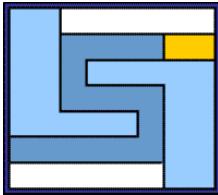


University of Seville
School of Computer Engineering

Performance Report



Software engineering
Design and testing 2

2018 – 2019

06/04/2019

Group 26

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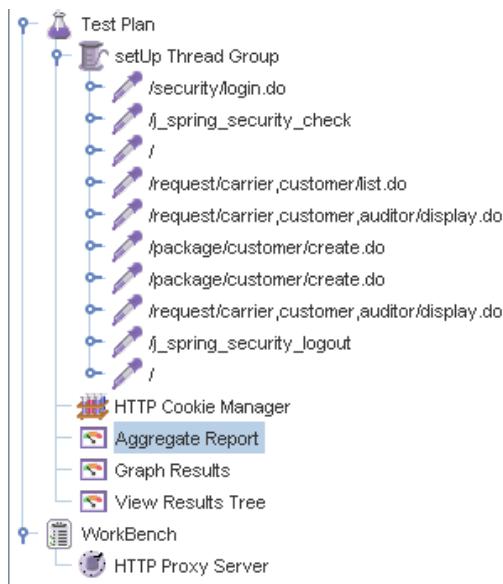
1. Observations

We have considered that our performance tests were valid as long as they were lasting between 2'5 and 3 seconds and no error was showed.

2. Package

Create

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1000	452	28	1329	6	10798	0.00%	4.8/sec	15.6
/j_spring_security_check	1000	1146	112	3448	14	16153	0.00%	4.8/sec	17.7
/	2000	644	62	2009	6	11430	0.00%	9.2/sec	29.1
/request/carrier,customer/list.do	1000	551	46	1683	11	12321	0.00%	4.8/sec	24.7
/request/carrier,customer,auditor/display.do	2000	817	335	2263	17	12966	0.00%	9.3/sec	65.9
/package/customer/create.do	2000	1023	364	2952	9	15968	0.00%	9.5/sec	53.5
/j_spring_security_logout	1000	620	83	1934	9	13727	0.00%	4.8/sec	14.7
TOTAL	10000	774	177	2318	6	16153	0.00%	45.5/sec	213.3

Label	90% Line	Error %
/security/login.do	1329	0.00%
/j_spring_security_check	3448	0.00%
/	2009	0.00%
/request/carrier,customer/list.do	1683	0.00%
/request/carrier,customer,auditor/display.do	2263	0.00%
/package/customer/create.do	2952	0.00%
/j_spring_security_logout	1934	0.00%
TOTAL	2318	0.00%

Thread properties:

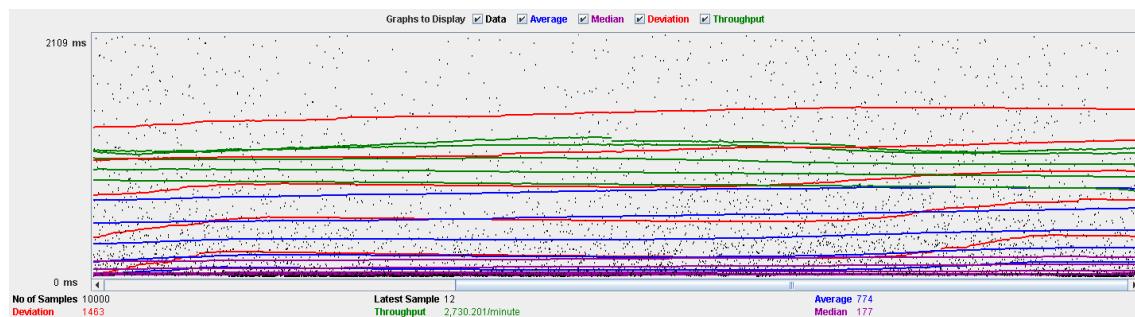
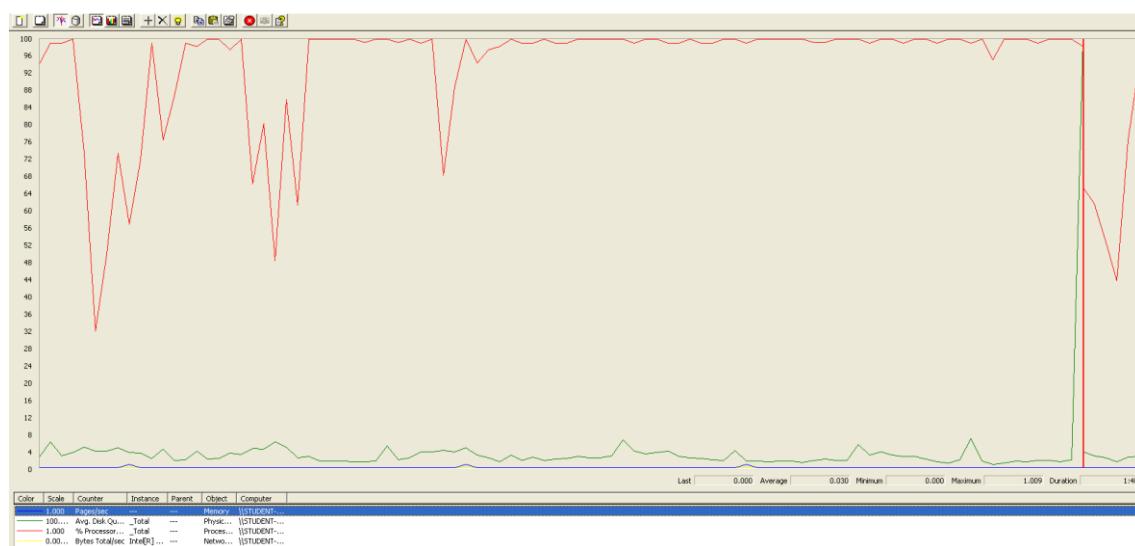
Thread Properties

Number of Threads (users):

Ramp-Up Period (in seconds):

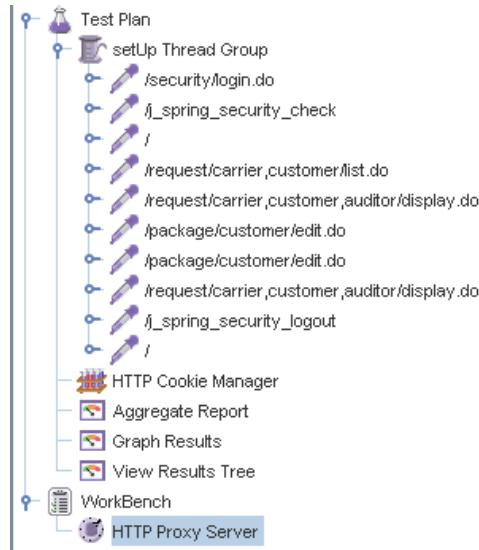
Loop Count: Forever

Scheduler

Graph Results:**Performance Results:**

The CPU is always being used while the disk usage is barely noticeable..

Edit**Sequence:**



Aggregate Report:

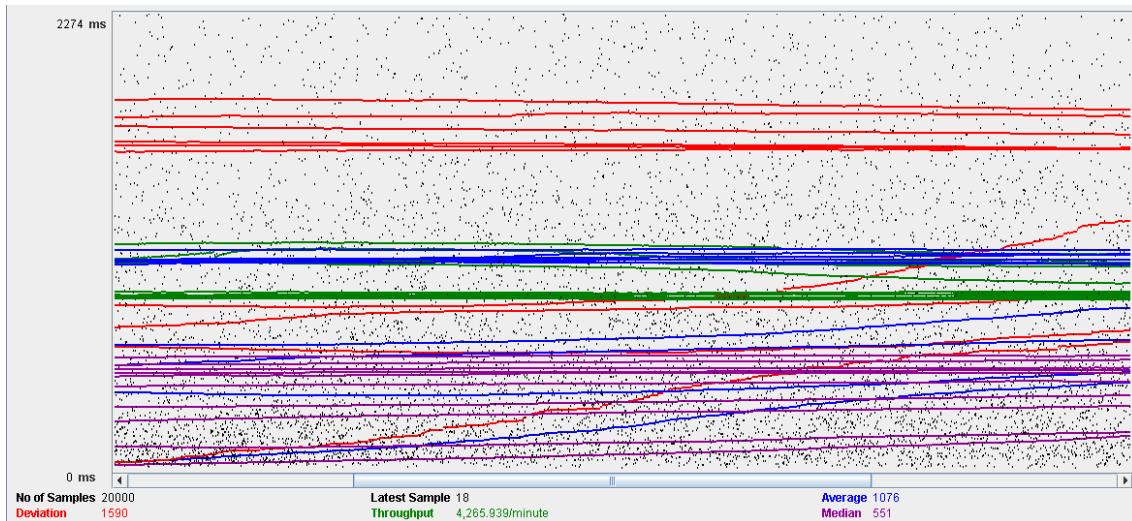
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/	6000	497	180	1294	5	11007	0.00%	22.7/sec	70.5
/security/login.do	2000	479	157	1285	7	8557	0.00%	8.1/sec	25.7
/j_spring_security_check	2000	1005	578	2424	17	12234	0.00%	8.1/sec	29.9
/request/carrier,customer/list.do	2000	847	272	1752	16	10118	0.00%	8.1/sec	41.5
/request/carrier,customer,auditor/display.do	4000	651	298	1659	24	10595	0.00%	15.0/sec	79.8
/package/customer/edit.do	4000	930	505	2312	19	11190	0.00%	16.0/sec	71.5
/j_spring_security_logout	2000	527	191	1382	10	9247	0.00%	8.1/sec	25.0
TOTAL	22000	664	284	1756	5	12234	0.00%	83.4/sec	329.7

Label	90% Line	Error %
/	1294	0.00%
/security/login.do	1285	0.00%
/j_spring_security_check	2424	0.00%
/request/carrier,customer/list.do	1752	0.00%
/request/carrier,customer,auditor/display.do	1659	0.00%
/package/customer/edit.do	2312	0.00%
/j_spring_security_logout	1382	0.00%
TOTAL	1756	0.00%

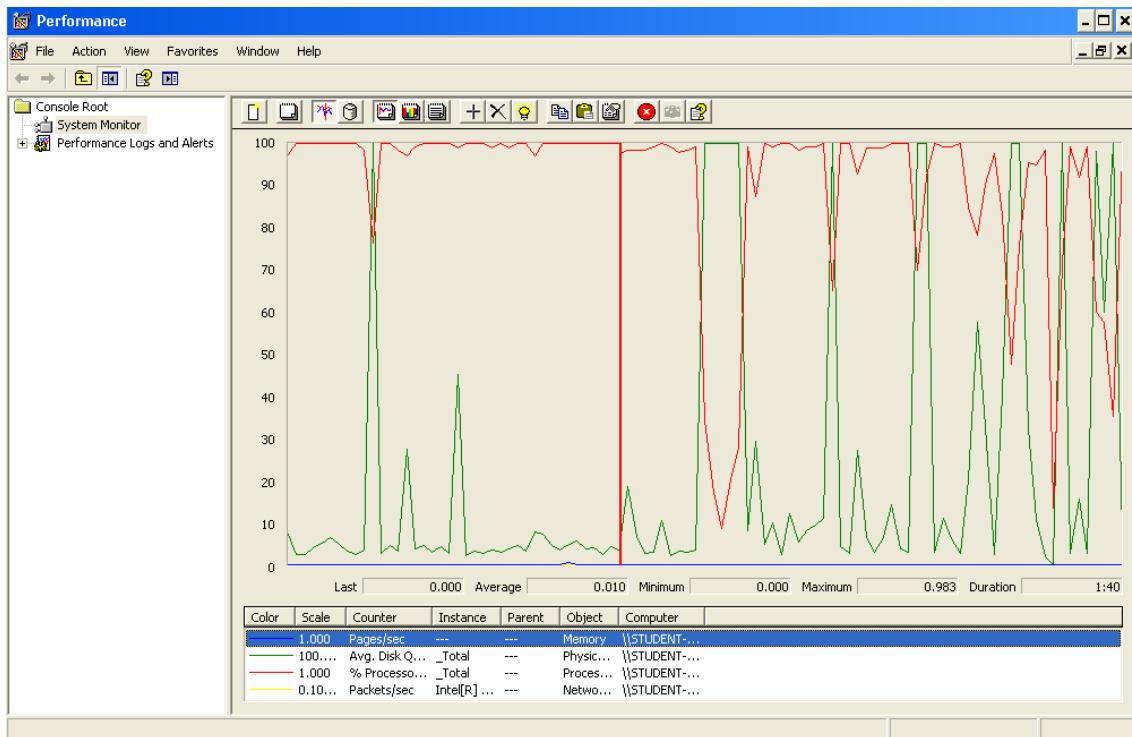
Thread properties:

Thread Properties	
Number of Threads (users):	200
Ramp-Up Period (in seconds):	4
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input type="checkbox"/> Scheduler	

Graph Results:



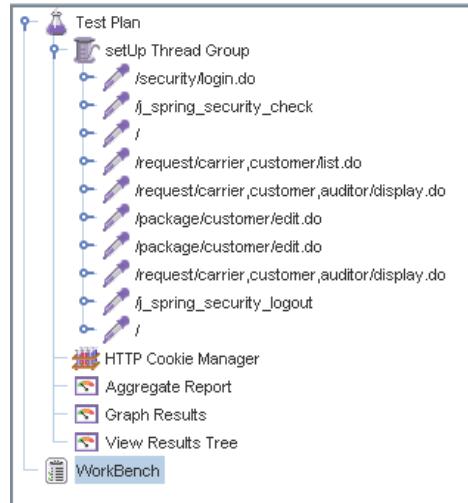
Performance Results:



Again we can see that the CPU is always being used while the disk usage shows some periodic peaks.

Delete

Sequence:



Aggregate Report:

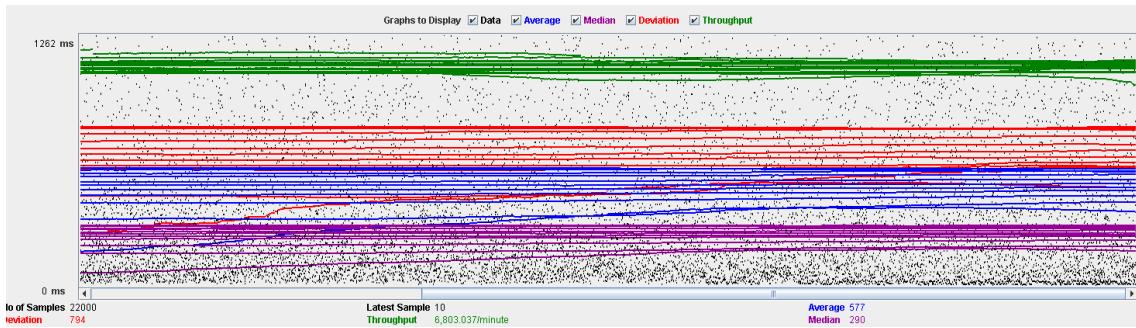
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	kB/sec
/security/login.do	2200	431	190	1139	6	6980	0.00%	12.0/sec	39.0
/j_spring_security_check	2200	822	527	1908	17	8248	0.00%	12.0/sec	44.4
/	4400	442	205	1133	7	10617	0.00%	22.9/sec	72.7
/request/carrier,custo...	2200	445	206	1147	12	5854	0.00%	12.0/sec	61.7
/request/carrier,custo...	4400	487	231	1213	19	9258	0.00%	23.4/sec	118.5
/package/customer/edit.d...	4400	905	586	2070	17	11167	0.00%	23.8/sec	87.0
/j_spring_security_logout	2200	404	175	1038	8	5189	0.00%	12.1/sec	37.3
TOTAL	22000	577	290	1443	6	11167	0.00%	113.4/sec	442.1

Label	90% Line	Error %
/security/login.do	1135	0.00%
/j_spring_security_check	1908	0.00%
/	1133	0.00%
/request/carrier,custo...	1147	0.00%
/request/carrier,custo...	1213	0.00%
/package/customer/edit.d...	2070	0.00%
/j_spring_security_logout	1038	0.00%
TOTAL	1443	0.00%

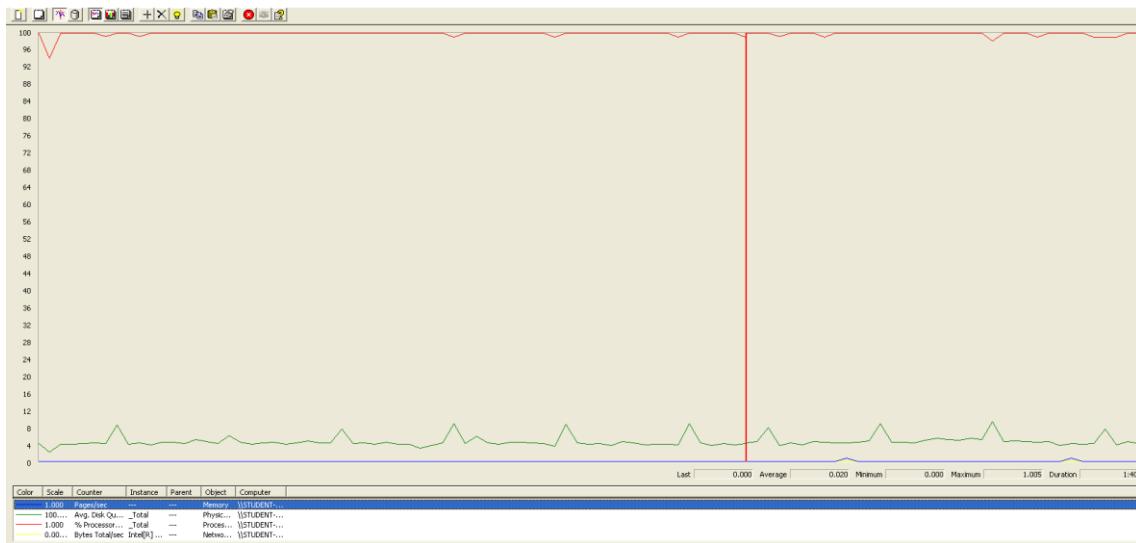
Thread properties:

Thread Properties	
Number of Threads (users):	220
Ramp-Up Period (in seconds):	3
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input checked="" type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



Again we can see that the CPU is always being used while the disk usage shows some peaks. The times are a little bit lower in order to avoid errors.

Conclusion

The test was performed using:

CPU: i7 6700hq (2 cores in the virtual machine)

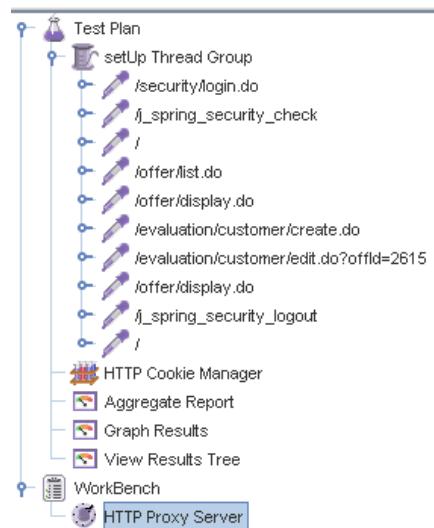
RAM: 4 GB (virtual machine)

For this use case we can say that the limitation occurs during the creation process, being the maximum of concurrent users 100. The times during the delete process did not reach the 3 seconds mark in order to avoid errors.

3. Evaluation

Create

Sequence:



Aggregate Report:

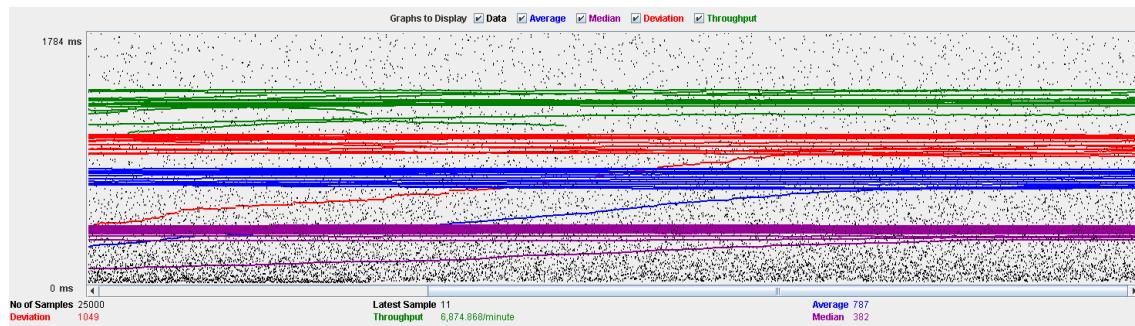
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	2500	541	225	1459	6	7763	0.00%	12.0/sec	39.1
/j_spring_security_check	2500	1188	738	2841	16	10532	0.00%	12.0/sec	44.6
/	5000	606	251	1654	7	11636	0.00%	23.1/sec	73.7
/offer/list.do	2500	597	282	1518	10	8060	0.00%	12.0/sec	62.4
/offer/display.do	5000	616	271	1666	12	7987	0.00%	23.0/sec	123.3
/evaluation/customer/create.do	2500	1262	784	2944	23	9705	0.00%	12.1/sec	45.9
/evaluation/customer/edit.do?offId=26...	2500	1238	817	2070	21	9492	0.00%	12.1/sec	45.9
/j_spring_security_logout	2500	596	281	1680	8	737	0.00%	12.3/sec	37.9
TOTAL	25000	787	382	2080	6	11636	0.00%	14.8/sec	454.5

Label	90% Line	Error %
/security/login.do	1459	0.00%
/j_spring_security_check	2841	0.00%
/	1654	0.00%
/offer/list.do	1518	0.00%
/offer/display.do	1666	0.00%
/evaluation/customer/create.do	2944	0.00%
/evaluation/customer/edit.do?offId=26...	2870	0.00%
/j_spring_security_logout	1690	0.00%
TOTAL	2080	0.00%

Thread properties:

Thread Properties	
Number of Threads (users):	250
Ramp-Up Period (in seconds):	3
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input checked="" type="checkbox"/> Scheduler	

Graph Results:



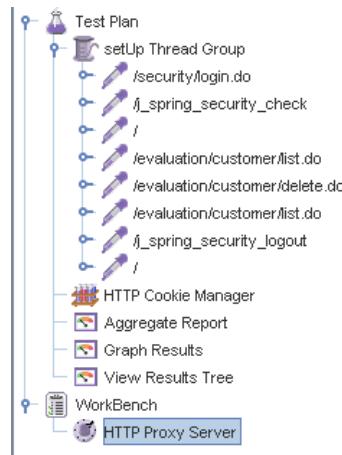
Performance Results:



The CPU is always being used while the disk usage is barely noticeable.

Delete

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	2700	666	243	1560	6	8126	0.00%	17.7/sec	59.1
/j_spring_security_check	2700	1192	749	2836	16	11683	0.00%	17.8/sec	66.1
/	5400	594	258	1604	8	11155	0.00%	34.3/sec	109.3
/evaluation/customer/list.do	5400	593	260	1574	11	11072	0.00%	34.0/sec	147.1
/evaluation/customer/delete.do	2700	1191	776	2805	18	10371	0.00%	17.7/sec	67.1
/j_spring_security_logout	2700	634	227	1451	9	7399	0.00%	17.7/sec	54.8
TOTAL	21600	732	345	1940	6	11663	0.00%	136.3/sec	490.0

Label	90% Line	Error %
/security/login.do	1560	0.00%
/j_spring_security_check	2836	0.00%
/	1604	0.00%
/evaluation/customer/list.do	1574	0.00%
/evaluation/customer/delete.do	2805	0.00%
/j_spring_security_logout	1451	0.00%
TOTAL	1940	0.00%

Thread properties:

Thread Properties

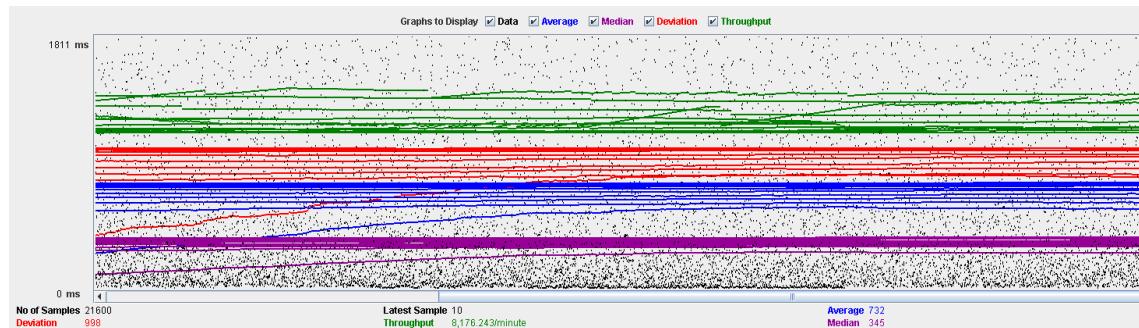
Number of Threads (users):

Ramp-Up Period (in seconds):

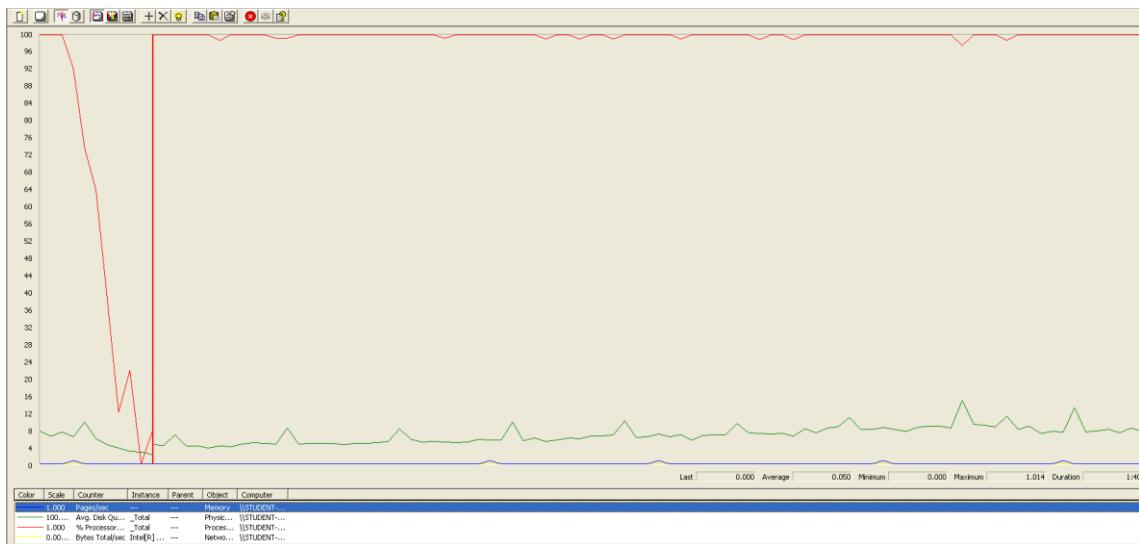
Loop Count: Forever

Scheduler

Graph Results:



Performance Results:



The CPU is always being used while the disk usage is barely noticeable.

Conclusion

The test was performed using:

CPU: i7 7700hq (2 cores in the virtual machine)

RAM: 4 GB (virtual machine)

For this use case we can say that the limitation occurs during the creation process, being the maximum of concurrent users 250.

4. Message

Send

Sequence:



Performance

Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/	2250	410	43	1253	7	7460	0.00%	9.3/sec	29.4
/security/login.do	750	369	28	928	9	13031	0.00%	3.3/sec	10.4
/j_spring_security_check	750	710	62	2146	5	11407	0.00%	3.3/sec	12.8
/messageBox/list.do	750	578	73	1806	13	10672	0.00%	3.3/sec	16.5
/mess/create.do	750	850	186	2390	21	12214	0.00%	3.3/sec	19.5
/mess/edit.do	750	1657	1213	3507	80	11034	0.00%	3.3/sec	18.7
/mess/display.do	750	1348	712	3455	23	9871	0.00%	3.3/sec	13.0
/j_spring_security_logout	750	583	75	1720	11	12939	0.00%	3.3/sec	10.1
TOTAL	7500	733	115	2228	5	13031	0.00%	30.9/sec	124.5

Label	90% Line	Error %
/	1253	0.00%
/security/login.do	928	0.00%
/j_spring_security_check	2146	0.00%
/messageBox/list.do	1806	0.00%
/mess/create.do	2390	0.00%
/mess/edit.do	3507	0.00%
/mess/display.do	3455	0.00%
/j_spring_security_logout	1720	0.00%
TOTAL	2228	0.00%

Thread properties:

Thread Properties

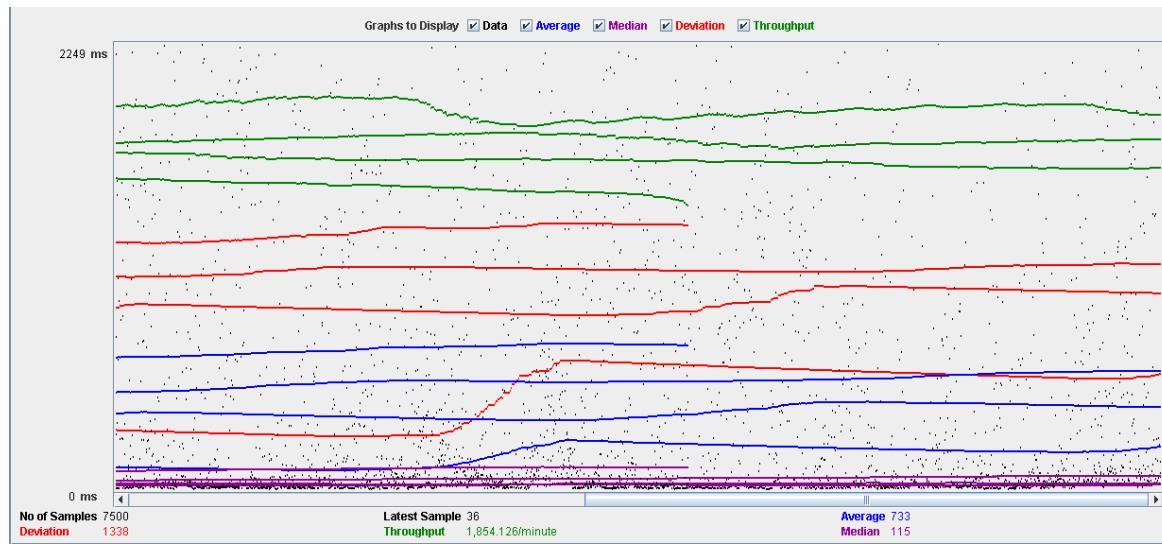
Number of Threads (users):

Ramp-Up Period (in seconds):

Loop Count: Forever

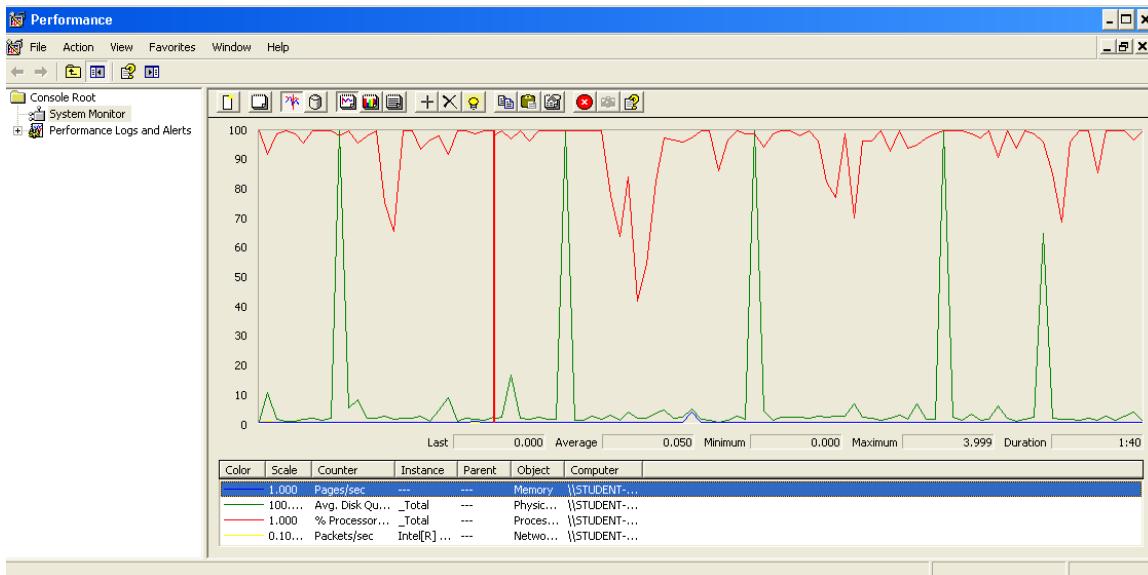
Scheduler

Graph Results:



Performance Results:

Performance



The CPU is always being used and some picks of physical disk.

