control OAMPDUs during all the testing activities and verify that non of them are transmitted by the Passive DTE (UNI-C)
Units	OAMPDU Code field value, aOAMLoopbackControlTx
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

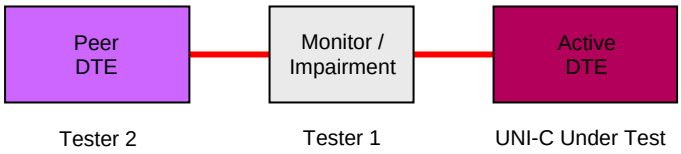
TEST CASE 3CA: OAMPDU transmission when local_pdu is set to LF_INFO

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to LF_INFO
Test Definition ID	A-UNIC-OFS4-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	A device in the FAULT state of the Discovery process, **MUST** generate Information OAMPDUs with the Link Fault bit of the Flags field set and without any Information TLVs
Test Object	Verify that when local_pdu is set to LF_INFO, the DTE sends only Information OAMPDUs with the Link Fault bit of the Flags field set and without any Information TLVs
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Reset the OAM and use the Tester 1 to monitor the OAMPDUs transmitted by the Active DTE (UNI-C) while it is in the FAULT state of the Discovery process and to verify that the Link Fault bit of the Flags field is set and that they do not contain Information TLVs
Units	OAMPDU Code field, Data/Pad field and Flags field values
Variables	None
Results	Pass or fail
Remarks	

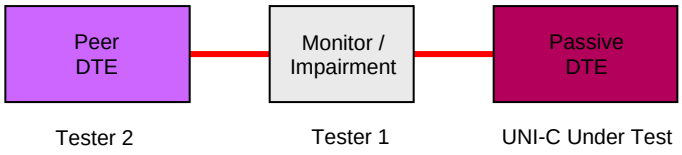
TEST CASE 4CP: OAMPDU transmission when local_pdu is set to RX_INFO

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to RX_INFO
Test Definition ID	P-UNIC-OFS5-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	A device in the FAULT state or PASSIVE_WAIT state of the Discovery process, **MUST NOT** generate any OAMPDUs
Test Object	Verify that when local_pdu is set to RX_INFO, the DTE does not send any OAMPDUs
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the transmitted OAMPDUs from the Passive DTE (UNI-C) (if any) while it is in the FAULT state or PASSIVE_WAIT state of the Discovery process
Units	Number of OAMPDU frames
Variables	None
Results	Pass or fail
Remarks	

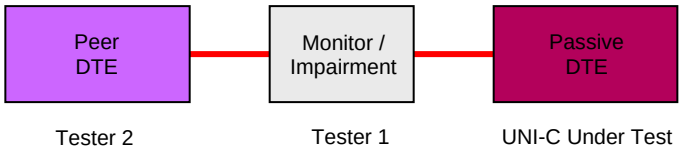
TEST CASE 5CA: OAMPDU transmission when local_pdu is set to INFO

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to INFO
Test Definition ID	A-UNIC-OFS6-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	A device in the ACTIVE_SEND_LOCAL or SEND_LOCAL_REMOTE or SEND_LOCAL_REMOTE_OK state of the Discovery process, **MUST** only generate Information OAMPDUs
Test Object	Verify that when local_pdu is set to INFO, the DTE sends only Information OAMPDUs
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the transmitted OAMPDUs while the Active DTE (UNI-C) is in the ACTIVE_SEND_LOCAL, the SEND_LOCAL_REMOTE and the SEND_LOCAL_REMOTE_OK states of the Discovery process and to verify that only Information OAMPDUs are transmitted by the Passive DTE
Units	OAMPDU Code field value
Variables	None
Results	Pass or fail
Remarks	

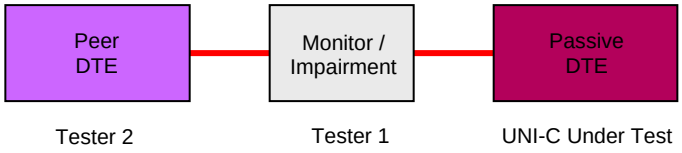
TEST CASE 6CP: OAMPDU transmission when local_pdu is set to INFO

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to INFO
Test Definition ID	P-UNIC-OFS6-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	A device in the SEND_LOCAL_REMOTE or SEND_LOCAL_REMOTE_OK state of the Discovery process, **MUST** only generate Information OAMPDUs
Test Object	Verify that when local_pdu is set to INFO, the DTE sends only Information OAMPDUs
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the transmitted OAMPDUs while the Passive DTE (UNI-C) is in the SEND_LOCAL_REMOTE and the SEND_LOCAL_REMOTE_OK states of the Discovery process and to verify that only Information OAMPDUs are transmitted by the Passive DTE
Units	OAMPDU Code field value
Variables	None
Results	Pass or fail
Remarks	

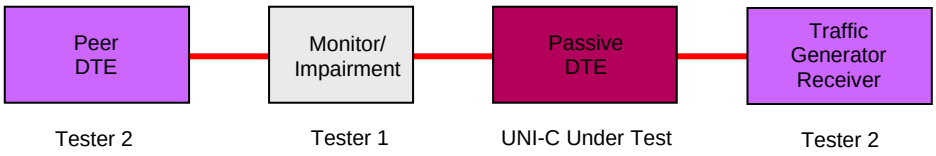
TEST CASE 7CP: OAMPDU transmission when local_pdu is set to ANY- OAM_CTL.request service primitive with one or more Critical Link Event parameters

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY - OAM_CTL.request service primitive with one or more Critical Link Event parameters
Test Definition ID	P-UNIC-OFS7-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAM_CTL.request service primitive with one or more Critical Link Event parameters set is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of an Information OAMPDU with the appropriate bit(s) of the Flags field set
Test Object	Verify that an Information OAMPDU with the appropriate bit(s) of the Flags field set is generated, when a OAM_CTL.request service primitive with one or more Critical Link Event parameters set is passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Testers or the Passive DTE to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event) and use the Tester 1 to monitor the transmitted Information OAMPDUs from the Passive DTE (UNI-C) and verify that the aOAMInformationTx counter value of the Passive DTE (UNI-C) is incrementing as the Information OAMPDUs are transmitted
Units	OAMPDU Code field & Flags field values, aOAMInformationTx counter value
Variables	Link fault, Dying gasp and Critical events specific faults
Results	Pass or fail
Remarks	1) The definitions of the specific faults are implementation specific 2) To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

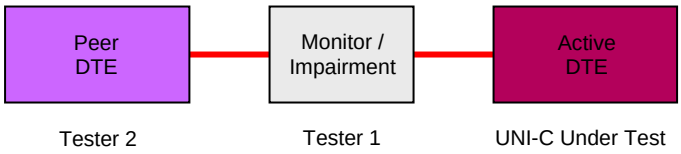
TEST CASE 8CP: OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Information OAMPDU)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Information OAMPDU)
Test Definition ID	P-UNIC-OFS8-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAMPDU.request service primitive is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of the particular OAMPDU
Test Object	Verify that Information OAMPDU frames are generated, when OAMPDU.request service primitives with the specific Code and Data parameters are passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) while it is in the SEND_ANY state and verify that the aOAMInformationTx counter value of the Passive DTE (UNI-C) is incrementing as the Information OAMPDUs are transmitted
Units	OAMPDU Code field & Data/Pad field values, aOAMInformationTx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

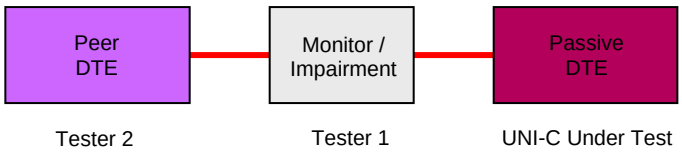
TEST CASE 9CP: OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Event Notification OAMPDU)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Event Notification OAMPDU)
Test Definition ID	P-UNIC-OFS8-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAMPDU.request service primitive is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of the particular OAMPDU
Test Object	Verify that Event Notification OAMPDU frames are generated, when OAMPDU.request service primitives with the specific Code and Data parameters are passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to simulate the five types of Link Events (Errored Symbol Period Event, Errored Frame Event, Errored Frame Period Event, Errored Frame Seconds Summary Event & Organization Specific Event) and use it to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) and verify that the aOAMUniqueEventNotificationTx and aOAMDuplicateEventNotificatiomTx counter values of the Passive DTE (UNI-C) are incrementing as the Event Notification OAMPDUs are transmitted
Units	OAMPDU Code field & Data/Pad field values, aOAMUniqueEventNotificationTx and aOAMDuplicateEventNotificatiomTx counter values
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

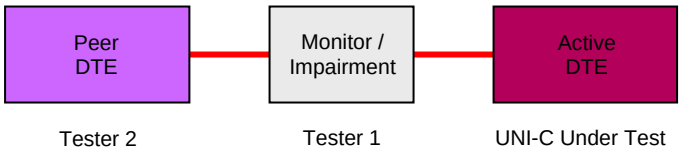
TEST CASE 10CA: OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Variable Request OAMPDU)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Variable Request OAMPDU)
Test Definition ID	A-UNIC-OFS8-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAMPDU.request service primitive is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of the particular OAMPDU
Test Object	Verify that Variable Request OAMPDU frames are generated, when OAMPDU.request service primitives with the specific Code and Data parameters are passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Variable Requests from the Active DTE (UNI-C) and use the Tester 1 to monitor the transmitted Variable Request OAMPDUs and verify that the aOAMVariableRequestTx counter value of the Active DTE (UNI-C) is incrementing as the Variable Request OAMPDUs are transmitted
Units	OAMPDU Code field and Data/Pad field values, aOAMVariableRequestTx counter value
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

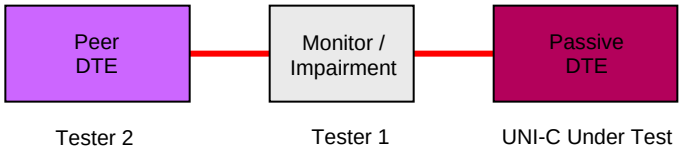
TEST CASE 11CP: OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Variable Response OAMPDU)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Variable Response OAMPDU)
Test Definition ID	P-UNIC-OFS8-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAMPDU.request service primitive is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of the particular OAMPDU
Test Object	Verify that Variable Response OAMPDU frames are generated, when OAMPDU.request service primitives with the specific Code and Data parameters are passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Variable Request OAMPDUs and use the Tester 1 to verify that the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) contain the requested variables and verify that the aOAMVariableResponseTx counter value of the Passive DTE (UNI-C) is incrementing as the Variable Response OAMPDUs are transmitted
Units	OAMPDU Code field and Data/Pad field values, aOAMVariableResponseTx counter value
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

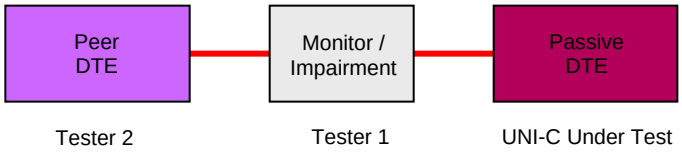
TEST CASE 12CA: OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Loopback Control OAMPDU)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Loopback Control OAMPDU)
Test Definition ID	A-UNIC-OFS8-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAMPDU.request service primitive is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of the particular OAMPDU
Test Object	Verify that Loopback Control OAMPDU frames are generated, when OAMPDU.request service primitives with the specific Code and Data parameters are passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate an OAM Remote Loopback from the Active DTE (UNI-C) and use the Tester 1 to monitor the transmitted Loopback Control OAMPDUs and verify that the aOAMLoopbackControlTx counter value of the Active DTE (UNI-C) is incrementing as the Loopback Control OAMPDUs are transmitted
Units	OAMPDU Code field and Data/Pad field values, aOAMLoopbackControlTx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

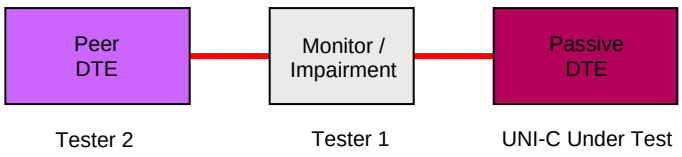
TEST CASE 13CP: OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Organization Specific OAMPDU)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Organization Specific OAMPDU)
Test Definition ID	P-UNIC-OFS8-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory if Organization Specific OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAMPDU.request service primitive is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of the particular OAMPDU
Test Object	Verify that Organization Specific OAMPDU frames are generated, when OAMPDU.request service primitives with the specific Code and Data parameters are passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Organization Specific OAMPDUs from the Passive DTE (UNI-C) and use the Tester 1 to monitor them and verify that the aOAMOrganizationSpecificTx counter value of the Passive DTE (UNI-C) is incrementing as the Organization Specific OAMPDUs are transmitted
Units	OAMPDU Code field & Data/Pad field values, aOAMOrganizationSpecificTx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

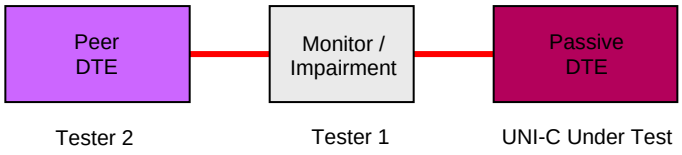
TEST CASE 14CP: OAMPDU Flags field reserved encoding – Remote Stable and Remote Evaluating bits

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU Flags field reserved encoding – Remote Stable and Remote Evaluating bits
Test Definition ID	P-UNIC-OFS9-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **MUST NOT** transmit Remote Stable and Remote Evaluating bits encoded as 0x3
Test Object	Verify that the DTE does not transmit Remote Stable and Remote Evaluating bits encoded as 0x3
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that it does not transmit Remote Stable and Remote Evaluating bits encoded as 0x3
Units	OAMPDU Flags field values
Variables	None
Results	Pass or fail
Remarks	

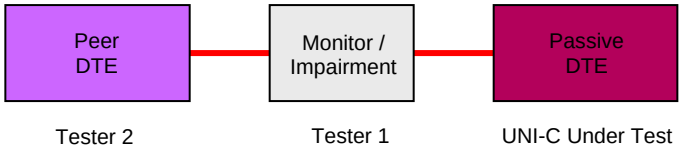
TEST CASE 15CP: OAMPDU Flags field reserved encoding – Local Stable and Local Evaluating bits

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU Flags field reserved encoding – Local Stable and Local Evaluating bits
Test Definition ID	P-UNIC-OFS10-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **MUST NOT** transmit Local Stable and Local Evaluating bits encoded as 0x3
Test Object	Verify that the DTE does not transmit Local Stable and Local Evaluating bits encoded as 0x3
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that it does not transmit Local Stable and Local Evaluating bits encoded as 0x3
Units	OAMPDU Flags field values
Variables	None
Results	Pass or fail
Remarks	

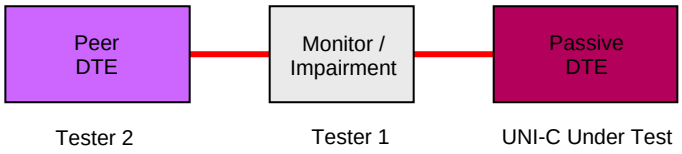
TEST CASE 16CP: Reserved bits – Flag field

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	Reserved bits – Flag field
Test Definition ID	P-UNIC-OFS11-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Flag field Reserved bits of any OAMPDU transmitted by the DTE **SHALL** be set to zero
Test Object	Verify that the Flag field Reserved bits of any OAMPDU transmitted by the DTE are always set to zero
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that the Flag field Reserved bits of any OAMPDU transmitted by the DTE are always set to zero
Units	OAMPDU Flag field values
Variables	None
Results	Pass or fail
Remarks	

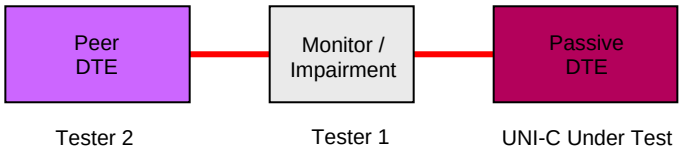
TEST CASE 17CP: OAMPDU Code field

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU Code field
Test Definition ID	P-UNIC-OFS12-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Only OAMPDUs with defined Code field values **SHALL** be transmitted by the DTE
Test Object	Verify that the DTE only transmits OAMPDUs with defined Code field values
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that it only transmits OAMPDUs with defined Code field values and that the aOAMUnsupportedCodesTx counter value = 0
Units	OAMPDU Code field value, aOAMUnsupportedCodesTx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

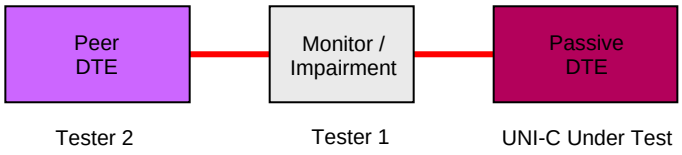
TEST CASE 18CP: OAMPDU reception when local_pdu is not set to ANY

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is not set to ANY
Test Definition ID	P-UNIC-OFS13-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When local_pdu is not set to ANY; only Information OAMPDUs **SHALL** be sent to the OAM Client entity
Test Object	Verify that when the local_pdu is not set to ANY, all the received Information OAMPDUs are passed to the OAM Client and all the non-Information OAMPDUs are ignored
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	While local_pdu is set to LF_INFO, RX_INFO & INFO, use the Peer DTE to send Information and non-Information OAMPDUs that require the Passive DTE (UNI-C) to respond. Use the Tester 1 to monitor the OAMPDUs transmitted by the Passive DTE (UNI-C) and verify that all Information OAMPDUs are passed to the OAM Client and that no responses are sent upon the receipt of non-Information OAMPDUs and verify that the aOAMInformationRx counter value of the Passive DTE (UNI-C) is not incrementing as the non-Information OAMPDUs are received
Units	OAMPDU Code field and Data/Pad field values, aOAMInformationRx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

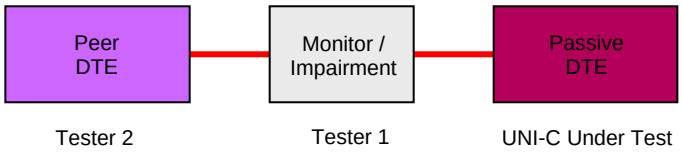
TEST CASE 19CP: OAMPDU reception when local_pdu is set to ANY – (Information OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Information OAMPDUs)
Test Definition ID	P-UNIC-OFS14-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state
Test Object	Verify that when the local_pdu is set to ANY, all the received Information OAMPDUs are passed to the OAM Client
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs with specific Local Information TLV values and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) and verify that the aOAMInformationRx counter value of the Passive DTE (UNI-C) is incrementing as the Information OAMPDUs are received
Units	OAMPDU Code field & Data/Pad field values (Remote Information TLVs), aOAMInformationRx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

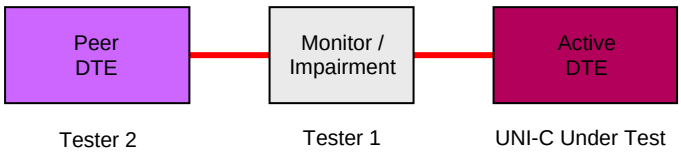
TEST CASE 20CP: OAMPDU reception when local_pdu is set to ANY – (Event Notification OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Event Notification OAMPDUs)
Test Definition ID	P-UNIC-OFS14-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state
Test Object	Verify that when the local_pdu is set to ANY, all the received Event Notification OAMPDUs are passed to the OAM Client
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send the five types of Event Notification OAMPDUs to the Passive DTE (UNI-C) and verify that the aOAMUniqueEventNotificationRx and aOAMDuplicateEventNotificationRx counter values of the Passive DTE (UNI-C) are incrementing as the Event Notification OAMPDUs are received
Units	aOAMUniqueEventNotificationRx counter and aOAMDuplicateEventNotificationRx counter values
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to perform this test

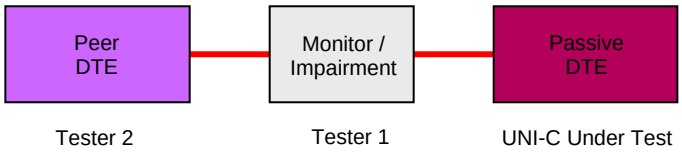
TEST CASE 21CP: OAMPDU reception when local_pdu is set to ANY – (Variable Request OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Variable Request OAMPDUs)
Test Definition ID	P-UNIC-OFS14-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state
Test Object	Verify that when the local_pdu is set to ANY, all the received Variable Request OAMPDUs are passed to the OAM Client
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Variable Request OAMPDUs to the Passive DTE (UNI-C) and use the Tester 1 to verify that all the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) contain the requested MIB variables and verify that the aOAMVariableRequestRx counter value of the Passive DTE (UNI-C) is incrementing as the Variable Request OAMPDUs are received
Units	OAMPDU Code field and Data/Pad field values, aOAMVariableRequestRx counter value
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

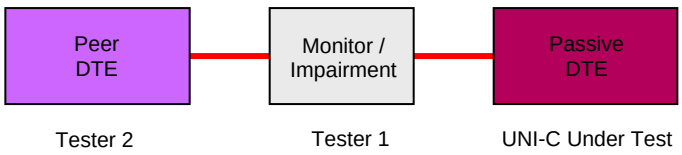
TEST CASE 22CA: OAMPDU reception when local_pdu is set to ANY – (Variable Response OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Variable Response OAMPDUs)
Test Definition ID	A-UNIC-OFS14-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state
Test Object	Verify that when the local_pdu is set to ANY, all the received Variable Response OAMPDUs are passed to the OAM Client
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Active DTE (UNI-C) to send Variable Request OAMPDUs to the Peer DTE that will in return send Variable Response OAMPDUs and verify that the aOAMVariableResponseRx counter value of the Active DTE (UNI-C) is incrementing as the Variable Response OAMPDUs are received
Units	aOAMVariableResponseRx counter value
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to perform this test

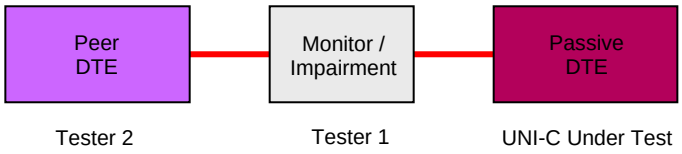
TEST CASE 23CP: OAMPDU reception when local_pdu is set to ANY – (Loopback Control OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Loopback Control OAMPDUs)
Test Definition ID	P-UNIC-OFS14-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state
Test Object	Verify that when the local_pdu is set to ANY, all the received Loopback Control OAMPDUs are passed to the OAM Client
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Loopback Control OAMPDUs to the Passive DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs (TLV State field) transmitted by the Passive DTE (UNI-C) and verify that the aOAMLoopbackControlRx counter value of the Passive DTE (UNI-C) is incrementing as the Loopback Control OAMPDUs are received
Units	OAMPDU Data/Pad field value (Local Information TLV State field value), aOAMLoopbackControlRx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

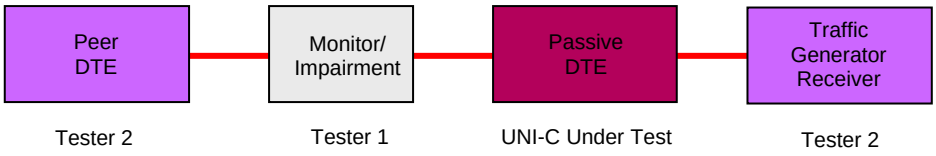
TEST CASE 24CP: OAMPDU reception when local_pdu is set to ANY – (Organization Specific OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Organization Specific OAMPDUs)
Test Definition ID	P-UNIC-OFS14-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory if Organization Specific OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state
Test Object	Verify that when the local_pdu is set to ANY, all the received Organization Specific OAMPDUs are passed to the OAM Client
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Organization Specific OAMPDUs to the Passive DTE (UNI-C) and verify that the aOAMOrganizationSpecificRx counter value of the Passive DTE (UNI-C) is incrementing as the Organization Specific OAMPDUs are received
Units	aOAMOrganizationSpecificRx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to perform this test

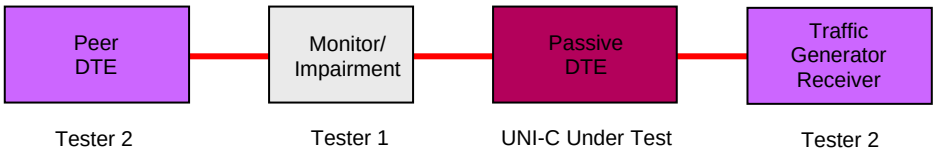
TEST CASE 25CP: OAMPDU reception when local_pdu is set to ANY – (Unknown Code field OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Unknown Code field OAMPDUs)
Test Definition ID	P-UNIC-OFS14-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state. Including those with Unknown Code field
Test Object	Verify that when the local_pdu is set to ANY, all the received OAMPDUs are passed to the OAM Client. Including those with Unknown Code field
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send OAMPDUs with Unknown Code field to the Passive DTE (UNI-C) and verify that the aOAMUnsupportedCodesRx counter value of the Passive DTE (UNI-C) is incrementing as the OAMPDUs with Unknown Code field are received
Units	aOAMUnsupportedCodesRx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to perform this test

TEST CASE 26CP: Multiplexer transparent pass-through

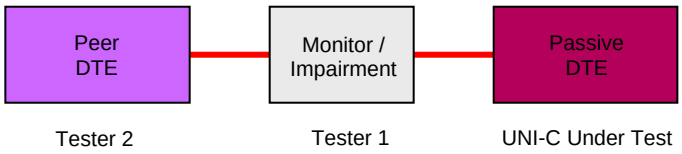
Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	Multiplexer transparent pass-through
Test Definition ID	P-UNIC-OFS16-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.3.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The multiplexer **MUST** provide transparent pass-through of frames from superior sublayer to subordinate sublayer
Test Object	Verify that while the Multiplexer function is in the TX_FRAME state, it provides transparent pass-through of frames submitted by the superior sublayer to the subordinate sublayer
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Traffic Generator to send a fixed number of service frames to the Peer DTE, through the Passive DTE (UNI-C), and use the Tester 1 to verify that the number of received service frames by the Peer DTE is equal to the number of transmitted service frames by the Traffic Generator. Remove the Traffic Generator from the Test Configuration and repeat the test with the Passive DTE (UNI-C) in loopback mode and use the Tester 1 to verify that the number of received service frames by the Peer DTE (loop back frames) is equal to the number of transmitted service frames by the Peer DTE
Units	Number of service frames
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 27CP: Effect of OAMPDUs on frames already submitted to the subordinate sublayer

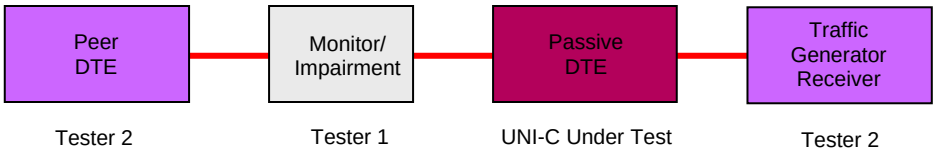
Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	Effect of OAMPDUs on frames already submitted to the subordinate sublayer
Test Definition ID	P-UNIC-OFS17-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.3.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The transmission of an OAMPDU **MUST NOT** affect the transmission of a frame that has been submitted to a subordinate sublayer (i.e., the MAC's TransmitFrame function is synchronous, and is never interrupted)
Test Object	Verify that the transmission of an OAMPDU frame does not affect the transmission of a frame that has been submitted to a subordinate sublayer
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Traffic Generator to send a fixed number of service frames to the Peer DTE, through the Passive DTE (UNI-C), and use the Tester 1 to verify that the number of received service frames by the Peer DTE is equal to the number of transmitted service frames by the Traffic Generator and that the number of received OAMPDUs by the Peer DTE is equal to the number of OAMPDUs transmitted by the Passive DTE (UNI-C)
Units	Number of service frames and number of OAMPDUs
Variables	None
Results	Pass or fail
Remarks	

10.2 OAM Event Notification Generation and Reception

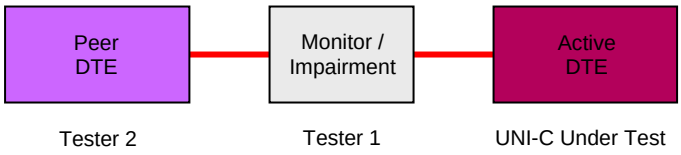
TEST CASE 28CP: Response to Critical Events (Information OAMPDU)

Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Response to Critical events (Information OAMPDU)
Test Definition ID	P-UNIC-EV1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.3)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** respond to Critical link events by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs of any type
Test Object	Verify that the appropriate bits within the Flags field of the Information OAMPDUs are set/cleared when Critical link events are communicated to the OAM sublayer via the OAM_CTL.request service primitive
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Testers or the Passive DTE to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that the appropriate bits within the Flags field are set/cleared
Units	OAMPDU Code field and Flags field values
Variables	Link fault, Dying gasp and Critical events specific faults
Results	Pass or fail
Remarks	The definitions of the specific faults are implementation specific

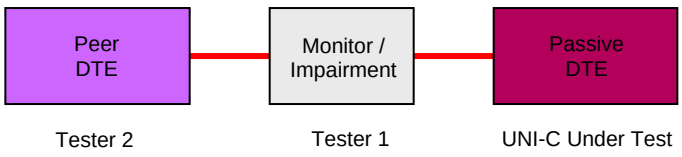
TEST CASE 29CP: Response to Critical Events (Event Notification OAMPDU)

Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Response to Critical events (Event Notification OAMPDU)
Test Definition ID	P-UNIC-EV1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.3)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** respond to Critical link events by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs of any type
Test Object	Verify that the appropriate bits within the Flags field of the Event Notification OAMPDUs are set/cleared when Critical link events are communicated to the OAM sublayer via the OAM_CTL.request service primitive
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Testers or the Passive DTE to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event) and use the Tester 1 to simulate a link event and to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that the appropriate bits within the Flags field are set/cleared
Units	OAMPDU Code field and Flags field values
Variables	Link fault, Dying gasp and Critical events specific faults
Results	Pass or fail
Remarks	The definitions of the specific faults are implementation specific

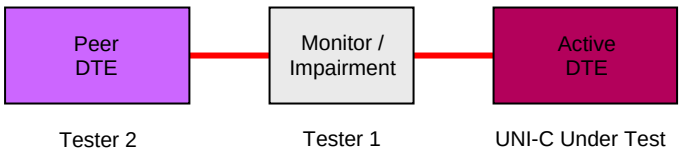
TEST CASE 30CA: Response to Critical Events (Variable Request OAMPDU)

Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Response to Critical events (Variable Request OAMPDU)
Test Definition ID	A-UNIC-EV1-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.3)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** respond to Critical link events by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs of any type
Test Object	Verify that the appropriate bits within the Flags field of the Variable Request OAMPDUs are set/cleared when Critical link events are communicated to the OAM sublayer via the OAM_CTL.request service primitive
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Variable Requests from the Active DTE (UNI-C) while using the Testers or the Active DTE to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event) and use the Tester 1 to monitor the Variable Request OAMPDUs transmitted by the Active DTE (UNI-C) and to verify that the appropriate bits within the Flags field are set/cleared
Units	OAMPDU Code field and Flags field values
Variables	Link fault, Dying gasp and Critical events specific faults, MIB attribute, MIB package and MIB object
Results	Pass or fail
Remarks	The definitions of the specific faults are implementation specific

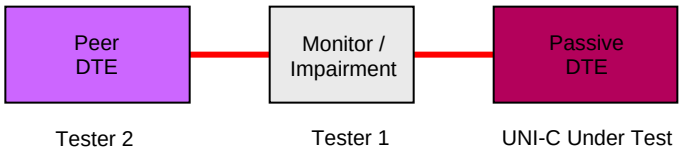
TEST CASE 31CP: Response to Critical Events (Variable Response OAMPDU)

Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Response to Critical events (Variable Response OAMPDU)
Test Definition ID	P-UNIC-EV1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.3)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** respond to Critical link events by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs of any type
Test Object	Verify that the appropriate bits within the Flags field of the Variable Response OAMPDUs are set/cleared when Critical link events are communicated to the OAM sublayer via the OAM_CTL.request service primitive
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Variable Requests from the Peer DTE while using the Testers or the Passive DTE to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event) and use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that the appropriate bits within the Flags field are set/cleared
Units	OAMPDU Code field and Flags field values
Variables	Link fault, Dying gasp and Critical events specific faults, MIB attribute, MIB package and MIB object
Results	Pass or fail
Remarks	The definitions of the specific faults are implementation specific

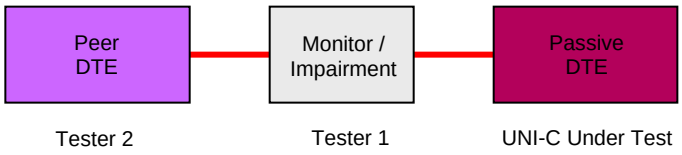
TEST CASE 32CA: Response to Critical Events (Loopback Control OAMPDU)

Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Response to Critical events (Loopback Control OAMPDU)
Test Definition ID	A-UNIC-EV1-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.3)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** respond to Critical link events by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs of any type
Test Object	Verify that the appropriate bits within the Flags field of the Loopback Control OAMPDUs are set/cleared when Critical link events are communicated to the OAM sublayer via the OAM_CTL.request service primitive
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate an OAM Remote Loopback from the Active DTE (UNI-C) while using the Testers or the Active DTE to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event) and use the Tester 1 to monitor the Loopback Control OAMPDUs transmitted by the Active DTE (UNI-C) and to verify that the appropriate bits within the Flags field are set/cleared
Units	OAMPDU Code field and Flags field values
Variables	Link fault, Dying gasp and Critical events specific faults
Results	Pass or fail
Remarks	The definitions of the specific faults are implementation specific

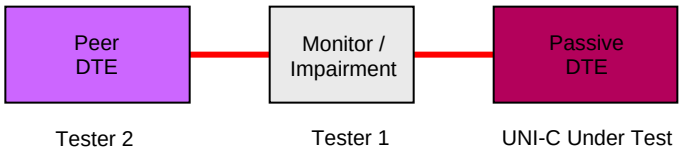
TEST CASE 33CP: Response to Critical Events (Organization Specific OAMPDU)

Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Response to Critical events (Organization Specific OAMPDU)
Test Definition ID	P-UNIC-EV1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.3)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** respond to Critical link events by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs of any type
Test Object	Verify that the appropriate bits within the Flags field of the Organization Specific OAMPDUs are set/cleared when Critical link events are communicated to the OAM sublayer via the OAM_CTL.request service primitive
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Testers or the Passive DTE (UNI-C) to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event). Initiate Organization specific OAMPDUs from the Passive DTE (UNI-C) and use the Tester 1 to monitor them and to verify that the appropriate bits within the Flags field are set/cleared
Units	OAMPDU Code field and Flags field values
Variables	Link fault, Dying gasp and Critical events specific faults
Results	Pass or fail
Remarks	The definitions of the specific faults are implementation specific

TEST CASE 34CP: Critical Event reception

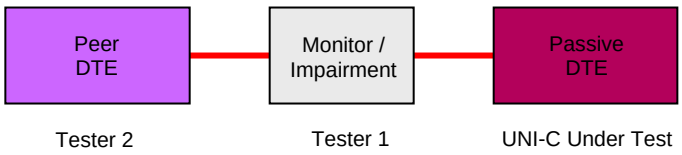
Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Critical Event reception
Test Definition ID	P-UNIC-EV2-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.4)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** signal the Flags field to the OAM client using the OAMPDU.indication service primitive
Test Object	Verify that the OAM sublayer signals the Flags field to the OAM client using the OAMPDU.indication service primitive
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send OAMPDUs with the specific Flags field bits set for the three types of Critical link events (Link fault, Dying gasp and Critical event) and verify that the Flags parameters are transferred from the OAM sublayer to the OAM Client by checking the aOAMRemoteFlagsField attribute value of the Passive DTE (UNI-C)
Units	aOAMRemoteFlagsField attribute value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to perform this test

