



	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	p2 Message F	ormat								
MUST	Source Addre Alert option	ll MLD messages described sent with a link-local IPv6 ource Address, an IPv6 Hop Limit of 1, and an IPv6 Router lert option [RTR-ALERT] in a Hop-by-Hop Options header. Tests that MLD General Query Message conforms to above tatement)									
	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 : Options head (Tests that	sages describ IPv6 Source D der. MLD General or link-loca	Address, Query Messag	in a Hop-by- ge conforms t	-Нор						
	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	All MLD messages described in this document are sent with an IPv6 Hop Limit of 1, Options header. (Tests that MLD General Query Message conforms to above statement for IPv6 Hop Limit)									
	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							
IPV6-MLD-1.4	NEGATIVE R	FC 2710 s3 p2	Message For	nat					
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	nat 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	All MLD messages described 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 Multicast-Address-Specific Query Message conforms to above statement)								
	Free BSD 10.3 untested								
	Ubuntu 18.04: pass								
	Free BSD 12.0 untested								





	Release 8_5_2	Release x.x.x						
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	All MLD messages described in this document are sent with an IPv6 Hop Limit of 1, Options header. (Tests that MLD Multicast-Address-Specific Query 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-1.9	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 Multicast-Address-Specific 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							





	Release 8_5_2	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	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 M-A-S Query Message conforms to above statement for ordering of Hop-by-Hop Options header)									
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-1.11	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	nat		•	•	•		
MUST	NEGATIVE RFC 2710 s3 p2 Message Format 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 Report 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									





