Table 1: Performance results for  $\ infection \$  simulation with degree 1 ran on 1 m1.small AWS instantances

Network Size	Bundle Size	Proces	ssed Events/s	Average Message Delay (s)			Idle Time (s)		
		total	per instance	global	local	remote	total	per instance	
10000	1	42680	42680	0.000	0.000	0.000	0.000	0.000	
40000	1000	38044	38044	0.000	0.000	0.000	0.000	0.000	
160000	1	18751	18751	0.001	0.001	0.000	0.000	0.000	
1000000	100	5033	5033	0.004	0.004	0.000	0.000	0.000	

Table 2: Performance results for infection simulation with degree 2 ran on 1 m1.small AWS instantances

Network Size	Bundle Size		ssed Events/s	_	Message	,		e Time (s)
		total	per instance	global	local	remote	total	per instance
	1	25394	25394	1.267	1.267	0.000	0.000	0.000
40000	100	25352	25352	1.262	1.262	0.000	0.000	0.000
40000	1000	25794	25794	1.276	1.276	0.000	0.000	0.000
	10000	25960	25960	1.250	1.250	0.000	0.000	0.000
	1	21818	21818	1.470	1.470	0.000	0.000	0.000
80000	100	21743	21743	1.466	1.466	0.000	0.000	0.000
80000	1000	22260	22260	1.563	1.563	0.000	0.000	0.000
	10000	21911	21911	1.463	1.463	0.000	0.000	0.000
	1	16365	16365	1.893	1.893	0.000	0.000	0.000
160000	100	16360	16360	1.872	1.872	0.000	0.000	0.000
100000	1000	16549	16549	1.882	1.882	0.000	0.000	0.000
	10000	15991	15991	1.776	1.776	0.000	0.000	0.000
	1	13118	13118	2.115	2.115	0.000	0.000	0.000
250000	100	13232	13232	2.118	2.118	0.000	0.000	0.000
250000	1000	13163	13163	2.305	2.305	0.000	0.000	0.000
	10000	13108	13108	2.302	2.302	0.000	0.000	0.000
	1	8296	8296	3.547	3.547	0.000	0.000	0.000
500000	100	8361	8361	3.531	3.531	0.000	0.000	0.000
300000	1000	8223	8223	3.568	3.568	0.000	0.000	0.000
	10000	8375	8375	3.529	3.529	0.000	0.000	0.000
	1	4760	4760	6.124	6.124	0.000	0.000	0.000
1000000	100	3357	3357	5.298	5.298	0.000	0.000	0.000
1000000	1000	4771	4771	6.095	6.095	0.000	0.000	0.000
	10000	4794	4794	6.091	6.091	0.000	0.000	0.000
	1	2614	2614	11.983	11.983	0.000	0.000	0.000
2000000	100	2569	2569	11.245	11.245	0.000	0.000	0.000
2000000	1000	2585	2585	11.185	11.185	0.000	0.000	0.000
	10000	2602	2602	11.139	11.139	0.000	0.000	0.000

Table 3: Performance results for *infection* simulation with degree 3 ran on 1

m1.small AWS instantances

Network Size	Bundle Size		ssed Events/s	_	e Message	Delay (s)		e Time (s)
		total	per instance	global	local	remote	total	per instance
	1	20820	20820	2.178	2.178	0.000	0.000	0.000
40000	100	20905	20905	2.332	2.332	0.000	0.000	0.000
40000	1000	20986	20986	2.167	2.167	0.000	0.000	0.000
	10000	20915	20915	2.338	2.338	0.000	0.000	0.000
	1	17919	17919	2.645	2.645	0.000	0.000	0.000
80000	100	18128	18128	2.417	2.417	0.000	0.000	0.000
30000	1000	17807	17807	2.435	2.435	0.000	0.000	0.000
	10000	18058	18058	2.410	2.410	0.000	0.000	0.000
	1	14417	14417	2.998	2.998	0.000	0.000	0.000
160000	100	14478	14478	2.965	2.965	0.000	0.000	0.000
100000	1000	14550	14550	2.966	2.966	0.000	0.000	0.000
	10000	14576	14576	2.977	2.977	0.000	0.000	0.000
	1	12112	12112	3.427	3.427	0.000	0.000	0.000
250000	100	12523	12523	4.288	4.288	0.000	0.000	0.000
250000	1000	12014	12014	3.434	3.434	0.000	0.000	0.000
	10000	12078	12078	3.424	3.424	0.000	0.000	0.000
	1	7665	7665	5.213	5.213	0.000	0.000	0.000
500000	100	7718	7718	5.161	5.161	0.000	0.000	0.000
300000	1000	7845	7845	5.522	5.522	0.000	0.000	0.000
	10000	7719	7719	5.152	5.152	0.000	0.000	0.000
	1	4611	4611	8.523	8.523	0.000	0.000	0.000
1000000	100	4586	4586	8.543	8.543	0.000	0.000	0.000
1000000	1000	4599	4599	8.503	8.503	0.000	0.000	0.000
	10000	4593	4593	8.510	8.510	0.000	0.000	0.000
	1	2541	2541	15.307	15.307	0.000	0.000	0.000
2000000	100	2532	2532	15.296	15.296	0.000	0.000	0.000
2000000	1000	2528	2528	15.319	15.319	0.000	0.000	0.000
	10000	2539	2539	15.249	15.249	0.000	0.000	0.000