Move

Sequence:



Aggregate Report:

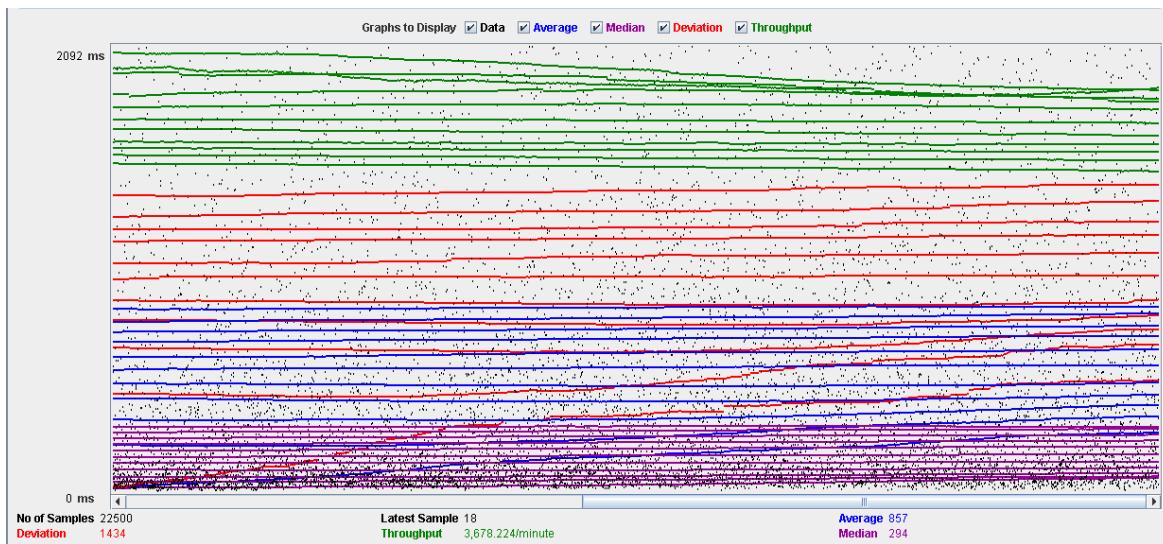
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/	4499	636	155	1770	6	15140	0.00%	12.3/sec	38.7
/security/login.do	1500	609	99	1828	7	12117	0.00%	4.3/sec	13.7
/j_spring_security_check	1500	1312	571	3654	15	18766	0.00%	4.3/sec	16.7
/messageBox/list.do	3000	810	242	2266	10	23300	0.00%	8.5/sec	52.3
/messageBox/create.do	1500	820	214	2250	13	16988	0.00%	4.3/sec	63.1
/messageBox/edit.do?messageBoxId=0	1500	1404	746	3560	33	19514	0.00%	4.3/sec	52.3
/messageBox/list.do	1500	970	408	2411	46	15085	0.00%	4.3/sec	19.2
/messageBox/display.do	4500	883	343	2397	16	19302	0.00%	12.8/sec	104.5
/messIdisplay.do	1500	914	391	2342	44	16025	0.00%	4.3/sec	67.7
/messIdisplay.do	1498	653	217	1860	11	10852	0.00%	4.3/sec	13.3
TOTAL	22498	857	294	2362	6	23300	0.00%	61.4/sec	422.6

Label	90% Line	Error %
/	1770	0.00%
/security/login.do	1828	0.00%
/j_spring_security_check	3654	0.00%
/messageBox/list.do	2266	0.00%
/messageBox/create.do	2250	0.00%
/messageBox/edit.do?m... i	3560	0.00%
/messageBox/display.do	2411	0.00%
/mess/display.do	2387	0.00%
/mess/move.do	2342	0.00%
/j_spring_security_logout	1860	0.00%
TOTAL	2362	0.00%

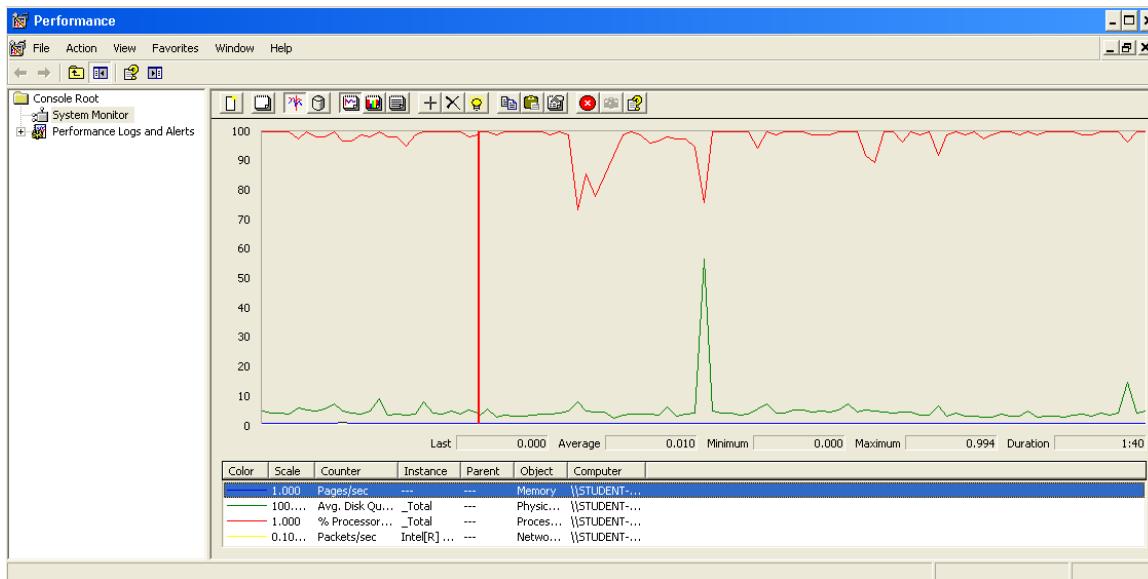
Thread properties:

Thread Properties	
Number of Threads (users):	150
Ramp-Up Period (in seconds):	4
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



The CPU is always being used and some picks of physical disk.

Copy

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/	4500	461	63	1378	6	10665	0.00%	12.8/sec	39.6
/security/login.do	1500	416	42	1271	7	8537	0.00%	4.5/sec	14.2
/_spring_security_check	1500	985	233	2853	15	12698	0.00%	4.5/sec	17.3
/messageBox/list.do	3000	662	161	1976	11	11033	0.00%	8.8/sec	54.0
/messageBox/create.do	1500	628	131	1910	12	10396	0.00%	4.5/sec	64.4
/messageBox/edit.do?messageBoxId=0	1500	1175	608	3026	31	12635	0.00%	4.5/sec	54.0
/messageBox/list.do	1500	898	350	2344	49	12216	0.00%	4.5/sec	19.8
/mess/display.do	4500	683	218	1822	15	13308	0.00%	13.2/sec	105.4
/mess/copy.do	1500	646	218	1713	19	10640	0.00%	4.5/sec	67.5
/_spring_security_logout	1500	502	89	1449	9	11039	0.00%	4.5/sec	13.8
TOTAL	22500	666	170	1899	6	13308	0.00%	62.8/sec	427.3

Label	90% Line	Error %
/	1378	0.00%
/security/login.do	1271	0.00%
/j_spring_security_check	2853	0.00%
/messageBox/list.do	1976	0.00%
/messageBox/create.do	1910	0.00%
/messageBox/edit.do?m...	3026	0.00%
/messageBox/display.do	2344	0.00%
/mess/display.do	1822	0.00%
/mess/copy.do	1713	0.00%
/j_spring_security_logout	1449	0.00%
TOTAL	1899	0.00%

Thread properties:

Thread Properties

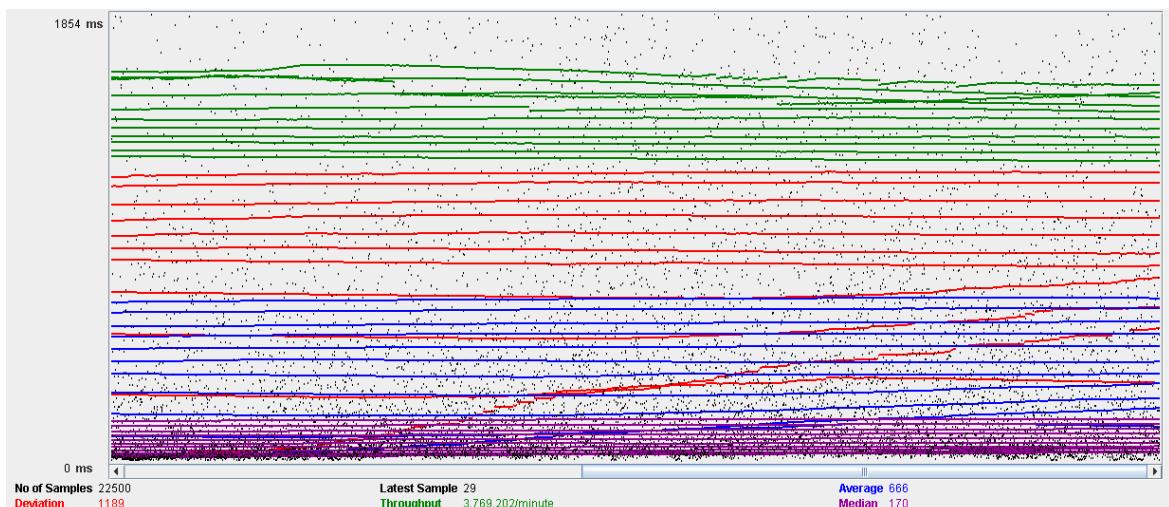
Number of Threads (users): 150

Ramp-Up Period (in seconds): 4

Loop Count: Forever 10

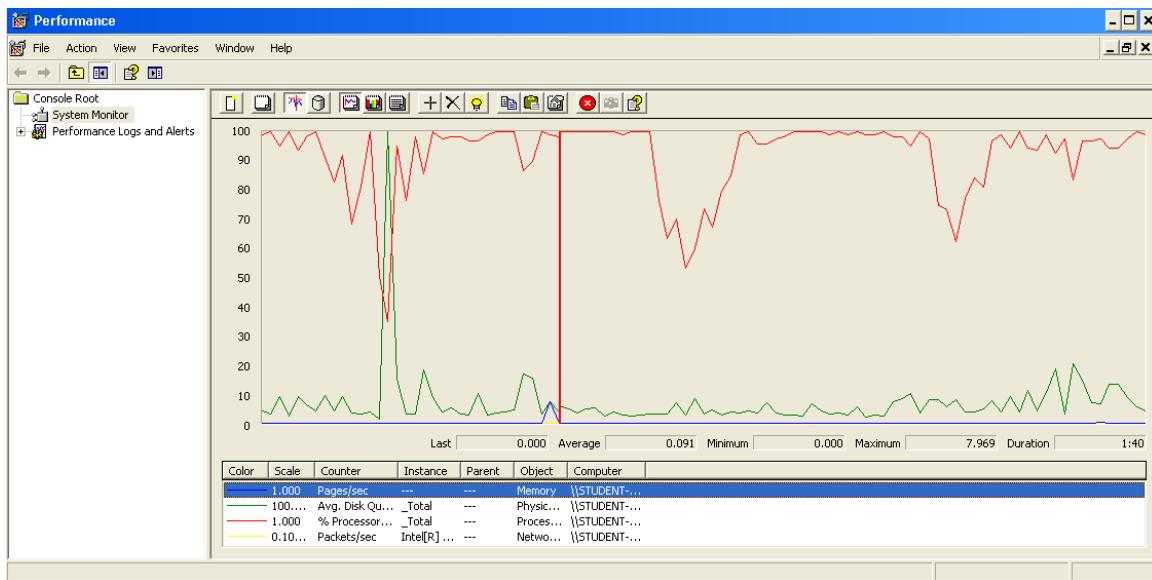
Scheduler

Graph Results:



Performance Results:

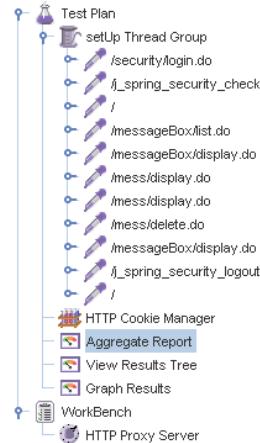
Performance



The CPU is always being used and a pick of physical disk.

Delete

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	750	706	331	1837	14	10106	0.00%	7.0/sec	22.7
/_spring_security_check	750	1425	980	3138	24	12760	0.00%	7.0/sec	27.3
/	1500	747	360	1878	12	8096	0.00%	13.9/sec	45.7
/messageBox/list.do	750	690	325	1709	22	9678	0.00%	7.0/sec	35.2
/messageBox/display.do	1500	773	399	1934	34	6627	0.00%	13.9/sec	54.6
/mess/display.do	1500	742	358	1912	23	8169	0.00%	14.0/sec	62.2
/mess/delete.do	750	1550	1070	3409	90	7985	0.00%	7.0/sec	29.5
/_spring_security_logout	750	713	330	1823	20	7655	0.00%	7.0/sec	21.5
TOTAL	8250	874	457	2256	12	12760	0.00%	76.5/sec	297.6

Label	90% Line	Error %
/security/login.do	1837	0.00%
/j_spring_security_check	3138	0.00%
/	1878	0.00%
/messageBox/list.do	1709	0.00%
/messageBox/display.do	1934	0.00%
/mess/display.do	1912	0.00%
/mess/delete.do	3409	0.00%
/j_spring_security_logout	1823	0.00%
TOTAL	2256	0.00%

Thread properties:

Thread Properties

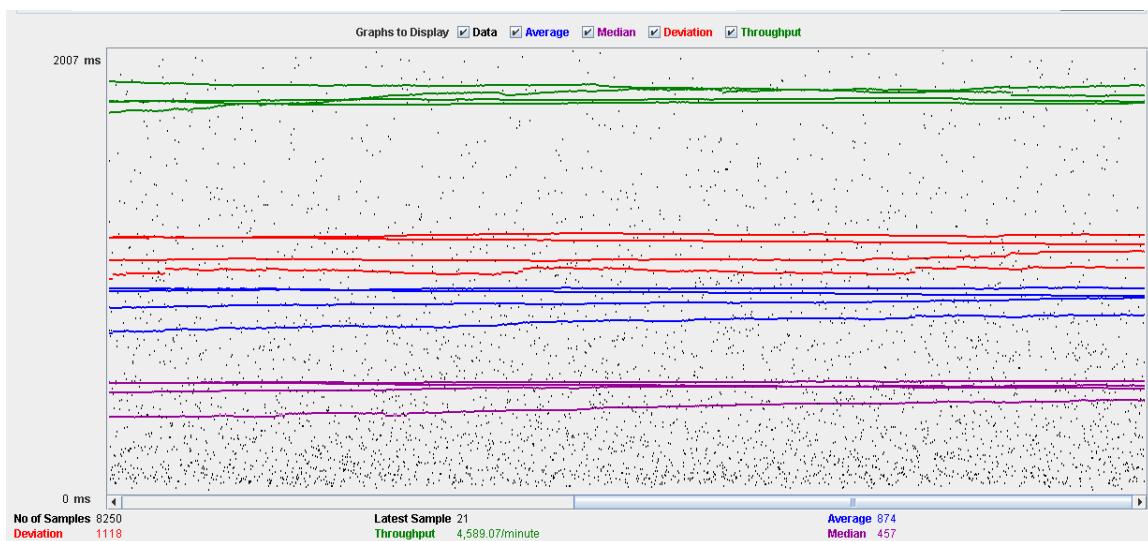
Number of Threads (users):

Ramp-Up Period (in seconds):

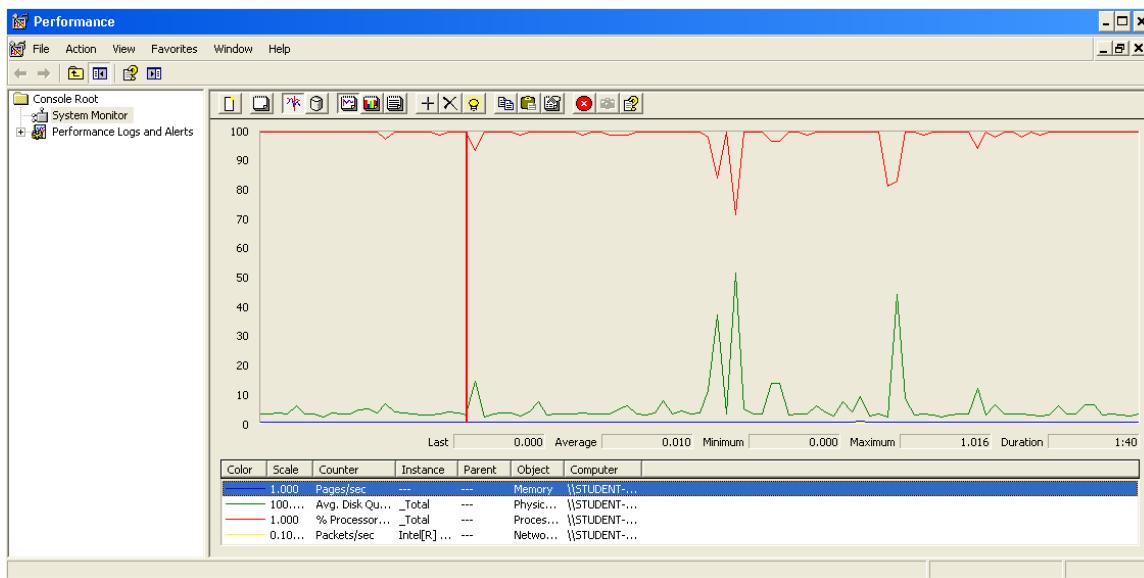
Loop Count: Forever

Scheduler

Graph Results:



Performance Results:



The CPU is always being used while the physical disk has some picks.

Conclusion

The test was performed using:

CPU: i7 7700hq (2 cores in the virtual machine)

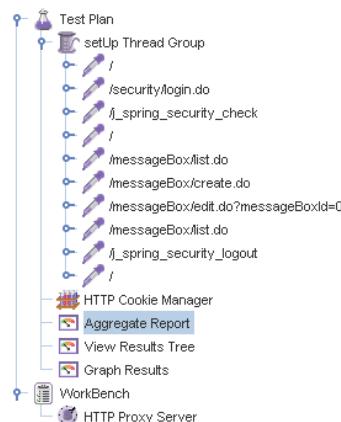
RAM: 2 GB (virtual machine)

For this use case we can say that the limitation occurs during the send and delete process, being the maximum of concurrent users 75.

5. Message box

Create

Sequence:



Performance

Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/	5250	557	119	1529	6	16794	0.00%	20.5/sec	63.6
/security/login.do	1750	543	75	1378	8	14374	0.00%	7.3/sec	23.1
/j_spring_security...	1750	1155	440	3115	17	15380	0.00%	7.2/sec	26.9
/messageBox/list.do	3500	724	216	2110	11	14566	0.00%	14.2/sec	84.5
/messageBox/crea...	1750	776	269	2129	18	25291	0.00%	7.2/sec	99.0
/messageBox/edit...	1750	1244	711	3104	51	12099	0.00%	7.2/sec	86.8
/j_spring_security...	1750	669	168	1904	10	13656	0.00%	7.2/sec	22.2
TOTAL	17500	751	225	2132	6	25291	0.00%	68.4/sec	389.5

Label	90% Line	Error %
/	1529	0.00%
/security/login.do	1378	0.00%
/j_spring_security...	3115	0.00%
/messageBox/list.do	2110	0.00%
/messageBox/crea...	2129	0.00%
/messageBox/edit...	3104	0.00%
/j_spring_security...	1904	0.00%
TOTAL	2132	0.00%

Thread properties:

Thread Properties

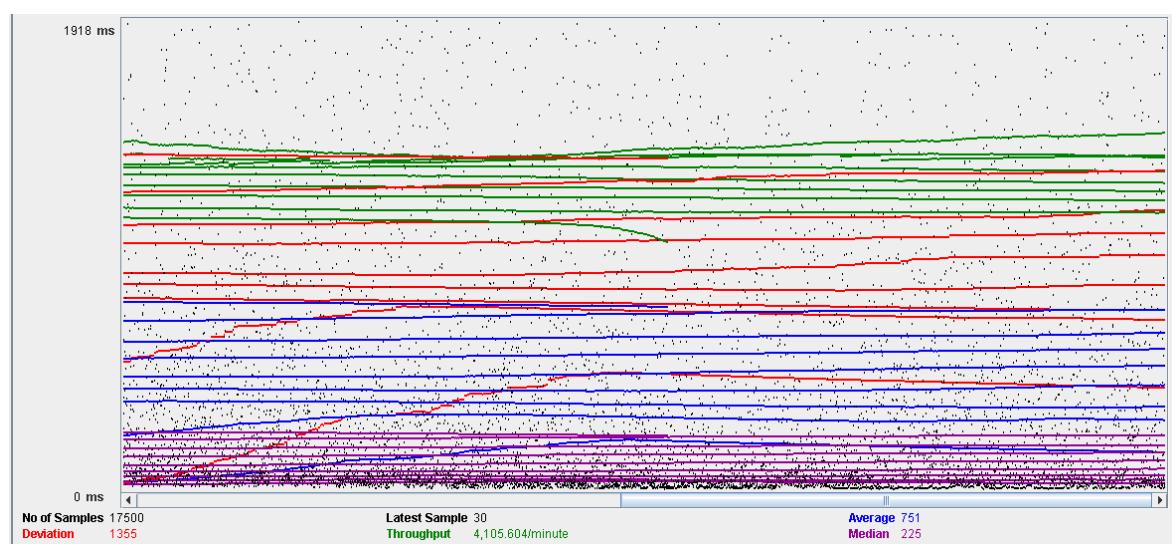
Number of Threads (users):

Ramp-Up Period (in seconds):

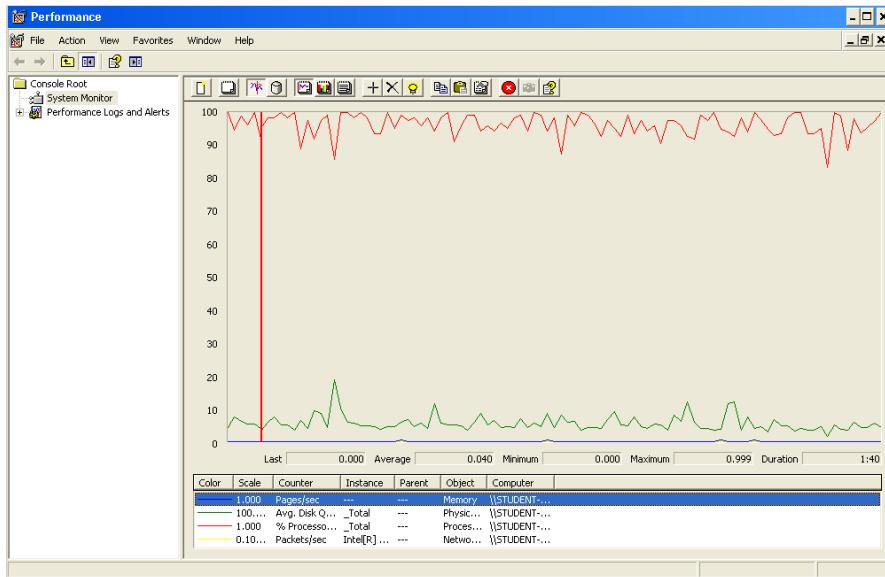
Loop Count: Forever

Scheduler

Graph Results:



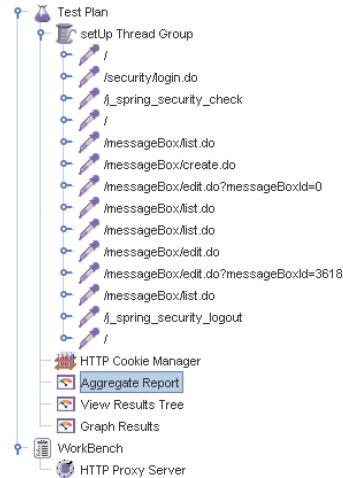
Performance Results:



The CPU is always being used and physical disk usage is barely noticeable.

Edit

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/	4500	496	111	1424	6	11200	0.00%	13.0/sec	40.3
/security/login.do	1500	468	71	1286	8	11012	0.00%	4.6/sec	14.7
/_spring_security...	1500	1071	451	2882	20	14048	0.00%	4.6/sec	17.1
/messageBox/list...	6000	645	232	1768	17	11883	0.00%	17.8/sec	114.7
/messageBox/crea...	1500	746	260	2040	16	10071	0.00%	4.6/sec	64.0
/messageBox/edit...	1500	1297	722	3056	62	9119	0.00%	4.6/sec	54.6
/messageBox/edit...	1500	1450	897	3493	33	11968	0.00%	4.6/sec	17.4
/messageBox/edit...	1500	1265	741	3158	26	10114	0.00%	4.6/sec	17.4
/_spring_security...	1500	489	120	1449	11	6875	0.00%	4.6/sec	14.2
TOTAL	21000	772	279	2173	6	14048	0.00%	60.7/sec	339.1

Label	90% Line	Error %
/	1424	0.00%
/security/login.do	1286	0.00%
/j_spring_security_...	2882	0.00%
/messageBox/list.d...	1768	0.00%
/messageBox/crea...	2040	0.00%
/messageBox/edit...	3056	0.00%
/messageBox/edit...	3493	0.00%
/messageBox/edit...	3158	0.00%
/j_spring_security_...	1449	0.00%
TOTAL	2173	0.00%

Thread properties:

Thread Properties

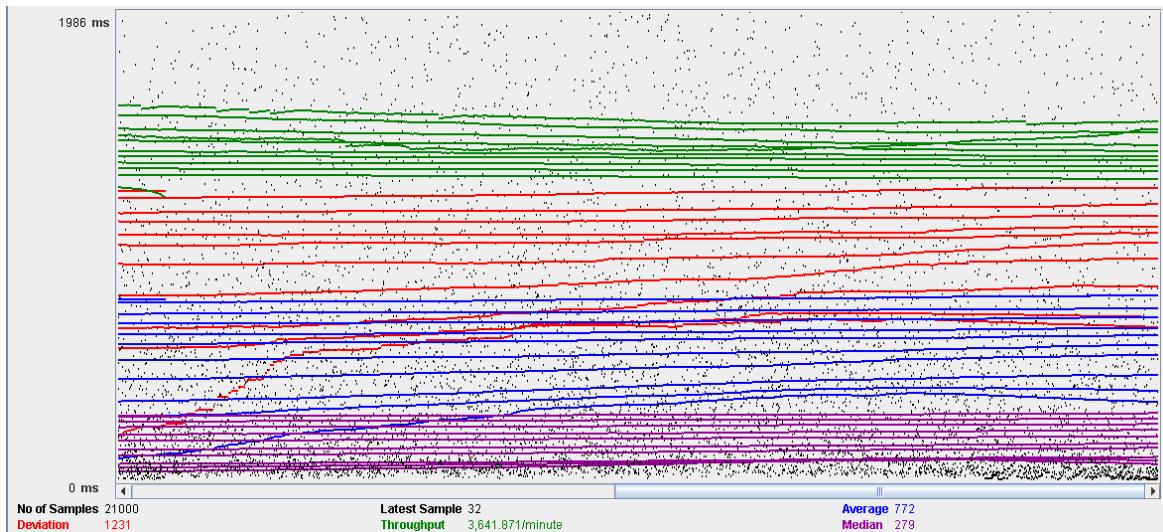
Number of Threads (users):

Ramp-Up Period (in seconds):

Loop Count: Forever

Scheduler

Graph Results:



Performance Results:

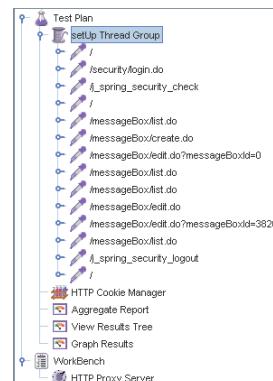
Performance



The CPU is always being used and small picks of physical disk

Delete

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	4500	272	47	725	7	11803	0.00%	14.9/sec	46.0
/_spring_security_check	1500	235	32	635	8	6483	0.00%	5.3/sec	16.8
/messageBox/list	6000	459	128	1237	13	8677	0.00%	20.4/sec	131.4
/messageBox/create.do	1500	475	127	1332	16	7839	0.00%	5.3/sec	71.4
/messageBox/edit.do?messageBoxId=0	1500	940	548	2209	55	7606	0.00%	5.3/sec	61.1
/messageBox/edit.do	1500	1002	556	2397	31	11041	0.00%	5.3/sec	19.9
/messageBox/edit.do?messageBoxId=38260	1500	821	443	2062	22	7772	0.00%	5.3/sec	20.0
/_spring_security_logout	1500	301	47	855	3	7315	0.00%	5.3/sec	16.3
TOTAL	21000	506	131	1412	3	11803	0.00%	69.4/sec	384.4

Label	90% Line	Error %
/	725	0.00%
/security/login.do	635	0.00%
/j_spring_security_check	1951	0.00%
/messageBox/list.do	1237	0.00%
/messageBox/create.do	1332	0.00%
/messageBox/edit.do?messageBoxId=0	2209	0.00%
/messageBox/edit.do	2397	0.00%
/messageBox/edit.do?messageBoxId=38260	2062	0.00%
/j_spring_security_logout	855	0.00%
TOTAL	1412	0.00%

Thread properties:

Thread Properties

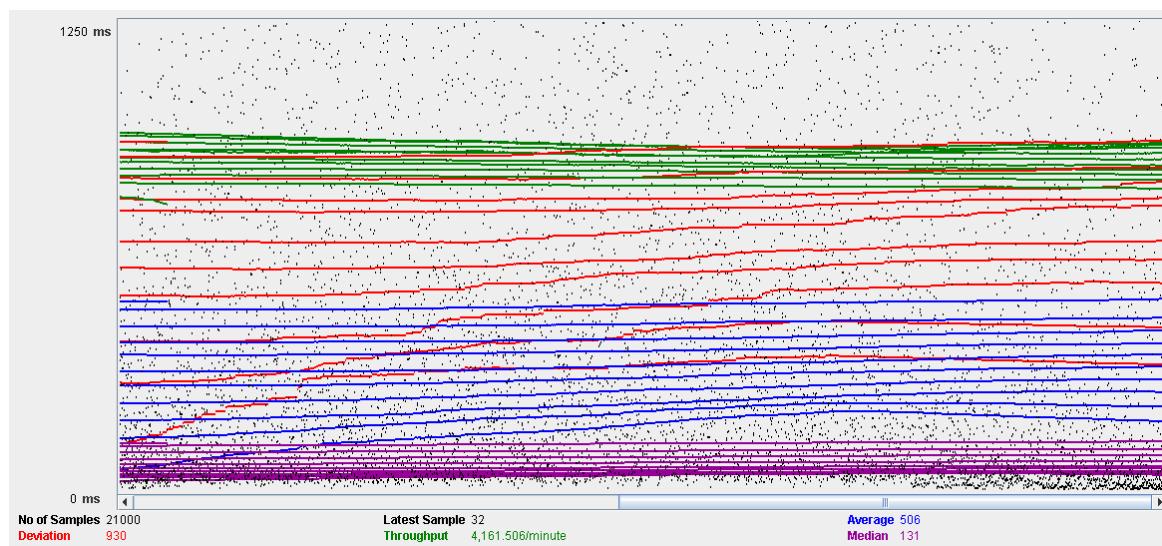
Number of Threads (users):

Ramp-Up Period (in seconds):

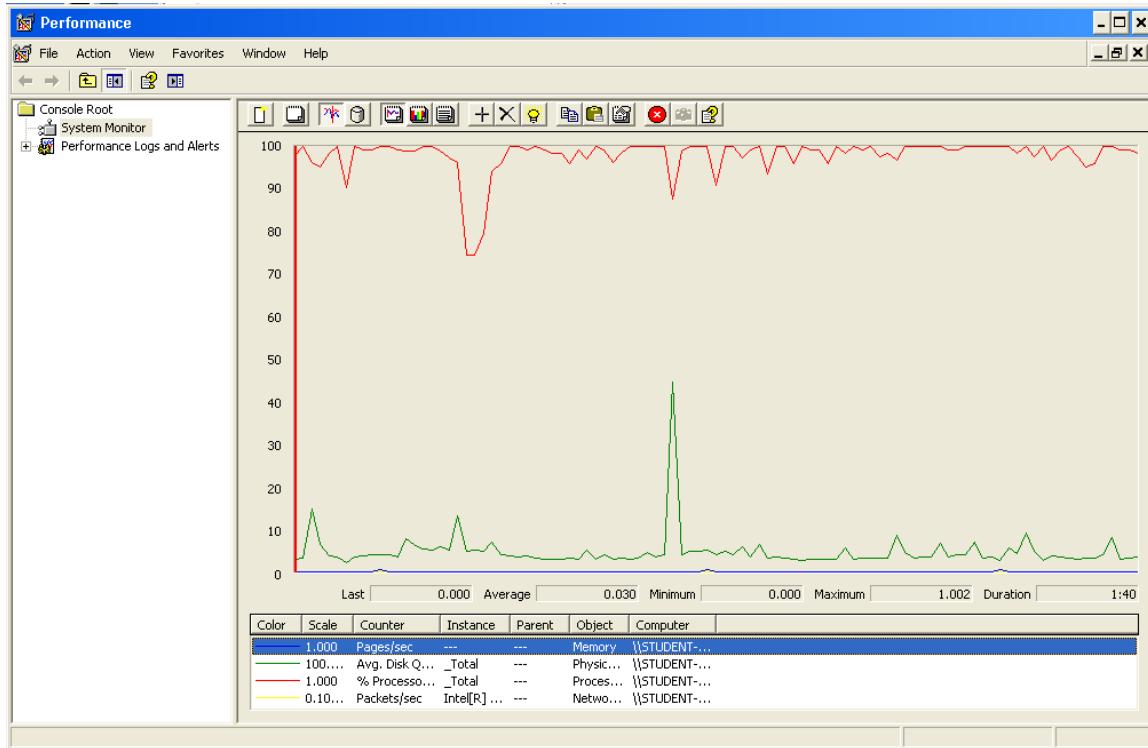
Loop Count: Forever

Scheduler

Graph Results:



Performance Results:



The CPU is always being used while the memory has some picks.

