

4.3 Test Summary

Comparison for Scenario 1 can be observed in Table 1 and Table 2 for IPv4 and IPv6. Similarly description for Scenario 2 is in Table 3 and Table 4 for IPv4 and IPv6. In completely revisited comparisons, we have focused on messages processed mostly by router R2. Nevertheless, messages that are not shown and were processed by other routers are also in correct order and without any significant deviations between simulation and real time.

The correlation of messages between simulation and real network suggests correctness of our EIGRP implementation.

Table 1. Timestamp comparison for IPv4 routing in Scenario 1

Phase	Message	Sender → Receiver	Simulation [ms]	Real [ms]
#3	<i>Update</i>	R3 → R2	0.000	0.000
#4	<i>Query</i>	R2 → R1	0.009	29.823
#5	<i>Reply</i>	R1 → R2	0.024	57.060
#7	<i>Reply</i>	R4 → R2	0.037	73.774

Table 2. Timestamp comparison for IPv6 routing in Scenario 1

Phase	Message	Sender → Receiver	Simulation [ms]	Real [ms]
#3	<i>Update</i>	R3 → R2	0.000	0.000
#4	<i>Query</i>	R2 → R1	0.012	62.159
#5	<i>Reply</i>	R1 → R2	0.033	97.034
#7	<i>Reply</i>	R4 → R2	0.045	132.192

Table 3. Timestamp comparison for IPv4 routing in Scenario 2

Phase	Message	Sender → Receiver	Simulation [ms]	Real [ms]
#3	<i>Query</i>	R2 → R1	0.000	0.000
#4	<i>Reply</i>	R4 → R2	0.012	20.769
#5	<i>Reply</i>	R1 → R2	0.012	45.948
#7	<i>Update</i>	R2 → R1	0.038	73.642
#8	<i>Update</i>	R4 → R2	0.051	124.289
#10	<i>Hello</i>	R3 → R2	10 923.667	10 276.630
	<i>Query</i>	R3 → R1	10 923.667	10 299.205
#11	<i>Reply</i>	R1 → R3	10 923.683	10 349.435

Table 4. Timestamp comparison for IPv6 routing in Scenario 2

Phase	Message	Sender → Receiver	Simulation [ms]	Real [ms]
#3	<i>Query</i>	R2 → R1	0.000	0.000
#4	<i>Reply</i>	R4 → R2	0.020	59.247
#5	<i>Reply</i>	R1 → R2	0.020	33.027
#7	<i>Update</i>	R2 → R1	0.040	121.047
#8	<i>Update</i>	R4 → R2	0.061	179.225
#10	<i>Hello</i>	R3 → R2	14 587.145	14 563.682
	<i>Query</i>	R3 → R1	14 587.145	14 574.696
#11	<i>Reply</i>	R1 → R3	14 587.171	14 616.590