TEST CASE 35CP: Link Event reception

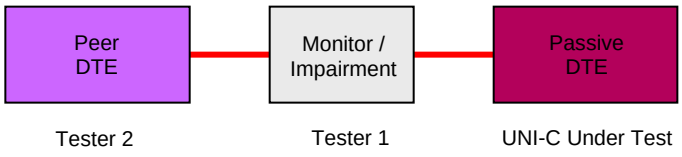
Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Link Event reception
Test Definition ID	P-UNIC-EV3-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.4)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHALL** detect link events via the reception of Event Notification OAMPDUs and the subsequent passing of the OAMPDU to the OAM Client via the OAMPDU.indication service primitive
Test Object	Verify that the OAM sublayer passes all Event Notification OAMPDUs to the OAM Client via the OAMPDU.indication service primitive
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send the five types of Event Notification OAMPDUs to the Passive DTE (UNI-C) and verify that the aOAMUniqueEventNotificationRx and aOAMDuplicateEventNotificationRx counters of the Passive DTE (UNI-C) are incrementing as the Event Notification OAMPDUs are received
Units	aOAMUniqueEventNotificationRx counter and aOAMDuplicateEventNotificationRx counter values
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to perform this test

10.3 OAMPDUs

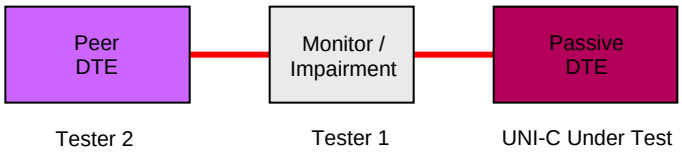
TEST CASE 36CP: OAMPDU tagging

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	OAMPDU tagging
Test Definition ID	P-UNIC-PDU1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	OAMPDUs **MUST NOT** be tagged
Test Object	Verify that the DTE ignores tagged OAMPDUs
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a tagged Information OAMPDU with a Local Information TLV including an updated Vendor Specific Information Field value and use the Tester 1 to monitor the next OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the Vendor Specific Information Field value of the Remote Information TLV is not the copy of the last received Vendor Specific Information Field transmitted by the Peer DTE
Units	OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

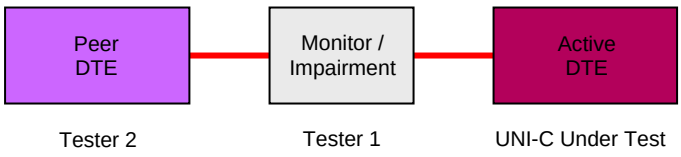
TEST CASE 37CP: Minimum size OAMPDU

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Minimum size OAMPDU
Test Definition ID	P-UNIC-PDU3-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **MUST** accept at least minFrameSize OAMPDUs (64 octets in length)
Test Object	Verify that the DTE successfully accepts 64 octets OAMPDUs
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a 64 octets OAMPDU with a Local Information TLV including an updated Vendor Specific Information Field value and use the Tester 1 to monitor the next OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the Vendor Specific Information Field value of the Remote Information TLV is the copy of the last received Vendor Specific Information Field transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

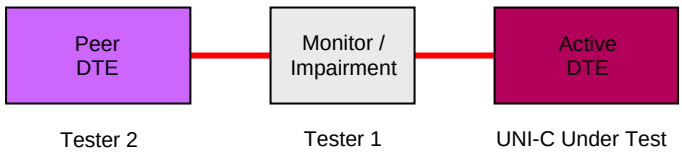
TEST CASE 38CP: Information OAMPDU frame structure

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Information OAMPDU frame structure
Test Definition ID	P-UNIC-PDU4-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Information OAMPDUs **MUST** contain the following fields (Destination Address (DA), Source Address (SA), Length/Type, Subtype, Flags, Code, Data/Pad and FCS)
Test Object	Verify that all the mandatory fields are present in the Information OAMPDUs structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) while it is in the SEND_ANY state and to verify that all the mandatory fields are present
Units	OAMPDU Destination Address field, Source Address field, Length/Type field, Subtype field, Flags field, Code field, Data/Pad field and FCS field values
Variables	None
Results	Pass or fail
Remarks	

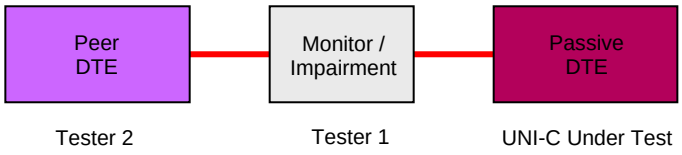
TEST CASE 39CA: Information OAMPDU when local_pdu is set to LF_INFO

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Information OAMPDU when local_pdu is set to LF_INFO
Test Definition ID	A-UNIC-PDU5-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	A device in the FAULT state of the Discovery process, **SHALL** only generate Information OAMPDUs that contain no Information TLVs
Test Object	Verify that when local_pdu is set to LF_INFO, the DTE sends only Information OAMPDUs that contain no Information TLVs
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Reset the OAM and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-C) during the FAULT state of the Discovery process and to verify that they do not contain Information TLVs
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

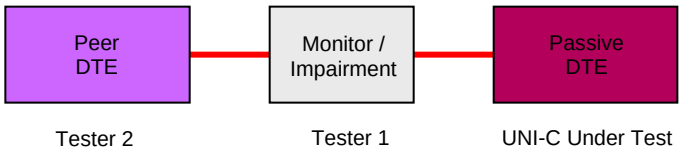
TEST CASE 40CA: Information OAMPDU when local_pdu is not set to LF_INFO and the remote_state_valid = FALSE

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Information OAMPDU when local_pdu is not set to LF_INFO and the remote_state_valid = FALSE
Test Definition ID	A-UNIC-PDU6-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When local_pdu is not set to LF_INFO and the remote_state_valid = FALSE, the DTE **SHALL** send Information OAMPDUs that contain only Local Information TLVs
Test Object	Verify that when local_pdu is not set to LF_INFO and the remote_state_valid = FALSE, the DTE sends Information OAMPDUs that contain only Local Information TLVs
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-C) while it is in the ACTIVE_SEND_LOCAL state of the Discovery process and to verify that they only contain Local Information TLVs
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

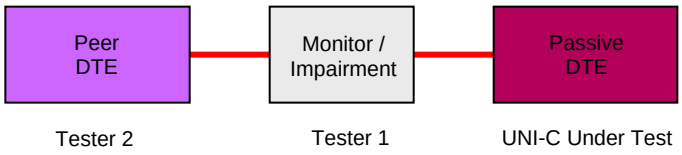
TEST CASE 41CP: Information OAMPDU when local_pdu is not set to LF_INFO and the remote_state_valid = TRUE

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Information OAMPDU when local_pdu is not set to LF_INFO and the remote_state_valid = TRUE
Test Definition ID	P-UNIC-PDU7-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When local_pdu is not set to LF_INFO and the remote_state_valid = TRUE, the DTE **SHALL** send Information OAMPDUs that contain Local Information TLVs and Remote Information TLVs
Test Object	Verify that when local_pdu is not set to LF_INFO and the remote_state_valid = TRUE, the DTE sends Information OAMPDUs that contain Local and Remote Information TLVs
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) while it is in the SEND_LOCAL_REMOTE, SEND_LOCAL_REMOTE_OK and SEND_ANY states of the Discovery process and to verify that they contain Local and Remote Information TLVs
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

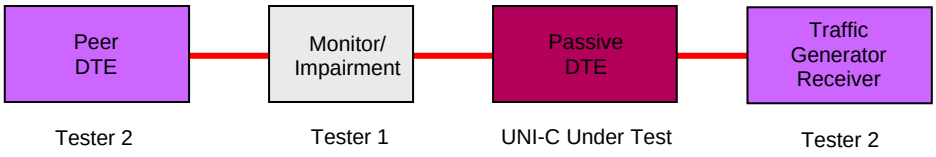
TEST CASE 42CP: Reserved Information TLV Type values (0x03 to 0xFD)

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Reserved Information TLV Type values (0x03 to 0xFD)
Test Definition ID	P-UNIC-PDU8-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Information TLV Type values from 0x03 to 0xFD **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Information TLV Type values from 0x03 to 0xFD are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that TLV Type values from 0x03 to 0xFD are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

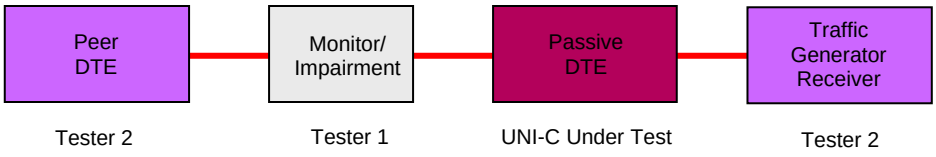
TEST CASE 43CP: Reserved Information TLV Type value (0xFF)

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Reserved Information TLV Type value (0xFF)
Test Definition ID	P-UNIC-PDU9-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Information TLV Type value 0xFF **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Information TLV Type value 0xFF is not transmitted by the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that the Information TLV Type value 0xFF is never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

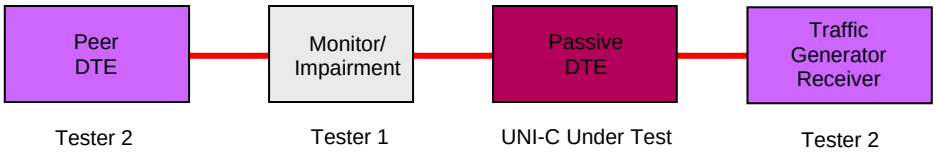
TEST CASE 44CP: Event Notification OAMPDU frame Structure

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Event Notification OAMPDU frame Structure
Test Definition ID	P-UNIC-PDU10-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.2)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Event Notification OAMPDUs structure **MUST** contain the following fields (Destination Address (DA), Source Address (SA), Length/Type, Subtype, Flags, Code, Data/Pad and FCS)
Test Object	Verify that all the mandatory fields are present in the Event Notification OAMPDUs structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to simulate the five types of Link Events (Errored Symbol Period Event, Errored Frame Event, Errored Frame Period Event, Errored Frame Seconds Summary Event & Organization Specific Event) and use it to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that all the mandatory fields are present
Units	OAMPDU Destination Address field, Source Address field, Length/Type field, Subtype field, Flags field, Code field, Data/Pad field and FCS field values
Variables	None
Results	Pass or fail
Remarks	

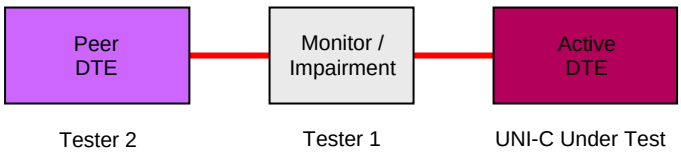
TEST CASE 45CP: Event Notification OAMPDU - Sequence Number

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Event Notification OAMPDU - Sequence Number
Test Definition ID	P-UNIC-PDU11-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.2)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The first two octets of the Event Notification OAMPDU Data field **MUST** contain a Sequence Number, encoded as a 16-bit unsigned integer
Test Object	Verify that the first two octets of the Event Notification OAMPDUs Data field contain a Sequence Number, encoded as a 16-bit unsigned integer
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to simulate the five types of Link Events (Errored Symbol Period Event, Errored Frame Event, Errored Frame Period Event, Errored Frame Seconds Summary Event & Organization Specific Event) and use it to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that the first two octets of the Event Notification OAMPDUs Data field contain a Sequence Number, encoded as a 16-bit unsigned integer
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

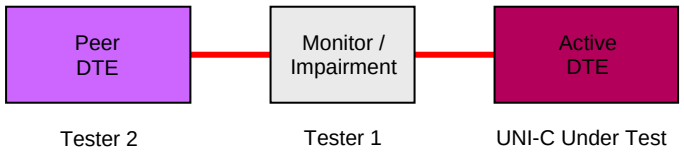
TEST CASE 46CP: Event Notification OAMPDU - Events

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Event Notification OAMPDU - Events
Test Definition ID	P-UNIC-PDU12-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.2)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Event Notification OAMPDU Data field **MUST** contain one or more Link Event TLV(s), following the Sequence Number field
Test Object	Verify that one or more Link Event TLV(s) is/are following the Sequence Number in the Event Notification OAMPDUs Data field
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to simulate the five types of Link Events (Errored Symbol Period Event, Errored Frame Event, Errored Frame Period Event, Errored Frame Seconds Summary Event & Organization Specific Event) and use it to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that one or more Link Event TLV(s) is/are following the Sequence Number
Units	OAMPDU Code field and Data/Pad field values
Variables	Link Event TLVs
Results	Pass or fail
Remarks	

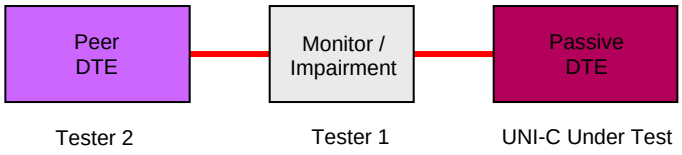
TEST CASE 47CA: Variable Request OAMPDU frame structure

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Variable Request OAMPDU frame structure
Test Definition ID	A-UNIC-PDU13-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Variable Request OAMPDUs structure **MUST** contain the following fields (Destination Address (DA), Source Address (SA), Length/Type, Subtype, Flags, Code, Data/Pad and FCS)
Test Object	Verify that all the mandatory fields are present in the Variable Request OAMPDUs structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Variable Requests from the Active DTE (UNI-C) and use the Tester 1 to monitor the transmitted Variable Request OAMPDUs and to verify that all the mandatory fields are present
Units	OAMPDU Destination Address field, Source Address field, Length/Type field, Subtype field, Flags field, Code field, Data/Pad field and FCS field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

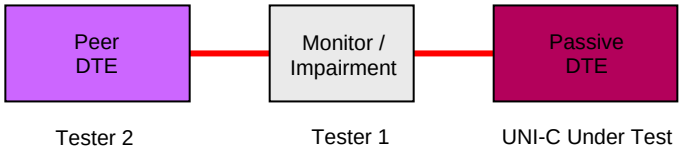
TEST CASE 48CA: Variable Request OAMPDU Data field

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Variable Request OAMPDU Data field
Test Definition ID	A-UNIC-PDU14-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Variable Request OAMPDU Data field **MUST** contain one or more Variable Descriptor(s)
Test Object	Verify that one or more Variable Descriptor(s) is/are contained in the Variable Request OAMPDU Data field
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Variable Requests from the Active DTE (UNI-C) and use the Tester 1 to monitor the transmitted Variable Request OAMPDUs and to verify that one or more Variable Descriptor(s) is/are contained in the Data field
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

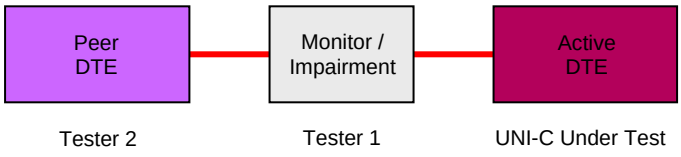
TEST CASE 49CP: Variable Response OAMPDU frame structure

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Variable Response OAMPDU frame structure
Test Definition ID	P-UNIC-PDU15-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.4)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Variable Response OAMPDUs structure **MUST** contain the following fields (Destination Address (DA), Source Address (SA), Length/Type, Subtype, Flags, Code, Data/Pad and FCS)
Test Object	Verify that all the mandatory fields are present in the Variable Response OAMPDUs structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Variable Request OAMPDUs and use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that all the mandatory fields are present
Units	OAMPDU Destination Address field, Source Address field, Length/Type field, Subtype field, Flags field, Code field, Data/Pad field and FCS field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

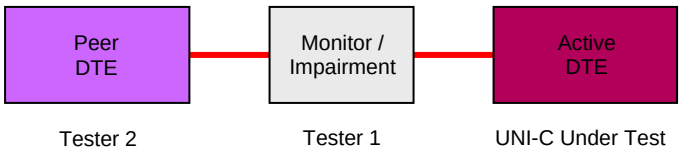
TEST CASE 50CP: Variable Response OAMPDU Data field

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Variable Response OAMPDU Data field
Test Definition ID	P-UNIC-PDU16-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.4)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Variable Response OAMPDU Data field **MUST** contain one or more Variable Container(s)
Test Object	Verify that one or more Variable Container(s) is/are present in the Variable Response OAMPDU Data field
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Variable Request OAMPDUs and use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that one or more Variable Container(s) is/are present in the Data field
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

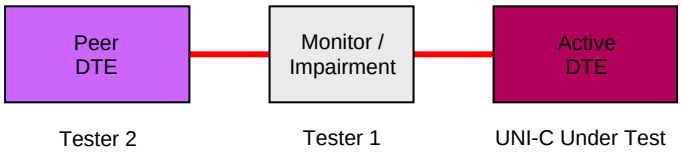
TEST CASE 51CA: Loopback Control OAMPDU frame structure

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Loopback Control OAMPDU frame structure
Test Definition ID	A-UNIC-PDU17-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.5)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Loopback Control OAMPDUs structure **MUST** contain the following fields (Destination Address (DA), Source Address (SA), Length/Type, Subtype, Flags, Code, Data/Pad & FCS)
Test Object	Verify that all the mandatory fields are present in the Loopback Control OAMPDUs structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate an OAM Remote Loopback from the Active DTE (UNI-C) and use the Tester 1 to monitor the transmitted Loopback Control OAMPDUs and to verify that all the mandatory fields are present
Units	OAMPDU Destination Address field, Source Address field, Length/Type field, Subtype field, Flags field, Code field, Data/Pad field and FCS field values
Variables	None
Results	Pass or fail
Remarks	

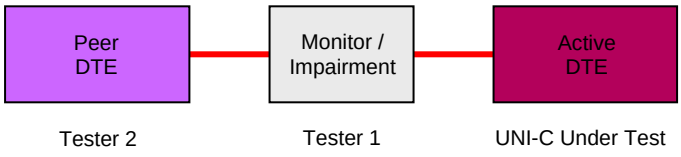
TEST CASE 52CA: Loopback Control OAMPDU Data field

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Loopback Control OAMPDU frame structure
Test Definition ID	A-UNIC-PDU18-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.5)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Loopback Control OAMPDU Data field **MUST** contain a single OAM Remote Loopback command
Test Object	Verify that a single OAM Remote Loopback command is present in the Loopback Control OAMPDU Data field
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate an OAM Remote Loopback from the Active DTE (UNI-C) and use the Tester 1 to monitor the transmitted Loopback Control OAMPDUs and to verify that a single OAM Remote Loopback command is present in the Data field
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

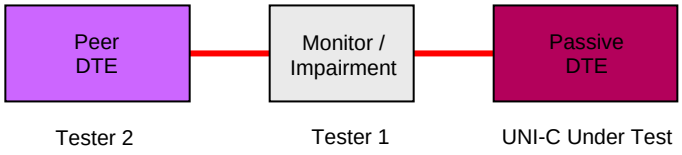
TEST CASE 53CA: Reserved OAM remote loopback command value (0x00)

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Reserved OAM remote loopback command value (0x00)
Test Definition ID	A-UNIC-PDU19-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.5)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM remote loopback command value (0x00) **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the OAM remote loopback command value (0x00) is not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Loopback Control OAMPDUs transmitted by the Active DTE (UNI-C) during all the testing activities and to verify that the OAM remote loopback command value (0x00) is never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

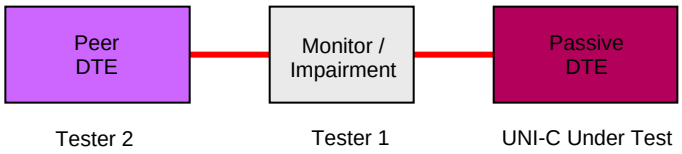
TEST CASE 54CA: Reserved OAM remote loopback command values (0x03 to 0xFF)

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Reserved OAM remote loopback command values (0x03 to 0xFF)
Test Definition ID	A-UNIC-PDU20-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.5)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM remote loopback command values (0x03 to 0xFF) **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the OAM remote loopback command values (0x03 to 0xFF) are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Loopback Control OAMPDUs transmitted by the Active DTE (UNI-C) during all the testing activities and to verify that the OAM remote loopback command values (0x03 to 0xFF) are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 55CP: Organization Specific OAMPDU frame structure

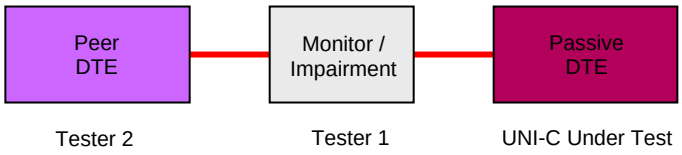
Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Organization Specific OAMPDU frame structure
Test Definition ID	P-UNIC-PDU21-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.6)
Test Type	Conformance
Test Status	Mandatory if Organization Specific OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Organization Specific OAMPDUs structure **MUST** contain the following fields (Destination Address (DA), Source Address (SA), Length/Type, Subtype, Flags, Code, Data/Pad and FCS)
Test Object	Verify that all the mandatory fields are present in the Organization Specific OAMPDU structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Organization Specific OAMPDUs from the Passive DTE (UNI-C) and use the Tester 1 to monitor them and to verify that all the mandatory fields are present
Units	OAMPDU Destination Address field, Source Address field, Length/Type field, Subtype field, Flags field, Code field, Data/Pad field and FCS field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 56CP: Organization Specific OAMPDU - Organizationally Unique Identifier field

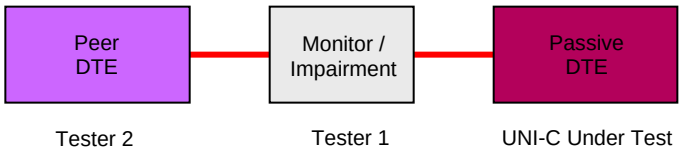
Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Organization Specific OAMPDU - Organizationally Unique Identifier field
Test Definition ID	P-UNIC-PDU22-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.6)
Test Type	Conformance
Test Status	Mandatory if Organization Specific OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The first three octets of the Organization Specific OAMPDU Data field **MUST** contain the Organizationally Unique Identifier (OUI)
Test Object	Verify that the first three octets of the Organization Specific OAMPDU Data field contain the Organizationally Unique Identifier (OUI)
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Organization Specific OAMPDUs from the Passive DTE (UNI-C) and use the Tester 1 to monitor them and to verify that the first three octets of the Data field contain the Organizationally Unique Identifier (OUI)
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

10.4 OAM Local Information TLVs

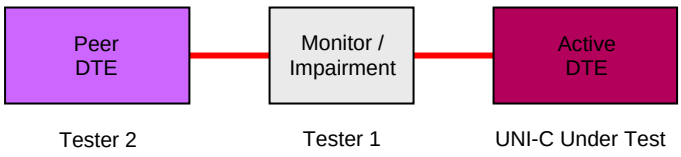
TEST CASE 57CP: Local Information TLV structure

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV structure
Test Definition ID	P-UNIC-LIT1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Local Information TLV structure **MUST** contain the following fields (Information Type, Information Length, OAM Version, Revision, State, OAM Configuration, OAMPDU Configuration, OUI & Vendor Specific Information)
Test Object	Verify that all the mandatory fields are present in the Local Information TLV structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) while it is in the SEND_ANY state and to verify that the mandatory fields are present in the Local Information TLV structure
Units	OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

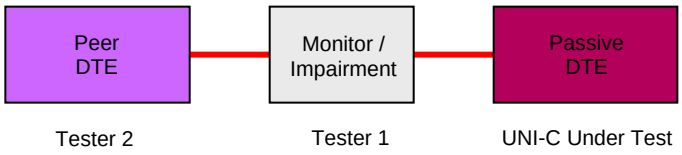
TEST CASE 58CP: Local Information TLV - OAM Version field

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV - OAM Version field
Test Definition ID	P-UNIC-LIT2-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV OAM Version **MUST** contain 0x01 to claim compliance to the Version 1 of the IEEE P802.3ah specification
Test Object	Verify that the Local Information TLV OAM Version is 0x01
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) while it is in the SEND_ANY state and to verify that the Local Information TLV OAM Version is 0x01
Units	OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

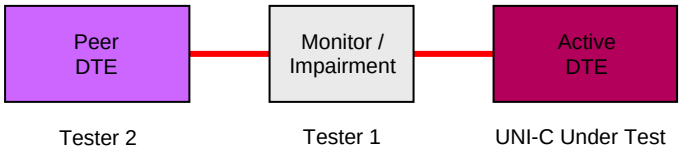
TEST CASE 59CA: Local Information TLV - Revision field - Active device

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – Revision field – Active device
Test Definition ID	A-UNIC-LIT3-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV Revision field value **MUST** start at zero and **MUST** be incremented each time a Local Information TLV field changes
Test Object	Verify that upon initialization of the OAM Discovery process, the value of the Local Information TLV Revision field starts at zero and is incremented each time a Local Information TLV field changes
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-C) through every state of the Discovery process and while it is in the SEND_ANY state, perform Test Cases 65 & 66 and use the Tester 1 to verify that the Local Information TLV Revision field starts at zero in the ACTIVE_SEND_LOCAL state and is incremented each time a Local Information TLV field changes
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

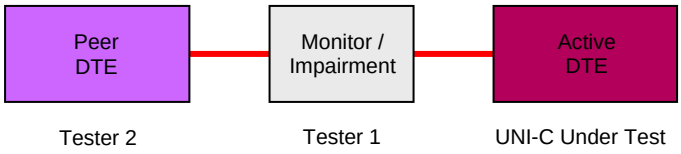
TEST CASE 60CP: Local Information TLV - Revision field - Passive device

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – Revision field – Passive device
Test Definition ID	P-UNIC-LIT3-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV Revision field value **MUST** start at zero and **MUST** be incremented each time a Local Information TLV field changes
Test Object	Verify that upon initialization of the OAM Discovery process, the value of the Local Information TLV Revision field starts at zero and is incremented each time something in the Information TLV changes
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) through every state of the Discovery process and while it is in the SEND_ANY state, perform Test Cases 65 & 66 and use the Tester 1 to verify that the Local Information TLV Revision field starts at zero in the SEND_LOCAL_REMOTE state and is incremented each time a Local Information TLV field changes
Units	OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

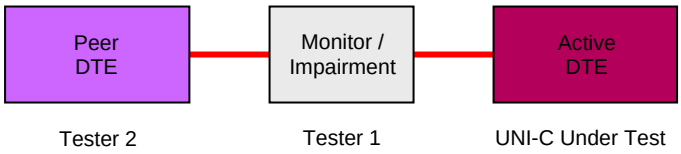
TEST CASE 61CA: Local Information TLV - State field – Remote Loopback initiation (Enable OAM Remote Loopback step 1 of 2)

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – State field – Remote loopback initiation (Enable OAM Remote Loopback Step 1 of 2)
Test Definition ID	A-UNIC-LIT4-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV State field **MUST** contain the DTE's Multiplexer and Parser valid state information (Mux = 1) (Par= 10)
Test Object	Verify that upon initiation of a Remote Loopback, the DTE sets its local_mux_action and its local_par_action parameters to DISCARD and sends a Loopback Control OAMPDU with the Enable OAM Remote Loopback command to the remote device
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate a Remote Loopback from the Active DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-C) and verify that before the reception of an Information OAMPDU with updated state information from the Peer DTE the Local Information TLV State fields of the Information OAMPDUs transmitted by the Active DTE (UNI-C) contain (Mux = 1) (Par= 10)
Units	OAMPDU Code field and State field values
Variables	None
Results	Pass or fail
Remarks	

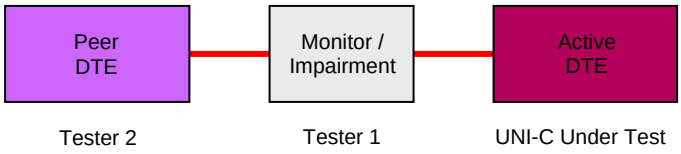
TEST CASE 62CA: Local Information TLV - State field – Remote Loopback initiation (Enable OAM Remote Loopback step 2 of 2)

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – State field – Remote loopback initiation (Enable OAM Remote Loopback Step 2 of 2)
Test Definition ID	A-UNIC-LIT4-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV State field **MUST** contain the DTE's Multiplexer and Parser valid state information (Mux = 0) (Par= 10)
Test Object	Upon the reception of the Loopback Control OAMPDU, the Remote device sets its parameters (Mux = DISCARD, Par = LB) and sends an Information OAMPDU with updated state information. Verify that upon the reception of this Information OAMPDU, the DTE sets its local_mux_action parameter to FWD
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate a Remote Loopback from the Active DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-C) and verify that after the reception of an Information OAMPDU with updated state information from the Peer DTE the Local Information TLV State fields of the Information OAMPDUs transmitted by the Active DTE (UNI-C) contain (Mux = 0) (Par= 10)
Units	OAMPDU Code field and State field values
Variables	None
Results	Pass or fail
Remarks	

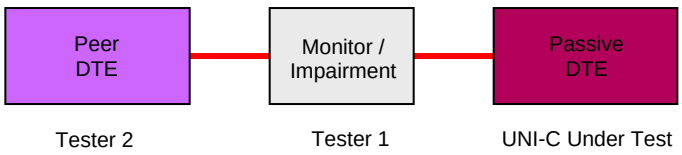
TEST CASE 63CA: Local Information TLV - State field – Remote Loopback termination (Disable OAM Remote Loopback step 1 of 2)

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – State field- Remote loopback termination (Disable OAM Remote Loopback Step 1 of 2)
Test Definition ID	A-UNIC-LIT4-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV State field **MUST** contain the DTE's Multiplexer and Parser valid state information (Mux = 1) (Par = 10)
Test Object	Verify that when the DTE terminates an OAM Remote Loopback test, it sets its local_mux_action parameter to DISCARD and sends a Loopback Control OAMPDU with the Disable OAM Remote Loopback command to the remote device
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Active DTE (UNI-C) to terminate the OAM Remote Loopback test and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-C) and verify that before the reception of an Information OAMPDU with updated state information from the Peer DTE the Local Information TLV State fields of the Information OAMPDUs transmitted by the Active DTE (UNI-C) contain (Mux = 1) (Par= 10)
Units	OAMPDU Code field and State field values
Variables	None
Results	Pass or fail
Remarks	

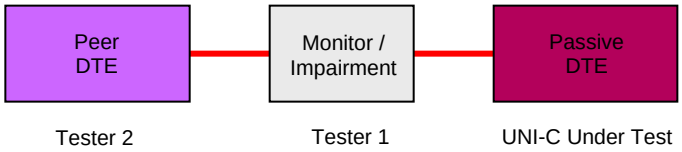
TEST CASE 64CA: Local Information TLV - State field – Remote Loopback termination (Disable OAM Remote Loopback step 2 of 2)

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – State field- Remote loopback termination (Disable OAM Remote Loopback Step 2 of 2)
Test Definition ID	A-UNIC-LIT4-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV State field **MUST** contain the DTE's Multiplexer and Parser valid state information (Mux = 0) (Par = 00)
Test Object	Upon the reception of the Loopback Control OAMPDU, the Remote device sends an Information OAMPDU with updated state information (Mux = FWD, Par = FWD) and then sets its parameters. Verify that upon the reception of this Information OAMPDU, the DTE sets its local_mux_action and the local_par_action parameters to FWD
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Active DTE (UNI-C) to terminate the OAM Remote Loopback test and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-C) and verify that after the reception of an Information OAMPDU with updated state information from the Peer DTE the Local Information TLV State fields of the Information OAMPDUs transmitted by the Active DTE (UNI-C) contain (Mux = 0) (Par= 00)
Units	OAMPDU Code field and State field values
Variables	None
Results	Pass or fail
Remarks	

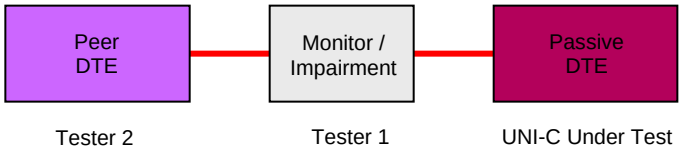
TEST CASE 65CP: Local Information TLV - State field – Reception of a Loopback Control OAMPDU (Enable OAM Remote Loopback)

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – State field – Reception of a Loopback Control OAMPDU (Enable OAM Remote Loopback)
Test Definition ID	P-UNIC-LIT4-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV State field **MUST** contain the DTE's Multiplexer and Parser valid state information (Mux = 1) (Par = 01)
Test Object	Verify that upon the reception of a Loopback Control OAMPDU, that contains the Enable OAM Remote Loopback command, the DTE sets its local_mux_action parameter to DISCARD, its local_par_action parameter to LB and sends an Information OAMPDU with updated state information to the remote device
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Loopback Control OAMPDU (enable) to the Passive DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify the Local Information TLV State fields of the Information OAMPDUs transmitted by the Passive DTE (UNI-C) contain (Mux = 1) (Par= 01)
Units	OAMPDU Code field and State field values
Variables	None
Results	Pass or fail
Remarks	

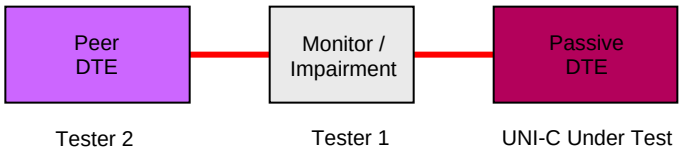
TEST CASE 66CP: Local Information TLV - State field – Reception of a Loopback Control OAMPDU (Disable OAM Remote Loopback)

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – State field – Reception of a Loopback Control OAMPDU (Disable OAM Remote Loopback)
Test Definition ID	P-UNIC-LIT4-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Upon the reception of a Loopback Control OAMPDU, that contains the Disable OAM Remote Loopback command, the Local Information TLV State field **MUST** contain the DTE's Multiplexer and Parser valid state information (Mux = 0) (Par = 00)
Test Object	Verify that upon the reception of a Loopback Control OAMPDU, with the Disable OAM Remote Loopback command, the DTE sends an Information OAMPDU with updated state information and then sets its local_mux_action and local_par_action parameter to Forward
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Loopback Control OAMPDU (disable) to the Passive DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify the Local Information TLV State fields of the Information OAMPDUs transmitted by the Passive DTE (UNI-C) contain (Mux = 0) (Par= 00)
Units	OAMPDU State field value (Local Information TLV)
Variables	None
Results	Pass or fail
Remarks	

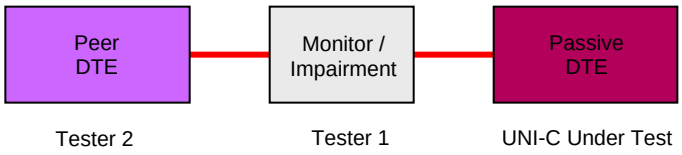
TEST CASE 67CP: Local Information TLV - Transmission of State field Parser Action value equal to 0x3

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – Transmission of State field Parser Action value equal to 0x3
Test Definition ID	P-UNIC-LIT5-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHALL NOT** transmit Local Information TLVs that contain a State field Parser Action value equal to 0x3
Test Object	Verify that the DTE never transmits Local Information TLVs that contains a State field Parser Action value equal to 0x3
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that it never transmits Information OAMPDUs with Local Information TLVs that contain a State field Parser Action value equal to 0x3
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

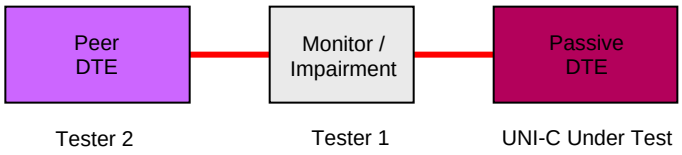
TEST CASE 68CP: Reserved bits - State field

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Reserved bits - State field
Test Definition ID	P-UNIC-LIT6-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.7)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The State field Reserved bits of Information OAMPDUs transmitted by the DTE **SHALL** be set to zero
Test Object	Verify that the State field Reserved bits of Information OAMPDUs transmitted by the DTE are always set to zero
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that the State field Reserved bits are always set to zero
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

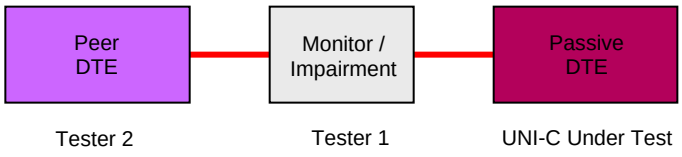
TEST CASE 69CP: Local Information TLV - OAM Configuration field

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV - OAM Configuration field
Test Definition ID	P-UNIC-LIT7-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLVs OAM Configuration field transmitted by the DTE **MUST** contain the following variables (OAM Mode, Unidirectional Support, OAM Remote Loopback Support, Link Events, Variable Retrieval)
Test Object	Verify that the Local Information TLVs Configuration field transmitted by the DTE contains the following variables (OAM Mode, Unidirectional Support, OAM Remote Loopback Support, Link Events, Variable Retrieval)
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) while it is in the SEND_ANY state and to verify that the Local Information TLVs Configuration fields contain the following variables (OAM Mode, Unidirectional Support, OAM Remote Loopback Support, Link Events, Variable Retrieval)
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

