

Experiment Results

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1 Results

1.1 Two servers

Table 1: Scenario1: $0 \rightarrow 1$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	148761791	6.722156228947257
100	154409647	6.476279296202264
100	156606608	6.385426597069263
300	160456294	6.232226702182215
500	165732700	6.033812277239193
1000	168584209	5.931753667391232
10000	340150267	2.93987715729178

Table 2: Scenario2: $0 \rightleftharpoons 1$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	150022466	6.665668327302392
20	141142712	7.085027528732762
100	146183637	6.840710906652295
200	149604049	6.684311064334896
300	156600000	6.385696040868455
500	164927617	6.063265923499034
1000	172488666	5.797482369073456
10000	1128449240	1.772343787479533

Table 3: Scenario3: $0 \rightleftharpoons 1, 2 \rightleftharpoons 3$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	163197556	6.127542743348436
20	150765919	6.632798756063696
100	148765688	6.721980138323294
100	157394283	6.353470919906284
500	161453879	6.193719260222915
1000	188165741	5.314463699319208
10000	1647527738	2.427880215756343

Table 4: Scenario4: random \rightarrow random

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	150758713	6.633115792120088
50	154871001	6.456986740855378
100	157023010	6.368493381957205
300	156288170	6.398436938637134
500	161974002	6.173830291604451
1000	171376165	5.835117152959981
10000	373847694	2.6748860994713

1.2 Four servers without indexes

1.3 Four servers with an index of outputs

1.4 Four servers with indexes of outputs and signatures

2 Results

2.1 Two servers

2.2 Four servers with an index of outputs

2.3 Four servers with indexes of outputs and signatures

Table 5: Scenario1: $0 \rightarrow 1$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	193722735	5.162016734896913
100	202954293	4.927217775087911
500	216443685	4.620139414092862
1000	231551961	4.318685083388259

Table 6: Scenario2: $0 \rightleftharpoons 1$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	172404407.5	5.800315748888264
100	188101597.5	5.316275955604258
500	430972190	4.640670666012116
1000	112816493.75	4.431976064670065

Table 7: Scenario3: $0 \rightleftharpoons 1, 2 \rightleftharpoons 3$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	199265295.5	5.018435335118352
100	183712099.5	5.443299612391616
500	205771444	4.859760813069864
1000	857707469	4.663594692329769

Table 8: Scenario4: random \rightarrow random

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	194522775	5.140786213850795
100	191577972	5.219806794906462
500	190691661	5.244067804307394
1000	203425823	4.915796752116372

Table 9: Scenario1: $0 \rightarrow 1$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	232401207	4.302903641976352
100	190616043	5.246148142945135
1000	228978555	4.367221201129512
10000	322216303	3.103505287254196

Table 10: Scenario2: $0 \rightleftharpoons 1$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	195636468	5.111521436790609
100	179822701.5	5.561033126843554
1000	207332937.5	4.823160333605942
10000	656515472.5	1.523193347130139

Table 11: Scenario3: $0 \rightleftharpoons 1, 2 \rightleftharpoons 3$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	186830205	5.352453582117517
100	181332388.25	5.514734624359088
1000	197475370.75	5.063922636033334
10000	504321558.75	1.982861891683904

Table 12: Scenario4: random \rightarrow random

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	195030247	5.127409801208938
100	227470659	4.396171376107017
1000	195046753	5.126975889724245
10000	507964728	1.968640625771953

Table 13: Scenario5: $0 \rightarrow 4$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	322936844	3.096580704801834
100	319272782	3.132117914141519
1000	220496015	4.535229355505586
10000	396806198	2.520121926119712

Table 14: Scenario1: $0 \rightarrow 1$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	190640337	5.245479606973208
100	234391428	4.266367625014
1000	225553084	4.433546118128006
10000	286708250	3.487866149648641

Table 15: Scenario2: $0 \rightleftharpoons 1$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	168101877.5	5.948773534667987
100	201384470	4.965626197491793
1000	205138824.5	4.874747637056875
10000	284447847	3.515582946212281

Table 16: Scenario3: $0 \rightleftharpoons 1, 2 \rightleftharpoons 3$

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	193601169.25	5.165258060547586
100	218469990.5	4.577287698467676
1000	203208346.5	4.921057708621235
10000	tmp	tmp

Table 17: Scenario4: random \rightarrow random

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	187788616	5.325136428930282
100	181267428	5.516710922825032
1000	183694980	5.44380690207212
10000	220173193	4.541878992507503

Table 18: Scenario5: 0 \rightarrow 4

trials [transaction]	time [ns/transaction]	speed [transaction/s]
10	230631065	4.335929333717468
100	189092211	5.288425127146036
1000	232953581	4.292700699028962
10000	318292258	3.14176664642594

Table 19: Scenario1: 0 \rightarrow 1

trials [tx]	speed [tx/s]
10	6.72
100	6.48
500	6.03
1000	5.93
10000	2.94

Table 20: Scenario2: 0 \rightleftharpoons 1

trials [tx]	speed [tx/s]
10	6.67
100	6.84
500	6.06
1000	5.80
10000	1.77

Table 21: Scenario3: 0 \rightleftharpoons 1, 2 \rightleftharpoons 3

trials [tx]	speed [tx/s]
10	6.13
100	6.72
500	6.19
1000	5.31
10000	2.43

Table 22: Scenario4: rand \rightarrow rand

trials [tx]	speed [tx/s]
10	6.63
100	6.37
500	6.17
1000	5.84
10000	2.67

Table 23: Scenario1: $0 \rightarrow 1$

trials [tx]	speed [tx/s]
10	4.30
100	5.25
1000	4.37
10000	3.10

Table 24: Scenario2: $0 \rightleftharpoons 1$

trials [tx]	speed [tx/s]
10	5.11
100	5.56
1000	4.82
10000	1.52

Table 25: Scenario3: $0 \rightleftharpoons 1, 2 \rightleftharpoons 3$

trials [tx]	speed [tx/s]
10	5.35
100	5.51
1000	5.06
10000	1.98

Table 26: Scenario4: rand \rightarrow rand

trials [tx]	speed [tx/s]
10	5.13
100	4.40
1000	5.13
10000	1.97

Table 27: Scenario5: $0 \rightarrow 4$

trials [transaction]	speed [transaction/s]
10	3.10
100	3.13
1000	4.54
10000	2.52

Table 28: Scenario1: $0 \rightarrow 1$

trials [tx]	speed [tx/s]
10	5.25
100	4.27
1000	4.43
10000	3.49

Table 29: Scenario2: $0 \rightleftharpoons 1$

trials [tx]	speed [tx/s]
10	5.95
100	5.00
1000	4.87
10000	3.52

Table 30: Scenario3: $0 \rightleftharpoons 1, 2 \rightleftharpoons 3$

trials [tx]	speed [tx/s]
10	5.17
100	4.58
1000	4.92
10000	tmp

Table 31: Scenario4: $\text{rand} \rightarrow \text{rand}$

trials [tx]	speed [tx/s]
10	5.33
100	5.52
1000	5.44
10000	4.54

Table 32: Scenario5: $0 \rightarrow 4$

trials [transaction]	speed [transaction/s]
10	4.34
100	5.23
1000	4.29
10000	3.14