Table 4: Performance results for infection simulation with degree 5 ran on 1

m1.small AWS instantances

Network Size	Bundle Size		ssed Events/s	Average	e Message	Delay (s)		e Time (s)
		total	per instance	global	local	remote	total	per instance
	1	14878	14878	3.674	3.674	0.000	0.000	0.000
40000	100	14893	14893	3.686	3.686	0.000	0.000	0.000
40000	1000	15174	15174	3.906	3.906	0.000	0.000	0.000
	10000	14925	14925	3.694	3.694	0.000	0.000	0.000
	1	13512	13512	4.050	4.050	0.000	0.000	0.000
80000	100	13599	13599	4.036	4.036	0.000	0.000	0.000
80000	1000	13602	13602	4.027	4.027	0.000	0.000	0.000
	10000	13184	13184	4.120	4.120	0.000	0.000	0.000
	1	11276	11276	4.734	4.734	0.000	0.000	0.000
160000	100	11369	11369	4.688	4.688	0.000	0.000	0.000
100000	1000	11344	11344	4.736	4.736	0.000	0.000	0.000
	10000	11159	11159	4.721	4.721	0.000	0.000	0.000
	1	9824	9824	5.242	5.242	0.000	0.000	0.000
250000	100	9750	9750	5.329	5.329	0.000	0.000	0.000
250000	1000	9800	9800	5.264	5.264	0.000	0.000	0.000
	10000	9870	9870	5.226	5.226	0.000	0.000	0.000
	1	6973	6973	7.106	7.106	0.000	0.000	0.000
500000	100	6938	6938	7.099	7.099	0.000	0.000	0.000
300000	1000	6919	6919	7.140	7.140	0.000	0.000	0.000
	10000	6849	6849	7.194	7.194	0.000	0.000	0.000
	1	4304	4304	11.135	11.135	0.000	0.000	0.000
1000000	100	4336	4336	11.089	11.089	0.000	0.000	0.000
1000000	1000	4330	4330	11.973	11.973	0.000	0.000	0.000
	10000	4315	4315	11.111	11.111	0.000	0.000	0.000
	1	2424	2424	19.415	19.415	0.000	0.000	0.000
2000000	100	2409	2409	17.983	17.983	0.000	0.000	0.000
	1000	2399	2399	17.959	17.959	0.000	0.000	0.000
	10000	2440	2440	19.258	19.258	0.000	0.000	0.000

Table 5: Performance results for infection simulation with degree 8 ran on 1 m1.small AWS instantances

Network Size	Bundle Size		ssed Events/s		e Message	Delay (s)	$\operatorname{Idl}_{\epsilon}$	e Time (s)
		total	per instance	global	local	remote	total	per instance
	1	11006	11006	5.736	5.736	0.000	0.000	0.000
40000	100	10887	10887	5.832	5.832	0.000	0.000	0.000
40000	1000	10918	10918	5.429	5.429	0.000	0.000	0.000
	10000	10827	10827	5.827	5.827	0.000	0.000	0.000
	1	9746	9746	6.114	6.114	0.000	0.000	0.000
80000	100	9672	9672	5.805	5.805	0.000	0.000	0.000
30000	1000	9734	9734	6.141	6.141	0.000	0.000	0.000
	10000	9538	9538	6.303	6.303	0.000	0.000	0.000
	1	8678	8678	6.970	6.970	0.000	0.000	0.000
160000	100	8626	8626	6.504	6.504	0.000	0.000	0.000
100000	1000	8490	8490	7.121	7.121	0.000	0.000	0.000
	10000	8532	8532	7.005	7.005	0.000	0.000	0.000
	1	7515	7515	7.024	7.024	0.000	0.000	0.000
250000	100	7506	7506	7.629	7.629	0.000	0.000	0.000
250000	1000	7712	7712	7.489	7.489	0.000	0.000	0.000
	10000	7702	7702	8.047	8.047	0.000	0.000	0.000
	1	5788	5788	9.322	9.322	0.000	0.000	0.000
500000	100	5782	5782	9.412	9.412	0.000	0.000	0.000
500000	1000	5796	5796	9.351	9.351	0.000	0.000	0.000
	10000	5761	5761	9.361	9.361	0.000	0.000	0.000
	1	3798	3798	13.899	13.899	0.000	0.000	0.000
1000000	100	3799	3799	13.826	13.826	0.000	0.000	0.000
1000000	1000	3784	3784	13.950	13.950	0.000	0.000	0.000
	10000	3797	3797	14.017	14.017	0.000	0.000	0.000
	1	2341	2341	24.032	24.032	0.000	0.000	0.000
2000000	100	2281	2281	22.714	22.714	0.000	0.000	0.000
2000000	1000	2326	2326	22.378	22.378	0.000	0.000	0.000
	10000	2298	2298	22.792	22.792	0.000	0.000	0.000

