



	Release 8_5_2	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x		
Туре	FRR	FRR	FRR	FRR	FRR					
Commit ID	04c9a28									
Commit Date	2023-06-15									
IPV6-MLD-1.1	RFC 2710 s3	RFC 2710 s3 p2 Message Format								
MUST	Source Addre	sages describess, an IPv6 n [RTR-ALERT MLD General	Hop Limit of ] in a Hop-by	Pv6 Router header.						
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-1.2	NEGATIVE R	FC 2710 s3 p2	Message For	mat						
MUST	link-local C Options head (Tests that	IPv6 Source <i>I</i> der.	Address, Query Messag	document are in a Hop-by- ge conforms to Address)	Нор					
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-1.3	NEGATIVE R	FC 2710 s3 p2	Message For	mat						
SHOULD	an IPv6 Hop (Tests that	Limit of 1,	Options Query Messag		sent with					
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									





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IPV6-MLD-1.4	NEGATIVE R	FC 2710 s3 p2	Message For	mat						
MUST	All MLD messages described sent with IPv6 Router Alert option [RTR-ALERT] in a Hop-by-Hop Options header.  (Tests that MLD General Query Message conforms to above statement for Router Alert option [RTR-ALERT] in a Hop-by-Hop Options header)									
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-1.5	NEGATIVE R	FC 2710 s3 p2	Message For	mat RFC 2460	s4 p6 IPv6 Ex	tension Heade	rs			
MUST	All MLD messages are sent with Hop-by-Hop Options header. (IPv6 Specification) The Hop-by-Hop Options header, when present, must immediately follow the IPv6 header (Tests that MLD General Query Message conforms to above statement for ordering of Hop-by-Hop Options header)									
	Free BSD 10.3 untested									
	Ubuntu 18.04: FAIL									
	Free BSD 12.0 untested									
IPV6-MLD-1.6	RFC 2710 s3	p2 Message F	ormat							
MUST	Source Addre option [RTR-(Tests that	ess, an IPv6 -ALERT] in a	Hop Limit of Hop-by-Hop ( st-Address-Sp	sent with a left, and an left, and an left, and securions headeness.	Pv6 Router A					
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									





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IPV6-MLD-1.7	NEGATIVE R	FC 2710 s3 p2	Message For	mat				
MUST	All MLD messages described in this document are sent with a link-local IPv6 Source Address, in a Hop-by-Hop Options header.  (Tests that MLD Multicast-Address-Specific Query Message conforms to above statement for link-local IPv6 Source Address)							
	Free BSD 10.3 untested							
	Ubuntu 18.04: pass							
	Free BSD 12.0 untested							
IPV6-MLD-1.8	NEGATIVE R	FC 2710 s3 p2	Message For	mat				
SHOULD	an IPv6 Hop (Tests that	Limit of 1,	Options st-Address-Sp	pecific Query				
	untested							
	Ubuntu 18.04: pass							
	Free BSD 12.0 untested							
IPV6-MLD-1.9	NEGATIVE R	FC 2710 s3 p2	Message For	mat				
MUST	option [RTR- (Tests that conforms to	-ALERT] in a MLD Multicas	Hop-by-Hop ( st-Address-Spanner for Rout	with IPv Options heade pecific Query ter Alert opt	er. 7 Message			
	Free BSD 10.3 untested							
	Ubuntu 18.04: pass							
	Free BSD 12.0 untested							





	Release 8_5_2	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x
IPV6-MLD-1.10	NEGATIVE R	FC 2710 s3 p2	Message For	mat RFC 2460	s4 p6 IPv6 Ex	tension Heade	rs	
MUST	(IPv6 Specifi present, mus (Tests that	fication) The st immediate	e Hop-by-Hop Ly follow the Lery Message	Hop-by-Hop Op Options head E IPv6 header conforms to header)	der, when			
	Free BSD 10.3 untested							
	Ubuntu 18.04: pass							
	Free BSD 12.0 untested							
IPV6-MLD-1.11	RFC 2710 s3	p2 Message F	ormat					
MUST	All MLD messages described in this document are sent with a link-local IPv6 Source Address, an IPv6 Hop Limit of 1, and an IPv6 Router Alert option [RTR-ALERT] in a Hop-by-Hop Options header.  (Tests that MLD Report Message conforms to above statement)							
	Free BSD 10.3 untested							
	Ubuntu 18.04: pass							
	Free BSD 12.0 untested							
IPV6-MLD-1.12	NEGATIVE R	FC 2710 s3 p2	Message For	mat				
MUST	link-local C Options head (Tests that	IPv6 Source A der. MLD Report N	Address, Message confo	document are in a Hop-by- orms Pv6 Source Ad	-Нор			
	Free BSD 10.3 untested							
	Ubuntu 18.04: pass							
	Free BSD 12.0 untested							