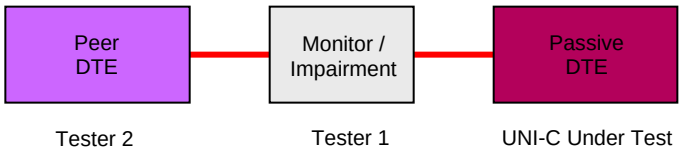
TEST CASE 70CP: Reserved bits - OAM Configuration field

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Reserved bits - OAM Configuration field
Test Definition ID	P-UNIC-LIT8-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.8)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM Configuration field Reserved bits of Information OAMPDUs transmitted by the DTE **SHALL** be set to zero
Test Object	Verify that the OAM Configuration field Reserved bits of Information OAMPDUs transmitted by the DTE are always set to zero
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that the OAM Configuration field Reserved bits are always set to zero
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

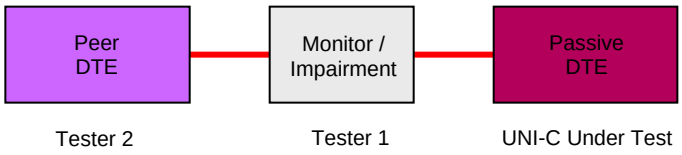
TEST CASE 71CP: Local Information TLV - OAMPDU Configuration field

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV - OAMPDU Configuration field
Test Definition ID	P-UNIC-LIT9-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLVs OAMPDU Configuration field transmitted by the DTE **MUST** contain an 11-bit field that represents the largest OAMPDU size, in octets, supported by the DTE. The maximum value is equal to maxUntaggedFrameSize
Test Object	Verify that the Local Information TLVs OAMPDU Configuration field transmitted by the DTE contain an 11-bit field that represents the largest OAMPDU size, in octets, supported by the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) while it is in the SEND_ANY state and to verify that the Local Information TLVs OAMPDU Configuration fields contain an 11-bit field that represents the largest OAMPDU size, in octets, supported by the DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	Maximum OAMPDU size
Results	Pass or fail
Remarks	

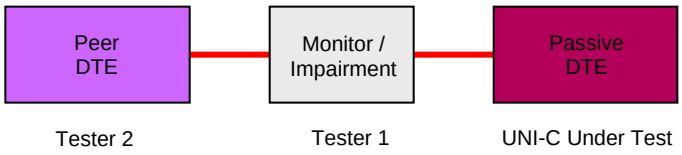
TEST CASE 72CP: Local Information TLV - OUI field

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV - OUI field
Test Definition ID	P-UNIC-LIT10-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV OUI field transmitted by the DTE **MUST** contain the 24-bit Organizationally Unique Identifier of the Vendor
Test Object	Verify that the Local Information TLV OUI field transmitted by the DTE contains the 24-bit Organizationally Unique Identifier of the Vendor
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) while it is in the SEND_ANY state and to verify that the Local Information TLV OUI fields contain the 24-bit Organizationally Unique Identifier of the Vendor
Units	OAMPDU Code field and Data/Pad field values
Variables	OUI value
Results	Pass or fail
Remarks	

TEST CASE 73CP: Reserved bits - OAMPDU Configuration field

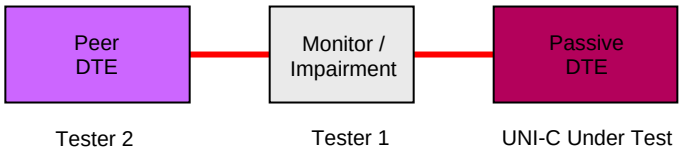
Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Reserved bits - OAMPDU Configuration field
Test Definition ID	P-UNIC-LIT11-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.9)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAMPDU Configuration field Reserved bits of Information OAMPDUs transmitted by the DTE **SHALL** be set to zero
Test Object	Verify that the OAM Configuration field Reserved bits of Information OAMPDUs transmitted by the DTE are always set to zero
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that the OAM Configuration field Reserved bits are always set to zero
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 74CP: Local Information TLV - Vendor Specific Information field

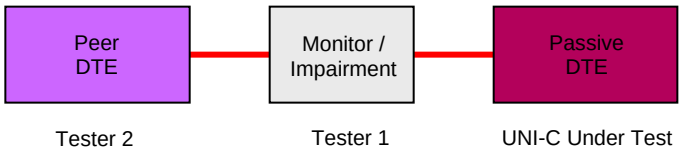
Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – Vendor Specific Information field
Test Definition ID	P-UNIC-LIT12-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV Vendor Specific Information field transmitted by the DTE **MUST** contain a 32-bit identifier used to differentiate vendor's product/models/versions etc
Test Object	Verify that the Local Information TLV Vendor Specific Information field transmitted by the DTE contains a 32-bit identifier used to differentiate vendor's product/models/versions etc
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) while it is in the SEND_ANY state and to verify that the Local Information TLV Vendor Specific Information fields contains a 32-bit identifier used to differentiate vendor's product / models / versions etc
Units	OAMPDU Code field and Data/Pad field values
Variables	Vendor Specific Information field value
Results	Pass or fail
Remarks	

10.5 OAM Remote Information TLVs

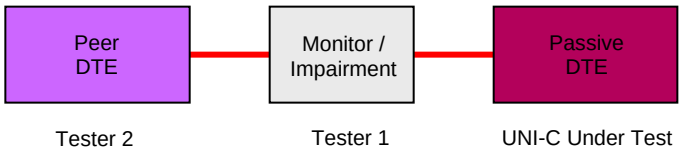
TEST CASE 75CP: Remote Information TLV structure

Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV structure
Test Definition ID	P-UNIC-RIT1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Remote Information TLV structure **MUST** contain the following fields (Information Type, Information Length, OAM Version, Revision, State, OAM Configuration, OAMPDU Configuration, OUI & Vendor Specific Information)
Test Object	Verify that all the mandatory fields are present in the Remote Information TLV structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Passive DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that all the mandatory fields are present in the Remote Information TLV structure
Units	OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

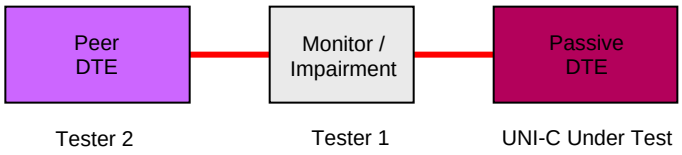
TEST CASE 76CP: Remote Information TLV - OAM Version field

Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV - OAM Version field
Test Definition ID	P-UNIC-RIT1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV OAM Version field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV OAM Version field
Test Object	Verify that the Remote Information TLV OAM Version field transmitted by the DTE contains the value of the last received Local Information TLV OAM Version field
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Passive DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive and the Peer DTEs and to verify that the Remote Information TLV OAM Version field transmitted by the Passive DTE (UNI-C) contains the value of the last received Local Information TLV OAM Version field
Units	OAMPDUs Code field and Data/Pad field values
Variables	OAM Version field value
Results	Pass or fail
Remarks	

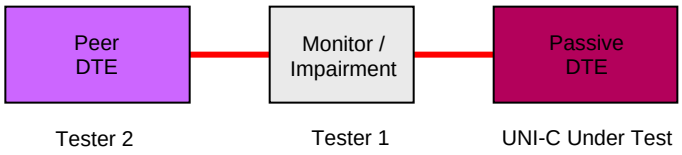
TEST CASE 77CP: Remote Information TLV - Revision field

Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV - Revision field
Test Definition ID	P-UNIC-RIT1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV Revision field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV Revision field
Test Object	Verify that the value of the Remote Information TLV Revision field transmitted by the DTE contains the value of the last received Local Information TLV Revision field
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Passive DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive and the Peer DTEs and to verify that the value of the Remote Information TLV Revision field transmitted by the Passive DTE (UNI-C) contains the value of the last received Local Information TLV Revision field
Units	OAMPDUs Code field and Data/Pad field values
Variables	Revision field value
Results	Pass or fail
Remarks	

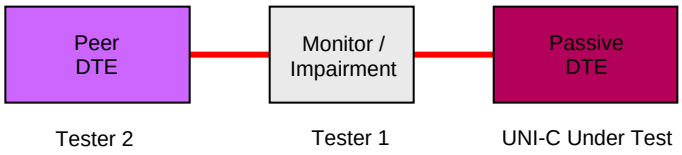
TEST CASE 78CP: Remote Information TLV - State field

Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV - State field
Test Definition ID	P-UNIC-RIT1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV State field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV State field
Test Object	Verify that the value of the Remote Information TLV State field transmitted by the DTE contains the value of the last received Local Information TLV State field
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Passive DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive and the Peer DTEs and to verify that the value of the Remote Information TLV State field transmitted by the Passive DTE (UNI-C) contains the value of the last received Local Information TLV State field
Units	OAMPDUs Code field and Data/Pad field values
Variables	State field value
Results	Pass or fail
Remarks	

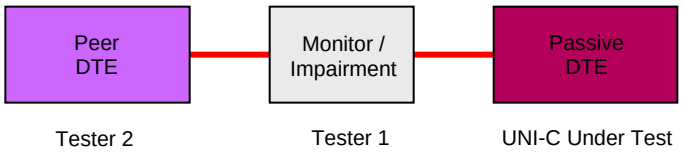
TEST CASE 79CP: Remote Information TLV - OAM Configuration field

Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV - OAM Configuration field
Test Definition ID	P-UNIC-RIT1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV OAM Configuration field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV OAM Configuration field
Test Object	Verify that the Remote Information TLV OAM Configuration field transmitted by the DTE contains the value of the last received Local Information TLV OAM Configuration field
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Passive DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive and the Peer DTEs and to verify that the Remote Information TLV OAM Configuration field transmitted by the Passive DTE (UNI-C) contains the value of the last received Local Information TLV OAM Configuration field
Units	OAMPDUs Code field and Data/Pad field values
Variables	OAM Configuration field value
Results	Pass or fail
Remarks	

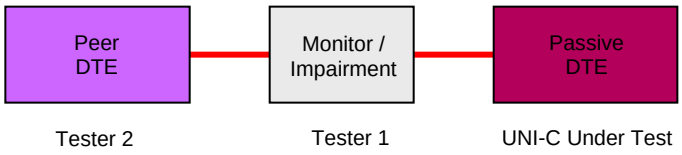
TEST CASE 80CP: Remote Information TLV - OAMPDU Configuration field

Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV – OAMPDU Configuration field
Test Definition ID	P-UNIC-RIT1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV OAMPDU Configuration field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV OAMPDU Configuration field
Test Object	Verify that the Remote Information TLV OAMPDU Configuration field transmitted by the DTE contains the value of the last received Local Information TLV OAMPDU Configuration field
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Passive DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive and the Peer DTEs and to verify that the Remote Information TLV OAMPDU Configuration field transmitted by the Passive DTE (UNI-C) contains the value of the last received Local Information TLV OAMPDU Configuration field
Units	OAMPDUs Code field and Data/Pad field values
Variables	OAMPDU Configuration field value
Results	Pass or fail
Remarks	

TEST CASE 81CP: Remote Information TLV - OUI field

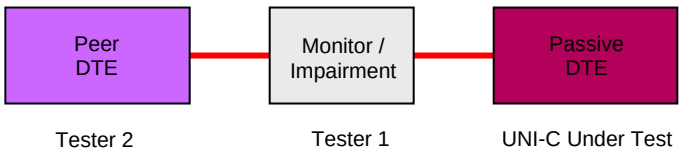
Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV - OUI field
Test Definition ID	P-UNIC-RIT1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV OUI field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV OUI field
Test Object	Verify that the Remote Information TLV OUI field transmitted by the DTE contains the value of the last received Local Information TLV OUI field
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Passive DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive and the Peer DTEs and to verify that the Remote Information TLV OUI field transmitted by the Passive DTE (UNI-C) contains the value of the last received Local Information TLV OUI field
Units	OAMPDUs Code field and Data/Pad field values
Variables	OUI field value
Results	Pass or fail
Remarks	

TEST CASE 82CP: Remote Information TLV - Vendor Specific Information field

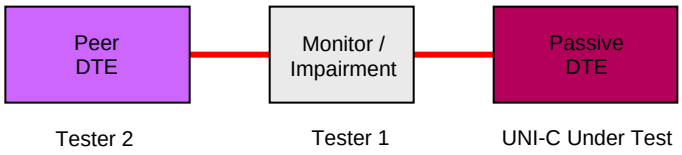
Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV - Vendor Specific Information field
Test Definition ID	P-UNIC-RIT1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV Vendor Specific Information field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV Vendor Specific Information field
Test Object	Verify that the Remote Information TLV Vendor Specific Information field transmitted by the DTE contains the value of the last received Local Information TLV Vendor Specific Information field
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Passive DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive and the Peer DTEs and to verify that the Remote Information TLV Vendor Specific Information field transmitted by the Passive DTE (UNI-C) contains the value of the last received Local Information TLV Vendor Specific Information field
Units	OAMPDUs Code field and Data/Pad field values
Variables	Vendor Specific Information field value
Results	Pass or fail
Remarks	

10.6 OAM Organization Specific Information TLVs

TEST CASE 83CP: Organization Specific Information TLV structure

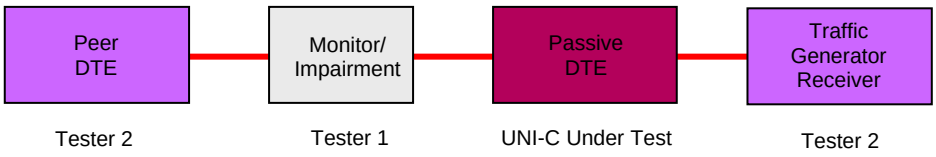
Abstract Test Suite for Link OAM - Organization Specific Information TLVs	
Test Name	Organization Specific Information TLV structure
Test Definition ID	P-UNIC-OIT1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.3)
Test Type	Conformance
Test Status	Mandatory if Organization Specific OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Organization Specific Information TLV structure **MUST** contain the following fields (Information Type, Information Length, OUI & Organizational Specific Value)
Test Object	Verify that all the mandatory fields are present the Organization Specific Information TLV structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Organization Specific OAMPDUs from the Passive DTE (UNI-C) and use the Tester 1 to monitor them and to verify that all the mandatory fields are present
Units	OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 84CP: Organization Specific Information TLV - OUI field

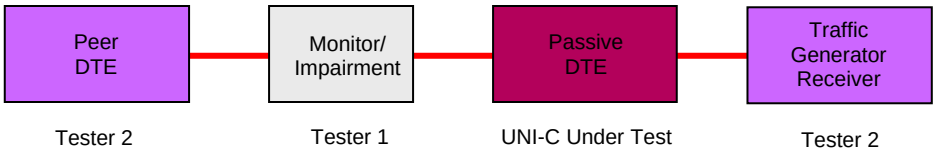
Abstract Test Suite for Link OAM - Organization Specific Information TLVs	
Test Name	Organization Specific Information TLV - OUI field
Test Definition ID	P-UNIC-OIT2-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.3)
Test Type	Conformance
Test Status	Mandatory if Organization Specific OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Organization Specific Information TLV OUI field within the Information OAMPDUs transmitted by the DTE **MUST** contain the 24-bit Organizationally Unique Identifier of the Vendor
Test Object	Verify that the Organization Specific Information TLV OUI field transmitted by the DTE contains the 24-bit Organizationally Unique Identifier of the Vendor
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Organization Specific OAMPDUs from the Passive DTE (UNI-C) and use the Tester 1 to monitor them and to verify that the Organization Specific Information TLV OUI field contains the 24-bit Organizationally Unique Identifier of the Vendor
Units	OAMPDUs Code field and Data/Pad field values
Variables	OUI field value
Results	Pass or fail
Remarks	

10.7 Link Events TLVs

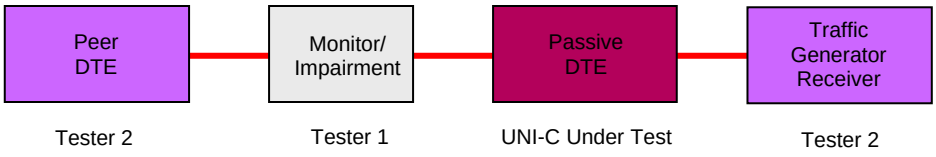
TEST CASE 85CP: Errored Symbol Period Event TLV structure

Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Errored Symbol Period Event TLV structure
Test Definition ID	P-UNIC-ET1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.3.1)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Errored Symbol Period Event TLV structure **MUST** contain the following fields (Event Type, Event Length, Event Time Stamp, Errored Symbol Window, Errored Symbol Threshold, Errored Symbols, Error Running Total and Event Running Total)
Test Object	Verify that all the mandatory fields are present in the Errored Symbol Period Event TLVs structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use Tester 1 to simulate an Errored Symbol Period Event and use it to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that all the mandatory fields are present in the Errored Symbol Period Event TLVs structure
Units	OAMPDU Code field and Data/Pad field values
Variables	Event Time Stamp, Errored Symbol Window, Errored Symbol Threshold, Errored Symbols, Error Running Total and Event Running Total values
Results	Pass or fail
Remarks	

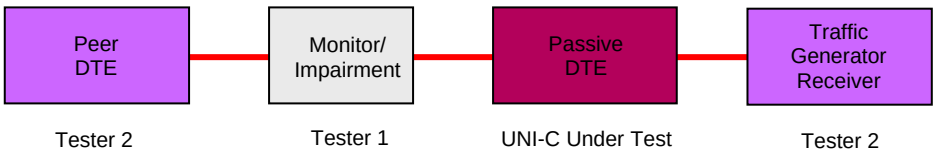
TEST CASE 86CP: Errored Frame Event TLV structure

Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Errored Frame Event TLV structure
Test Definition ID	P-UNIC-ET2-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.3.2)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Errored Frame Event TLV structure **MUST** contain the following fields (Event Type, Event Length, Event Time Stamp, Errored Frame Window, Errored Frame Threshold, Errored Frames, Error Running Total and Event Running Total)
Test Object	Verify that all the mandatory fields are present in the Errored Frame Event TLVs structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use Tester 1 to simulate an Errored Frame Event and use it to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that all the mandatory fields are present in the Errored Frame Event TLVs structure
Units	OAMPDU Code field and Data/Pad field values
Variables	Event Time Stamp, Errored Frame Window, Errored Frame Threshold, Errored Frames, Error Running Total and Event Running Total values
Results	Pass or fail
Remarks	

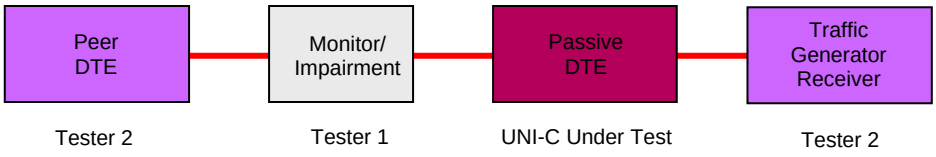
TEST CASE 87CP: Errored Frame Period Event TLV structure

Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Errored Frame Period Event TLV structure
Test Definition ID	P-UNIC-ET3-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.3.3)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Errored Frame Period Event TLV structure **MUST** contain the following fields (Event Type, Event Length, Event Time Stamp, Errored Frame Window, Errored Frame Threshold, Errored Frames, Error Running Total and Event Running Total)
Test Object	Verify that all the mandatory fields are present in the Errored Frame Period Event TLVs structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use Tester 1 to simulate an Errored Frame Period Event and use it to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that all the mandatory fields are present in the Errored Frame Period Event TLVs structure
Units	OAMPDU Code field and Data/Pad field values
Variables	Event Time Stamp, Errored Frame Window, Errored Frame Threshold, Errored Frames, Error Running Total and Event Running Total values
Results	Pass or fail
Remarks	

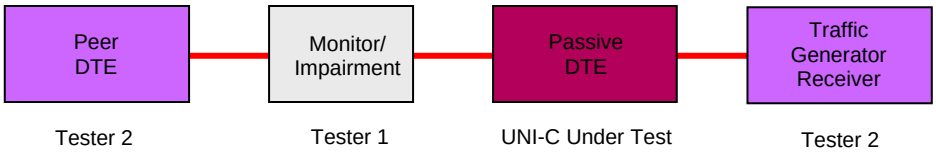
TEST CASE 88CP: Errored Frame Seconds Summary Event TLV structure

Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Errored Frame Seconds Summary Event TLV structure
Test Definition ID	P-UNIC-ET4-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.3.4)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Errored Frame Seconds Summary Event TLV structure **MUST** contain the following fields (Event Type, Event Length, Event Time Stamp, Errored Frame Seconds Summary Window, Errored Frame Seconds Summary Threshold, Errored Frame Seconds Summary, Error Running Total and Event Running Total)
Test Object	Verify that all the mandatory fields are present in the Errored Frame Seconds Summary Event TLVs structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use Tester 1 to simulate an Errored Frame Seconds Summary Event and use it to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that all the mandatory fields are present in the Errored Frame Seconds Summary Event TLVs structure
Units	OAMPDU Code field and Data/Pad field values
Variables	Event Time Stamp, Errored Frame Seconds Summary Window, Errored Frame Seconds Summary Threshold, Errored Frame Seconds Summary, Error Running Total and Event Running Total values
Results	Pass or fail
Remarks	

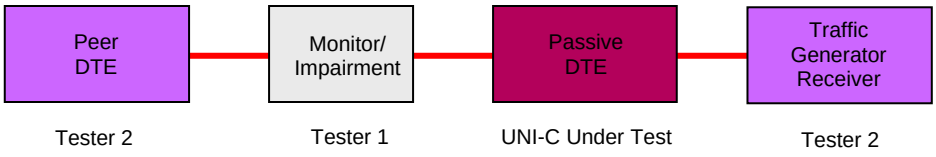
TEST CASE 89CP: Organization Specific Event TLV structure

Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Organization Specific Event TLV structure
Test Definition ID	P-UNIC-ET5-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.3.5)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Organization Specific Event TLV structure **MUST** contain the following fields (Event Type, Event Length, Organizationally Unique Identifier and Organization Specific Value)
Test Object	Verify that all the mandatory fields are present in the Organization Specific Event TLVs structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use Tester 1 to simulate an Organization Specific Event and use it to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that all the mandatory fields are present in the Organization Specific Event TLVs structure
Units	OAMPDU Code field and Data/Pad field values
Variables	Organizationally Unique Identifier and Organization Specific Values
Results	Pass or fail
Remarks	

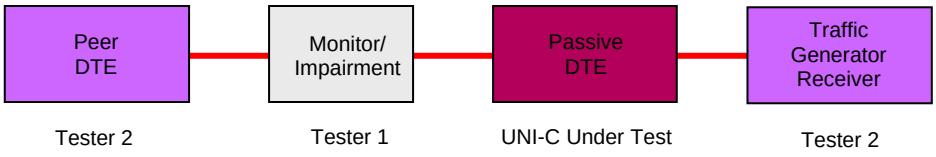
TEST CASE 90CP: Organization Specific Event – Organizationally Unique Identifier field

Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Organization Specific Event – Organizationally Unique Identifier field
Test Definition ID	P-UNIC-ET6-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.3.5)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The three-octet Organizationally Unique Identifier field **SHALL** contain a 24-bit Organizationally Unique Identifier
Test Object	Verify that the three-octet Organizationally Unique Identifier field contains a 24-bit Organizationally Unique Identifier
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use Tester 1 to simulate an Organization Specific Events and use it to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that the three-octet Organizationally Unique Identifier field contains a 24-bit Organizationally Unique Identifier
Units	OAMPDU Code field and Data/Pad field values
Variables	Organizationally Unique Identifier and Organization Specific Values
Results	Pass or fail
Remarks	

TEST CASE 91CP: Reserved Link Event TLV Type values (0x05 to 0xFD)

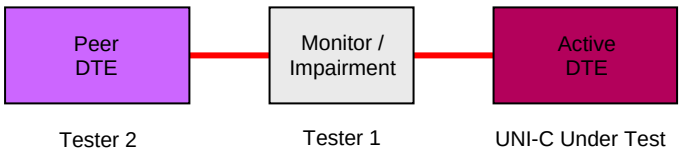
Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Reserved Link Event TLV Type values (0x05 to 0xFD)
Test Definition ID	P-UNIC-ET7-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.12)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Link Event TLV Type values from 0x05 to 0xFD **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Link Event TLV Type values from 0x05 to 0xFD are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) during all the Link Events testing activities and verify that the Link Event TLV Type values from 0x05 to 0xFD are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 92CP: Reserved Link Event TLV Type value (0xFF)

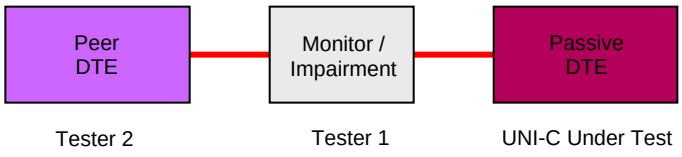
Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Reserved Link Event TLV Type value (0xFF)
Test Definition ID	P-UNIC-ET8-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.12)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Link Event TLV Type value 0xFF **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Link Event TLV Type value 0xFF is not transmitted by the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Event Notification OAMPDUs transmitted by the Passive DTE (UNI-C) during all the Link Events testing activities and to verify that the Link Event TLV Type value 0xFF is never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

10.8 Variables Descriptors & Containers

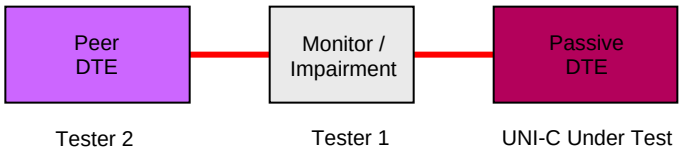
TEST CASE 93CA: Variable Descriptor structure

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Variable Descriptor structure
Test Definition ID	A-UNIC-VAR1-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.6.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Variable Descriptor structure **SHALL** contain the following fields (Variable Branch and Variable Leaf)
Test Object	Verify that all the mandatory fields are present in the Variable Descriptor structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Variable Requests from the Active DTE (UNI-C) and use the Tester 1 to monitor the transmitted Variable Request OAMPDUs and to verify that all the mandatory fields are present in the Variable Descriptor structure
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

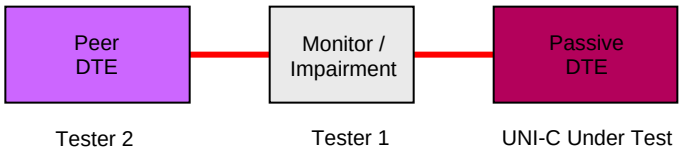
TEST CASE 96CP: Variable Container structure

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Variable Container structure
Test Definition ID	P-UNIC-VAR4-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.6.2)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Variable Container structure **SHALL** contain the following fields (Variable Branch, Variable Leaf, Variable Width & Variable Value)
Test Object	Verify that all the mandatory fields are present in the Variable Container structure
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to initiate Variable Requests referencing objects and packages and use Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that all the mandatory fields are present in the Variable Container structure
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

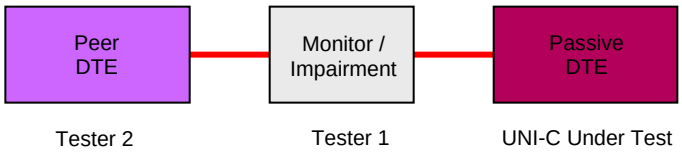
TEST CASE 97CP: Passive Mode / Variable Branch / reference MIB attributes

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Passive Mode / Variable Branch / references MIB attributes
Test Definition ID	P-UNIC-VAR5-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.6.2)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Should a MIB object or a MIB package be referenced in a Variable Request OAMPDU sent to the DTE, only MIB attributes within the object or package **SHALL** be present within the Variable Container returned by the DTE
Test Object	Verify that if objects or packages are referenced within Variable Request OAMPDUs sent to the DTE, only the attributes are present within the Variable Container returned by the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to initiate Variable Requests referencing objects and packages and use Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that only the attributes are present within the Variable Container
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

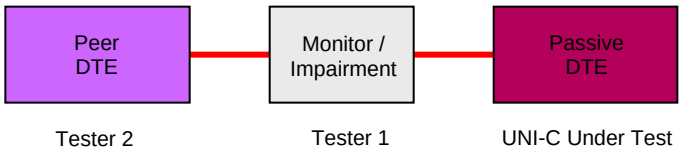
TEST CASE 98CP: Passive Mode / Variable Branch /does not reference MIB actions

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Passive Mode / Variable Branch / does not reference MIB actions
Test Definition ID	P-UNIC-VAR6-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.6.2)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Actions **SHALL NOT** be found in Variable Containers transmitted by the DTE
Test Object	Verify that Actions are not found in Variable Containers transmitted by the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to initiate Variable Requests referencing objects and packages and use Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that Actions are not found in the Variable Containers
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

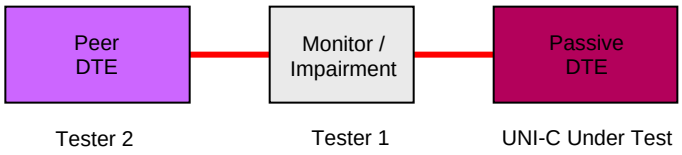
TEST CASE 99CP: Reserved Variable Indication coding value (0x00)

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Reserved Variable Indication coding value (0x00)
Test Definition ID	P-UNIC-VAR7-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.17)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Variable Indication coding value 0x00 **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Variable Indication coding value 0x00 is not transmitted by the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and verify that the Variable Indication coding value 0x00 is never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

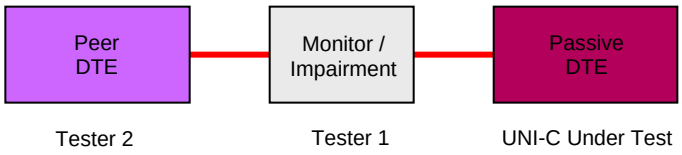
TEST CASE 100CP: Reserved Variable Indication coding values (0x02 to 0x1F)

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Reserved Variable Indication coding values (0x02 to 0x1F)
Test Definition ID	P-UNIC-VAR8-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.17)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Variable Indication coding values from 0x02 to 0x1F **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Variable Indication coding values from 0x02 to 0x1F are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that the Variable Indication coding values from 0x02 to 0x1F are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

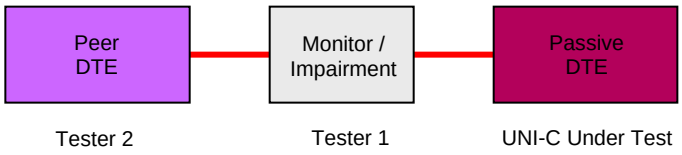
TEST CASE 101CP: Reserved Attribute Indication coding values (0x25 to 0x3F)

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Reserved Attribute Indication coding values (0x25 to 0x3F)
Test Definition ID	P-UNIC-VAR9-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.17)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Attribute Indication coding values from 0x25 to 0x3F **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Attribute Indication coding values from 0x25 to 0x3F are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that the Attribute Indication coding values from 0x25 to 0x3F are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 102CP: Reserved Object Indication coding values (0x45 to 0x5F)

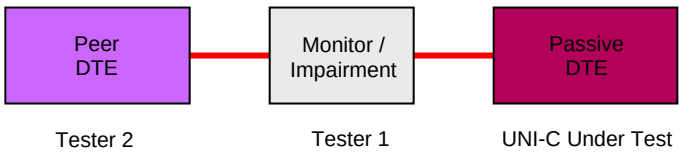
Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Reserved Object Indication coding values (0x45 to 0x5F)
Test Definition ID	P-UNIC-VAR10-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.17)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Object Indication coding values from 0x45 to 0x5F **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Object Indication coding values from 0x45 to 0x5F are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that the Object Indication coding values from 0x45 to 0x5F are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 103CP: Reserved Package Indication coding values (0x65 to 0x7F)

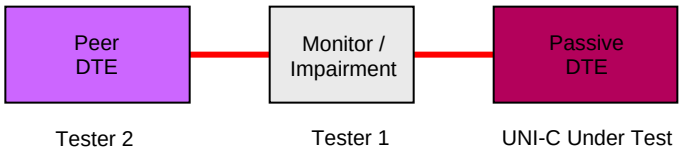
Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Reserved Package Indication coding values (0x65 to 0x7F)
Test Definition ID	P-UNIC-VAR11-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.17)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Package Indication coding values from 0x65 to 0x7F **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Package Indication coding values from 0x65 to 0x7F are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Passive DTE (UNI-C) during all the testing activities and to verify that the Package Indication coding values from 0x65 to 0x7F are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

10.9 OAM Additionnal Conformance Tests

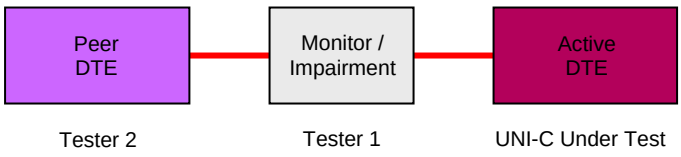
TEST CASE 104CP: Timing considerations for OAM remote loopback - Enable

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Timing considerations for OAM remote loopback - Enable
Test Definition ID	P-UNIC-ACT1-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.11.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Within one second of receiving a Loopback Control OAMPDU with the Enable remote loopback command, the DTE **MUST** set its parameters and send an Information OAMPDU
Test Object	Verify that within one second of receiving a Loopback Control OAMPDU with the Enable remote loopback command, the DTE sets its parameters and sends an Information OAMPDU
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Loopback Control OAMPDU with the Enable remote loopback command to the Passive DTE (UNI-C) and use the Tester 1 to verify that within one second, the Passive DTE (UNI-C) sets its parameters and sends back an Information OAMPDU
Units	Milliseconds
Variables	None
Results	Pass or fail
Remarks	

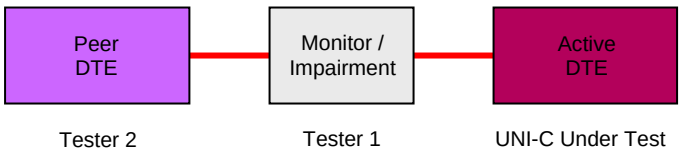
TEST CASE 105CP: Timing considerations for OAM remote loopback - Disable

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Timing considerations for OAM remote loopback - Disable
Test Definition ID	P-UNIC-ACT2-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.11.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Within one second of receiving a Loopback Control OAMPDU with the Disable remote loopback command, the DTE **MUST** set its parameters and send an Information OAMPDU
Test Object	Verify that within one second of receiving a Loopback Control OAMPDU with the Disable remote loopback command, the DTE sets its parameters and sends an Information OAMPDU
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Loopback Control OAMPDU with the Disable remote loopback command to the Passive DTE (UNI-C) and use the Tester 1 to verify that within one second, the Passive DTE (UNI-C) sets its parameters and sends back an Information OAMPDU
Units	Milliseconds
Variables	None
Results	Pass or fail
Remarks	

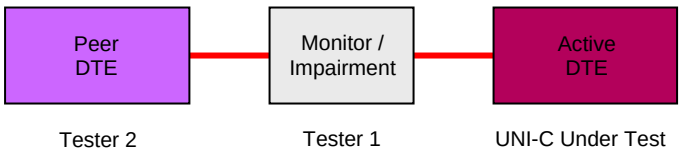
TEST CASE 106CA: Simultaneous OAM remote loopback commands - Higher SA DTE

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Simultaneous OAM Remote Loopback Commands - Higher source address DTE
Test Definition ID	A-UNIC-ACT3-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.11.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When two devices issue simultaneous OAM Remote Loopback commands, the DTE with the higher source address **SHOULD** enter in OAM Remote loopback mode and the DTE with the lower source address **SHOULD** ignore the OAM Remote Loopback command
Test Object	Verify that when two devices issue simultaneous OAM Remote Loopback commands, the DTE with the higher source address enters in OAM Remote loopback mode
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Configure the Active DTE (UNI-C) with a source address higher than the Peer DTE. Initiate OAM Remote Loopbacks with Enable Remote Loopback commands simultaneously from the two DTEs and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-C) and verify that it enters in OAM Remote Loopback mode
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

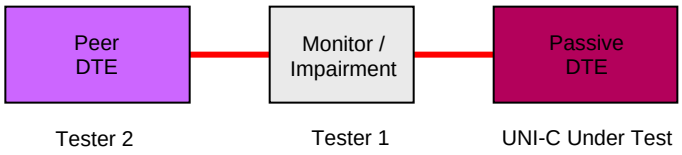
TEST CASE 107CA: Simultaneous OAM remote loopback commands - Lower SA DTE