Table 6: Performance results for  $\it infection \it simulation$  with degree 1 ran on 2 m1.small AWS instantances

Network Size	Bundle Size	Proces	ssed Events/s	Average	Average Message Delay (s)			Idle Time (s)		
		total	per instance	global	local	remote	total	per instance		
10000	1	1560	886	0.025	0.000	0.046	185.998	92.999		

Table 7: Performance results for  $\ infection$  simulation with degree 2 ran on 2 m1.small AWS instantances

Network Size	Bundle Size		sed Events/s	_	_	Delay (s)		Time (s)
		total	per instance	global	local	remote	total	per instance
	1	20002	10233	0.633	0.304	6.826	0.232	0.116
40000	100	29252	15048	2.211	2.133	2.316	0.117	0.058
40000	1000	21298	11300	2.981	2.917	3.038	0.375	0.188
	10000	5072	2577	14.481	12.387	16.752	0.601	0.301
	1	18549	9812	0.748	0.375	6.874	0.399	0.199
80000	100	28334	14471	2.292	2.209	2.400	0.000	0.000
80000	1000	21966	11238	3.350	3.294	3.412	0.469	0.235
	10000	5041	2545	14.564	12.723	16.597	0.386	0.193
	1	16126	8338	1.085	0.549	8.035	0.000	0.000
160000	100	25611	13311	2.367	2.301	2.432	0.000	0.000
100000	1000	20034	10307	3.215	3.170	3.280	0.500	0.250
	10000	4892	2483	13.066	10.966	15.354	0.285	0.142
	1	15055	7954	0.965	0.499	7.032	0.216	0.108
250000	100	22446	11801	2.213	2.167	2.250	0.380	0.190
250000	1000	18049	9388	3.306	3.230	3.378	0.542	0.271
	10000	4792	2430	13.355	11.457	15.492	0.578	0.289
	1	11115	5798	1.941	1.022	10.081	1.193	0.596
700000	100	18300	9639	2.965	2.927	2.997	0.305	0.152
500000	1000	14800	7831	3.762	3.759	3.885	1.069	0.535
	10000	4370	2211	16.045	13.857	18.327	1.828	0.914
	1	7131	3683	3.962	2.300	13.645	3.460	1.730
1000000	100	12607	6539	3.937	3.940	4.040	2.352	1.176
1000000	1000	11516	5941	4.649	4.561	4.737	1.127	0.564
	10000	3940	2027	16.846	14.863	19.094	0.648	0.324
	1	2937	1587	5.162	2.737	25.762	26.389	13.194
2000000	100	4031	2123	7.418	7.058	7.750	10.444	5.222
2000000	1000	3964	2141	7.749	7.580	7.934	9.860	4.930
	10000	2399	1272	19.204	16.858	21.861	7.411	3.706

Table 8: Performance results for infection simulation with degree 3 ran on 2 m1.small AWS instantances

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Network Size	Bundle Size		ssed Events/s	_	_	Delay (s)		e Time (s)	
		total	per instance	global	local	remote	total	per instance	
	1	15287	8011	3.431	3.123	9.390	0.000	0.000	
40000	100	22075	11739	4.413	4.321	4.597	0.000	0.000	
40000	1000	16384	8535	5.591	5.529	5.644	0.000	0.000	
	10000	3340	1716	31.998	29.358	34.836	0.000	0.000	
	1	15321	8009	3.827	3.506	10.283	0.000	0.000	
80000	100	21521	11155	3.998	3.929	4.070	0.000	0.000	
80000	1000	15811	8159	5.649	5.637	5.658	0.000	0.000	
	10000	3356	1707	28.887	25.908	32.079	0.000	0.000	
	1	13570	7385	3.211	2.888	8.582	0.000	0.000	
160000	100	20068	10555	4.138	4.069	4.211	0.000	0.000	
100000	1000	11827	6407	7.497	6.701	8.314	0.000	0.000	
	10000	3716	2193	37.513	28.109	47.113	0.000	0.000	
	1	11925	6517	3.522	3.132	9.191	0.000	0.000	
250000	100	19975	10245	5.416	5.373	5.520	0.000	0.000	
230000	1000	13882	7407	6.056	6.016	6.178	0.000	0.000	
	10000	3335	1672	29.279	26.084	32.656	0.000	0.000	
	1	9765	5170	4.788	4.217	11.717	0.000	0.000	
500000	100	15787	8260	5.456	5.385	5.551	0.000	0.000	
300000	1000	12383	6321	7.220	7.193	7.399	0.000	0.000	
	10000	3119	1595	30.019	27.284	33.101	0.000	0.000	
	1	6832	3471	8.336	7.340	16.713	0.000	0.000	
1000000	100	10949	5977	6.640	6.263	7.117	0.000	0.000	
1000000	1000	9416	4844	7.748	7.798	8.142	0.000	0.000	
	10000	2833	1470	31.598	29.596	34.125	0.000	0.000	
1999998	1	1987	993	1.875	1.873	9.767	0.000	0.000	
-	1	2877	1474	16.858	10.817	38.420	0.000	0.000	
2000000	100	3938	2112	12.754	12.707	14.390	0.000	0.000	
2000000	1000	3796	2014	12.573	12.699	13.736	0.000	0.000	
	10000	1906	992	34.946	32.622	39.436	0.000	0.000	