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	Release 8_5_2	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x			
IPV6-MLD-1.13	NEGATIVE R	FC 2710 s3 p2	Message For	mat							
SHOULD	All MLD messages described in this document are sent with an IPv6 Hop Limit of 1, Options header. (Tests that MLD Report Message conforms to above statement for IPv6 Hop Limit)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-1.14	NEGATIVE RFC 2710 s3 p2 Message Format										
MUST	All MLD messages described sent with IPv6 Router Alert option [RTR-ALERT] in a Hop-by-Hop Options header.  (Tests that MLD Report Message conforms to above statement for Router Alert option [RTR-ALERT] in a Hop-by-Hop Options header)  Free BSD 10.3										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-1.15	NEGATIVE R	FC 2710 s3 p2	Message For	mat RFC 2460	s4 p6 IPv6 Ext	ension Heade	rs				
MUST	All MLD messages sent with Hop-by-Hop Options header.  (IPv6 Specification) The Hop-by-Hop Options header, when present, must immediately follow the IPv6 header  (Tests that MLD Report Message conforms to above statement for and order of the property of the part of the property										
	for ordering of Hop-by-Hop Options header)  Free BSD 10.3										
	untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-1.16	RFC 2710 s3	p2 Message F	ormat								
MUST	a link-local and an IPv6 Options head	l IPv6 Source Router Alert der.	e Address, an t option [RTH	document are n IPv6 Hop Li R-ALERT] in a	mit of 1, Hop-by-Hop						
	Free BSD 10.3 untested										
	Ubuntu 18.04: FAIL										
	Free BSD 12.0 untested										





	Release	Release	Release	Release	Release	Release	Release	Release		
	8_5_2	x.x.x	x.x.x	x.x.x	x.x.x	x.x.x	x.x.x	x.x.x		
IPV6-MLD-1.17	NEGATIVE R	FC 2710 s3 p2	Message For	mat						
SHOULD	All MLD messages described in this document are sent with a link-local IPv6 Source Address, in a Hop-by-Hop Options header.  (Tests that MLD Done Message conforms to above statement for link-local IPv6 Source Address)									
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-1.18	NEGATIVE R	FC 2710 s3 p2	Message For	mat						
SHOULD	an IPv6 Hop (Tests that	sages descrik Limit of 1, MLD Done Mes atement for 1	Options ssage confort	ms	sent with					
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-1.19	NEGATIVE R	FC 2710 s3 p2	Message For	mat						
MUST	All MLD messages described sent with IPv6 Router Alert option [RTR-ALERT] in a Hop-by-Hop Options header.  (Tests that MLD Done Message conforms to above statement for Router Alert option [RTR-ALERT] in a Hop-by-Hop Options header)									
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-1.20	NEGATIVE R	FC 2710 s3 p2	Message For	mat RFC 2460	s4 p6 IPv6 Ex	tension Heade	rs			
MUST	(IPv6 Specif present,must (Tests that	fication) The	e Hop-by-Hop follow the ssage confort	ms to above s	ler, when	er.				
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									





