	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
Type	FRR	FRR	FRR	FRR	FRR	FRR	FRR
Commit ID	99477bc	62ac43d	86a5e5a	933b834	7a2b85a	61ba3a4	852b11e
Commit Date	2022-11-03	2023-01-10	2023-03-13	2023-03-16	2023-04-23	2023-06-14	2023-11-22
ANVL-IPV6-MLDV2-1.1 **MUST**	RFC 3810, MLD Version 2						
	`MLDv2 DUT Setup Verification Tests` `Quick test to verify that DUT acts as an MLDv2 Router`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-2.1 **MAY**	RFC 3810, MLDv2 for IPv6, s1 p2, Introduction						
	`Introduction` `Note that a multicast router may itself be a listener of one or more multicast addresses; in this case it performs both the "multicast router part" and the "multicast address listener part" of the protocol.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-3.1 **MUST**	RFC 3810, MLDv2 for IPv6, s2 p3, Protocol Overview						
	`Protocol Overview` `A multicast router performs the *router part* of the MLDv2 protocol (described in details in section 7) on each of its directly attached links.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-3.2 **MUST**	RFC 3810, MLDv2 for IPv6, s2 p3, Protocol Overview RFC 3810, MLDv2 for IPv6, s2.2 p4, Exchanging Messages between the Querier and the Listening Nodes						
	`Protocol Overview` `All multicast routers on the subnet listen to the messages sent by multicast address listeners, and maintain the same multicast listening information state`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-3.3 **MUST**	RFC 3810, MLDv2 for IPv6, s2 p3, Protocol Overview RFC 3810, MLDv2 for IPv6, s7.6.2 p46 Querier Election						
	`Protocol Overview` `All multicast routers on the subnet listen to the messages sent by multicast address listeners ...they can take over the querier role, should the present Querier fail`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-3.4 **MUST**	RFC 3810, MLDv2 for IPv6, s2 p3, Protocol Overview RFC 3810, MLDv2 for IPv6, s2.2 p4, Exchanging Messages between the Querier and the Listening Nodes RFC 3810, MLDv2 for IPv6, s7.1 p36, Conditions for MLD Queries						

	`Protocol Overview`
	`The Querier periodically sends General Queries`
	`Only the Querier sends periodical or triggered query messages on the subnet`
	`[Note: This test is for periodical Query messages sent by DUT behaving as a Querier]`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-3.5 **MUST**	RFC 3810, MLDv2 for IPv6, s2 p3, Protocol Overview RFC 3810, MLDv2 for IPv6, s7.1 p36, Conditions for MLD Queries						

	`Protocol Overview`
	`Only the Querier sends periodical or triggered query messages on the subnet`
	`[Note: This test is for periodical Query messages not sent by DUT behaving as a Non-Querier]`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-3.6 **MUST**	RFC 3810, MLDv2 for IPv6, s2 p3, Protocol Overview RFC 3810, MLDv2 for IPv6, s7.1 p36, Conditions for MLD Queries						

	`Protocol Overview`
	`Only the Querier sends periodical or triggered query messages on the subnet`
	`[Note: This test is for triggered Query messages sent by DUT behaving as a Querier]`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-3.7 **MUST**	RFC 3810, MLDv2 for IPv6, s2 p3, Protocol Overview RFC 3810, MLDv2 for IPv6, s7.1 p36, Conditions for MLD Queries						

	`Protocol Overview`
	`Only the Querier sends periodical or triggered query messages on the subnet`
	`[Note: This test is for triggered Query messages not sent by DUT behaving as a Non-Querier]`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-3.8 **MUST**	RFC 3810, MLDv2 for IPv6, s2.1 p4, Building Multicast Listening State on Multicast Address Listeners						
	`Protocol Overview` `In INCLUDE mode, reception of packets sent to the specified multicast address is enabled *only* from the source addresses listed in the source list`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-3.9 **MUST**	RFC 3810, MLDv2 for IPv6, s2.1 p4, Building Multicast Listening State on Multicast Address Listeners						
	`Protocol Overview` `In EXCLUDE mode, reception of packets sent to the given multicast address is enabled from all source addresses *except* those listed in the source list`						
	Ubuntu 18.04: untested	Ubuntu 18.04: FAIL	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: FAIL	Debian 12: FAIL
ANVL-IPV6-MLDV2-3.20 **MUST**	RFC 3810, MLDv2 for IPv6, s2.2 p5, Exchanging Messages between the Querier and the Listening Nodes						
	`Protocol Overview` `If a node on a link expresses, through a State Change Report, ... the Querier sends a Multicast Address and Source Specific Query to verify whether, for a specified multicast address, there are nodes still listening to a specific set of sources, or not.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-3.21 **MUST**	RFC 3810, MLDv2 for IPv6, s2.2 p6, Exchanging Messages between the Querier and the Listening Nodes						
	Protocol Overview Both Multicast Address Specific Queries and Multicast Address and Source Specific Queries are only sent in response to State Change Reports, never in response to Current State Reports.						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-3.22 **MUST**	RFC 3810, MLDv2 for IPv6, s2.2 p6, Exchanging Messages between the Querier and the Listening Nodes						
	Protocol Overview As stated earlier, in order to ensure protocol robustness, all the queries, except the periodical General Queries, are retransmitted several times within a given time interval. The number of retransmissions depends on the Robustness Variable. [Note: This test is for MLDv2 Multicast Address and Source Specific Queries]						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-3.23 **MUST**	RFC 3810, MLDv2 for IPv6, s2.2 p6, Exchanging Messages between the Querier and the Listening Nodes						
	Protocol Overview As stated earlier, in order to ensure protocol robustness, all the queries, except the periodical General Queries, are retransmitted several times within a given time interval. The number of retransmissions depends on the Robustness Variable. [Note: This test is for MLDv2 Multicast Address Specific Queries]						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-3.24 **MUST**	RFC 3810, MLDv2 for IPv6, s2.2 p6, Exchanging Messages between the Querier and the Listening Nodes						
	Protocol Overview As described above, when a Multicast Address Specific or a Multicast Address and Source Specific Query is sent by the Querier, a number of retransmissions of the query are scheduled. In the original (first) query the S flag is clear						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-3.25 **MUST**	RFC 3810, MLDv2 for IPv6, s2.2 p6, Exchanging Messages between the Querier and the Listening Nodes RFC 3810, MLDv2 for IPv6, s5.1.7 p17, S Flag (Suppress Router-Side Processing)						
	`Protocol Overview` `The scheduled queries still have to be sent, in order to ensure that a non-querier router keeps its state synchronized with the current Querier ... Nevertheless, the timers should not be lowered again, as a valid answer was already received. Therefore, in subsequent queries the Querier sets the S flag.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-3.26 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p7, Building Multicast Address Listener State on Multicast Routers						