Table 9: Performance results for infection simulation with degree 5 ran on 2

m1.small AWS instantances

Network Size	Bundle Size		ssed Events/s	Average	Message	Delay (s)	$\operatorname{Idle}$	Idle Time (s)	
		total	per instance	global	local	remote	total	per instance	
	1	11521	5898	7.409	7.205	12.336	0.000	0.000	
40000	100	15147	8064	7.246	7.159	7.497	0.000	0.000	
40000	1000	10827	5568	11.664	11.560	11.765	0.000	0.000	
	10000	2069	1073	52.996	49.073	57.307	0.000	0.000	
	1	10887	5626	7.007	6.804	11.877	0.000	0.000	
80000	100	15120	7739	7.276	7.201	7.493	0.000	0.000	
80000	1000	10899	5518	10.474	10.351	10.616	0.000	0.000	
	10000	2036	1057	59.304	55.431	63.503	0.000	0.000	
	1	10858	5536	7.782	7.585	13.020	0.000	0.000	
160000	100	14611	7446	7.596	7.452	7.877	0.000	0.000	
100000	1000	10597	5660	13.916	11.504	14.536	0.000	0.000	
	10000	2113	1061	56.265	51.745	61.182	0.000	0.000	
	1	9650	5091	7.926	7.669	13.173	0.000	0.000	
250000	100	13594	7157	7.572	7.491	7.691	0.000	0.000	
250000	1000	9918	5113	10.800	10.742	10.968	0.000	0.000	
	10000	2043	1032	57.220	52.561	62.197	0.000	0.000	
	1	7837	4236	9.241	8.791	12.105	0.000	0.000	
500000	100	11025	5786	8.512	8.402	9.242	0.000	0.000	
300000	1000	9049	4586	11.789	11.666	11.947	0.000	0.000	
	10000	1969	1003	65.060	61.394	69.150	0.000	0.000	
	1	6206	3311	12.140	11.719	19.506	0.000	0.000	
1000000	100	9509	4827	9.755	9.633	9.874	0.000	0.000	
1000000	1000	7031	3788	14.790	15.383	15.527	0.000	0.000	
	10000	1876	944	61.022	55.608	66.631	0.000	0.000	
	1	2244	1251	29.596	27.498	44.615	0.000	0.000	
2000000	100	2795	1470	18.076	13.924	21.875	0.000	0.000	
	1000	2720	1587	28.288	21.904	23.164	0.000	0.000	
	10000	1402	721	69.802	67.198	75.407	0.000	0.000	

Table 10: Performance results for  $\ infection \$  simulation with degree 8 ran on 2 m1.small AWS instantances

Network Size	Bundle Size	Proces	sed Events/s	Average	Message I	Delay (s)	Idle	e Time (s)
		total	per instance	global	local	remote	total	per instance
	1	8423	4355	12.920	12.807	16.465	0.000	0.000
40000	100	10582	5497	11.617	11.499	12.334	0.000	0.000
40000	1000	7195	3665	15.428	15.374	15.568	0.000	0.000
	10000	1353	681	96.161	88.837	103.859	0.000	0.000
	1	8371	4265	13.056	12.887	17.571	0.000	0.000
80000	100	10412	5285	10.560	10.416	10.730	0.000	0.000
30000	1000	7178	3673	17.395	17.243	17.690	0.000	0.000
	10000	1360	681	106.240	99.209	113.769	0.000	0.000
	1	7889	4020	14.066	13.775	20.326	0.000	0.000
160000	100	10596	5640	11.730	8.808	12.956	0.000	0.000
100000	1000	6964	3542	17.858	17.792	17.986	0.000	0.000
	10000	1339	676	96.691	88.636	105.021	0.000	0.000
	1	7358	3819	12.847	12.653	18.511	0.000	0.000
250000	100	9369	5005	11.369	11.572	12.989	0.000	0.000
250000	1000	6833	3505	17.799	17.974	18.193	0.000	0.000
	10000	1318	663	108.955	101.564	116.831	0.000	0.000
	1	6515	3442	15.581	15.333	19.650	0.000	0.000
500000	100	8296	4417	12.798	12.376	14.337	0.000	0.000
300000	1000	6233	3211	18.933	19.470	19.630	0.000	0.000
	10000	1286	648	98.989	93.804	105.008	0.000	0.000
	1	5203	2709	19.575	19.317	27.190	0.000	0.000
1000000	100	6622	3601	15.226	15.399	20.636	0.000	0.000
1000000	1000	5227	2756	20.063	20.603	21.567	0.000	0.000
	10000	1189	599	90.203	85.143	96.222	0.000	0.000
	1	1326	712	60.453	58.584	56.211	0.000	0.000
2000000	100	2286	1220	33.223	29.599	39.176	0.000	0.000
	1000	1984	1077	41.455	36.718	47.783	0.000	0.000
	10000	970	494	116.114	107.937	128.580	0.000	0.000