Conclusion

The test was performed using:

CPU: i7 7700hq (2 cores in the virtual machine)

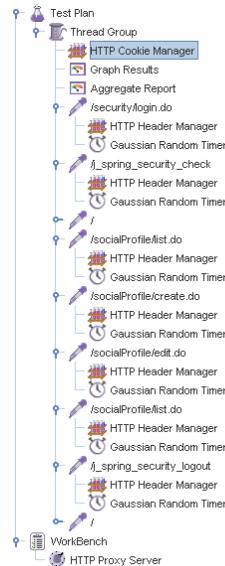
RAM: 2 GB (virtual machine)

For this use case we can say that the limitation occurs during the edition process, being the maximum of concurrent users 150.

6. Social profile

Create

Sequence:



Aggregate Report:

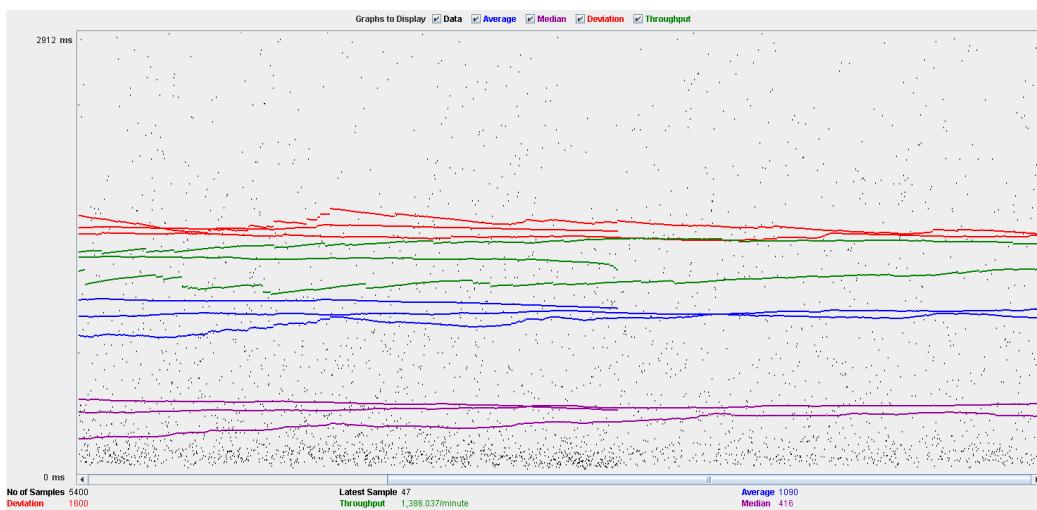
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	600	776	186	2206	35	9720	0.00%	2.7/sec	10.7
j_spring_security_check	600	1800	966	2539	43	16187	0.00%	2.7/sec	13.1
/	1200	855	297	2433	26	9557	0.00%	5.2/sec	22.5
/socialProfile/list.do	1200	855	286	2349	34	8613	0.00%	5.2/sec	34.7
/socialProfile/create.do	600	826	209	2410	33	9916	0.00%	2.7/sec	14.4
/socialProfile/edit.do	600	2079	1432	2539	35	11613	0.00%	2.7/sec	16.3
j_spring_security_logout	600	911	267	2444	37	14045	0.00%	2.7/sec	10.9
TOTAL	5400	1090	416	2878	26	16187	0.00%	23.1/sec	118.8

Label	90% Line	Error %
/security/login.do	2206	0.00%
j_spring_security_check	2539	0.00%
/	2433	0.00%
/socialProfile/list.do	2349	0.00%
/socialProfile/create.do	2410	0.00%
/socialProfile/edit.do	2539	0.00%
j_spring_security_logout	2444	0.00%
TOTAL	2878	0.00%

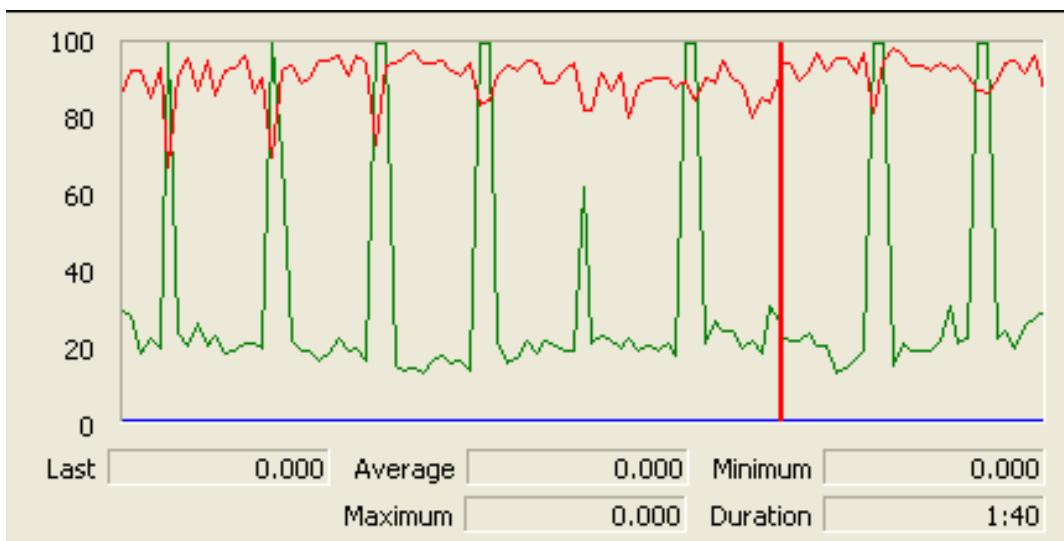
Thread properties:

Thread Properties	
Number of Threads (users):	60
Ramp-Up Period (in seconds):	1
Loop Count:	<input type="checkbox"/> Forever 10
<input type="checkbox"/> Delay Thread creation until needed	
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



The CPU is always being used while the disk show many peaks.

Edit

Sequence:



Aggregate Report:

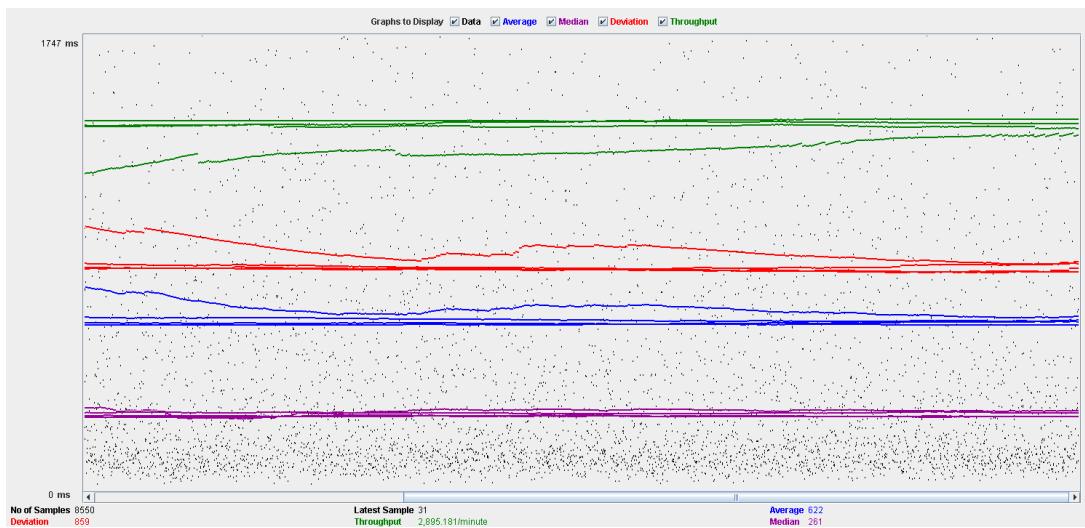
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	950	469	176	1256	27	6701	0.00%	5.7/sec	24.8
/_spring_security_check	950	1187	810	2703	48	11891	0.00%	5.7/sec	31.3
/	1900	814	265	1528	25	8042	0.00%	10.8/sec	51.9
/socialProfile/list.do	1900	532	203	1492	24	5386	0.00%	11.0/sec	58.7
/socialProfile/edit.do	1900	574	229	1484	26	5718	0.00%	11.3/sec	66.8
/_spring_security_logout	950	505	183	1391	17	6537	0.00%	5.7/sec	26.5
TOTAL	8550	622	261	1658	17	11891	0.00%	48.9/sec	250.1

Label	90% Line	Error %
/security/login.do	1256	0.00%
/_spring_security_check	2703	0.00%
/	1528	0.00%
/socialProfile/list.do	1492	0.00%
/socialProfile/edit.do	1484	0.00%
/_spring_security_logout	1391	0.00%
TOTAL	1658	0.00%

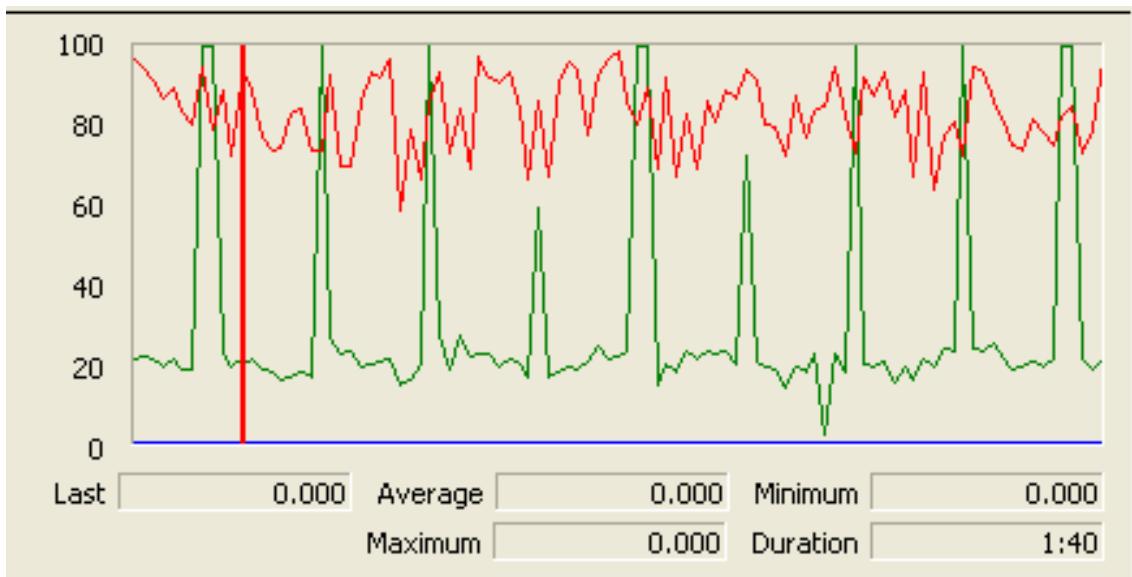
Thread properties:

Thread Properties	
Number of Threads (users):	95
Ramp-Up Period (in seconds):	1
Loop Count:	<input type="checkbox"/> Forever 10
<input type="checkbox"/> Delay Thread creation until needed	
<input type="checkbox"/> Scheduler	

Graph Results:



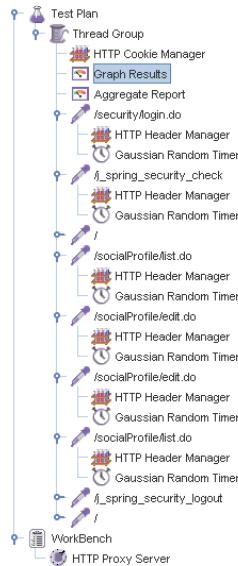
Performance Results:



Again we can see that the CPU is always being used while the disk usage shows some periodic peaks.

Delete

Sequence:



Aggregate Report:

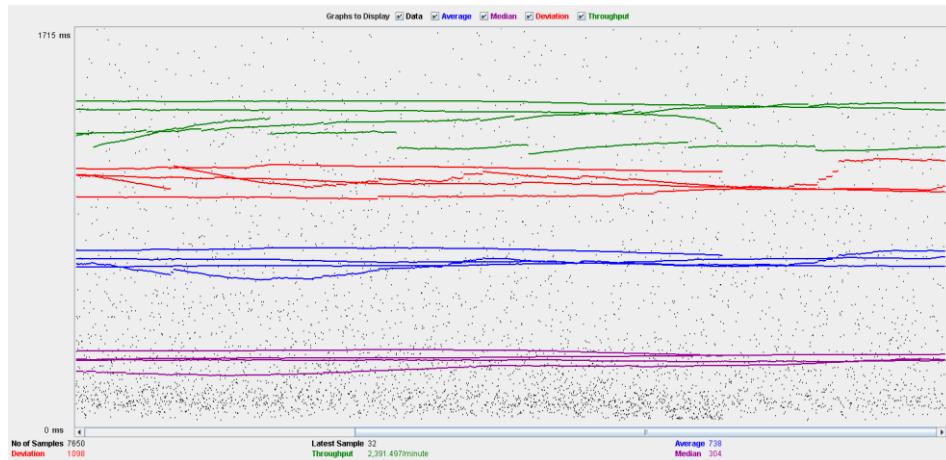
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	850	475	139	1106	30	7410	0.00%	4.7/sec	20.4
/_spring_security_check	850	1158	652	2766	32	13237	0.00%	4.7/sec	25.8
/	1700	643	308	1635	26	11461	0.00%	8.9/sec	45.1
/socialProfile/list.do	1700	552	167	1450	26	20171	0.00%	9.1/sec	45.0
/socialProfile/edit.do	1700	1089	606	2674	26	11487	0.00%	9.3/sec	58.9
/_spring_security_logout	850	491	154	1275	29	7138	0.00%	4.7/sec	21.6
TOTAL	7650	738	304	1900	26	20171	0.00%	39.9/sec	209.8

Label	90% Line	Error %
/security/login.do	1106	0.00%
/_spring_security_check	2766	0.00%
/	1635	0.00%
/socialProfile/list.do	1450	0.00%
/socialProfile/edit.do	2674	0.00%
/_spring_security_logout	1275	0.00%
TOTAL	1900	0.00%

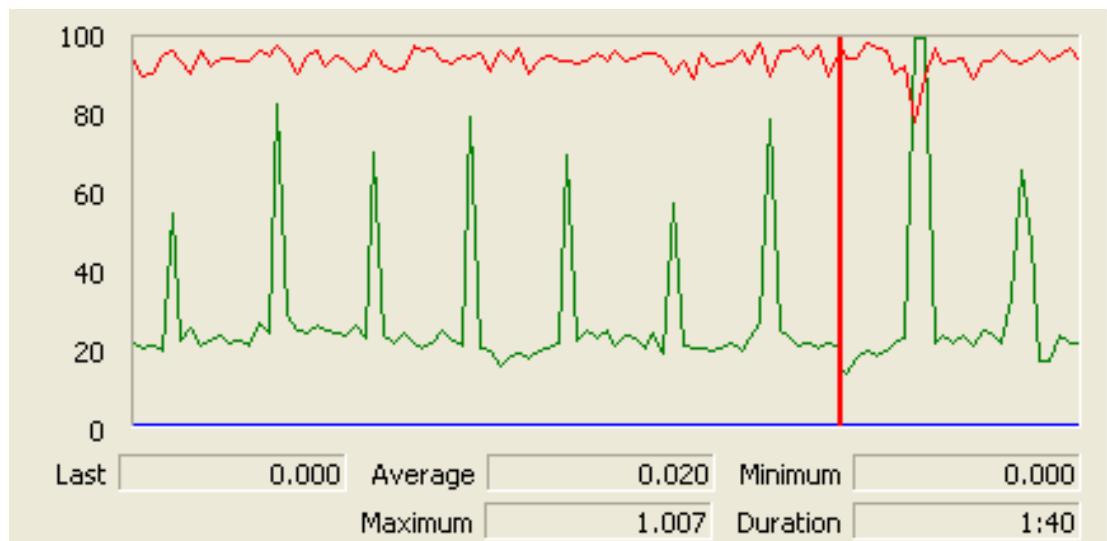
Thread properties:

Thread Properties	
Number of Threads (users):	85
Ramp-Up Period (in seconds):	1
Loop Count:	<input type="checkbox"/> Forever 10
<input type="checkbox"/> Delay Thread creation until needed	
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



Again we can see that the CPU is always being used while the disk usage shows some peaks.

Conclusion

The test was performed using:

CPU: i5 2500k (2 cores in the virtual machine)

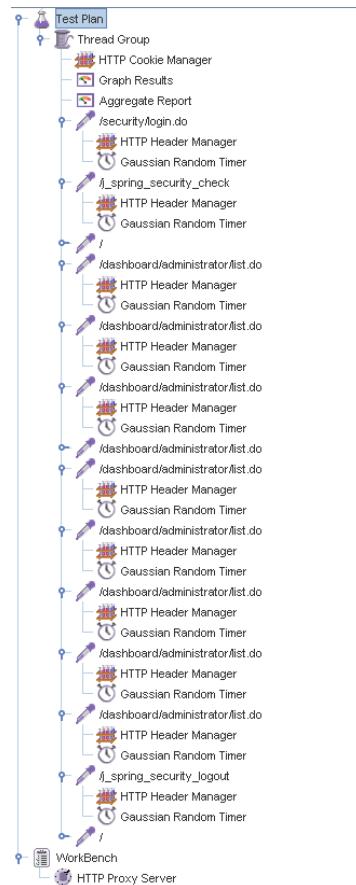
RAM: 2 GB (virtual machine)

For this use case we can say that the limitation occurs during the creation process, being the maximum of concurrent users 60.

7. Dashboard

Show dashboard and launch all process

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	300	381	154	809	29	5672	0.00%	59.6/min	4.0
/j_spring_security_check	300	740	345	1903	48	10189	0.00%	59.5/min	5.0
/	600	332	162	660	30	5453	0.00%	1.9/sec	7.6
/dashboard/administrato...	2700	1097	670	2538	30	12357	0.00%	8.4/sec	82.9
/j_spring_security_logout	300	423	157	1169	21	4840	0.00%	58.4/min	3.5
TOTAL	4200	863	504	2111	21	12357	0.00%	13.0/sec	101.3

Label	90% Line	Error %
/security/login.do	809	0.00%
/j_spring_security_check	1903	0.00%
/	660	0.00%
/dashboard/administrato...	2538	0.00%
/j_spring_security_logout	1169	0.00%
TOTAL	2111	0.00%

Thread properties:

Thread Properties

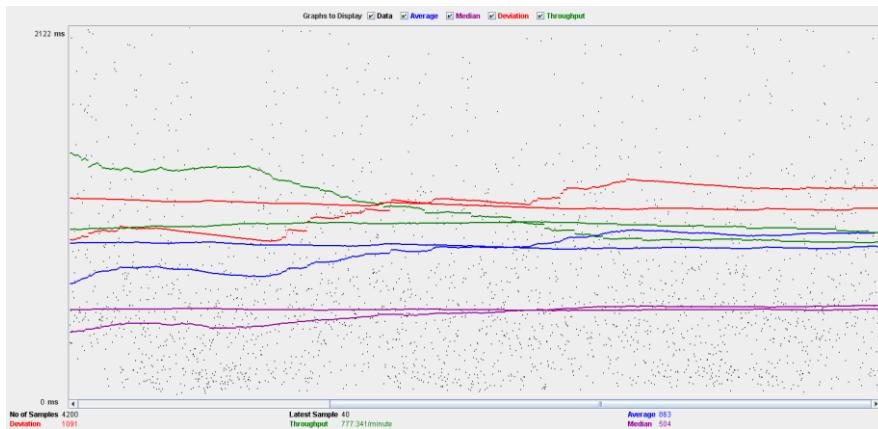
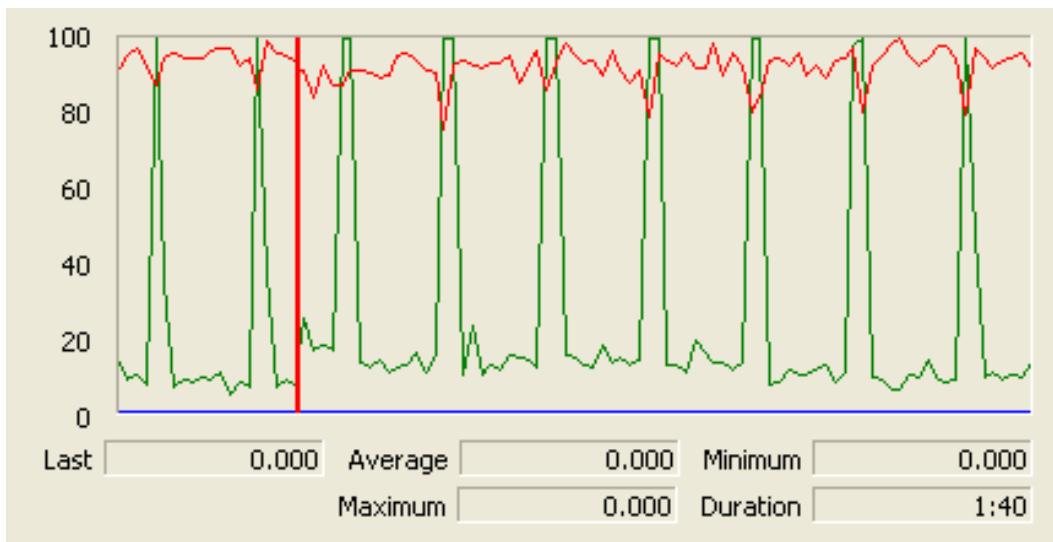
Number of Threads (users):

Ramp-Up Period (in seconds):

Loop Count: Forever

Delay Thread creation until needed

Scheduler

Graph Results:**Performance Results:**

The CPU is always being used while the disk show some peaks.

Conclusion

The test was performed using:

CPU: i5 2500k (2 cores in the virtual machine)

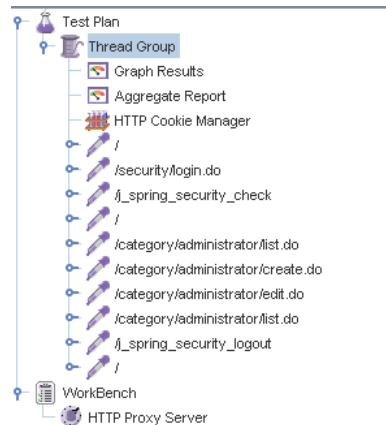
RAM: 2 GB (virtual machine)

For this use case we can say that the limitation around 30 users.

8. Category

Create

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/	1960	878	292	2072	28	25540	0.00%	7.7/sec	24.3
/security/login.do	650	667	343	1610	25	21079	0.00%	2.7/sec	8.5
/j_spring_security...	650	1656	842	3822	71	27361	0.00%	2.7/sec	10.4
/category/administr...	1300	814	342	2029	74	19123	0.00%	5.2/sec	32.9
/category/administr...	650	842	280	2229	32	11333	0.00%	2.7/sec	12.9
/category/administr...	650	1879	1022	2539	123	21873	0.00%	2.7/sec	19.2
/j_spring_security...	650	700	262	1654	29	12328	0.00%	2.7/sec	8.2
TOTAL	6500	1001	382	2424	25	27361	0.00%	25.5/sec	113.2

Label	90% Line	Error %
/	2072	0.00%
/security/login.do	1618	0.00%
/j_spring_security...	3822	0.00%
/category/administr...	2029	0.00%
/category/administr...	2229	0.00%
/category/administr...	2539	0.00%
/j_spring_security...	1654	0.00%
TOTAL	2424	0.00%

Thread properties:

Thread Properties

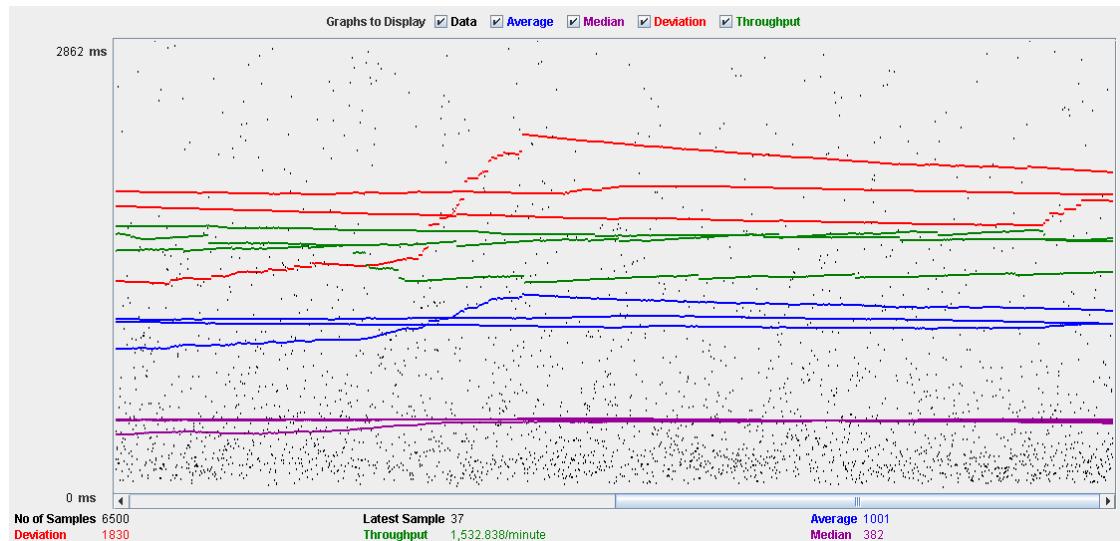
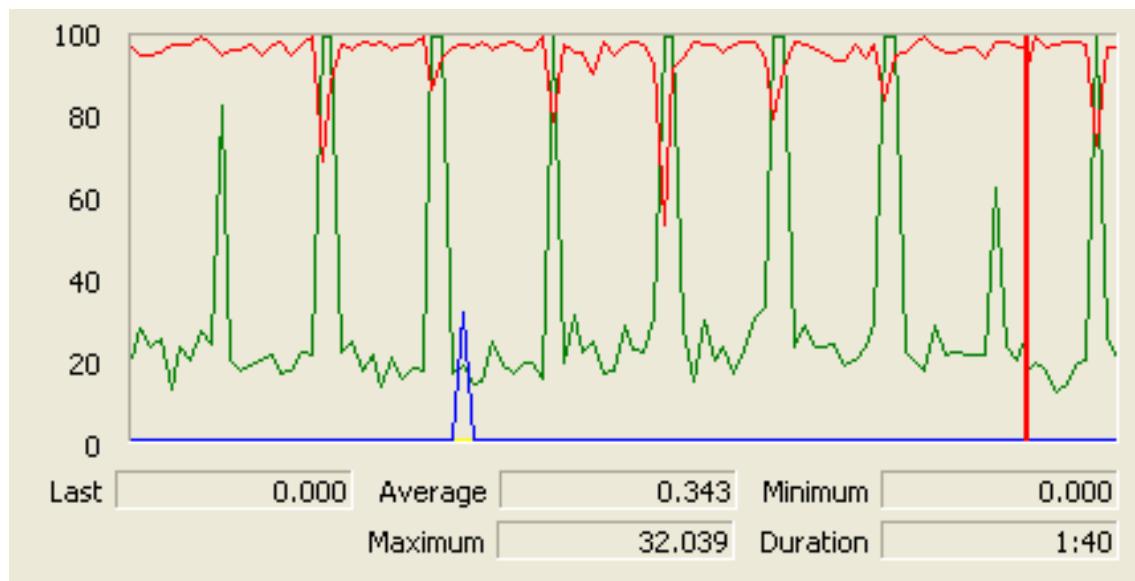
Number of Threads (users):

Ramp-Up Period (in seconds):

Loop Count: Forever

Delay Thread creation until needed

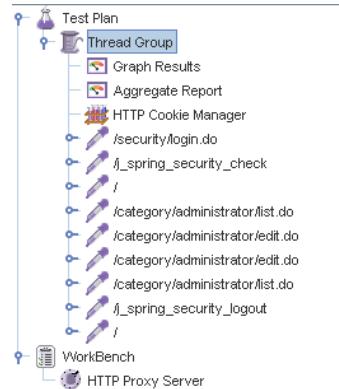
Scheduler

Graph Results:**Performance Results:**

The CPU is always being used and disk show some peaks.

Edit

Sequence:



Aggregate Report:

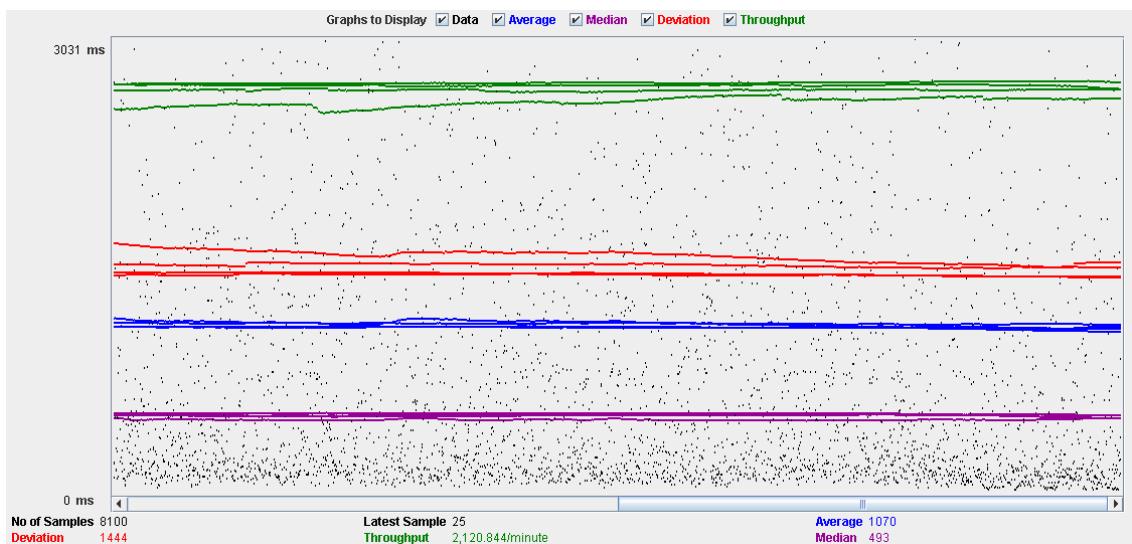
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	900	899	329	2444	28	12521	0.00%	4.1/sec	13.4
/j_spring_security...	900	1958	1367	2539	61	14785	0.00%	4.1/sec	16.0
/	1800	1059	519	2625	25	12346	0.00%	7.9/sec	26.0
/category/administr...	1800	940	436	2383	71	14641	0.00%	8.0/sec	50.5
/category/administr...	1800	984	424	2546	32	14704	0.00%	8.1/sec	37.8
/j_spring_security...	900	806	322	2239	32	9941	0.00%	4.1/sec	12.7
TOTAL	8100	1070	493	2747	25	14785	0.00%	35.3/sec	152.0

Label	90% Line	Error %
/security/login.do	2444	0.00%
/j_spring_security...	2539	0.00%
/	2625	0.00%
/category/administr...	2383	0.00%
/category/administr...	2546	0.00%
/j_spring_security...	2239	0.00%
TOTAL	2747	0.00%

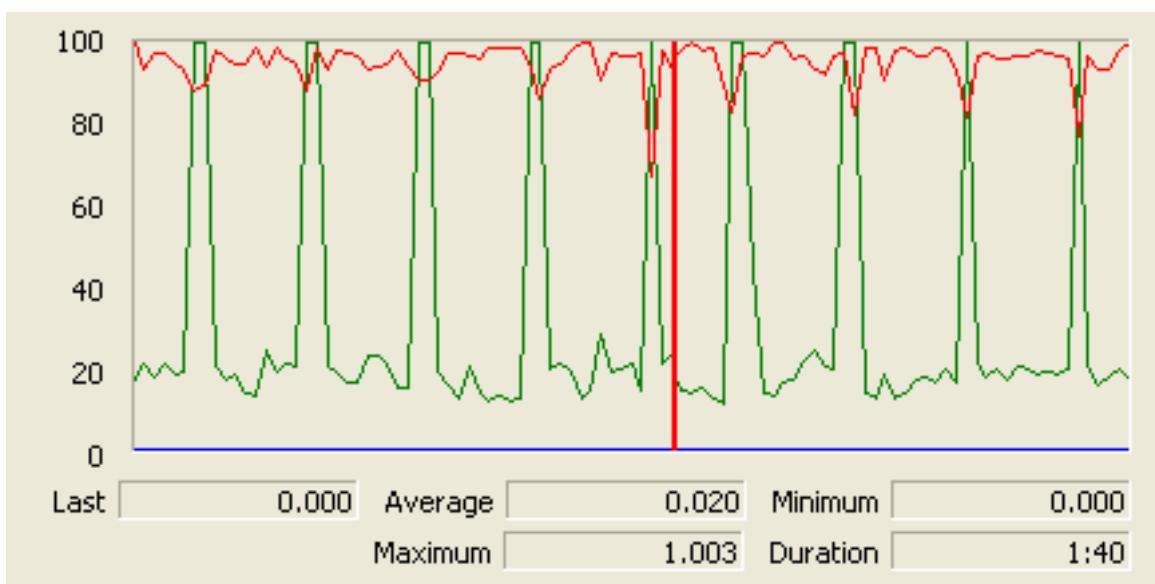
Thread properties:

Thread Properties	
Number of Threads (users):	90
Ramp-Up Period (in seconds):	1
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input type="checkbox"/> Delay Thread creation until needed	
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



The CPU is always being used and the disk show som peaks.

