

RFC Compliance Test Report

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	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			
Туре	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-RIP-1.1	RFC 2453 s3.6 p20 Message Format									
MUST	RIP Message Each router datagrams o	and Packet that uses R n UDP port n	Formats IP has a rou umber 520.	iting process	s that send	ls				
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass			
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested			
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass			
ANVL-RIP-2.1 MUST	NEGATIVE: RFC 2453 s3.6 p RFC 2453 s3.10	21 Message Form 2 p30 Generating	nat Response Messa	ges						
	RIP Packet There may b Recall that	Formats e between 1 there is a	and 25 (incl limit of 25	usive) RIP e RTEs to a Re	entries. esponse.					
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass			
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested			
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass			



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ANVL-RIP-2.2 MUST	2.2 NEGATIVE: RFC 2453 s4 p31 Protocol Extensions RFC 2453 s3.6 p20-21 Message Format										
	RIP Packet Formats The RIP Message Format is:										
	0 1 2 3 0 1 2 3 +-+++++++++++++++++++++++++++++++++++										
	command +	(1) vers	sion (1)	must be	e zero (2)	 ++ 					
	 ~ +	+	RIP Entry	<u>7</u> (20)	+	 ~ +					
	There may b (NOTE: Here accepted.)	e between 1 we are test	and 25 (incl ing that on	lusive) RIP e ly valid RIP	entries. packets ma	ay be					
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-2.3	NEGATIVE: RFC 2453 s3.1 p	021 Message Form	nat								
MUST	RIP Packet The command	Formats s implemente	ed in version	n 1 and 2 are	e request a	and response					
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-2.4	NEGATIVE RFC 2453 s3.6 p	o21 Message Form	nat								
MUST	RIP Packet For RIP-1,	Formats only AF_INET	C (2) is gene	erally suppor	cted.						
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				



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ANVL-RIP-2.5	NEGATIVE: RFC 2453 p21 M	lessage Format									
MUST	RIP Packet Formats The metric field contains a value between 1 and 15 (inclusive) which specifies the current metric for the destination; or the value 16, which indicates that the destination is not reachable.										
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-2.8	RFC 2453 s3.6 p RFC 2453 s4 p3	20 Message Form 1 Protocol Extensi	nat ons								
MUST	RIP Packet The RIP Res 0	Formats ponse Messag 1	ge Format is:	2		3					
	0 1 2 3 4 5 +-+-+-+-+-+	678901 -+-+-+-+-++ (1) vers	2 3 4 5 6 5	7 8 9 0 1 2 3 +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-	3 4 5 6 7 8 +-+-+-+-+-+-+-+-+-+-+++	3 9 0 1 +-+-+-+					
	command (1) version (1) must be zero (2) +										
	 	·	RIP Entry	r (20)		+ ~ 					
	 ~ + There may b	+ e between 1	RIP Entry and 25 (incl	(20) 	entries.	+ +					
	 + There may b FreeBSD 12.3: pass	e between 1 FreeBSD 12.3: pass	RIP Entry and 25 (incl FreeBSD 12.3: pass	r (20) .usive) RIP e FreeBSD 12.3: pass	entries. FreeBSD 12.3: pass	FreeBSD 12.3:	FreeBSD 12.3: pass				
	 There may b FreeBSD 12.3: pass Ubuntu 18.04: pass	e between 1 FreeBSD 12.3: pass Ubuntu 18.04: pass	RIP Entry and 25 (inc] FreeBSD 12.3: pass Ubuntu 18.04: pass	r (20) .usive) RIP e FreeBSD 12.3: pass Ubuntu 18.04: pass	entries. FreeBSD 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested	FreeBSD 12.3: pass Ubuntu 18.04: untested				
	 There may b FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	e between 1 FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	RIP Entry and 25 (incl FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	r (20) Lusive) RIP e FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	entries. FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass				
ANVL-RIP-3.1	 There may b FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s3.7 p	e between 1 FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	RIP Entry and 25 (incl FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	r (20) Lusive) RIP e FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	entries. FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass				
ANVL-RIP-3.1 MUST	 There may b FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s3.7 p RIP Address If host rou they are re	e between 1 FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested 022 Addressing Consierates are not ceived in re	RIP Entry and 25 (incl FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested onsiderations supported, t	r (20) Lusive) RIP e FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	entries. FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass				
ANVL-RIP-3.1 MUST	 There may b FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s3.7 p RIP Address If host rou they are re FreeBSD 12.3: pass	e between 1 FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested o22 Addressing Co ing Consierates are not ceived in re FreeBSD 12.3: pass	RIP Entry and 25 (incl FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested onsiderations supported, t esponse messa FreeBSD 12.3: pass	r (20) Lusive) RIP e FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested Chey are to k ages. FreeBSD 12.3: pass	entries. FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass when FreeBSD 12.3: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass FreeBSD 12.3: pass				
ANVL-RIP-3.1 MUST	 There may b FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s3.7 p RIP Address If host rou they are re FreeBSD 12.3: pass Ubuntu 18.04: pass	e between 1 FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested 022 Addressing Co ing Consierates are not ceived in ree FreeBSD 12.3: pass Ubuntu 18.04: pass	RIP Entry and 25 (incl FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested onsiderations supported, t soponse messa FreeBSD 12.3: pass Ubuntu 18.04: pass	r (20) Lusive) RIP e FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested Chey are to h ages. FreeBSD 12.3: pass Ubuntu 18.04: pass	entries. FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass Debian 12: pass Debian 12: pass Ubuntu 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass when FreeBSD 12.3: pass Ubuntu 18.04: untested	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass FreeBSD 12.3: pass Ubuntu 18.04: untested				