	`Protocol Overview`
	`This multicast address listener state consists of a Filter Mode, a Filter Timer, and a Source List, with a timer associated to each source from the list.`
	`[Note: This test is to verify that multicast address listener state consists of a Filter Mode, a Filter Timer]`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-4.1 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p7, Building Multicast Address Listener State on Multicast Routers						

	`Protocol Overview (Continued)`
	`This multicast address listener state consists of a Filter Mode, a Filter Timer, and a Source List, with a timer associated to each source from the list.`
	`[Note: This test is to verify that multicast address listener state consists of a Source List, with a timer associated to each source from the list]`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-4.2 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p7, Building Multicast Address Listener State on Multicast Routers						
	`Protocol Overview (Continued)` `A router is in INCLUDE mode for a specific multicast address on a given interface if all the listeners on the link interested in that address are in INCLUDE mode.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-4.3 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p7, Building Multicast Address Listener State on Multicast Routers						
	`Protocol Overview (Continued)` `All the sources from the Include List will be forwarded by the router`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-4.4 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p7, Building Multicast Address Listener State on Multicast Routers						
	`Protocol Overview (Continued)` `Any other source that is not in the Include List will be blocked by the router`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-4.5 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p7, Building Multicast Address Listener State on Multicast Routers						
	`Protocol Overview (Continued)` `A source can be added to the current Include List if a listener in INCLUDE mode sends a Current State or a State Change Report that includes that source`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-4.6 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p7, Building Multicast Address Listener State on Multicast Routers						
	`Protocol Overview (Continued)` `Each source from the Include List is associated with a source timer that is updated whenever a listener in INCLUDE mode sends a report that confirms its interest in that specific source. If the timer of a source from the Include List expires, the source is deleted from the Include List.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-4.7 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p7, Building Multicast Address Listener State on Multicast Routers						
	`Protocol Overview (Continued)` `When a node in INCLUDE mode expresses its desire to stop listening to a specific source, ... The Querier then sends a Multicast Address and Source Specific Query, to verify whether there are other listeners for that source on the link, or not. If a report that includes this source is received before the timer expiration, all the multicast routers on the link update the source timer.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-4.8 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p7, Building Multicast Address Listener State on Multicast Routers						
	`Protocol Overview (Continued)` `When a node in INCLUDE mode expresses its desire to stop listening to a specific source, ... The Querier then sends a Multicast Address and Source Specific Query, to verify whether there are other listeners for that source on the link, or not. If a report that includes this source is received before the timer expiration, all the multicast routers on the link update the source timer. If not, the source is deleted from the Include List.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-4.9 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p8, Building Multicast Address Listener State on Multicast Routers						
	`Protocol Overview (Continued) A router is in EXCLUDE mode for a specific multicast address on a given interface if there is at least one listener in EXCLUDE mode for that address on the link`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-4.10 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p8, Building Multicast Address Listener State on Multicast Routers						
	`Protocol Overview (Continued) This timer is reset each time an EXCLUDE mode listener confirms its listening state through a Current State Report. The timer is also updated when a listener, formerly in INCLUDE mode, announces its filter mode change through a State Change Report message (Note: This test is for Current State Report)`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-4.11 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p8, Building Multicast Address Listener State on Multicast Routers						
	`Protocol Overview (Continued) This timer is reset each time an EXCLUDE mode listener confirms its listening state through a Current State Report. The timer is also updated when a listener, formerly in INCLUDE mode, announces its filter mode change through a State Change Report message (Note: This test is for State Change Report)`						
	Ubuntu 18.04: untested	Ubuntu 18.04: FAIL	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: FAIL	Debian 12: FAIL
ANVL-IPV6-MLDV2-4.12 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p8, Building Multicast Address Listener State on Multicast Routers						
	`Protocol Overview (Continued) If the Filter Timer expires, it means that there are no more listeners in EXCLUDE mode on the link. In this case, the router switches back to INCLUDE mode for that multicast address`						
	Ubuntu 18.04: untested	Ubuntu 18.04: other	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: other	Debian 12: other