Delete

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	700	480	170	1252	34	7042	0.00%	4.0/sec	13.0
/j_spring_security...	700	1230	700	3086	20	8951	0.00%	4.0/sec	15.6
/	1400	579	291	1416	24	6302	0.00%	7.6/sec	25.1
/category/administr...	1400	600	296	1406	74	7504	0.00%	7.8/sec	48.8
/category/administr...	1400	506	233	1211	33	5232	0.00%	7.9/sec	37.0
/j_spring_security...	700	520	225	1351	33	8171	0.00%	4.0/sec	12.3
TOTAL	6300	622	287	1552	20	8951	0.00%	34.0/sec	146.4

Label	90% Line	Error %
/security/login.do	1252	0.00%
/j_spring_security...	3086	0.00%
/	1416	0.00%
/category/administr...	1406	0.00%
/category/administr...	1211	0.00%
/j_spring_security...	1351	0.00%
TOTAL	1552	0.00%

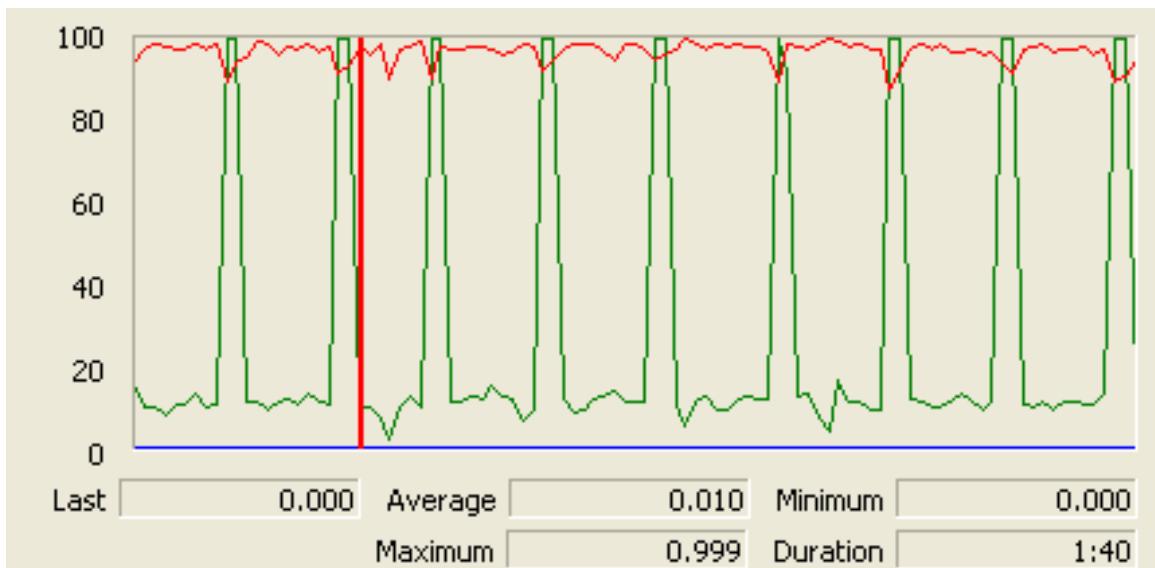
Thread properties:

Thread Properties	
Number of Threads (users):	70
Ramp-Up Period (in seconds):	1
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input type="checkbox"/> Delay Thread creation until needed	
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



The CPU is always being used and disk show some peaks.

Conclusion

The test was performed using:

CPU: i5 2500k (2 cores in the virtual machine)

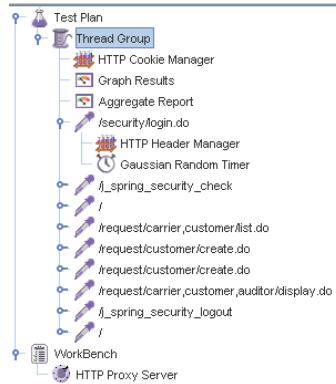
RAM: 2 GB (virtual machine)

For this use case we can say that the limitation occurs during the create process, being the maximum of concurrent users 65.

9. Request

Create

Sequence:



Aggregate Report:

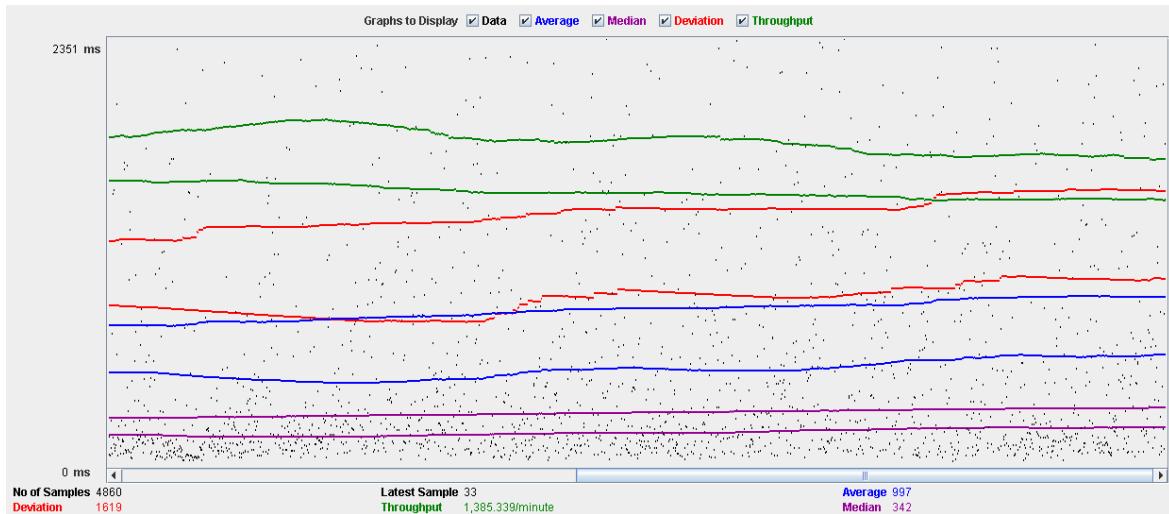
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	540	699	185	1851	28	12669	0.00%	2.7/sec	8.7
/j_spring_security_check	540	1542	648	2539	44	12314	0.00%	2.7/sec	10.0
/	1080	816	214	2260	27	15495	0.00%	5.2/sec	16.4
/request/carrier,customer/list.do	540	876	354	2351	46	11302	0.00%	2.7/sec	17.1
/request/customer/create.do	1080	1345	744	3453	39	14363	0.00%	5.3/sec	36.6
/request/carrier,customer,audit...	540	818	257	2299	47	8833	0.00%	2.7/sec	30.4
/j_spring_security_logout	540	716	182	1853	30	10758	0.00%	2.7/sec	8.3
TOTAL	4860	997	342	2720	27	15495	0.00%	23.1/sec	122.4

Label	90% Line	Error %
/security/login.do	1851	0.00%
/j_spring_security_check	2539	0.00%
/	2260	0.00%
/request/carrier,customer/list.do	2351	0.00%
/request/customer/create.do	3453	0.00%
/request/carrier,customer,audit...	2299	0.00%
/j_spring_security_logout	1953	0.00%
TOTAL	2720	0.00%

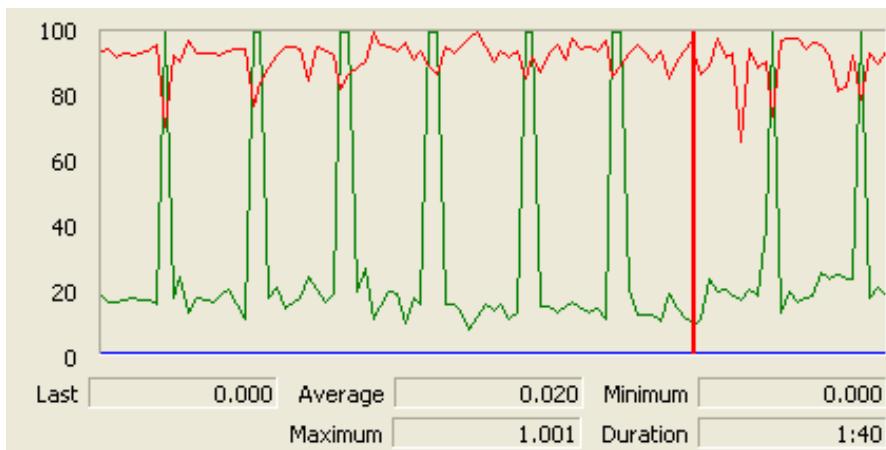
Thread properties:

Thread Properties	
Number of Threads (users):	54
Ramp-Up Period (in seconds):	1
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input type="checkbox"/> Delay Thread creation until needed	
<input type="checkbox"/> Scheduler	

Graph Results:



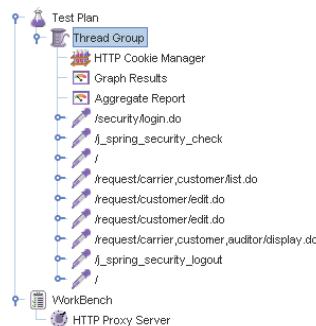
Performance Results:



The CPU is always being used and physical disk show some peaks.

Edit

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	700	400	133	1000	28	12194	0.00%	3.7/sec	12.1
/j_spring_security_check	700	1016	526	2490	63	10163	0.00%	3.7/sec	13.8
/	1400	581	204	1530	28	111352	0.00%	7.2/sec	22.8
/request/carrier, customer/list.do	700	633	196	1678	47	10053	0.00%	3.7/sec	17.7
/request/customer/edit.do	1400	1121	614	2846	88	8682	0.00%	7.4/sec	27.9
/request/carrier, customer, audi...	700	477	192	1195	40	7446	0.00%	3.7/sec	42.2
/j_spring_security_logout	700	435	151	1016	31	6727	0.00%	3.8/sec	11.5
TOTAL	6300	707	285	1814	28	12194	0.00%	32.0/sec	142.2

Label	90% Line	Error %
		0.00%
/security/login.do	1000	0.00%
/j_spring_security_check	2480	0.00%
/	1530	0.00%
/request/carrier, customer/list.do	1678	0.00%
/request/customer/edit.do	2846	0.00%
/request/carrier, customer, audi...	1195	0.00%
/j_spring_security_logout	1016	0.00%
TOTAL	1814	0.00%

Thread properties:

Thread Properties

Number of Threads (users):

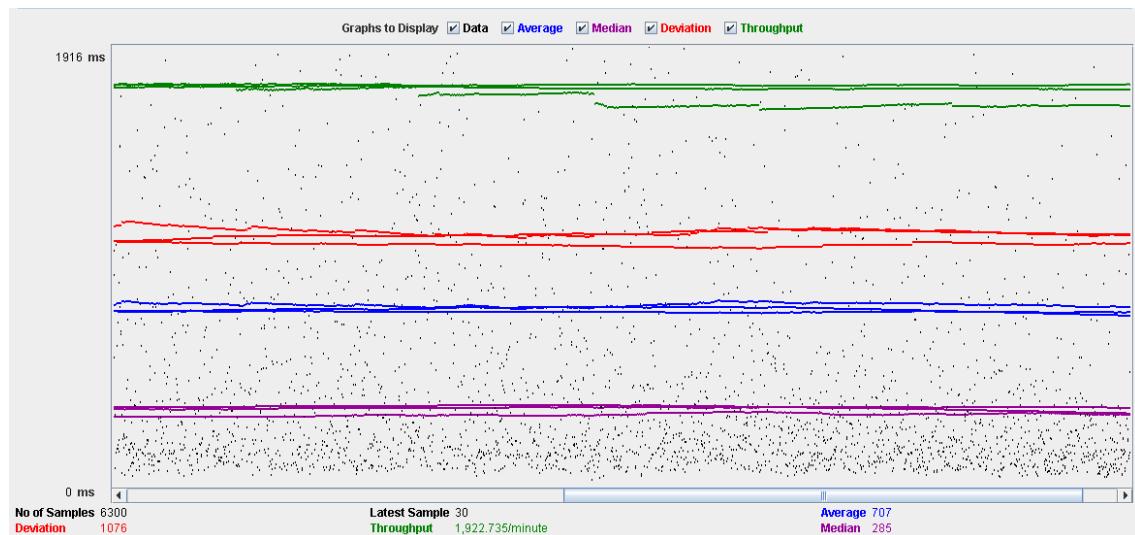
Ramp-Up Period (in seconds):

Loop Count: Forever

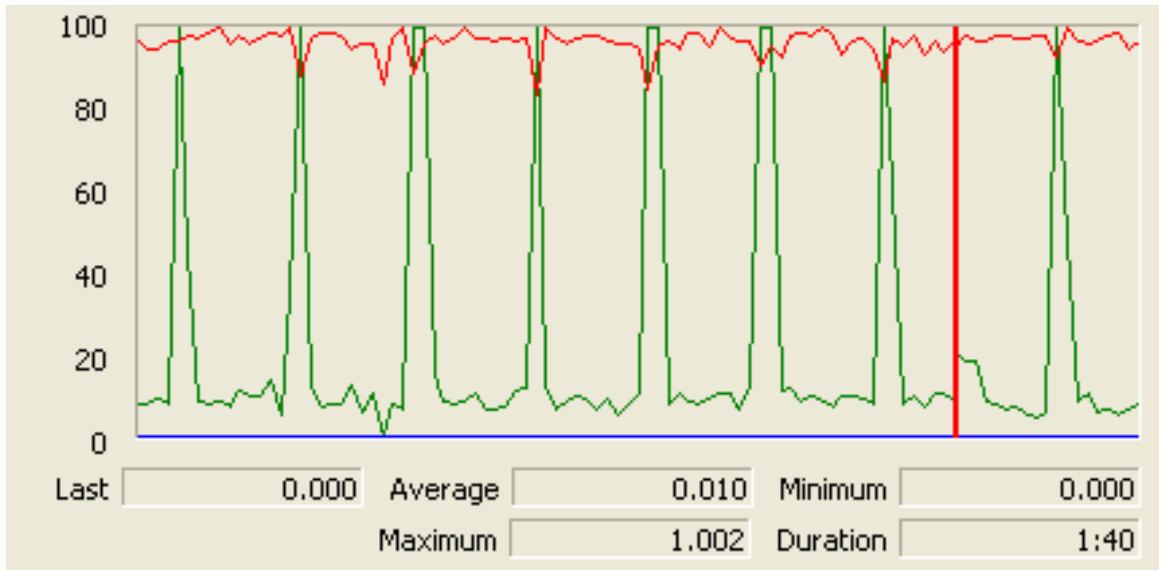
Delay Thread creation until needed

Scheduler

Graph Results:



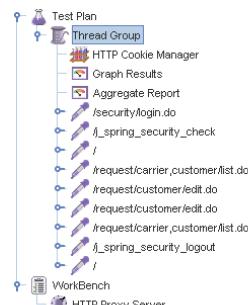
Performance Results:



The CPU is always being used and disk show some peaks.

Delete

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	750	428	130	1118	29	5399	0.00%	3.8/sec	12.5
/j_spring_security_check	750	1203	648	2914	56	13818	0.00%	3.8/sec	14.2
/	1500	622	205	1565	25	10185	0.00%	7.4/sec	23.4
/request/carrier/customer/list.do	1500	518	177	1317	42	9943	0.00%	7.5/sec	35.5
/request/customer/edit.do	1500	1143	627	2800	85	14632	0.00%	7.6/sec	28.7
/j_spring_security_logout	750	496	143	1231	5	7859	0.00%	3.9/sec	11.9
TOTAL	6750	744	302	1900	5	14632	0.00%	32.9/sec	122.0

Label	90% Line	Error %
/security/login.do	1118	0.00%
/j_spring_security_check	2914	0.00%
/	1565	0.00%
/request/carrier/customer/list.do	1317	0.00%
/request/customer/edit.do	2800	0.00%
/j_spring_security_logout	1231	0.00%
TOTAL	1900	0.00%

Thread properties:

Thread Properties

Number of Threads (users): 75

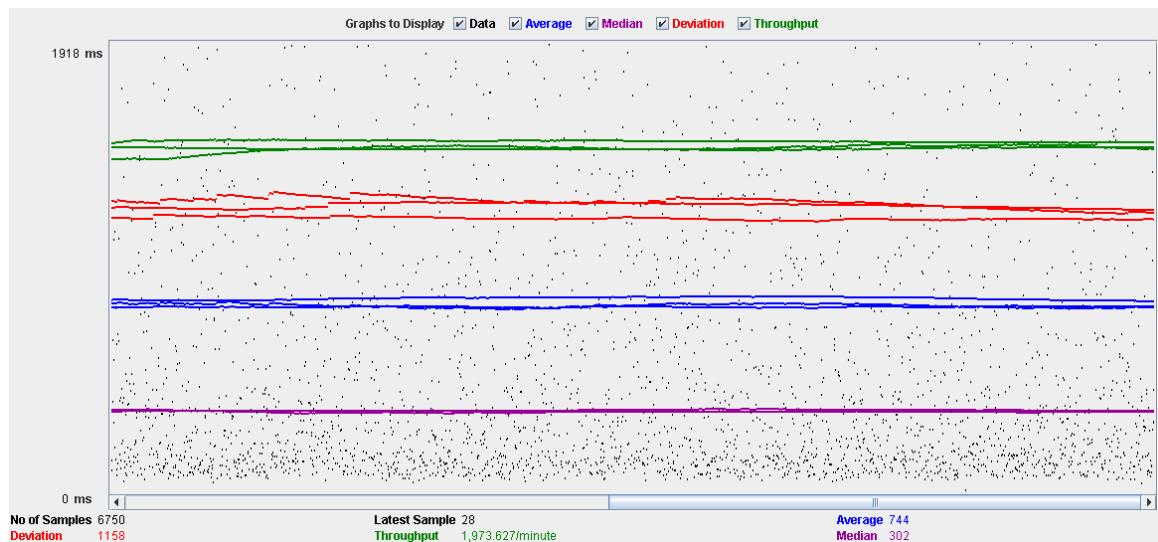
Ramp-Up Period (in seconds): 1

Loop Count: Forever 10

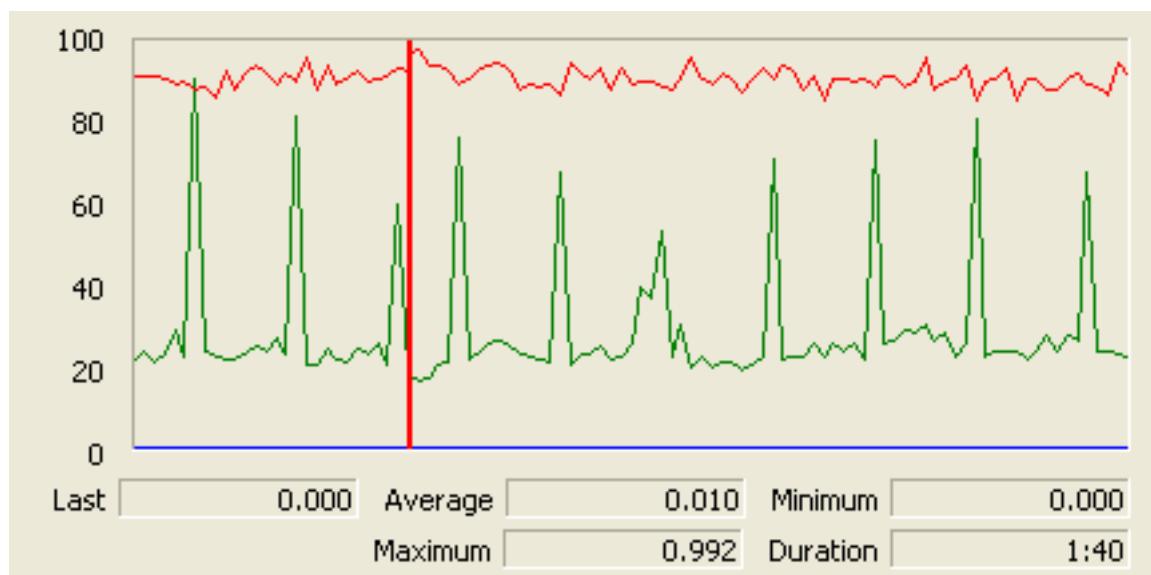
Delay Thread creation until needed

Scheduler

Graph Results:



Performance Results:



The CPU is always being used while the memory has some peaks.

Conclusion

The test was performed using:

CPU: i5 2500kk (2 cores in the virtual machine)

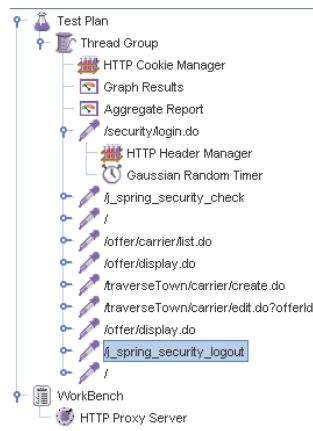
RAM: 2 GB (virtual machine)

For this use case we can say that the limitation occurs during the creation process, being the maximum of concurrent users 54.

10. TraverseTown

Create

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	600	966	283	2686	33	15258	0.00%	2.4/sec	7.9
/_spring_security_c...	600	1840	1171	2539	39	11700	0.00%	2.4/sec	9.4
/	1200	938	317	2500	32	12493	0.00%	4.7/sec	15.3
/offer/carrier/list.do	600	913	246	2264	48	11976	0.00%	2.5/sec	14.0
/offer/display.do	1200	1023	332	2876	60	13894	0.00%	4.8/sec	33.4
/traverseTown/carrie...	600	957	277	2519	55	13634	0.00%	2.4/sec	12.1
/traverseTown/carrie...	600	1874	1205	3987	218	13742	0.00%	2.4/sec	15.4
/_spring_security_l...	600	873	223	2445	36	10858	0.00%	2.5/sec	7.5
TOTAL	6000	1135	426	3149	32	15258	0.00%	23.4/sec	111.1

Label	90% Line	Error %
/security/login.do	2686	0.00%
/_spring_security_c...	2539	0.00%
/	2500	0.00%
/offer/carrier/list.do	2264	0.00%
/offer/display.do	2876	0.00%
/traverseTown/carrie...	2519	0.00%
/traverseTown/carrie...	3987	0.00%
/_spring_security_l...	2445	0.00%
TOTAL	3149	0.00%

Thread properties:

Thread Properties

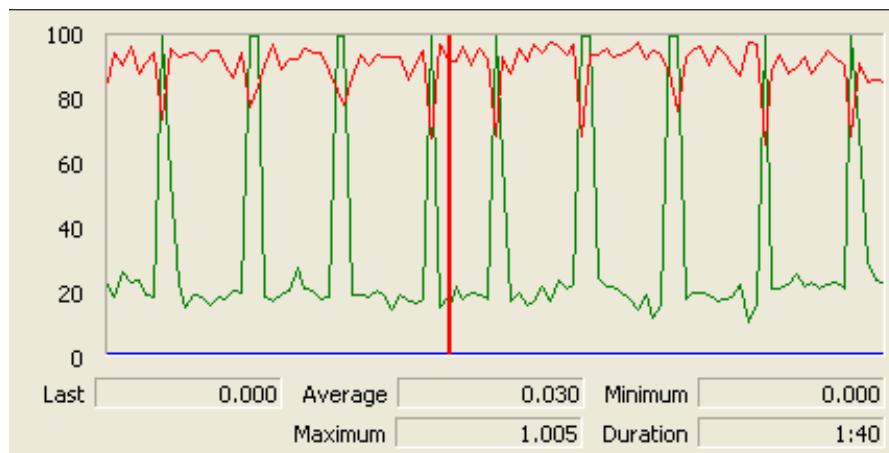
Number of Threads (users): 60

Ramp-Up Period (in seconds): 1

Loop Count: Forever 10

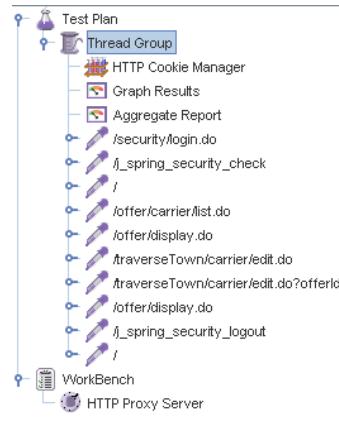
Delay Thread creation until needed

Scheduler

Graph Results:**Performance Results:**

The CPU is always being used and physical disk show some peaks.

Edit**Sequence:**



Aggregate Report:

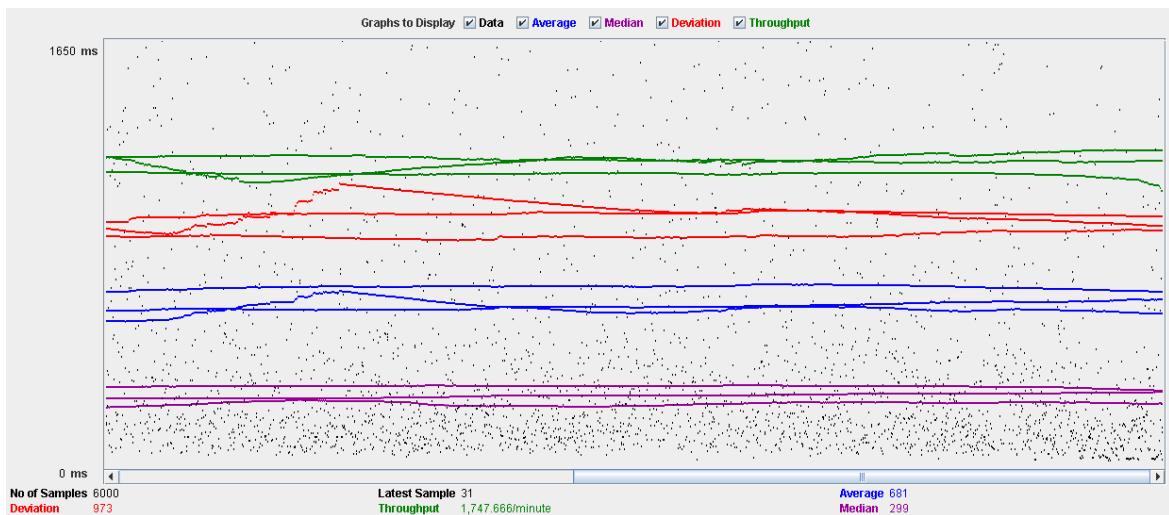
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	600	414	127	1093	31	7087	0.00%	3.1/sec	10.0
/j_spring_security_c...	600	1042	588	2557	82	8274	0.00%	3.1/sec	11.9
/	1200	570	229	1364	28	8361	0.00%	5.9/sec	19.1
/offer/carrier/list.do	600	527	183	1295	51	6988	0.00%	3.1/sec	17.6
/offer/display.do	1200	570	228	1372	64	8450	0.00%	6.0/sec	43.3
/traverseTown/carrie...	600	823	428	1786	123	6912	0.00%	3.1/sec	15.9
/traverseTown/carrie...	600	1287	831	3054	97	8393	0.00%	3.1/sec	25.6
/j_spring_security_l...	600	436	140	1261	32	3785	0.00%	3.1/sec	9.5
TOTAL	6000	681	299	1777	28	8450	0.00%	29.1/sec	146.4

Label	90% Line	Error %
/security/login.do	1093	0.00%
/j_spring_security_c...	2557	0.00%
/	1364	0.00%
/offer/carrier/list.do	1295	0.00%
/offer/display.do	1372	0.00%
/traverseTown/carrie...	1786	0.00%
/traverseTown/carrie...	3054	0.00%
/j_spring_security_l...	1261	0.00%
TOTAL	1777	0.00%

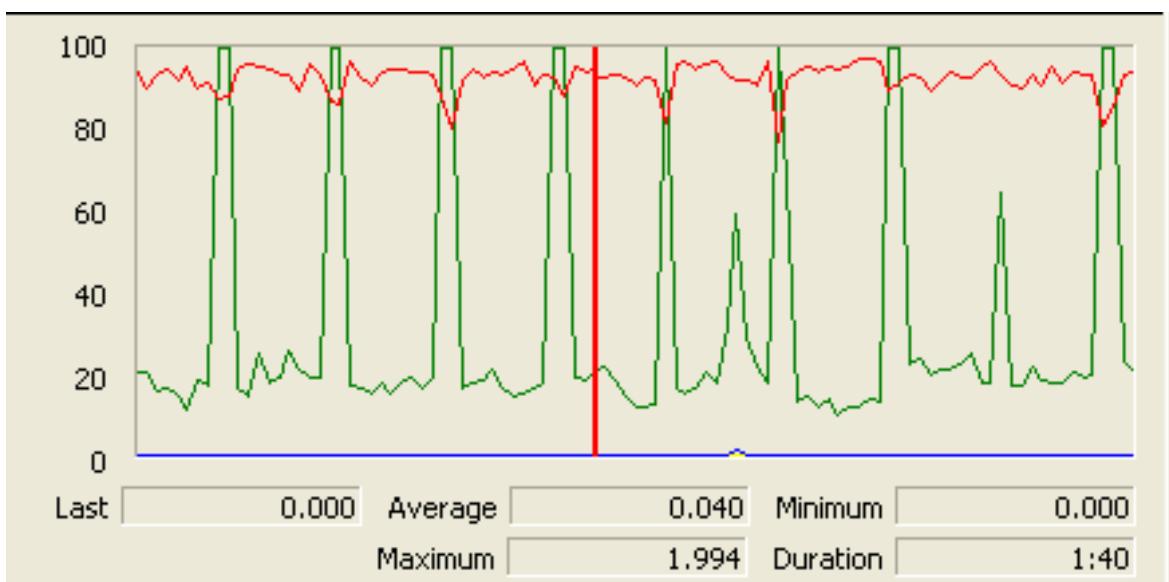
Thread properties:

Thread Properties	
Number of Threads (users):	60
Ramp-Up Period (in seconds):	1
Loop Count:	<input type="checkbox"/> Forever 10
<input type="checkbox"/> Delay Thread creation until needed	
<input type="checkbox"/> Scheduler	

Graph Results:



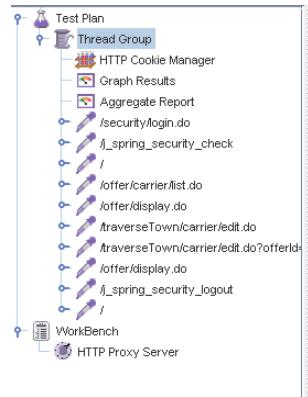
Performance Results:



The CPU is always being used and disk show some peaks

Delete

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	700	428	126	1144	34	6859	0.00%	3.7/sec	11.9
/j_spring_security_c...	700	965	557	2208	45	8427	0.00%	3.7/sec	14.1
/	1400	525	195	1532	28	5457	0.00%	6.9/sec	22.6
/offer/carrier/list.do	700	496	191	1311	61	6846	0.00%	3.6/sec	20.8
/offer/display.do	1400	530	217	1351	59	7393	0.00%	7.1/sec	51.3
/traverseTown/carrie...	700	1096	699	2612	79	8723	0.00%	3.7/sec	14.4
/traverseTown/carrie...	700	1156	740	2617	69	8929	0.00%	3.7/sec	14.4
/j_spring_security_l...	700	430	132	1116	33	7134	0.00%	3.7/sec	11.2
TOTAL	7000	668	279	1789	28	8929	0.00%	34.4/sec	153.8

Label	90% Line	Error %
/security/login.do	1144	0.00%
/j_spring_security_c...	2208	0.00%
/	1532	0.00%
/offer/carrier/list.do	1311	0.00%
/offer/display.do	1351	0.00%
/traverseTown/carrie...	2612	0.00%
/traverseTown/carrie...	2617	0.00%
/j_spring_security_l...	1116	0.00%
TOTAL	1789	0.00%

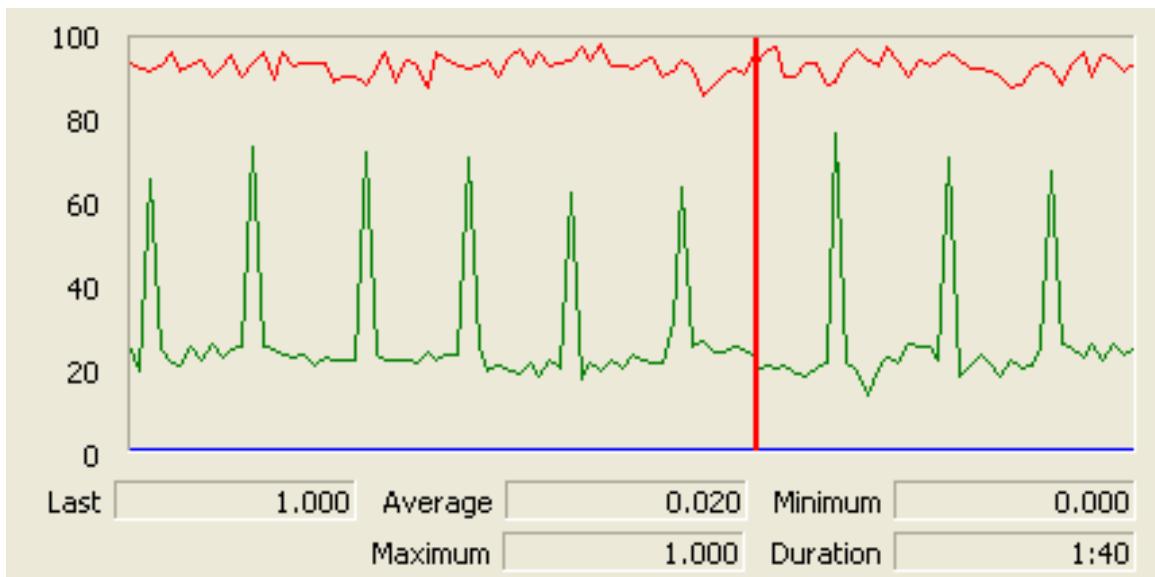
Thread properties:

Thread Properties	
Number of Threads (users):	70
Ramp-Up Period (in seconds):	1
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input type="checkbox"/> Delay Thread creation until needed	
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



The CPU is always being used while the memory has some peaks.