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Simultaneous OAM Remote Loopback Commands - Lower source address DTE
Test Definition ID	A-UNIC-ACT4-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.11.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When two devices issue simultaneous OAM Remote Loopback commands, the DTE with the higher source address **SHOULD** enter in OAM Remote loopback mode and the DTE with the lower source address **SHOULD** ignore the OAM Remote Loopback command
Test Object	Verify that when two devices issue simultaneous OAM Remote Loopback commands, the DTE with the lower source address ignores the OAM Remote Loopback command
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Configure the Active DTE (UNI-C) with a source address lower than the Peer DTE. Initiate OAM Remote Loopbacks with Enable Remote Loopback commands simultaneously from the two DTEs and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-C) and verify confirm that it ignores the OAM Remote Loopback command
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

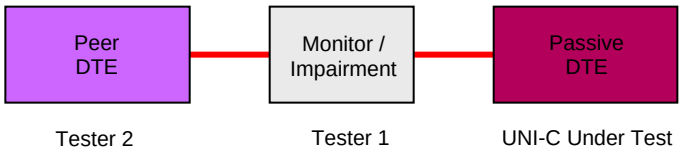
TEST CASE 108CA: Response to an OAM remote loopback command from a Passive peer

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Response to an OAM remote loopback command from a Passive peer
Test Definition ID	A-UNIC-ACT5-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.9.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	An Active DTE **SHOULD NOT** respond to an OAM remote loopback command from a Passive peer
Test Object	Verify that the DTE does not respond to OAM remote loopback commands from Passive peers
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Passive Peer DTE to send a Loopback Control OAMPDU with the Enable remote loopback command to the Active DTE (UNI-C) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-C) and verify that it does not set its local_mux_action parameter to DISCARD and its local_par_action parameter to LB
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

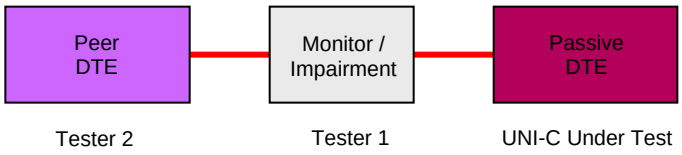
TEST CASE 109CP: OAM TLVs Parsing rules - TLV type 0x00 (End of TLV marker)

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAM TLVs Parsing rules – TLV type 0x00 (End of TLV marker)
Test Definition ID	P-UNIC-ACT6-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHOULD** ignore the length and the value of TLVs type 0x00
Test Object	Verify that the DTE ignores the length and the value of TLVs type 0x00
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with a Local Information TLV of type 0x00 and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the lenght and value of the Remote Information TLV is not the copy of the last received Local Information TLV's lenght and value transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

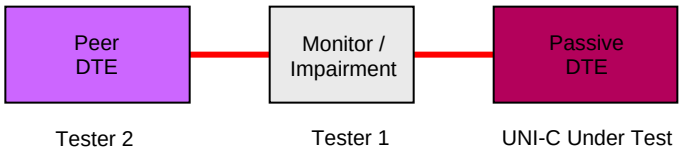
TEST CASE 110CP: OAM TLVs Parsing rules - TLV length 0x00 or 0x01

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAM TLVs Parsing rules – TLV length 0x00 or 0x01
Test Definition ID	P-UNIC-ACT7-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHOULD** consider as invalid and ignore the TLVs with length values of 0x00 or 0x01
Test Object	Verify that the DTE considers as invalid and ignores the TLVs with length values of 0x00 or 0x01
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs with Local Information TLVs of length values equal to 0x00 and 0x01 and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that the lenght of the Remote Information TLVs are not the copies of the last received Local Information TLV's lenght transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

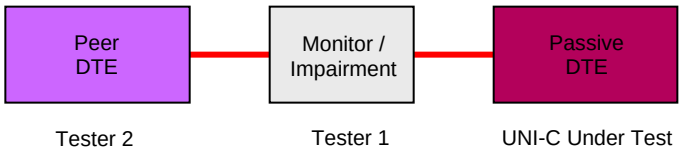
TEST CASE 111CP: OAM TLVs Parsing rules - TLVs with unknown or unexpected types

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAM TLVs Parsing rules – TLVs with unknown or unexpected types
Test Definition ID	P-UNIC-ACT8-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHOULD** ignore TLVs with unknown or unexpected types
Test Object	Verify that the DTE ignores TLVs with unknown or unexpected types
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs with Local Information TLVs with unexpected type values* and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that the lenght of the Remote Information TLVs are not the copies of the last received Local Information TLV's type transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	TLV type value
Results	Pass or fail
Remarks	* Suggest to use type values = 0x02 and/or 0xFE

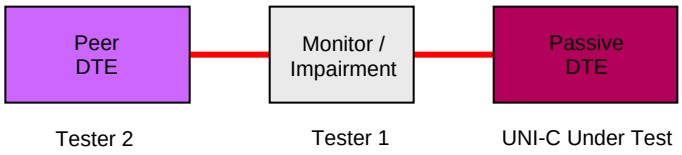
TEST CASE 112CP: OAM TLVs Parsing rules - TLVs with length/type mismatch

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAM TLVs Parsing rules – TLVs with length/type mismatch
Test Definition ID	P-UNIC-ACT9-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When the length is not equal to that defined for the type, the DTE **SHOULD** ignore the TLV and the remainder of the frame
Test Object	Verify that when the length is not equal to that defined for the type, the DTE ignores the TLV and the remainder of the frame
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with a Local Information TLV that contains a length/type mismatch and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the lenght and the remainder of the Remote Information TLV is not the copy of the last received Local Information TLV transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	TLV length value
Results	Pass or fail
Remarks	

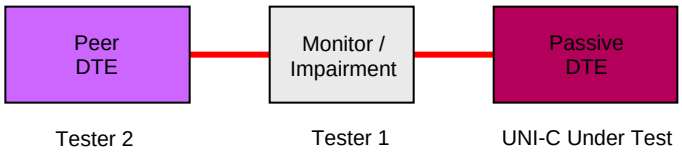
TEST CASE 113CP: OAM TLVs Parsing rules – TLVs extending beyond the OAMPDU frame size

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAM TLVs Parsing rules – TLVs extending beyond the frame size
Test Definition ID	P-UNIC-ACT10-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When the length field value indicates that the TLV extends beyond the OAMPDU frame size, the DTE **SHOULD** ignore it
Test Object	Verify that the DTE ignores the TLV when the length field value indicates that it extends beyond the OAMPDU frame size
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with a Local Information TLV length field value indicating that it extends beyond the OAMPDU frame size and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the lenght of the Remote Information TLV is not the copy of the last received Local Information TLV transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

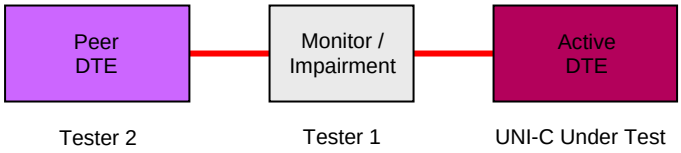
TEST CASE 114CP: Variable parsing rules - Branch field equal to 0x00

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Variable parsing rules – Branch field equal to 0x00
Test Definition ID	P-UNIC-ACT11-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.6.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When the DTE detects a Variable Branch field equal to 0x00, it **SHOULD** ignore the subsequent fields
Test Object	Verify that upon reception of a Variable Branch field equal to 0x00, the DTE ignores the subsequent fields
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Variable Request OAMPDU with a Branch field equal to 0x00 and use the Tester 1 monitor the Variable Response OAMPDU (if any) transmitted by the Passive DTE (UNI-C)
Units	Number of Variable Response OAMPDUs
Variables	None
Results	Pass or fail
Remarks	

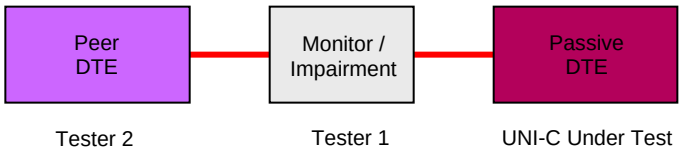
TEST CASE 115CP: Variable parsing rules – Branch or Leaf with unknown or unexpected values

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Variable parsing rules – Branch or Leaf fields with unknown or unexpected values
Test Definition ID	P-UNIC-ACT12-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.6.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHOULD** ignore Branch or Leaf fields with unknown or unexpected values
Test Object	Verify that the DTE ignores Variable Requests with Branch or Leaf fields that contain unknown or unexpected values
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Variable Request OAMPDU with unexpected Branch and Leaf values and use the Tester 1 to monitor the Variable Response OAMPDU (if any) transmitted by the Passive DTE (UNI-C)
Units	Number of Variable Response OAMPDUs
Variables	Branch field and Leaf field values
Results	Pass or fail
Remarks	

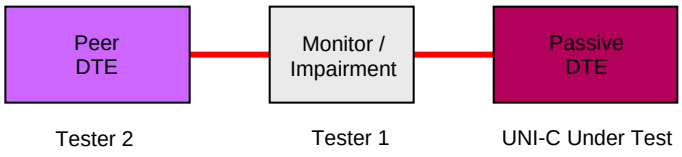
TEST CASE 116CA: Response to a Variable Request from a Passive peer

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Response to a Variable Request from a Passive peer
Test Definition ID	A-UNIC-ACT13-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.9.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	An Active DTE **SHOULD NOT** respond to Variable Requests from Passive peers
Test Object	Verify that the DTE does not respond to Variable Requests from Passive peers
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Passive Peer DTE to send a Variable Request to the Active DTE (UNI-C) and use the Tester 1 to monitor the Variable Response OAMPDU (if any) transmitted by the Active DTE (UNI-C)
Units	Number of Variable Response OAMPDUs
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

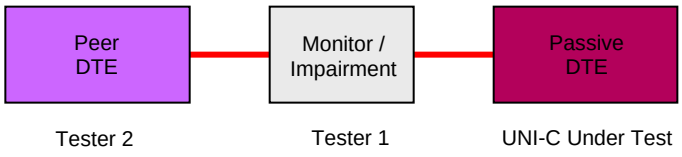
TEST CASE 117CP: Variable Response sent within one second

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Variable Response sent within one second
Test Definition ID	P-UNIC-ACT14-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.4)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	A Variable Response OAMPDU **MUST** be returned within one second of the receipt of a Variable Request OAMPDU
Test Object	Verify that the DTE returns Variable Response OAMPDUs within one second of the receipt of Variable Request OAMPDUs
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Variable Request OAMPDU to the Passive DTE (UNI-C) and use the Tester 1 to verify that the Passive DTE (UNI-C) returns a Variable Response OAMPDU within one second
Units	Milliseconds
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

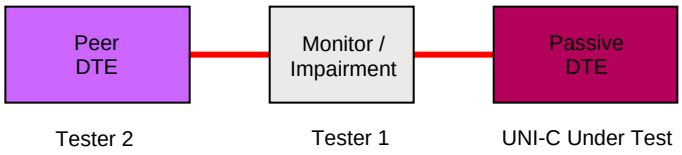
TEST CASE 118CP: Variable Response with an error indication - MIB package

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Variable Response with an error indication - MIB package
Test Definition ID	P-UNIC-ACT15-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.4)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	If the DTE is unable to retrieve one or more attributes within a package, it **MUST** 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 package
Test Object	Verify that if the DTE is unable to retrieve one or more attributes within a package, it a) returns the appropriate Variable Error for the particular attribute(s) and returns all other requested variables or b) returns a Variable Error for the entire package
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Variable Request OAMPDU that contains a request for an attribute within a package not supported by the Passive DTE (UNI-C) and use the Tester 1 to monitor the Variable Response OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that either the UNI-C returns the appropriate Variable Error for the particular attribute and return all other requested variables or that it returns a Variable Error for the entire package
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package
Results	Pass or fail
Remarks	Information on the supported MIBs must be provided by the equipment vendor

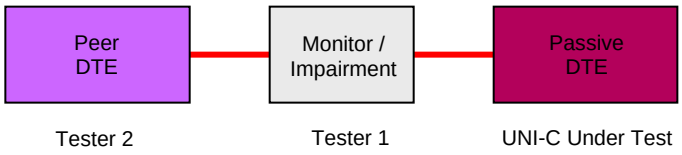
TEST CASE 119CP: Variable Response with an error indication - MIB object

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Variable Response with an error indication - MIB object
Test Definition ID	P-UNIC-ACT16-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.4)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	If the DTE is unable to retrieve one or more attributes within an object, it **MUST** 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
Test Object	Verify that if the DTE is unable to retrieve one or more attributes within an object, it a) returns the appropriate Variable Error for the particular attribute(s) and returns all other requested variables or b) returns a Variable Error for the entire object
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Variable Request OAMPDU that contains a request for an attribute within an object not supported by the Passive DTE (UNI-C) and use the Tester 1 to monitor the Variable Response OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that either the UNI-C returns the appropriate Variable Error for the particular attribute and return all other requested variables or that it returns a Variable Error for the entire object
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB object
Results	Pass or fail
Remarks	Information on the supported MIBs must be provided by the equipment vendor

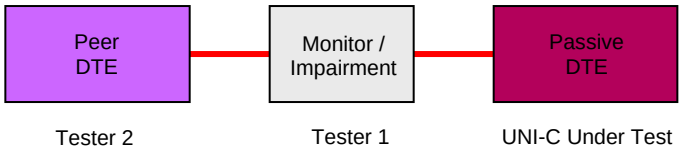
TEST CASE 120CP: Reserved bits ignored on reception – Flags field

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Reserved bits ignored on reception – Flags field
Test Definition ID	P-UNIC-ACT17-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	For compatibility with future use, the DTE **SHOULD** ignore the received Flags field Reserved bits
Test Object	Verify that the DTE ignores the received Flags field reserved bits set high, and processes the OAMPDUs normally
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with the Flags field reserved bits set high and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Passive DTE (UNI-C) and verify that the Remote Information TLV is the copy of the last received Local Information TLV transmitted by the Peer DTE and that the Flags field reserved bits are set to 0
Units	OAMPDU Flags and Data/Pad fields value
Variables	None
Results	Pass or fail
Remarks	

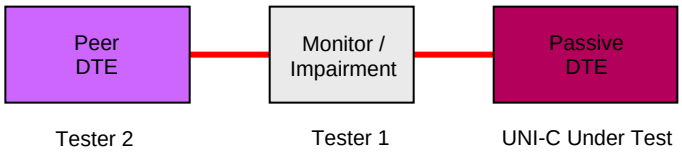
TEST CASE 121CP: Reserved bits ignored on reception – State field

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Reserved bits ignored on reception – State field
Test Definition ID	P-UNIC-ACT18-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.7)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	For compatibility with future use, the DTE **SHOULD** ignore the received State field Reserved bits
Test Object	Verify that the DTE ignores the received State field reserved bits set high, and processes the Information OAMPDUs normally
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with the State field reserved bits of the Local Information TLV set high and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the Remote Information TLV is the copy of the last received Local Information TLV transmitted by the Peer DTE but that the State field reserved bits are set to 0
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

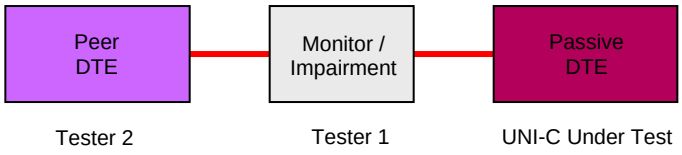
TEST CASE 122CP: Reserved bits ignored on reception – OAM Configuration field

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Reserved bits ignored on reception – OAM Configuration field
Test Definition ID	P-UNIC-ACT19-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.8)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	For compatibility with future use, the DTE **SHOULD** ignore the received OAM Configuration field Reserved bits
Test Object	Verify that the DTE ignores the received OAM Configuration field reserved bits set high, and processes the Information OAMPDUs normally
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with the OAM Configuration field reserved bits of the Local Information TLV set high and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the Remote Information TLV is the copy of the last received Local Information TLV transmitted by the Peer DTE but that the OAM Configuration field reserved bits are set to 0
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

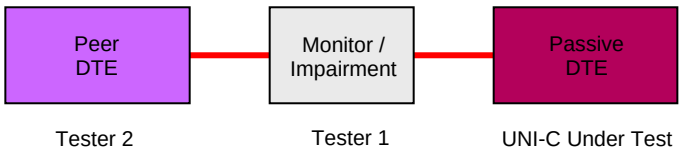
TEST CASE 123CP: Reserved bits ignored on reception – OAMPDU Configuration field

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Reserved bits ignored on reception – OAMPDU Configuration field
Test Definition ID	P-UNIC-ACT20-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.9)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	For compatibility with future use, the DTE **SHOULD** ignore the received OAMPDU Configuration field Reserved bits
Test Object	Verify that the DTE ignores the received OAMPDU Configuration field reserved bits set high, and processes the Information OAMPDUs normally
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with the OAMPDU Configuration field reserved bits of the Local Information TLV set high and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the Remote Information TLV is the copy of the last received Local Information TLV transmitted by the Peer DTE but that the OAMPDU Configuration field reserved bits are set to 0
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

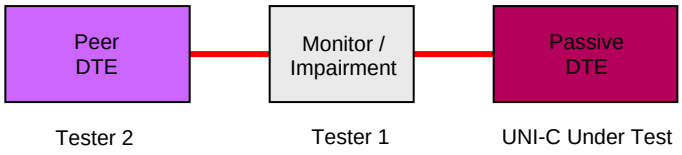
TEST CASE 124CP: Remote Stable and Remote Evaluating bits reserved encoding

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Remote Stable and Remote Evaluating bits reserved encoding
Test Definition ID	P-UNIC-ACT21-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHOULD** ignore the Remote Stable and Remote Evaluating bits of the Flags field set to 0x3, and not change the last received value
Test Object	Verify that the DTE ignores the Remote Stable and Remote Evaluating bits of the Flags field set to 0x3, and does not change the last received value
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with the Remote Stable and Remote Evaluating bits of the Flags field set to 0x3 and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the Remote Stable and Remote Evaluating bits of the Flags field are still set to the last received value (not updated to 0x3)
Units	OAMPDU Flags field value
Variables	None
Results	Pass or fail
Remarks	

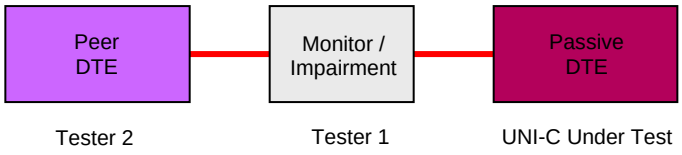
TEST CASE 125CP: Local Stable and Local Evaluating bits reserved encoding

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Local Stable and Local Evaluating bits reserved encoding
Test Definition ID	P-UNIC-ACT22-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHOULD** ignore the Local Stable and Local Evaluating bits of the Flags field set to 0x3, and not change the last received value
Test Object	Verify that the DTE ignores the Local Stable and Local Evaluating bits of the Flags field set to 0x3, and does not change the last received value
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with the Local Stable and Local Evaluating bits of the Flags field set to 0x3 and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the Local Stable and Local Evaluating bits of the Flags field are still set to the last received value (not updated to 0x3)
Units	OAMPDU Flags field value
Variables	None
Results	Pass or fail
Remarks	

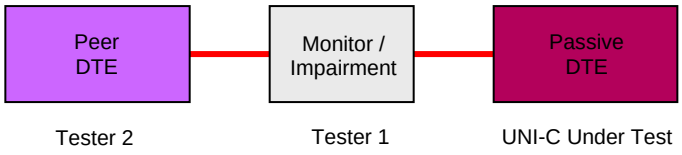
TEST CASE 126CP: Invalid OAMPDUs ignored on reception – Destination address

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Invalid OAMPDUs ignored on reception – Destination address
Test Definition ID	P-UNIC-ACT23-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHALL** ignore OAMPDUs with invalid Destination address values
Test Object	Verify that the DTE ignores OAMPDUs with invalid Destination address values
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with an invalid Destination address and with a Local Information TLV including an updated Vendor Specific Information Field value and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the Vendor Specific Information Field value of the Remote Information TLV is not the copy of the last received Vendor Specific Information Field transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

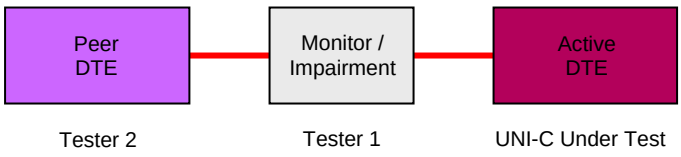
TEST CASE 127CP: Invalid OAMPDUs ignored on reception – Length/Type

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Invalid OAMPDUs ignored on reception – Length/Type
Test Definition ID	P-UNIC-ACT24-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHALL** ignore OAMPDUs with invalid Length\Type values
Test Object	Verify that the DTE ignores OAMPDUs with invalid Length/Type values
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with invalid Length/Type and with a Local Information TLV including an updated Vendor Specific Information Field value and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the Vendor Specific Information Field value of the Remote Information TLV is not the copy of the last received Vendor Specific Information Field transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

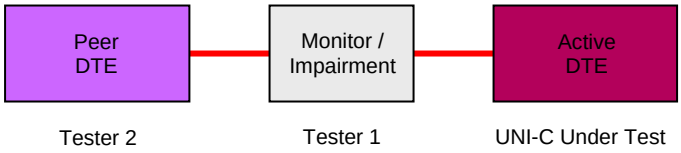
TEST CASE 128CP: Invalid OAMPDUs ignored on reception – Subtype

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Invalid OAMPDUs ignored on reception – Subtype
Test Definition ID	P-UNIC-ACT25-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHALL** ignore OAMPDUs with invalid Subtype values
Test Object	Verify that the DTE ignores OAMPDUs with invalid Subtype values
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with invalid Subtype with a Local Information TLV including an updated Vendor Specific Information Field value and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Passive DTE (UNI-C) and to verify that the Vendor Specific Information Field value of the Remote Information TLV is not the copy of the last received Vendor Specific Information Field transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

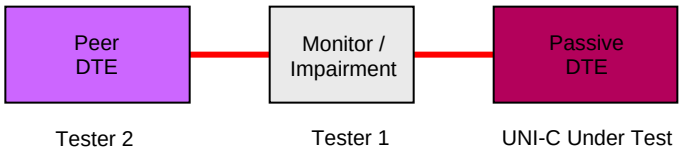
TEST CASE 129CA: OAMPDU frames generation - FAULT State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAMPDU frames generation – FAULT State
Test Definition ID	A-UNIC-ACT26-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the FAULT state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a minimum rate of one frame per second
Test Object	Verify that while the DTE is in the FAULT State, it generates at least one Information OAMPDU per second
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the FAULT State of the Discovery Process, use the Tester 1 to monitor the rate at which the Active DTE (UNI-C) transmits Information OAMPDUs and to verify that at least one Information OAMPDU is transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

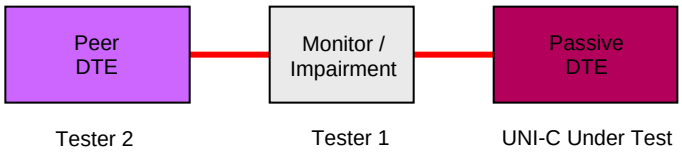
TEST CASE 130CA: OAMPDU frames generation – ACTIVE_SEND_LOCAL State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAMPDU frames generation – ACTIVE_SEND_LOCAL State
Test Definition ID	A-UNIC-ACT27-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the ACTIVE_SEND_LOCAL state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a minimum rate of one frame per second
Test Object	Verify that while the DTE is in the ACTIVE_SEND_LOCAL State, it generates at least one Information OAMPDU per second
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the ACTIVE_SEND_LOCAL State of the Discovery Process, use the Tester 1 to monitor the rate at which the Active DTE (UNI-C) transmits Information OAMPDUs and to verify that at least one Information OAMPDU is transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

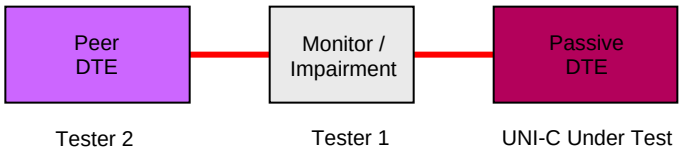
TEST CASE 131CP: OAMPDU frames generation – SEND_LOCAL_REMOTE State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAMPDU frames generation – SEND_LOCAL_REMOTE State
Test Definition ID	P-UNIC-ACT28-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the SEND_LOCAL_REMOTE state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a minimum rate of one frame per second
Test Object	Verify that while the DTE is in the SEND_LOCAL_REMOTE State, it generates at least one Information OAMPDU per second
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the SEND_LOCAL_REMOTE State of the Discovery Process, use the Tester 1 to monitor the rate at which the Passive DTE (UNI-C) transmits Information OAMPDUs and to verify that at least one Information OAMPDU is transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

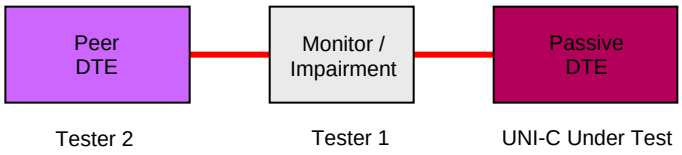
TEST CASE 132CP: OAMPDU frames generation – SEND_LOCAL_REMOTE_OK State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAMPDU frames generation – SEND_LOCAL_REMOTE_OK State
Test Definition ID	P-UNIC-ACT29-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the SEND_LOCAL_REMOTE_OK state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a minimum rate of one frame per second
Test Object	Verify that while the DTE is in the SEND_LOCAL_REMOTE_OK State, it is generates at least one Information OAMPDU per second
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the SEND_LOCAL_REMOTE_OK State of the Discovery Process, use the Tester 1 to monitor the rate at which the Passive DTE (UNI-C) transmits Information OAMPDUs and to verify that at least one Information OAMPDU is transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

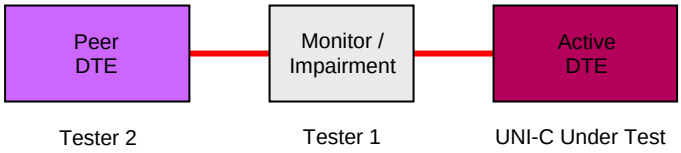
TEST CASE 133CP: OAMPDU frames generation – SEND_ANY State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAMPDU frames generation – SEND_ANY State
Test Definition ID	P-UNIC-ACT30-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the SEND_ANY state, the DTE **MUST** send OAMPDUs in a periodic fashion, at a minimum rate of one frame per second
Test Object	Verify that while the DTE is in the SEND_ANY State, it generates at least one OAMPDU per second
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the SEND_ANY State, use the Tester 1 to monitor the rate at which the Passive DTE (UNI-C) transmits Information OAMPDUs and to verify that at least one Information OAMPDU is transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

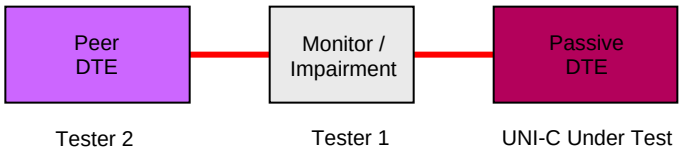
TEST CASE 134CP: Maximum size OAMPDU

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Maximum size OAMPDU
Test Definition ID	P-UNIC-ACT31-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHALL** accept OAMPDUs up to the Maximum OAMPDU Size set in the OAMPDU Configuration field
Test Object	Verify that the DTE accepts OAMPDUs up to the Maximum OAMPDU Size set in the OAMPDU Configuration field
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Maximum size Information OAMPDUs and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that the Remote Information TLVs are the copies of the last received Local Information TLVs transmitted by the Peer DTE
Units	OAMPDUs Code field and Data/Pad field values
Variables	Maximum OAMPDU size
Results	Pass or fail
Remarks	

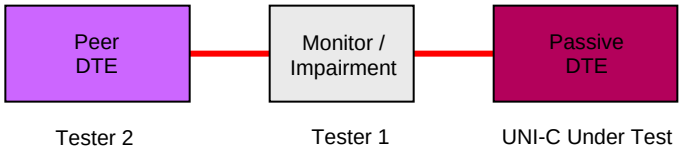
TEST CASE 135CA: Maximum OAMPDU Frames Generation – ACTIVE_SEND_LOCAL State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Maximum OAMPDU frames generation – ACTIVE_SEND_LOCAL State
Test Definition ID	A-UNIC-ACT32-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MAY** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the ACTIVE_SEND_LOCAL state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a maximum rate of ten frames per second
Test Object	Verify that while the DTE is in the ACTIVE_SEND_LOCAL State, it generates a maximum of ten Information OAMPDUs per second
Test Configuration	Link OAM frames run between the Active DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the ACTIVE_SEND_LOCAL State of the Discovery Process, use the Tester 1 to monitor the rate at which the Active DTE (UNI-C) transmits Information OAMPDUs and to verify that a maximum of ten Information OAMPDU are transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

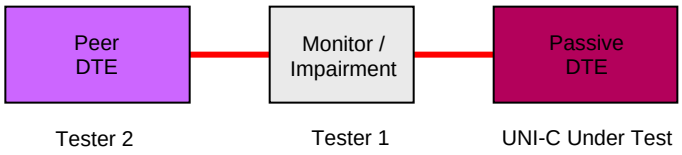
TEST CASE 136CP: Maximum OAMPDU frames generation – SEND_LOCAL_REMOTE State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Maximum OAMPDU frames generation – SEND_LOCAL_REMOTE State
Test Definition ID	P-UNIC-ACT33-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the SEND_LOCAL_REMOTE state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a maximum rate of ten frames per second
Test Object	Verify that while the DTE is in the SEND_LOCAL_REMOTE State, it generates a maximum of ten Information OAMPDUs per second
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the SEND_LOCAL_REMOTE State of the Discovery Process, use the Tester 1 to monitor the rate at which the Passive DTE (UNI-C) transmits Information OAMPDUs and to verify that a maximum of ten Information OAMPDU are transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

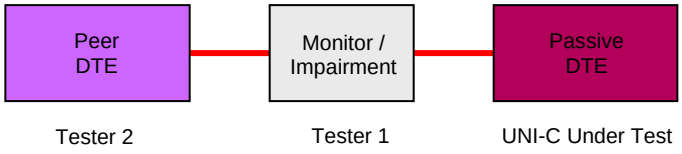
TEST CASE 137CP: Maximum OAMPDU frames generation – SEND_LOCAL_REMOTE_OK State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Maximum OAMPDU frames generation – SEND_LOCAL_REMOTE_OK State
Test Definition ID	P-UNIC-ACT34-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the SEND_LOCAL_REMOTE_OK state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a maximum rate of ten frames per second
Test Object	Verify that while the DTE is in the SEND_LOCAL_REMOTE_OK State, it is generates a maximum of ten Information OAMPDUs per second
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the SEND_LOCAL_REMOTE_OK State of the Discovery Process, use the Tester 1 to monitor the rate at which the Passive DTE (UNI-C) transmits Information OAMPDUs and to verify that a maximum of ten Information OAMPDU are transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

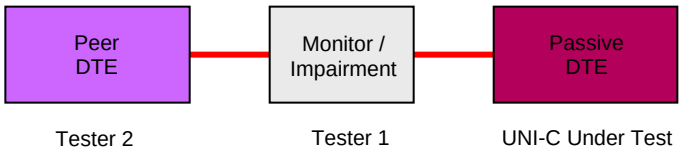
TEST CASE 138CP: Maximum OAMPDU frames generation – SEND_ANY State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Maximum OAMPDU frames generation – SEND_ANY State
Test Definition ID	P-UNIC-ACT35-R26
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** support Passive DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the SEND_ANY state, the DTE **MUST** send OAMPDUs in a periodic fashion, at a maximum rate of ten frames per second
Test Object	Verify that while the DTE is in the SEND_ANY State, it generates a maximum of ten OAMPDUs per second
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the SEND_ANY State, use the Tester 1 to monitor the rate at which the Passive DTE (UNI-C) transmits OAMPDUs and to verify that a maximum of ten OAMPDUs are transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 139CP: Unidirectional OAM Operation

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Unidirectional OAM Operation
Test Definition ID	P-UNIC-ACT36-R29
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.12)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **SHOULD** support unidirectional OAM operation as per clause 57.2.12 of [IEEE 802.3], when the UNI is one of the 100BASE-X, 1000BASE-X (excluding 1000BASE-PX-D and 1000BASE-PX-U), 10GBASE-R, 10GBASE-W and 10GBASE-X physical layers as specified in clause 66 of [IEEE 802.3].
IEEE Requirement Description	When a link is operating in unidirectional OAM mode, the OAM sublayer ensures that only Information OAMPDUs with Link Fault critical link event indication set and no Information TLVs are sent once per second across the link
Test Object	Verify that when a link is operating in unidirectional OAM mode, the OAM sublayer ensures that only Information OAMPDUs with Link Fault critical link event indication set and no Information TLVs are sent once per second across the link
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Testers to simulate a link fault and when the link is operating in unidirectional OAM mode, use the Tester 1 to monitor the OAMPDUs transmitted by the Passive DTE (UNI-C) and to verify that only Information OAMPDUs with Link Fault critical link event indication set and no Information TLVs are sent once per second across the link
Units	OAMPDU frames per second, OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 140CP: Pause Frame Generation

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Pause Frame Generation
Test Definition ID	P-UNIC-ACT37-R31
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.1.5.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-C Type 2.1 that supports Link OAM and a UNI-C Type 2.2 **MUST** be able to turn off the 802.3x (PAUSE) frame generation to enable proper Link OAM operation over the UNI as per clause 57.1.5.3 of [IEEE 802.3].
IEEE Requirement Description	MAC Control PAUSE may delay or prevent the signaling of critical events such as unrecoverable failure conditions and link faults
Test Object	Verify that a UNI-C Type 2 is able to turn off the 802.3x (PAUSE) frame generation to enable proper Link OAM operation over the UNI
Test Configuration	Link OAM frames run between the Passive DTE (UNI-C) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send traffic at line rate to the Passive DTE (UNI-C) and use the Tester 1 to monitor the OAMPDUs and the Pause frames (if any) transmitted by the Passive DTE (UNI-C) and to verify that at least one OAMPDU is transmitted per second
Units	Number of Pause frames, number of OAMPDUs per second
Variables	None
Results	Pass or fail
Remarks	

11. Abstract Test Cases for UNI-N Type 2 Link OAM

This section contains 133 Test Cases for UNI-N. The section is divided in 9 different subsections as follows:

Section 11.1
OAM Functional Specifications contains a total of 23 Test Cases covering the clause 57 of [IEEE 802.3-2005] Protocol Implementation Conformance Statement (PICS) OFS1 to OFS18 and the UNI Type 2 Requirements R25 and Table 1.

Section 11.2
Event Notification Generation and Reception contains a total of 8 Test Cases covering the Protocol Implementation Conformance Statement (PICS) EV1 to EV3 and the UNI Type 2 Requirements R25 and Table 1.

Section 11.3
OAMPDUs contains a total of 21 Test Cases covering the Protocol Implementation Conformance Statement (PICS) PDU1 to PDU22 and the UNI Type 2 Requirements R25 and Table 1.

Section 11.4
Local Information TLVs contains a total of 17 Test Cases covering the Protocol Implementation Conformance Statement (PICS) LIT1 to LIT12 and the UNI Type 2 Requirements R25 and Table1.

Section 11.5
Remote Information TLVs contains a total of 8 Test Cases covering the Protocol Implementation Conformance Statement (PICS) RIT1 and the UNI Type 2 Requirements R25 and Table 1.

Section 11.6
Remote Information TLVs contains a total of 2 Test Cases covering the Protocol Implementation Conformance Statement (PICS) OIT1 & OIT2 and the UNI Type 2 Requirements R25 and Table 1.

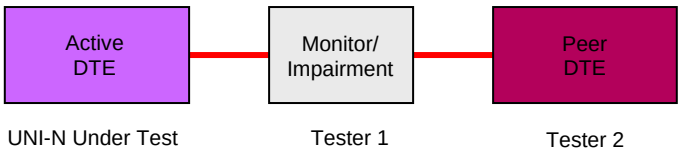
Section 11.7
Link Events TLVs contains a total of 8 Test Cases covering the Protocol Implementation Conformance Statement (PICS) ET1 to ET8 and the UNI Type 2 Requirements R25 and Table 1.

Section11.8
Variable Descriptors and Containers contains a total of 9 Test Cases covering the Protocol Implementation Conformance Statement (PICS) VAR1 to VAR11 and the UNI Type 2 Requirements R25 and Table1.

