



Technical Specification

MEF 49.0.1

Service Activation Testing Control Protocol and PDU Formats Amendment 1

April 2015

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Introduction

This amendment makes the following changes to MEF 49:

- Update to Table 9 to correct a typo for SubType Value 8.
- Update to Table 10 to indicate that an option exists to specify the Destination MAC Address in the Forward direction for a Bandwidth Test.
- Update to section 10.4.2.17 to clarify that the Rate Type TLV can be used for bandwidth and frame delivery tests.

10 SAT Control Protocol PDU

10.4 SAT TLVs

Table 9 is updated to correct a typo in the row for SubType Value 8.

SubType Value	TLV Name	Valid Values	Length of Value	Description
0	Measurement Type	0 = FLR only 1 = FLR and Rate	1 Octet	Indicates whether only FLR, or both FLR and Rate (IR or ULR), should be measured
1	MAC Address	Any valid unicast MAC address	6 Octets	GTF or CTF MAC address
2	Destination MAC Address	Any valid MAC address	6 Octets	Destination MAC address
3	Green PCP	0 - 7	1 Octet	Used to indicate Green PCP
4	Yellow PCP	0 - 7	1 Octet	Used to indicate Yellow PCP
5	Duration	1 - 86400	4 Octets	Duration of the test session in seconds
6	EtherType	0x0600 – 0xFFFF	2 Octets	EtherType to be generated
7	SAP	0x0000 – 0xFFFF	2 Octets	DSAP/SSAP to be generated
8	Frame Length	See section 10.4.2.7	See section 10.4.2.7	Length of test frames (containing FL_PDUs), in octets
9	Frame Pattern	0 = Repeating Pattern 1 = PRBS31 See section 10.4.2.8	1 Octet or 9 Octets – see section 10.4.2.8	Either PRBS31 or 8 Octet repeating pattern
10	Frame Quantity	0 - $2^{64}-1$	8 octets	Number of frames to be transmitted or number of green frames received

SubType Value	TLV Name	Valid Values	Length of Value	Description
11	Frame Interval	1 - 65535	2 Octets	The time between transmitted frames in milliseconds
12	Green Rate	$1 - 2^{32}-1$	4 Octets	Rate of Green frames to transmit in kbps
13	Yellow Rate	$1 - 2^{32}-1$	4 Octets	Rate of Yellow frames to transmit in kbps
14	Yellow Frame Quantity	$0 - 2^{64}-1$	8 Octets	Number of Yellow frames transmitted or received
15	Measured Rate Duration	$1 - 2^{64}-1$	8 Octets	Time in nanoseconds from the transmission or receipt of the first time stamped frame to the transmission or receipt of the last time stamped frame in the test
16	Test Session Status	See Table 12	1 Octet	Test Session status
17	Yellow DEI	0 = DEI unset 1 = DEI set	1 Octet	DEI value for Yellow frames
18	Rate Type	0 = IR 1 = ULR	1 Octet	Whether frame rates are expressed as IR or ULR

SubType Value	TLV Name	Valid Values	Length of Value	Description
19	Measured Rate Green Bits	$0 - 2^{64}-1$	8 Octets	Number of Green bits transmitted or received between the first time stamped frame and the last time stamped frame in the test session
20	Measured Rate Yellow Bits	$0 - 2^{64}-1$	8 Octets	Number of Yellow bits transmitted or received between the first time stamped frame and the last time

Table 9 TLV SubTypes

10.4.1 Tests and TLV Type Use

This amendment modifies the Destination MAC Address row of the Bandwidth Test column of Table 10 to reflect that specifying the Destination MAC Address is optional in the forward direction.

Subtypes	L2CP Test	Frame Delivery Test - Frame Count Specified	Frame Delivery Test - Rate Specified	Bandwidth Test
Measurement Type	F, B	F, B	F, B	F, B
MAC Address	F	F	F	F
Destination MAC Address	(F), B	(F), B	(F), B	(F), B
Green PCP	F, B	F, B	F, B	F, B
Yellow PCP				(F), (B)
Duration	F	F	F, B	F, B
EtherType	(B)			
SAP	(B)			
Frame Length		(B)	(B)	(B)
Frame Pattern		(B)	(B)	(B)
Frame Quantity	B	B		
Frame Interval	B	B		
Green Rate			B	B
Yellow Rate				(B)
Yellow DEI				(F), (B)
Rate Type			B	F, B

Table 10 Initiate Session Request Message TLVs

10.4.2 SAT TLV Types10.4.2.17 *Rate Type*

The first sentence of this paragraph is modified to clarify that the Rate Type TLV can be used for bandwidth and frame delivery tests.

The Rate Type TLV is used for bandwidth and frame delivery tests, to indicate whether the Green Rate and Yellow Rate TLVs contain values for IR or ULR, and whether the Measured Rate Green Bits and Measured Rate Yellow Bits TLVs contain bit counts that correspond to IR or ULR. The Responder End returns the Rate Type TLV value in the Fetch Session Results Response message to indicate which method, IR or ULR, was used to calculate the Measured Rate Green/Yellow Bits. The Controller End can then convert the result to the desired method as appropriate.