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	Release 8_5_2	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x		
IPV6-MLD-2.1	RFC 2710 s3.	.2 p3 Code								
MUST	All MLD Messages' Code Field Initialized to zero by the sender; (Tests that MLD General Query Message conforms to above statement)									
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-2.2	RFC 2710 s3.	.2 p3 Code								
MUST	(Tests that		st-Address-Sp	lized to zero pecific Query		der;				
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-2.3	(Tests that MI	LD Report Mes	sage conforms	s to above state	ement) RFC 27	'10 s3.2 p3 Co	de			
MUST	All MLD Mes	sages' Code I	Field Initia	lized to zero	by the send	der;	1			
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-2.4	RFC 2710 s3.	.2 p3 Code								
MUST		_		lized to zero	_	ler;				
	Free BSD 10.3 untested									
	Ubuntu 18.04: FAIL									
	Free BSD 12.0 untested									





	Release	Release	Release	Release	Release	Release	Release	Release			
	8_5_2	x.x.x	x.x.x	x.x.x	x.x.x	x.x.x	X.X.X	X.X.X			
IPV6-MLD-2.5	RFC 2710 s3.	.2 p3 Code									
MUST		_		d by receiver		nt)					
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
IDVO I II D. O.O.	Free BSD 12.0 untested										
IPV6-MLD-2.6	RFC 2710 s3	.2 p3 Code									
MUST	All MLD Messages' Code Field ignored by receivers.  (Tests that MLD Multicast-Address-Specific Query Message conforms to above statement)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-2.7	RFC 2710 s3.	.2 p3 Code									
MUST	All MLD Messages' Code Field ignored by receivers. (Tests when MLD Report Message conforms to above statement)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: FAIL										
	Free BSD 12.0 untested										
IPV6-MLD-2.8	RFC 2710 s3.	.2 p3 Code									
MUST		_		d by receiver ms to above s							
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										





	Release 8_5_2	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x			
IPV6-MLD-3.1	RFC 2710 s3	.4 p3 Maximum	n Response De	elay							
MUST	The Maximum Response Delay field is meaningful only in Query messages In all other messages, it is set to zero by the sender (Tests when MLD Report Message conforms to above statement)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-3.2	RFC 2710 s3.4 p3 Maximum Response Delay										
MUST	The Maximum Response Delay field is meaningful only in Query messages In all other messages, it is set to zero by the sender  (Tests MLD Done Message conforms to above statement)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: FAIL										
	Free BSD 12.0 untested										
IPV6-MLD-3.3	RFC 2710 s3.4 p3 Maximum Response Delay										
MUST	The Maximum Response Delay field is meaningful only in Query messages In all other messages ignored by receivers. (Tests when MLD Report Message conforms to above statement)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-3.4	RFC 2710 s3.	.4 p3 Maximum	n Response De	elay							
MUST	messages	. In all other	er messages		only in Query by receivers. statement)						
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										





	Release	Release	Release	Release	Release	Release	Release	Release			
	8_5_2	x.x.x	x.x.x	x.x.x	x.x.x	X.X.X	x.x.x	X.X.X			
IPV6-MLD-4.1	RFC 2710 s3	.5 p4 Reserved	j								
MUST				alized to zer ge conforms t							
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-4.2	RFC 2710 s3	RFC 2710 s3.5 p4 Reserved									
MUST	MLD Message Reserved Field is Initialized to zero by the sender; (Tests that MLD Multicast-Address-Specific Query Message conforms to above statement)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-4.3	(Tests that MLD Report Message conforms to above statement) RFC 2710 s3.5 p4 Reserved										
MUST	MLD Message Reserved Field is Initialized to zero by the sender;										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-4.4	RFC 2710 s3	.5 p4 Reserved	İ								
MUST	_			alized to zer ms to above s	_	nder;					
	Free BSD 10.3 untested										
	Ubuntu 18.04: FAIL										
	Free BSD 12.0 untested										





	Release	Release	Release	Release	Release	Release	Release	Release		
	8_5_2	X.X.X	X.X.X	x.x.x	x.x.x	X.X.X	X.X.X	X.X.X		
IPV6-MLD-4.5	RFC 2710 s3.	5 p4 Reserved	İ							
MUST	MLD Message Reserved Field is ignored by receivers.  (Tests when MLD General Query Message conforms to above statement)									
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-4.6	RFC 2710 s3.5 p4 Reserved									
MUST	(Tests that	MLD Message Reserved Field is ignored by receivers. Tests that MLD Multicast-Address-Specific Query Message conforms to above statement)								
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-4.7	RFC 2710 s3.	5 p4 Reserved	l							
MUST	(Tests that	Reserved Fie		_		r	1	r		
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-4.8	RFC 2710 s3.	5 p4 Reserved	İ							
MUST	(Tests that	Reserved Fie		_		r				
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									