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-4.13 **MUST**	RFC 3810, MLDv2 for IPv6, s2.3 p8, Building Multicast Address Listener State on Multicast Routers						
	`Protocol Overview (Continued)` `If the router receives a report that contains such a request, the concerned sources are added to the Requested List. ... If no node announces its interest in receiving those specific source, the timers of those sources expire. Then, the sources are moved from the Requested List to the Exclude List. From then on, the sources will be blocked by the router`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.2 **MUST**	RFC 3810, MLDv2 for IPv6, s5 p13, Message Formats						
	`Message Formats: Multicast Listener Query Message` `MLDv2 is a sub-protocol of ICMPv6, that is, MLDv2 message types are a subset of ICMPv6 messages, and MLDv2 messages are identified in IPv6 packets by a preceding Next Header value of 58.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.3 **MUST**	RFC 3810, MLDv2 for IPv6, s5 p14, Message Formats						

	`Message Formats: Multicast Listener Query Message`
	`There are two MLD message types of concern to the MLDv2 protocol described in this document:`
	`Multicast Listener Query (Type = decimal 130) and`
	`Version 2 Multicast Listener Report (Type = decimal 143)`
	`[Note: This test is for Multicast Listener Query]`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.8 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.1 p16, Code						

	`Message Formats: Multicast Listener Query Message`
	`Code :`
	`Initialized to zero by the sender; ignored by receivers.`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-7.10 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.2 p16, Checksum						

	`Message Formats: Multicast Listener Query Message`
	`Checksum :`
	`The standard ICMPv6 checksum; it covers the entire MLDv2 message,`
	`plus a "pseudo-header" of IPv6 header fields`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.14 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.4 p16, Reserved						

	`Message Formats: Multicast Listener Query Message`
	`Reserved :`
	`Initialized to zero by the sender`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.16 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.5 p17, Multicast Address						
	`Message Formats: Multicast Listener Query Message` `For a General Query, the Multicast Address field is set to zero.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.17 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.5 p17, Multicast Address						

	`Message Formats: Multicast Listener Query Message`
	`For a Multicast Address Specific Query, it (Multicast Address field)`
	`is set to the multicast address being queried`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.18 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.5 p17, Multicast Address						

	`Message Formats: Multicast Listener Query Message`
	`For a Multicast Address and Source Specific Query, it (Multicast`
	`Address field) is set to the multicast address being queried`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-7.19 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.7 p17, S Flag (Suppress Router-Side Processing)						
	`Message Formats: Multicast Listener Query Message Nevertheless, it does not suppress the querier election or the normal "host-side" processing of a Query that a router may be required to perform as a consequence of itself being a multicast listener`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.20 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.8 p17, QRV (Querier"s Robustness Variable)						
	`Message Formats: Multicast Listener Query Message If non-zero, the QRV field contains the [Robustness Variable] value used by the Querier`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.21 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.9 p17, QQIC (Querier"s Query Interval Code)						
	`Message Formats: Multicast Listener Query Message The Querier"s Query Interval Code field specifies the [Query Interval] used by the Querier`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.22 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.10 p18, Number of Sources (N)						
	`Message Formats: Multicast Listener Query Message The Number of Sources (N) field specifies how many source addresses are present in the Query`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-7.23 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.10 p18, Number of Sources (N)						
	Message Formats: Multicast Listener Query Message Number of Sources (N) : This number is zero in a General Query						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.24 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.10 p18, Number of Sources (N)						
	Message Formats: Multicast Listener Query Message Number of Sources (N) : This number is zero in a Multicast Address Specific Query						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.25 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.10 p18, Number of Sources (N)						
	Message Formats: Multicast Listener Query Message Number of Sources (N) : This number is non-zero in a Multicast Address and Source Specific Query						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.26 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.11 p18, Source Address [i]						
	Message Formats: Multicast Listener Query Message The Source Address [i] fields are a vector of n unicast addresses, where n is the value in the Number of Sources (N) field						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.27 **MUST**	NEGATIVE: RFC 3810, MLDv2 for IPv6, s5.1.12 p18, Additional Data						
	Message Formats: Multicast Listener Query Message If the Payload Length field in the IPv6 header of a received Query indicates that there are additional octets of data present, beyond the fields described here, MLDv2 implementations MUST include those octets in the computation to verify the received MLD Checksum						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-7.28 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.12 p18, Additional Data						
	`Message Formats: Multicast Listener Query Message` `If the Payload Length field in the IPv6 header of a received Query indicates that there are additional octets of data present, beyond the fields described here, MLDv2 implementations ... MUST otherwise ignore those additional octets`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.29 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.14 p19, Source Addresses for Queries						
	`Message Formats: Multicast Listener Query Message` `All MLDv2 Queries MUST be sent with a valid IPv6 link-local source address`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.31 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.15 p19, Destination Addresses for Queries						
	`Message Formats: Multicast Listener Query Message` `In MLDv2, General Queries are sent to the link-scope all-nodes multicast address (FF02::1)`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-7.32 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.15 p19, Destination Addresses for Queries						