Table 11: Performance results for  $\ infection \$  simulation with degree 2 ran on 3 m1.small AWS instantances

Network Size	Bundle Size	Proces	ssed Events/s	Average	e Message	Delay (s)	$Idl\epsilon$	Idle Time (s)	
		total	per instance	global	local	remote	total	per instance	
	100	37432	14339	3.418	3.460	3.444	0.366	0.122	
40000	1000	27261	9728	3.591	3.485	3.650	1.242	0.414	
	10000	5422	2061	18.894	14.668	21.158	1.678	0.559	
	100	36324	13393	3.360	3.223	3.441	0.823	0.274	
80000	1000	25484	9185	3.632	3.521	3.690	1.906	0.635	
	10000	5469	2043	18.936	15.343	20.966	2.258	0.753	
	100	27412	10898	1.942	1.700	2.093	2.601	0.867	
160000	1000	22573	8539	2.495	2.397	2.563	2.278	0.759	
	10000	5256	1968	19.149	15.654	21.218	2.134	0.711	
	1	6122	2117	5.290	0.012	15.880	92.671	30.890	
250000	100	24495	9923	2.071	2.104	2.089	1.744	0.581	
250000	1000	22894	8324	3.904	3.834	3.966	2.750	0.917	
	10000	4773	1902	20.310	16.380	22.521	4.324	1.441	
-	1	5967	2113	5.270	0.039	15.708	87.276	29.092	
500000	100	21185	9334	3.728	3.246	3.850	3.918	1.306	
300000	1000	17648	6882	4.598	4.543	4.682	5.507	1.836	
	10000	4184	1703	29.895	24.783	32.595	9.731	3.244	
	1	5496	1965	5.914	0.486	15.655	63.334	21.111	
1000000	100	17550	6501	3.843	3.275	4.053	9.133	3.044	
	10000	3718	1522	24.068	18.741	26.923	15.636	5.212	
	1	5019	1830	9.324	1.552	22.937	58.014	19.338	
2000000	100	10397	4361	5.779	6.190	5.774	21.021	7.007	
2000000	1000	9765	3874	6.661	6.855	6.737	21.112	7.037	
	10000	3126	1353	17.374	13.490	19.840	18.937	6.312	

Table 12: Performance results for  $\ infection$  simulation with degree 3 ran on 3 m1.small AWS instantances

Network Size	Bundle Size	Proces	ssed Events/s	Average	e Message	Delay (s)	$\operatorname{Idl}$	e Time (s)
		total	per instance	global	local	remote	total	per instance
	1	18070	6677	1.727	0.900	10.461	0.000	0.000
40000	100	25249	9965	4.909	4.575	5.217	0.337	0.112
40000	1000	20516	7112	6.708	6.505	6.811	0.439	0.146
	10000	3667	1306	36.518	29.595	40.284	0.701	0.234
	1	17093	6658	1.588	0.780	10.287	0.000	0.000
80000	100	25084	9834	4.781	4.811	4.873	0.148	0.049
	10000	3470	1294	25.780	20.979	28.816	0.506	0.169
	1	16620	6291	2.010	0.955	11.638	0.019	0.006
160000	100	20882	8972	5.411	5.191	5.614	1.130	0.377
160000	1000	18683	6621	6.910	6.747	7.007	0.730	0.243
	10000	3189	1243	40.572	34.348	44.120	0.925	0.308
	1	15973	6122	2.053	0.956	11.816	0.000	0.000
250000	100	12214	8411	37.494	32.693	46.862	0.034	0.011
250000	1000	17201	6124	4.925	4.786	5.026	0.648	0.216
	10000	2989	1220	41.531	35.532	44.964	0.625	0.208
	1	10739	4627	2.332	0.903	11.503	0.000	0.000
500000	100	16383	6962	4.223	2.695	4.553	0.014	0.005
300000	1000	14918	5490	7.970	7.983	8.082	0.704	0.235
	10000	2673	1143	44.419	38.939	47.700	1.167	0.389
	1	8759	3306	6.505	3.282	19.399	2.996	0.999
1000000	100	13873	6120	7.082	6.280	7.326	0.000	0.000
1000000	1000	10790	4313	6.109	6.462	6.277	1.902	0.634
	10000	2499	1090	62.348	56.376	65.941	1.005	0.335
	1	5697	2221	11.920	5.497	28.179	4.366	1.455
2000000	100	10515	4115	8.460	8.803	8.634	2.855	0.952
	1000	7152	3038	8.326	8.510	8.686	5.056	1.685