	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-1.13	NEGATIVE R	FC 2710 s3 p2	Message For	mat								
SHOULD	an IPv6 Hop (Tests that	sages describ Limit of 1, MLD Report M atement for 1	Options Message confo	orms	sent with		1					
	Free BSD 10.3 untested											
	Ubuntu 18.04: pass Free BSD 12.0 untested											
IPV6-MI D-1.14	NEGATIVE B	EC 2710 s3 n2	Message For	mat								
MUST	NEGATIVE RFC 2710 s3 p2 Message Format 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 untested											
	Ubuntu 18.04: pass											
	Free BSD 12.0 untested											
IPV6-MLD-1.15	NEGATIVE R	NEGATIVE RFC 2710 s3 p2 Message Format RFC 2460 s4 p6 IPv6 Extension Headers										
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 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	All MLD mess a link-local and an IPv6 Options head	sages describ l IPv6 Source Router Alert der.	oed in this o e Address, an t option [RTM	document are n IPv6 Hop Li R-ALERT] in a ms to above s	imit of 1, a Hop-by-Hop							
	Free BSD 10.3 untested											
	Ubuntu 18.04: FAIL											
	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-1.17	NEGATIVE R	IFC 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	IFC 2710 s3 p2	Message For	mat						
SHOULD	an IPv6 Hop (Tests that to above sta Free BSD 10.3	sages descril Limit of 1, MLD Done Mes atement for 1	Options	header. ms	sent with					
	untested Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-1.19	NEGATIVE R	IFC 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 Specia present,mus (Tests that	sages set fication) The t immediately MLD Done Mes g of Hop-by-l	e Hop-by-Hop y follow the ssage conform	Options head IPv6 header ms to above s	ler, when	er.				
	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-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	sages' Code 1 MLD Multicas above stater	st-Address-S		-	ler;				
	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 Messages' Code Field Initialized to zero by the sender;									
	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		sages' Code 1 MLD Done Mes				ler;				
	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-2.5	RFC 2710 s3.	2 p3 Code				1				
MUST	All MLD Messages' Code Field ignored by receivers. (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-2.6	RFC 2710 s3.	2 p3 Code								
MUST	(Tests that		st-Address-S	d by receiven pecific Query						
	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	lay							
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	Response De In all other MLD Done Mes	er messages	ignored b	by receivers.						
	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-4.1	RFC 2710 s3	.5 p4 Reserved	I							
MUST	-	Reserved Fie MLD General			-		-	_		
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-4.2	RFC 2710 s3	.5 p4 Reserved	l							
MUST	(Tests that	Reserved Fie MLD Multicas above stater	st-Address-S		-	nder;				
	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	l							
MUST		Reserved Fie MLD Done Mes				nder;				
	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-4.5	RFC 2710 s3	.5 p4 Reserved	1								
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	RFC 2710 s3.5 p4 Reserved									
MUST	(Tests that	Reserved Fie MLD Multicas above states	st-Address-S								
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-4.7	RFC 2710 s3.5 p4 Reserved										
MUST	MLD Message Reserved Field is ignored by receivers. (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-4.8	RFC 2710 s3	.5 p4 Reserved	1								
MUST		Reserved Fie MLD Done Mes									
	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-5.1	RFC 2710 s3	.6 p4 Multicast	Address RFC	2710 s5 p8 No	de State Trans	sition 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	essage, the last address respectively	to which the		-						
	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	document MU	tation of the ST NOT send a MLD General	an MLD messag	ge longer tha	an 24 octets.						
	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 (Tests that	implementation of the version of MLD specified in this cument MUST NOT send an MLD message longer than 24 octets. ests that MLD Multicast-Address-Specific Query Message nforms 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	document MU	tation of the ST NOT send a MLD Report M	an MLD messag	ge longer tha	an 24 octets.						
	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	tation of the ST NOT send a MLD Done Mea	an MLD messag	ge longer tha	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	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 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-6.7	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 MLD message	ore anything	g past the fi	MLD specifie irst 24 octet ms to above s	s of a recei	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	s, the MLD cl , not just tl MLD Multicas above stater	he first 24 d st-Address-Sp	octets.		tire					
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-6.11	RFC 2710 s3.7 p4 Other fields										
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	s, the MLD cl , not just tl MLD Done Mes	he first 24 d	octets.		tire					
	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 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 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 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 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 tha all MLD packe MLD Done Mes	at link to be ets it transm	e used as the mits 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	p5 Protocol De	escription	•							
MUST		ll link-laye		gure that int address that		rated					
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-7.6	RFC 2710 s4	p5 Protocol De	escription								
MUST	Address is address for	a router hears a Query message whose IPv6 Source dress is numerically less than its own selected dress for that link, it MUST become a on-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	Frotocol Desc	cription							
MUST	Address is address for		less than its it MUST becom	hose IPv6 Sou s own selecte me a							
	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	If [Other Querier Present Interval] passes without receiving, from a particular attached link, any Queries from a router with an address less than its own, a router resumes the role of Querier on that link.										
	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	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 MLD Startup General Queries spaced closely together [Startup Query Interval])							
	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	receives a (ast address f rom which it all-nodes add	to which it is received the	is listening	on the	for		
	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-7.12	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	When a node receives a General Query if a timer for any 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-7.14	RFC 2710 s4	p5 Protocol De	escription								
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	receives a M g to the quent the Query was s to a randor Response De	ried Multica s received, s m value seled	st Address on it sets a de cted from the	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	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								
MUST	for a multic same address	eceives anoth cast address s on that inf rt for that a the link.	while it has terface, it s	s a timer run stops its tin	nning for tha mer and does						
	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-7.20	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 ·	is received the router's ulticast List	list, the t	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 Description										
MUST	If an address's timer expires, it is assumed that there are no longer any listeners for that address present on the link, so it is 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-7.23	RFC 2710 s4	p6 Protocol De	escription								
MUST	interface,	starts liste it should imm dress on that the link	mediately tra	ansmit an uns	solicited Rep	port					
	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-7.24	RFC 2710 s4	p6									
MUST	or damaged,	e possibility it is recom short delays	mended 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 De									
SHOULD	interface, link-scope in its Mult	h a node ceases to listen to a multicast address on an erface, it SHOULD send a single Done message to the c-scope all-routers multicast address (FF02::2), carrying its Multicast Address field the address to which it is sing to listen.									
	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	hearing and likely that present on	's most recent ther Report n there is and the same lin able to be to	nessage, it P other listend c.If this opt	MAY send nother for that a timization is	hing, hig address still s implemented	Ĺ					
	Free BSD 10.3 untested										
	Ubuntu 18.04: FAIL										
	Free BSD 12.0 untested										
IPV6-MLD-7.27	RFC 2710 s4	p7 Protocol De	escription RFC	2710 s6 p14 F	Router State Tr	ansition Diagra	ım				
MUST	Querier sen Specific Qu that multic	NFC 2710 s4 p7 Protocol Description RFC 2710 s6 p14 Router State Transition Diagram hen a router in Querier state receives a Done message the uerier sends [Last Listener Query Count] Multicast-Address- pecific Queries, one every [Last Listener Query Interval] to hat multicast address. Tests that Querier sends in every [LastListenerQueryInterval])									
	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-7.28										
MUST	the Querier Specific Que that multica	er in Queries sends [Last eries, one ev ast address. Querier send	Listener Que very [Last Li	ery Count] Mu istener Query	lticast-Addı v Interval] t	20				
	Free BSD 10.3 untested									
	Ubuntu 18.04: pass									
	Free BSD 12.0 untested									
IPV6-MLD-7.29	RFC 2710 s4	p7 Protocol De	escription RFC	2710 s5 p13 N	lode State Tra	nsition Diagran	n			
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	ım			
MUST	is received Message is a	s is continue or the last sent with no Non-Querier e	MLD Multicas response) de	st-Address-Sp espite any ti	pecific Query	7				
	Free BSD 10.3 untested									
	Ubuntu 18.04: FAIL									
ſ	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			state MUST iq	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 MLD checksur	ess, be at le n.	message MUST east 24 octet Query Messag	ts long, and	have a corre						
	Free BSD 10.3 untested										
	Ubuntu 18.04: pass										
	Free BSD 12.0 untested										
IPV6-MLD-8.2		RFC 2710 s5 p8 Node State transition Diagram RFC 2710 s6 p11 Router State Transition Diagram RFC 2710 s6 p13 Router State Transition Diagram									
MUST	To be valid, the Query message MUST come from a link-local IPv6 Source Address, be at least 24 octets long, and have a correct MLD checksum. (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-8.3	RFC 2710 s5	p8 Node State	transition Diag	gram RFC 271	0 s6 p13 Route	er State Transi	tion Diagram				
MUST	Source Addre MLD checksur	ess, be at le n.	message MUS east 24 octet Message confo	ts long, and	have a corre						
	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									
мизт	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									
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	<pre>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.</pre>										
	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										