Table 4: Experiments with the synthetic workload

Experiment Number	Control variable	Value	Optimizations recommended
1	Endorsement	P1	Endorser restructure
	Policy		Activity reordering
2	Endorsement Policy /	P2 / 6	Endorser restructure
	Endorser dist skew		Activity reordering
3	Endorsement	P3	Transaction rate control
	Policy		Activity reordering
4	No: of orgs	2	Activity reordering
5	No: of orgs	4	Transaction rate control
6	Workload	Uniform	Activity reordering
7	Workload	Read-heavy	Activity reordering
8	Workload	Update-heavy	Transaction rate control
9	Workload	Insert-heavy	Activity reordering
10	Workload	RangeRead-heavy	Activity reordering
11	Key distribution	0	Activity reordering
			Transaction rate control
12	Key		Activity reordering
	distribution	2	Smart contract partition
			Block size adaption
13	Block size	50	Activity reordering
			Block size adaption
14	Block size	100	Activity reordering
			Transaction rate control
15	Block size	300	Activity reordering
			Transaction rate control
16	Block size	500	Activity reordering
			Transaction rate control
17	Block size	1000	Activity reordering
18	Send rate	50	Activity reordering
19	Send rate	100	Activity reordering
20	Send rate	300	Activity reordering
			Transaction rate control
21	Send rate	500	Activity reordering
			Block size adaption
			Transaction rate control
22	Send rate	1000	Activity reordering
			Block size adaption
23	Send rate	500, 1000	Transaction rate control
	ociid fate	300, 1000	Activity reordering
			Transaction rate control
24	Transaction	70%	Activity reordering
	distribution	7070	Client resource boost



Figure 19: Performance without and with endorsement policy optimization

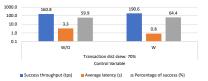


Figure 20: Performance without and with client resource boost

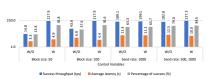


Figure 21: Performance without and with block size optimization

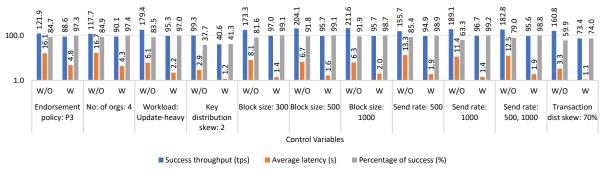


Figure 22: Performance without and with transaction rate control optimization

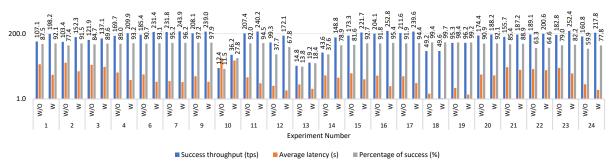


Figure 23: Performance without and with transaction reordering optimization

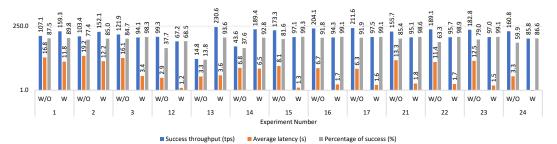


Figure 24: Performance without and with all recommended optimizations