	Release 8_5_2	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x			
IPV6-MLD-5.1	RFC 2710 s3	.6 p4 Multicast	Address RFC	2710 s5 p8 No	de State Trans	ition Diagram					
MUST	In a Query message, the Multicast Address field is set to zero when sending a General Query (Tests that MLD General Query Message conforms to abovestatement)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-5.2	RFC 2710 s3	.6 p4 Multicast	Address RFC	2710 s5 p8 No	de State Trans	sition Diagram					
MUST	In a Query message, and set to a specific IPv6 multicast address when sending a Multicast-Address-Specific Query. (Tests that MLD Multicast-Address-Specific Query Message conforms to above statement)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-5.3	RFC 2710 s3	.6 p4 Multicast	Address								
MUST	In a Report message, the Multicast Address field holds a specific IPv6 multicast address to which the message sender is listening										
	Free BSD 10.3 untested										
	Ubuntu 18.04: FAIL										
	Free BSD 12.0 untested										
IPV6-MLD-5.4	RFC 2710 s3	.6 p4 Multicast	Address								
MUST	IPv6 multica		to which the	dress field h message send	_						
	Free BSD 10.3 untested										
	Ubuntu 18.04: FAIL										
	Free BSD 12.0 untested										





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IPV6-MLD-6.1	RFC 2710 s3.	7 p4 Other fiel	ds									
MUST	An implementation of the version of MLD specified in this document MUST NOT send an MLD message longer than 24 octets. (Tests that MLD General Query Message conforms to abovestatement)											
	Free BSD 10.3 untested											
	Ubuntu 18.04: pass											
	Free BSD 12.0 untested											
IPV6-MLD-6.2	RFC 2710 s3.	7 p4 Other fiel	ds									
MUST	document MU:	An implementation of the version of MLD specified in this document MUST NOT send an MLD message longer than 24 octets.  (Tests that MLD Multicast-Address-Specific Query Message conforms to above statement)										
	Free BSD 10.3 untested											
	Ubuntu 18.04: pass											
	Free BSD 12.0 untested											
IPV6-MLD-6.3	RFC 2710 s3	7 p4 Other fiel	ds									
MUST	An implementation of the version of MLD specified in this document MUST NOT send an MLD message longer than 24 octets. (Tests that MLD Report Message conforms to above statement)											
	Free BSD 10.3 untested											
	Ubuntu 18.04: pass											
	Free BSD 12.0 untested											
IPV6-MLD-6.4	RFC 2710 s3.	7 p4 Other fiel	ds									
MUST	document MU	ST NOT send a	an MLD messag	MLD specified ge longer that ms to above s	an 24 octets.							
	Free BSD 10.3 untested											
	Ubuntu 18.04: FAIL											
	Free BSD 12.0 untested											





	Release 8_5_2	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x			
IPV6-MLD-6.5	RFC 2710 s3	.7 p4 Other fiel	ds								
MUST	An implementation of the version of MLD specified and MUST ignore anything past the first 24 octets of a received MLD message. (Tests that General Query Message conforms to above statement)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-6.6	RFC 2710 s3	.7 p4 Other fiel	ds								
MUST	and MUST ign 24 octets on (Tests that	tation of the nore anything f a received MLD Multicas above stater	g past the f MLD message st-Address-S	irst							
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-6.7	RFC 2710 s3.7 p4 Other fields										
MUST	An implementation of the version of MLD specified and MUST ignore anything past the first 24 octets of a received MLD message. (Tests that MLD Report Message conforms to above statement)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-6.8	RFC 2710 s3.	.7 p4 Other fiel	ds								
MUST	and MUST ign	tation of the nore anything MLD Done Mes	g past the f	irst 24 octe	s of a rece	ived					
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										