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ANVL-RIP-3.2	NEGATIVE: RFC 2453 s3.7 p22-23 Addressing considerations											
MUST	RIP Address The destina networks, h Normally ho networks. (NOTE: Here address fie	ing Consiera tions appear osts, or a s osts only kno we are test olds.)	tions ing in reque pecial code w the subnet ing the DUT	est and respo used to indi masks for o does not acc	onse messag icate a def directly-co cept bad va	ges can be ault address. onnected lues in						
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass					
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested					
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass					
ANVL-RIP-3.3	RFC 2453 s3.7 p	22 Addressing Co	onsiderations									
MUST	RIP Addressing Consierations RIP-1 routes to a subnet must not be sent outside the network of which the subnet is a part.											
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass					
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested					
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass					
ANVL-RIP-3.5	RFC 2453 s3.7 p	23 Addressing Co	onsiderations									
SHOULD	RIP Address	ing Consiera	tions									
	These route just as if decision as the impleme provided wi for 0.0.0.0	ers should cr it were a ne to how rout entor. Most c th a way to	reate RIP ent etwork to whi ers create e commonly, the specify whic	tries for the tch they are entries for (system admi ch routers sh	e address (connected.).0.0.0 is inistrator hould creat	0.0.0.0, The left to will be se entries						
	These route just as if decision as the impleme provided wi for 0.0.0.0 FreeBSD 12.3: pass	rs should cr it were a ne to how rout ntor. Most o th a way to FreeBSD 12.3: pass	reate RIP ent etwork to whi ers create e sommonly, the specify whice FreeBSD 12.3: pass	tries for the tch they are entries for (system admi th routers sh FreeBSD 12.3: pass	e address (connected.).0.0.0 is inistrator hould creat FreeBSD 12.3: pass	D.0.0.0, The left to will be se entries FreeBSD 12.3: pass	FreeBSD 12.3: pass					
	These route just as if decision as the impleme provided wi for 0.0.0.0 FreeBSD 12.3: pass Ubuntu 18.04: pass	rs should cr it were a ne to how rout ntor. Most of th a way to FreeBSD 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass	tries for the ch they are entries for (e system admi ch routers sh FreeBSD 12.3: pass Ubuntu 18.04: pass	e address (connected.).0.0.0 is inistrator hould creat FreeBSD 12.3: pass Ubuntu 18.04: pass	0.0.0.0, The left to will be se entries FreeBSD 12.3: pass Ubuntu 18.04: untested	FreeBSD 12.3: pass Ubuntu 18.04: untested					



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ANVL-RIP-4.3	RFC 2453 s3.8 p	24 Timers									
SHOULD	RIP Timers Route expiration timer should be 180 seconds and garbage collection timer should be 120 seconds.										
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-4.4	RFC 2453 s3.8 p	23-24 Timers									
MUST	RIP Timers The garbage a new route	-collection to an unrea	timer is res achable netwo	set upon the ork.	reception	of					
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-5.1	RFC 2453 s5 p3	4 Compatability									
MUST	Input Proce RIP message	ssing s of version	1 0 are to be	e discarded.							
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				



