FogBus Testing Results

Number of tasks (in 5 min)

	W	ith Blockcha	ain	Witl	nout Blockc	hain
Max Load	94	88	267	653	135	1693
0.2 instr/sec	51	49	50	52	43	60

Remarks

Obtained from in script measurements

Legend

Fog Only
Cloud Only
Master Only

Energy per second - Power (watts)

		<u> </u>				
	W	ith Blockcha	ain	Witl	hout Blocko	hain
Max Load	22.5	136	21	29.5	148	28
0.2 instr/sec	21.5	134	20	23.5	135	22

Obtained through Joulemeter application

Energy per task (joules)

	With Blockchain			Without Blockchain		
Max Load	71.80851	463.6364	23.59551	13.55283	328.8889	4.961607
0.2 instr/sec	126.4706	820.4082	120	135.5769	941.8605	110

Power X 5 minutes / Number of tasks

Data packets sent / second

	With Blockchain			With Blockchain Without Blockchain			hain
Max Load	892	7214	142	1857	1482	1126	
0.2 instr/sec	412	3241	146	483	2165	141	

Obtained from Windows performance monitor

Data packets received / second

	With Blockchain Without					hain
Max Load	3949	45968	524	2858	4792	3219
0.2 instr/sec	504	29824	513	519	1133	506

Obtained from Windows performance monitor

Network Usage per task

	With Blockchain			Without Blockchain		
Max Load	51.5	604.3409	2.494382	7.220521	46.47407	2.56645
0.2 instr/sec	17.96078	674.7959	13.18	19.26923	76.69767	10.78333

Data packets (sent + recd) / Number of tasks

Latency (seconds)

	With Blockchain			Without Blockchain		
Max Load	3.178858	3.486904	1.166281	0.460067	2.240126	0.17726
0.2 instr/sec	3.043652	3.210355	1.188388	0.583891	2.368366	0.158922

Obtained from in script measurements

Master CPU Usage (%)

	W	ith Blockcha	ain	Witl	nout Blockc	hain
Max Load	9.08	28.12	28.32	10.55	27.18	28.5
0.2 instr/sec	8.46	28.43	13.67	8.78	18.67	22.96

Obtained from Windows performance monitor

Master RAM Usage (%)

	W	ith Blockcha	ain	Without Blockchain		
Max Load	49.03	65.159	46.26	48.218	60.16	53.258
0.2 instr/sec	49.175	66.017	48.19	47.509	59.86	46.64

Obtained from Windows performance monitor

Master Cache Usage (E08 bytes)

	With Blockchain Without Blockchain			hain		
Max Load	1.43	2.02	2.52	1.42	2.08	2.15
0.2 instr/sec	1.43	1.98	1.98	1.43	2.04	1.98

Obtained from Windows performance monitor







