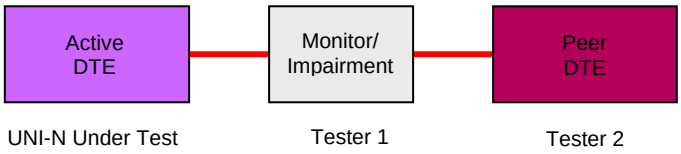
Section 11.9
Additional Conformance Tests contains a total of 37 Test Cases covering IEEE 802.3-2005 clause 57 additional requirements ACT1 to ACT35 and the UNI Type 2 Requirements R25, R28, R30 and Table1.

11.1 OAM Functional Specifications

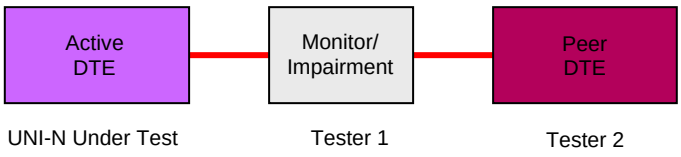
TEST CASE 3NA: OAMPDU transmission when local_pdu is set to LF_INFO

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to LF_INFO
Test Definition ID	A-UNIN-OFS4-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	A device in the FAULT state of the Discovery process, **MUST** generate Information OAMPDUs with the Link Fault bit of the Flags field set and without any Information TLVs
Test Object	Verify that when local_pdu is set to LF_INFO, the DTE sends only Information OAMPDUs with the Link Fault bit of the Flags field set and without any Information TLVs
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Reset the OAM and use the Tester 1 to monitor the OAMPDUs transmitted by the Active DTE (UNI-N) while it is in the FAULT state of the Discovery process and to verify that the Link Fault bit of the Flags field is set and that they do not contain Information TLVs
Units	OAMPDU Code field, Data/Pad field and Flags field values
Variables	None
Results	Pass or fail
Remarks	

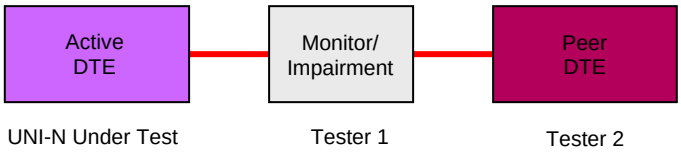
TEST CASE 5NA: OAMPDU transmission when local_pdu is set to INFO

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to INFO
Test Definition ID	A-UNIN-OFS6-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	A device in the ACTIVE_SEND_LOCAL or SEND_LOCAL_REMOTE or SEND_LOCAL_REMOTE_OK state of the Discovery process, **MUST** only generate Information OAMPDUs
Test Object	Verify that when local_pdu is set to INFO, the DTE sends only Information OAMPDUs
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the transmitted OAMPDUs while the Active DTE (UNI-N) is in the ACTIVE_SEND_LOCAL, the SEND_LOCAL_REMOTE and the SEND_LOCAL_REMOTE_OK states of the Discovery process and to verify that only Information OAMPDUs are transmitted by the Passive DTE
Units	OAMPDU Code field value
Variables	None
Results	Pass or fail
Remarks	

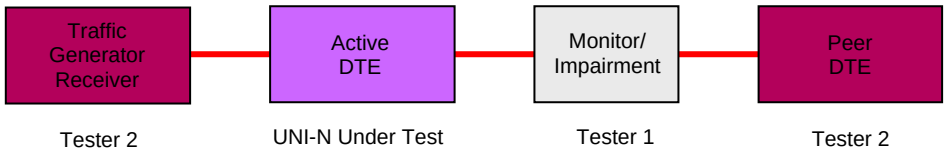
TEST CASE 7NA: OAMPDU transmission when local_pdu is set to ANY-OAM_CTL.request service primitive with one or more Critical Link Event parameters

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY - OAM_CTL.request service primitive with one or more Critical Link Event parameters
Test Definition ID	A-UNIN-OFS7-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAM_CTL.request service primitive with one or more Critical Link Event parameters set is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of an Information OAMPDU with the appropriate bit(s) of the Flags field set
Test Object	Verify that an Information OAMPDU with the appropriate bit(s) of the Flags field set is generated, when a OAM_CTL.request service primitive with one or more Critical Link Event parameters set is passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Testers or the Active DTE to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event) and use the Tester 1 to monitor the transmitted Information OAMPDUs from the Active DTE (UNI-N) and verify that the aOAMInformationTx counter value of the Active DTE (UNI-N) is incrementing as the Information OAMPDUs are transmitted
Units	OAMPDU Code field & Flags field values, aOAMInformationTx counter value
Variables	Link fault, Dying gasp and Critical events specific faults
Results	Pass or fail
Remarks	1) The definitions of the specific faults are implementation specific 2) To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

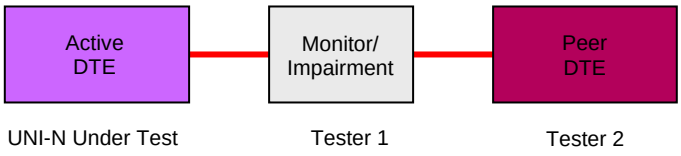
TEST CASE 8NA: OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Information OAMPDU)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Information OAMPDU)
Test Definition ID	A-UNIN-OFS8-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAMPDU.request service primitive is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of the particular OAMPDU
Test Object	Verify that Information OAMPDU frames are generated, when OAMPDU.request service primitives with the specific Code and Data parameters are passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) while it is in the SEND_ANY state and verify that the aOAMInformationTx counter value of the Active DTE (UNI-N) is incrementing as the Information OAMPDUs are transmitted
Units	OAMPDU Code field & Data/Pad field values, aOAMInformationTx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

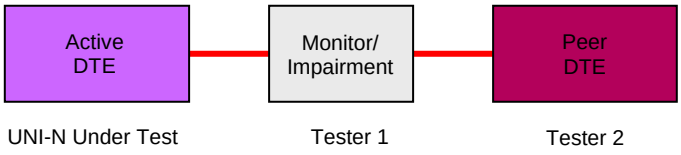
TEST CASE 9NA: OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Event Notification OAMPDU)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Event Notification OAMPDU)
Test Definition ID	A-UNIN-OFS8-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAMPDU.request service primitive is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of the particular OAMPDU
Test Object	Verify that Event Notification OAMPDU frames are generated, when OAMPDU.request service primitives with the specific Code and Data parameters are passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to simulate the five types of Link Events (Errored Symbol Period Event, Errored Frame Event, Errored Frame Period Event, Errored Frame Seconds Summary Event & Organization Specific Event) and use it to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) and verify that the aOAMUniqueEventNotificationTx and aOAMDuplicateEventNotificatiomTx counter values of the Active DTE (UNI-N) are incrementing as the Event Notification OAMPDUs are transmitted
Units	OAMPDU Code field & Data/Pad field values, aOAMUniqueEventNotificationTx and aOAMDuplicateEventNotificatiomTx counter values
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

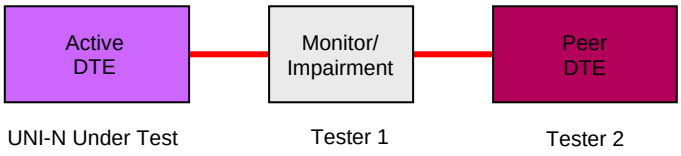
TEST CASE 10NA: OAMPDU transmission when local_pdu is set to ANY - OAMPDU.request service primitive (Variable Request OAMPDU)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Variable Request OAMPDU)
Test Definition ID	A-UNIN-OFS8-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory if Variable Request OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAMPDU.request service primitive is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of the particular OAMPDU
Test Object	Verify that Variable Request OAMPDU frames are generated, when OAMPDU.request service primitives with the specific Code and Data parameters are passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Variable Requests from the Active DTE (UNI-N) and use the Tester 1 to monitor the transmitted Variable Request OAMPDUs and verify that the aOAMVariableRequestTx counter value of the Active DTE (UNI-N) is incrementing as the Variable Request OAMPDUs are transmitted
Units	OAMPDU Code field and Data/Pad field values, aOAMVariableRequestTx counter value
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

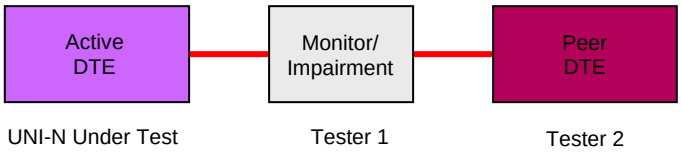
TEST CASE 11NA: OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Variable Response OAMPDU)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Variable Response OAMPDU)
Test Definition ID	A-UNIN-OFS8-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAMPDU.request service primitive is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of the particular OAMPDU
Test Object	Verify that Variable Response OAMPDU frames are generated, when OAMPDU.request service primitives with the specific Code and Data parameters are passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Variable Request OAMPDUs and use the Tester 1 to verify that the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) contain the requested variables and verify that the aOAMVariableResponseTx counter value of the Active DTE (UNI-N) is incrementing as the Variable Response OAMPDUs are transmitted
Units	OAMPDU Code field and Data/Pad field values, aOAMVariableResponseTx
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

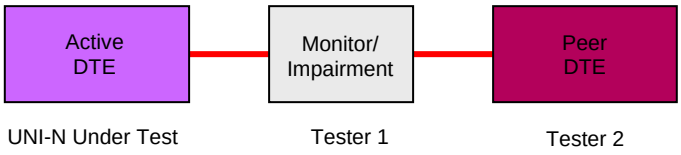
TEST CASE 12NA: OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Loopback Control OAMPDU)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Loopback Control OAMPDU)
Test Definition ID	A-UNIN-OFS8-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory if Loopback Control OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAMPDU.request service primitive is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of the particular OAMPDU
Test Object	Verify that Loopback Control OAMPDU frames are generated, when OAMPDU.request service primitives with the specific Code and Data parameters are passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate an OAM Remote Loopback from the Active DTE (UNI-N) and use the Tester 1 to monitor the transmitted Loopback Control OAMPDUs and verify that the aOAMLoopbackControlTx counter value of the Active DTE (UNI-N) is incrementing as the Loopback Control OAMPDUs are transmitted
Units	OAMPDU Code field and Data/Pad field values, aOAMLoopbackControlTx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

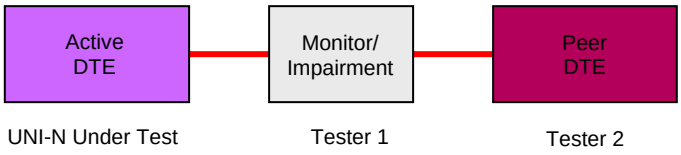
TEST CASE 13NA: OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Organization Specific OAMPDU)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU transmission when local_pdu is set to ANY – OAMPDU.request service primitive (Organization Specific OAMPDU)
Test Definition ID	A-UNIN-OFS8-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.6)
Test Type	Conformance
Test Status	Mandatory if Organization Specific OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When an OAMPDU.request service primitive is passed from the OAM client to the OAM sublayer of a device in the SEND_ANY state; a CTL:OAMIR **MUST** be generated requesting the transmission of the particular OAMPDU
Test Object	Verify that Organization Specific OAMPDU frames are generated, when OAMPDU.request service primitives with the specific Code and Data parameters are passed from the OAM client to the OAM sublayer of the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Organization Specific OAMPDU from the Active DTE (UNI-N) and use the Tester 1 to monitor them and verify that the aOAMOrganizationSpecificTx counter value of the Active DTE (UNI-N) is incrementing as the Organization Specific OAMPDUs are transmitted
Units	OAMPDU Code field & Data/Pad field values, aOAMOrganizationSpecificTx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

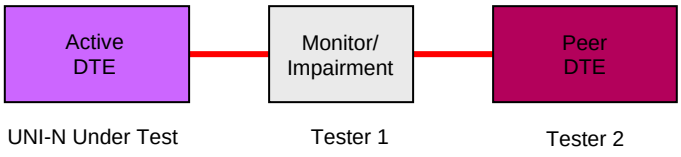
TEST CASE 14NA: OAMPDU Flags field reserved encoding – Remote Stable and Remote Evaluating bits

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU Flags field reserved encoding – Remote Stable and Remote Evaluating bits
Test Definition ID	A-UNIN-OFS9-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **MUST NOT** transmit Remote Stable and Remote Evaluating bits encoded as 0x3
Test Object	Verify that the DTE does not transmit Remote Stable and Remote Evaluating bits encoded as 0x3
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that it does not transmit Remote Stable and Remote Evaluating bits encoded as 0x3
Units	OAMPDU Flags field values
Variables	None
Results	Pass or fail
Remarks	

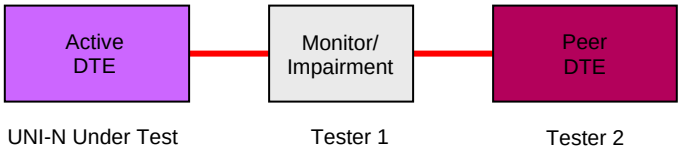
TEST CASE 15NA: OAMPDU Flags field reserved encoding – Local Stable and Local Evaluating bits

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU Flags field reserved encoding – Local Stable and Local Evaluating bits
Test Definition ID	A-UNIN-OFS10-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **MUST NOT** transmit Local Stable and Local Evaluating bits encoded as 0x3
Test Object	Verify that the DTE does not transmit Local Stable and Local Evaluating bits encoded as 0x3
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that it does not transmit Local Stable and Local Evaluating bits encoded as 0x3
Units	OAMPDU Flags field values
Variables	None
Results	Pass or fail
Remarks	

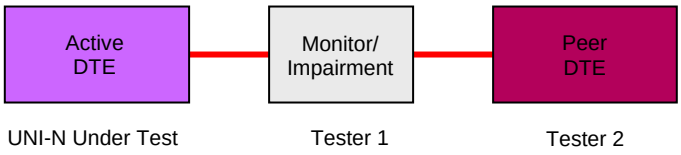
TEST CASE 16NA: Reserved bits – Flag field

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	Reserved bits – Flag field
Test Definition ID	A-UNIN-OFS11-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Flag field Reserved bits of any OAMPDU transmitted by the DTE **SHALL** be set to zero
Test Object	Verify that the Flag field Reserved bits of any OAMPDU transmitted by the DTE are always set to zero
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that the Flag field Reserved bits of any OAMPDU transmitted by the DTE are always set to zero
Units	OAMPDU Flag field values
Variables	None
Results	Pass or fail
Remarks	

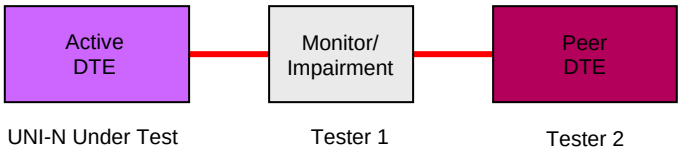
TEST CASE 17NA: OAMPDU Code field

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU Code field
Test Definition ID	A-UNIN-OFS12-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Only OAMPDUs with defined Code field values **SHALL** be transmitted by the DTE
Test Object	Verify that the DTE only transmits OAMPDUs with defined Code field values
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that it only transmits OAMPDUs with defined Code field values and that the aOAMUnsupportedCodesTx counter value = 0
Units	OAMPDU Code field value, aOAMUnsupportedCodesTx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

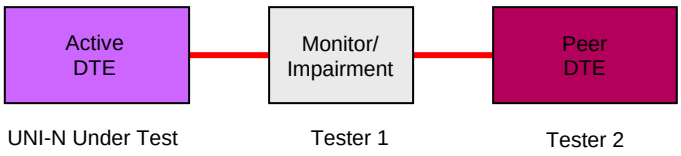
TEST CASE 18NA: OAMPDU reception when local_pdu is not set to ANY

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is not set to ANY
Test Definition ID	A-UNIN-OFS13-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When local_pdu is not set to ANY; only Information OAMPDUs **SHALL** be sent to the OAM Client entity
Test Object	Verify that when the local_pdu is not set to ANY, all the received Information OAMPDUs are passed to the OAM Client and all the non-Information OAMPDUs are ignored
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	While local_pdu is set to LF_INFO, RX_INFO & INFO, use the Peer DTE to send Information and non-Information OAMPDUs that require the Active DTE (UNI-N) to respond. Use the Tester 1 to monitor the OAMPDUs transmitted by the Active DTE (UNI-N) and verify that all Information OAMPDUs are passed to the OAM Client and that no responses are sent upon the receipt of non-Information OAMPDUs and verify that the aOAMInformationRx counter value of the Active DTE (UNI-N) is not incrementing as the non-Information OAMPDUs are received
Units	OAMPDU Code field and Data/Pad field values, aOAMInformationRx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

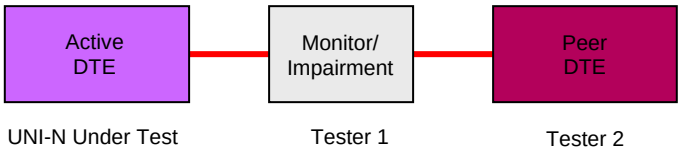
TEST CASE 19NA: OAMPDU reception when local_pdu is set to ANY – (Information OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Information OAMPDUs)
Test Definition ID	A-UNIN-OFS14-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state
Test Object	Verify that when the local_pdu is set to ANY, all the received Information OAMPDUs are passed to the OAM Client
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs with specific Local Information TLV values and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and verify that the aOAMInformationRx counter value of the Active DTE (UNI-N) is incrementing as the Information OAMPDUs are received
Units	OAMPDU Code field & Data/Pad field values (Remote Information TLVs), aOAMInformationRx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

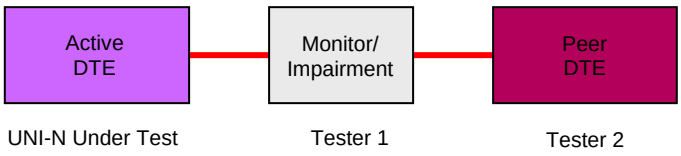
TEST CASE 20NA: OAMPDU reception when local_pdu is set to ANY – (Event Notification OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Event Notification OAMPDUs)
Test Definition ID	A-UNIN-OFS14-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state
Test Object	Verify that when the local_pdu is set to ANY, all the received Event Notification OAMPDUs are passed to the OAM Client
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send the five types of Event Notification OAMPDUs to the Active DTE (UNI-N) and verify that the aOAMUniqueEventNotificationRx and aOAMDuplicateEventNotificationRx counter values of the Active DTE (UNI-N) are incrementing as the Event Notification OAMPDUs are received
Units	aOAMUniqueEventNotificationRx counter and aOAMDuplicateEventNotificationRx counter values
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to perform this test

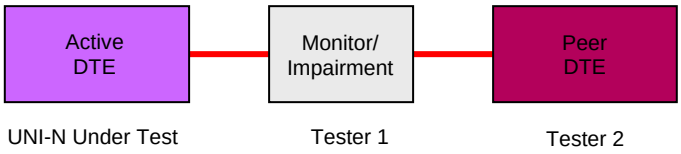
TEST CASE 21NA: OAMPDU reception when local_pdu is set to ANY – (Variable Request OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Variable Request OAMPDUs)
Test Definition ID	A-UNIN-OFS14-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory if Variable Request/Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state
Test Object	Verify that when the local_pdu is set to ANY, all the received Variable Request OAMPDUs are passed to the OAM Client
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Variable Request OAMPDUs to the Active DTE (UNI-N) and use the Tester 1 to verify that all the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) contain the requested MIB variables and verify that the aOAMVariableRequestRx counter value of the Active DTE (UNI-N) is incrementing as the Variable Request OAMPDUs are received
Units	OAMPDU Code field and Data/Pad field values, aOAMVariableRequestRx counter value
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

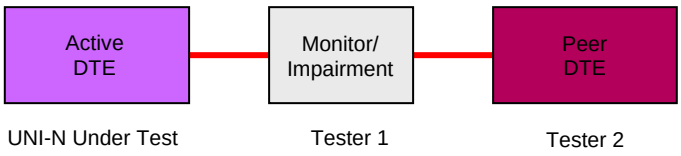
TEST CASE 22NA: OAMPDU reception when local_pdu is set to ANY – (Variable Response OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Variable Response OAMPDUs)
Test Definition ID	A-UNIN-OFS14-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory if Variable Request/Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state
Test Object	Verify that when the local_pdu is set to ANY, all the received Variable Response OAMPDUs are passed to the OAM Client
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Active DTE (UNI-N) to send Variable Request OAMPDUs to the Peer DTE that will in return send Variable Response OAMPDUs and verify that the aOAMVariableResponseRx counter value of the Active DTE (UNI-N) is incrementing as the Variable Response OAMPDUs are received
Units	aOAMVariableResponseRx counter value
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to perform this test

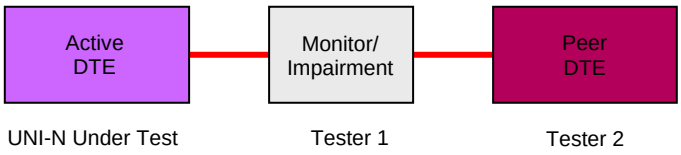
TEST CASE 23NA: OAMPDU reception when local_pdu is set to ANY – (Loopback Control OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Loopback Control OAMPDUs)
Test Definition ID	A-UNIN-OFS14-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state
Test Object	Verify that when the local_pdu is set to ANY, all the received Loopback Control OAMPDUs are passed to the OAM Client
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Loopback Control OAMPDUs to the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs (TLV State field) transmitted by the Active DTE (UNI-N) and verify that the aOAMLoopbackControlRx counter value of the Active DTE (UNI-N) is incrementing as the Loopback Control OAMPDUs are received
Units	OAMPDU Data/Pad field value (Local Information TLV State field value), aOAMLoopbackControlRx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to verify the counter value

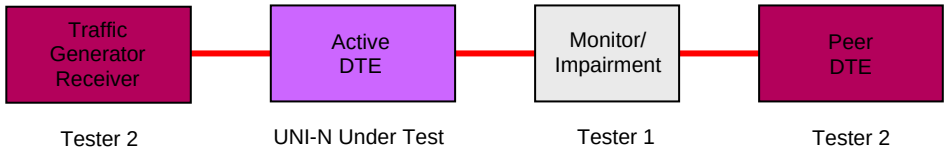
TEST CASE 24NA: OAMPDU reception when local_pdu is set to ANY – (Organization Specific OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Organization Specific OAMPDUs)
Test Definition ID	A-UNIN-OFS14-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory if Organization Specific OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state
Test Object	Verify that when the local_pdu is set to ANY, all the received Organization Specific OAMPDUs are passed to the OAM Client
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Organization Specific OAMPDUs to the Active DTE (UNI-N) and verify that the aOAMOrganizationSpecificRx counter value of the Active DTE (UNI-N) is incrementing as the Organization Specific OAMPDUs are received
Units	aOAMOrganizationSpecificRx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to perform this test

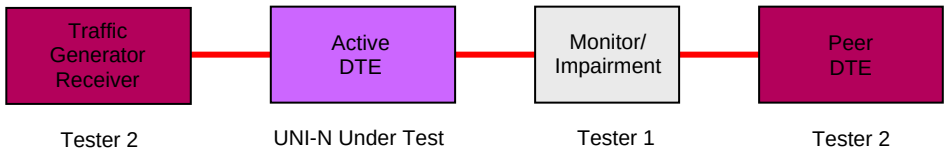
TEST CASE 25NA: OAMPDU reception when local_pdu is set to ANY – (Unknown Code field OAMPDUs)

Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	OAMPDU reception when local_pdu is set to ANY – (Unknown Code field OAMPDUs)
Test Definition ID	A-UNIN-OFS14-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	All OAMPDUs **MUST** be sent to the OAM Client entity while the DTE is in the SEND_ANY state. Including those with Unknown Code field
Test Object	Verify that when the local_pdu is set to ANY, all the received OAMPDUs are passed to the OAM Client. Including those with Unknown Code field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send OAMPDUs with Unknown Code field to the Active DTE (UNI-N) and verify that the aOAMUnsupportedCodesRx counter value of the Active DTE (UNI-N) is incrementing as the OAMPDUs with Unknown Code field are received
Units	aOAMUnsupportedCodesRx counter value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to perform this test

TEST CASE 26NA: Multiplexer transparent pass-through

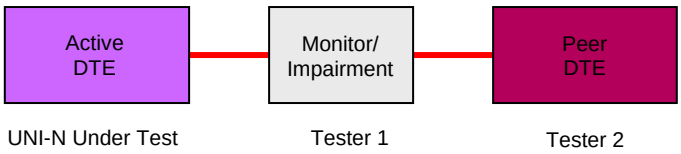
Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	Multiplexer transparent pass-through
Test Definition ID	A-UNIN-OFS16-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.3.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The multiplexer **MUST** provide transparent pass-through of frames from superior sublayer to subordinate sublayer
Test Object	Verify that while the Multiplexer function is in the TX_FRAME state, it provides transparent pass-through of frames submitted by the superior sublayer to the subordinate sublayer
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Traffic Generator to send a fixed number of service frames to the Peer DTE, through the Active DTE (UNI-N), and use the Tester 1 to verify that the number of received service frames by the Peer DTE is equal to the number of transmitted service frames by the Traffic Generator. Remove the Traffic Generator from the Test Configuration and repeat the test with the Active DTE (UNI-N) in loopback mode and use the Tester 1 to verify that the number of received service frames by the Peer DTE (loop back frames) is equal to the number of transmitted service frames by the Peer DTE
Units	Number of service frames
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 27NA: Effect of OAMPDUs on frames already submitted to the subordinate sublayer

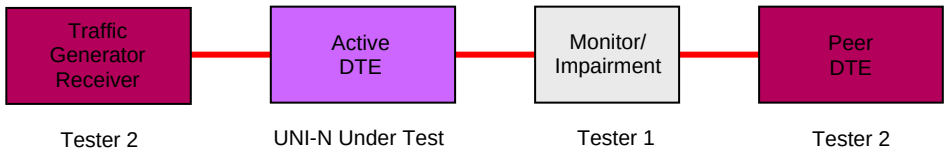
Abstract Test Suite for Link OAM - Functional Specifications	
Test Name	Effect of OAMPDUs on frames already submitted to the subordinate sublayer
Test Definition ID	A-UNIN-OFS17-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.3.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The transmission of an OAMPDU **MUST NOT** affect the transmission of a frame that has been submitted to a subordinate sublayer (i.e., the MAC's TransmitFrame function is synchronous, and is never interrupted)
Test Object	Verify that the transmission of an OAMPDU frame does not affect the transmission of a frame that has been submitted to a subordinate sublayer
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Traffic Generator to send a fixed number of service frames to the Peer DTE, through the Active DTE (UNI-N), and use the Tester 1 to verify that the number of received service frames by the Peer DTE is equal to the number of transmitted service frames by the Traffic Generator and that the number of received OAMPDUs by the Peer DTE is equal to the number of OAMPDUs transmitted by the Active DTE (UNI-N)
Units	Number of service frames and number of OAMPDUs
Variables	None
Results	Pass or fail
Remarks	

11.2 OAM Event Notification Generation and Reception

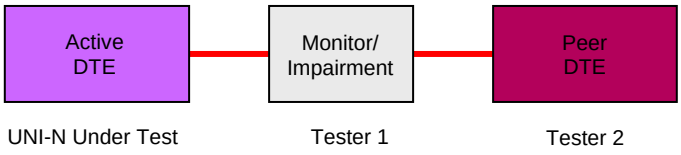
TEST CASE 28NA: Response to Critical Events (Information OAMPDU)

Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Response to Critical events (Information OAMPDU)
Test Definition ID	A-UNIN-EV1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.3)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** respond to Critical link events by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs of any type
Test Object	Verify that the appropriate bits within the Flags field of the Information OAMPDUs are set/cleared when Critical link events are communicated to the OAM sublayer via the OAM_CTL.request service primitive
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Testers or the Active DTE to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that the appropriate bits within the Flags field are set/cleared
Units	OAMPDU Code field and Flags field values
Variables	Link fault, Dying gasp and Critical events specific faults
Results	Pass or fail
Remarks	The definitions of the specific faults are implementation specific

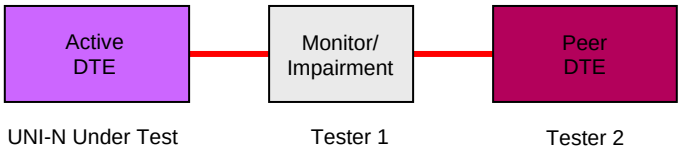
TEST CASE 29NA: Response to Critical Events (Event Notification OAMPDU)

Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Response to Critical events (Event Notification OAMPDU)
Test Definition ID	A-UNIN-EV1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.3)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** respond to Critical link events by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs of any type
Test Object	Verify that the appropriate bits within the Flags field of the Event Notification OAMPDUs are set/cleared when Critical link events are communicated to the OAM sublayer via the OAM_CTL.request service primitive
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Testers or the Active DTE to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event) and use the Tester 1 to simulate a link event and to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that the appropriate bits within the Flags field are set/cleared
Units	OAMPDU Code field and Flags field values
Variables	Link fault, Dying gasp and Critical events specific faults
Results	Pass or fail
Remarks	The definitions of the specific faults are implementation specific

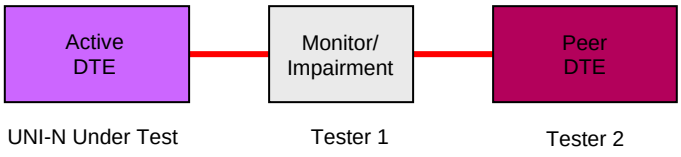
TEST CASE 30NA: Response to Critical Events (Variable Request OAMPDU)

Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Response to Critical events (Variable Request OAMPDU)
Test Definition ID	A-UNIN-EV1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.3)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** respond to Critical link events by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs of any type
Test Object	Verify that the appropriate bits within the Flags field of the Variable Request OAMPDUs are set/cleared when Critical link events are communicated to the OAM sublayer via the OAM_CTL.request service primitive
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Variable Requests from the Active DTE (UNI-N) while using the Testers or the Active DTE to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event) and use the Tester 1 to monitor the Variable Request OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that the appropriate bits within the Flags field are set/cleared
Units	OAMPDU Code field and Flags field values
Variables	Link fault, Dying gasp and Critical events specific faults, MIB attribute, MIB package and MIB object
Results	Pass or fail
Remarks	The definitions of the specific faults are implementation specific

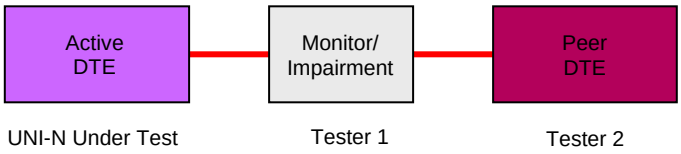
TEST CASE 31NA: Response to Critical Events (Variable Response OAMPDU)

Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Response to Critical events (Variable Response OAMPDU)
Test Definition ID	A-UNIN-EV1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.3)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** respond to Critical link events by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs of any type
Test Object	Verify that the appropriate bits within the Flags field of the Variable Response OAMPDUs are set/cleared when Critical link events are communicated to the OAM sublayer via the OAM_CTL.request service primitive
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Variable Requests from the Peer DTE while using the Testers or the Active DTE to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event) and use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that the appropriate bits within the Flags field are set/cleared
Units	OAMPDU Code field and Flags field values
Variables	Link fault, Dying gasp and Critical events specific faults, MIB attribute, MIB package and MIB object
Results	Pass or fail
Remarks	The definitions of the specific faults are implementation specific

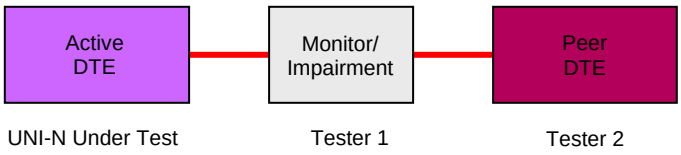
TEST CASE 32NA: Response to Critical Events (Loopback Control OAMPDU)

Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Response to Critical events (Loopback Control OAMPDU)
Test Definition ID	A-UNIN-EV1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.3)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** respond to Critical link events by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs of any type
Test Object	Verify that the appropriate bits within the Flags field of the Loopback Control OAMPDUs are set/cleared when Critical link events are communicated to the OAM sublayer via the OAM_CTL.request service primitive
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate an OAM Remote Loopback from the Active DTE (UNI-N) while using the Testers or the Active DTE to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event) and use the Tester 1 to monitor the Loopback Control OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that the appropriate bits within the Flags field are set/cleared
Units	OAMPDU Code field and Flags field values
Variables	Link fault, Dying gasp and Critical events specific faults
Results	Pass or fail
Remarks	The definitions of the specific faults are implementation specific

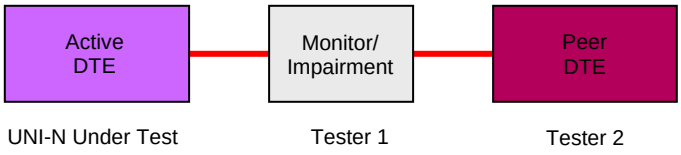
TEST CASE 33NA: Response to Critical Events (Organization Specific OAMPDU)

Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Response to Critical events (Organization Specific OAMPDU)
Test Definition ID	A-UNIN-EV1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.3)
Test Type	Functional
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** respond to Critical link events by setting or clearing the appropriate bits within the Flags field on any subsequently generated OAMPDUs of any type
Test Object	Verify that the appropriate bits within the Flags field of the Organization Specific OAMPDUs are set/cleared when Critical link events are communicated to the OAM sublayer via the OAM_CTL.request service primitive
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Testers or the Active DTE (UNI-N) to simulate the three types of Critical link events (Link fault, Dying gasp and Critical event). Initiate Organization specific OAMPDUs from the Active DTE (UNI-N) and use the Tester 1 to monitor them and to verify that the appropriate bits within the Flags field are set/cleared
Units	OAMPDU Code field and Flags field values
Variables	Link fault, Dying gasp and Critical events specific faults
Results	Pass or fail
Remarks	The definitions of the specific faults are implementation specific

TEST CASE 34NA: Critical Event reception

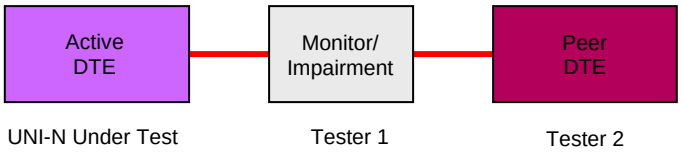
Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Critical Event reception
Test Definition ID	A-UNIN-EV2-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.4)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM sublayer **MUST** signal the Flags field to the OAM client using the OAMPDU.indication service primitive
Test Object	Verify that the OAM sublayer signals the Flags field to the OAM client using the OAMPDU.indication service primitive
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send OAMPDUs with the specific Flags field bits set for the three types of Critical link events (Link fault, Dying gasp and Critical event) and verify that the Flags parameters are transferred from the OAM sublayer to the OAM Client by checking the aOAMRemoteFlagsField attribute value of the Active DTE (UNI-N)
Units	aOAMRemoteFlagsField attribute value
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to perform this test

TEST CASE 35NA: Link Event reception

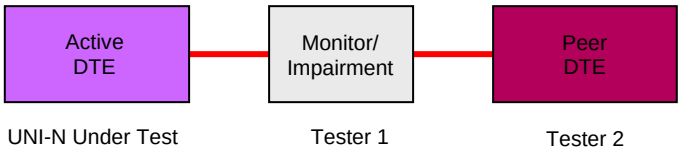
Abstract Test Suite for Link OAM - Event Notification Generation and Reception	
Test Name	Link Event reception
Test Definition ID	A-UNIN-EV3-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.10.4)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHALL** detect link events via the reception of Event Notification OAMPDUs and the subsequent passing of the OAMPDU to the OAM Client via the OAMPDU.indication service primitive
Test Object	Verify that the OAM sublayer passes all Event Notification OAMPDUs to the OAM Client via the OAMPDU.indication service primitive
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send the five types of Event Notification OAMPDUs to the Active DTE (UNI-N) and verify that the aOAMUniqueEventNotificationRx and aOAMDuplicateEventNotificationRx counters of the Active DTE (UNI-N) are incrementing as the Event Notification OAMPDUs are received
Units	aOAMUniqueEventNotificationRx counter and aOAMDuplicateEventNotificationRx counter values
Variables	None
Results	Pass or fail
Remarks	To perform this test, the DTE must implement clause 30. If this is not the case, there is no obligation to perform this test