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ANVL-RIP-5.2	RFC 2453 s5 p3	4 Compatability								
MUST	Input Processing RIP messages of version 1 are to be discarded if any Must Be Zero (MBZ) field is non-zero.									
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass			
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested			
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass			
ANVL-RIP-5.3	RFC 2453 s5 p3	4 Compatability								
SHOULD	Input Proce RIP message simply beca	ssing s of any ver use an MBZ f	sion greater ield contair	than 1 shou s a value ot	ild not be ther than z	discarded ero.				
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass			
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested			
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass			
ANVL-RIP-6.1	RFC 2453 s3.9.1	p25 Request Mes	ssages							
MUST	RIP Requests Normally, Requests are sent as broadcasts, from the RIP port, by routers which have just come up and are seeking to fill in their routing tables as quickly as possible. However, there may be situations (e.g., router monitoring) where the routing table of only a single router is needed. In this case, the Request should be sent directly to that router from a UDP port other than the RIP port. If such a Request is received, the router responds directly to the requestor's address and port.									
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass			
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested			
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass			



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ANVL-RIP-6.5	NEGATIVE: RFC 2453 s3.9.1 p25 Request Messages										
MUST	RIP Requests If there is exactly one entry in the request, and it has an address family identifier of zero and a metric of infinity (i.e., 16), then this is a request to send the entire routing table.										
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-6.6	RFC 2453 s3.9.1	p25 Request Mes	ssages								
MUST	RIP Request Validate RI	s P Response M	lessage in re	eply to Reque	est Message	2.					
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-7.1	RFC 2453 s3.9.2	2 p26 Response M	essages								
MUST	RIP Respons The Respons (UDP Port 5	es e must be ig 20).	mored if it	is not from	the RIP po	ort.					
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				



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ANVL-RIP-7.2	NEGATIVE: RFC 2453 s3.9.2 p26 Response Messages										
MUST	RIP Responses The datagram"s IPv4 source address should be checked to see whether the datagram is from a valid neighbor										
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-7.3	NEGATIVE: RFC 2453 s3.9.2	2 p26 Response M	essages								
MUST	RIP Responses It is also worth checking to see whether the response is from one of the router"s own addresses. Interfaces on broadcast networks may receive copies of their own broadcasts/multicasts immediately. If a router processes its own output as new input, confusion is likely so such datagrams must be ignored.										
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-14.1	RFC 2453 s4.4 p	o33 Next hop									
MUST	RIP Next Ho An address reachable o	p specified as n the logica	s a next hop al subnet ove	must, per fo er which the	orce, be di advertisen	rectly ment is made.					
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				