	`Message Formats: Multicast Listener Query Message`
	`Multicast Address Specific and Multicast Address and Source Specific Queries are sent with an IP destination address equal to the multicast address of interest`
	`(Note: THis test is for Multicast Address Specific queries)`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-8.1 **MUST**	RFC 3810, MLDv2 for IPv6, s5.1.15 p19, Destination Addresses for Queries						
	`Message Formats: Multicast Listener Query Message (Continued) Multicast Address Specific and Multicast Address and Source Specific Queries are sent with an IP destination address equal to the multicast address of interest (Note: This test is for Multicast Address and Source Specific queries)`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-9.2 **MUST**	RFC 3810, MLDv2 for IPv6, s5.2.1 p22, Reserved						
	`Message Formats: Version 2 Multicast Listener Report Message The Reserved fields are ignored on reception`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-9.4 **MUST**	RFC 3810, MLDv2 for IPv6, s5.2.2 p22, Checksum						
	`Message Formats: Version 2 Multicast Listener Report Message When a packet is received, the checksum MUST be verified before processing it.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-9.11 **MUST**	RFC 3810, MLDv2 for IPv6, s5.2.11 p23, Additional Data						
	`Message Formats: Version 2 Multicast Listener Report Message If the Payload Length field in the IPv6 header of a received Report indicates that there are additional octets of data present, beyond the last Multicast Address Record, MLDv2 implementations MUST include those octets in the computation to verify the received MLD Checksum... MLDv2 implementations MUST otherwise ignore those additional octets`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-9.12 **MUST**	NEGATIVE: RFC 3810, MLDv2 for IPv6, s5.2.11 p23, Additional Data						
	`Message Formats: Version 2 Multicast Listener Report Message If the Payload Length field in the IPv6 header of a received Report indicates that there are additional octets of data present, beyond the last Multicast Address Record, MLDv2 implementations MUST include those octets in the computation to verify the received MLD Checksum`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-9.23 **MUST**	RFC 3810, MLDv2 for IPv6, s5.2.13 p26, Source Addresses for Reports						
	`Message Formats: Version 2 Multicast Listener Report Message On the other hand, routers MUST silently discard a message that is not sent with a valid link-local address, without taking any action on the contents of the packet`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-9.24 **MUST**	RFC 3810, MLDv2 for IPv6, s5.2.13 p26, Source Addresses for Reports						
	`Message Formats: Version 2 Multicast Listener Report Message A Report sent with the unspecified address is also discarded by the router`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-9.26 **MUST**	RFC 3810, MLDv2 for IPv6, s5.2.14 p26, Destination Addresses for Reports						
	`Message Formats: Version 2 Multicast Listener Report Message A node MUST accept and process any version 1 Report whose IP Destination Address field contains *any* of the IPv6 addresses ( unicast or multicast) assigned to the interface on which the Report (Tests for IPv6 multicast address) arrives`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-9.27 **MUST**	RFC 3810, MLDv2 for IPv6, s5.2.14 p26, Destination Addresses for Reports						
	`Message Formats: Version 2 Multicast Listener Report Message A node MUST accept and process any version 1 Report whose IP Destination Address field contains *any* of the IPv6 addresses ( unicast or multicast) assigned to the interface on which the Report (Tests for IPv6 unicast address) arrives`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-10.2 **MUST**	RFC 3810, MLDv2 for IPv6, s6 p27, Protocol Description for Multicast Address Listeners						
	`Protocol Description for Multicast Address Listeners The link-scope all-nodes multicast address, (FF02::1), is handled as a special case. On all nodes -- that is all hosts and routers, including multicast routers -- listening to packets destined to the all-nodes multicast address, from all sources, is permanently enabled on all interfaces on which multicast listening is supported [Note : This test is for routers]`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-10.3 **MUST**	NEGATIVE: RFC 3810, MLDv2 for IPv6, s6 p27, Protocol Description for Multicast Address Listeners						
	`Protocol Description for Multicast Address Listeners No MLD messages are ever sent regarding neither the link-scope all-nodes multicast address, nor any multicast address of scope 0 (reserved) or 1 (node-local) (Tests for scope 0 (reserved) multicast address)`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-10.4 **MUST**	NEGATIVE: RFC 3810, MLDv2 for IPv6, s6 p27, Protocol Description for Multicast Address Listeners						
	`Protocol Description for Multicast Address Listeners No MLD messages are ever sent regarding neither the link-scope all-nodes multicast address, nor any multicast address of scope 0 (reserved) or 1 (node-local) (Tests for scope 1 (node-local) multicast address)`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-12.1 **MUST**	RFC 3810, MLDv2 for IPv6, s7 p35, Description of the Protocol for Multicast Routers						
	`Description of the Protocol for Multicast Routers For each interface over which the router operates the MLD protocol, the router must configure that interface to listen to all link-layer multicast addresses that can be generated by IPv6 multicasts. For example, an Ethernet-attached router must set its Ethernet address reception filter to accept all Ethernet multicast addresses that start with the hexadecimal value 3333`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.2 **MUST**	RFC 3810, MLDv2 for IPv6, s7 p35, Description of the Protocol for Multicast Routers						
	`Description of the Protocol for Multicast Routers On each interface over which this protocol is being run, the router MUST enable reception of the link-scope "all MLDv2-capable routers" multicast address from all sources`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.3 **MUST**	RFC 3810, MLDv2 for IPv6, s7 p35, Description of the Protocol for Multicast Routers						
	`Description of the Protocol for Multicast Routers On each interface over which this protocol is being run, the router MUST perform the multicast address listener part of MLDv2 for that address on that interface`						
	Ubuntu 18.04: untested	Ubuntu 18.04: FAIL	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: FAIL	Debian 12: FAIL
ANVL-IPV6-MLDV2-12.4 **MUST**	RFC 3810, MLDv2 for IPv6, s7 p35, Description of the Protocol for Multicast Routers						
	`Description of the Protocol for Multicast Routers Multicast routers only need to know that *at least one* node on an attached link listens to packets for a particular multicast address from a particular source; a multicast router is not required to *individually* keep track of the interests of each neighboring node`						
	Ubuntu 18.04: untested	Ubuntu 18.04: FAIL	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: FAIL	Debian 12: FAIL