Conclusion

The test was performed using:

CPU: i5 2500k (2 cores in the virtual machine)

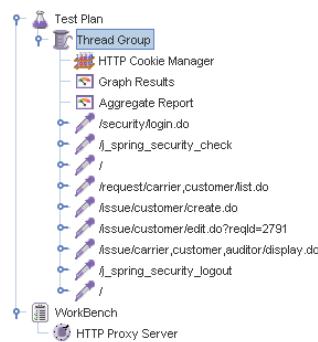
RAM: 2 GB (virtual machine)

For this use case we can say that the limitation occurs during the creation and edition process, being the maximum of concurrent users 60.

11. Issue

Create

Sequence:



Aggregate Report:

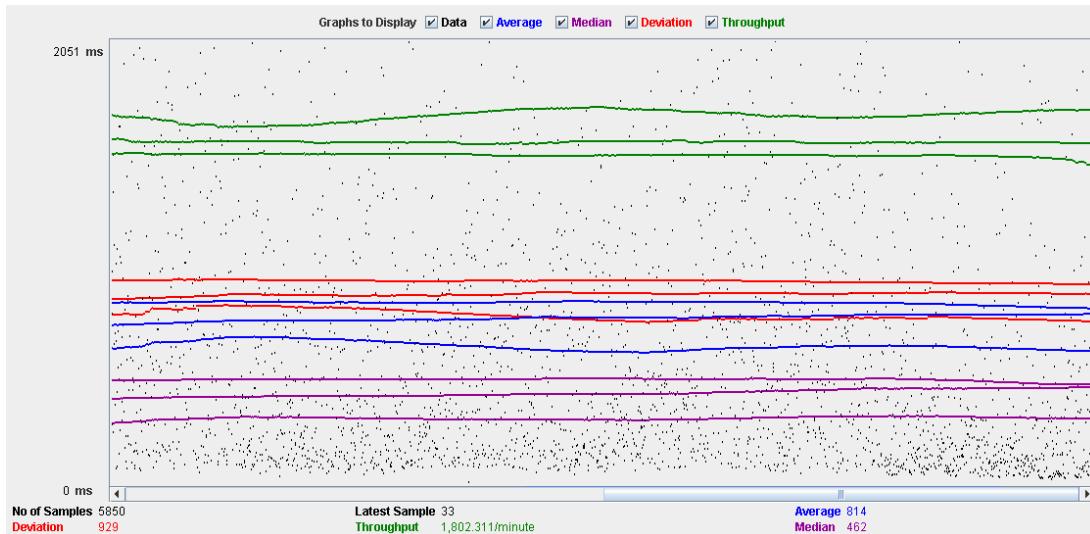
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	650	468	166	1303	40	5352	0.00%	3.5/sec	11.4
/j_spring_security...	650	1154	818	2618	62	6376	0.00%	3.5/sec	13.0
/	1300	639	332	1583	27	6369	0.00%	6.7/sec	21.4
/request/carrier,cu...	650	599	295	1562	54	7714	0.00%	3.5/sec	16.7
/issue/customer/cu...	650	1367	1002	2808	101	7259	0.00%	3.5/sec	13.2
/issue/customer/e...	650	1294	1024	2705	100	6968	0.00%	3.5/sec	13.2
/issue/carrier,cust...	650	662	352	1474	58	5664	0.00%	3.5/sec	14.0
/j_spring_security...	650	506	196	1254	12	8805	0.00%	3.5/sec	10.8
TOTAL	6850	814	462	2057	12	8805	0.00%	30.0/sec	108.8

Label	90% Line	Error %
/security/login.do	1303	0.00%
/j_spring_security...	2618	0.00%
/	1583	0.00%
/request/carrier,cu...	1562	0.00%
/issue/customer/cu...	2808	0.00%
/issue/customer/e...	2705	0.00%
/issue/carrier,cust...	1474	0.00%
/j_spring_security...	1254	0.00%
TOTAL	2057	0.00%

Thread properties:

Thread Properties	
Number of Threads (users):	65
Ramp-Up Period (in seconds):	1
Loop Count:	<input type="checkbox"/> Forever 10 <input type="checkbox"/> Delay Thread creation until needed <input type="checkbox"/> Scheduler

Graph Results:



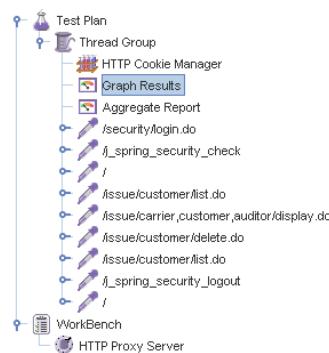
Performance Results:



The CPU is always being used and physical disk usage show some peaks.

Delete

Sequence:



Performance

Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	700	416	155	1047	32	5567	0.00%	3.9/sec	12.8
/j_spring_security...	700	1091	706	2444	60	8758	0.00%	3.9/sec	14.5
/	1400	563	241	1372	28	7795	0.00%	7.5/sec	23.9
/issue/customer/ii...	1400	544	208	1445	43	7082	0.00%	7.7/sec	31.8
/issue/carrier,cust...	700	1191	801	2623	90	8657	0.00%	3.9/sec	14.8
/issue/customer/d...	700	1038	690	2348	78	9530	0.00%	4.0/sec	14.9
/j_spring_security...	700	434	162	1100	31	6429	0.00%	4.0/sec	12.2
TOTAL	6300	709	337	1863	28	9530	0.00%	33.5/sec	119.9

Label	90% Line	Error %
/security/login.do	1047	0.00%
/j_spring_security...	2444	0.00%
/	1372	0.00%
/issue/customer/ii...	1445	0.00%
/issue/carrier,cust...	2623	0.00%
/issue/customer/d...	2348	0.00%
/j_spring_security...	1100	0.00%
TOTAL	1863	0.00%

Thread properties:

Thread Properties

Number of Threads (users):

Ramp-Up Period (in seconds):

Loop Count: Forever

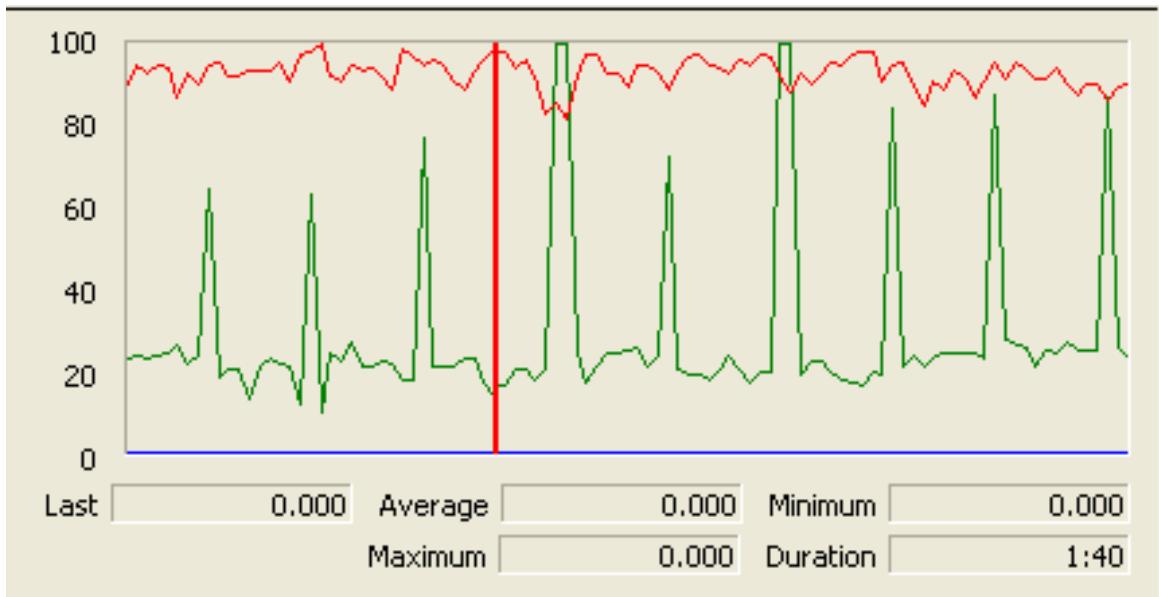
Delay Thread creation until needed

Scheduler

Graph Results:



Performance Results:



The CPU is always being used and disk show some peaks-

Conclusion

The test was performed using:

CPU: i5 2500k (2 cores in the virtual machine)

RAM: 2 GB (virtual machine)

For this use case we can say that the limitation occurs during the create process, being the maximum of concurrent users 65.

12. Town

Create



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1200	637	161	1720	28	21382	0.00%	1.6/sec	5.4
/j_spring_security_check	1200	1629	829	3950	35	17147	0.00%	1.7/sec	6.4
/	2400	847	287	2142	26	15811	0.00%	3.3/sec	10.8
/issue/auditor/list/assigned...	600	627	181	1567	47	8380	0.00%	3.0/sec	12.8
/issue/carrier/customer/audi...	1200	789	274	2019	64	10870	0.00%	5.9/sec	109.1
/issue/carrier/customer/audi...	600	1965	1325	3950	255	13950	0.00%	3.0/sec	56.5
/j_spring_security_logout	1200	639	152	2539	33	11000	0.00%	1.7/sec	5.2
/town/administrator/list.do	1200	894	250	2603	31	15543	0.00%	9.5/sec	48.4
/town/administrator/create.do	600	908	264	2461	32	15668	0.00%	4.8/sec	22.1
/town/administrator/edit.do	600	969	325	2539	34	16757	0.00%	4.8/sec	22.7
TOTAL	10800	946	316	2539	26	21382	0.00%	14.8/sec	93.4

Label	90% Line	Error %
/security/login.do	1720	0.00%
/j_spring_security_check	3950	0.00%
/	2142	0.00%
/issue/auditor/list/assigned...	1557	0.00%
/issue/carrier/customer/audi...	2019	0.00%
/issue/carrier/customer/audi...	3950	0.00%
/j_spring_security_logout	2539	0.00%
/town/administrator/list.do	2603	0.00%
/town/administrator/create.do	2461	0.00%
/town/administrator/edit.do	2539	0.00%
TOTAL	2539	0.00%

Thread properties:

Thread Properties

Number of Threads (users):

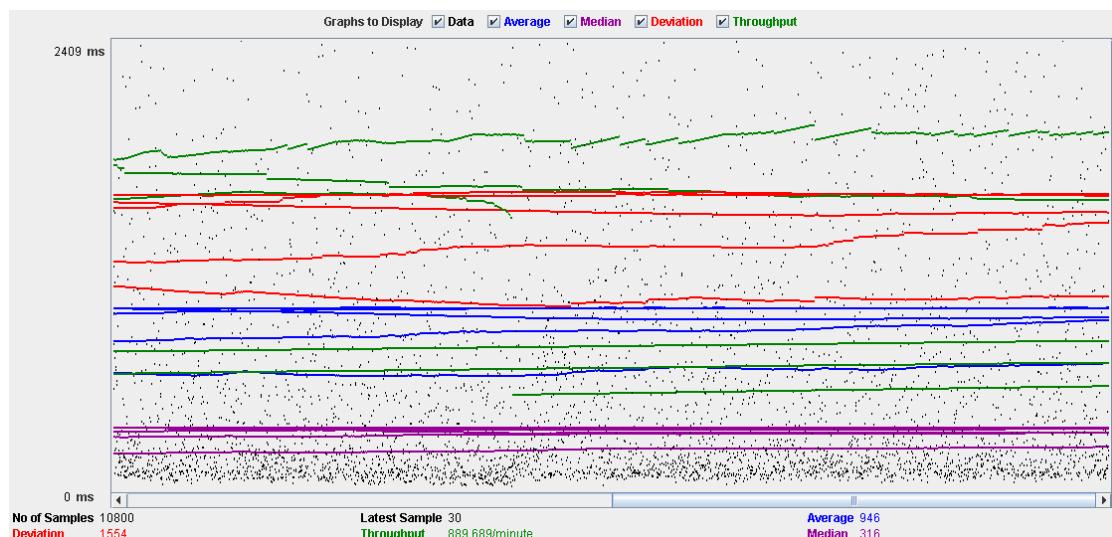
Ramp-Up Period (in seconds):

Loop Count: Forever

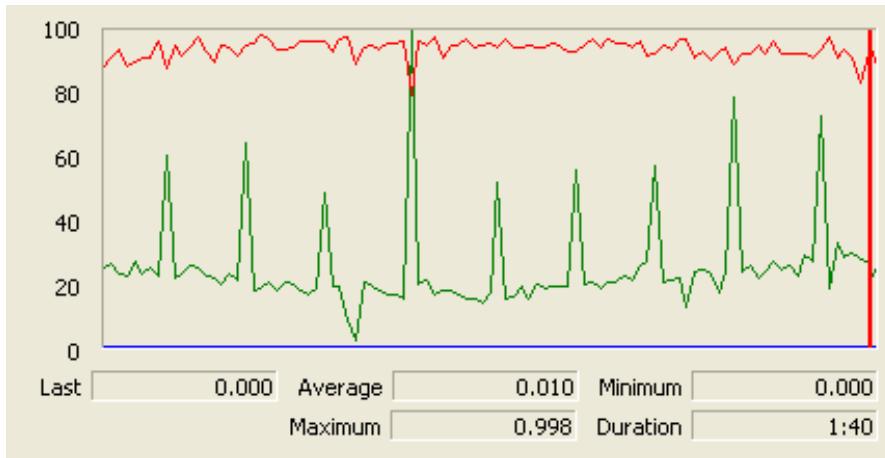
Delay Thread creation until needed

Scheduler

Graph Results:



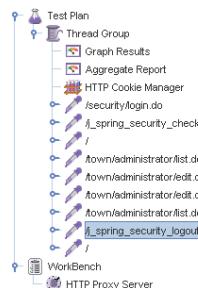
Performance Results:



The CPU is always being used and physical disk usage show some peaks.

Edit

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	850	598	171	1565	37	7858	0.00%	4.6/sec	15.0
/j_spring_security_check	850	1332	826	3176	22	9509	0.00%	4.6/sec	18.0
/	1700	746	317	1879	27	8246	0.00%	8.9/sec	29.2
/town/administrator/list.do	1700	603	201	1550	33	9809	0.00%	8.0/sec	46.2
/town/administrator/edit.do	1700	615	222	1619	39	10271	0.00%	9.2/sec	43.0
/j_spring_security_logout	850	649	196	1808	33	10416	0.00%	4.7/sec	14.3
TOTAL	7650	723	269	1897	22	10416	0.00%	39.6/sec	160.4

Label	90% Line	Error %
/security/login.do	1565	0.00%
/j_spring_security_check	3176	0.00%
/	1879	0.00%
/town/administrator/list.do	1550	0.00%
/town/administrator/edit.do	1619	0.00%
/j_spring_security_logout	1808	0.00%
TOTAL	1897	0.00%

Thread properties:

Thread Properties

Number of Threads (users): 85

Ramp-Up Period (in seconds): 1

Loop Count: Forever 10

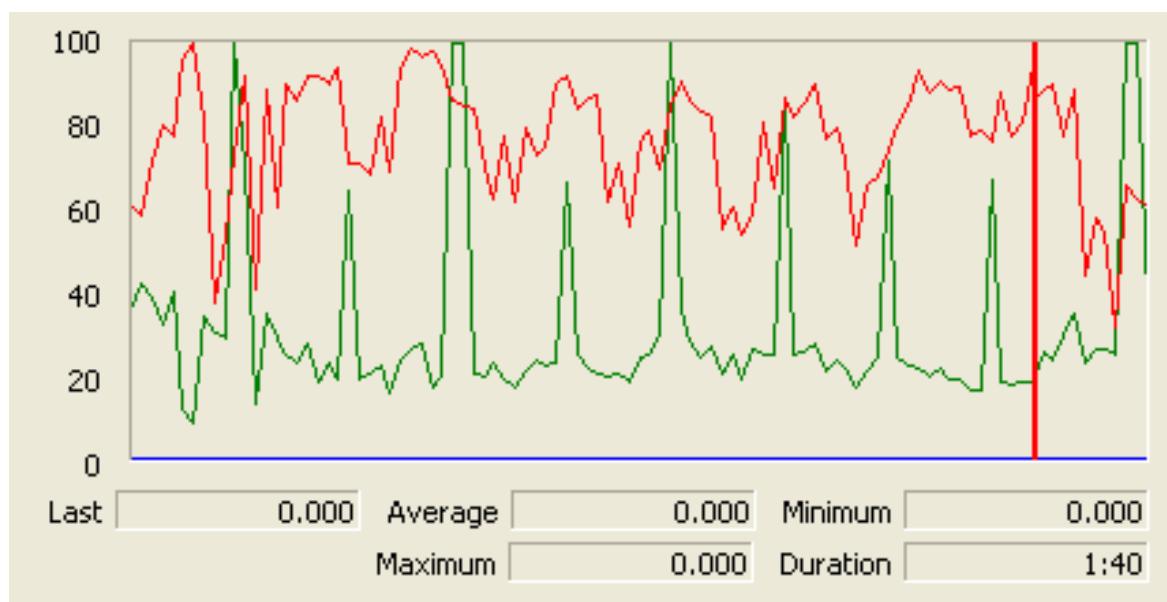
Delay Thread creation until needed

Scheduler

Graph Results:



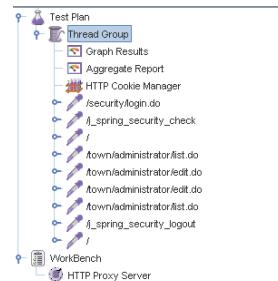
Performance Results:



The CPU is always being used and small picks of physical disk

Delete

Sequence:



Aggregate Report:

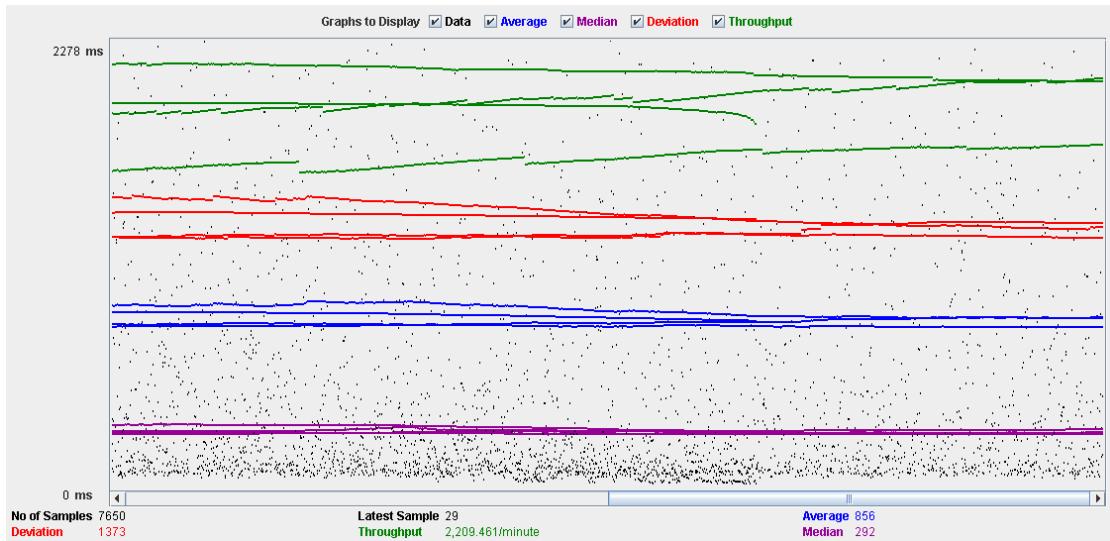
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	850	618	138	1650	34	16835	0.00%	4.3/sec	13.9
/j_spring_security_check	850	1268	635	3190	70	20540	0.00%	4.3/sec	16.8
/	1700	692	212	1871	27	10988	0.00%	8.3/sec	27.2
/town/administrator/list.do	1700	556	147	1488	33	11686	0.00%	8.4/sec	43.0
/town/administrator/edit.do	1700	1383	693	3526	62	17934	0.00%	8.5/sec	33.9
/j_spring_security_logout	850	554	136	1461	31	10491	0.00%	4.4/sec	13.4
TOTAL	7650	856	292	2315	27	20540	0.00%	36.8/sec	143.4

Label	90% Line	Error %
/security/login.do	1650	0.00%
/j_spring_security_check	3190	0.00%
/	1871	0.00%
/town/administrator/list.do	1488	0.00%
/town/administrator/edit.do	3526	0.00%
/j_spring_security_logout	1461	0.00%
TOTAL	2315	0.00%

Thread properties:

Thread Properties	
Number of Threads (users):	85
Ramp-Up Period (in seconds):	1
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input type="checkbox"/> Delay Thread creation until needed	
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



The CPU is always being used while the memory has some peaks.

Conclusion

The test was performed using:

CPU: i5 2500k (2 cores in the virtual machine)

RAM: 2 GB (virtual machine)

For this use case we can say that the limitation occurs during the create process, being the maximum of concurrent users 60.

13. Comment

Create

Sequence:



Aggregate Report:

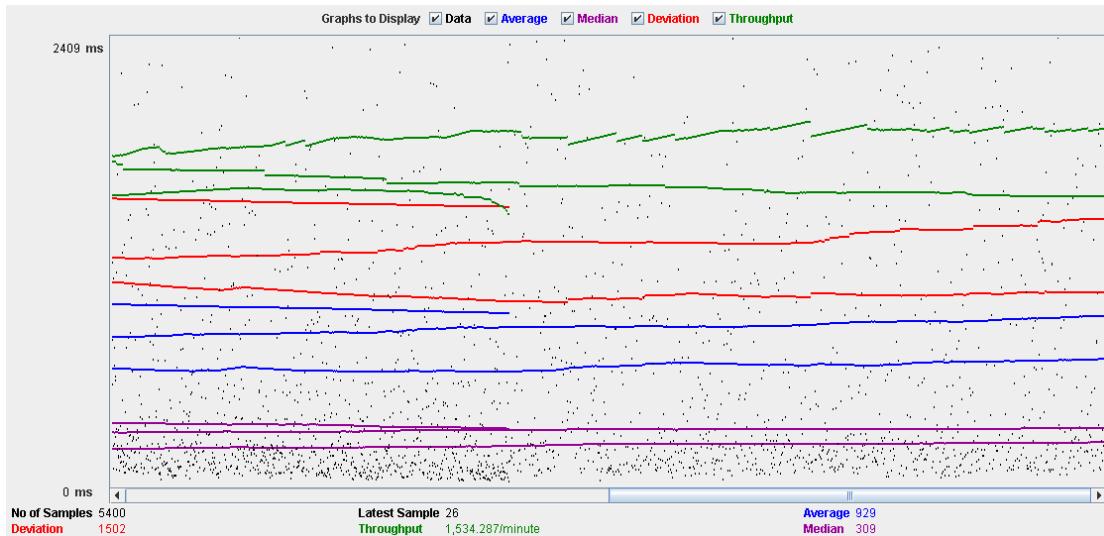
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	600	611	125	1636	28	21382	0.00%	3.0/sec	9.7
/j_spring_security_check	600	1353	702	3597	35	16524	0.00%	3.0/sec	11.5
/	1200	831	258	2134	26	15811	0.00%	5.7/sec	18.7
/issue/auditor/list-assigned....	600	627	181	1557	47	8380	0.00%	3.0/sec	12.8
/issue/carrier/customer/audi...	1200	789	274	2019	64	10870	0.00%	5.9/sec	109.1
/issue/carrier/customer/audi...	600	1965	1325	3950	255	13950	0.00%	3.0/sec	56.5
/j_spring_security_logout	600	568	136	1478	34	11000	0.00%	3.0/sec	9.3
TOTAL	5400	929	309	2407	26	21382	0.00%	25.6/sec	218.4

Label	90% Line	Error %
/security/login.do	1636	0.00%
/j_spring_security_check	3597	0.00%
/	2134	0.00%
/issue/auditor/list-assigned....	1557	0.00%
/issue/carrier/customer/audi...	2019	0.00%
/issue/carrier/customer/audi...	3950	0.00%
/j_spring_security_logout	1478	0.00%
TOTAL	2407	0.00%

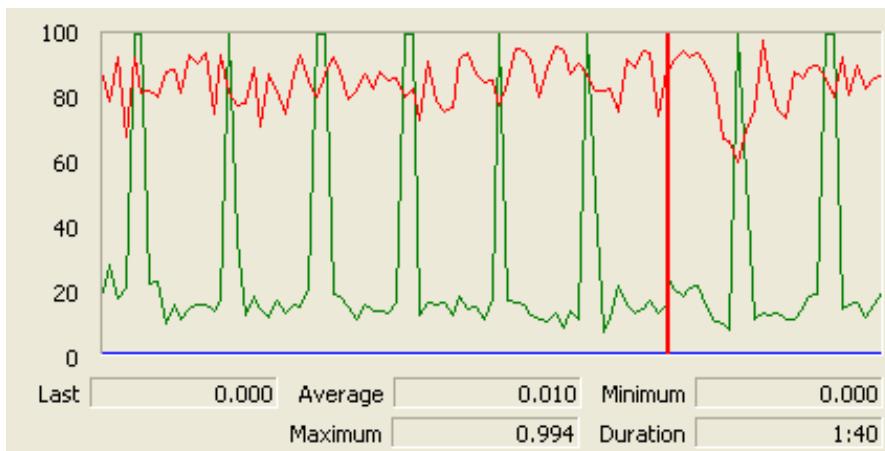
Thread properties:

Thread Properties	
Number of Threads (users):	60
Ramp-Up Period (in seconds):	1
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input type="checkbox"/> Delay Thread creation until needed	
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



The CPU is always being used and physical disk usage is barely noticeable.

Conclusion

The test was performed using:

CPU: i5 2500k (2 cores in the virtual machine)

RAM: 2 GB (virtual machine)

For this use case we can say that the limitation occurs with 60 users.

14. Configuration

Display and edit

Sequence:



Aggregate Report:

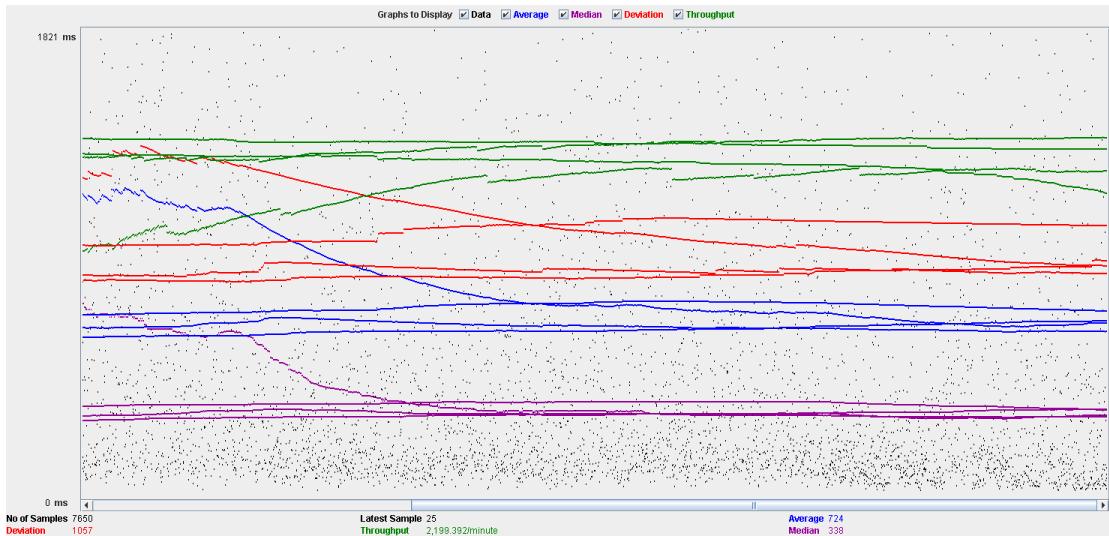
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	850	732	304	2010	33	8529	0.00%	4.2/sec	20.7
/_spring_security_check	850	1340	883	2849	70	17239	0.00%	4.2/sec	23.9
/	1700	676	395	1659	25	7609	0.00%	0.2/sec	41.4
/configuration/administra...	1700	632	291	1597	36	13844	0.00%	0.3/sec	52.1
/configuration/administra...	1700	621	276	1538	37	16909	0.00%	0.5/sec	69.4
/_spring_security_logout	850	584	277	1427	33	11897	0.00%	4.3/sec	20.2
TOTAL	7650	724	338	1805	25	17239	0.00%	36.7/sec	220.5

Label	90% Line		Error %
	2010	1805	
/security/login.do	2010	1805	0.00%
/_spring_security_check	2849	1805	0.00%
/	1659	1805	0.00%
/configuration/administra...	1597	1805	0.00%
/configuration/administra...	1538	1805	0.00%
/_spring_security_logout	1427	1805	0.00%
TOTAL	1805	1805	0.00%

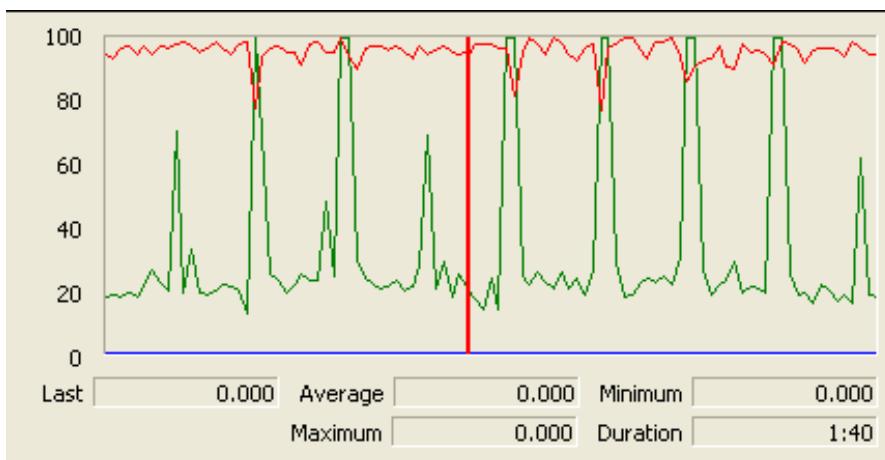
Thread properties:

Thread Properties	
Number of Threads (users):	85
Ramp-Up Period (in seconds):	1
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input type="checkbox"/> Delay Thread creation until needed	
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



The CPU is always being used and physical disk usage show some peaks.

Conclusion

The test was performed using:

CPU: i5 2500k (2 cores in the virtual machine)

RAM: 2 GB (virtual machine)

For this use case we can say that the limitation occurs during the edition process, being the maximum of concurrent users 85.

15. Finder

Search

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1750	632	189	1319	8	10865	0.00%	7.6/sec	24.3
j_spring_security_check	1750	1164	626	2607	10	17083	0.00%	7.6/sec	28.2
/	5250	555	208	1389	7	15741	0.00%	21.2/sec	69.6
/finder/customer/search....	8750	748	309	1835	20	18858	0.00%	36.3/sec	211.4
j_spring_security_logout	1750	562	183	1470	3	13008	0.00%	7.4/sec	22.7
TOTAL	19250	696	274	1758	3	18858	0.00%	77.4/sec	344.2

Label	90% Line	Error %
/security/login.do	1319	0.00%
j_spring_security_check	2607	0.00%
/	1389	0.00%
/finder/customer/search....	1835	0.00%
j_spring_security_logout	1470	0.00%
TOTAL	1758	0.00%

Thread properties:

Thread Properties

Number of Threads (users):

Ramp-Up Period (in seconds):

Loop Count: Forever

Delay Thread creation until needed

Scheduler

Graph Results:



Performance Results:



We can clearly see that the bottleneck is the CPU.

Conclusion

The test was performed using:

CPU: i5 7300HQ (2 cores in the virtual machine)

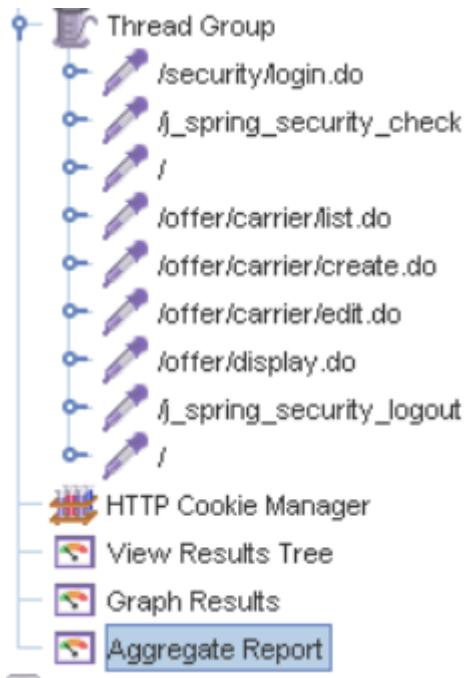
RAM: 2 GB (virtual machine)

For this use case we can say that the maximum of concurrent users is about 200.