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ANVL-RIP-14.2	RFC 2453 s4.4 p	o33 Next hop								
MUST	RIP Next Hop The purpose of the Next Hop field is to eliminate packets being routed through extra hops in the system. It is particularly useful If the received Next Hop is not directly reachable, it should be treated as 0.0.0.0.									
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass			
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested			
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass			
ANVL-RIP-15.1	RFC 2453 s4.5 p	o33 Multicasting								
MUST	RIP Multicasting In order to reduce unnecessary load on those hosts which are not listening to RIP-2 messages, an IP multicast address will be used for periodic broadcasts. The IP multicast address is 224.0.0.9. In order to maintain backwards compatibility, the use of the multicast address will be configurable (NOTE: Here we are testing DUT sends multicast RIP-2 update)									
	(NOTE: Here	we are test	ing DUT send	ls multicast	RIP-2 upda	ate)				
	(NOTE: Here FreeBSD 12.3: pass	we are test FreeBSD 12.3: pass	FreeBSD 12.3: pass	ls multicast FreeBSD 12.3: pass	RIP-2 upda FreeBSD 12.3: pass	ate) FreeBSD 12.3: pass	FreeBSD 12.3: pass			
	(NOTE: Here FreeBSD 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass	s multicast FreeBSD 12.3: pass Ubuntu 18.04: pass	RIP-2 upda FreeBSD 12.3: pass Ubuntu 18.04: pass	TreeBSD 12.3: pass Ubuntu 18.04: untested	FreeBSD 12.3: pass Ubuntu 18.04: untested			
	(NOTE: Here FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	Is multicast FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	RIP-2 upda FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass	TreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass			
ANVL-RIP-15.2	(NOTE: Here FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s4.5 p	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	Is multicast FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	RIP-2 upda FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass	TreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass			
ANVL-RIP-15.2 MUST	(NOTE: Here FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s4.5 p RIP Multica In order to listening t periodic br In order to multicast a (NOTE: Here	ve are test FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested 033 Multicasting sting oreduce unner o RIP-2 mess oadcasts. To maintain ba ddress will we are test	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested Debian 12: untested ccessary load ages, an IP The IP multic ckwards comp be configura ing DUT acce	ds multicast FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested d on those ho multicast ac cast address patibility, t able epts multicast	RIP-2 upda FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass Debian se of ddress will is 224.0.0 che use of st RIP-2 up	ate) FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass are not be used for .9. the odate)	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass			
ANVL-RIP-15.2 MUST	(NOTE: Here FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s4.5 p RIP Multica In order to listening t periodic br In order to multicast a (NOTE: Here FreeBSD 12.3: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested 033 Multicasting sting reduce unner o RIP-2 mess oadcasts. T maintain ba ddress will we are test FreeBSD 12.3: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested Debian 12: untested cages, an IP The IP multic ckwards comp be configura ing DUT acce FreeBSD 12.3: pass	A on those home the set address of the set address	RIP-2 upda FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass Debian 12: pass Debian 22: pass Debian 12: pass Debian 12: pass Debian 12: pass	TreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass are not be used for 0.9. the odate) FreeBSD 12.3: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass FreeBSD 12.3: pass			
ANVL-RIP-15.2 MUST	(NOTE: Here FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s4.5 p RIP Multica In order to listening t periodic br In order to multicast a (NOTE: Here FreeBSD 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested 033 Multicasting oreduce unner oreduce unn	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested Debian 1	Is multicast FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested Conthose home multicast address patibility, t able epts multicast FreeBSD 12.3: pass Ubuntu 18.04: pass	RIP-2 upda FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass Debian 12: pass Debian 12: pass Che use of st RIP-2 up FreeBSD 12.3: pass Ubuntu 18.04: pass	TreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass are not be used for 0.9. the odate) FreeBSD 12.3: pass Ubuntu 18.04: untested	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass FreeBSD 12.3: pass			



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ANVL-RIP-16.1	RFC 2453 s5.1 p	34 Compatibility s	witch								
MUST	RIP Version Compatibility The switch has four settings: RIP-1, in which only RIP-1 messages are sent; RIP-1 compatibility, in which RIP-2 messages are broadcast; RIP-2, in which RIP-2 messages are multicast; and "none", which disables the sending of RIP messages. CASE: Only RIP-1 messages are sent										
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-16.2	RFC 2453 s5.1 p	34 Compatibility s	witch								
MUST	RIP Version Compatibility The switch has four settings: RIP-1, in which only RIP-1 messages are sent; RIP-1 compatibility, in which RIP-2 messages are broadcast; RIP-2, in which RIP-2 messages are multicast; and "none", which disables the sending of RIP messages. CASE: RIP-2 messages are broadcast										
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-17.1	RFC 2453 s3.10	p29 Output Proce	ssing								
MAY	RIP Paramet It may be n routers and	er Setting ecessary to send a data	specify an a gram to each	actual list o none explici	of neighbor itly	ring					
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				



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ANVL-RIP-1.2	RFC 2453 s3.6 p	20 Message Form	nat						
MUST	RIP Message and Packet Formats Unsolicited routing update messages have both source and destination port equal to the RIP port (UDP port number 520).								
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass		
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested		
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass		
ANVL-RIP-1.3	RFC 2453 s3.6 p	20 Message Form	nat						
MUST	RIP Message Update mess from which	and Packet ages sent in the request	Formats response to came.	o a request a	are sent to	the port			
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass		
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested		
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass		
ANVL-RIP-7.9 MUST	NEGATIVE: RFC 2453 s3.10 RFC 2453 s5 p3	.2 p30 Generating 4 Compatibility	Response Messa	ages					
	RIP Respons Set the com to zero. RIP message (MBZ) field	es mand to Resp s of version is non-zerc	oonse. Set t 1 are to be	the bytes lab	beled "must if any Must	: be zero" : Be Zero			
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass		
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested		
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass		