11.3 OAMPDUs

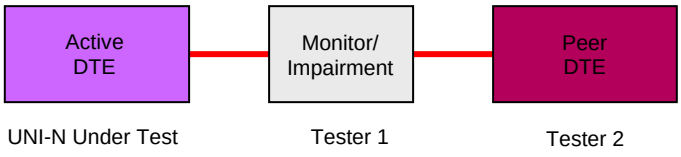
TEST CASE 36NA: OAMPDU tagging

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	OAMPDU tagging
Test Definition ID	A-UNIN-PDU1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	OAMPDUs **MUST NOT** be tagged
Test Object	Verify that the DTE ignores tagged OAMPDUs
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a tagged Information OAMPDU with a Local Information TLV including an updated Vendor Specific Information Field value and use the Tester 1 to monitor the next OAMPDU transmitted by the Active DTE (UNI-N) and to verify that the Vendor Specific Information Field value of the Remote Information TLV is not the copy of the last received Vendor Specific Information Field transmitted by the Peer DTE
Units	OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

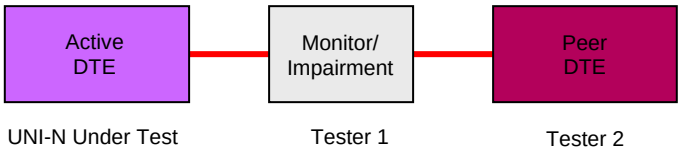
TEST CASE 37NA: Minimum size OAMPDU

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Minimum size OAMPDU
Test Definition ID	A-UNIN-PDU3-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **MUST** accept at least minFrameSize OAMPDUs (64 octets in length)
Test Object	Verify that the DTE successfully accepts 64 octets OAMPDUs
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a 64 octets Information OAMPDU with a Local Information TLV including an updated Vendor Specific Information Field value and use the Tester 1 to monitor the next OAMPDU transmitted by the Active DTE (UNI-N) and to verify that the Vendor Specific Information Field value of the Remote Information TLV is the copy of the last received Vendor Specific Information Field transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

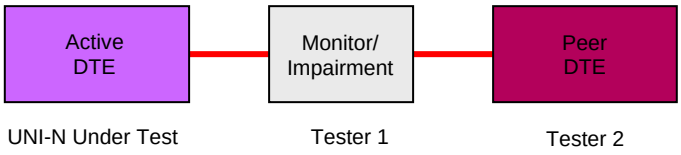
TEST CASE 38NA: Information OAMPDU frame structure

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Information OAMPDU frame structure
Test Definition ID	A-UNIN-PDU4-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Information OAMPDUs **MUST** contain the following fields (Destination Address (DA), Source Address (SA), Length/Type, Subtype, Flags, Code, Data/Pad and FCS)
Test Object	Verify that all the mandatory fields are present in the Information OAMPDUs structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) while it is in the SEND_ANY state and to verify that all the mandatory fields are present
Units	OAMPDU Destination Address field, Source Address field, Length/Type field, Subtype field, Flags field, Code field, Data/Pad field and FCS field values
Variables	None
Results	Pass or fail
Remarks	

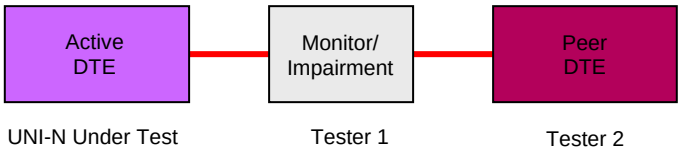
TEST CASE 39NA: Information OAMPDU when local_pdu is set to LF_INFO

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Information OAMPDU when local_pdu is set to LF_INFO
Test Definition ID	A-UNIN-PDU5-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	A device in the FAULT state of the Discovery process, **SHALL** only generate Information OAMPDUs that contain no Information TLVs
Test Object	Verify that when local_pdu is set to LF_INFO, the DTE sends only Information OAMPDUs that contain no Information TLVs
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Reset the OAM and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) during the FAULT state of the Discovery process and to verify that they do not contain Information TLVs
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

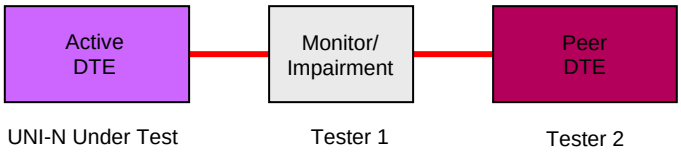
TEST CASE 40NA: Information OAMPDU when local_pdu is not set to LF_INFO and the remote_state_valid = FALSE

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Information OAMPDU when local_pdu is not set to LF_INFO and the remote_state_valid = FALSE
Test Definition ID	A-UNIN-PDU6-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When local_pdu is not set to LF_INFO and the remote_state_valid = FALSE, the DTE **SHALL** send Information OAMPDUs that contain only Local Information TLVs
Test Object	Verify that when local_pdu is not set to LF_INFO and the remote_state_valid = FALSE, the DTE sends Information OAMPDUs that contain only Local Information TLVs
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) while it is in the ACTIVE_SEND_LOCAL state of the Discovery process and to verify that they only contain Local Information TLVs
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

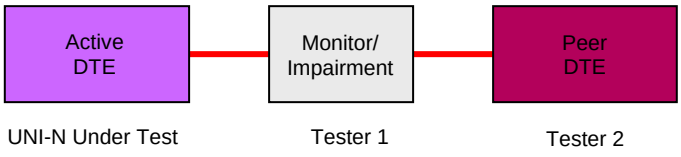
TEST CASE 41NA: Information OAMPDU when local_pdu is not set to LF_INFO and the remote_state_valid = TRUE

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Information OAMPDU when local_pdu is not set to LF_INFO and the remote_state_valid = TRUE
Test Definition ID	A-UNIN-PDU7-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When local_pdu is not set to LF_INFO and the remote_state_valid = TRUE, the DTE **SHALL** send Information OAMPDUs that contain Local Information TLVs and Remote Information TLVs
Test Object	Verify that when local_pdu is not set to LF_INFO and the remote_state_valid = TRUE, the DTE sends Information OAMPDUs that contain Local and Remote Information TLVs
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) while it is in the SEND_LOCAL_REMOTE, SEND_LOCAL_REMOTE_OK and SEND_ANY states of the Discovery process and to verify that they contain Local and Remote Information TLVs
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

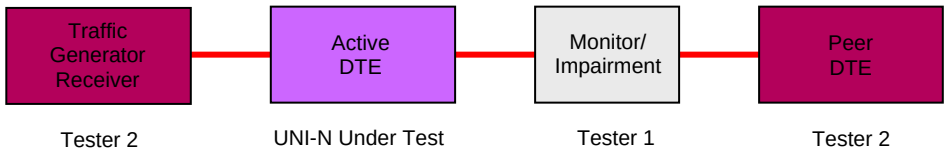
TEST CASE 42NA: Reserved Information TLV Type values (0x03 to 0xFD)

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Reserved Information TLV Type values (0x03 to 0xFD)
Test Definition ID	A-UNIN-PDU8-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Information TLV Type values from 0x03 to 0xFD **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Information TLV Type values from 0x03 to 0xFD are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that TLV Type values from 0x03 to 0xFD are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

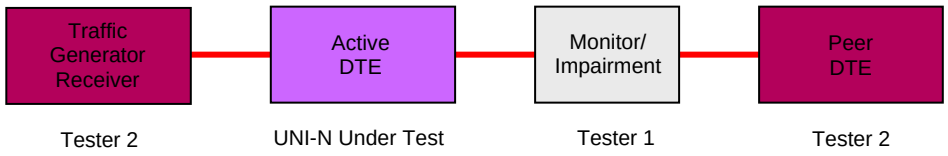
TEST CASE 43NA: Reserved Information TLV Type value (0xFF)

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Reserved Information TLV Type value (0xFF)
Test Definition ID	A-UNIN-PDU9-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Information TLV Type value 0xFF **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Information TLV Type value 0xFF is not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that the Information TLV Type value 0xFF is never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

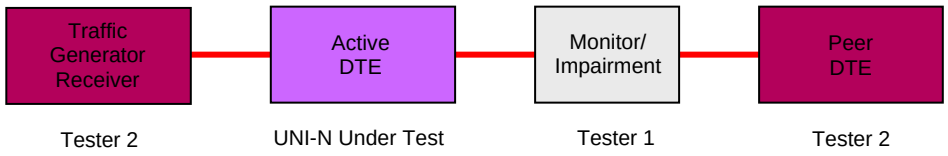
TEST CASE 44NA: Event Notification OAMPDU frame Structure

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Event Notification OAMPDU frame Structure
Test Definition ID	A-UNIN-PDU10-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.2)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Event Notification OAMPDUs structure **MUST** contain the following fields (Destination Address (DA), Source Address (SA), Length/Type, Subtype, Flags, Code, Data/Pad and FCS)
Test Object	Verify that all the mandatory fields are present in the Event Notification OAMPDUs structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to simulate the five types of Link Events (Errored Symbol Period Event, Errored Frame Event, Errored Frame Period Event, Errored Frame Seconds Summary Event & Organization Specific Event) and use it to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that all the mandatory fields are present
Units	OAMPDU Destination Address field, Source Address field, Length/Type field, Subtype field, Flags field, Code field, Data/Pad field and FCS field values
Variables	None
Results	Pass or fail
Remarks	

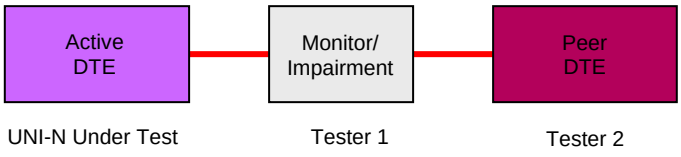
TEST CASE 45NA: Event Notification OAMPDU - Sequence Number

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Event Notification OAMPDU - Sequence Number
Test Definition ID	A-UNIN-PDU11-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.2)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The first two octets of the Event Notification OAMPDU Data field **MUST** contain a Sequence Number, encoded as a 16-bit unsigned integer
Test Object	Verify that the first two octets of the Event Notification OAMPDUs Data field contain a Sequence Number, encoded as a 16-bit unsigned integer
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to simulate the five types of Link Events (Errored Symbol Period Event, Errored Frame Event, Errored Frame Period Event, Errored Frame Seconds Summary Event & Organization Specific Event) and use it to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that the first two octets of the Event Notification OAMPDUs Data field contain a Sequence Number, encoded as a 16-bit unsigned integer
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

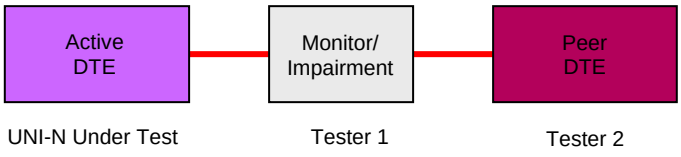
TEST CASE 46NA: Event Notification OAMPDU - Events

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Event Notification OAMPDU - Events
Test Definition ID	A-UNIN-PDU12-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.2)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Event Notification OAMPDU Data field **MUST** contain one or more Link Event TLV(s), following the Sequence Number field
Test Object	Verify that one or more Link Event TLV(s) is/are following the Sequence Number in the Event Notification OAMPDUs Data field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to simulate the five types of Link Events (Errored Symbol Period Event, Errored Frame Event, Errored Frame Period Event, Errored Frame Seconds Summary Event & Organization Specific Event) and use it to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that one or more Link Event TLV(s) is/are following the Sequence Number
Units	OAMPDU Code field and Data/Pad field values
Variables	Link Event TLVs
Results	Pass or fail
Remarks	

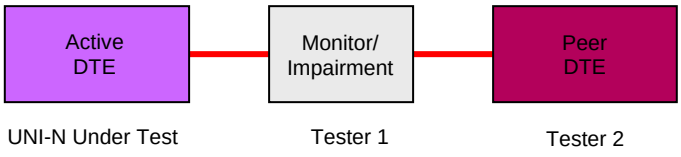
TEST CASE 47NA: Variable Request OAMPDU frame structure

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Variable Request OAMPDU frame structure
Test Definition ID	A-UNIN-PDU13-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.3)
Test Type	Conformance
Test Status	Mandatory if Variable Request OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Variable Request OAMPDUs structure **MUST** contain the following fields (Destination Address (DA), Source Address (SA), Length/Type, Subtype, Flags, Code, Data/Pad and FCS)
Test Object	Verify that all the mandatory fields are present in the Variable Request OAMPDUs structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Variable Requests from the Active DTE (UNI-N) and use the Tester 1 to monitor the transmitted Variable Request OAMPDUs and to verify that all the mandatory fields are present
Units	OAMPDU Destination Address field, Source Address field, Length/Type field, Subtype field, Flags field, Code field, Data/Pad field and FCS field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

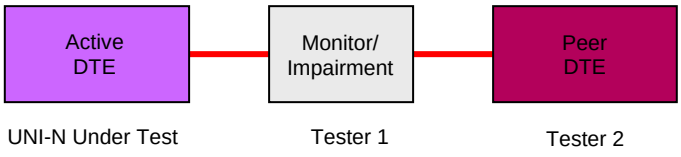
TEST CASE 48NA: Variable Request OAMPDU Data field

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Variable Request OAMPDU Data field
Test Definition ID	A-UNIN-PDU14-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.3)
Test Type	Conformance
Test Status	Mandatory if Variable Request OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Variable Request OAMPDU Data field **MUST** contain one or more Variable Descriptor(s)
Test Object	Verify that one or more Variable Descriptor(s) is/are contained in the Variable Request OAMPDU Data field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Variable Requests from the Active DTE (UNI-N) and use the Tester 1 to monitor the transmitted Variable Request OAMPDUs and to verify that one or more Variable Descriptor(s) is/are contained in the Data field
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

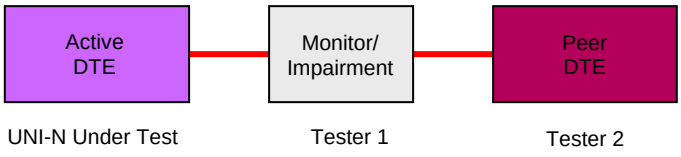
TEST CASE 49NA: Variable Response OAMPDU frame structure

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Variable Response OAMPDU frame structure
Test Definition ID	A-UNIN-PDU15-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.4)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Variable Response OAMPDUs structure **MUST** contain the following fields (Destination Address (DA), Source Address (SA), Length/Type, Subtype, Flags, Code, Data/Pad and FCS)
Test Object	Verify that all the mandatory fields are present in the Variable Response OAMPDUs structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Variable Request OAMPDUs and use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that all the mandatory fields are present
Units	OAMPDU Destination Address field, Source Address field, Length/Type field, Subtype field, Flags field, Code field, Data/Pad field and FCS field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

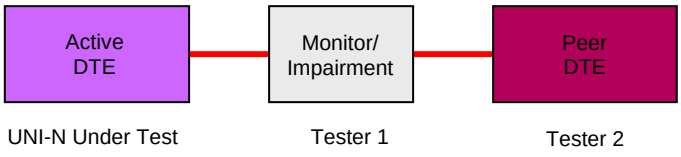
TEST CASE 50NA: Variable Response OAMPDU Data field

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Variable Response OAMPDU Data field
Test Definition ID	A-UNIN-PDU16-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.4)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Variable Response OAMPDU Data field **MUST** contain one or more Variable Container(s)
Test Object	Verify that one or more Variable Container(s) is/are present in the Variable Response OAMPDU Data field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Variable Request OAMPDUs and use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that one or more Variable Container(s) is/are present in the Data field
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

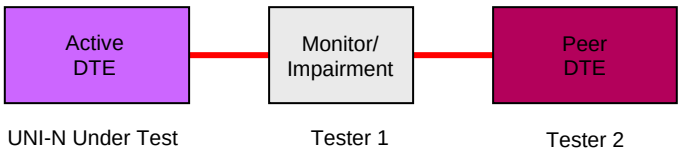
TEST CASE 51NA: Loopback Control OAMPDU frame structure

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Loopback Control OAMPDU frame structure
Test Definition ID	A-UNIN-PDU17-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.5)
Test Type	Conformance
Test Status	Mandatory if Loopback Control OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Loopback Control OAMPDUs structure **MUST** contain the following fields (Destination Address (DA), Source Address (SA), Length/Type, Subtype, Flags, Code, Data/Pad & FCS)
Test Object	Verify that all the mandatory fields are present in the Loopback Control OAMPDUs structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate an OAM Remote Loopback from the Active DTE (UNI-N) and use the Tester 1 to monitor the transmitted Loopback Control OAMPDUs OAMPDUs and to verify that all the mandatory fields are present
Units	OAMPDU Destination Address field, Source Address field, Length/Type field, Subtype field, Flags field, Code field, Data/Pad field and FCS field values
Variables	None
Results	Pass or fail
Remarks	

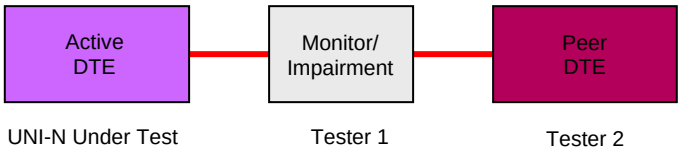
TEST CASE 52NA: Loopback Control OAMPDU Data field

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Loopback Control OAMPDU frame structure
Test Definition ID	A-UNIN-PDU18-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.5)
Test Type	Conformance
Test Status	Mandatory if Loopback Control OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Loopback Control OAMPDU Data field **MUST** contain a single OAM Remote Loopback command
Test Object	Verify that a single OAM Remote Loopback command is present in the Loopback Control OAMPDU Data field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate an OAM Remote Loopback from the Active DTE (UNI-N) and use the Tester 1 to monitor the transmitted Loopback Control OAMPDUs and to verify that a single OAM Remote Loopback command is present in the Data field
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

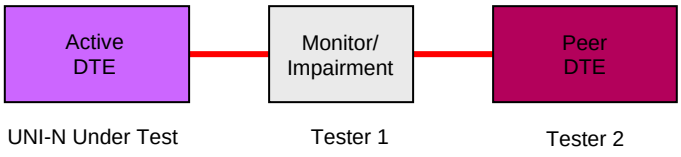
TEST CASE 53NA: Reserved OAM remote loopback command value (0x00)

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Reserved OAM remote loopback command value (0x00)
Test Definition ID	A-UNIN-PDU19-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.5)
Test Type	Conformance
Test Status	Mandatory if Loopback Control OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM remote loopback command value (0x00) **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the OAM remote loopback command value (0x00) is not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Loopback Control OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that the OAM remote loopback command value (0x00) is never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

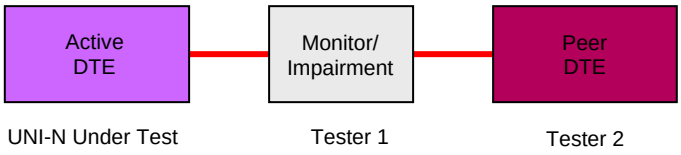
TEST CASE 54NA: Reserved OAM remote loopback command values (0x03 to 0xFF)

Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Reserved OAM remote loopback command values (0x03 to 0xFF)
Test Definition ID	A-UNIN-PDU20-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.5)
Test Type	Conformance
Test Status	Mandatory if Loopback Control OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM remote loopback command values (0x03 to 0xFF) **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the OAM remote loopback command values (0x03 to 0xFF) are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Loopback Control OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that the OAM remote loopback command values (0x03 to 0xFF) are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 55NA: Organization Specific OAMPDU frame structure

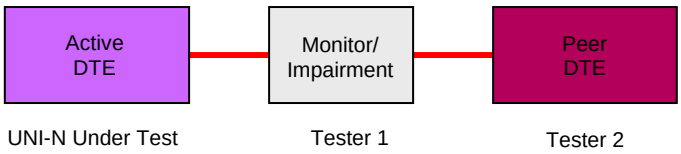
Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Organization Specific OAMPDU frame structure
Test Definition ID	A-UNIN-PDU21-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.6)
Test Type	Conformance
Test Status	Mandatory if Organization Specific OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Organization Specific OAMPDUs structure **MUST** contain the following fields (Destination Address (DA), Source Address (SA), Length/Type, Subtype, Flags, Code, Data/Pad and FCS)
Test Object	Verify that all the mandatory fields are present in the Organization Specific OAMPDU structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Organization Specific OAMPDUs from the Active DTE (UNI-N) and use the Tester 1 to monitor them and to verify that all the mandatory fields are present
Units	OAMPDU Destination Address field, Source Address field, Length/Type field, Subtype field, Flags field, Code field, Data/Pad field and FCS field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 56NA: Organization Specific OAMPDU - Organizationally Unique Identifier field

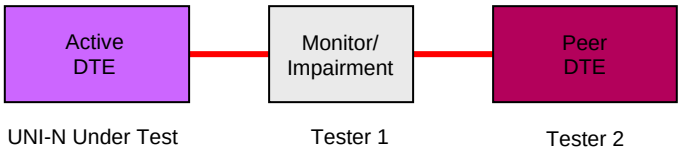
Abstract Test Suite for Link OAM - OAMPDUs	
Test Name	Organization Specific OAMPDU - Organizationally Unique Identifier field
Test Definition ID	A-UNIN-PDU22-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.6)
Test Type	Conformance
Test Status	Mandatory if Organization Specific OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The first three octets of the Organization Specific OAMPDU Data field **MUST** contain the Organizationally Unique Identifier (OUI)
Test Object	Verify that the first three octets of the Organization Specific OAMPDU Data field contain the Organizationally Unique Identifier (OUI)
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Organization Specific OAMPDUs from the Active DTE (UNI-N) and use the Tester 1 to monitor them and to verify that the first three octets of the Data field contain the Organizationally Unique Identifier (OUI)
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

11.4 OAM Local Information TLVs

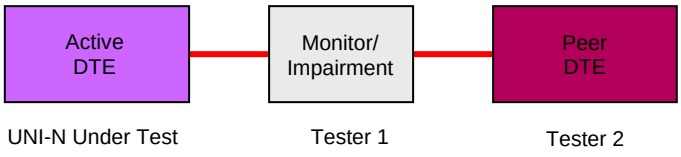
TEST CASE 57NA: Local Information TLV structure

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV structure
Test Definition ID	A-UNIN-LIT1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Local Information TLV structure **MUST** contain the following fields (Information Type, Information Length, OAM Version, Revision, State, OAM Configuration, OAMPDU Configuration, OUI & Vendor Specific Information)
Test Object	Verify that all the mandatory fields are present in the Local Information TLV structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) while it is in the SEND_ANY state and to verify that the mandatory fields are present in the Local Information TLV structure
Units	OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

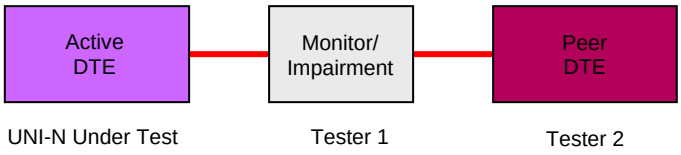
TEST CASE 58NA: Local Information TLV - OAM Version field

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV - OAM Version field
Test Definition ID	A-UNIN-LIT2-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV OAM Version **MUST** contain 0x01 to claim compliance to the Version 1 of the IEEE P802.3ah specification
Test Object	Verify that the Local Information TLV OAM Version is 0x01
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) while it is in the SEND_ANY state and to verify that the Local Information TLV OAM Version is 0x01
Units	OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

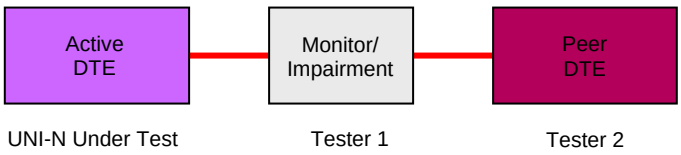
TEST CASE 59NA: Local Information TLV - Revision field - Active device

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – Revision field – Active device
Test Definition ID	A-UNIN-LIT3-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV Revision field value **MUST** start at zero and **MUST** be incremented each time a Local Information TLV field changes
Test Object	Verify that upon initialization of the OAM Discovery process, the value of the Local Information TLV Revision field starts at zero and is incremented each time a Local Information TLV field changes
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) through every state of the Discovery process and while it is in the SEND_ANY state, perform Test Cases 65 & 66 and use the Tester 1 toverify that the Local Information TLV Revision field starts at zero in the ACTIVE_SEND_LOCAL state and is incremented each time a Local Information TLV field changes
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

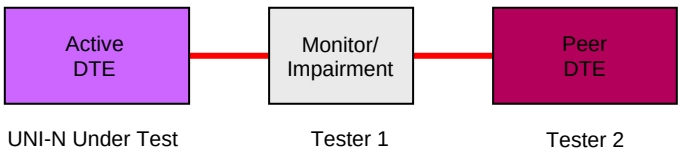
TEST CASE 61NA: Local Information TLV - State field – Remote Loopback initiation (Enable OAM Remote Loopback step 1 of 2)

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – State field – Remote loopback initiation (Enable OAM Remote Loopback Step 1 of 2)
Test Definition ID	A-UNIN-LIT4-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV State field **MUST** contain the DTE's Multiplexer and Parser valid state information (Mux = 1) (Par= 10)
Test Object	Verify that upon initiation of a Remote Loopback, the DTE sets its local_mux_action and its local_par_action parameters to DISCARD and sends a Loopback Control OAMPDU with the Enable OAM Remote Loopback command to the remote device
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate a Remote Loopback from the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and verify that before the reception of an Information OAMPDU with updated state information from the Peer DTE the Local Information TLV State fields of the Information OAMPDUs transmitted by the Active DTE (UNI-N) contain (Mux = 1) (Par= 10)
Units	OAMPDU Code field and State field values
Variables	None
Results	Pass or fail
Remarks	

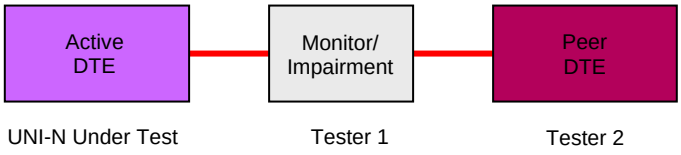
TEST CASE 62NA: Local Information TLV - State field – Remote Loopback initiation (Enable OAM Remote Loopback step 2 of 2)

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – State field – Remote loopback initiation (Enable OAM Remote Loopback Step 2 of 2)
Test Definition ID	A-UNIN-LIT4-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV State field **MUST** contain the DTE's Multiplexer and Parser valid state information (Mux = 0) (Par= 10)
Test Object	Upon the reception of the Loopback Control OAMPDU, the Remote device sets its parameters (Mux = DISCARD, Par = LB) and sends an Information OAMPDU with updated state information. Verify that upon the reception of this Information OAMPDU, the DTE sets its local_mux_action parameter to FWD
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate a Remote Loopback from the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and verify that after the reception of an Information OAMPDU with updated state information from the Peer DTE the Local Information TLV State fields of the Information OAMPDUs transmitted by the Active DTE (UNI-N) contain (Mux = 0) (Par= 10)
Units	OAMPDU Code field and State field values
Variables	None
Results	Pass or fail
Remarks	

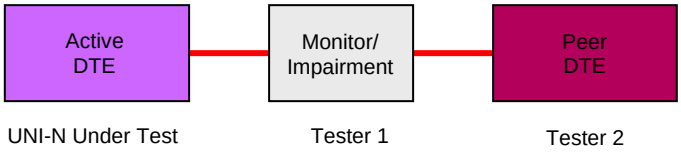
TEST CASE 63NA: Local Information TLV - State field – Remote Loopback termination (Disable OAM Remote Loopback step 1 of 2)

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – State field- Remote loopback termination (Disable OAM Remote Loopback Step 1 of 2)
Test Definition ID	A-UNIN-LIT4-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV State field **MUST** contain the DTE's Multiplexer and Parser valid state information (Mux = 1) (Par = 10)
Test Object	Verify that when the DTE terminates an OAM Remote Loopback test, it sets its local_mux_action parameter to DISCARD and sends a Loopback Control OAMPDU with the Disable OAM Remote Loopback command to the remote device
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Active DTE (UNI-N) to terminate the OAM Remote Loopback test and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and verify that before the reception of an Information OAMPDU with updated state information from the Peer DTE the Local Information TLV State fields of the Information OAMPDUs transmitted by the Active DTE (UNI-N) contain (Mux = 1) (Par= 10)
Units	OAMPDU Code field and State field values
Variables	None
Results	Pass or fail
Remarks	

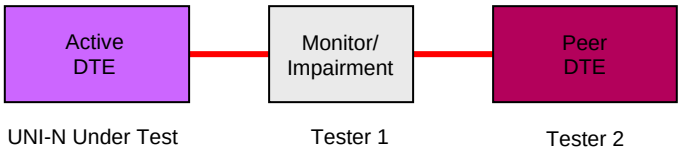
TEST CASE 64NA: Local Information TLV - State field – Remote Loopback termination (Disable OAM Remote Loopback step 2 of 2)

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – State field- Remote loopback termination (Disable OAM Remote Loopback Step 2 of 2)
Test Definition ID	A-UNIN-LIT4-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV State field **MUST** contain the DTE's Multiplexer and Parser valid state information (Mux = 0) (Par = 00)
Test Object	Upon the reception of the Loopback Control OAMPDU, the Remote device sends an Information OAMPDU with updated state information (Mux = FWD, Par = FWD) and then sets its parameters. Verify that upon the reception of this Information OAMPDU, the DTE sets its local_mux_action and the local_par_action parameters to FWD
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Active DTE (UNI-N) to terminate the OAM Remote Loopback test and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and verify that after the reception of an Information OAMPDU with updated state information from the Peer DTE the Local Information TLV State fields of the Information OAMPDUs transmitted by the Active DTE (UNI-N) contain (Mux = 0) (Par= 00)
Units	OAMPDU Code field and State field values
Variables	None
Results	Pass or fail
Remarks	

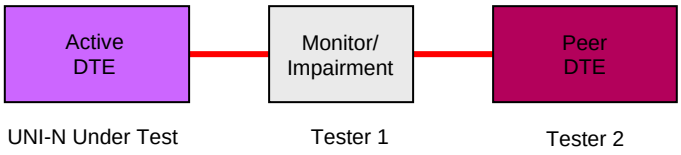
TEST CASE 65NA: Local Information TLV - State field – Reception of a Loopback Control OAMPDU (Enable OAM Remote Loopback)

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – State field – Reception of a Loopback Control OAMPDU (Enable OAM Remote Loopback)
Test Definition ID	A-UNIN-LIT4-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV State field **MUST** contain the DTE's Multiplexer and Parser valid state information (Mux = 1) (Par = 01)
Test Object	Verify that upon the reception of a Loopback Control OAMPDU, that contains the Enable OAM Remote Loopback command, the DTE sets its local_mux_action parameter to DISCARD, its local_par_action parameter to LB and sends an Information OAMPDU with updated state information to the remote device
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Loopback Control OAMPDU (enable) to the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and to verify the Local Information TLV State fields of the Information OAMPDUs transmitted by the Active DTE (UNI-N) contain (Mux = 1) (Par= 01)
Units	OAMPDU Code field and State field values
Variables	None
Results	Pass or fail
Remarks	

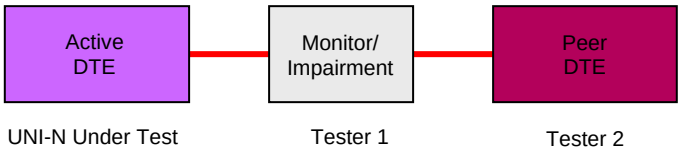
TEST CASE 66NA: Local Information TLV - State field – Reception of a Loopback Control OAMPDU (Disable OAM Remote Loopback)

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – State field – Reception of a Loopback Control OAMPDU (Disable OAM Remote Loopback)
Test Definition ID	A-UNIN-LIT4-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Upon the reception of a Loopback Control OAMPDU, that contains the Disable OAM Remote Loopback command, the Local Information TLV State field **MUST** contain the DTE's Multiplexer and Parser valid state information (Mux = 0) (Par = 00)
Test Object	Verify that upon the reception of a Loopback Control OAMPDU, with the Disable OAM Remote Loopback command, the DTE sends an Information OAMPDU with updated state information and then sets its local_mux_action and local_par_action parameter to Forward
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Loopback Control OAMPDU (disable) to the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and to verify the Local Information TLV State fields of the Information OAMPDUs transmitted by the Passive DTE (UNI-C) contain (Mux = 0) (Par= 00)
Units	OAMPDU State field value (Local Information TLV)
Variables	None
Results	Pass or fail
Remarks	

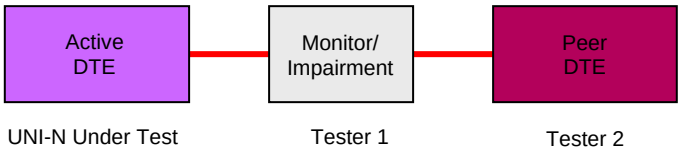
TEST CASE 67NA: Local Information TLV - Transmission of State field Parser Action value equal to 0x3

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – Transmission of State field Parser Action value equal to 0x3
Test Definition ID	A-UNIN-LIT5-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHALL NOT** transmit Local Information TLVs that contain a State field Parser Action value equal to 0x3
Test Object	Verify that the DTE never transmits Local Information TLVs that contains a State field Parser Action value equal to 0x3
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that it never transmits Information OAMPDUs with Local Information TLVs that contain a State field Parser Action value equal to 0x3
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

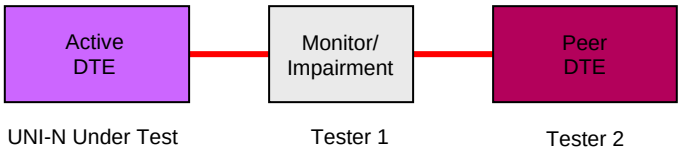
TEST CASE 68NA: Reserved bits - State field

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Reserved bits - State field
Test Definition ID	A-UNIN-LIT6-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.7)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The State field Reserved bits of Information OAMPDUs transmitted by the DTE **SHALL** be set to zero
Test Object	Verify that the State field Reserved bits of Information OAMPDUs transmitted by the DTE are always set to zero
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that the State field Reserved bits are always set to zero
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

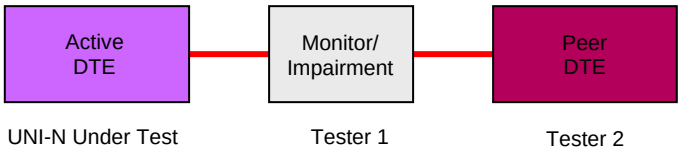
TEST CASE 69NA: Local Information TLV - OAM Configuration field

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV - OAM Configuration field
Test Definition ID	A-UNIN-LIT7-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLVs OAM Configuration field transmitted by the DTE **MUST** contain the following variables (OAM Mode, Unidirectional Support, OAM Remote Loopback Support, Link Events, Variable Retrieval)
Test Object	Verify that the Local Information TLVs Configuration field transmitted by the DTE contain the following variables (OAM Mode, Unidirectional Support, OAM Remote Loopback Support, Link Events, Variable Retrieval)
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) while it is in the SEND_ANY state and to verify that the Local Information TLVs Configuration fields contain the following variables (OAM Mode, Unidirectional Support, OAM Remote Loopback Support, Link Events, Variable Retrieval)
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

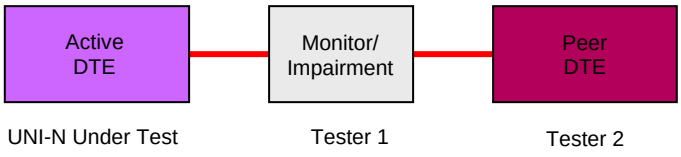
TEST CASE 70NA: Reserved bits - OAM Configuration field

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Reserved bits - OAM Configuration field
Test Definition ID	A-UNIN-LIT8-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.8)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAM Configuration field Reserved bits of Information OAMPDUs transmitted by the DTE **SHALL** be set to zero
Test Object	Verify that the OAM Configuration field Reserved bits of Information OAMPDUs transmitted by the DTE are always set to zero
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that the OAM Configuration field Reserved bits are always set to zero
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

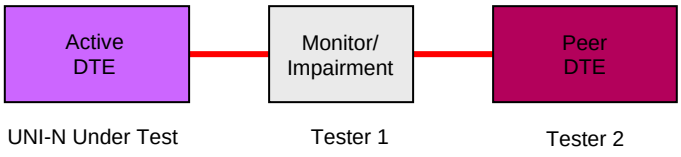
TEST CASE 71NA: Local Information TLV - OAMPDU Configuration field