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IPV6-MLD-6.9	RFC 2710 s3.	7 p4 Other fiel	ds								
MUST	In all cases, the MLD checksum MUST be computed over the entire MLD message, not just the first 24 octets. (Tests that MLD General Query Message conforms to above statement)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-6.10	RFC 2710 s3.	7 p4 Other fiel	ds								
MUST	MLD message (Tests that conforms to	In all cases, the MLD checksum MUST be computed over the entire MLD message, not just the first 24 octets. (Tests that MLD Multicast-Address-Specific Query Message conforms to above statement)									
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-6.11	RFC 2710 s3.	7 p4 Other fiel	ds								
MUST	In all cases, the MLD checksum MUST be computed over the entire MLD message, not just the first 24 octets. (Tests when MLD Report Message conforms to above statement)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-6.12	RFC 2710 s3.	7 p4 Other fiel	ds								
MUST	MLD message	, not just th	ne first 24 d	be computed octets. ms to above s		cire					
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										





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IPV6-MLD-7.1	RFC 2710 s4	p4 Protocol De	escription									
MUST	For each attached link, a router selects one of its link-local unicast addresses on that link to be used as the IPv6 Source Address in all MLD packets it transmits on that link. (Tests that MLD General Query Message conforms to above											
	Free BSD 10.3 untested											
	Ubuntu 18.04: pass											
	Free BSD 12.0 untested											
IPV6-MLD-7.2	RFC 2710 s4	p4 Protocol De	escription		•	•	•	•				
MUST	unicast add Address in a (Tests that	RFC 2710 s4 p4 Protocol Description  For each attached link, a router selects one of its link-local unicast addresses on that link to be used as the IPv6 Source Address in all MLD packets it transmits on that link.  (Tests that MLD Multicast-Address-Specific Query Message conforms to above statement)										
	Free BSD 10.3 untested											
	Ubuntu 18.04: pass											
	Free BSD 12.0 untested											
IPV6-MLD-7.3	RFC 2710 s4 p4 Protocol Description											
MUST	For each attached link, a router selects one of its link-local unicast addresses on that link to be used as the IPv6 Source Address in all MLD packets it transmits on that link.  (Tests that MLD Report Message conforms to above statement)											
	Free BSD 10.3 untested											
	Ubuntu 18.04: pass											
	Free BSD 12.0 untested											
IPV6-MLD-7.4	RFC 2710 s4	p4 Protocol De	escription									
MUST	unicast add Address in a	tached link, resses on the all MLD packe MLD Done Mes	at link to be ets it transm	e used as the nits on that	e IPv6 Source link.							
	Free BSD 10.3 untested											
	Ubuntu 18.04: FAIL											
	Free BSD 12.0 untested											





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IPV6-MLD-7.5	RFC 2710 s4		·									
MUST		. the router ll link-layer ticasts.				rated						
	Free BSD 10.3 untested											
	Ubuntu 18.04: pass											
	Free BSD 12.0 untested											
IPV6-MLD-7.6	RFC 2710 s4	FC 2710 s4 p5 Protocol Description										
MUST	If a router hears a Query message whose IPv6 Source Address is numerically less than its own selected address for that link, it MUST become a Non-Querier on that link.											
	Free BSD 10.3 untested											
	Ubuntu 18.04: pass											
	Free BSD 12.0 untested											
IPV6-MLD-7.7	NEGATIVE R	FC 2710 s4 p5	Protocol Desc	cription								
MUST	If a router hears a Query message whose IPv6 Source Address is numerically less than its own selected address for that link, it MUST become a Non-Querier on that link.											
	Free BSD 10.3 untested											
	Ubuntu 18.04: pass											
	Free BSD 12.0 untested											
IPV6-MLD-7.8	RFC 2710 s4	p5 Protocol De	escription									
MUST	from a part	uerier Preser icular attach less than its that link.	ned link, ang	y Queries fro	om a router v							
	Free BSD 10.3 untested											
	Ubuntu 18.04: FAIL											
	Free BSD 12.0 untested											