16. Offer

Create/Edit

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %
/security/login.do	1450	394	78	1118	7	8888	0.00%
/j_spring_security_check	1450	969	451	2561	16	10495	0.00%
/	2900	555	190	1559	7	9207	0.00%
/offer/carrier/list.do	1450	474	126	1324	13	8214	0.00%
/offer/carrier/create.do	1450	566	126	1680	13	8708	0.00%
/offer/carrier/edit.do	1450	1043	564	2601	70	9018	0.00%
/offer/display.do	1450	1231	720	3141	20	10925	0.00%
/j_spring_security_logout	1450	612	224	1716	2	7149	0.00%
TOTAL	13050	711	266	1993	2	10925	0.00%

Label	90% Line	Error %
/security/login.do	1118	0.00%
/j_spring_security_check	2561	0.00%
/	1559	0.00%
/offer/carrier/list.do	1324	0.00%
/offer/carrier/create.do	1680	0.00%
/offer/carrier/edit.do	2601	0.00%
/offer/display.do	3141	0.00%
/j_spring_security_logout	1716	0.00%
TOTAL	1993	0.00%

Thread properties:

Thread Properties

Number of Threads (users):

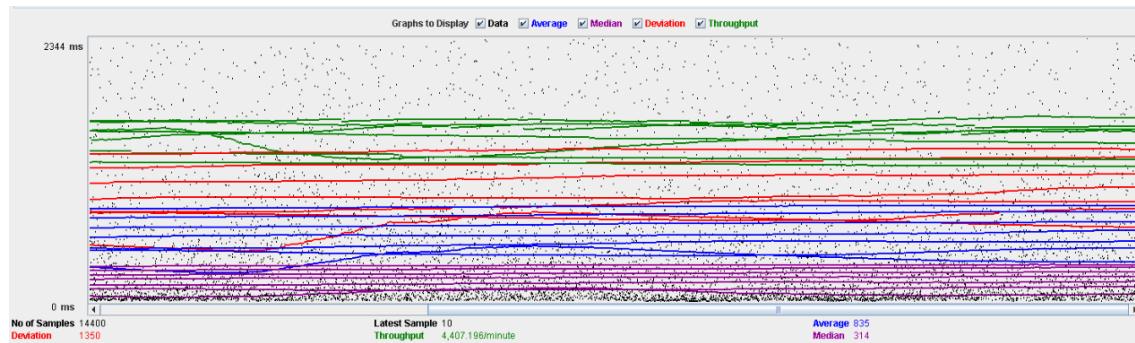
Ramp-Up Period (in seconds):

Loop Count: Forever

Delay Thread creation until needed

Scheduler

Graph Results:



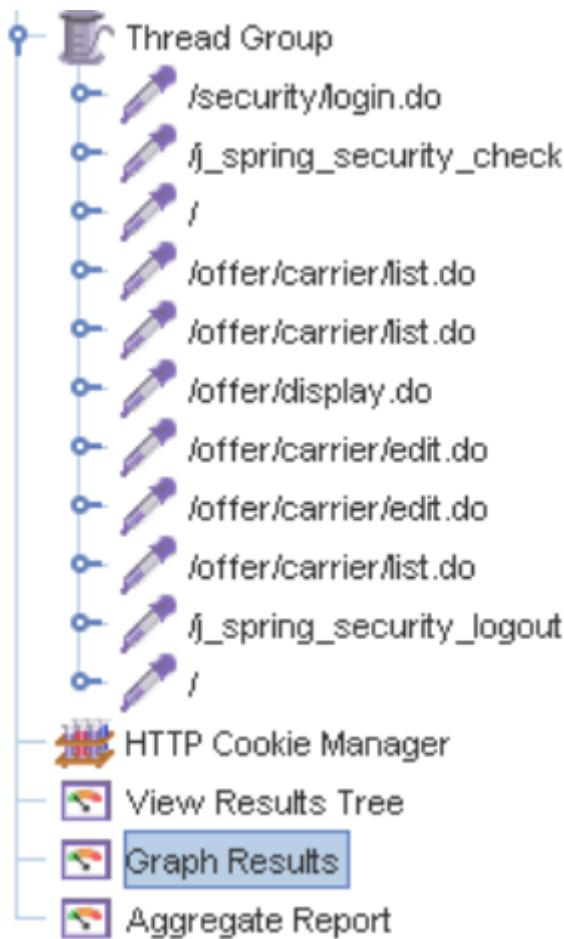
Performance Results:



We can clearly see that the bottleneck is the CPU.

Delete

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %
/security/login.do	1450	394	78	1118	7	8888	0.00%
j_spring_security_check	1450	969	451	2561	16	10495	0.00%
/	2900	555	190	1559	7	9207	0.00%
/offer/carrier/list.do	1450	474	126	1324	13	8214	0.00%
/offer/carrier/create.do	1450	566	126	1680	13	8708	0.00%
/offer/carrier/edit.do	1450	1043	564	2601	70	9018	0.00%
/offer/display.do	1450	1231	720	3141	20	10925	0.00%
j_spring_security_logout	1450	612	224	1716	2	7149	0.00%
TOTAL	13050	711	266	1993	2	10925	0.00%

Label	90% Line	Error %
/security/login.do	1475	0.00%
j_spring_security_check	2903	0.00%
/	1478	0.00%
/offer/carrier/list.do	1770	0.00%
/offer/display.do	2871	0.00%
/offer/carrier/edit.do	2875	0.00%
j_spring_security_logout	1660	0.00%
TOTAL	2165	0.00%

Thread properties:

Thread Properties

Number of Threads (users): 145

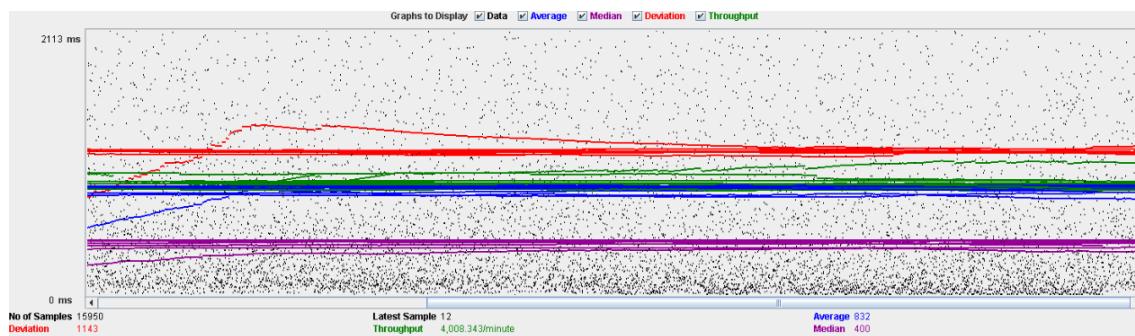
Ramp-Up Period (in seconds): 1

Loop Count: Forever 10

Delay Thread creation until needed

Scheduler

Graph Results:



Performance Results:



We can clearly see, another time, that the bottleneck is the CPU.

Conclusion

The test was performed using:

CPU: i5 7300HQ (2 cores in the virtual machine)

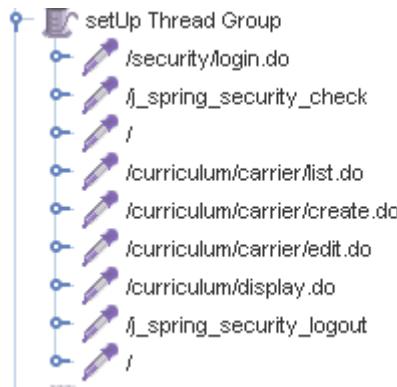
RAM: 2 GB (virtual machine)

For this use case we can say that the maximum of concurrent users is about 145, delimited by the delete.

17. Curricula

Create a curriculum

Sequence:



Aggregate Report:

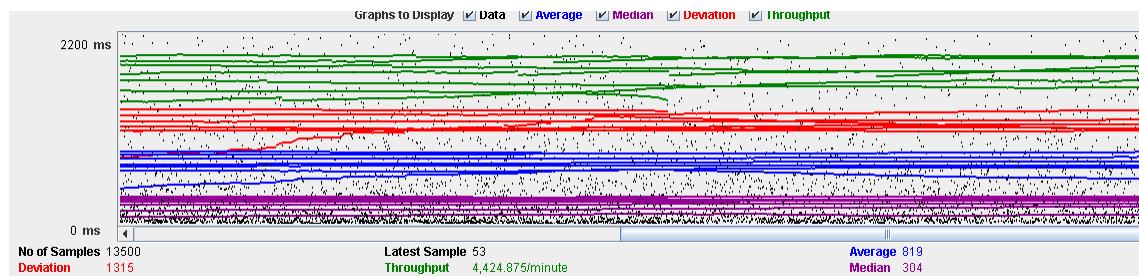
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1500	593	170	1805	6	9507	0.00%	8.6/sec	30.9
j_spring_security_...	1500	1321	678	3277	14	15402	0.00%	8.6/sec	37.5
/	3000	678	218	1885	7	14103	0.00%	16.6/sec	61.6
/curriculum/carrierl...	1500	711	207	2108	9	10817	0.00%	8.6/sec	49.2
/curriculum/carrierl...	1500	697	194	2048	9	8648	0.00%	8.6/sec	42.5
/curriculum/carrierl...	1500	1224	643	3101	11	14484	0.00%	8.6/sec	43.6
/curriculum/display...	1500	833	309	2361	10	11056	0.00%	8.6/sec	39.8
j_spring_security_...	1500	639	198	1923	10	12908	0.00%	8.6/sec	31.5
TOTAL	13500	819	304	2296	6	15402	0.00%	73.7/sec	323.3

Label	90% Line	Error %
/security/login.do	1805	0.00%
j_spring_security_...	3277	0.00%
/	1885	0.00%
/curriculum/carrierl...	2108	0.00%
/curriculum/carrierl...	2048	0.00%
/curriculum/carrierl...	3101	0.00%
/curriculum/display...	2361	0.00%
j_spring_security_...	1923	0.00%
TOTAL	2296	0.00%

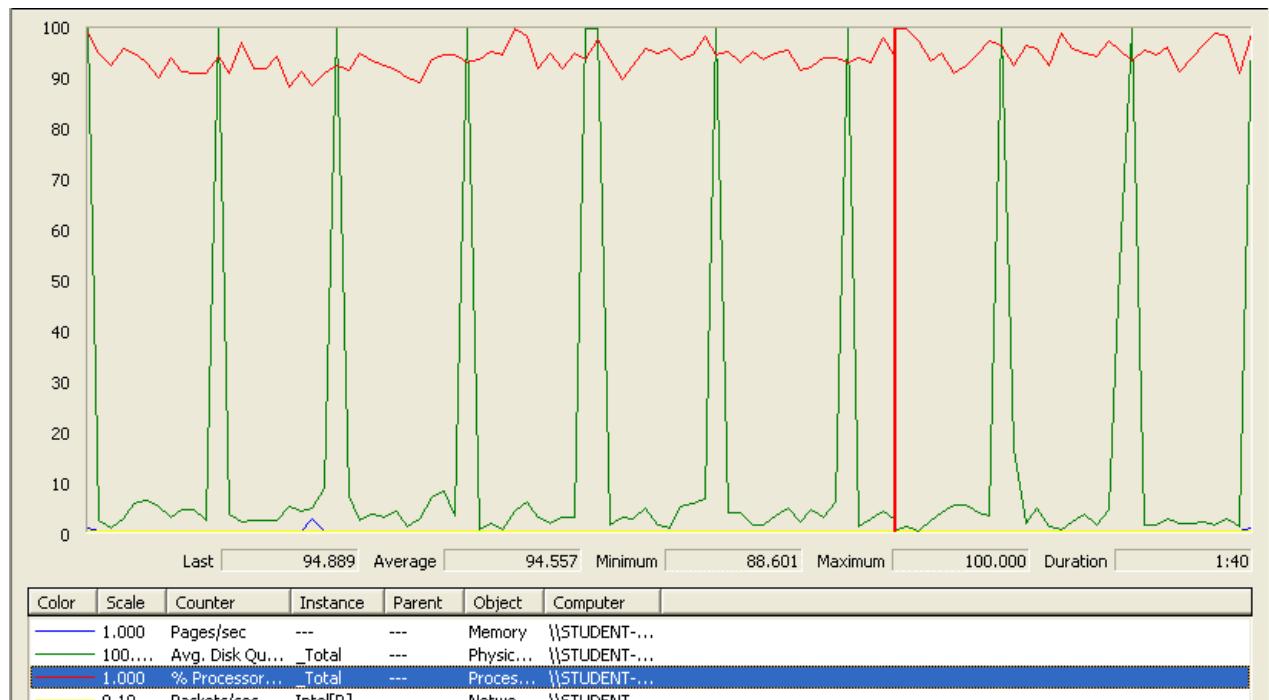
Thread properties:

Thread Properties	
Number of Threads (users):	150
Ramp-Up Period (in seconds):	3
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input checked="" type="checkbox"/> Scheduler	

Graph Results:



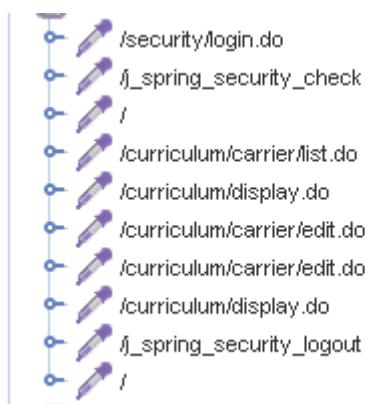
Performance Results:



The CPU was always at its limit while the disk usage showed many peaks.

Edit a curriculum

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1500	434	124	1211	7	7366	0.00%	8.1/sec	31.2
/j_spring_security_...	1500	932	440	2378	13	9926	0.00%	8.1/sec	37.4
/	3000	548	179	1609	6	10320	0.00%	15.4/sec	61.3
/curriculum/carrierl...	1500	579	177	1499	14	12459	0.00%	8.0/sec	48.9
/curriculum/display...	3000	655	263	1697	11	9946	0.00%	15.8/sec	86.7
/curriculum/carrierl...	3000	995	443	2695	7	9694	0.00%	16.0/sec	93.8
/j_spring_security_...	1500	568	183	1645	8	8090	0.00%	8.1/sec	31.4
TOTAL	15000	691	257	1932	6	12459	0.00%	76.6/sec	376.3

Label	90% Line	Error %
/security/login.do	1211	0.00%
/j_spring_security_...	2378	0.00%
/	1609	0.00%
/curriculum/carrierl...	1499	0.00%
/curriculum/display...	1697	0.00%
/curriculum/carrierl...	2695	0.00%
/j_spring_security_...	1645	0.00%
TOTAL	1932	0.00%

Thread properties:

Thread Properties

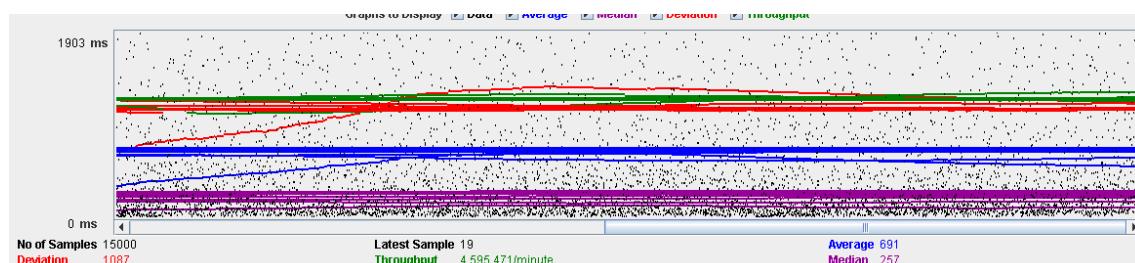
Number of Threads (users): 150

Ramp-Up Period (in seconds): 3

Loop Count: Forever 10

Scheduler

Graph Results:



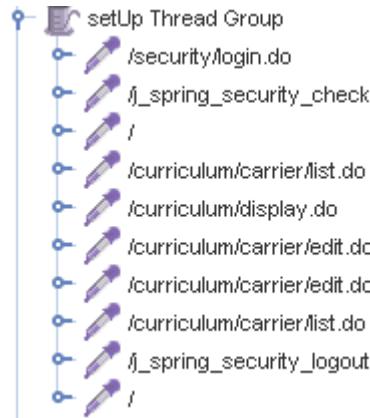
Performance Results:



The CPU was always at its limit while the disk usage showed many peaks.

Delete a curriculum

Sequence:



Aggregate Report:

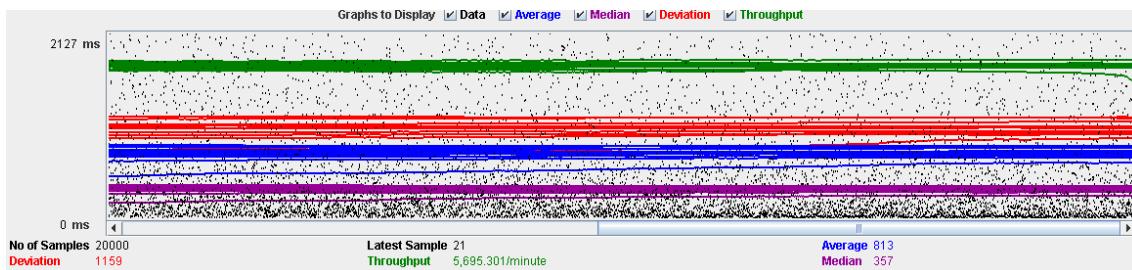
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	2000	550	183	1587	6	10570	0.00%	9.9/sec	41.9
j_spring_security_...	2000	1172	667	2922	18	10190	0.00%	9.9/sec	45.9
/	4000	601	229	1670	7	8942	0.00%	19.1/sec	80.7
/curriculum/carrierl...	4000	640	253	1741	8	10656	0.00%	19.4/sec	126.0
/curriculum/display...	2000	1115	604	2781	8	10371	0.00%	9.9/sec	55.4
/curriculum/carrier...	4000	1126	614	2802	6	16313	0.00%	19.7/sec	106.2
j_spring_security_...	2000	560	201	1545	9	10427	0.00%	10.0/sec	39.3
TOTAL	20000	813	357	2188	6	16313	0.00%	94.9/sec	480.4

Label	90% Line	Error %
/security/login.do	1587	0.00%
j_spring_security_...	2922	0.00%
/	1670	0.00%
/curriculum/carrierl...	1741	0.00%
/curriculum/display...	2781	0.00%
/curriculum/carrier...	2802	0.00%
j_spring_security_...	1545	0.00%
TOTAL	2188	0.00%

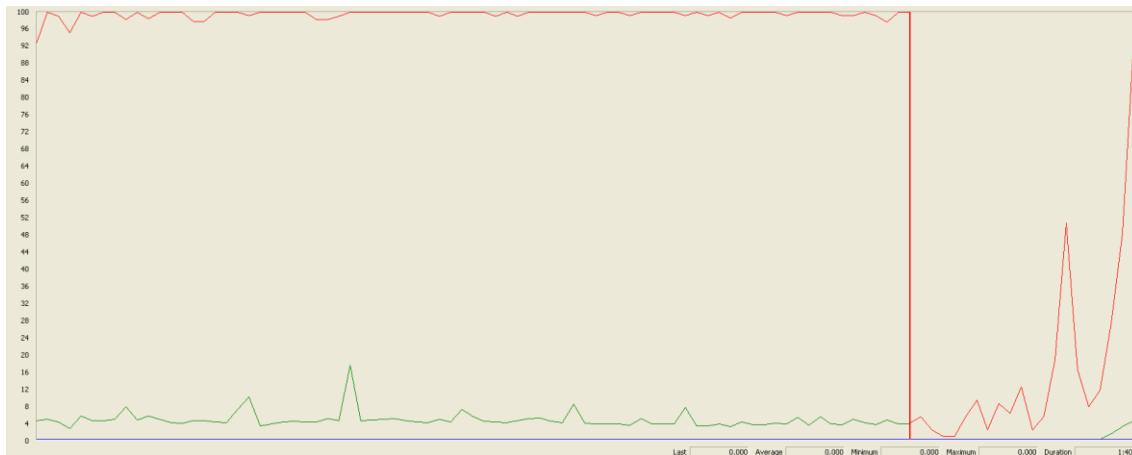
Thread properties:

Thread Properties	
Number of Threads (users):	200
Ramp-Up Period (in seconds):	3
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



Again we can see that the CPU is always being used while the disk usage shows some little peaks.

Conclusion

The test was performed using:

CPU: i7 7700hq (2 cores in the virtual machine)

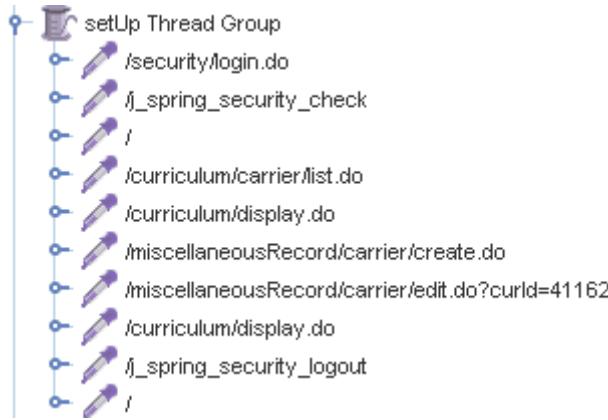
RAM: 2 GB (virtual machine)

For this use case we can say that the limitation occurs during the creation and edition process, being the maximum of concurrent users 150.

18. Records (Professional and Miscellaneous record)

Create Miscellaneous Record

Sequence:



Aggregate Report:

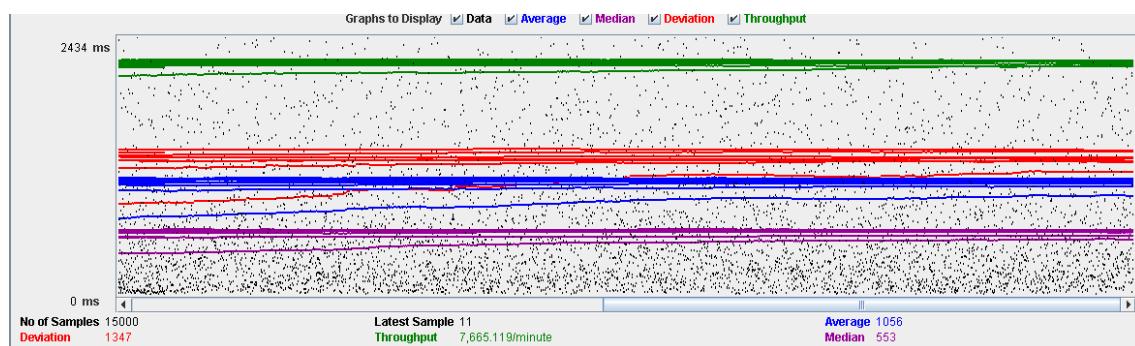
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1500	702	290	1828	9	12475	0.00%	12.8/sec	53.5
/j_spring_security...	1500	1567	1026	3563	32	12168	0.00%	12.8/sec	59.1
/	3000	708	324	1822	8	13966	0.00%	25.6/sec	107.3
/relationship/sponsor/list.do	1500	720	319	1901	10	7334	0.00%	12.8/sec	62.6
/curriculum/display...	3000	1394	875	3334	13	12239	0.00%	25.6/sec	142.6
/miscellaneousRe...	1500	1339	837	3098	9	17357	0.00%	12.8/sec	72.7
/miscellaneousRe...	1500	1302	786	3109	17	11048	0.00%	12.8/sec	70.6
/j_spring_security...	1500	731	332	1951	25	8528	0.00%	12.8/sec	50.9
TOTAL	15000	1056	553	2691	8	17357	0.00%	127.8/sec	617.6

Label	90% Line	Error %
/security/login.do	1828	0.00%
/j_spring_security...	3563	0.00%
/	1822	0.00%
/relationship/sponsor/list.do	1901	0.00%
/curriculum/display...	3334	0.00%
/miscellaneousRe...	3098	0.00%
/miscellaneousRe...	3109	0.00%
/j_spring_security...	1951	0.00%
TOTAL	2691	0.00%

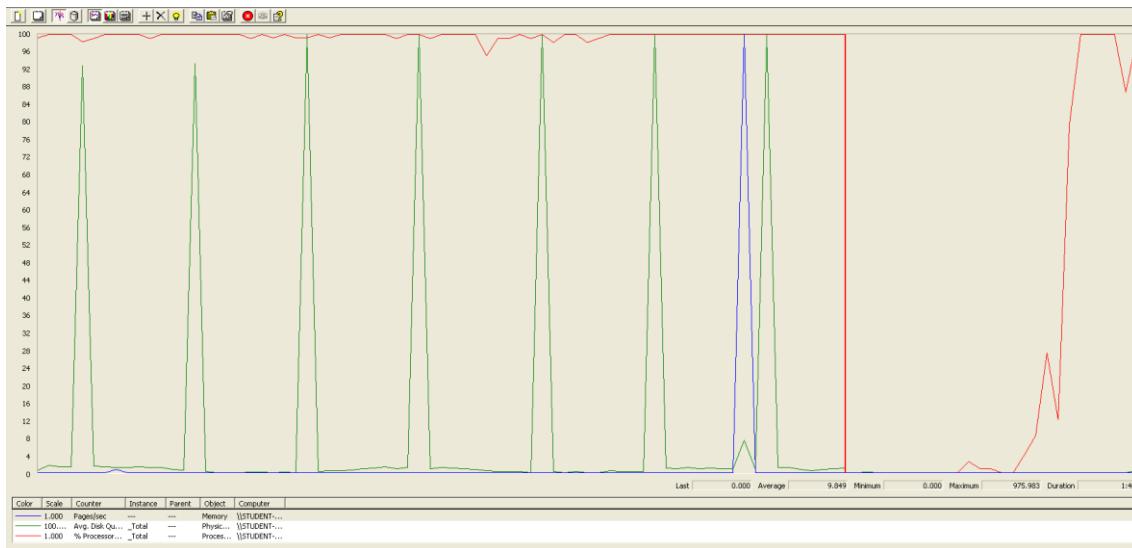
Thread properties:

Thread Properties	
Number of Threads (users): <input type="text" value="150"/>	
Ramp-Up Period (in seconds): <input type="text" value="3"/>	
Loop Count:	<input checked="" type="checkbox"/> Forever <input type="text" value="10"/>
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



Again we can see that the CPU is always being used while the disk usage shows some periodic peaks.

Create Professional Record

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1000	364	28	1129	6	10142	0.00%	5.3/sec	18.4
j_spring_security..._	1000	880	79	2818	4	16293	0.00%	5.3/sec	21.6
/	2000	572	72	1701	6	13425	0.00%	10.1/sec	34.9
/curriculum/carrier/l...	1000	427	37	1316	6	14675	0.00%	5.2/sec	21.5
/curriculum/display.d...	2000	857	400	2285	8	14635	0.00%	10.3/sec	723.8
/professionalRecor...	1000	652	125	2022	10	8391	0.00%	5.2/sec	26.9
/professionalRecor...	1000	1271	632	3472	14	11848	0.00%	5.2/sec	188.1
j_spring_security..._	1000	534	101	1572	9	8682	0.00%	5.2/sec	18.2
TOTAL	10000	899	167	2078	4	16293	0.00%	50.0/sec	1018.8

Label	90% Line	Error %
/security/login.do	1129	0.00%
/j_spring_security...	2818	0.00%
/	1701	0.00%
/curriculum/carrierl...	1316	0.00%
/curriculum/display...	2285	0.00%
/professionalRecor...	2022	0.00%
/professionalRecor...	3472	0.00%
/j_spring_security...	1572	0.00%
TOTAL	2078	0.00%

Thread properties:

Thread Properties

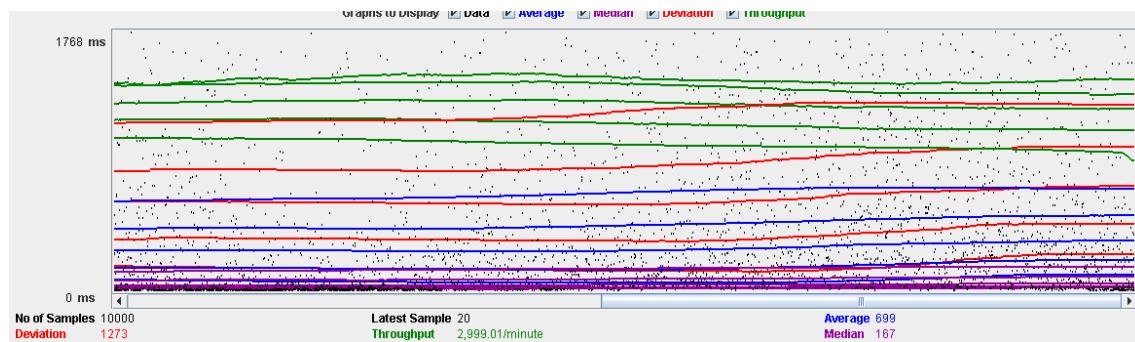
Number of Threads (users):

Ramp-Up Period (in seconds):

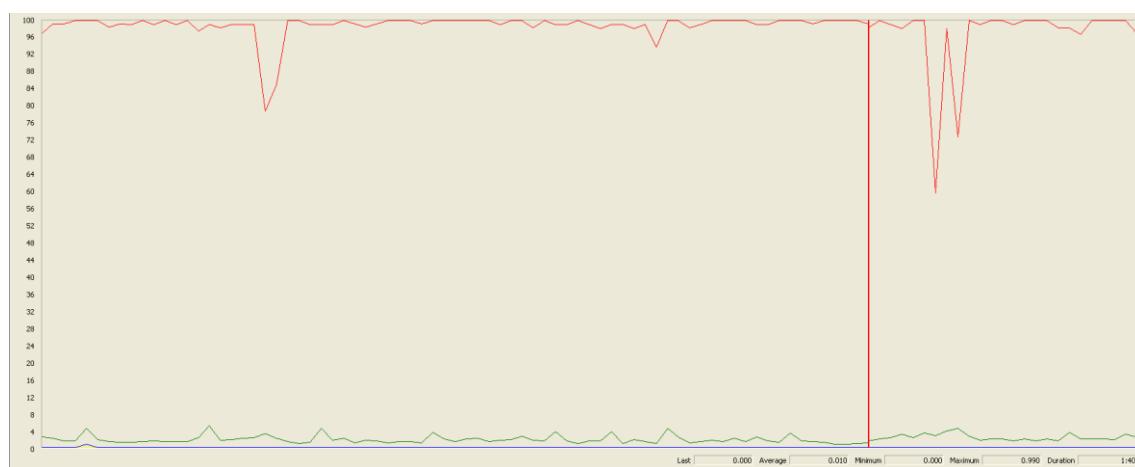
Loop Count: Forever

Scheduler

Graph Results:



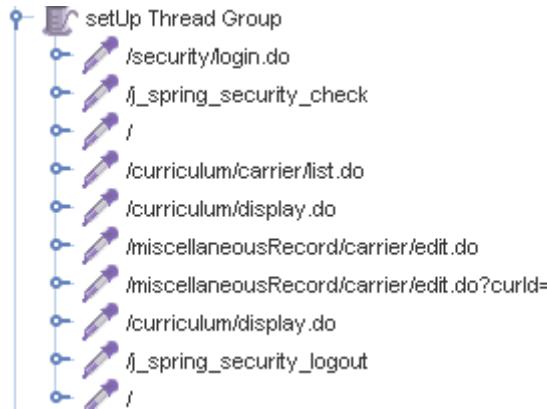
Performance Results:



Again we can see that the CPU is always being used while the disk usage shows some low peaks

Edit a Miscellaneous Record

Sequence:



Aggregate Report:

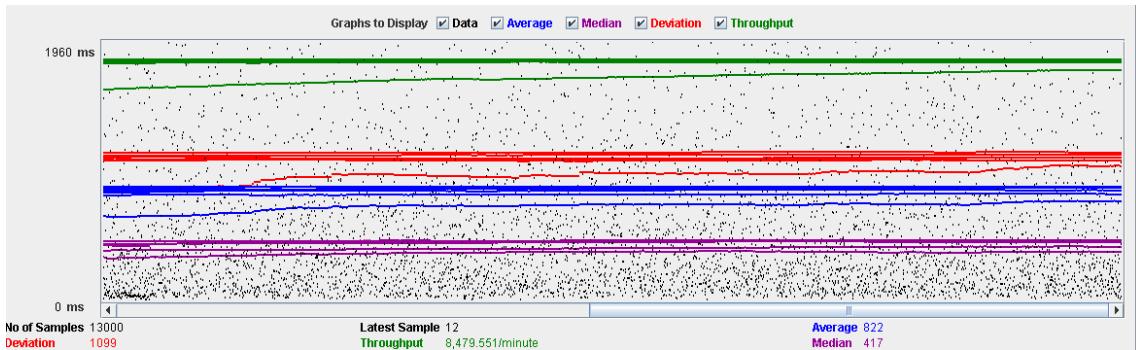
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1300	737	376	1810	7	9532	0.00%	14.2/sec	57.4
j_spring_security_...	1300	1494	1017	3378	28	9952	0.00%	14.2/sec	63.6
/	2600	747	378	1823	11	11215	0.00%	28.3/sec	111.7
/curriculum/carrierl...	1300	740	369	1861	14	9638	0.00%	14.2/sec	66.9
/curriculum/display...	2600	761	378	1912	13	9368	0.00%	28.3/sec	154.9
/miscellaneousRe...	1300	741	359	1880	15	8655	0.00%	14.2/sec	74.4
/miscellaneousRe...	1300	758	390	1954	10	7639	0.00%	14.2/sec	77.5
j_spring_security_...	1300	737	354	2012	29	9811	0.00%	14.2/sec	55.7
TOTAL	13000	822	417	2087	7	11215	0.00%	141.3/sec	660.3

Label	90% Line	Error %
/security/login.do	1810	0.00%
j_spring_security_...	3378	0.00%
/	1823	0.00%
/curriculum/carrierl...	1861	0.00%
/curriculum/display...	1912	0.00%
/miscellaneousRe...	1880	0.00%
/miscellaneousRe...	1954	0.00%
j_spring_security_...	2012	0.00%
TOTAL	2087	0.00%

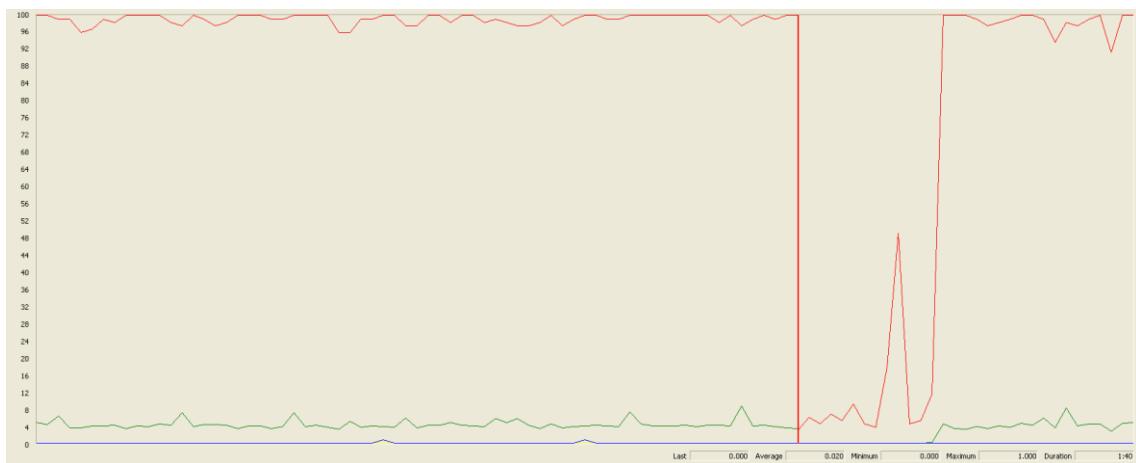
Thread properties:

Thread Properties	
Number of Threads (users): <input type="text" value="130"/>	
Ramp-Up Period (in seconds): <input type="text" value="3"/>	
Loop Count:	<input checked="" type="checkbox"/> Forever <input type="text" value="10"/> <input type="checkbox"/> Scheduler

Graph Results:



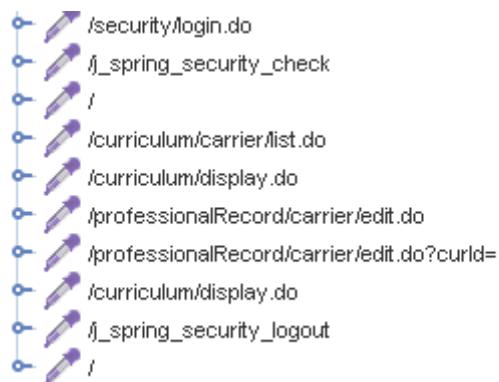
Performance Results:



Again we can see that the CPU is always being used while the disk usage shows some peaks.