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ANVL-RIP-7.10	RFC 2453 s3.4.	2 p27 Response M	lessages								
MUST	RIP Responses Once the entry has been validated, update the metric by adding the cost of the network on which the message arrived. If the result is greater than infinity, use infinity. That is, metric = MIN (metric + cost, infinity)										
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-7.12	RFC 2453 s3.9.2	2 p27 Response M	essages								
MUST	RIP Respons If there is unless the which is un	es no such rou metric is in usable).	te, add this finity (ther	s route to th re is no poir	ne routing nt in addir	table, ng a route					
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				
ANVL-RIP-7.13	RFC 2453 s3.9.2	2 p28 Response M	essages								
MUST	RIP Respons If the new	es metric is in	finity, star	t the delet	lon process	3					
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass				
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested				
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass				



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ANVL-RIP-7.14	RFC 2453 s3.9.2	RFC 2453 s3.9.2 p27 Response Messages								
MUST	RIP Responses Any entry that fails these tests is ignored, as it is no better than the current route.									
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass			
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested			
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass			
ANVL-RIP-8.1	RFC 2453 s3.10	p28 Output Proce	ssing							
MUST	Output Proc This proces is received	essing sing may be (this Respo	triggered by onse is unica	y input proce ast to the re	essing, whe equestor)	en a Request				
	FreeBSD 12.3: passFreeBSD 12.3: passFreeBSD 12.3: passFreeBSD 12.3: passFreeBSD 12.3: passFreeBSD passFreeBSD 12.3: pass									
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested			
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass			
ANVL-RIP-8.3	RFC 2453 s3.10	p28 Output Proce	ssing							
MUST	Output Proc This proces (broadcast/	Output Processing This processing may be triggered by triggered updates (broadcast/multicast when a route changes)								
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass			
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested			
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass			



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	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-RIP-8.5	RFC 2453 s3.10.1 p29 Triggered Updates								
SHOULD	Output Processing After a triggered update is sent, a timer should be set for a random interval between 1 and 5 seconds. If other changes that would trigger updates occur before the timer expires, a single update is triggered when the timer expires. The timer is then reset to another random value between 1 and 5 seconds.								
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass		
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested		
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass		
ANVL-RIP-8.17	RFC 2453 s3.4.3	3 p15-16 Split horiz	zon						
MUST	Output Processing The "simple split horizon" scheme omits routes learned from one neighbor in updates sent to that neighbor. Thus implementors may at their option implement simple split horizon rather than split horizon with poisoned reverse The router requirements RFC [11] specifies that all implementation of RIP must use split horizon								
			2011						
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass		
	FreeBSD 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested	FreeBSD 12.3: pass Ubuntu 18.04: untested		
	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass		
ANVL-RIP-9.1	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s3.6 p	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass		
ANVL-RIP-9.1 MUST	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s3.6 p RIP Version The RIP Hea	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested 020 Message form 2 Packet Fodder format i	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested at	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass		
ANVL-RIP-9.1 MUST	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s3.6 p RIP Version The RIP Hea 0 0 1 2 3 4 5	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested 020 Message form 2 Packet Fo der format i	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested at	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass		
ANVL-RIP-9.1 MUST	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s3.6 p RIP Version The RIP Hea 0 0 1 2 3 4 5 +-+-++++ command	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested 020 Message form 2 Packet For der format i 1 6 7 8 9 0 1 -+-+-+++++ (1) vers	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested at ormats .s: .2 3 4 5 6 7	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass	BSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass 3 9 0 -+++++++	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass		
ANVL-RIP-9.1 MUST	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s3.6 p RIP Version The RIP Hea 0 0 1 2 3 4 5 +-++++++ command + FreeBSD 12.3: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested 020 Message form 2 Packet For der format i 1 6 7 8 9 0 1 -+-+-+++++ (1) vers +	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested at prmats .s: .2 3 4 5 6 7 	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass	Second state Second state Ubuntu 18.04: untested Debian 12: pass Debian 12: pass FreeBSD 12: pass	FreeBSD 12.3: Dbuntu 18.04: untested Debian 12: pass FreeBSD 12.3: pass		
ANVL-RIP-9.1 MUST	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested RFC 2453 s3.6 p RIP Version The RIP Hea 0 0 1 2 3 4 5 +-+++++++ command + FreeBSD 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested Debian 1	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested 18.04: pass at 18.04: pass prmats 18.04: pass FreeBSD 12.3: pass 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: untested Debian 12: untested FreeBSD 12.3: pass Ubuntu 18.04: pass	FreeBSD 12.3: pass Ubuntu 18.04: pass Debian 12: pass Debian 12: pass FreeBSD 12.3: pass Ubuntu 18.04: pass	Second state Second state Ubuntu 18.04: untested Debian 12: pass Debian 12: pass Second state Second state Second state FreeBSD 12.3: pass Ubuntu 18.04: untested Ubuntu 18.04: untested Second state	FreeBSD 12.3: pass Ubuntu 18.04: untested Debian 12: pass FreeBSD 12.3: pass Ubuntu 18.04: untested		