	Release 8_5_2	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	
IPV6-MLD-7.9	RFC 2710 s4	p5 Protocol De	escription						
SHOULD	Queries space multicas (Tests that closely toge	ced closely t st listeners	cogether [Sta on those lin MLD Startug	General Que	Interval] on	ral			
	Free BSD 10.3 untested								
	Ubuntu 18.04: pass								
	Free BSD 12.0 untested								
IPV6-MLD-7.10	RFC 2710 s4	p5 Protocol De	escription						
SHOULD	On startup, a router SHOULD send [Startup Query Count] General Queries spaced closely together [Startup Query Interval] on multicast listeners on those links. (Tests that router sends [Startup Query Count] MLD Startup General Queries								
	Free BSD 10.3 untested								
	Ubuntu 18.04: pass								
	Free BSD 12.0 untested								
IPV6-MLD-7.11	RFC 2710 s4	p5 Protocol De	escription RFC	2710 s5 p10 N	lode State Tra	nsition Diagran	n		
MUST	each multica interface fi	ast address t	to which it is received the	, it sets a is listening e Query, EXCI	on the	for			
	Free BSD 10.3 untested								
	Ubuntu 18.04: pass								
	Free BSD 12.0 untested								





	Release 8_5_2	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x			
IPV6-MLD-7.12	RFC 2710 s4	p5 Protocol De	escription	•							
MUST	When a node receives a General Query Each timer is set to a different random value, using the highest clock granularity available on the node, selected from the range [0, Maximum Response Delay] with Maximum Response Delay as specified in the Query packet.										
	Free BSD 10.3 untested										
	Ubuntu 18.04: FAIL										
	Free BSD 12.0 untested										
IPV6-MLD-7.13	RFC 2710 s4	p5 Protocol De	escription								
MUST	address is a only if the	already runn	ing, it is reaximum Respo	y if a to eset to the made and the made is nse Delay is r.	new random va						
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-7.14	RFC 2710 s4 p5 Protocol Description										
MUST	When a node receives a General Query If the Query packet specifies a Maximum Response Delay of zero, each timer is effectively set to zero, and the action specified below for timer expiration is performed immediately.										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-7.15	RFC 2710 s4	p6 Protocol De	escription								
MUST	is listening from which that address	g to the que the Query was	ried Multica s received, m value sele	dress-Specifist Address of it sets a described from the ve.	n the interfa lay timer for	ace					
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										





	Release 8_5_2	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x				
IPV6-MLD-7.16	RFC 2710 s4	p6 Protocol De	escription									
MUST	When a node receives a Multicast-Address-Specific Query if a timer for the address is already running, it is reset to the new random value only if the requested Maximum Response Delay is less than the remaining value of the running timer.											
	Free BSD 10.3 untested											
	Ubuntu 18.04: pass											
	Free BSD 12.0 untested											
IPV6-MLD-7.17	RFC 2710 s4	p6 Protocol De	escription									
MUST	the Query pa timer is eff for expirat:	When a node receives a Multicast-Address-Specific Query If the Query packet specifies a Maximum Response Delay of zero, the timer is effectively set to zero, and the action specified below for expiration is performed immediately.										
	Free BSD 10.3 untested											
	Ubuntu 18.04: FAIL											
	Free BSD 12.0 untested											
IPV6-MLD-7.18	RFC 2710 s4	p6		•		•	•	•				
MUST	If a node's timer for a particular multicast address on the address being reported is carried in both the IPv6 Destination Address field and the MLD Multicast Address field of the Report packet.											
	Free BSD 10.3 untested											
	Ubuntu 18.04: FAIL											
	Free BSD 12.0 untested											
IPV6-MLD-7.19	RFC 2710 s4	p6 Protocol De	escription	l	l	l	I	l				
MUST	for a multic same address	cast address s on that int rt for that a	while it has terface, it s	eport from ar s a timer rur stops its tir s suppressing	nning for tha mer and does							
	Free BSD 10.3 untested											
	Ubuntu 18.04: pass											
	Free BSD 12.0 untested											