Edit a Professional Record

Sequence:



Aggregate Report:

Performance

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	800	510	122	1522	6	6833	0.00%	4.6/sec	15.7
/j_spring_security_...	800	1318	897	3093	13	11178	0.00%	4.6/sec	18.3
/	1600	674	316	1813	6	9240	0.00%	8.8/sec	30.2
/curriculum/carrierl...	800	592	124	1658	9	9506	0.00%	4.6/sec	18.4
/curriculum/display...	1600	1136	745	2365	15	9403	0.00%	9.0/sec	1305.9
/professionalRecor...	800	934	494	2312	12	12116	0.00%	4.6/sec	23.8
/professionalRecor...	800	624	243	1713	15	7419	0.00%	4.6/sec	24.0
/j_spring_security_...	800	549	192	1813	9	4928	0.00%	4.6/sec	14.6
TOTAL	8000	815	458	2102	6	12116	0.00%	43.6/sec	1404.9

Label	90% Line	Error %
/security/login.do	1522	0.00%
/j_spring_security_...	3093	0.00%
/	1813	0.00%
/curriculum/carrierl...	1658	0.00%
/curriculum/display...	2365	0.00%
/professionalRecor...	2312	0.00%
/professionalRecor...	1713	0.00%
/j_spring_security_...	1613	0.00%
TOTAL	2102	0.00%

Thread properties:

Thread Properties

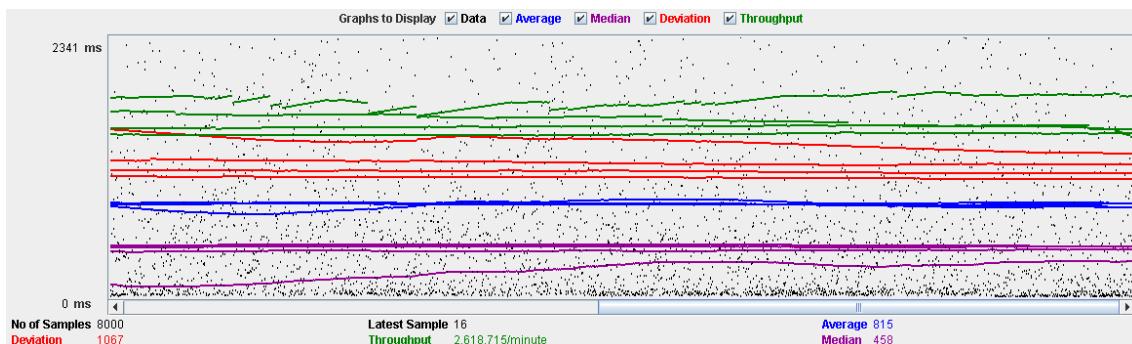
Number of Threads (users):

Ramp-Up Period (in seconds):

Loop Count: Forever

Scheduler

Graph Results:



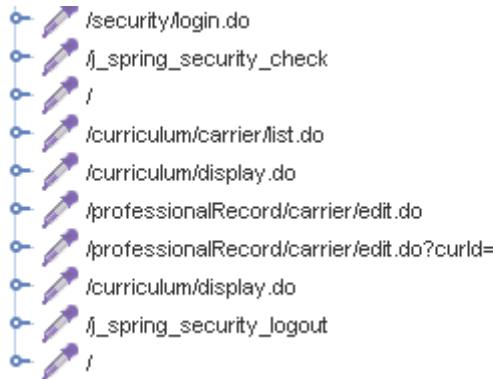
Performance Results:



Again we can see that the CPU is always being used while the disk usage shows some peaks.

Delete a professional record

Sequence:



Aggregate Report:

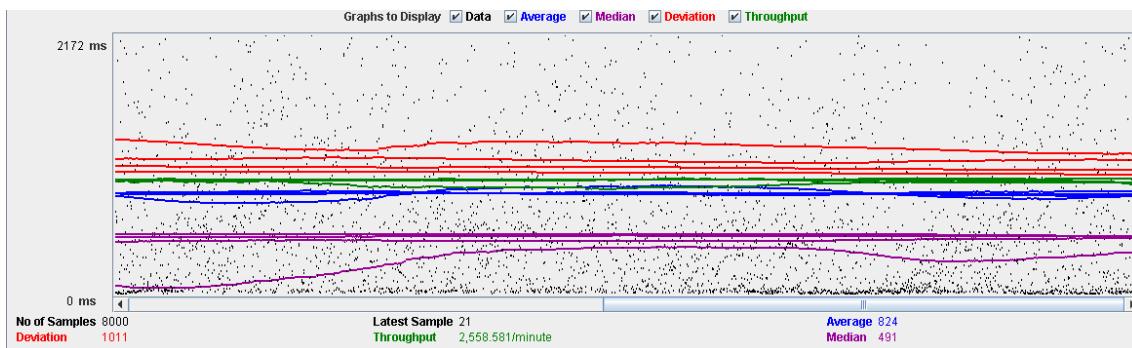
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	800	388	98	1047	6	6235	0.00%	4.5/sec	15.0
/j_spring_security_...	800	1003	643	2459	10	7546	0.00%	4.5/sec	18.0
/	1600	525	213	1481	7	4563	0.00%	8.0/sec	29.8
/curriculum/carrierl...	800	525	163	1485	9	6327	0.00%	4.5/sec	18.7
/curriculum/display...	1600	985	636	2041	7	6847	0.00%	8.8/sec	1268.5
/professionalRecor...	800	1592	1293	3436	10	8590	0.00%	4.5/sec	19.7
/professionalRecor...	800	1279	907	2976	15	7154	0.00%	4.5/sec	19.0
/j_spring_security_...	800	437	134	1187	9	4885	0.00%	4.5/sec	14.6
TOTAL	8000	824	491	2148	6	8590	0.00%	42.6/sec	1356.9

Label	90% Line	Error %
/security/login.do	1047	0.00%
/j_spring_security_...	2459	0.00%
/	1481	0.00%
/curriculum/carrierl...	1485	0.00%
/curriculum/display...	2041	0.00%
/professionalRecor...	3436	0.00%
/professionalRecor...	2976	0.00%
/j_spring_security_...	1187	0.00%
TOTAL	2148	0.00%

Thread properties:

Thread Properties	
Number of Threads (users):	80
Ramp-Up Period (in seconds):	3
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input checked="" type="checkbox"/> Scheduler	

Graph Results:



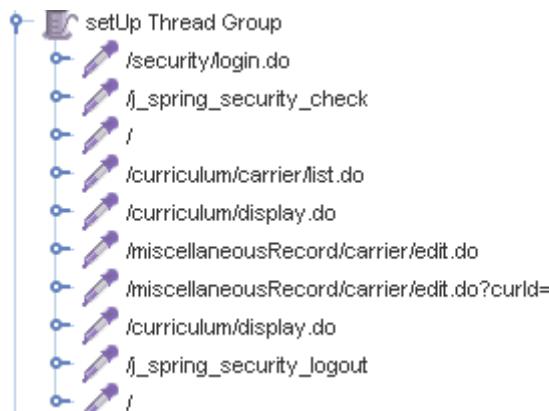
Performance Results:



Again we can see that the CPU is always being used while the disk usage shows two peaks.

Delete a miscellaneous data

Sequence:



Aggregate Report:

Performance

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1300	714	274	2003	9	12802	0.00%	12.8/sec	52.1
/j_spring_security...	1300	1355	823	3326	35	11689	0.00%	12.8/sec	58.9
/	2600	727	290	1996	8	8985	0.00%	25.5/sec	107.6
/curriculum/carrierl...	1300	706	299	1960	10	10689	0.00%	12.8/sec	58.7
/curriculum/display...	2600	721	306	1913	10	10687	0.00%	25.5/sec	139.7
/miscellaneousRe...	1300	1390	798	3475	11	13555	0.00%	12.8/sec	69.8
/miscellaneousRe...	1300	1316	775	3235	14	10706	0.00%	12.8/sec	69.1
/j_spring_security...	1300	753	298	1866	28	12991	0.00%	12.8/sec	53.2
TOTAL	13000	913	419	2414	8	13555	0.00%	127.2/sec	607.6

Label	90% Line	Error %
/security/login.do	2003	0.00%
/j_spring_security...	3326	0.00%
/	1996	0.00%
/curriculum/carrierl...	1960	0.00%
/curriculum/display...	1913	0.00%
/miscellaneousRe...	3475	0.00%
/miscellaneousRe...	3235	0.00%
/j_spring_security...	1866	0.00%
TOTAL	2414	0.00%

Thread properties:

Thread Properties

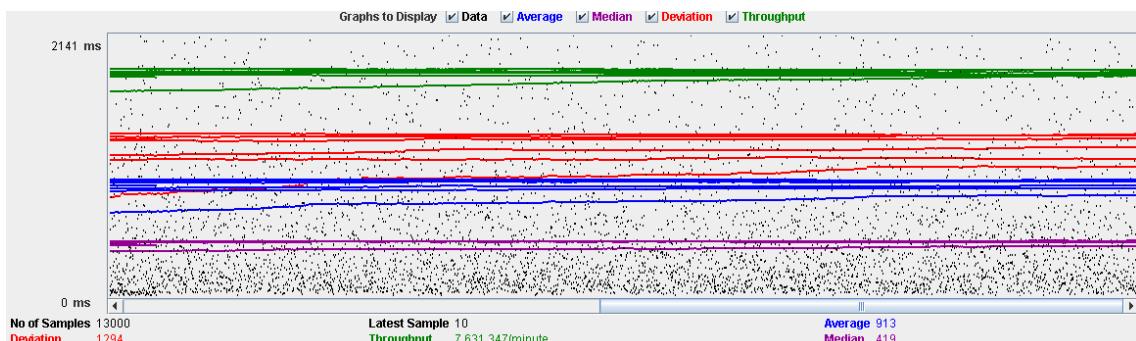
Number of Threads (users): 130

Ramp-Up Period (in seconds): 3

Loop Count: Forever 10

Scheduler

Graph Results:



Performance Results:



Again we can see that the CPU is always being used while the disk usage shows little peaks.

Conclusion

The test was performed using:

CPU: i7 6700hq (2 cores in the virtual machine)

RAM: 4 GB (virtual machine)

For this use case we can say that the limitation occurs during the creation process, being the maximum of concurrent users 80.

19. Actor

Create

Sequence:



Aggregate Report:

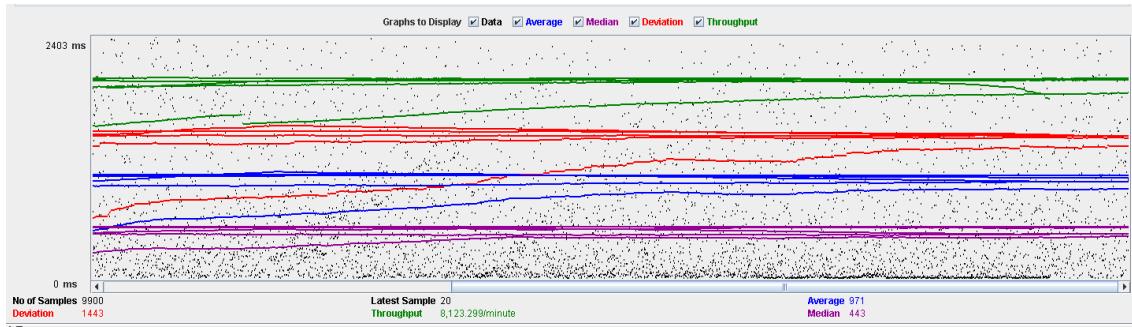
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/actor/sign-up.do	6600	985	456	2590	6	15785	0.00%	90.3/sec	871.6
/	3300	943	416	2448	7	16520	0.00%	46.1/sec	291.6
TOTAL	9900	971	443	2560	6	16520	0.00%	135.4/sec	1156.7

Label	90% Line	Error %
/	2590	0.00%
/actor/create.do	2448	0.00%
TOTAL	2560	0.00%

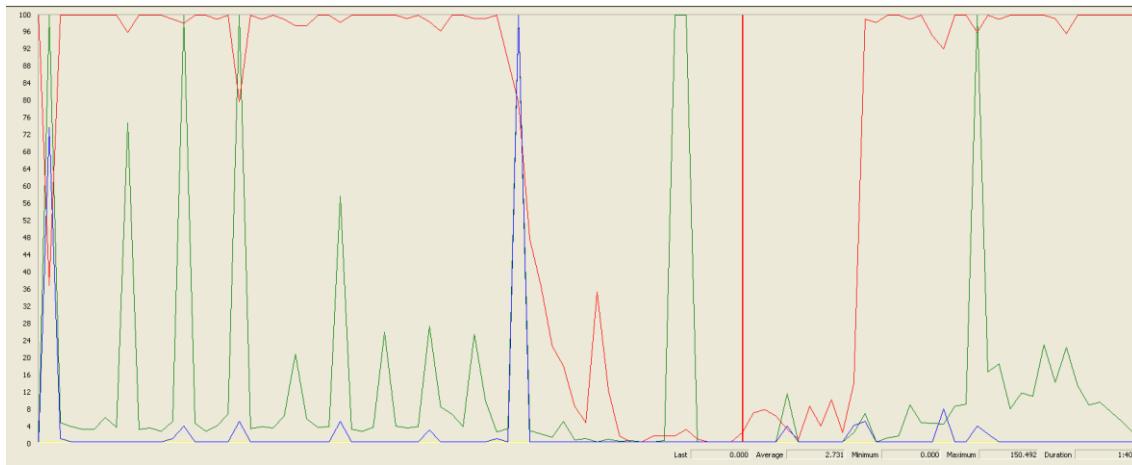
Thread properties:

Thread Properties	
Number of Threads (users):	250
Ramp-Up Period (in seconds):	3
Loop Count:	<input checked="" type="checkbox"/> Forever 10 <input type="checkbox"/> Scheduler

Graph Results:



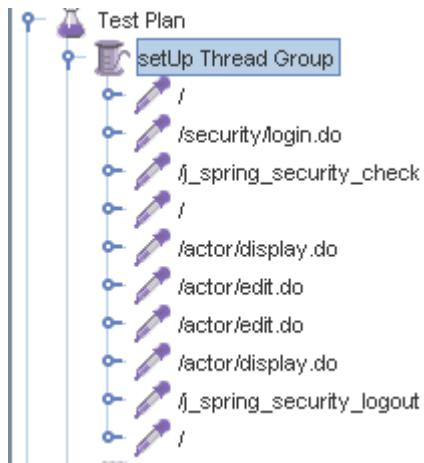
Performance Results:



The CPU was always at its limit while the disk usage has a lot of peaks.

Edit

Sequence:



Aggregate Report:

Performance

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/	7500	693	310	1791	6	13207	0.00%	38.3/sec	245.6
/security/login.do	2500	702	310	1805	7	8861	0.00%	13.5/sec	82.1
/j_spring_security...	2500	1386	894	3190	11	15238	0.00%	13.4/sec	94.9
/actor/display.do	5000	694	315	1828	7	13654	0.00%	26.2/sec	180.1
/actor/edit.do	5000	987	499	2508	7	14192	0.00%	26.4/sec	238.8
/j_spring_security...	2500	720	326	1835	8	11873	0.00%	13.4/sec	85.7
TOTAL	25000	825	391	2133	6	15238	0.00%	127.6/sec	900.8

Label	90% Line	Error %
/	1791	0.00%
/security/login.do	1805	0.00%
/j_spring_security...	3190	0.00%
/actor/display.do	1828	0.00%
/actor/edit.do	2508	0.00%
/j_spring_security...	1835	0.00%
TOTAL	2133	0.00%

Thread properties:

Thread Properties

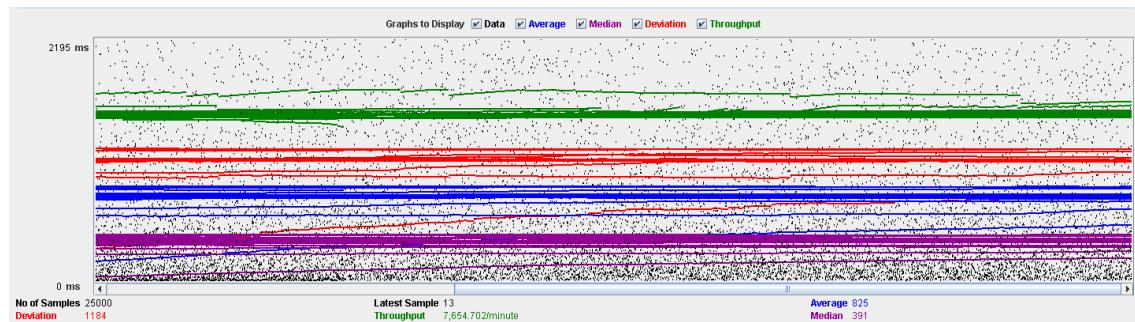
Number of Threads (users): 250

Ramp-Up Period (in seconds): 3

Loop Count: Forever 10

Scheduler

Graph Results:



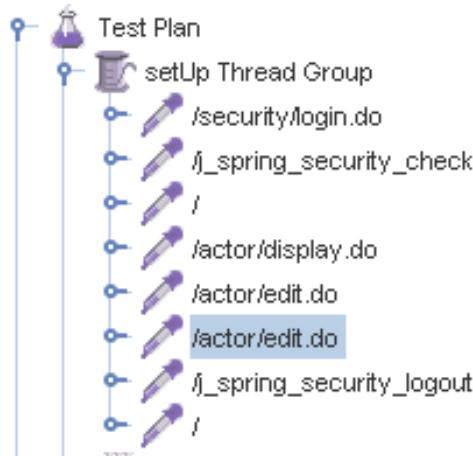
Performance Results:



Again we can see that the CPU is always being used while the disk usage has some peaks at times.

Delete

Sequence:



Aggregate Report:

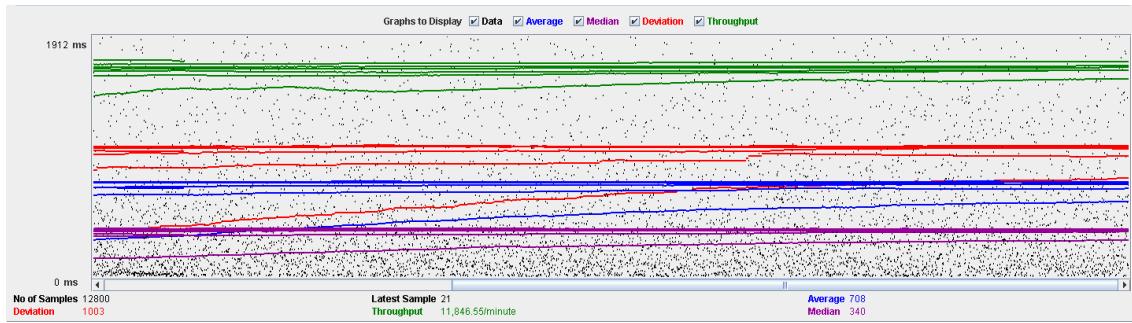
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1600	486	223	1225	6	10614	0.00%	24.8/sec	75.3
/j_spring_security_check	1600	408	1122	3192	25	14461	0.00%	24.8/sec	87.5
/	3200	524	246	1330	6	12323	0.00%	48.4/sec	131.3
/actor/display.do	1600	1047	643	2408	22	9074	0.00%	24.8/sec	73.0
/actor/edit.do	3200	536	244	1422	8	12683	0.00%	49.5/sec	155.0
/j_spring_security_logout	1600	502	240	1276	6	9815	0.00%	24.8/sec	71.3
TOTAL	12800	708	340	1855	6	14461	0.00%	197.4/sec	591.7

Label	90% Line	Error %
/	1225	0.00%
/security/login.do	3192	0.00%
/j_spring_security_check	1330	0.00%
/actor/display.do	2408	0.00%
/actor/edit.do	1422	0.00%
/j_spring_security_logout	1276	0.00%
TOTAL	1855	0.00%

Thread properties:

Thread Properties	
Number of Threads (users):	160
Ramp-Up Period (in seconds):	3
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input type="checkbox"/> Delay Thread creation until needed	
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



Again we can see that the CPU is always being used while the disk usage has different peaks.

Conclusion

The test was performed using:

CPU: i7 7700hq (2 cores in the virtual machine)

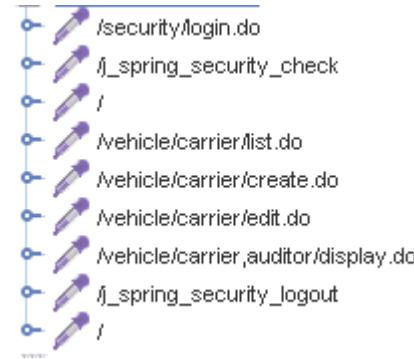
RAM: 4 GB (virtual machine)

For this use case we can say that the limitation occurs during the creation process, being the maximum of concurrent users is 90.

20. Vehicle

Create

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	2200	648	219	1759	6	14443	0.00%	13.8/sec	55.2
/_spring_security_...	2200	1336	761	3304	16	12588	0.00%	13.8/sec	64.5
/	4400	645	247	1714	7	14549	0.00%	26.8/sec	110.0
/Vehicle/carrierlist...	2200	667	257	1765	9	12317	0.00%	13.8/sec	68.2
/Vehicle/carrier/cre...	2200	686	234	1893	10	12883	0.00%	13.9/sec	81.2
/Vehicle/carrieredit...	2200	684	271	1809	10	11327	0.00%	13.8/sec	81.8
/Vehicle/carrier,aud...	2200	725	276	1885	9	10169	0.00%	13.9/sec	64.4
/_spring_security_...	2200	643	223	1706	3	14023	0.00%	14.0/sec	56.8
TOTAL	19800	742	281	1993	3	14549	0.00%	119.6/sec	562.3

Label	90% Line	Error %
/security/login.do	1759	0.00%
/_spring_security_...	3304	0.00%
/	1714	0.00%
/Vehicle/carrierlist...	1765	0.00%
/Vehicle/carrier/cre...	1893	0.00%
/Vehicle/carrieredit...	1809	0.00%
/Vehicle/carrier,aud...	1885	0.00%
/_spring_security_...	1706	0.00%
TOTAL	1993	0.00%

Thread properties:

Thread Properties

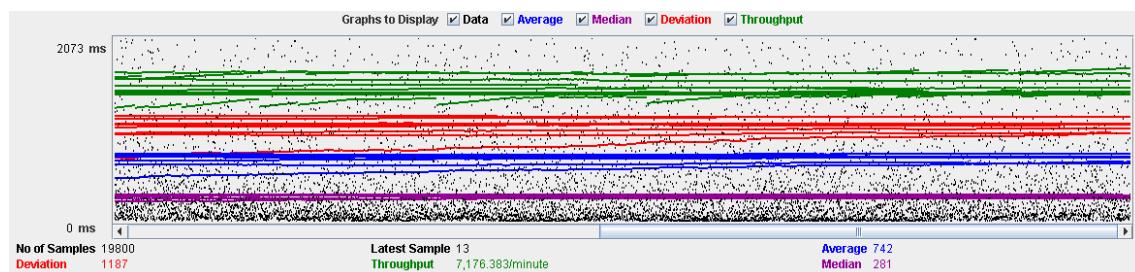
Number of Threads (users):

Ramp-Up Period (in seconds):

Loop Count: Forever

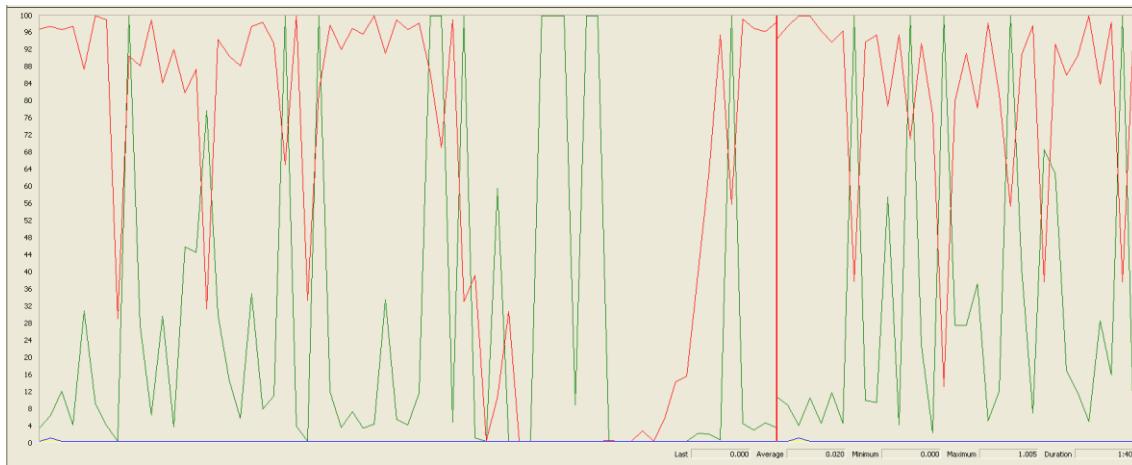
Scheduler

Graph Results:



Performance Results:

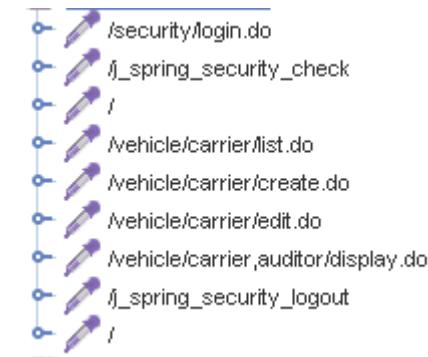
Performance



The CPU was always at its limit while the disk usage has many peaks.

Edit

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	2200	561	224	1555	6	7170	0.00%	11.2/sec	44.6
/j_spring_security....	2200	1170	693	2778	16	11597	0.00%	11.2/sec	52.8
/	4400	634	275	1701	6	8861	0.00%	21.6/sec	88.8
/vehicle/carrier/list....	2200	620	243	1727	10	8084	0.00%	11.2/sec	56.4
/vehicle/carrier,aud...	4400	767	338	2041	7	11936	0.00%	22.1/sec	104.5
/vehicle/carrier/edit....	4400	997	514	2574	7	11377	0.00%	22.3/sec	130.3
/j_spring_security....	2200	659	276	1715	5	14787	0.00%	11.3/sec	43.8
TOTAL	22000	780	355	2073	5	14787	0.00%	107.2/sec	503.1

Label	90% Line	Error %
/security/login.do	1555	0.00%
/j_spring_security....	2778	0.00%
/	1701	0.00%
/vehicle/carrier/list....	1727	0.00%
/vehicle/carrier,aud...	2041	0.00%
/vehicle/carrier/edit....	2574	0.00%
/j_spring_security....	1715	0.00%
TOTAL	2073	0.00%

Thread properties:

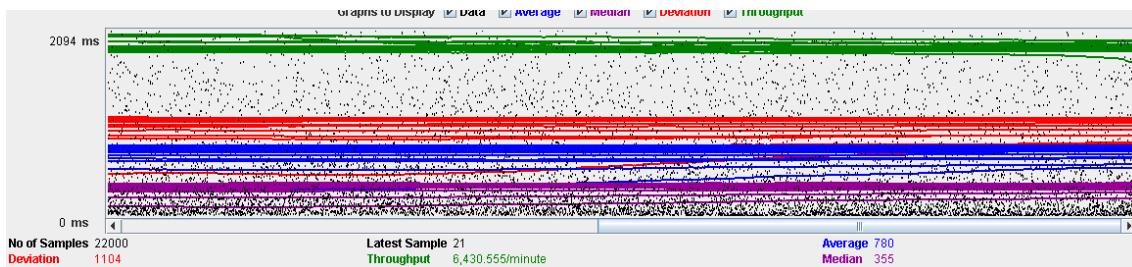
Thread Properties

Number of Threads (users): 220

Ramp-Up Period (in seconds): 3

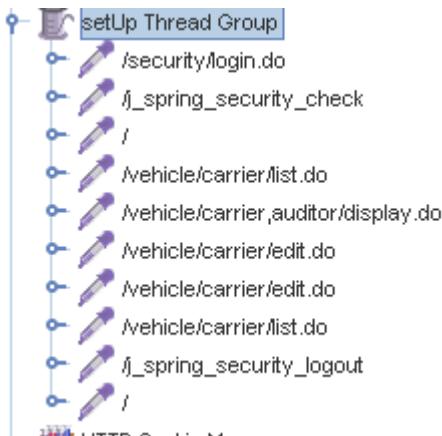
Loop Count: Forever 10

Scheduler

Graph Results:**Performance Results:**

Again we can see that the CPU is always being used while the disk usage has high peaks at times.