Table 13: Performance results for  $\ infection$  simulation with degree 5 ran on 3 m1.small AWS instantances

Network Size	Bundle Size		ssed Events/s	_	${\it Message}~I$	Delay (s)	Idle Time (s)		
		total	per instance	global	local	remote	total	per instance	
	1	13028	5112	6.989	6.231	15.527	0.000	0.000	
40000	100	17105	6638	6.177	5.445	6.793	0.000	0.000	
40000	1000	12993	4527	12.579	12.772	12.692	0.000	0.000	
	10000	1951	772	79.333	68.849	85.261	0.000	0.000	
	1	12140	4655	5.031	4.445	11.119	0.000	0.000	
80000	100	18375	7051	11.348	10.176	12.160	0.000	0.000	
	10000	1964	763	78.891	69.299	84.475	160 0.000   475 0.000   912 0.000   992 0.000   271 0.000   665 0.000   775 0.000   246 0.000   788 0.000   372 0.000   231 0.000	0.000	
	1	12695	4856	4.554	4.082	10.912	0.000	0.000	
160000	100	17519	6464	8.692	8.268	8.992	0.000	0.000	
100000	1000	12313	4373	13.117	13.076	13.271	0.000	0.000	
	10000	1792	741	109.198	101.337	113.665	0.000	0.000	
	1	11563	4380	8.134	7.173	17.075	0.000	0.000	
250000	100	17391	6739	11.492	12.045	11.705	0.000	0.000	
250000	1000	10640	4127	14.124	14.592	14.246	0.000	0.000	
	10000	1836	735	54.762	45.013	60.788	0.000	0.000	
	1	9982	3753	9.675	8.404	19.672	0.000	0.000	
500000	100	13361	5655	10.419	8.986	11.231	0.000	0.000	
300000	1000	10475	3724	9.627	9.942	9.856	0.000	0.000	
	10000	1589	694	88.944	79.715	94.418	0.000	0.000	
	1	7006	2864	18.048	15.657	34.423	0.000	0.000	
1000000	100	11679	4800	10.695	11.087	11.038	0.000	0.000	
1000000	1000	9634	3415	14.625	15.177	14.864	0.000	0.000	
	10000	1580	665	91.084	79.178	98.033	0.000	0.000	
	1	5191	2088	18.911	14.389	35.391	0.000	0.000	
2000000	100	7809	3403	15.076	13.216	15.623	0.000	0.000	
2000000	1000	7293	2688	17.346	18.453	17.843	0.000	0.000	
	10000	1427	607	64.376	57.853	69.610	0.000	0.000	

Table 14: Performance results for  $\ infection$  simulation with degree 8 ran on 3 m1.small AWS instantances

Network Size	Bundle Size		ssed Events/s	_	Message 1	Delay (s)	Idle Time (s)		
		total	per instance	global	local	remote	total	per instance	
	1	9871	3667	14.084	13.343	23.048	0.000	0.000	
40000	100	12891	4720	14.095	11.845	15.450	0.000	0.000	
40000	1000	8646	3001	21.443	21.411	21.660	0.000	0.000	
	10000	1231	487	135.153	118.087	144.556	0.000	0.000	
	1	9175	3630	9.301	8.854	15.080	0.000	0.000	
80000	100	12203	4311	9.058	9.121	9.248	0.000	0.000	
30000	1000	8557	2938	14.438	14.528	14.589	0.000	0.000	
	10000	1205	486	89.697	78.343	96.855	0.000	0.000	
	1	9760	3572	14.199	13.547	23.070	0.000	0.000	
160000	100	11509	4276	9.591	7.778	10.648	0.000	0.000	
100000	1000	8160	2849	14.737	14.808	15.012	0.000	0.000	
	10000	1232	481	90.984	77.354	99.499	0.000	0.000	
	1	9043	3170	14.547	13.949	22.801	0.000	0.000	
250000	100	11676	4466	14.281	12.599	15.381	0.000	0.000	
250000	1000	8394	2881	21.884	21.739	22.128	0.000	0.000	
	10000	1210	460	129.831	117.014	137.280	0.000	0.000	
	1	7927	2974	16.843	15.547	29.363	0.000	0.000	
500000	100	11570	4348	19.493	17.315	21.771	0.000	0.000	
	1000	7258	2644	15.618	16.740	15.896	0.000	0.000	
	1	6709	2609	26.070	24.442	40.257	0.000	0.000	
1000000	100	9329	3733	16.194	14.812	16.823	0.000	0.000	
1000000	1000	6958	2552	31.717	33.763	32.266	0.000	0.000	
	10000	1009	432	103.091	86.331	113.747	0.000	0.000	
	1	4490	1754	26.037	23.256	45.350	0.000	0.000	
2000000	100	6795	2869	19.869	15.584	20.602	0.000	0.000	
2000000	1000	5418	2040	28.282	27.690	29.121	0.000	0.000	
	10000	947	410	105.696	93.763	114.055	0.000	0.000	