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV - OAMPDU Configuration field
Test Definition ID	A-UNIN-LIT9-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLVs OAMPDU Configuration field transmitted by the DTE **MUST** contain an 11-bit field that represents the largest OAMPDU size, in octets, supported by the DTE. The maximum value is equal to maxUntaggedFrameSize
Test Object	Verify that the Local Information TLVs OAMPDU Configuration field transmitted by the DTE contain an 11-bit field that represents the largest OAMPDU size, in octets, supported by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) while it is in the SEND_ANY state and to verify that the Local Information TLVs OAMPDU Configuration fields contain an 11-bit field that represents the largest OAMPDU size, in octets, supported by the DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	Maximum OAMPDU size
Results	Pass or fail
Remarks	

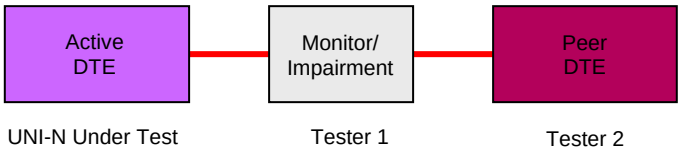
TEST CASE 72NA: Local Information TLV - OUI field

Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV - OUI field
Test Definition ID	A-UNIN-LIT10-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV OUI field transmitted by the DTE **MUST** contain the 24-bit Organizationally Unique Identifier of the Vendor
Test Object	Verify that the Local Information TLV OUI field transmitted by the DTE contains the 24-bit Organizationally Unique Identifier of the Vendor
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) while it is in the SEND_ANY state and to verify that the Local Information TLV OUI fields contain the 24-bit Organizationally Unique Identifier of the Vendor
Units	OAMPDU Code field and Data/Pad field values
Variables	OUI value
Results	Pass or fail
Remarks	

TEST CASE 73NA: Reserved bits - OAMPDU Configuration field

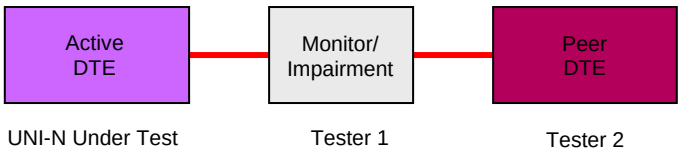
Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Reserved bits - OAMPDU Configuration field
Test Definition ID	A-UNIN-LIT11-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.9)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The OAMPDU Configuration field Reserved bits of Information OAMPDUs transmitted by the DTE **SHALL** be set to zero
Test Object	Verify that the OAM Configuration field Reserved bits of Information OAMPDUs transmitted by the DTE are always set to zero
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that the OAM Configuration field Reserved bits are always set to zero
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 74NA: Local Information TLV - Vendor Specific Information field

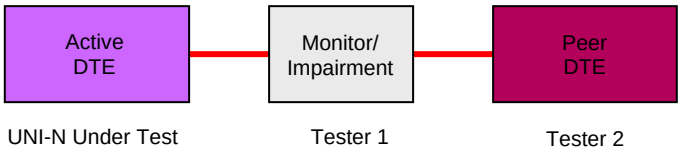
Abstract Test Suite for Link OAM - Local Information TLVs	
Test Name	Local Information TLV – Vendor Specific Information field
Test Definition ID	A-UNIN-LIT12-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Local Information TLV Vendor Specific Information field transmitted by the DTE **MUST** contain a 32-bit identifier used to differentiate vendor's product/models/versions etc
Test Object	Verify that the Local Information TLV Vendor Specific Information field transmitted by the DTE contains a 32-bit identifier used to differentiate vendor's product/models/versions etc
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) while it is in the SEND_ANY state and to verify that the Local Information TLV Vendor Specific Information fields contains a 32-bit identifier used to differentiate vendor's product / models / versions etc
Units	OAMPDU Code field and Data/Pad field values
Variables	Vendor Specific Information field value
Results	Pass or fail
Remarks	

11.5 OAM Remote Information TLVs

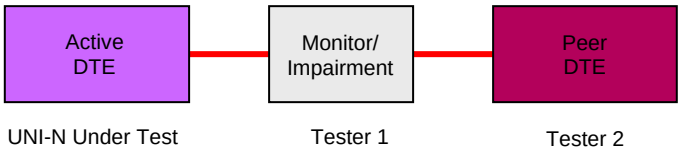
TEST CASE 75NA: Remote Information TLV structure

Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV structure
Test Definition ID	A-UNIN-RIT1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Remote Information TLV structure **MUST** contain the following fields (Information Type, Information Length, OAM Version, Revision, State, OAM Configuration, OAMPDU Configuration, OUI & Vendor Specific Information)
Test Object	Verify that all the mandatory fields are present in the Remote Information TLV structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that all the mandatory fields are present in the Remote Information TLV structure
Units	OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

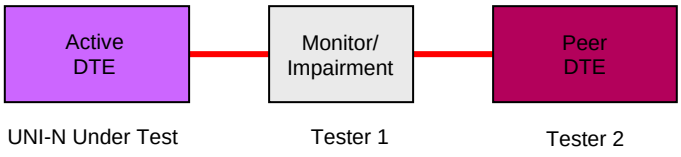
TEST CASE 76NA: Remote Information TLV - OAM Version field

Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV - OAM Version field
Test Definition ID	A-UNIN-RIT1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV OAM Version field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV OAM Version field
Test Object	Verify that the Remote Information TLV OAM Version field transmitted by the DTE contains the value of the last received Local Information TLV OAM Version field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active and the Peer DTEs and to verify that the Remote Information TLV OAM Version field transmitted by the Active DTE (UNI-N) contains the value of the last received Local Information TLV OAM Version field
Units	OAMPDUs Code field and Data/Pad field values
Variables	OAM Version field value
Results	Pass or fail
Remarks	

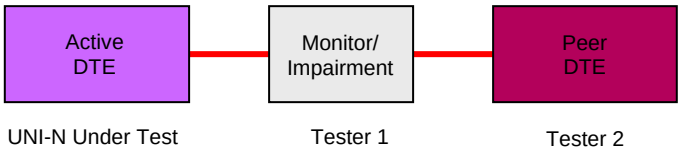
TEST CASE 77NA: Remote Information TLV - Revision field

Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV - Revision field
Test Definition ID	A-UNIN-RIT1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV Revision field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV Revision field
Test Object	Verify that the value of the Remote Information TLV Revision field transmitted by the DTE contains the value of the last received Local Information TLV Revision field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active and the Peer DTEs and to verify that the value of the Remote Information TLV Revision field transmitted by the Active DTE (UNI-N) contains the value of the last received Local Information TLV Revision field
Units	OAMPDUs Code field and Data/Pad field values
Variables	Revision field value
Results	Pass or fail
Remarks	

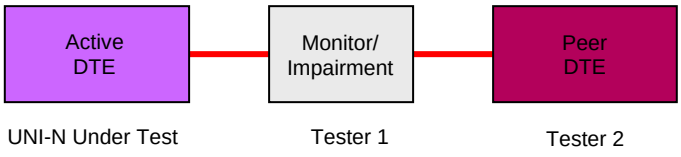
TEST CASE 78NA: Remote Information TLV - State field

Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV - State field
Test Definition ID	A-UNIN-RIT1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV State field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV State field
Test Object	Verify that the value of the Remote Information TLV State field transmitted by the DTE contains the value of the last received Local Information TLV State field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active and the Peer DTEs and to verify that the value of the Remote Information TLV State field transmitted by the Active DTE (UNI-N) contains the value of the last received Local Information TLV State field
Units	OAMPDUs Code field and Data/Pad field values
Variables	State field value
Results	Pass or fail
Remarks	

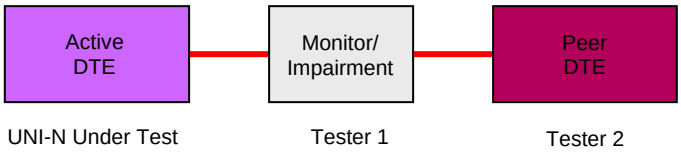
TEST CASE 79NA: Remote Information TLV - OAM Configuration field

Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV - OAM Configuration field
Test Definition ID	A-UNIN-RIT1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV OAM Configuration field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV OAM Configuration field
Test Object	Verify that the Remote Information TLV OAM Configuration field transmitted by the DTE contains the value of the last received Local Information TLV OAM Configuration field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active and the Peer DTEs and to verify that the Remote Information TLV OAM Configuration field transmitted by the Active DTE (UNI-N) contains the value of the last received Local Information TLV OAM Configuration field
Units	OAMPDUs Code field and Data/Pad field values
Variables	OAM Configuration field value
Results	Pass or fail
Remarks	

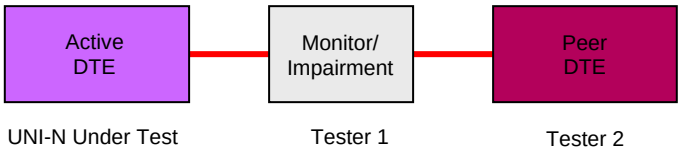
TEST CASE 80NA: Remote Information TLV - OAMPDU Configuration field

Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV – OAMPDU Configuration field
Test Definition ID	A-UNIN-RIT1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV OAMPDU Configuration field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV OAMPDU Configuration field
Test Object	Verify that the Remote Information TLV OAMPDU Configuration field transmitted by the DTE contains the value of the last received Local Information TLV OAMPDU Configuration field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active and the Peer DTEs and to verify that the Remote Information TLV OAMPDU Configuration field transmitted by the Active DTE (UNI-N) contains the value of the last received Local Information TLV OAMPDU Configuration field
Units	OAMPDUs Code field and Data/Pad field values
Variables	OAMPDU Configuration field value
Results	Pass or fail
Remarks	

TEST CASE 81NA: Remote Information TLV - OUI field

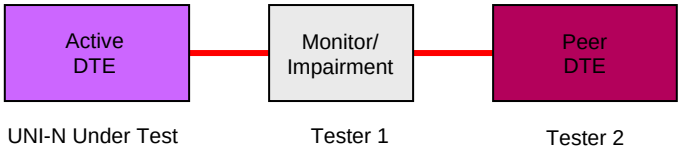
Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV - OUI field
Test Definition ID	A-UNIN-RIT1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV OUI field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV OUI field
Test Object	Verify that the Remote Information TLV OUI field transmitted by the DTE contains the value of the last received Local Information TLV OUI field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active and the Peer DTEs and to verify that the Remote Information TLV OUI field transmitted by the Active DTE (UNI-N) contains the value of the last received Local Information TLV OUI field
Units	OAMPDUs Code field and Data/Pad field values
Variables	OUI field value
Results	Pass or fail
Remarks	

TEST CASE 82NA: Remote Information TLV - Vendor Specific Information field

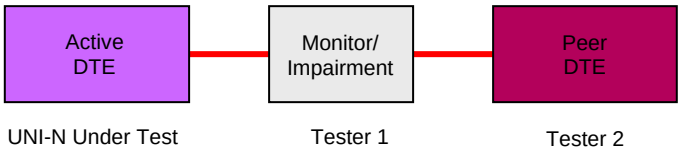
Abstract Test Suite for Link OAM - Remote Information TLVs	
Test Name	Remote Information TLV - Vendor Specific Information field
Test Definition ID	A-UNIN-RIT1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Remote Information TLV Vendor Specific Information field transmitted by the DTE **MUST** contain the value of the last received Local Information TLV Vendor Specific Information field
Test Object	Verify that the Remote Information TLV Vendor Specific Information field transmitted by the DTE contains the value of the last received Local Information TLV Vendor Specific Information field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs to the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active and the Peer DTEs and to verify that the Remote Information TLV Vendor Specific Information field transmitted by the Active DTE (UNI-N) contains the value of the last received Local Information TLV Vendor Specific Information field
Units	OAMPDUs Code field and Data/Pad field values
Variables	Vendor Specific Information field value
Results	Pass or fail
Remarks	

11.6 OAM Organization Specific Information TLVs

TEST CASE 83NA: Organization Specific Information TLV structure

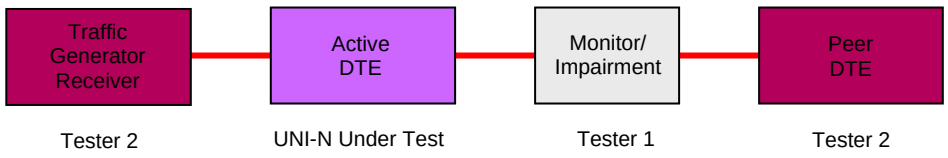
Abstract Test Suite for Link OAM - Organization Specific Information TLVs	
Test Name	Organization Specific Information TLV structure
Test Definition ID	A-UNIN-OIT1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.3)
Test Type	Conformance
Test Status	Mandatory if Organization Specific OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Organization Specific Information TLV structure **MUST** contain the following fields (Information Type, Information Length, OUI & Organizational Specific Value)
Test Object	Verify that all the mandatory fields are present the Organization Specific Information TLV structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Organization Specific OAMPDUs from the Active DTE (UNI-N) and use the Tester 1 to monitor them and to verify that all the mandatory fields are present
Units	OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 84NA: Organization Specific Information TLV - OUI field

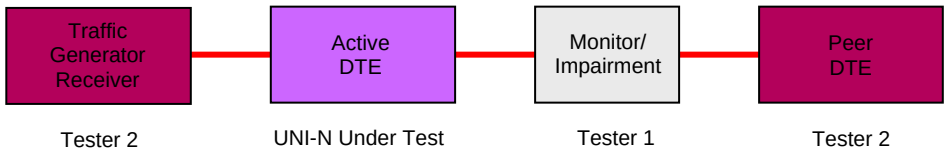
Abstract Test Suite for Link OAM - Organization Specific Information TLVs	
Test Name	Organization Specific Information TLV - OUI field
Test Definition ID	A-UNIN-OIT2-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.3)
Test Type	Conformance
Test Status	Mandatory if Organization Specific OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Organization Specific Information TLV OUI field within the Information OAMPDUs transmitted by the DTE **MUST** contain the 24-bit Organizationally Unique Identifier of the Vendor
Test Object	Verify that the Organization Specific Information TLV OUI field transmitted by the DTE contains the 24-bit Organizationally Unique Identifier of the Vendor
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Organization Specific OAMPDUs from the Active DTE (UNI-N) and use the Tester 1 to monitor them and to verify that the Organization Specific Information TLV OUI field contains the 24-bit Organizationally Unique Identifier of the Vendor
Units	OAMPDUs Code field and Data/Pad field values
Variables	OUI field value
Results	Pass or fail
Remarks	

11.7 Link Events TLVs

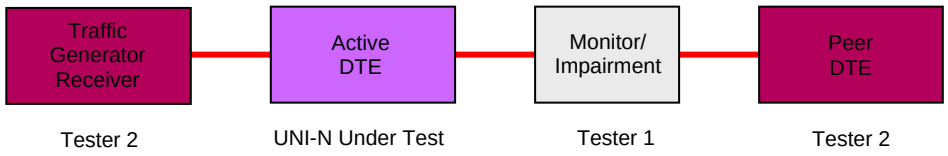
TEST CASE 85NA: Errored Symbol Period Event TLV structure

Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Errored Symbol Period Event TLV structure
Test Definition ID	A-UNIN-ET1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.3.1)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Errored Symbol Period Event TLV structure **MUST** contain the following fields (Event Type, Event Length, Event Time Stamp, Errored Symbol Window, Errored Symbol Threshold, Errored Symbols, Error Running Total and Event Running Total)
Test Object	Verify that all the mandatory fields are present in the Errored Symbol Period Event TLVs structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use Tester 1 to simulate an Errored Symbol Period Event and use it to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that all the mandatory fields are present in the Errored Symbol Period Event TLVs structure
Units	OAMPDU Code field and Data/Pad field values
Variables	Event Time Stamp, Errored Symbol Window, Errored Symbol Threshold, Errored Symbols, Error Running Total and Event Running Total values
Results	Pass or fail
Remarks	

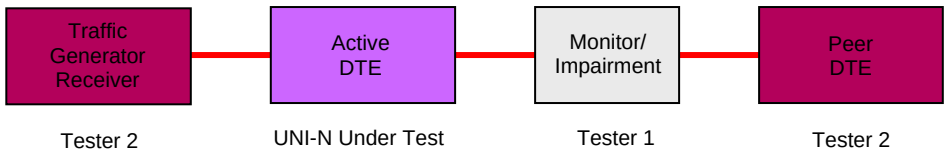
TEST CASE 86NA: Errored Frame Event TLV structure

Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Errored Frame Event TLV structure
Test Definition ID	A-UNIN-ET2-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.3.2)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Errored Frame Event TLV structure **MUST** contain the following fields (Event Type, Event Length, Event Time Stamp, Errored Frame Window, Errored Frame Threshold, Errored Frames, Error Running Total and Event Running Total)
Test Object	Verify that all the mandatory fields are present in the Errored Frame Event TLVs structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use Tester 1 to simulate an Errored Frame Event and use it to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that all the mandatory fields are present in the Errored Frame Event TLVs structure
Units	OAMPDU Code field and Data/Pad field values
Variables	Event Time Stamp, Errored Frame Window, Errored Frame Threshold, Errored Frames, Error Running Total and Event Running Total values
Results	Pass or fail
Remarks	

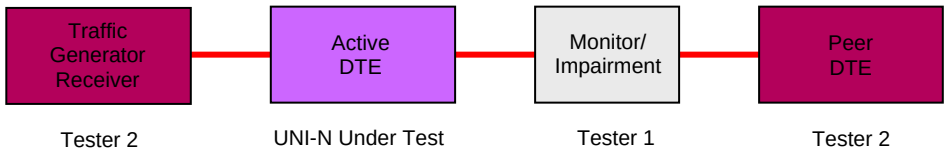
TEST CASE 87NA: Errored Frame Period Event TLV structure

Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Errored Frame Period Event TLV structure
Test Definition ID	A-UNIN-ET3-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.3.3)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Errored Frame Period Event TLV structure **MUST** contain the following fields (Event Type, Event Length, Event Time Stamp, Errored Frame Window, Errored Frame Threshold, Errored Frames, Error Running Total and Event Running Total)
Test Object	Verify that all the mandatory fields are present in the Errored Frame Period Event TLVs structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use Tester 1 to simulate an Errored Frame Period Event and use it to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that all the mandatory fields are present in the Errored Frame Period Event TLVs structure
Units	OAMPDU Code field and Data/Pad field values
Variables	Event Time Stamp, Errored Frame Window, Errored Frame Threshold, Errored Frames, Error Running Total and Event Running Total values
Results	Pass or fail
Remarks	

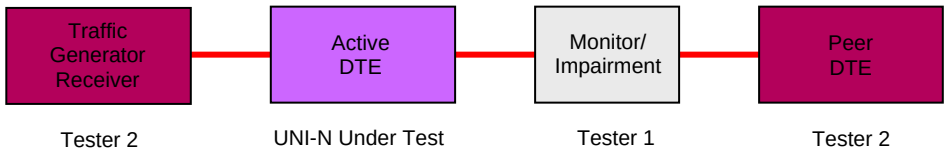
TEST CASE 88NA: Errored Frame Seconds Summary Event TLV structure

Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Errored Frame Seconds Summary Event TLV structure
Test Definition ID	A-UNIN-ET4-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.3.4)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Errored Frame Seconds Summary Event TLV structure **MUST** contain the following fields (Event Type, Event Length, Event Time Stamp, Errored Frame Seconds Summary Window, Errored Frame Seconds Summary Threshold, Errored Frame Seconds Summary, Error Running Total and Event Running Total)
Test Object	Verify that all the mandatory fields are present in the Errored Frame Seconds Summary Event TLVs structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use Tester 1 to simulate an Errored Frame Seconds Summary Event and use it to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that all the mandatory fields are present in the Errored Frame Seconds Summary Event TLVs structure
Units	OAMPDU Code field and Data/Pad field values
Variables	Event Time Stamp, Errored Frame Seconds Summary Window, Errored Frame Seconds Summary Threshold, Errored Frame Seconds Summary, Error Running Total and Event Running Total values
Results	Pass or fail
Remarks	

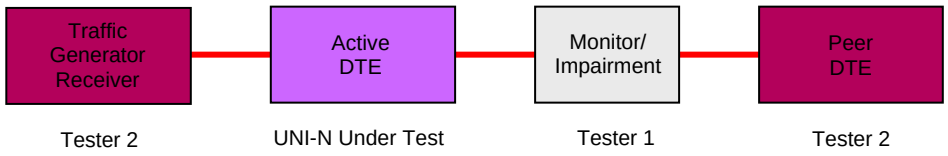
TEST CASE 89NA: Organization Specific Event TLV structure

Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Organization Specific Event TLV structure
Test Definition ID	A-UNIN-ET5-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.3.5)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Organization Specific Event TLV structure **MUST** contain the following fields (Event Type, Event Length, Organizationally Unique Identifier and Organization Specific Value)
Test Object	Verify that all the mandatory fields are present in the Organization Specific Event TLVs structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use Tester 1 to simulate an Organization Specific Event and use it to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that all the mandatory fields are present in the Organization Specific Event TLVs structure
Units	OAMPDU Code field and Data/Pad field values
Variables	Organizationally Unique Identifier and Organization Specific Values
Results	Pass or fail
Remarks	

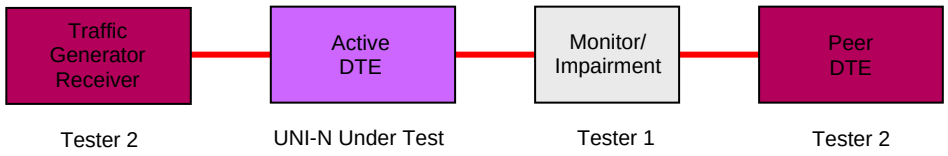
TEST CASE 90NA: Organization Specific Event – Organizationally Unique Identifier field

Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Organization Specific Event – Organizationally Unique Identifier field
Test Definition ID	A-UNIN-ET6-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.3.5)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The three-octet Organizationally Unique Identifier field **SHALL** contain a 24-bit Organizationally Unique Identifier
Test Object	Verify that the three-octet Organizationally Unique Identifier field contains a 24-bit Organizationally Unique Identifier
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use Tester 1 to simulate an Organization Specific Event and use it to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that the three-octet Organizationally Unique Identifier field contains a 24-bit Organizationally Unique Identifier
Units	OAMPDU Code field and Data/Pad field values
Variables	Organizationally Unique Identifier and Organization Specific Values
Results	Pass or fail
Remarks	

TEST CASE 91NA: Reserved Link Event TLV Type values (0x05 to 0xFD)

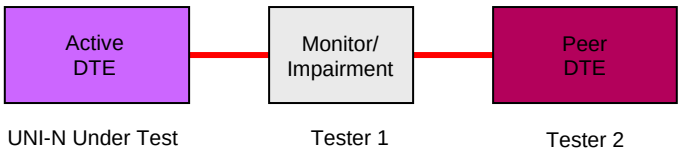
Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Reserved Link Event TLV Type values (0x05 to 0xFD)
Test Definition ID	A-UNIN-ET7-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.12)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Link Event TLV Type values from 0x05 to 0xFD **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Link Event TLV Type values from 0x05 to 0xFD are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) during all the Link Events testing activities and verify that the Link Event TLV Type values from 0x05 to 0xFD are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 92NA: Reserved Link Event TLV Type value (0xFF)

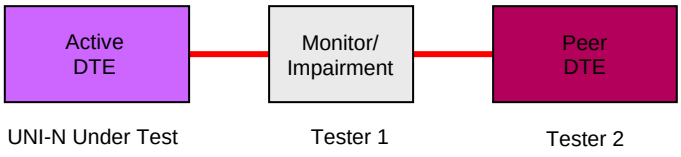
Abstract Test Suite for Link OAM - Link Events TLVs	
Test Name	Reserved Link Event TLV Type value (0xFF)
Test Definition ID	A-UNIN-ET8-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.12)
Test Type	Conformance
Test Status	Mandatory if Event Notification OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Link Event TLV Type value 0xFF **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Link Event TLV Type value 0xFF is not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs and test traffic is flowing between the Traffic Generator/Receiver and the Peer DTE
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Event Notification OAMPDUs transmitted by the Active DTE (UNI-N) during all the Link Events testing activities and to verify that the Link Event TLV Type value 0xFF is never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

11.8 Variables Descriptors & Containers

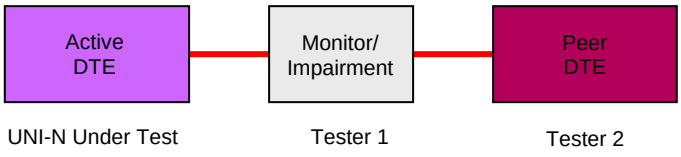
TEST CASE 93NA: Variable Descriptor structure

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Variable Descriptor structure
Test Definition ID	A-UNIN-VAR1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.6.1)
Test Type	Conformance
Test Status	Mandatory if Variable Request OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Variable Descriptor structure **SHALL** contain the following fields (Variable Branch and Variable Leaf)
Test Object	Verify that all the mandatory fields are present in the Variable Descriptor structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Initiate Variable Requests from the Active DTE (UNI-N) and use the Tester 1 to monitor the transmitted Variable Request OAMPDUs and to verify that all the mandatory fields are present in the Variable Descriptor structure
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

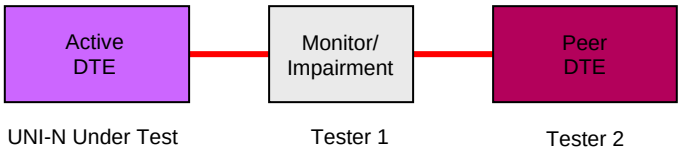
TEST CASE 94NA: Active Mode / Variable Branch / references MIB attributes

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Active Mode / Variable Branch / references MIB attributes
Test Definition ID	A-UNIN-VAR2-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.6.1)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Should a MIB object or a MIB package be referenced in a Variable Request OAMPDU sent to the DTE, only MIB attributes within the object or package **SHALL** be present within the Variable Container returned by the DTE
Test Object	Verify that if objects or packages are referenced within Variable Request OAMPDUs sent to the DTE, only the attributes are present within the Variable Container returned by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to initiate Variable Requests referencing objects and packages and use Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that only the attributes are present within the Variable Container
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

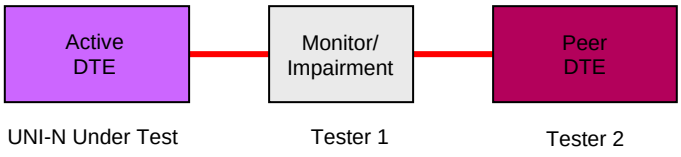
TEST CASE 95NA: Active Mode / Variable Branch / does not reference MIB actions

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Active Mode / Variable Branch / does not reference MIB actions
Test Definition ID	A-UNIN-VAR3-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.6.1)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Actions **SHALL NOT** be found in Variable Containers transmitted by the DTE
Test Object	Verify that Actions are not found in Variable Containers transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to initiate Variable Requests referencing objects and packages and use Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that Actions are not found in the Variable Containers
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

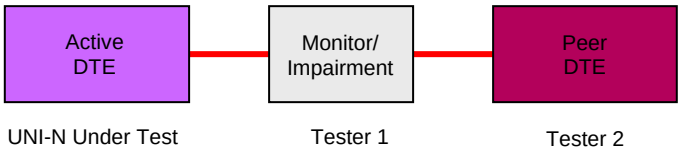
TEST CASE 96NA: Variable Container structure

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Variable Container structure
Test Definition ID	A-UNIN-VAR4-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.6.2)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Variable Container structure **SHALL** contain the following fields (Variable Branch, Variable Leaf, Variable Width & Variable Value)
Test Object	Verify that all the mandatory fields are present in the Variable Container structure
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to initiate Variable Requests referencing objects and packages and use Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that all the mandatory fields are present in the Variable Container structure
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

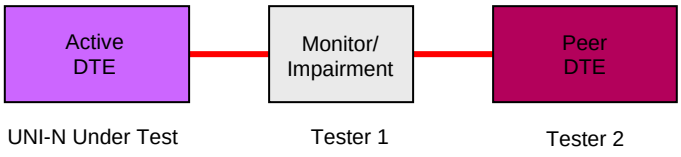
TEST CASE 99NA: Reserved Variable Indication coding value (0x00)

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Reserved Variable Indication coding value (0x00)
Test Definition ID	A-UNIN-VAR7-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.17)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Variable Indication coding value 0x00 **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Variable Indication coding value 0x00 is not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and verify that the Variable Indication coding value 0x00 is never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

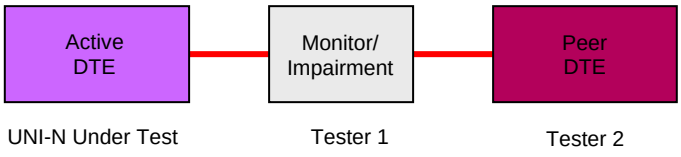
TEST CASE 100NA: Reserved Variable Indication coding values (0x02 to 0x1F)

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Reserved Variable Indication coding values (0x02 to 0x1F)
Test Definition ID	A-UNIN-VAR8-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.17)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Variable Indication coding values from 0x02 to 0x1F **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Variable Indication coding values from 0x02 to 0x1F are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that the Variable Indication coding values from 0x02 to 0x1F are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

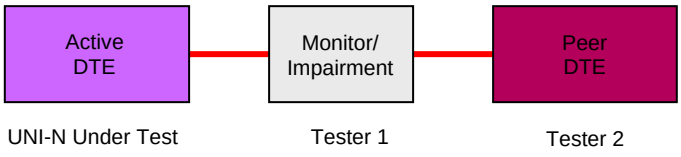
TEST CASE 101NA: Reserved Attribute Indication coding values (0x25 to 0x3F)

Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Reserved Attribute Indication coding values (0x25 to 0x3F)
Test Definition ID	A-UNIN-VAR9-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.17)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Attribute Indication coding values from 0x25 to 0x3F **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Attribute Indication coding values from 0x25 to 0x3F are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that the Attribute Indication coding values from 0x25 to 0x3F are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 102NA: Reserved Object Indication coding values (0x45 to 0x5F)

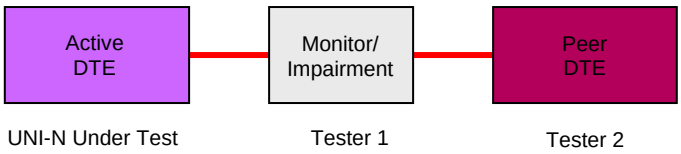
Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Reserved Object Indication coding values (0x45 to 0x5F)
Test Definition ID	A-UNIN-VAR10-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.Table.57.17)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Object Indication coding values from 0x45 to 0x5F **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Object Indication coding values from 0x45 to 0x5F are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that the Object Indication coding values from 0x45 to 0x5F are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 103NA: Reserved Package Indication coding values (0x65 to 0x7F)

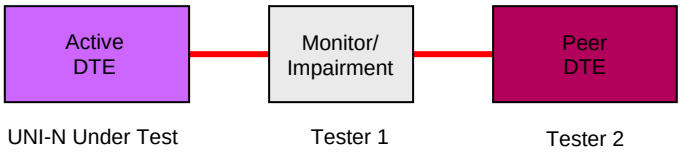
Abstract Test Suite for Link OAM - Variables Descriptors and Containers	
Test Name	Reserved Package Indication coding values (0x65 to 0x7F)
Test Definition ID	A-UNIN-VAR11-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.17)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The Package Indication coding values from 0x65 to 0x7F **SHALL NOT** be transmitted by the DTE
Test Object	Verify that the Package Indication coding values from 0x65 to 0x7F are not transmitted by the DTE
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Tester 1 to monitor the Variable Response OAMPDUs transmitted by the Active DTE (UNI-N) during all the testing activities and to verify that the Package Indication coding values from 0x65 to 0x7F are never transmitted
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

11.9 OAM Additionnal Conformance Tests

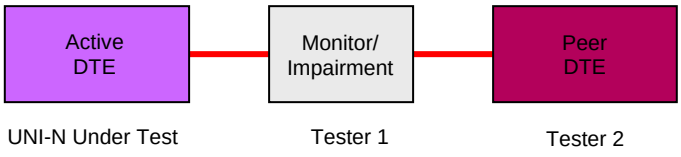
TEST CASE 104NA: Timing considerations for OAM remote loopback - Enable

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Timing considerations for OAM remote loopback - Enable
Test Definition ID	A-UNIN-ACT1-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.11.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Within one second of receiving a Loopback Control OAMPDU with the Enable remote loopback command, the DTE **MUST** set its parameters and send an Information OAMPDU
Test Object	Verify that within one second of receiving a Loopback Control OAMPDU with the Enable remote loopback command, the DTE sets its parameters and sends an Information OAMPDU
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Loopback Control OAMPDU with the Enable remote loopback command to the Active DTE (UNI-N) and use the Tester 1 to verify that within one second, the Active DTE (UNI-N) sets its parameters and sends back an Information OAMPDU
Units	Milliseconds
Variables	None
Results	Pass or fail
Remarks	

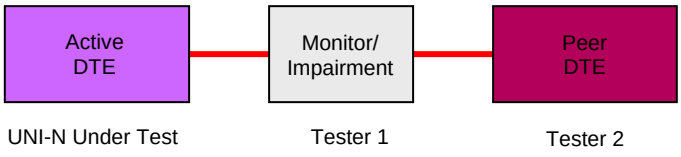
TEST CASE 105NA: Timing considerations for OAM remote loopback - Disable

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Timing considerations for OAM remote loopback - Disable
Test Definition ID	A-UNIN-ACT2-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.11.6)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	Within one second of receiving a Loopback Control OAMPDU with the Disable remote loopback command, the DTE **MUST** set its parameters and send an Information OAMPDU
Test Object	Verify that within one second of receiving a Loopback Control OAMPDU with the Disable remote loopback command, the DTE sets its parameters and sends an Information OAMPDU
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Loopback Control OAMPDU with the Disable remote loopback command to the Active DTE (UNI-N) and use the Tester 1 to verify that within one second, the Active DTE (UNI-N) sets its parameters and sends back an Information OAMPDU
Units	Milliseconds
Variables	None
Results	Pass or fail
Remarks	

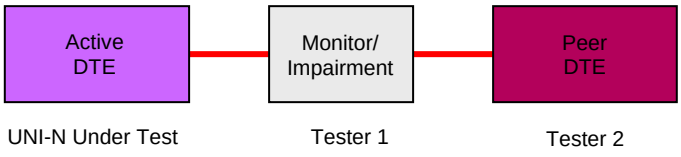
TEST CASE 106NA: Simultaneous OAM remote loopback commands - Higher SA DTE

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Simultaneous OAM Remote Loopback Commands - Higher source address DTE
Test Definition ID	A-UNIN-ACT3-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.11.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When two devices issue simultaneous OAM Remote Loopback commands, the DTE with the higher source address **SHOULD** enter in OAM Remote loopback mode and the DTE with the lower source address **SHOULD** ignore the OAM Remote Loopback command
Test Object	Verify that when two devices issue simultaneous OAM Remote Loopback commands, the DTE with the higher source address enters in OAM Remote loopback mode
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Configure the Active DTE (UNI-N) with a source address higher than the Peer DTE. Initiate OAM Remote Loopbacks with Enable Remote Loopback commands simultaneously from the two DTEs and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and verify that it enters in OAM Remote Loopback mode
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

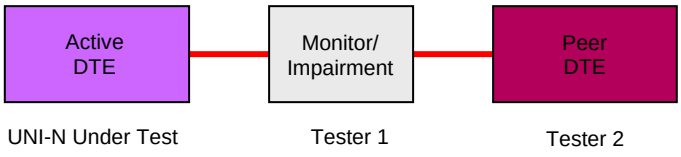
TEST CASE 107NA: Simultaneous OAM remote loopback commands - Lower SA DTE

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Simultaneous OAM Remote Loopback Commands - Lower source address DTE
Test Definition ID	A-UNIN-ACT4-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.11.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When two devices issue simultaneous OAM Remote Loopback commands, the DTE with the higher source address **SHOULD** enter in OAM Remote loopback mode and the DTE with the lower source address **SHOULD** ignore the OAM Remote Loopback command
Test Object	Verify that when two devices issue simultaneous OAM Remote Loopback commands, the DTE with the lower source address ignores the OAM Remote Loopback command
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Configure the Active DTE (UNI-N) with a source address lower than the Peer DTE. Initiate OAM Remote Loopbacks with Enable Remote Loopback commands simultaneously from the two DTEs and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and verify that it ignores the OAM Remote Loopback command
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