Delete**Sequence:**



Aggregate Report:

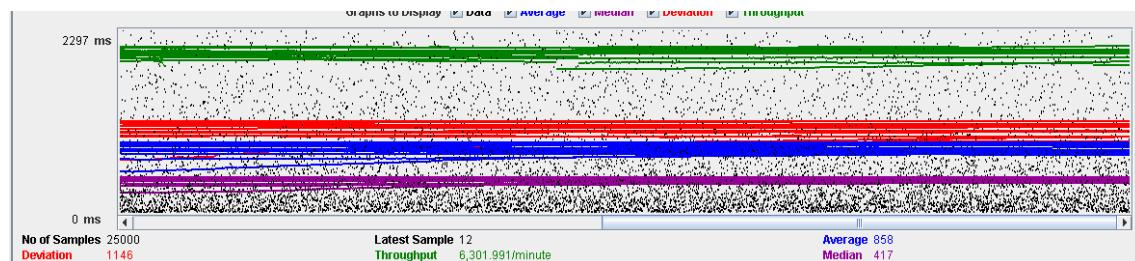
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	2500	596	249	1674	6	8035	0.00%	11.1/sec	45.5
/j_spring_security...	2500	1257	794	3043	13	13752	0.00%	11.1/sec	52.1
/	5000	631	267	1702	7	12245	0.00%	21.1/sec	87.0
/Vehicle/carrier/list...	5000	648	271	1763	8	17359	0.00%	21.4/sec	105.5
/Vehicle/carrier,aud...	2500	1207	761	2911	7	10577	0.00%	11.1/sec	61.0
/Vehicle/carrier/edit...	5000	1175	707	2872	8	12813	0.00%	22.0/sec	124.2
/j_spring_security...	2500	610	250	1642	8	9211	0.00%	11.2/sec	46.1
TOTAL	25000	858	417	2260	6	17359	0.00%	105.0/sec	501.6

Label	90% Line	Error %
/security/login.do	1674	0.00%
/j_spring_security...	3043	0.00%
/	1702	0.00%
/Vehicle/carrier/list...	1763	0.00%
/Vehicle/carrier,aud...	2911	0.00%
/Vehicle/carrier/edit...	2872	0.00%
/j_spring_security...	1642	0.00%
TOTAL	2260	0.00%

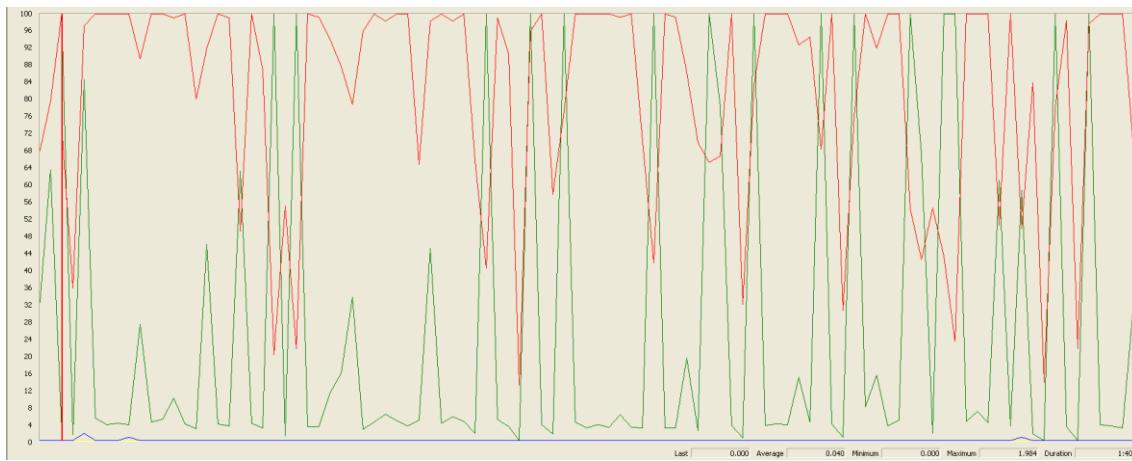
Thread properties:

Thread Properties	
Number of Threads (users): <input type="text" value="250"/>	
Ramp-Up Period (in seconds): <input type="text" value="3"/>	
Loop Count:	<input checked="" type="checkbox"/> Forever <input type="text" value="10"/>
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



Again we can see that the CPU is always being used while the disk usage has many different peaks.

Conclusion

The test was performed using:

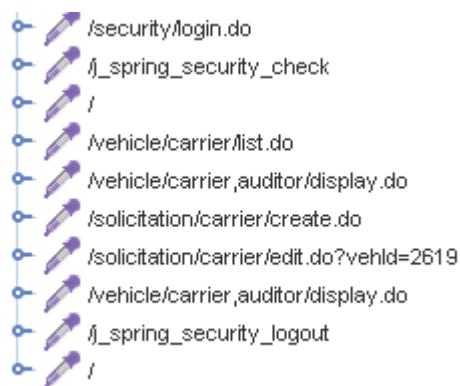
CPU: i7 7700hq (2 cores in the virtual machine)

RAM: 4 GB (virtual machine)

For this use case we can say that the limitation occurs during the creation process, being the maximum of concurrent users 220.

21. Solicitation

Create



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	kB/sec
/security/login.do	1300	696	312	1802	9	8488	0.00%	14.1/sec	57.9
/j_spring_security....	1300	1407	873	3236	34	14350	0.00%	14.1/sec	63.4
/	2600	669	317	1705	9	7356	0.00%	28.1/sec	114.3
/vehicle/carrier/list...	1300	692	304	1710	13	7680	0.00%	14.1/sec	68.0
/vehicle/carrier/aud...	2600	711	355	1814	10	9131	0.00%	28.1/sec	159.3
/solicitation/carrier/...	1300	723	346	1794	25	10181	0.00%	14.1/sec	74.3
/solicitation/carrier/...	1300	1312	866	2962	10	11550	0.00%	14.1/sec	78.2
/j_spring_security....	1300	647	319	1670	25	8268	0.00%	14.1/sec	55.4
TOTAL	13000	824	403	2084	9	14350	0.00%	140.5/sec	669.0

Label	90% Line	Error %
/security/login.do	1802	0.00%
/j_spring_security....	3236	0.00%
/	1705	0.00%
/vehicle/carrier/list...	1710	0.00%
/vehicle/carrier/aud...	1814	0.00%
/solicitation/carrier/...	1794	0.00%
/solicitation/carrier/...	2962	0.00%
/j_spring_security....	1670	0.00%
TOTAL	2084	0.00%

Thread properties:

Thread Properties

Number of Threads (users):

Ramp-Up Period (in seconds):

Loop Count: Forever

Scheduler

Graph Results:



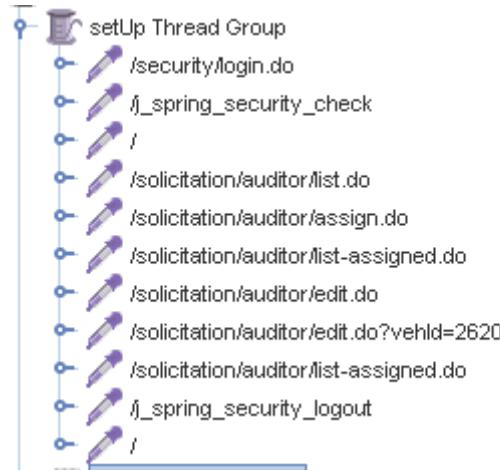
Performance Results:



The CPU was always at its limit while the disk usage showed some peaks.

Edit

Sequence:



Aggregate Report:

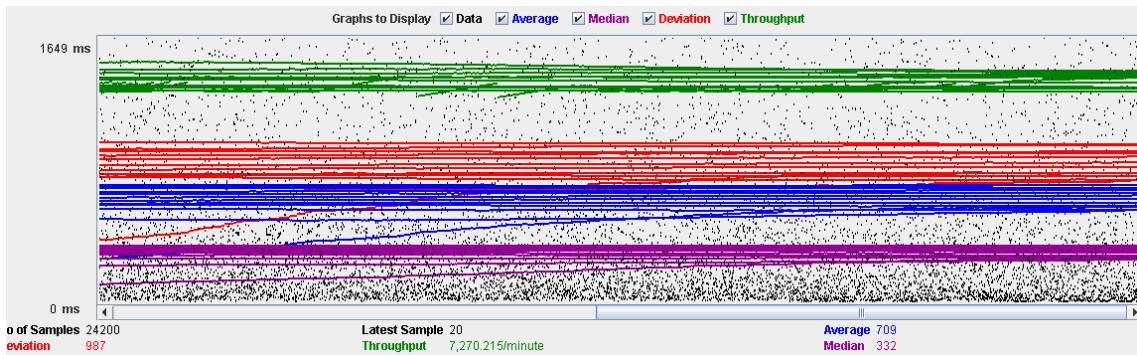
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	2200	483	176	1269	7	10577	0.00%	11.6/sec	46.2
j_spring_security....	2200	993	566	2373	15	12249	0.00%	11.6/sec	55.9
/	4400	514	220	1354	6	9305	0.00%	22.7/sec	93.2
/solicitation/auditor...	2200	505	244	1291	9	9149	0.00%	11.5/sec	57.9
/solicitation/auditor...	2200	1056	669	2455	10	13226	0.00%	11.6/sec	67.4
/solicitation/auditor...	4400	577	237	1532	7	14885	0.00%	22.7/sec	133.9
/solicitation/auditor...	2200	1046	641	2553	8	7114	0.00%	11.6/sec	66.7
/solicitation/auditor...	2200	1004	576	2456	6	10822	0.00%	11.5/sec	66.7
j_spring_security....	2200	536	214	1426	5	10755	0.00%	11.5/sec	45.4
TOTAL	24200	709	332	1861	5	14885	0.00%	121.2/sec	609.9

Label	90% Line	Error %
/security/login.do	1269	0.00%
j_spring_security....	2373	0.00%
/	1354	0.00%
/solicitation/auditor...	1291	0.00%
/solicitation/auditor...	2455	0.00%
/solicitation/auditor...	1532	0.00%
/solicitation/auditor...	2553	0.00%
/solicitation/auditor...	2456	0.00%
j_spring_security....	1426	0.00%
TOTAL	1861	0.00%

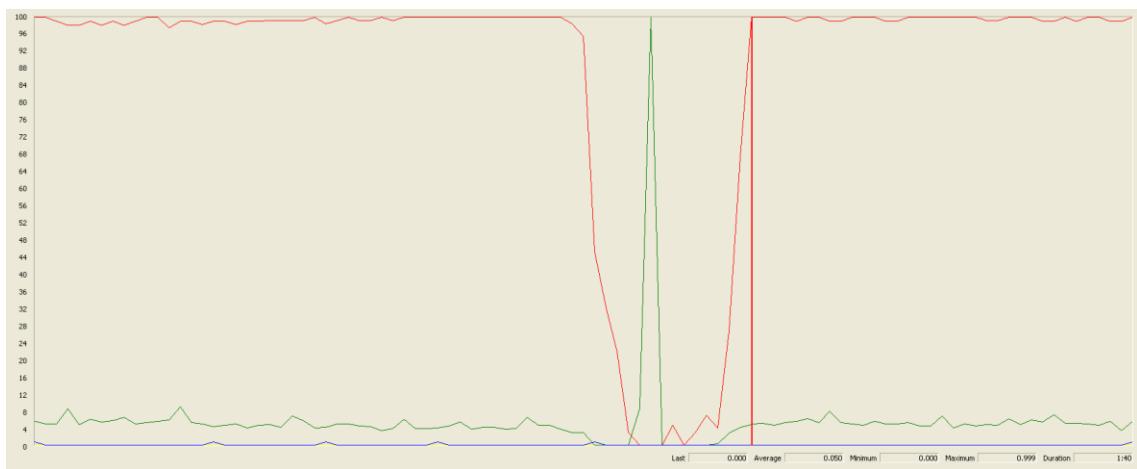
Thread properties:

Thread Properties	
Number of Threads (users):	220
Ramp-Up Period (in seconds):	3
Loop Count:	<input type="checkbox"/> Forever 10
<input type="checkbox"/> Scheduler	

Graph Results:



Performance Results:



The CPU was always at its limit in various points of the execution while the disk usage showed a big peak.

Delete

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1500	714	333	1892	8	8561	0.00%	16.6/sec	67.7
/j_spring_security_...	1500	1463	985	3477	31	11131	0.00%	16.6/sec	75.0
/	3000	753	333	1885	10	12000	0.00%	33.1/sec	133.8
/Vehicle/carrier/list...	1500	735	349	1819	11	8557	0.00%	16.6/sec	79.8
/Vehicle/carrier,aud...	3000	799	370	2053	13	14261	0.00%	33.2/sec	173.5
/solicitation/carrier/...	1500	1395	892	3240	16	9822	0.00%	16.6/sec	90.6
/j_spring_security_...	1500	743	334	1940	26	11044	0.00%	16.6/sec	66.9
TOTAL	13500	906	442	2332	8	14261	0.00%	149.0/sec	686.0

Label	90% Line	Error %
/security/login.do	1892	0.00%
/j_spring_security_...	3477	0.00%
/	1885	0.00%
/Vehicle/carrier/list...	1819	0.00%
/Vehicle/carrier,aud...	2053	0.00%
/solicitation/carrier/...	3240	0.00%
/j_spring_security_...	1940	0.00%
TOTAL	2332	0.00%

Thread properties:

Thread Properties

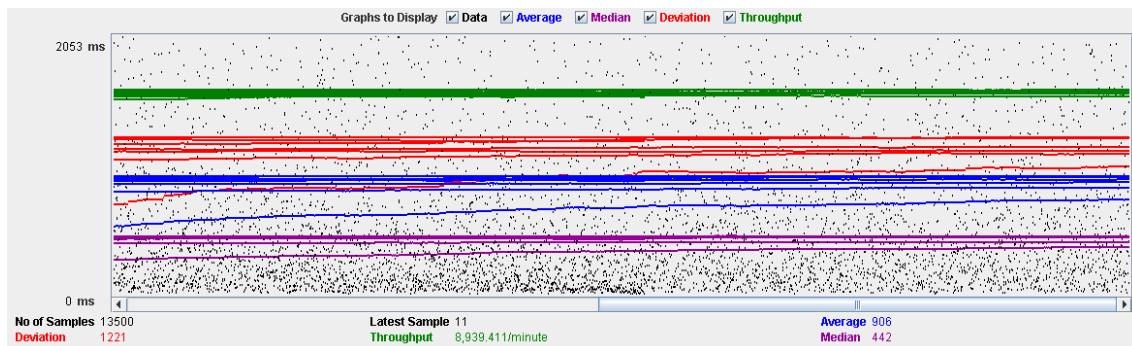
Number of Threads (users):

Ramp-Up Period (in seconds):

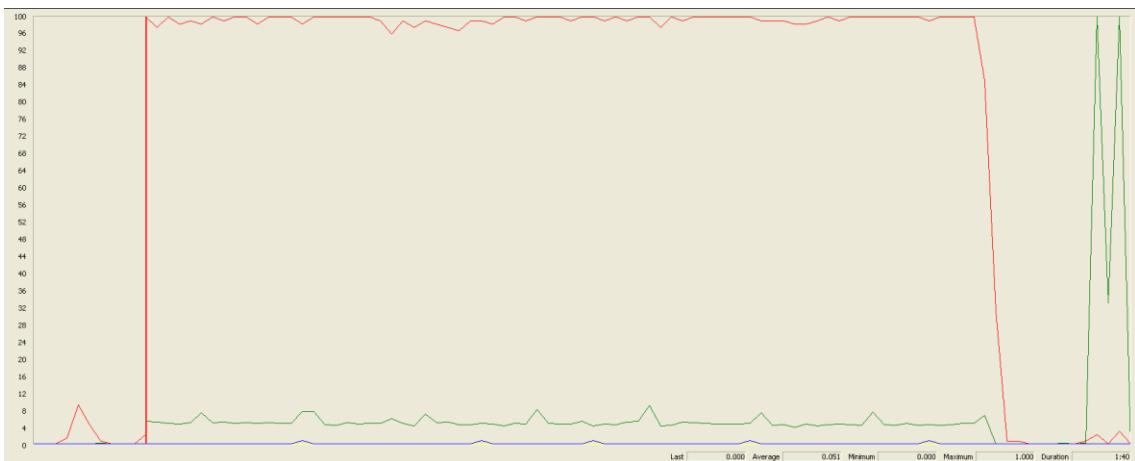
Loop Count: Forever

Scheduler

Graph Results:



Performance Results:



The CPU was always at its limit while the disk usage showed low peaks.

Conclusion

The test was performed using:

CPU: i7 6700hq (2 cores in the virtual machine)

RAM: 4 GB (virtual machine)

For this use case we can say that the limitation occurs during the assign process, being the maximum of concurrent users 130.

22. Sponsorship

Create

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1000	557	140	1468	9	10614	0.00%	9.4/sec	30.4
/j_spring_security...	1000	1443	817	3435	19	14693	0.00%	9.3/sec	32.7
/	2000	754	282	2031	8	14994	0.00%	18.6/sec	57.3
/sponsorship/spo...	2000	759	265	2136	15	11669	0.00%	18.7/sec	131.7
/sponsorship/spo...	1000	730	250	1869	9	15050	0.00%	9.3/sec	38.2
/sponsorship/spo...	1000	1307	687	3144	25	11821	0.00%	9.3/sec	59.7
/j_spring_security...	1000	692	213	1808	10	13151	0.00%	9.3/sec	29.7
TOTAL	9000	862	334	2319	8	15050	0.00%	83.6/sec	377.9

Label	90% Line	Error %
/security/login.do	1468	0.00%
/j_spring_security...	3435	0.00%
/	2031	0.00%
/sponsorship/spo...	2136	0.00%
/sponsorship/spo...	1869	0.00%
/sponsorship/spo...	3144	0.00%
/j_spring_security...	1808	0.00%
TOTAL	2319	0.00%

Thread properties:

Thread Properties

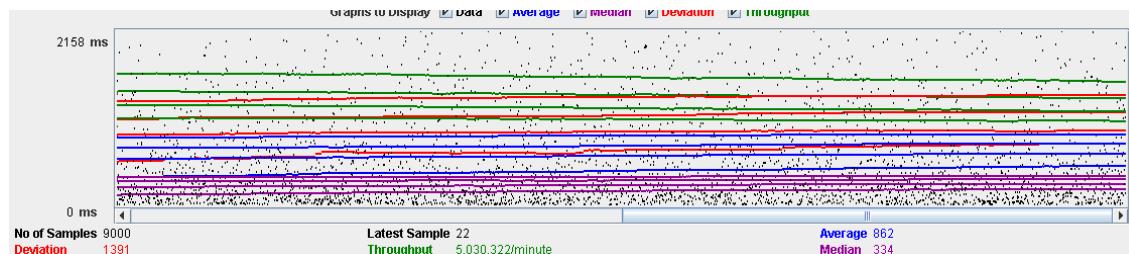
Number of Threads (users):

Ramp-Up Period (in seconds):

Loop Count: **Forever**

Scheduler

Graph Results:



Performance Results:



The CPU was always at its limit while the disk usage showed low peaks.

Edit

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	2199	577	230	1588	7	9206	0.00%	13.0/sec	42.1
/j_spring_security...	2199	1178	708	2860	18	10703	0.00%	12.9/sec	50.7
/	4395	599	252	1526	7	11436	0.00%	25.6/sec	84.2
/sponsorship/ad...	4397	600	260	1524	15	9947	0.00%	25.7/sec	189.2
/sponsorship/ad...	4396	1245	758	2959	21	15425	0.00%	25.9/sec	149.7
/j_spring_security...	2196	590	246	1536	6	8809	0.00%	13.1/sec	40.6
TOTAL	19782	804	386	2053	6	15425	0.00%	114.2/sec	547.2

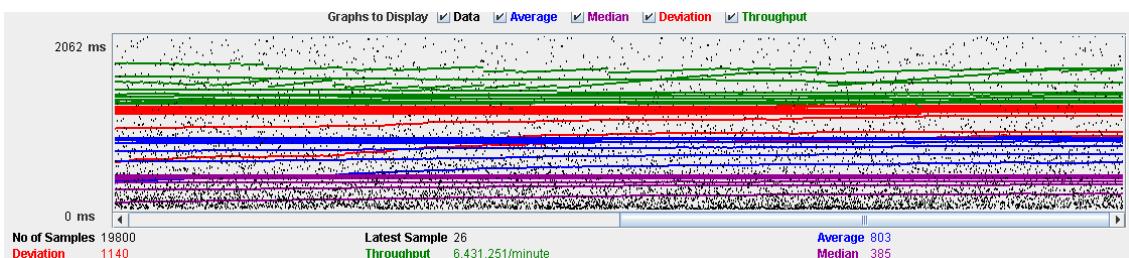
Label	90% Line	Error %
/security/login.do	1588	0.00%
/j_spring_security...	2860	0.00%
/	1526	0.00%
/sponsorship/ad...	1524	0.00%
/sponsorship/ad...	2959	0.00%
/j_spring_security...	1536	0.00%
TOTAL	2053	0.00%

Thread properties:

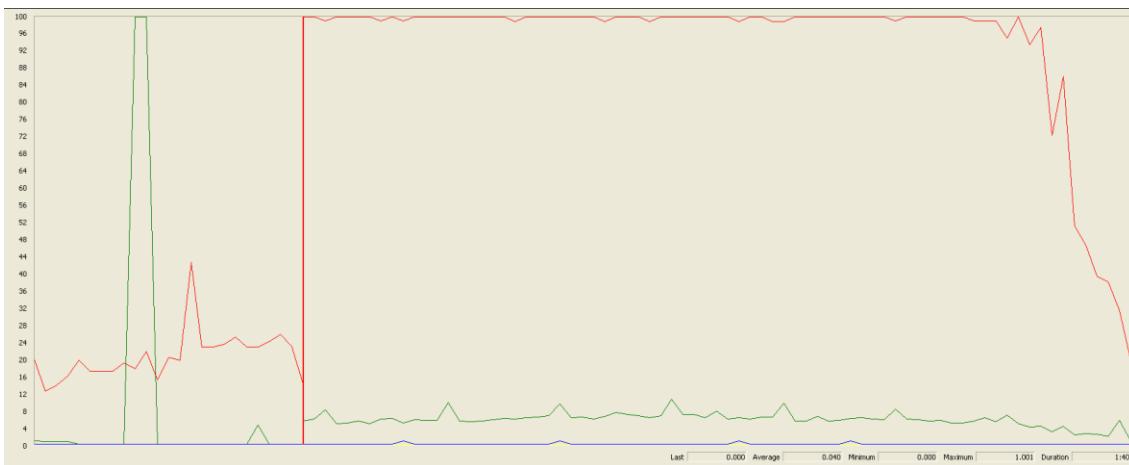
Thread Properties	
Number of Threads (users):	220
Ramp-Up Period (in seconds):	3
Loop Count:	<input checked="" type="checkbox"/> Forever 10
<input type="checkbox"/> Scheduler	

Graph Results:

Performance



Performance Results:



The CPU was always at its limit.

Delete

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	2200	577	238	1500	7	10357	0.00%	12.1/sec	39.3
j_spring_security...	2200	1313	819	3035	17	13697	0.00%	12.1/sec	42.4
/	4400	617	255	1643	7	13342	0.00%	23.3/sec	71.8
/sponsorship/spo...	4400	655	281	1675	17	14049	0.00%	23.7/sec	168.8
/sponsorship/spo...	4400	1297	771	3091	18	14678	0.00%	23.9/sec	85.7
j_spring_security...	2200	636	245	1655	10	10843	0.00%	12.2/sec	37.5
TOTAL	19800	852	396	2160	7	14678	0.00%	104.0/sec	432.5

Label	90% Line	Error %
/security/login.do	1500	0.00%
/j_spring_security...	3035	0.00%
/	1643	0.00%
/sponsorship/spo...	1675	0.00%
/sponsorship/spo...	3091	0.00%
/j_spring_security...	1655	0.00%
TOTAL	2160	0.00%

Thread properties:

Thread Properties

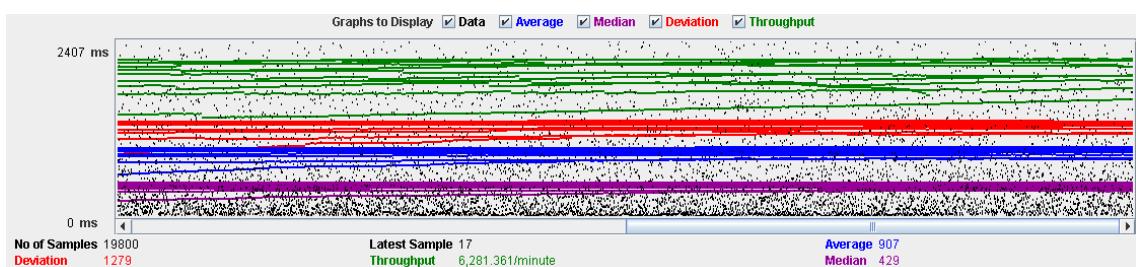
Number of Threads (users): 220

Ramp-Up Period (in seconds): 3

Loop Count: Forever 10

Scheduler

Graph Results:



Performance Results:



The CPU was always at its limit and had disk usage low peaks.

Conclusion

The test was performed using:

CPU: i7 6700hq (2 cores in the virtual machine)

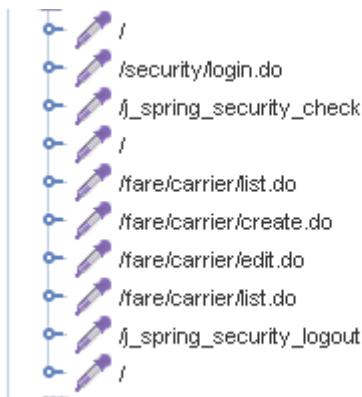
RAM: 4 GB (virtual machine)

For this use case we can say that the limitation occurs during the create process, being the maximum of concurrent users 100.

23. Fare

Create

Sequence:



Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/	3000	195	26	501	6	5498	0.00%	25.4/sec	80.2
/security/login.do	1000	169	19	349	7	5750	0.00%	9.3/sec	29.7
/j_spring_security...	1000	236	47	572	7	6167	0.00%	9.3/sec	36.1
/fare/carrier/list.do	2000	415	80	1255	17	5997	0.00%	17.8/sec	104.1
/fare/carrier/create...	1000	431	46	1525	7	6129	0.00%	9.2/sec	42.2
/fare/carrier/edit.do	1000	1053	603	2597	46	6218	0.00%	9.2/sec	47.0
/j_spring_security...	1000	351	44	1154	8	5531	0.00%	9.1/sec	28.1
TOTAL	10000	365	50	1108	6	6218	0.00%	84.8/sec	347.3

Label	90% Line	Error %
/	501	0.00%
/security/login.do	349	0.00%
/j_spring_security...	572	0.00%
/fare/carrier/list.do	1255	0.00%
/fare/carrier/create...	1525	0.00%
/fare/carrier/edit.do	2597	0.00%
/j_spring_security...	1154	0.00%
TOTAL	1108	0.00%

Thread properties:

Thread Properties

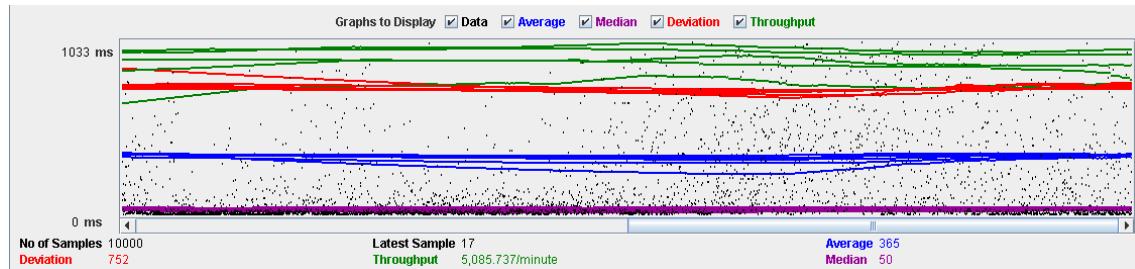
Number of Threads (users):

Ramp-Up Period (in seconds):

Loop Count: Forever

Scheduler

Graph Results:



Performance Results:



The CPU was always at its limit while the disk usage has a lot of peaks.

Edit

Sequence:

- ↗ /security/login.do
- ↗ /_spring_security_check
- ↗ /
- ↗ /fare/carrier/list.do
- ↗ /fare/carrier/edit.do
- ↗ /fare/carrier/edit.do
- ↗ /fare/carrier/list.do
- ↗ /_spring_security_logout
- ↗ /

Aggregate Report:

Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1000	627	257	1548	9	13065	0.00%	11.6/sec	38.7
/j_spring_security...	1000	1318	751	3331	33	10430	0.00%	11.6/sec	45.0
/	2000	702	281	1919	9	10875	0.00%	23.2/sec	75.8
/fare/carrier/list.do	2000	659	308	1663	22	8950	0.00%	23.2/sec	135.7
/fare/carrier/edit.do	2000	1104	552	2847	25	15042	0.00%	23.3/sec	133.6
/j_spring_security...	1000	695	284	1756	25	11875	0.00%	11.7/sec	35.9
TOTAL	9000	841	369	2179	9	15042	0.00%	104.4/sec	463.5

Label	90% Line	Error %
/security/login.do	1548	0.00%
/j_spring_security...	3331	0.00%
/	1919	0.00%
/fare/carrier/list.do	1663	0.00%
/fare/carrier/edit.do	2847	0.00%
/j_spring_security...	1756	0.00%
TOTAL	2179	0.00%

Thread properties:

Thread Properties

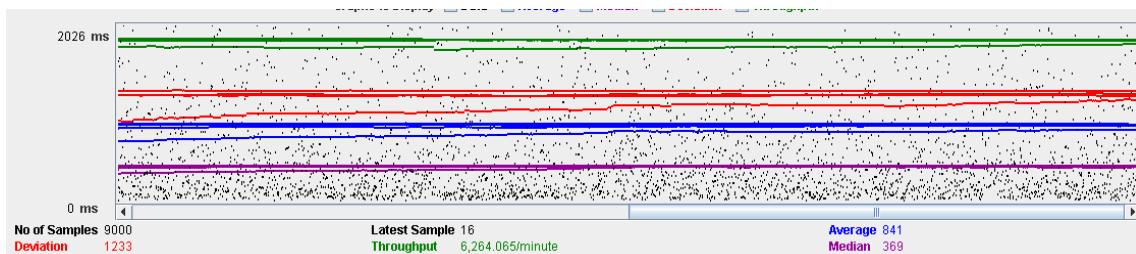
Number of Threads (users):

Ramp-Up Period (in seconds):

Loop Count: Forever

Scheduler

Graph Results:



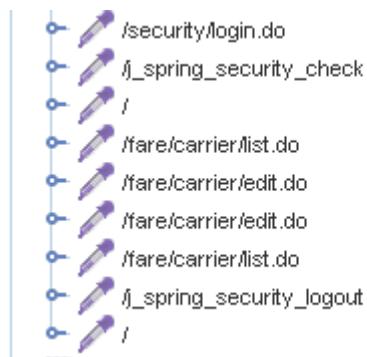
Performance Results:



Again we can see that the CPU is always being used and disk usage had some peaks.

Delete

Sequence:



Aggregate Report:

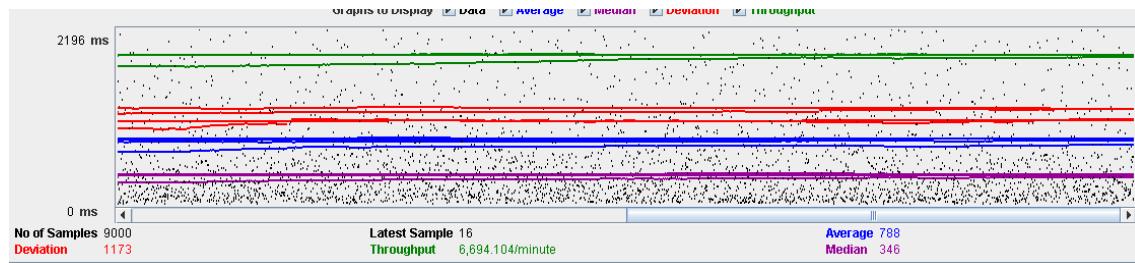
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/login.do	1000	621	247	1689	7	11734	0.00%	12.4/sec	41.3
/_spring_security...	1000	1273	740	3058	30	11861	0.00%	12.4/sec	48.1
/	2000	626	258	1614	7	11545	0.00%	24.8/sec	81.0
/fare/carrier/list.do	2000	634	271	1658	23	9131	0.00%	24.8/sec	145.0
/fare/carrier/edit.do	2000	990	489	2538	24	10748	0.00%	24.9/sec	108.1
/_spring_security...	1000	700	252	1859	17	17280	0.00%	12.5/sec	38.3
TOTAL	9000	788	346	2088	7	17280	0.00%	111.6/sec	460.8

Label	90% Line	Error %
/security/login.do	1689	0.00%
/_spring_security...	3058	0.00%
/	1614	0.00%
/fare/carrier/list.do	1658	0.00%
/fare/carrier/edit.do	2538	0.00%
/_spring_security...	1859	0.00%
TOTAL	2088	0.00%

Thread properties:

Thread Properties	
Number of Threads (users): <input type="text" value="100"/>	
Ramp-Up Period (in seconds): <input type="text" value="3"/>	
Loop Count:	<input checked="" type="checkbox"/> Forever <input type="text" value="10"/> <input type="checkbox"/> Scheduler

Graph Results:



Performance Results:



Again we can see that the CPU is always being used while the disk usage and network have different peaks.

Conclusion

The test was performed using:

CPU: i5 7300hq (2 cores in the virtual machine)

RAM: 2 GB (virtual machine)

For this use case we can say that the limitation occurs during with all the process, being the maximum of concurrent users 100.

24. Conclusion of the performance

As we can see in the tests above, the limitations of our system are in the message system, particularly in the method of execute every function available in the dashboard (30 concurrent users). We think that this may be a bit unrealistic, because in a real environment won't be many administrators using that functions. Due that, we consider that the limit of concurrent users for our system is 54 (creating a request).