

	Release 8.2.2	Release 8.3	Release 8.4	Release 8.5	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x
Type	FRR	FRR	FRR	FRR	FRR			
Commit ID	79188bf	gd19215c	99477bc	86a5e5a				
Commit Date	2022-03-13	2022-08-07	2022-11-03	2023-03-14				
IGMP-1.2	DUT supporting IGMP router							
<b>MUST</b>	Quick test to verify that DUT supports an IGMP router behavior i.e. it sends an IGMP general query at startup							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-2.1	RFC 2236, IGMP Version 2, s7 page 13 Router State Diagram							
<b>SHOULD</b>	Upon starting the router should multicast a general query							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-2.2	RFC 2236, IGMP Version 2, s3 p4 Protocol Description							
<b>SHOULD</b>	On startup, a router SHOULD Multicast [Startup Query Count] General Queries spaced closely together [Startup Query Interval] (This test is for number of startup General Queries)							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-2.3	RFC 2236, IGMP Version 2, s3 p4 Protocol Description							
<b>SHOULD</b>	On startup, a router SHOULD Multicast [Startup Query Count] General Queries spaced closely together [Startup Query Interval] (This test is for the interval between startup General Queries)							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				

	Release 8.2.2	Release 8.3	Release 8.4	Release 8.5	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x
IGMP-2.4 <b>MUST</b>	RFC 2236, IGMP Version 2, s3 p4 Protocol Description							
	Routers periodically [QUERY_INTERVAL] multicast a general query on each attached network for which this router is the querier							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-2.5 <b>MUST</b>	RFC 2236, IGMP Version 2, s3 p4 Protocol Description							
	If a multicast router hears a query message from a router with lower IP address, it MUST become a non-querier for that network							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-2.6 <b>MUST</b>	NEGATIVE: RFC 2236, IGMP Version 2, s3 p4 Protocol Description							
	If a multicast router hears a query message from a router with lower IP address, it MUST become a non-querier for that network							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-2.7 <b>MUST</b>	RFC 2236, IGMP Version 2, s3 p4 Protocol Description							
	After multicasting Startup Query Count general queries, a router multicasts a general query after QUERY_INTERVAL							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				

	Release 8.2.2	Release 8.3	Release 8.4	Release 8.5	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x
IGMP-2.8  <b>MUST</b>	RFC 2236, IGMP Version 2, s3 p4 Protocol Description RFC 2236, IGMP Version 2, s2 p2 Introduction							
	A general query is addressed to ALL-SYSTEMS, has a Group Address field of 0 and a Max Response Time of [Query Response Interval].							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-3.2  <b>MUST</b>	RFC 2236, IGMP Version 2, s3 p5 Protocol Description							
	When a router receives a report, it adds the group being reported to the list of multicast group memberships on the network.							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-3.3  <b>MUST</b>	RFC 2236, IGMP Version 2, s3 p5 Protocol Description							
	The router stops forwarding remotely-originated multicasts for a group after GROUP_MEMBERSHIP_INTERVAL							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-3.8  <b>SHOULD</b>	RFC 2236, IGMP Version 2, s3 p5 Protocol Description							
	Routers SHOULD accept a leave group message being addressed to the group being left							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				

	Release 8.2.2	Release 8.3	Release 8.4	Release 8.5	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x
IGMP-3.9 <b>MUST</b>	RFC 2236, IGMP Version 2, s3 p5 Protocol Description							
	A querier multicasts [Last Member Query Count] Group-Specific Queries every [LAST_MEMBER_QUERY_INTERVAL] upon receiving a Leave message							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-3.10 <b>MUST</b>	RFC 2236, IGMP Version 2, s3 p6 Protocol Description							
	Any querier to non-querier transition is ignored during the period of Last Member Query Interval * Last Member Query Count							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: FAIL	Ubuntu 18.04: FAIL	Ubuntu 18.04: FAIL	Ubuntu 18.04: FAIL				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-3.11 <b>SHOULD</b>	RFC 2236, IGMP Version 2, s3 p6 Protocol Description							
	Queriers SHOULD ignore Leave Group messages for which there are no group members on the reception interface							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-5.4 <b>MUST</b>	NEGATIVE: RFC 2236, IGMP Version 2, s6 p8 Host State Diagram							
	To be valid the query message MUST have the right checksum and must be 8 octets long							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				

	Release 8.2.2	Release 8.3	Release 8.4	Release 8.5	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x
IGMP-5.6 <b>MUST</b>	NEGATIVE: RFC 2236, IGMP Version 2, s6 p8 Host State Diagram							
	To be valid a report must have a valid checksum and any greater than 8 octets long must be accepted for future compatability							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-5.10 <b>SHOULD</b>	NEGATIVE: RFC 2236, IGMP Version 2, s6 p9 Host State Diagram							
	The Leave message is sent to ALL-ROUTERS							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-6.1 <b>MUST</b>	NEGATIVE: RFC 2236, IGMP Version 2, s7 page 13 Router State Diagram							
	To be valid, a leave message must have correct IGMP checksum and must be 8 octets long							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-6.3 <b>MUST</b>	RFC 2236, IGMP Version 2, s7 page 13 Router State Diagram							
	The DUT retransmits the Group-Specific query when the retransmit timer expires. Its value is LAST_MEMBER_QUERY_INTERVAL							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				

	Release 8.2.2	Release 8.3	Release 8.4	Release 8.5	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x
IGMP-6.4  <b>MUST</b>	RFC 2236, IGMP Version 2, s7 page 13 Router State Diagram							
	The Group-Specific query has a Max Response Time of [Last Member Query Interval]							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-6.5  <b>MUST</b>	RFC 2236, IGMP Version 2, s3 page 5 Protocol Description							
	There is no querier-non-querier transition when a group-specific query has been sent out							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-6.6  <b>MUST</b>	RFC 2236, IGMP Version 2, s7 page 13 Router State Diagram							
	10 IGMP v2 hosts join and leave 2 groups on 2 different interfaces DUT is an IGMP v2 router (Tests an IGMP router behavior according to router state machine on its multiple interfaces)							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				
IGMP-6.7  <b>MUST</b>	RFC 2236, IGMP Version 2, s7 page 13 Router State Diagram							
	10 IGMP v2 hosts join and leave a group, DUT is an IGMP v2 router (Tests an IGMP router behavior according to router state machine on its one interface)							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				

	Release 8.2.2	Release 8.3	Release 8.4	Release 8.5	Release x.x.x	Release x.x.x	Release x.x.x	Release x.x.x
IGMP-6.9	RFC 2236, IGMP Version 2, s7 page 13 Router State Diagram							
<b>MUST</b>	10 IGMP v2 hosts join and leave a group, DUT is an IGMP v2 router. 10 remotely originated multicast packets are sent to the DUT (Tests an IGMP router behavior including its multicast packet forwarding capability according to router state machine							
	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested	Free BSD 10.3 untested				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass				
	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested	Free BSD 12.0 untested				