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-12.5 **MUST**	RFC 3810, MLDv2 for IPv6, s7.1 p36, Conditions for MLD Queries						
	Description of the Protocol for Multicast Routers These queries are used to build and refresh the Multicast Address Listener state of routers on attached links.						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.6 **MUST**	RFC 3810, MLDv2 for IPv6, s7.1 p36, Conditions for MLD Queries						
	Description of the Protocol for Multicast Routers When Multicast Address Listening is terminated at a node or traffic from a particular source is no longer desired, the Querier must query for other listeners of the multicast address or of the source before deleting the multicast address (or source) from its Multicast Address Listener state and pruning its traffic [Note: This test is for other listeners of the multicast address]						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.7 **MUST**	RFC 3810, MLDv2 for IPv6, s7.1 p36, Conditions for MLD Queries						
	Description of the Protocol for Multicast Routers When Multicast Address Listening is terminated at a node or traffic from a particular source is no longer desired, the Querier must query for other listeners of the multicast address or of the source before deleting the multicast address (or source) from its Multicast Address Listener state and pruning its traffic [Note: This test is for listeners of a particular source]						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.8 **MUST**	RFC 3810, MLDv2 for IPv6, s7.1 p36, Conditions for MLD Queries						
	Description of the Protocol for Multicast Routers Multicast Address and Source Specific Queries are only sent in response to State Change Records and never in response to Current State Records [Note: This test checks that Multicast Address and Source Specific Queries are never sent in response to Current State Records						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-12.9 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2 p37, MLD State Maintained by Multicast Routers						
	`Description of the Protocol for Multicast Routers If all sources for a multicast address are listened to, an empty source record list is kept with the Router Filter Mode set to EXCLUDE. This means that nodes on this link want all sources for this multicast address to be forwarded`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.10 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.1 p37, Definition of Router Filter Mode						
	`Description of the Protocol for Multicast Routers A router is in INCLUDE mode for a specific multicast address on a given interface if all the listeners on the link interested in that address are in INCLUDE mode...The Include List is the set of sources that one or more listeners on the link have requested to receive`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.11 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.1 p37, Definition of Router Filter Mode						
	`Description of the Protocol for Multicast Routers A router is in EXCLUDE mode for a specific multicast address on a given interface if there is at least one listener in EXCLUDE mode interested in that address on the link`						
	Ubuntu 18.04: untested	Ubuntu 18.04: FAIL	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: FAIL	Debian 12: FAIL
ANVL-IPV6-MLDV2-12.12 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.1 p38, Definition of Router Filter Mode						
	`Description of the Protocol for Multicast Routers As a rule, once a Multicast Address Record with a filter mode of EXCLUDE is received, the Router Filter Mode for that multicast address will be set to EXCLUDE`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

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ANVL-IPV6-MLDV2-12.13 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.1 p38, Definition of Router Filter Mode						
	`Description of the Protocol for Multicast Routers Nevertheless, if all nodes with a multicast address record having filter mode set to EXCLUDE cease reporting, it is desirable for the Router Filter Mode for that multicast address to transition back to INCLUDE mode`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.14 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.2 p38, Definition of Filter Timers						
	`Description of the Protocol for Multicast Routers The Filter Timer is only used when the router is in EXCLUDE mode for a specific multicast address, and it represents the time for the Router Filter Mode of the multicast address to expire and switch to INCLUDE mode`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.15 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.3 p39, Definition of Source Timers						
	`Description of the Protocol for Multicast Routers The variable MALI stands for the Multicast Address Listening Interval, which is the time in which multicast address listening state will time out.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.17 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.3 p39, Definition of Source Timers						
	`Description of the Protocol for Multicast Routers The variable LLQT is the Last Listener Query Time, which is the total time the router should wait for a report, after the Querier has sent the first query. [Note: This test verifies that the DUT deletes the corresponding record after receiving no report within LLQT = [LastListenerQueryInterval * Robustness Variable] time period. Here DUT is a Router]. Robustness Variable is to take care the packet loss in network.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