	Release	Release	Release	Release	Release	Release	Release	Release		
	8_5_2	x.x.x	x.x.x	x.x.x	x.x.x	x.x.x	x.x.x	x.x.x		
IPV6-MLD-7.20	RFC 2710 s4	p6 Protocol De	escription							
MUST	When a router receives a Report from a link, if the reported address is not already present in the router's list of multicast address its timer is set to [Multicast Listener Interval], and its appearance is made known to the router's multicast routing component.									
	Free BSD 10.3 untested									
	Ubuntu 18.04: FAIL									
	Free BSD 12.0 untested									
IPV6-MLD-7.21	RFC 2710 s4	p6 Protocol De	escription							
MUST	present in t		list, the t	cast address imer for that		eady				
	Free BSD 10.3 untested									
	Ubuntu 18.04: FAIL									
	Free BSD 12.0 untested									
IPV6-MLD-7.22	RFC 2710 s4	p6 Protocol De	escription							
MUST	longer any i	listeners for	that addres	s assumed that ss present or sappearance i	the link, s	so it				
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-7.23	RFC 2710 s4	p6 Protocol De	escription							
миѕт	interface,	it should imr dress on that	mediately tra	ulticast Addr ansmit an uns in case it i	solicited Reg	port				
	Free BSD 10.3 untested									
	Ubuntu 18.04: FAIL									
	Free BSD 12.0 untested									





	Release	Release	Release	Release	Release	Release	Release	Release		
	8_5_2	X.X.X	X.X.X	X.X.X	X.X.X	X.X.X	X.X.X	X.X.X		
IPV6-MLD-7.24	RFC 2710 s4	p6			•	•		•		
MUST	or damaged,	e possibility it is recomm short delays	nended that	it be repeate	ed once or					
	Free BSD 10.3 untested									
	Ubuntu 18.04: FAIL									
	Free BSD 12.0 untested									
IPV6-MLD-7.25	RFC 2710 s4 p7 Protocol Description									
SHOULD	interface, i	ceases to li it SHOULD ser all-routers r icast Address listen.	nd a single I nulticast add	Done message dress (FF02:	to the 2), carrying	3				
	Free BSD 10.3 untested									
	Ubuntu 18.04: FAIL									
	Free BSD 12.0 untested									
IPV6-MLD-7.26	RFC 2710 s4	p7 Protocol De	escription							
MUST	If the node's most recent Report message was suppressed by hearing another Report message, it MAY send nothing, highly likely that there is another listener for that address still present on the same link. If this optimization is implemented, it MUST be able to be turned off but SHOULD default to on.									
	Free BSD 10.3 untested									
	Ubuntu 18.04: FAIL									
	Free BSD 12.0 untested									
IPV6-MLD-7.27	RFC 2710 s4 p7 Protocol Description RFC 2710 s6 p14 Router State Transition Diagram									
MUST	When a router in Querier state receives a Done message the Querier sends [Last Listener Query Count] Multicast-Address- Specific Queries, one every [Last Listener Query Interval] to that multicast address.  (Tests that Querier sends in every [LastListenerQueryInterval])									
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									





	Release	Release	Release	Release	Release	Release	Release	Release			
	8_5_2	x.x.x	x.x.x	x.x.x	x.x.x	X.X.X	x.x.x	X.X.X			
IPV6-MLD-7.28	RFC 2710 s4	p7 Protocol De	escription								
MUST	When a router in Querier state receives a Done message the Querier sends [Last Listener Query Count] Multicast-Address- Specific Queries, one every [Last Listener Query Interval] to that multicast address. (Tests that Querier sends [Last Listener Query Count] Messages)										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-7.29	RFC 2710 s4 p7 Protocol Description RFC 2710 s5 p13 Node State Transition Diagram										
MUST		cast-Address- lay set to []	_								
	Free BSD 10.3 untested										
	Ubuntu 18.04: FAIL										
	Free BSD 12.0 untested										
IPV6-MLD-7.30	RFC 2710 s4	p7 Protocol De	escription								
MUST	If no Reports for the address are received from the link after the response delay of the last query has passed, the routers on the link assume that the address no longer has any listeners there; the address is therefore deleted from the list and its disappearance is made known to the multicast routing component.										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-7.31	RFC 2710 s4	p7 Protocol De	escription RFC	2710 s6 p14 F	Router State Tr	ansition Diagra	am				
MUST	is received	s is continue or the last	MLD Multica	st-Address-S <sub>]</sub>	pecific Query	7					
	_	sent with no Non-Querier (	_	_	ransition fro	om					
	Free BSD 10.3 untested										
	Ubuntu 18.04: FAIL										
	Free BSD 12.0 untested										