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ANVL-RIP-9.2	RFC 2453 s4 p31 Protocol Extensions								
MUST	RIP Version 2 Packet Formats The format for the 20-octet route entry (RTE) for RIP-2 is:								
	0 0 1 2 3 4 5 +-+-+-+ Address F	0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 +-+++++++++++++++++++++++++++++++++++							
	+		IP Addres	s (4)		+			
	+		Subnet Ma	ask (4)		+			
	+		Next Hop	(4)		+			
	+		Metric (4	 L)		++			
	+					+	E		
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass		
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested		
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass		
ANVL-RIP-10.1	RFC 2453 s4.1 p	31 Authentication			-				
MUST	RIP Version 2 Authentication If the Address Family Identifier of the first (and only the first) entry in the message is 0xFFFF, then the remainder of the entry contains the authentication.								
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass		
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested		
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass		



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	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-RIP-10.2	NEGATIVE: RFC 2453 s4.1 p31 Authentication									
MUST	RIP Version 2 Authentication If authentication is not in use, then no entries in the message should have an Address Family Identifier of 0xFFFF.									
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass			
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested			
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass			
ANVL-RIP-10.3	NEGATIVE: RFC 2453 s4.1 p	32 Authentication								
MUSI	RIP Version 2 Authentication Currently, the only Authentication Type is simple password and it is type 2. The remaining 16 octets contain the plain text password. If the password is under 16 octets, it must be left-justified and padded to the right with nulls (0x00).									
	FreeBSD 12.3: passFreeBSD 12.3: passFreeBSD 12.3: passFreeBSD 12.3: passFreeBSD 12.3: passFreeBSD passFreeBSD 12.3: pass									
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested			
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass			
ANVL-RIP-16.3	RFC 2453 s5.1 p	34 Compatibility s	witch							
MUST	RIP Version Compatibility The switch has four settings: RIP-1, in which only RIP-1 messages are sent; RIP-1 compatibility, in which RIP-2 messages are broadcast; RIP-2, in which RIP-2 messages are multicast; and "none", which disables the sending of RIP messages. CASE: RIP-2 messages are multicast									
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass			
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested			
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass			



RFC Compliance Test Report

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	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-RIP-16.4	RFC 2453 s5.1 p34 Compatibility switch								
MUST	RIP Version Compatibility The switch has four settings: RIP-1, in which only RIP-1 messages are sent; RIP-1 compatibility, in which RIP-2 messages are broadcast; RIP-2, in which RIP-2 messages are multicast; and "none", which disables the sending of RIP messages. CASE: No RIP messages are sent								
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass		
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested		
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass		
ANVL-RIP-16.5	RFC 2453 s5.1 p	34 Compatibility S	Switch						
SHOULD	RIP Version Compatibility For completeness, routers should also implement a receive control switch which would determine whether to accept RIP-1 only.								
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass		
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested		
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass		
ANVL-RIP-16.6	RFC 2453 s5.1 p	34 Compatibility S	Switch						
SHOULD	RIP Version Compatibility For completeness, routers should also implement a receive control switch which would determine whether to accept RIP-2 only								
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass		
	Ubuntu	Ubuntu	Ubuntu	Ubuntu	Ubuntu	Ubuntu 18.04: untested	Ubuntu 18.04: untested		
	18.04: pass	18.04: pass	10.04. pass	10.04. pass	pass				



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	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-RIP-16.7	RFC 2453 s5.1 p34 Compatibility Switch								
SHOULD	RIP Version Compatibility For completeness, routers should also implement a receive control switch which would determine whether to accept both								
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass		
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested		
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass		
ANVL-RIP-16.8	RFC 2453 s5.1 p	34 Compatibility S	Switch						
SHOULD	RIP Version Compatibility For completeness, routers should also implement a receive control switch which would determine whether to accept none.								
	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass	FreeBSD 12.3: pass		
	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: pass	Ubuntu 18.04: untested	Ubuntu 18.04: untested		
	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: untested	Debian 12: pass	Debian 12: pass	Debian 12: pass		