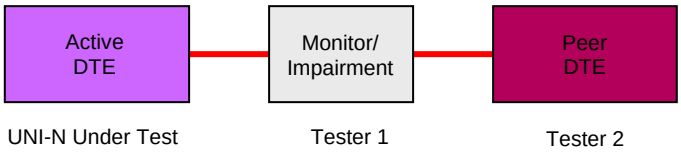
TEST CASE 108NA: Response to an OAM remote loopback command from a Passive peer

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Response to an OAM remote loopback command from a Passive peer
Test Definition ID	A-UNIN-ACT5-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.9.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	An Active DTE **SHOULD NOT** respond to an OAM remote loopback command from a Passive peer
Test Object	Verify that the DTE does not respond to OAM remote loopback commands from Passive peers
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Passive Peer DTE to send a Loopback Control OAMPDU with the Enable remote loopback command to the Active DTE (UNI-N) and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and verify that it does not set its local_mux_action parameter to DISCARD and its local_par_action parameter to LB
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

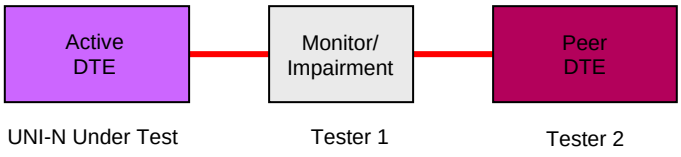
TEST CASE 109NA: OAM TLVs Parsing rules - TLV type 0x00 (End of TLV marker)

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAM TLVs Parsing rules – TLV type 0x00 (End of TLV marker)
Test Definition ID	A-UNIN-ACT6-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHOULD** ignore the length and the value of TLVs type 0x00
Test Object	Verify that the DTE ignores the length and the value of TLVs type 0x00
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with a Local Information TLV of type 0x00 and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Active DTE (UNI-N) and to verify that the lenght and value of the Remote Information TLV is not the copy of the last received Local Information TLV's lenght and value transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

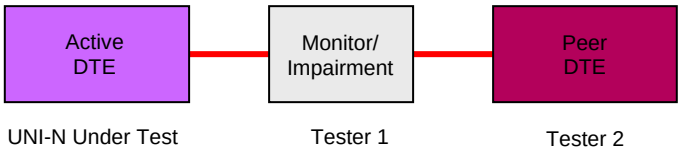
TEST CASE 110NA: OAM TLVs Parsing rules - TLV length 0x00 or 0x01

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAM TLVs Parsing rules – TLV length 0x00 or 0x01
Test Definition ID	A-UNIN-ACT7-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHOULD** consider as invalid and ignore the TLVs with length values of 0x00 or 0x01
Test Object	Verify that the DTE considers as invalid and ignores the TLVs with length values of 0x00 or 0x01
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs with Local Information TLVs of length values equal to 0x00 and 0x01 and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that the lenght of the Remote Information TLVs are not the copies of the last received Local Information TLV's lenght transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

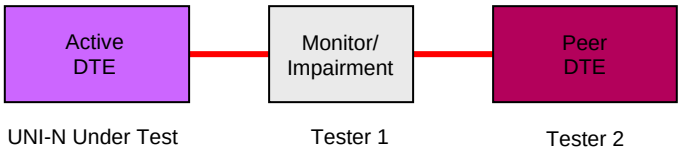
TEST CASE 111NA: OAM TLVs Parsing rules - TLVs with unknown or unexpected types

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAM TLVs Parsing rules – TLVs with unknown or unexpected types
Test Definition ID	A-UNIN-ACT8-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHOULD** ignore TLVs with unknown or unexpected types
Test Object	Verify that the DTE ignores TLVs with unknown or unexpected types
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Information OAMPDUs with Local Information TLVs with unexpected type values* and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that the lenght of the Remote Information TLVs are not the copies of the last received Local Information TLV's type transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	TLV type value
Results	Pass or fail
Remarks	* Suggest to use type values = 0x02 and/or 0xFE

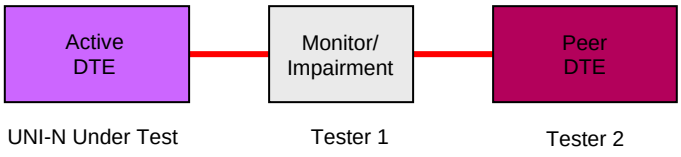
TEST CASE 112NA: OAM TLVs Parsing rules - TLVs with length/type mismatch

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAM TLVs Parsing rules – TLVs with length/type mismatch
Test Definition ID	A-UNIN-ACT9-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When the length is not equal to that defined for the type, the DTE **SHOULD** ignore the TLV and the remainder of the frame
Test Object	Verify that when the length is not equal to that defined for the type, the DTE ignores the TLV and the remainder of the frame
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with a local Information TLV that contains a length/type mismatch and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Active DTE (UNI-N) and to verify that the lenght and the remainder of the Remote Information TLV is not the copy of the last received Local Information TLV transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	TLV length value
Results	Pass or fail
Remarks	

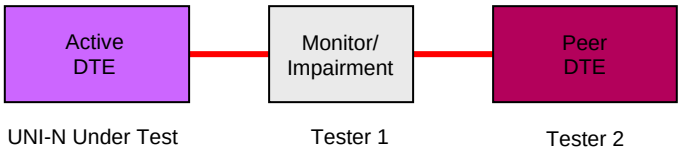
TEST CASE 113NA: OAM TLVs Parsing rules – TLVs extending beyond the OAMPDU frame size

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAM TLVs Parsing rules – TLVs extending beyond the frame size
Test Definition ID	A-UNIN-ACT10-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When the length field value indicates that the TLV extends beyond the OAMPDU frame size, the DTE **SHOULD** ignore it
Test Object	Verify that the DTE ignores the TLV when the length field value indicates that it extends beyond the OAMPDU frame size
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with a Local Information TLV length field value indicating that it extends beyond the OAMPDU frame size and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Active DTE (UNI-N) and to verify that the lenght of the Remote Information TLV is not the copy of the last received Local Information TLV transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

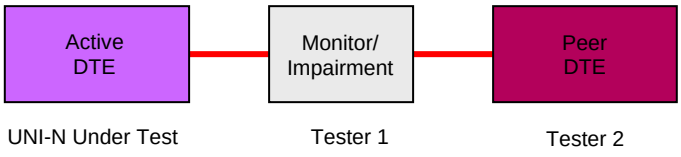
TEST CASE 114NA: Variable parsing rules - Branch field equal to 0x00

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Variable parsing rules – Branch field equal to 0x00
Test Definition ID	A-UNIN-ACT11-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.6.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	When the DTE detects a Variable Branch field equal to 0x00, it **SHOULD** ignore the subsequent fields
Test Object	Verify that upon reception of a Variable Branch field equal to 0x00, the DTE ignores the subsequent fields
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Variable Request OAMPDU with a Branch field equal to 0x00 and use the Tester 1 monitor the Variable Response OAMPDU (if any) transmitted by the Active DTE (UNI-N)
Units	Number of Variable Response OAMPDUs
Variables	None
Results	Pass or fail
Remarks	

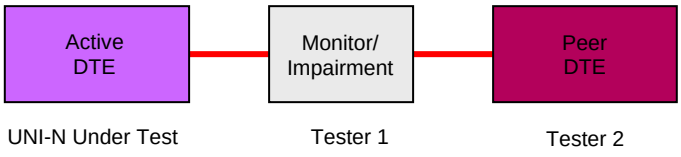
TEST CASE 115NA: Variable parsing rules – Branch or Leaf with unknown or unexpected values

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Variable parsing rules – Branch or Leaf fields with unknown or unexpected values
Test Definition ID	A-UNIN-ACT12-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.6.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHOULD** ignore Branch or Leaf fields with unknown or unexpected values
Test Object	Verify that the DTE ignores Variable Requests with Branch or Leaf fields that contain unknown or unexpected values
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Variable Request OAMPDU with unexpected Branch and Leaf values and use the Tester 1 to monitor the Variable Response OAMPDU (if any) transmitted by the Active DTE (UNI-N)
Units	Number of Variable Response OAMPDUs
Variables	Branch field and Leaf field values
Results	Pass or fail
Remarks	

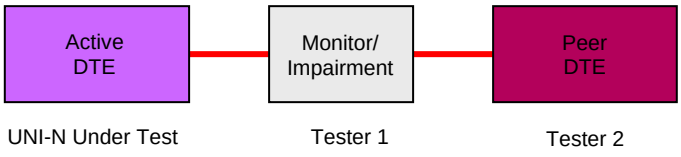
TEST CASE 116NA: Response to a Variable Request from a Passive peer

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Response to a Variable Request from a Passive peer
Test Definition ID	A-UNIN-ACT13-R27
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.9.1)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	An Active DTE **SHOULD NOT** respond to Variable Requests from Passive peers
Test Object	Verify that the DTE does not respond to Variable Requests from Passive peers
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Passive Peer DTE to send a Variable Requests to the Active DTE (UNI-N) and use the Tester 1 to monitor the Variable Response OAMPDU (if any) transmitted by the Active DTE (UNI-N)
Units	Number of Variable Response OAMPDUs
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

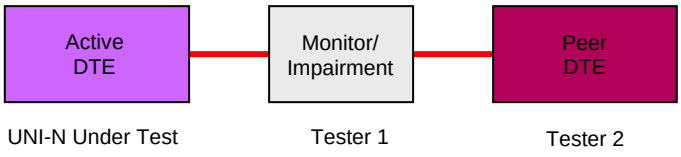
TEST CASE 117NA: Variable Response sent within one second

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Variable Response sent within one second
Test Definition ID	A-UNIN-ACT14-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.4)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	A Variable Response OAMPDU **MUST** be returned within one second of the receipt of a Variable Request OAMPDU
Test Object	Verify that the DTE returns Variable Response OAMPDUs within one second of the receipt of Variable Request OAMPDUs
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Variable Request OAMPDU to the Active DTE (UNI-N) and use the Tester 1 to verify that the Active DTE (UNI-N) returns a Variable Response OAMPDU within one second
Units	Milliseconds
Variables	MIB attribute, MIB package and/or MIB object values
Results	Pass or fail
Remarks	

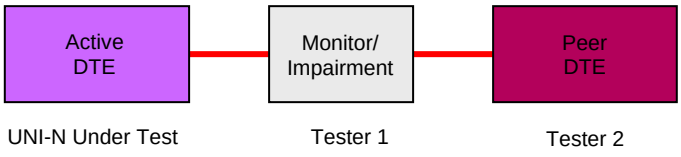
TEST CASE 118NA: Variable Response with an error indication - MIB package

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Variable Response with an error indication - MIB package
Test Definition ID	A-UNIN-ACT15-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.4)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	If the DTE is unable to retrieve one or more attributes within a package, it **MUST** 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 package
Test Object	Verify that if the DTE is unable to retrieve one or more attributes within a package, it a) returns the appropriate Variable Error for the particular attribute(s) and returns all other requested variables or b) returns a Variable Error for the entire package
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Variable Request OAMPDU that contains a request for an attribute within a package not supported by the Active DTE (UNI-N) and use the Tester 1 to monitor the Variable Response OAMPDU transmitted by the Active DTE (UNI-N) and to verify that either the UNI-N returns the appropriate Variable Error for the particular attribute and return all other requested variables or that it returns a Variable Error for the entire package
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB package
Results	Pass or fail
Remarks	Information on the supported MIBs must be provided by the equipment vendor

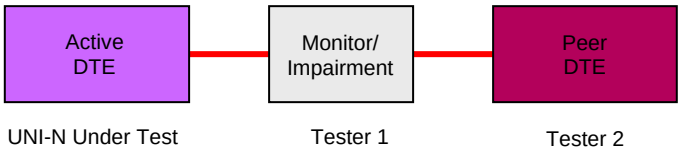
TEST CASE 119NA: Variable Response with an error indication - MIB object

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Variable Response with an error indication - MIB object
Test Definition ID	A-UNIN-ACT16-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.3.4)
Test Type	Conformance
Test Status	Mandatory if Variable Response OAMPDUs are supported
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	If the DTE is unable to retrieve one or more attributes within an object, it **MUST** 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
Test Object	Verify that if the DTE is unable to retrieve one or more attributes within an object, it a) returns the appropriate Variable Error for the particular attribute(s) and returns all other requested variables or b) returns a Variable Error for the entire object
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send a Variable Request OAMPDU that contains a requests for an attribute within an object not supported by the Active DTE (UNI-N) and use the Tester 1 to monitor the Variable Response OAMPDU transmitted by the Active DTE (UNI-N) and to verify that either the UNI-N returns the appropriate Variable Error for the particular attribute and return all other requested variables or that it returns a Variable Error for the entire object
Units	OAMPDU Code field and Data/Pad field values
Variables	MIB attribute, MIB object
Results	Pass or fail
Remarks	Information on the supported MIBs must be provided by the equipment vendor

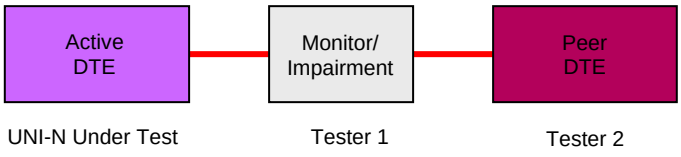
TEST CASE 120NA: Reserved bits ignored on reception – Flags field

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Reserved bits ignored on reception - Flags field
Test Definition ID	A-UNIN-ACT17-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	For compatibility with future use, the DTE **SHOULD** ignore the received Flags field Reserved bits
Test Object	Verify that the DTE ignores the received Flags field reserved bits set high, and processes the OAMPDUs normally
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with the Flags field reserved bits set high and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Active DTE (UNI-N) and verify that the Remote Information TLV is the copy of the last received Local Information TLV transmitted by the Peer DTE and that the Flags field reserved bits are set to 0
Units	OAMPDU Flags and Data/Pad fields value
Variables	None
Results	Pass or fail
Remarks	

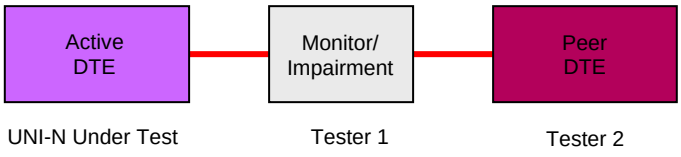
TEST CASE 121NA: Reserved bits ignored on reception – State field

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Reserved bits ignored on reception – State field
Test Definition ID	A-UNIN-ACT18-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.7)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	For compatibility with future use, the DTE **SHOULD** ignore the received State field Reserved bits
Test Object	Verify that the DTE ignores the received State field reserved bits set high, and processes the Information OAMPDUs normally
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with the State field reserved bits of the Local Information TLV set high and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Active DTE (UNI-N) and to verify that the Remote Information TLV is the copy of the last received Local Information TLV transmitted by the Peer DTE but that the State field reserved bits are set to 0
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

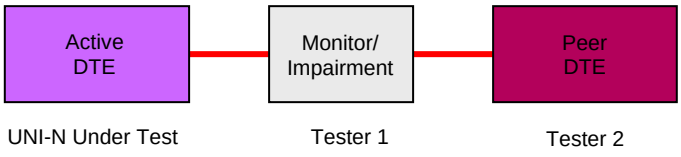
TEST CASE 122NA: Reserved bits ignored on reception – OAM Configuration field

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Reserved bits ignored on reception – OAM Configuration field
Test Definition ID	A-UNIN-ACT19-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.8)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	For compatibility with future use, the DTE **SHOULD** ignore the received OAM Configuration field Reserved bits
Test Object	Verify that the DTE ignores the received OAM Configuration field reserved bits set high, and processes the Information OAMPDUs normally
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with the OAM Configuration field reserved bits of the Local Information TLV set high and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Active DTE (UNI-N) and to verify that the Remote Information TLV is the copy of the last received Local Information TLV transmitted by the Peer DTE but that the OAM Configuration field reserved bits are set to 0
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

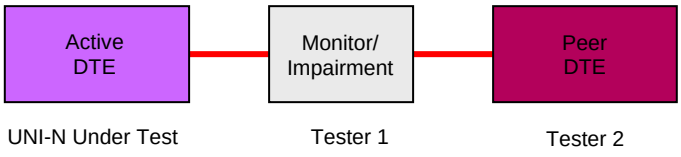
TEST CASE 123NA: Reserved bits ignored on reception – OAMPDU Configuration field

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Reserved bits ignored on reception – OAMPDU Configuration field
Test Definition ID	A-UNIN-ACT20-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.9)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	For compatibility with future use, the DTE **SHOULD** ignore the received OAMPDU Configuration field Reserved bits
Test Object	Verify that the DTE ignores the received OAMPDU Configuration field reserved bits set high, and processes the Information OAMPDUs normally
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with the OAMPDU Configuration field reserved bits of the Local Information TLV set high and use the Tester 1 to monitor the next Information OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that the Remote Information TLV is the copy of the last received Local Information TLV transmitted by the Peer DTE but that the OAMPDU Configuration field reserved bits are set to 0
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

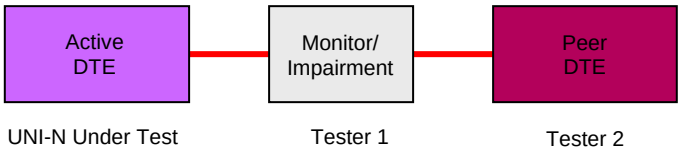
TEST CASE 124NA: Remote Stable and Remote Evaluating bits reserved encoding

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Remote Stable and Remote Evaluating bits reserved encoding
Test Definition ID	A-UNIN-ACT21-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHOULD** ignore the Remote Stable and Remote Evaluating bits of the Flags field set to 0x3, and not change the last received value
Test Object	Verify that the DTE ignores the Remote Stable and Remote Evaluating bits of the Flags field set to 0x3, and does not change the last received value
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with the Remote Stable and Remote Evaluating bits of the Flags field set to 0x3 and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Active DTE (UNI-N) and to verify that the Remote Stable and Remote Evaluating bits of the Flags field are still set to the last received value (not updated to 0x3)
Units	OAMPDU Flags field value
Variables	None
Results	Pass or fail
Remarks	

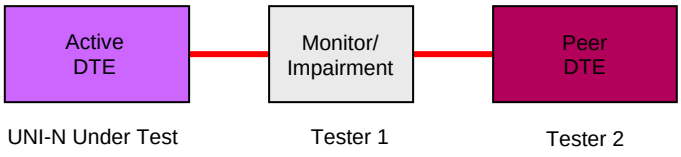
TEST CASE 125NA: Local Stable and Local Evaluating bits reserved encoding

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Local Stable and Local Evaluating bits reserved encoding
Test Definition ID	A-UNIN-ACT22-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I. Table 57.3)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHOULD** ignore the Local Stable and Local Evaluating bits of the Flags field set to 0x3, and not change the last received value
Test Object	Verify that the DTE ignores the Local Stable and Local Evaluating bits of the Flags field set to 0x3, and does not change the last received value
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with the Local Stable and Local Evaluating bits of the Flags field set to 0x3 and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Active DTE (UNI-N) and to verify that the Local Stable and Local Evaluating bits of the Flags field are still set to the last received value (not updated to 0x3)
Units	OAMPDU Flags field value
Variables	None
Results	Pass or fail
Remarks	

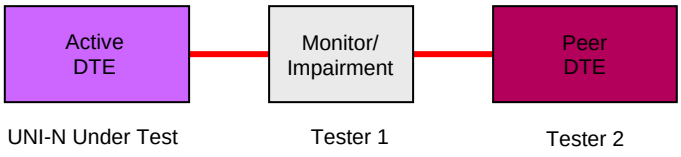
TEST CASE 126NA: Invalid OAMPDUs ignored on reception – Destination address

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Invalid OAMPDUs ignored on reception – Destination address
Test Definition ID	A-UNIN-ACT23-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHALL** ignore OAMPDUs with invalid Destination address values
Test Object	Verify that the DTE ignores OAMPDUs with invalid Destination address values
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with an invalid Destination address and with a Local Information TLV including an updated Vendor Specific Information Field value and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Active DTE (UNI-N) and to verify that the Vendor Specific Information Field value of the Remote Information TLV is not the copy of the last received Vendor Specific Information Field transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

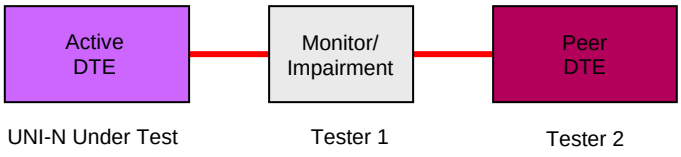
TEST CASE 127NA: Invalid OAMPDUs ignored on reception – Length/Type

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Invalid OAMPDUs ignored on reception – Length/Type
Test Definition ID	A-UNIN-ACT24-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHALL** ignore OAMPDUs with invalid Length\Type values
Test Object	Verify that the DTE ignores OAMPDUs with invalid Length/Type values
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDUs with invalid Length/Type and with a Local Information TLV including an updated Vendor Specific Information Field value and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Active DTE (UNI-N) and to verify that the Vendor Specific Information Field value of the Remote Information TLV is not the copy of the last received Vendor Specific Information Field transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

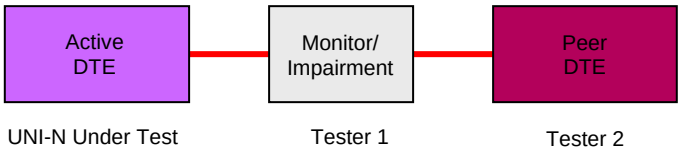
TEST CASE 128NA: Invalid OAMPDUs ignored on reception – Subtype

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Invalid OAMPDUs ignored on reception – Subtype
Test Definition ID	A-UNIN-ACT25-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.4.2)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHALL** ignore OAMPDUs with invalid Subtype values
Test Object	Verify that the DTE ignores OAMPDUs with invalid Subtype values
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send an Information OAMPDU with invalid Subtype with a Local Information TLV including an updated Vendor specific Information Field value and use the Tester 1 to monitor the next Information OAMPDU transmitted by the Active DTE (UNI-N) and to verify that the Vendor Specific Information Field value of the Remote Information TLV is not the copy of the last received Vendor Specific Information Field transmitted by the Peer DTE
Units	OAMPDU Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

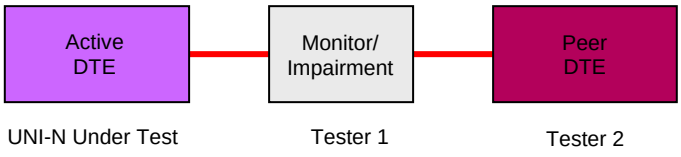
TEST CASE 129NA: OAMPDU frames generation - FAULT State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAMPDU frames generation – FAULT State
Test Definition ID	A-UNIN-ACT26-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the FAULT state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a minimum rate of one frame per second
Test Object	Verify that while the DTE is in the FAULT State, it generates at least one Information OAMPDU per second
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the FAULT State of the Discovery Process, use the Tester 1 to monitor the rate at which the Active DTE (UNI-N) transmits Information OAMPDUs and to verify that at least one Information OAMPDU is transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

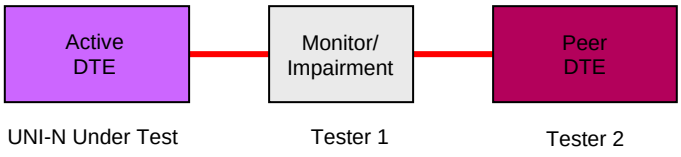
TEST CASE 130NA: OAMPDU frames generation – ACTIVE_SEND_LOCAL State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAMPDU frames generation – ACTIVE_SEND_LOCAL State
Test Definition ID	A-UNIN-ACT27-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the ACTIVE_SEND_LOCAL state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a minimum rate of one frame per second
Test Object	Verify that while the DTE is in the ACTIVE_SEND_LOCAL State, it generates at least one Information OAMPDU per second
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the ACTIVE_SEND_LOCAL State of the Discovery Process, use the Tester 1 to monitor the rate at which the Active DTE (UNI-N) transmits Information OAMPDUs and to verify that at least one Information OAMPDU is transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

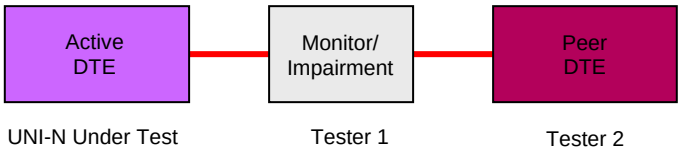
TEST CASE 131NA: OAMPDU frames generation – SEND_LOCAL_REMOTE State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAMPDU frames generation – SEND_LOCAL_REMOTE State
Test Definition ID	A-UNIN-ACT28-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the SEND_LOCAL_REMOTE state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a minimum rate of one frame per second
Test Object	Verify that while the DTE is in the SEND_LOCAL_REMOTE State, it generates at least one Information OAMPDU per second
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the SEND_LOCAL_REMOTE State of the Discovery Process, use the Tester 1 to monitor the rate at which the Active DTE (UNI-N) transmits Information OAMPDUs and to verify that at least one Information OAMPDU is transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

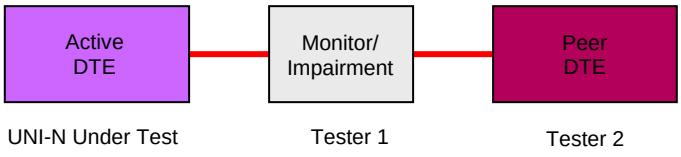
TEST CASE 132NA: OAMPDU frames generation – SEND_LOCAL_REMOTE_OK State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAMPDU frames generation – SEND_LOCAL_REMOTE_OK State
Test Definition ID	A-UNIN-ACT29-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the SEND_LOCAL_REMOTE_OK state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a minimum rate of one frame per second
Test Object	Verify that while the DTE is in the SEND_LOCAL_REMOTE_OK State, it is generates at least one Information OAMPDU per second
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the SEND_LOCAL_REMOTE_OK State of the Discovery Process, use the Tester 1 to monitor the rate at which the Active DTE (UNI-N) transmits Information OAMPDUs and to verify that at least one Information OAMPDU is transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

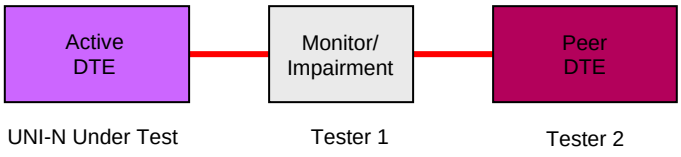
TEST CASE 133NA: OAMPDU frames generation – SEND_ANY State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	OAMPDU frames generation – SEND_ANY State
Test Definition ID	A-UNIN-ACT30-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the SEND_ANY state, the DTE **MUST** send OAMPDUs in a periodic fashion, at a minimum rate of one frame per second
Test Object	Verify that while the DTE is in the SEND_ANY State, it generates at least one OAMPDU per second
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the SEND_ANY State, use the Tester 1 to monitor the rate at which the Active DTE (UNI-N) transmits Information OAMPDUs and to verify that at least one Information OAMPDU is transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

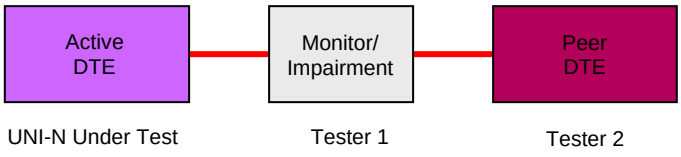
TEST CASE 134NA: Maximum size OAMPDU

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Maximum size OAMPDU
Test Definition ID	A-UNIN-ACT31-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.5.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	The DTE **SHALL** accept OAMPDUs up to the Maximum OAMPDU Size set in the OAMPDU Configuration field
Test Object	Verify that the DTE accepts OAMPDUs up to the Maximum OAMPDU Size set in the OAMPDU Configuration field
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send Maximum size Information OAMPDUs and use the Tester 1 to monitor the Information OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that the Remote Information TLVs are the copies of the last received Local Information TLVs transmitted by the Peer DTE
Units	OAMPDUs Code field and Data/Pad field values
Variables	Maximum OAMPDU size
Results	Pass or fail
Remarks	

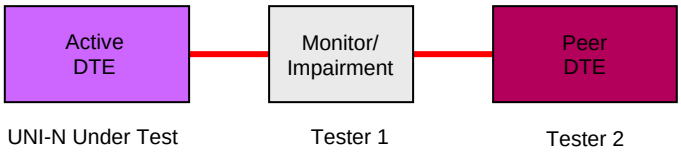
TEST CASE 135NA: Maximum OAMPDU Frames Generation – ACTIVE_SEND_LOCAL State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Maximum OAMPDU frames generation – ACTIVE_SEND_LOCAL State
Test Definition ID	A-UNIN-ACT32-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the ACTIVE_SEND_LOCAL state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a maximum rate of ten frames per second
Test Object	Verify that while the DTE is in the ACTIVE_SEND_LOCAL State, it generates a maximum of ten Information OAMPDUs per second
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the ACTIVE_SEND_LOCAL State of the Discovery Process, use the Tester 1 to monitor the rate at which the Active DTE (UNI-N) transmits Information OAMPDUs and to verify that a maximum of ten Information OAMPDU are transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

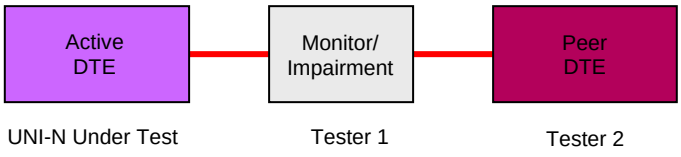
TEST CASE 136NA: Maximum OAMPDU frames generation – SEND_LOCAL_REMOTE State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Maximum OAMPDU frames generation – SEND_LOCAL_REMOTE State
Test Definition ID	A-UNIN-ACT33-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the SEND_LOCAL_REMOTE state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a maximum rate of ten frames per second
Test Object	Verify that while the DTE is in the SEND_LOCAL_REMOTE State, it generates a maximum of ten Information OAMPDUs per second
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the SEND_LOCAL_REMOTE State of the Discovery Process, use the Tester 1 to monitor the rate at which the Active DTE (UNI-N) transmits Information OAMPDUs and to verify that a maximum of ten Information OAMPDU are transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

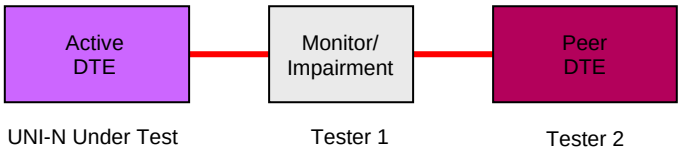
TEST CASE 137NA: Maximum OAMPDU frames generation – SEND_LOCAL_REMOTE_OK State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Maximum OAMPDU frames generation – SEND_LOCAL_REMOTE_OK State
Test Definition ID	A-UNIN-ACT34-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the SEND_LOCAL_REMOTE_OK state of the OAM Discovery process, the DTE **MUST** send Information OAMPDUs in a periodic fashion, at a maximum rate of ten frames per second
Test Object	Verify that while the DTE is in the SEND_LOCAL_REMOTE_OK State, it is generates a maximum of ten Information OAMPDUs per second
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the SEND_LOCAL_REMOTE_OK State of the Discovery Process, use the Tester 1 to monitor the rate at which the Active DTE (UNI-N) transmits Information OAMPDUs and to verify that a maximum of ten Information OAMPDU are transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

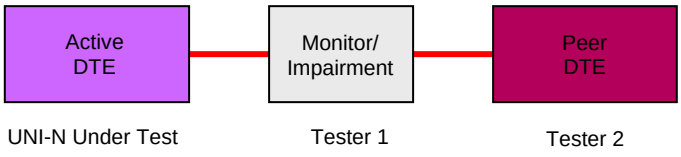
TEST CASE 138NA: Maximum OAMPDU frames generation – SEND_ANY State

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Maximum OAMPDU frames generation – SEND_ANY State
Test Definition ID	A-UNIN-ACT35-R25
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.3.2.2.1)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** support Active DTE mode capabilities as specified in clause 57.2.9 of [IEEE 802.3] and summarized in Table 1
IEEE Requirement Description	During the SEND_ANY state, the DTE **MUST** send OAMPDUs in a periodic fashion, at a maximum rate of ten frames per second
Test Object	Verify that while the DTE is in the SEND_ANY State, it generates a maximum of ten OAMPDUs per second
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	During the SEND_ANY State, use the Tester 1 to monitor the rate at which the Active DTE (UNI-N) transmits OAMPDUs and to verify that a maximum of ten OAMPDUs are transmitted per second
Units	OAMPDU frames per second
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 139NA: Unidirectional OAM Operation

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Unidirectional OAM Operation
Test Definition ID	A-UNIN-ACT36-R28
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.2.12)
Test Type	Conformance
Test Status	Optional
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **SHOULD** support unidirectional OAM operation as per clause 57.2.12 of [IEEE 802.3], when the UNI is one of the 100BASE-X, 1000BASE-X (excluding 1000BASE-PX-D and 1000BASE-PX-U), 10GBASE-R, 10GBASE-W and 10GBASE-X physical layers as specified in clause 66 of [IEEE 802.3]
IEEE Requirement Description	When a link is operating in unidirectional OAM mode, the OAM sublayer ensures that only Information OAMPDUs with Link Fault critical link event indication set and no Information TLVs are sent once per second across the link
Test Object	Verify that when a link is operating in unidirectional OAM mode, the OAM sublayer ensures that only Information OAMPDUs with Link Fault critical link event indication set and no Information TLVs are sent once per second across the link
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Testers to simulate a link fault and when the link is operating in unidirectional OAM mode, use the Tester 1 to monitor the OAMPDUs transmitted by the Active DTE (UNI-N) and to verify that only Information OAMPDUs with Link Fault critical link event indication set and no Information TLVs are sent once per second across the link
Units	OAMPDU frames per second, OAMPDUs Code field and Data/Pad field values
Variables	None
Results	Pass or fail
Remarks	

TEST CASE 140NA: Pause Frame Generation

Abstract Test Suite for Link OAM - Additional Conformance Tests	
Test Name	Pause Frame Generation
Test Definition ID	A-UNIN-ACT37-R30
Reference Document	MEF 20 UNI Type 2 Implementation Agreement Section 10.1 IEEE 802.3-2005 Clause 57 (I.57.1.5.3)
Test Type	Conformance
Test Status	Mandatory
MEF Requirement Description	For each physical link in the UNI, a UNI-N Type 2.1 that supports Link OAM and a UNI-N Type 2.2 **MUST** be able to turn off the 802.3x (PAUSE) frame generation to enable proper Link OAM operation over the UNI as per clause 57.1.5.3 of [IEEE 802.3]
IEEE Requirement Description	MAC Control PAUSE may delay or prevent the signaling of critical events such as unrecoverable failure conditions and link faults
Test Object	Verify that a UNI-N Type 2 is able to turn off the 802.3x (PAUSE) frame generation to enable proper Link OAM operation over the UNI
Test Configuration	Link OAM frames run between the Active DTE (UNI-N) and the Peer DTE. Tester 1 in monitoring mode is placed between the two DTEs
Test Configuration Schematic	
Test Procedure	Use the Peer DTE to send traffic at line rate to the Active DTE (UNI-N) and use the Tester 1 to monitor the OAMPDUs and the Pause frames (if any) transmitted by the Active DTE (UNI-N) and to verify that at least one OAMPDU is transmitted per second
Units	Number of Pause frames, number of OAMPDUs per second
Variables	None
Results	Pass or fail
Remarks	

12. References

References	Details
[1] UNI Type 2 IA	MEF 20 [UNI Type 2 Implementation Agreement]
[2] Abstract Test Suite for Ethernet Services at the UNI	MEF 9 [Abstract Test Suite for Ethernet Services at the UNI]
[3] IEEE 802.3 – 2005	IEEE, Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications, Dec 2005
[4] RFC 2119	RFC 2119, "Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, http://www.ietf.org/rfc/rfc2119.txt (Normative)
[5] RFC 2285	RFC 2285, "Benchmarking Terminology for LAN Switching Devices", R. Mandeville, http://www.ietf.org/rfc/rfc2285.txt
[6] RFC 2544	RFC 2544, "Benchmarking Methodology for Network Interconnect Devices", S. Bradner, J. McQuaid, http://www.ietf.org/rfc/rfc2544.txt
[7] RFC 2889	RFC 2889, "Benchmarking Methodology for LAN Switching Devices", R. Mandeville, J. Perser, http://www.ietf.org/rfc/rfc2889.txt