

Table 1

ML IDS performance test results without minimization.
(engrat was used as obfuscated test malware)

iteration	RPS (ms)	Latency (ms)	Throughroup (mbit/s)	htop (CPU core utilization, %)				RAM (utilization, %)
				I	II	III	IV	
0.	4,35648798	22,35645654	10	18	19	20	3	11
1.	4,02324502	22,03201235	12	17	17	19	3	13
2.	3,82354568	21,23202321	10	16	19	19	5	11
3.	6,23548941	20,23658987	15	18	18	18	2	11
4.	4,30215645	20,32598745	14	17	17	20	3	11
5.	3,10235485	21,02321456	12	14	18	18	5	13
6.	4,30236587	20,32654561	11	19	18	18	4	14
7.	4,23256458	23,23545654	15	18	19	19	2	12
8.	3,23598745	24,23658987	14	17	17	17	2	13
9.	5,02325478	19,23654874	13	11	18	18	4	12
10.	5,03256481	20,32658745	15	16	19	19	4	12
11.	4,23256458	22,23658945	15	14	18	18	1	12
12.	5,35987456	19,12358523	14	15	17	18	2	15
13.	4,23215641	20,32569875	12	16	18	19	3	12
14.	4,36987546	21,12365852	11	17	19	21	2	12
15.	3,26548752	19,20357468	10	18	19	24	3	11
16.	6,35987546	23,15985645	12	15	21	15	2	12
17.	3,25648751	24,35823654	16	16	18	19	2	11
18.	7,23569542	25,12352014	14	14	17	18	4	10
19.	6,12365487	24,23589545	16	18	18	21	5	11

Table 2

ML IDS performance test results with minimization
(engrat was used as obfuscated test malware)

iteration	RPS (ms)	Latency (ms)	Throughroup (mbit/s)	htop (CPU core utilization, %)				RAM (utilization, %)
				I	II	III	IV	
0.	1,23564785	3,01236547	24	7	12	10	3	29
1.	2,12365478	1,32564871	27	9	14	11	4	30
2.	2,35648798	2,03121564	25	8	10	12	5	34
3.	2,12321475	1,03265481	24	5	11	10	2	32
4.	1,03201456	2,12335687	22	6	13	11	3	30
5.	2,32145652	3,21324568	29	7	10	12	3	34
6.	3,02120145	1,35465231	25	8	10	14	4	32
7.	1,02356542	2,32568741	24	9	8	15	6	35
8.	1,32565487	1,23254565	20	8	9	10	3	32
9.	2,35689785	2,32156478	20	7	7	11	2	34
10.	2,12365445	3,12305654	28	7	10	9	3	31
11.	2,65487123	2,32565874	24	9	11	7	3	30
12.	3,25456878	3,12032457	23	10	16	8	2	31
13.	2,35654781	2,12365478	22	11	17	10	3	32
14.	1,23654787	1,03241236	27	7	10	16	4	34
15.	2,03214568	7,65487896	19	9	10	14	5	30
16.	2,35648712	2,12325498	21	8	8	11	4	30
17.	1,23564791	2,32458532	26	11	9	10	6	31
18.	2,34564658	3,12354865	24	12	8	9	4	30
19.	1,23547891	3,12365911	22	10	9	8	5	31