	Release 8_5_2	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x
IPV6-MLD-7.32	RFC 2710 s4	p7 Protocol De	escription					
MUST	Routers in N	Non-Querier s	state MUST i	gnore Done me	essages.			
	Free BSD 10.3 untested							
	Ubuntu 18.04: pass							
	Free BSD 12.0 untested							
IPV6-MLD-8.1	RFC 2710 s5	p8 Node State	Transition Dia	gram RFC 271	0 s6 p11 Rout	er State Trans	ition Diagram	
MUST	Source Addre	ess, be at le	east 24 octet	s long, and	link-local I have a corre			
	Free BSD 10.3 untested							
	Ubuntu 18.04: pass							
	Free BSD 12.0 untested							
IPV6-MLD-8.2		p8 Node State ate Transition		gram RFC 271	0 s6 p11 Route	er State Transit	ion Diagram R	FC 2710 s6
MUST	Source Addre MLD checksur (Tests that	ess, be at le	east 24 octet st-Address-Sr	s long, and	link-local I have a corre			
	Free BSD 10.3 untested		,					
	Ubuntu 18.04: pass							
	Free BSD 12.0 untested							
IPV6-MLD-8.3	RFC 2710 s5	p8 Node State	transition Diag	gram RFC 271	0 s6 p13 Route	er State Transit	ion Diagram	
MUST	Source Addre	ess, be at le	east 24 octet	s long, and	a link-local have a corre e statement)			
	Free BSD 10.3 untested							
	Ubuntu 18.04: pass							
	Free BSD 12.0 untested							





	Release	Release	Release	Release	Release	Release	Release	Release		
	8_5_2	X.X.X	X.X.X	X.X.X	X.X.X	X.X.X	X.X.X	X.X.X		
IPV6-MLD-8.4	RFC 2710 s5 p8 Node State Transition Diagram									
MUST	Queries are ignored for addresses in the Non-Listener state.									
	Free BSD 10.3 untested									
	Ubuntu 18.04: FAIL									
	Free BSD 12.0 untested									
IPV6-MLD-8.5	RFC 2710 s5 p10 Node State Transition Diagram									
MUST	MLD messages are never sent for multicast addresses whose scope is 0 (reserved)									
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-8.6	RFC 2710 s5 p10 Node State Transition Diagram									
MUST	MLD messages are never sent for multicast addresses whose scope is 1 (node-local)									
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-8.7	RFC 2710 s5	p10 Node Stat	e Transition Di	agram						
MUST	MLD messages ARE sent for multicast addresses whose scope is 2 (link-local),including Solicited-Node multicast addresses [ADDR-ARCH], except for the link-scope, all-nodes address (FF02::1). (Tests that MLD messages are sent for Solicited-Node multicast addresses)									
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									





	Release 8_5_2	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x			
IPV6-MLD-9.1	RFC 2710 s6 p13 Router State Transition Diagram										
MUST	To be valid, the Done message MUST come from a link-local IPv6 Source Address, be at least 24 octets long, and have a correct MLD checksum.										
	Free BSD 10.3 untested										
	Ubuntu 18.04: FAIL										
	Free BSD 12.0 untested										
IPV6-MLD-9.2	RFC 2710 s6 p13 Router State Transition Diagram RFC 2710 s4 p7 Protocol Description										
MUST	start timer* the Maximum Response Delay in the Query message * [Last Listener Query Count] if this router is a non-Querier. When a router in Non-Querier state receives a Multicast-Address- Specific Query, address is greater than [Last Listener Query Count] times the Maximum Response Delay that latter value.										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-9.3	RFC 2710 s6	p15 Router Sta	ate Transition I	Diagram							
MUST	Initial State : Checking Listener  Event : rexmt timer expired  Action : Send Multicast Address Specific Queries  Final State : Checking Listener										
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										