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ANVL-IPV6-MLDV2-12.18 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.3 p39, Definition of Source Timers						
	Description of the Protocol for Multicast Routers During this time, the Querier should send [Last Member Query Count]-1 retransmissions of the query						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.19 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.3 p39, Definition of Source Timers						
	Description of the Protocol for Multicast Routers If the router is in INCLUDE filter mode, a source can be added to the current Include List if a listener in INCLUDE mode sends a Current State or a State Change Report which includes that source						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.20 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.3 p40, Definition of Source Timers						
	Description of the Protocol for Multicast Routers If the timer of a source from the Include List expires, the source is deleted from the Include List						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.21 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.3 p40, Definition of Source Timers						
	Description of the Protocol for Multicast Routers When a node in INCLUDE mode expresses its desire to stop listening to a specific source, all the multicast routers on the link lower their timer for that source to a small interval of LLQT milliseconds. The Querier then sends then a Multicast Address and Source Specific Query, ...If not (i.e if the corresponding report is not received before the timer expire), the source is deleted from the Include List. [Note: This test is for DUT which is a querier]						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

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ANVL-IPV6-MLDV2-12.22 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.3 p40, Definition of Source Timers						
	Description of the Protocol for Multicast Routers If a corresponding report is received before the timer expires, all the multicast routers on the link update their source timer. [Note: This test is for DUT which is a querier]						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.23 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.3 p40, Definition of Source Timers						
	Description of the Protocol for Multicast Routers When a node in INCLUDE mode expresses its desire to stop listening to a specific source, all the multicast routers on the link lower their timer for that source to a small interval of LLQT milliseconds. The Querier then sends then a Multicast Address and Source Specific Query, ...If not (i.e if the corresponding report is not received before the timer expire), the source is deleted from the Include List. [Note: This test is for DUT which is a non querier]						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.24 **MUST**	RFC 3810, MLDv2 for IPv6, s7.2.3 p40, Definition of Source Timers						
	Description of the Protocol for Multicast Routers If a corresponding report is received before the timer expires, all the multicast routers on the link update their source timer. [Note: This test is for DUT which is a non querier]						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-12.25 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4 p42, Action on Reception of Reports						
	Description of the Protocol for Multicast Routers Upon reception of an MLD message that contains a Report, the router checks if the Hop Limit is set to 1						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-12.26 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4 p42, Action on Reception of Reports						
	Description of the Protocol for Multicast Routers Upon reception of an MLD message that contains a Report, the router checks if the Hop Limit is set to 1 If this check fails, the packet is dropped.						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-13.1 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4 p42, Action on Reception of Reports						
	Description of the Protocol for Multicast Routers (Continued) Upon reception of an MLD message that contains a Report, the router checks if the Router Alert option is present in the Hop-By-Hop Options header of the IPv6 packet						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-13.2 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4 p42, Action on Reception of Reports						
	Description of the Protocol for Multicast Routers (Continued) Upon reception of an MLD message that contains a Report, the router checks if the Router Alert option is present in the Hop-By-Hop Options header of the IPv6 packet If this check fails, the packet is dropped.						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-13.3 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4.1 p42, Reception of Current State Records						
	Description of the Protocol for Multicast Routers (Continued) When receiving Current State Records, a router updates both its Filter Timer and its source timers. Following describes the action, with respect to state and timers, that occur to a router"s state upon reception of Current State Records : Router State Report Received New Router State Actions INCLUDE (A) IS_IN (B) INCLUDE (A+B) (B)=MALI						
	Ubuntu 18.04: untested	Ubuntu 18.04: FAIL	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: FAIL	Debian 12: FAIL

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ANVL-IPV6-MLDV2-13.4 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4.1 p42, Reception of Current State Records						
	Description of the Protocol for Multicast Routers (Continued) When receiving Current State Records, a router updates both its Filter Timer and its source timers. Following describes the action, with respect to state and timers, that occur to a router"s state upon reception of Current State Records : Router State Report Received New Router State Actions INCLUDE (A) IS_EX (B) EXCLUDE (A*B, B-A) (B-A)=0 Delete (A-B) Filter Timer=MALI						
	Ubuntu 18.04: untested	Ubuntu 18.04: FAIL	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: FAIL	Debian 12: FAIL
ANVL-IPV6-MLDV2-13.5 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4.1 p42, Reception of Current State Records						
	Description of the Protocol for Multicast Routers (Continued) When receiving Current State Records, a router updates both its Filter Timer and its source timers. Following describes the action, with respect to state and timers, that occur to a router"s state upon reception of Current State Records : Router State Report Received New Router State Actions EXCLUDE (X,Y) IS_IN (A) EXCLUDE (X+A, Y-A) (A)=MALI						
	Ubuntu 18.04: untested	Ubuntu 18.04: FAIL	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: FAIL	Debian 12: FAIL
ANVL-IPV6-MLDV2-13.6 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4.1 p42, Reception of Current State Records						
	Description of the Protocol for Multicast Routers (Continued) When receiving Current State Records, a router updates both its Filter Timer and its source timers. Following describes the action, with respect to state and timers, that occur to a router"s state upon reception of Current State Records : Router State Report Received New Router State Actions EXCLUDE (X,Y) IS_EX (A) EXCLUDE (A-Y, Y*A) (A-X-Y)=MALI Delete (X-A) Delete (Y-A) Filter Timer= MALI						
	Ubuntu 18.04: untested	Ubuntu 18.04: FAIL	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: FAIL	Debian 12: FAIL