Table 15: Performance results for infection simulation with degree 2 ran on 4 m1.small AWS instantances

Network Size	Bundle Size		ssed Events/s	_	Average Message Delay (s)			Idle Time (s)		
		total	per instance	global	local	remote	total	per instance		
	1	5060	1359	23.186	0.003	46.301	472.468	118.117		
40000	100	44742	12084	1.825	1.738	1.859	0.810	0.203		
40000	1000	36917	9645	4.941	4.774	5.001	1.260	0.315		
	10000	7869	2050	19.300	13.988	21.327	2.016	0.504		
	1	5922	1499	21.744	0.004	43.514	432.914	108.229		
80000	100	46508	12342	2.605	2.505	2.639	1.940	0.485		
30000	1000	34764	9014	3.805	3.646	3.860	1.991	0.498		
	10000	7507	1974	26.109	19.873	28.323	3.428	0.857		
	1	5112	1310	18.653	0.004	37.312	376.871	94.218		
160000	100	43546	12016	2.626	2.583	2.650	3.584	0.896		
	1000	31352	8271	2.591	2.458	2.637	3.531	0.883		
	10000	7502	1969	19.793	14.229	21.870	4.417	1.104		
250000	1	5362	1358	17.293	0.004	34.576	349.108	87.277		
	100	37023	10151	1.804	1.756	1.829	6.937	1.734		
250000	1000	32719	8350	3.944	3.782	3.999	4.442	1.111		
	10000	7313	1905	26.750	21.675	28.678	5.840	1.460		
	100	34268	9519	2.876	2.818	2.905	9.939	2.485		
500000	1000	26763	7172	4.228	4.096	4.280	8.653	2.163		
	10000	7012	1839	20.682	15.028	22.763	10.876	2.719		
	1	5290	1352	16.657	0.017	33.261	304.417	76.104		
1000000	100	29302	7804	4.564	4.540	4.580	18.567	4.642		
1000000	1000	21315	5764	4.683	4.554	4.741	18.447	4.612		
	10000	6359	1694	21.814	16.437	23.866	16.210	4.052		
	1	4876	1265	16.721	0.044	33.388	242.973	60.743		
2000000	100	15093	3998	2.919	2.870	2.955	37.920	9.480		
2000000	1000	14850	4038	5.609	5.397	5.686	39.002	9.750		
	10000	5587	1459	23.181	17.584	25.387	36.306	9.076		

Table 16: Performance results for  $\ infection \$  simulation with degree 3 ran on 4 m1.small AWS instantances

Network Size	Bundle Size	Proces	ssed Events/s	Average	Message	Delay (s)	Idle	Time (s)
		total	per instance	global	local	remote	total	per instance
	1	12651	3343	6.576	0.034	26.307	108.032	27.008
40000	100	36171	9705	4.835	4.212	5.046	0.423	0.106
40000	1000	25394	6607	7.216	7.009	7.292	0.785	0.196
	10000	5008	1293	39.668	32.795	42.405	1.043	0.261
	1	12187	3160	5.123	0.027	20.256	88.794	22.198
80000	100	35766	9618	4.723	4.583	4.780	0.854	0.213
80000	1000	24217	6442	4.848	4.680	4.920	1.163	0.291
	10000	5015	1307	38.851	32.236	41.442	1.572	0.393
	1	12339	3225	5.202	0.044	20.301	81.547	20.387
160000	100	33126	8818	3.361	3.284	3.397	2.487	0.622
100000	1000	23689	6181	4.946	4.748	5.021	2.390	0.598
	10000	4889	1276	40.112	32.930	42.900	3.344	0.836
	1	12730	3281	4.935	0.048	19.401	71.106	17.777
250000	100	33066	8805	4.789	4.730	4.829	4.831	1.208
250000	1000	23925	6112	7.458	7.266	7.525	3.590	0.897
	10000	4833	1255	40.074	33.778	42.600	3.939	0.985
	1	10808	2890	3.441	0.070	13.440	49.734	12.433
500000	100	28697	8038	5.136	5.073	5.224	7.532	1.883
300000	1000	21558	5735	10.575	10.485	10.630	6.532	1.633
	10000	4671	1202	41.327	35.276	43.835	8.276	2.069
	1	10637	2832	5.363	0.253	20.189	43.449	10.862
1000000	100	21312	6332	6.130	6.162	6.182	12.953	3.238
1000000	1000	16907	4577	8.589	8.449	8.670	14.882	3.721
	10000	3902	1081	45.879	38.314	48.862	15.624	3.906
	1	8194	2232	8.031	1.476	23.385	21.914	5.479
2000000	100	12962	3726	4.801	4.827	4.851	34.834	8.708
2000000	1000	12500	3578	10.221	10.700	10.302	26.638	6.660
	10000	3757	1016	46.183	38.267	49.364	30.297	7.574

Table 17: Performance results for  $\ infection \$  simulation with degree 5 ran on 4 m1.small AWS instantances

Network Size	Bundle Size	e Processed Events/s Average Message Delay				Delay (s)	e Time (s)	
		total	per instance	global	local	remote	total	per instance
	1	16041	4310	6.448	4.882	17.245	0.000	0.000
40000	100	23632	6275	6.191	5.928	6.306	0.000	0.000
40000	1000	16563	4286	18.424	18.082	18.542	0.000	0.000
	10000	2881	752	80.247	66.181	85.823	0.000	0.000
	1	16436	4441	5.895	4.530	16.177	0.000	0.000
80000	100	25004	6548	8.683	8.470	8.774	0.000	0.000
80000	1000	16479	4230	18.541	18.246	18.647	0.000	0.000
	10000	2878	733	108.631	91.157	114.981	0.000	0.000
	1	15499	4268	4.220	3.168	11.813	0.000	0.000
160000	100	23979	6400	8.756	8.537	8.889	0.000	0.000
100000	1000	15845	4072	14.075	13.796	14.180	0.000	0.000
	10000	2801	718	111.204	93.111	117.715	0.000	0.000
	1	14676	4000	4.618	3.528	11.858	0.000	0.000
250000	100	23316	6290	8.783	8.726	8.883	0.000	0.000
250000	1000	15703	4037	14.126	13.784	14.250	0.000	0.000
	10000	2809	721	110.584	91.501	117.380	0.000	0.000
	1	12660	3491	5.371	3.909	13.257	0.000	0.000
500000	100	20796	5711	9.145	9.376	9.237	0.000	0.000
300000	1000	14098	3714	14.678	14.550	14.795	0.000	0.000
	10000	2735	705	84.309	70.038	90.018	0.000	0.000
	1	10922	3017	9.464	6.798	22.390	0.000	0.000
1000000	100	15547	4355	7.115	7.633	7.274	0.000	0.000
1000000	1000	12363	3300	15.805	15.943	15.946	0.000	0.000
	10000	2582	670	87.226	74.688	92.505	0.000	0.000
	1	7703	2216	13.489	8.976	31.260	0.000	0.000
2000000	100	12656	3629	12.815	11.777	13.044	0.000	0.000
2000000	1000	9675	2697	17.803	19.074	17.990	0.000	0.000
	10000	2461	636	122.220	100.756	129.947	0.000	0.000

Table 18: Performance results for  $\ infection$  simulation with degree 8 ran on 4 m1.small AWS instantances

mi.sman Avv 5 instantances										
Network Size	Bundle Size		ssed Events/s	_	Message 1	Delay (s)	Idle Time (s)			
		total	per instance	global	local	remote	total	per instance		
	1	11465	3039	9.852	8.914	17.089	0.000	0.000		
40000	100	17811	4532	19.053	18.806	19.128	0.000	0.000		
40000	1000	10677	2743	15.646	15.229	15.803	0.000	0.000		
	10000	1822	469	138.894	117.134	147.323	0.000	0.000		
	1	11510	3136	14.305	12.931	24.474	0.000	0.000		
80000	100	16590	4429	14.359	14.032	14.550	0.000	0.000		
80000	1000	10710	2726	23.502	23.112	23.649	0.000	0.000		
	10000	1827	467	139.719	116.268	148.671	0.000	0.000		
-	1	11654	3048	14.250	12.996	23.710	0.000	0.000		
160000	100	16573	4423	14.312	13.912	14.550	0.000	0.000		
100000	1000	10234	2707	23.590	23.233	23.739	0.000	0.000		
	10000	1790	460	188.806	162.830	198.290	0.000	0.000		
	1	11806	3129	13.772	12.523	23.541	0.000	0.000		
250000	100	16123	4355	14.346	14.413	14.470	0.000	0.000		
250000	1000	10447	2670	23.737	23.291	23.904	0.000	0.000		
	10000	1752	453	143.713	121.146	152.482	0.000	0.000		
	1	10150	2691	16.102	14.435	27.505	0.000	0.000		
500000	1000	10073	2616	32.314	32.070	32.471	0.000	0.000		
	10000	1705	443	146.312	124.044	155.140	0.000	0.000		
	1	8690	2356	18.082	15.953	30.875	0.000	0.000		
1000000	100	12880	3600	16.004	17.006	16.197	0.000	0.000		
1000000	1000	8844	2333	25.407	25.721	25.614	0.000	0.000		
	10000	1675	433	198.962	176.402	207.351	0.000	0.000		
	1	6925	1858	21.603	18.743	37.736	0.000	0.000		
2000000	100	10245	2905	18.547	19.627	18.960	0.000	0.000		
2000000	1000	7656	2041	27.661	28.477	27.913	0.000	0.000		
	10000	1539	406	102.866	85.279	110.927	0.000	0.000		