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-13.7 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4.2 p44, Reception of Filter Mode Change and Source List Change Records RFC 3810, MLDv2 for IPv6, s7.4.2 p45, Reception of Filter Mode Change and Source List Change Records						
	Description of the Protocol for Multicast Routers (Continued) In order to maintain protocol robustness, the query (Q) defined below need to be transmitted [Last Listener Query Count] times, once every [Last Listener Query Interval] period : Router State Report Received New Router State Actions INCLUDE (A) BLOCK (B) INCLUDE (A) Send Q(MA,A*B)						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-13.8 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4.2 p44, Reception of Filter Mode Change and Source List Change Records RFC 3810, MLDv2 for IPv6, s7.4.2 p45, Reception of Filter Mode Change and Source List Change Records						
	Description of the Protocol for Multicast Routers (Continued) In order to maintain protocol robustness, the query (Q) defined below need to be transmitted [Last Listener Query Count] times, once every [Last Listener Query Interval] period : Router State Report Received New Router State Actions INCLUDE (A) TO_EX (B) EXCLUDE (A*B,B-A) (B-A)=0 Delete (A-B) Send Q(MA,A*B) Filter Timer=MALI						
	Ubuntu 18.04: untested	Ubuntu 18.04: other	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: other	Debian 12: other
ANVL-IPV6-MLDV2-13.9 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4.2 p44, Reception of Filter Mode Change and Source List Change Records RFC 3810, MLDv2 for IPv6, s7.4.2 p45, Reception of Filter Mode Change and Source List Change Records						
	Description of the Protocol for Multicast Routers (Continued) In order to maintain protocol robustness, the query (Q) defined below need to be transmitted [Last Listener Query Count] times, once every [Last Listener Query Interval] period : Router State Report Received New Router State Actions INCLUDE (A) TO_IN (B) INCLUDE (A+B) (B)=MALI Send Q(MA,A-B)						
	Ubuntu 18.04: untested	Ubuntu 18.04: other	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: other	Debian 12: other

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-13.10 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4.2 p44, Reception of Filter Mode Change and Source List Change Records RFC 3810, MLDv2 for IPv6, s7.4.2 p45, Reception of Filter Mode Change and Source List Change Records						
	Description of the Protocol for Multicast Routers (Continued) In order to maintain protocol robustness, the query (Q) defined below need to be transmitted [Last Listener Query Count] times, once every [Last Listener Query Interval] period : Router State Report Received New Router State Actions EXCLUDE (X,Y) BLOCK (A) EXCLUDE (X+(A-Y),Y) (A-X-Y)=Filter Timer Send Q(MA,A-Y)						
	Ubuntu 18.04: untested	Ubuntu 18.04: other	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: other	Debian 12: other
ANVL-IPV6-MLDV2-13.11 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4.2 p44, Reception of Filter Mode Change and Source List Change Records RFC 3810, MLDv2 for IPv6, s7.4.2 p45, Reception of Filter Mode Change and Source List Change Records						
	Description of the Protocol for Multicast Routers (Continued) In order to maintain protocol robustness, the query (Q) defined below need to be transmitted [Last Listener Query Count] times, once every [Last Listener Query Interval] period : Router State Report Received New Router State Actions EXCLUDE (X,Y) TO_EX (A) EXCLUDE (A-Y,Y*A) (A-X-Y)=Filter Timer Delete (X-A) Delete (Y-A) Send Q(MA,A-Y) Filter Timer=MALI						
	Ubuntu 18.04: untested	Ubuntu 18.04: FAIL	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: FAIL	Debian 12: FAIL
ANVL-IPV6-MLDV2-13.12 **MUST**	RFC 3810, MLDv2 for IPv6, s7.4.2 p44, Reception of Filter Mode Change and Source List Change Records RFC 3810, MLDv2 for IPv6, s7.4.2 p45, Reception of Filter Mode Change and Source List Change Records						
	Description of the Protocol for Multicast Routers (Continued) In order to maintain protocol robustness, the query (Q) defined below need to be transmitted [Last Listener Query Count] times, once every [Last Listener Query Interval] period : Router State Report Received New Router State Actions EXCLUDE (X,Y) TO_IN (A) EXCLUDE (X+A,Y-A) (A)=MALI Send Q(MA,X-A) Send Q(MA)						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-13.13 **MUST**	RFC 3810, MLDv2 for IPv6, s7.6 p46, Action on Reception of Queries						
	Description of the Protocol for Multicast Routers (Continued) Upon reception of an MLD message that contains a Query, the router checks if the source address of the message is a valid link-local address. If this check fails, the packet is dropped.						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-13.14 **MUST**	RFC 3810, MLDv2 for IPv6, s7.6 p46, Action on Reception of Queries						
	Description of the Protocol for Multicast Routers (Continued) Upon reception of an MLD message that contains a Query, the router checks if the Hop Limit is set to 1. If this check fails, the packet is dropped.						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-13.15 **MUST**	RFC 3810, MLDv2 for IPv6, s7.6 p46, Action on Reception of Queries						
	Description of the Protocol for Multicast Routers (Continued) Upon reception of an MLD message that contains a Query, the router checks if the Router Alert option is present in the Hop-By-Hop Options header of the IPv6 packet. If this checks fails, the packet is dropped.						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-13.16 **MUST**	RFC 3810, MLDv2 for IPv6, s7.6.2 p46, Querier Election						
	Description of the Protocol for Multicast Routers (Continued) When a router starts operating on a subnet, by default it considers itself as being the Querier						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-13.17 **MUST**	RFC 3810, MLDv2 for IPv6, s8.1 p48, Query Version Distinctions						

	`Description of the Protocol for Multicast Routers (Continued)`
	`The MLD version of a Multicast Listener Query message is determined as follows:`
	`MLDv1 Query: length = 24 octets`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-14.1 **MUST**	RFC 3810, MLDv2 for IPv6, s8.1 p48, Query Version Distinctions						

	`Interoperation with MLDv1`
	`The MLD version of a Multicast Listener Query message is determined as follows:`
	`MLDv2 Query: length >= 28 octets`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-14.10 **MUST**	RFC 3810, MLDv2 for IPv6, s8.3.1 p49, In the Presence of MLDv1 Routers						
	`Interoperation with MLDv1` `When in MLDv1 mode, the Querier MUST send periodic General Queries truncated at the Multicast Address field (i.e., 24 bytes long)`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-14.11 **MUST**	RFC 3810, MLDv2 for IPv6, s8.3.2 p50, In the Presence of MLDv1 Multicast Address Listeners						
	`Interoperation with MLDv1` `MLDv2 routers may be placed on a network where there are hosts that have not yet been upgraded to MLDv2. In order to be compatible with MLDv1 hosts, MLDv2 routers MUST operate in version 1 compatibility mode`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-14.12 **MUST**	RFC 3810, MLDv2 for IPv6, s8.3.2 p50, In the Presence of MLDv1 Multicast Address Listeners						
	`Interoperation with MLDv1 The Multicast Address Compatibility Mode of a multicast address record is set to MLDv1 whenever an MLDv1 Multicast Listener Report is received for that multicast adress.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: other	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: other	Debian 12: other
ANVL-IPV6-MLDV2-14.13 **MUST**	RFC 3810, MLDv2 for IPv6, s8.3.2 p50, In the Presence of MLDv1 Multicast Address Listeners						
	`Interoperation with MLDv1 If the Older Version Host Present timer expires, the router switches back to Multicast Address Compatibility Mode of MLDv2 for that multicast address.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: other	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: other	Debian 12: other
ANVL-IPV6-MLDV2-14.14 **MUST**	RFC 3810, MLDv2 for IPv6, s8.3.2 p50, In the Presence of MLDv1 Multicast Address Listeners						
	`Interoperation with MLDv1 Note that when a router switches back to MLDv2 Multicast Address Compatibility Mode for a multicast address, it takes some time to regain source-specific state information. Source-specific information will be learned during the next General Query, but sources that should be blocked will not be blocked until [Multicast Address Listening Interval] after that.`						
	Ubuntu 18.04: untested	Ubuntu 18.04: FAIL	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: FAIL	Debian 12: FAIL
ANVL-IPV6-MLDV2-14.15 **MUST**	RFC 3810, MLDv2 for IPv6, s8.3.2 p50, In the Presence of MLDv1 Multicast Address Listeners						
	`Interoperation with MLDv1 When Multicast Address Compatibility Mode is MLDv1, a router internally translates the following MLDv1 messages for that multicast address to their MLDv2 equivalents: Report MLDv1 Message> to IS_EX({}) MLDv2 Equivalent>`						
	Ubuntu 18.04: untested	Ubuntu 18.04: other	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: other	Debian 12: other

	Release 8.4	Release 8.4.2	Release 8.5	Release 8.4.3	Release 8.5.1	Dev-9.0 2023-06-13	Stable 9.1 @2023-11-21
ANVL-IPV6-MLDV2-14.16 **MUST**	RFC 3810, MLDv2 for IPv6, s8.3.2 p50, In the Presence of MLDv1 Multicast Address Listeners						

	`Interoperation with MLDv1`
	`When Multicast Address Compatibility Mode is MLDv1, a router internally translates the following MLDv1 messages for that multicast address to their MLDv2 equivalents:`
	`Done MLDv1 Message> to TO_IN({}) MLDv2 Equivalent>`						

	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass
ANVL-IPV6-MLDV2-14.17 **MUST**	RFC 3810, MLDv2 for IPv6, s8.3.2 p50, In the Presence of MLDv1 Multicast Address Listeners						
	`Interoperation with MLDv1` `MLDv2 BLOCK messages are ignored`						
	Ubuntu 18.04: untested	Ubuntu 18.04: FAIL	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: FAIL	Debian 12: FAIL
ANVL-IPV6-MLDV2-14.18 **MUST**	RFC 3810, MLDv2 for IPv6, s8.3.2 p50, In the Presence of MLDv1 Multicast Address Listeners						
	`Interoperation with MLDv1` `Any TO_EX() message is treated as TO_EX( {} ))`						
	Ubuntu 18.04: untested	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested	Ubuntu 18.04: untested
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass