

# **Creating a Performance Test Summary Report**

## **Version 1.0**

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## **Creating a Performance Test Summary Report: Best Practices and Key Components**

Performance testing is a crucial step in the software development lifecycle, ensuring that the application or system can handle the expected load and meet the performance requirements. However, the success of performance testing largely depends on the ability to communicate the test results and their implications to stakeholders effectively. This is where a well-crafted performance test summary report comes in.

In this article, I will discuss the best practices for creating a performance test summary report and the key components that should be included in it. I will also include a full example performance summary report that was done in accordance with a performance test I performed. You can find demo performance tests here

<https://github.com/JamesOhia/Performance-Test-Demo>.

### **Best Practices for Creating a Performance Test Summary Report**

1. Keep it concise and easy to understand: The report should be concise and easy to understand, even for non-technical stakeholders. Avoid using technical jargon and provide clear explanations for any technical terms that are necessary.
2. Provide a clear summary: Start the report with a brief summary of the test objectives, methodology, and key findings. This will give the stakeholders a quick overview of the report and help them understand the context of the test.
3. Include details of the test environment: It is important to include details of the test environment, such as hardware and software configurations, network setup, and any other relevant details. This will help stakeholders understand the conditions under which the test was conducted and put the results in context.
4. Present the test results effectively: The test results should be presented in a clear and concise manner, using tables, graphs, or charts where appropriate. The report should include both quantitative and qualitative results, such as response times, throughput, error rates, and system stability.
5. Provide clear conclusions and recommendations: Based on the test results, provide clear conclusions and recommendations for the stakeholders. This will help them understand the implications of the test and make informed decisions about whether to deploy the application or system.

## **Key Components of a Performance Test Summary Report**

1. **Test Objectives:** Clearly state the test objectives and the performance requirements that the application or system needs to meet.
2. **Test Methodology:** Describe the methodology used for the performance test, including the test scenarios, the load generation strategy, and the metrics used to measure performance.
3. **Test Environment:** Provide details of the test environment, including hardware and software configurations, network setup, and any other relevant details.
4. **Test Results:** Present the test results in a clear and concise manner, using tables, graphs, or charts where appropriate. Include both quantitative and qualitative results, such as response times, throughput, error rates, and system stability.
5. **Findings and Analysis:** Describe the key findings and analysis of the test results, including any bottlenecks, performance issues, or areas for improvement.
6. **Conclusions and Recommendations:** Based on the test results, provide clear conclusions and recommendations for the stakeholders, including whether the application or system is ready for deployment, and if not, what needs to be done to improve performance.

The rest of this article will showcase a full performance test report that can help you relate to how one is written.

# Performance Test Summary Report

## Summary

Performance Testing was done using the JMeter Performance tool. Here we focused on observing metrics such as the response time of each endpoint, the error percentage, the type of error that occurred during the performance testing, and the CPU, Memory, Disk, and Network utilization. This performance test is executed on the web application using a test plan where the minimum number of users acted as the baseline and this number was increased to 100% at the end of the test.

The test was executed in 5 different cycles; subsequent cycles will include a 25% increase in the number of users for the same ramp-up time which is 10 minutes. The result for all the cycles was identical whereby the test was successful with all the cycles having 100% pass rate and the average response time having most of them at the range of 500ms and below. The memory was unaffected by the load staying at 38% in all the cycles while the CPU spiked up to 78% on the highest cycle run.

## Environment

The test was conducted on the following IP address and port

IP Address	Port
172.27.14.21	4444

## Services/Test Plan

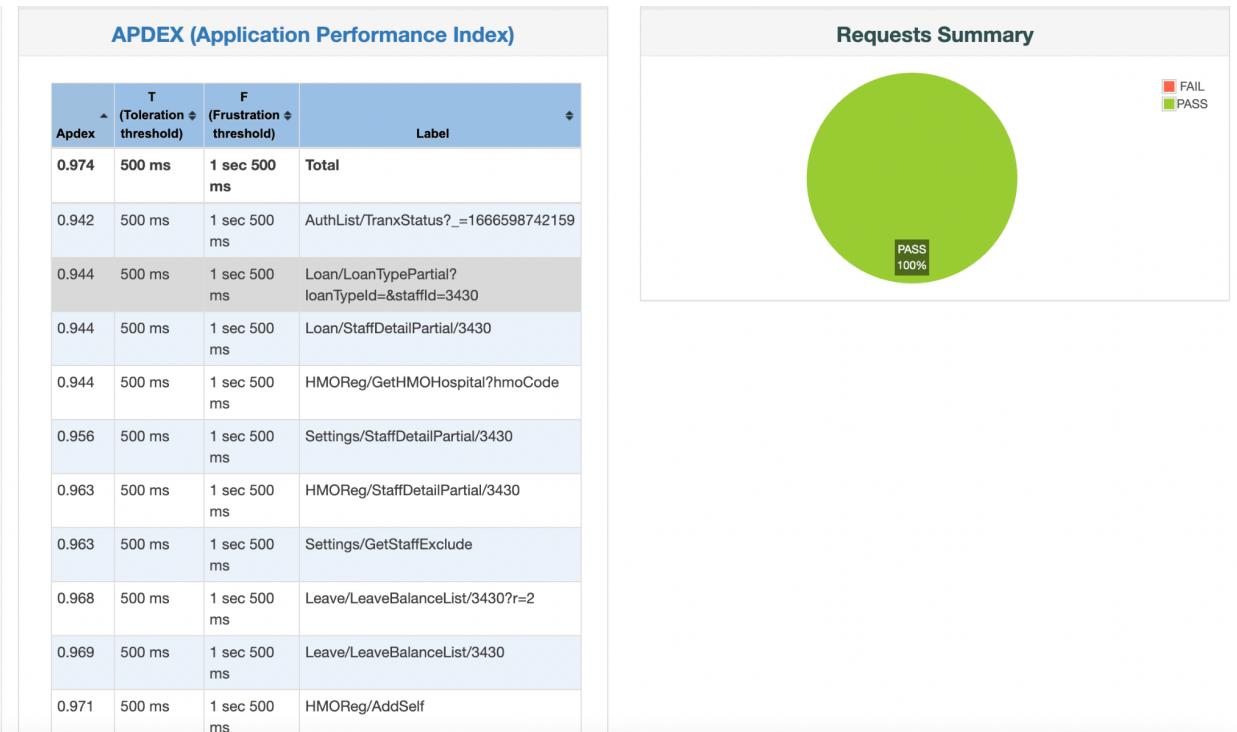
No of endpoints	Number of Users	Cycle 1 run baseline (gotten from the division of number of users and endpoints)	Cycle 2 Run 25% more (using 7500 number of users)	Cycle 3 Run 50% more (using 9000 number of users)	Cycle 4 Run 75% more (using 10,500 number of users)	Cycle 5 Run 100% more (using 12000 number of users)
25	6000	240	300	360	420	480

## Test Result Analysis

The following Graph shows the application performance index, statistics containing executions, response times, and throughput for 10 minutes of Ramp-up time.

### Test Server Cycle 1 run

This run involves the minimum number of users acting as the baseline which is 6000.



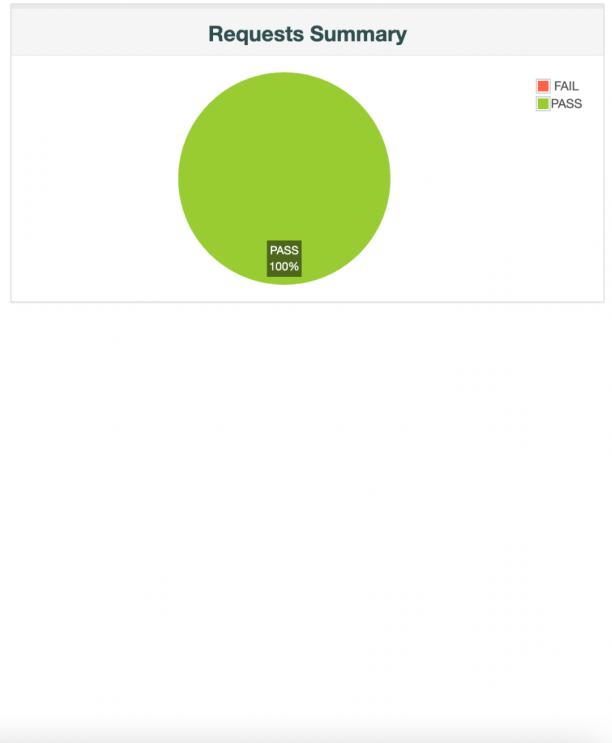
Statistics															
Requests		Executions			Response Times (ms)								Throughput	Network (KB/sec)	
Label	#Samples	FAIL	Error %	Average	Min	Max	Median	90th pct	95th pct	99th pct	Transactions/s	Received	Sent		
Total	6960	0	0.00%	154.73	62	3530	108.00	215.00	511.95	725.00	11.58	15.71	17.51		
AuthList/AuthQueue?_=1666598735840	240	0	0.00%	144.64	72	617	110.00	148.40	420.80	608.18	0.40	0.12	0.57		
AuthList/TranxStatus?_=1666598742159	240	0	0.00%	222.91	101	1499	144.00	627.50	761.15	1456.77	0.40	2.58	0.57		
Cooperative/Add	240	0	0.00%	142.18	79	633	111.00	146.80	422.85	626.77	0.40	0.12	0.69		
Cooperative/CoopTypePartial/100	240	0	0.00%	119.86	68	602	104.00	127.00	377.80	419.59	0.40	0.33	0.55		
Cooperative/StaffCooperativeList?	240	0	0.00%	131.41	72	919	105.00	130.80	410.95	622.00	0.40	0.29	0.58		
FCMBHRTTEST/Loan/GetDBR	240	0	0.00%	140.33	72	702	105.00	129.80	598.70	649.03	0.40	0.13	0.59		
HMOReg/AddSelf	240	0	0.00%	146.31	75	716	108.00	138.90	600.80	626.36	0.40	0.11	0.69		
HMOReg/GetHMOHospital?hmoCode	240	0	0.00%	163.85	73	1244	106.00	549.50	618.65	669.11	0.40	0.72	0.56		
HMOReg/StaffDetailPartial/3430	240	0	0.00%	146.73	75	1640	107.00	129.80	600.95	641.57	0.40	0.75	0.55		
Home/GetPayrollByRegionCurrentMonth	480	0	0.00%	142.68	75	927	110.00	142.30	427.80	631.00	0.80	0.26	1.10		
Leave/GetLeaveAmount?leaveType	240	0	0.00%	124.39	67	619	105.00	126.00	374.30	615.59	0.40	0.14	0.56		
Leave/GetLeaveDays?leaveStart	240	0	0.00%	115.80	73	1132	103.00	124.80	136.90	529.10	0.40	0.13	0.56		
Leave/GetLeaveEligibility?leaveType	240	0	0.00%	137.33	74	626	105.00	156.60	417.95	619.18	0.40	0.14	0.56		
Leave/GetResumptionDate?leaveStart	240	0	0.00%	140.28	73	1116	105.00	131.80	415.00	921.67	0.40	0.14	0.57		
Leave/LeaveBalanceList/3430	240	0	0.00%	136.51	70	795	104.00	127.90	588.00	683.23	0.40	0.72	0.55		
Leave/LeaveBalanceList/3430?r=2	480	0	0.00%	213.48	66	3530	175.50	231.70	583.00	1439.97	0.80	0.35	1.10		
Leave/LeaveHistoryv2/3430	240	0	0.00%	123.95	71	649	103.00	119.90	145.75	633.90	0.40	0.64	0.55		
Leave/LeaveHistory2/3430	240	0	0.00%	123.95	71	649	103.00	119.90	145.75	633.90	0.40	0.64	0.55		
Loan/LoanTypePartial?loanTypeld=&staffId=3430	240	0	0.00%	160.04	73	665	105.00	557.80	612.80	645.52	0.40	0.60	0.56		
Loan/StaffDetailPartial/3430	240	0	0.00%	168.47	74	1537	107.00	571.30	616.95	1090.00	0.40	0.76	0.55		
Payroll/PayrollProcessList/1?	240	0	0.00%	126.82	62	642	103.50	126.80	405.95	625.26	0.40	0.12	0.56		
Settings/GetStaffExclude	240	0	0.00%	162.48	74	795	112.00	214.70	699.95	766.98	0.40	2.09	0.60		
Settings/StaffDetailPartial/3430	480	0	0.00%	255.45	142	3396	210.00	281.30	608.40	854.95	0.80	2.29	2.22		
Settings/StaffDetailPartial/3430-0	480	0	0.00%	122.52	68	3299	103.00	121.00	134.85	601.04	0.80	1.06	1.10		
Settings/StaffDetailPartial/3430-1	480	0	0.00%	132.28	72	983	104.00	124.90	408.65	734.33	0.80	1.23	1.12		

The Table shows us the number of concurrent virtual users sending a request, response time, and an error percentage across all services that were called. This result shows us that the run was successful with a 100% pass rate. It also shows us how good the average response time is. None of the endpoints have an average above 500ms.

### Test Server Cycle 2 run

This run involves a 25% increase in the number of concurrent users from the cycle 1 run which is 7500 users.

APDEX (Application Performance Index)			
Apdex	T (Tolerance ▲ threshold)	F (Frustration ▲ threshold)	Label
0.977	500 ms	1 sec 500 ms	Total
0.942	500 ms	1 sec 500 ms	AuthList/TrnxStatus?_=1666598742159
0.950	500 ms	1 sec 500 ms	Settings/GetStaffExclude
0.958	500 ms	1 sec 500 ms	Leave/LeaveBalanceList/3430?r=2
0.964	500 ms	1 sec 500 ms	Home/GetPayrollByRegionCurrentMonth
0.967	500 ms	1 sec 500 ms	FCMBHRTEST/Loan/GetDBR
0.973	500 ms	1 sec 500 ms	Cooperative/CoopTypePartial/100
0.975	500 ms	1 sec 500 ms	Leave/GetLeaveAmount?leaveType
0.975	500 ms	1 sec 500 ms	HMOReg/GetHMOHospital?hmoCode
0.977	500 ms	1 sec 500 ms	HMOReg/StaffDetailPartial/3430
0.977	500 ms	1 sec 500 ms	Loan/LoanTypePartial?loanTypeld=&staffId=3430



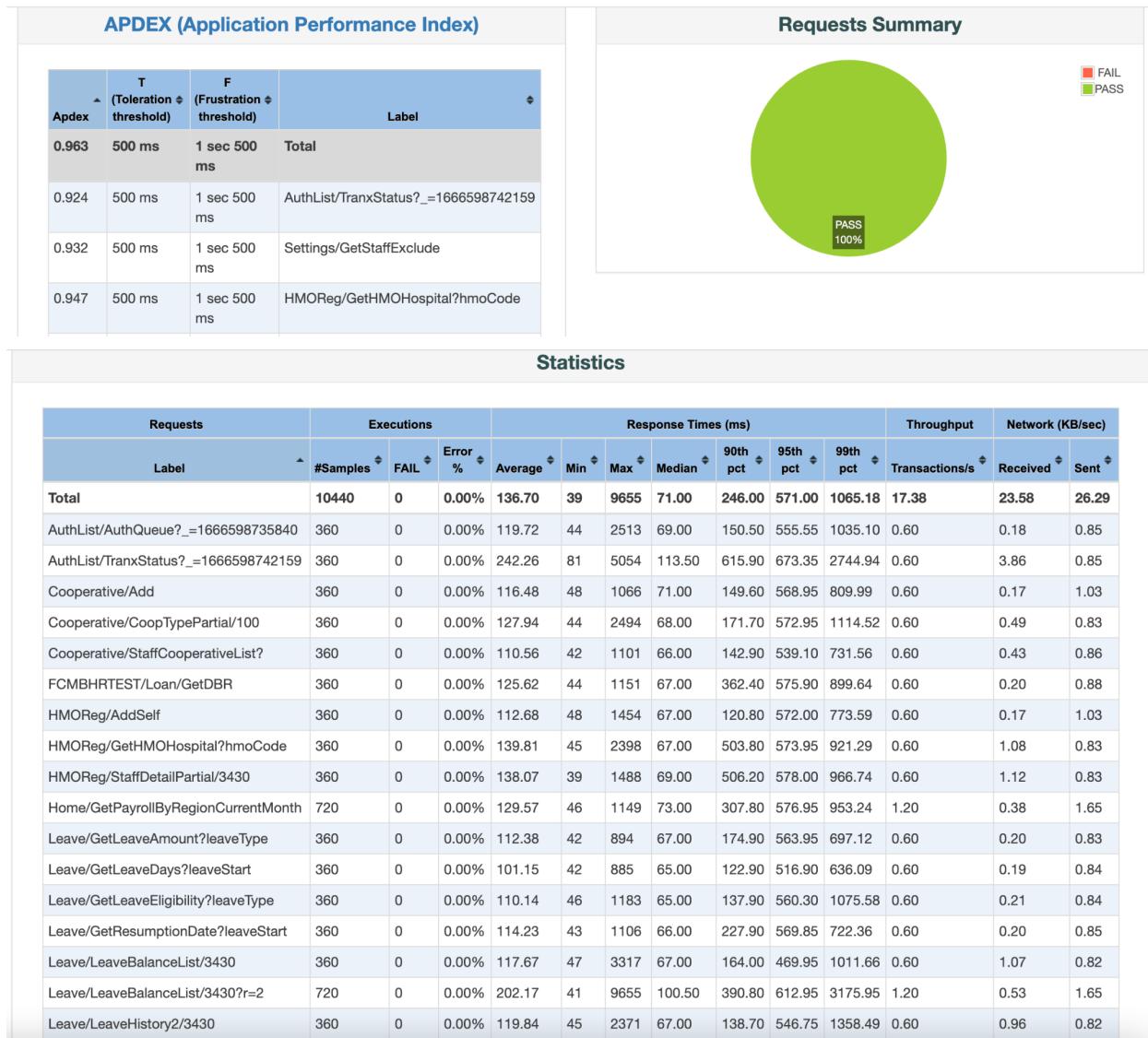
Statistics															
Requests		Executions			Response Times (ms)							Throughput		Network (KB/sec)	
Label	#Samples	FAIL	Error %	Average	Min	Max	Median	90th pct	95th pct	99th pct	Transactions/s	Received	Sent		
Total	8700	0	0.00%	115.23	38	9241	68.00	150.00	455.90	684.99	14.45	19.62	21.85		
AuthList/AuthQueue?_=1666598735840	300	0	0.00%	93.28	46	692	66.00	103.70	337.50	637.90	0.50	0.15	0.71		
AuthList/TrnxStatus?_=1666598742159	300	0	0.00%	193.21	77	4911	111.00	530.80	613.95	843.80	0.50	3.22	0.71		
Cooperative/Add	300	0	0.00%	101.49	50	1108	70.50	107.60	356.15	808.89	0.50	0.14	0.86		
Cooperative/CoopTypePartial/100	300	0	0.00%	101.68	40	871	65.00	109.80	564.90	670.18	0.50	0.41	0.69		
Cooperative/StaffCooperativeList?	300	0	0.00%	94.32	42	659	65.00	97.00	371.60	627.60	0.50	0.36	0.72		
FCMBHRTEST/Loan/GetDBR	300	0	0.00%	113.62	44	1278	65.00	178.80	568.90	617.81	0.50	0.17	0.73		
HMOReg/AddSelf	300	0	0.00%	99.66	47	1144	67.50	103.70	355.80	669.16	0.50	0.14	0.86		
HMOReg/GetHMOHospital?hmoCode	300	0	0.00%	109.93	44	1195	66.00	139.60	561.75	867.89	0.50	0.90	0.69		
HMOReg/StaffDetailPartial/3430	300	0	0.00%	108.16	42	1095	65.00	143.60	492.80	992.43	0.50	0.94	0.69		
Home/GetPayrollByRegionCurrentMonth	600	0	0.00%	119.70	48	1073	72.00	211.70	574.95	599.97	1.00	0.32	1.37		
Leave/GetLeaveAmount?leaveType	300	0	0.00%	98.71	46	1117	64.00	97.70	543.05	644.87	0.50	0.17	0.70		
Leave/GetLeaveDays?leaveStart	300	0	0.00%	93.15	40	1382	62.00	105.90	335.85	691.90	0.50	0.16	0.70		
Leave/GetLeaveEligibility?leaveType	300	0	0.00%	92.03	42	683	64.00	110.70	338.90	592.97	0.50	0.18	0.70		
Leave/GetResumptionDate?leaveStart	300	0	0.00%	87.00	41	855	64.00	104.80	232.30	581.83	0.50	0.17	0.71		
Leave/LeaveBalanceList/3430	300	0	0.00%	95.45	40	1241	64.00	124.40	423.75	563.99	0.50	0.90	0.69		
Leave/LeaveBalanceList/3430?r=2	600	0	0.00%	187.35	41	9241	98.50	266.80	573.90	3212.80	1.00	0.46	1.37		
Leave/LeaveHistory2/3430	300	0	0.00%	105.22	42	1140	63.50	140.80	456.95	777.68	0.50	0.80	0.68		

Leave/LeaveHistory2/3430	300	0	0.00%	105.22	42	1140	63.50	140.80	456.95	777.68	0.50	0.80	0.68
Loan/LoanTypePartial? loanTypeId=&staffId=3430	300	0	0.00%	104.53	43	2324	63.00	117.90	483.90	825.42	0.50	0.74	0.69
Loan/StaffDetailPartial/3430	300	0	0.00%	99.60	40	957	66.00	114.80	499.70	648.92	0.50	0.94	0.69
Payroll/PayrollProcessList/1?	300	0	0.00%	83.98	42	1357	61.00	88.00	132.60	581.90	0.50	0.15	0.69
Settings/GetStaffExclude	300	0	0.00%	148.95	46	1427	75.00	512.60	584.75	1075.31	0.50	2.61	0.75
Settings/StaffDetailPartial/3430	600	0	0.00%	176.25	90	2390	127.00	323.90	446.55	916.92	1.00	2.85	2.78
Settings/StaffDetailPartial/3430-0	600	0	0.00%	87.46	41	2306	64.00	95.70	204.40	564.98	1.00	1.32	1.38
Settings/StaffDetailPartial/3430-1	600	0	0.00%	88.03	38	1442	62.00	105.00	227.90	684.67	1.00	1.54	1.40

This result shows us that the run was successful with a 100% pass rate. It also shows us how good the average response time is. None of the endpoints have an average above 500ms.

### Test Server Cycle 3 run

This run involves a 50% increase in the number of concurrent users from the cycle 1 run which is 9000 users.

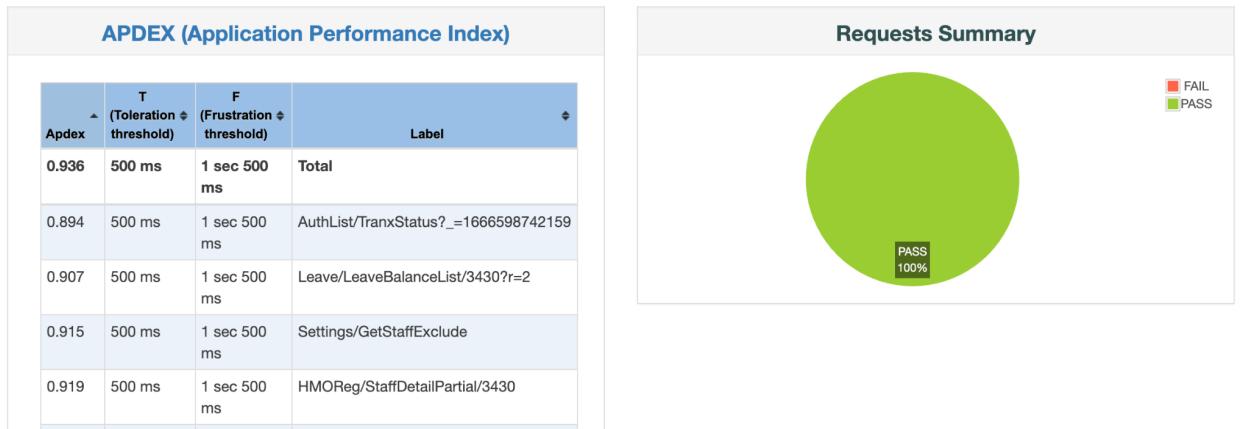


Leave/LeaveHistory2/3430	360	0	0.00%	119.84	45	2371	67.00	138.70	546.75	1358.49	0.60		0.96	0.82
Loan/LoanTypePartial? loanTypeld=&staffId=3430	360	0	0.00%	111.93	42	1135	66.00	157.40	547.55	837.30	0.60		0.89	0.84
Loan/StaffDetailPartial/3430	360	0	0.00%	135.95	44	1705	68.00	483.60	576.60	1076.63	0.60		1.13	0.83
Payroll/PayrollProcessList/1?	360	0	0.00%	130.05	40	2110	64.00	372.60	569.95	1085.29	0.60		0.18	0.84
Settings/GetStaffExclude	360	0	0.00%	195.69	51	5853	79.50	571.90	648.55	1288.17	0.60		3.13	0.90
Settings/StaffDetailPartial/3430	720	0	0.00%	204.94	94	2939	134.00	420.00	646.90	1156.37	1.20		3.43	3.33
Settings/StaffDetailPartial/3430-0	720	0	0.00%	113.79	42	2278	66.00	150.00	557.40	1034.45	1.20		1.58	1.65
Settings/StaffDetailPartial/3430-1	720	0	0.00%	90.58	41	2351	65.00	102.90	184.55	642.69	1.20		1.85	1.68

This result shows us that the run was successful with a 100% pass rate. It also shows us how good the average response time is. None of the endpoints have an average above 500ms.

### Test Server Cycle 4 run

This run involves a 75% increase in the number of concurrent users from the cycle 1 run which is 10500 users.



## Statistics

Requests		Executions			Response Times (ms)							Throughput		Network (KB/sec)	
Label	#Samples	FAIL	Error %	Average	Min	Max	Median	90th pct	95th pct	99th pct	Transactions/s	Received	Sent		
<b>Total</b>	12180	0	0.00%	201.00	36	13942	78.00	558.90	638.95	1881.52	20.20	27.41	30.54		
AuthList/AuthQueue?_=1666598735840	420	0	0.00%	191.66	44	2726	75.00	556.60	624.25	2218.07	0.70	0.21	0.99		
AuthList/TranxStatus?_=1666598742159	420	0	0.00%	365.05	73	12771	124.00	665.00	1063.65	5250.87	0.70	4.50	0.99		
Cooperative/Add	420	0	0.00%	166.07	46	3131	81.00	562.10	593.70	1385.82	0.70	0.20	1.20		
Cooperative/CoopTypePartial/100	420	0	0.00%	179.99	40	6015	71.00	560.70	585.00	1589.26	0.70	0.57	0.96		
Cooperative/StaffCooperativeList?	420	0	0.00%	159.10	39	2086	70.50	548.90	583.95	1332.00	0.70	0.50	1.00		
FCMBHRTEST/Loan/GetDBR	420	0	0.00%	170.63	46	5169	75.00	558.90	593.65	1467.95	0.70	0.23	1.02		
HMOReg/AddSelf	420	0	0.00%	162.06	44	1612	76.50	569.70	606.85	1099.55	0.70	0.20	1.20		
HMOReg/GetHMOHospital?hmoCode	420	0	0.00%	187.87	40	2344	71.00	574.80	666.90	2204.55	0.70	1.25	0.97		
HMOReg/StaffDetailPartial/3430	420	0	0.00%	189.15	43	2785	73.50	571.50	629.40	1940.04	0.70	1.31	0.96		
Home/GetPayrollByRegionCurrentMonth	840	0	0.00%	209.49	45	5354	81.00	576.00	680.45	1852.93	1.39	0.44	1.92		
Leave/GetLeaveAmount?leaveType	420	0	0.00%	188.44	43	7705	73.00	566.00	587.95	1112.32	0.70	0.24	0.97		
Leave/GetLeaveDays?leaveStart	420	0	0.00%	162.02	43	5026	69.00	552.60	588.85	1099.49	0.70	0.22	0.98		
Leave/GetLeaveEligibility?leaveType	420	0	0.00%	150.27	42	2415	70.00	381.50	583.70	1488.41	0.70	0.24	0.97		
Leave/GetResumptionDate?leaveStart	420	0	0.00%	161.77	44	4080	70.00	477.40	608.40	1258.23	0.70	0.24	0.99		
Leave/LeaveBalanceList/3430	420	0	0.00%	167.40	45	6694	71.00	343.00	628.05	1472.37	0.70	1.25	0.96		
Leave/LeaveBalanceList/3430?r=2	840	0	0.00%	310.83	40	6986	109.00	622.30	1235.55	3604.70	1.39	0.63	1.91		
Leave/LeaveHistory2/3430	420	0	0.00%	165.70	40	5060	70.00	545.60	594.65	1106.97	0.70	1.12	0.96		
Leave/LeaveHistory2/3430	420	0	0.00%	165.70	40	5060	70.00	545.60	594.65	1106.97	0.70	1.12	0.96		
Loan/LoanTypePartial?loanTypeld=&staffld=3430	420	0	0.00%	195.97	40	5026	71.00	548.90	604.75	2008.14	0.70	1.04	0.97		
Loan/StaffDetailPartial/3430	420	0	0.00%	176.53	41	1638	74.00	561.00	603.95	1243.85	0.70	1.31	0.96		
Payroll/PayrollProcessList/1?	420	0	0.00%	141.69	41	2555	69.00	311.50	568.00	1422.62	0.70	0.21	0.97		
Settings/GetStaffExclude	420	0	0.00%	246.95	44	6633	80.00	603.70	1041.20	3031.31	0.70	3.64	1.05		
Settings/StaffDetailPartial/3430	840	0	0.00%	315.37	90	13942	138.00	632.80	880.45	3104.77	1.40	3.98	3.88		
Settings/StaffDetailPartial/3430-0	840	0	0.00%	168.69	36	13005	69.00	371.00	587.70	1534.27	1.40	1.84	1.92		
Settings/StaffDetailPartial/3430-1	840	0	0.00%	145.99	38	7184	68.00	200.50	455.05	1150.26	1.40	2.15	1.96		

This result shows us that the run was successful with a 100% pass rate. It also shows us how good the average response time is. None of the endpoints have an average above 500ms.

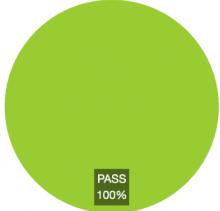
### Test Server Cycle 5 run

This run involves a 100% increase in the number of concurrent users from the cycle 1 run which is 12000 users.

### APDEX (Application Performance Index)

Apdex	T (Toleration $\downarrow$ threshold)	F (Frustration $\downarrow$ threshold)	Label
0.892	500 ms	1 sec 500 ms	Total
0.814	500 ms	1 sec 500 ms	Settings/StaffDetailPartial/3430
0.849	500 ms	1 sec 500 ms	Leave/LeaveBalanceList/3430?r=2
0.864	500 ms	1 sec 500 ms	AuthList/TrnxStatus?_=1666598742159
0.885	500 ms	1 sec 500 ms	Loan/LoanTypePartial?loanTypeId=&staffId=3430
0.886	500 ms	1 sec 500 ms	Cooperative/CoopTypePartial/100
0.887	500 ms	1 sec 500 ms	Leave/LeaveHistory2/3430

### Requests Summary

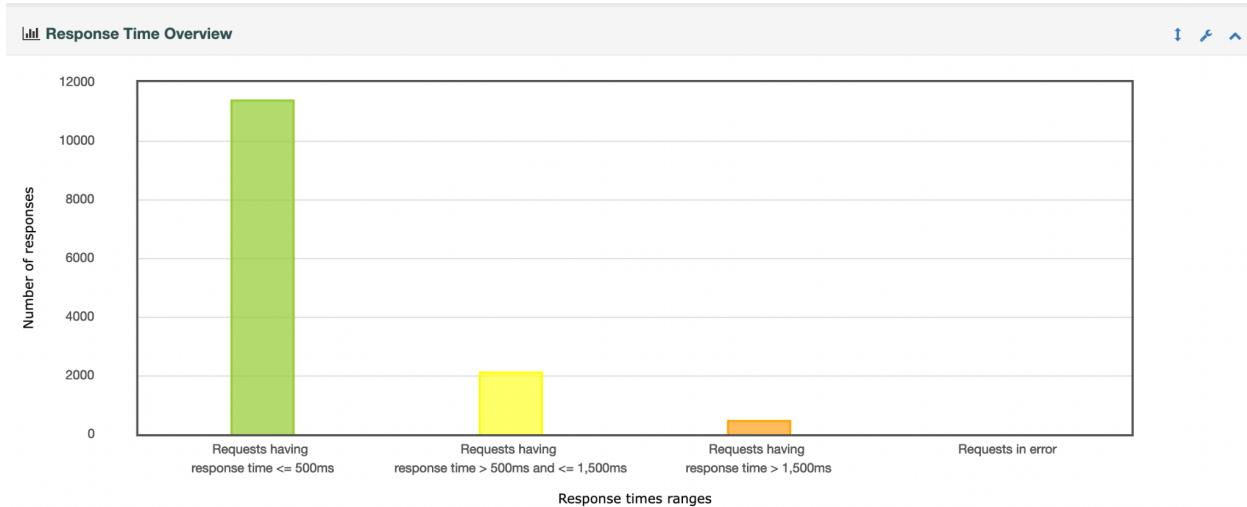


PASS  
100%

### Statistics

Requests		Executions			Response Times (ms)							Throughput		Network (KB/sec)	
Label		#Samples $\downarrow$	FAIL $\downarrow$	Error % $\downarrow$	Average $\downarrow$	Min $\downarrow$	Max $\downarrow$	Median $\downarrow$	90th pct $\downarrow$	95th pct $\downarrow$	99th pct $\downarrow$	Transactions/s $\downarrow$	Received $\downarrow$	Sent $\downarrow$	
Total		13920	0	0.00%	302.84	34	33122	95.00	634.00	1104.00	2930.74	23.02	31.23	34.81	
AuthList/AuthQueue?_=1666598735840		480	0	0.00%	306.85	42	10374	90.00	610.00	1081.75	2833.53	0.80	0.24	1.13	
AuthList/TrnxStatus?_=1666598742159		480	0	0.00%	353.21	74	6132	133.00	689.70	1154.00	3438.59	0.80	5.13	1.14	
Cooperative/Add		480	0	0.00%	344.59	43	8401	89.00	637.10	1217.65	4946.08	0.80	0.23	1.37	
Cooperative/CoopTypePartial/100		480	0	0.00%	267.44	34	3154	83.00	627.30	1072.95	2203.18	0.80	0.66	1.10	
Cooperative/StaffCooperativeList?		480	0	0.00%	247.73	38	4482	82.00	588.80	969.60	2146.75	0.80	0.58	1.15	
FCMBHRTEST/Loan/GetDBR		480	0	0.00%	243.77	40	7541	86.00	576.70	1048.85	1977.44	0.81	0.26	1.18	
HMOReg/AddSelf		480	0	0.00%	234.06	43	4835	82.50	599.50	964.70	1681.27	0.81	0.22	1.38	
HMOReg/GethMOHospital?hmoCode		480	0	0.00%	254.62	43	7060	82.50	584.80	1001.15	2521.87	0.81	1.44	1.12	
HMOReg/StaffDetailPartial/3430		480	0	0.00%	274.23	40	7172	80.50	614.30	1103.80	2282.40	0.80	1.50	1.10	
Home/GetPayrollByRegionCurrentMonth		960	0	0.00%	320.99	45	33122	93.00	627.00	1121.35	3068.29	1.59	0.51	2.19	
Leave/GetLeaveAmount?leaveType		480	0	0.00%	231.56	41	4785	80.00	574.00	728.05	1735.71	0.80	0.27	1.11	
Leave/GetLeaveDays?leaveStart		480	0	0.00%	220.81	40	2656	79.50	562.90	939.10	2279.31	0.80	0.25	1.12	
Leave/GetLeaveEligibility?leaveType		480	0	0.00%	255.35	37	10189	81.00	576.80	1034.15	2693.33	0.80	0.28	1.12	
Leave/GetResumptionDate?leaveStart		480	0	0.00%	273.93	40	10797	80.50	579.70	935.20	2882.31	0.80	0.27	1.13	
Leave/LeaveBalanceList/3430		480	0	0.00%	239.09	44	3686	74.00	560.60	846.85	3018.50	0.80	1.43	1.10	
Leave/LeaveBalanceList/3430?r=2		960	0	0.00%	449.64	41	7758	128.00	1115.00	1930.95	4506.54	1.59	0.70	2.18	
Leave/LeaveHistory2/3430		480	0	0.00%	269.49	38	4689	80.00	619.10	1061.40	2997.10	0.80	1.28	1.09	
Leave/LeaveHistory2/3430		480	0	0.00%	269.49	38	4689	80.00	619.10	1061.40	2997.10	0.80	1.28	1.09	
Loan/LoanTypePartial?loanTypeId=&staffId=3430		480	0	0.00%	301.91	37	14017	83.00	628.20	1079.65	2862.48	0.81	1.19	1.12	
Loan/StaffDetailPartial/3430		480	0	0.00%	299.42	40	9573	83.00	629.10	1194.90	3054.37	0.81	1.51	1.10	
Payroll/PayrollProcessList/1?		480	0	0.00%	232.11	39	2889	82.50	580.50	844.80	1809.09	0.81	0.25	1.12	
Settings/GetStaffExclude		480	0	0.00%	270.68	45	3605	98.00	606.90	1037.90	2388.03	0.80	4.18	1.21	
Settings/StaffDetailPartial/3430		960	0	0.00%	530.26	83	10596	182.00	1168.90	1857.55	5327.22	1.60	4.56	4.43	
Settings/StaffDetailPartial/3430-0		960	0	0.00%	286.50	36	6154	82.00	630.00	1078.95	2959.32	1.60	2.10	2.20	
Settings/StaffDetailPartial/3430-1		960	0	0.00%	243.36	35	9795	75.00	518.80	870.70	2963.12	1.60	2.46	2.24	

This result shows us that the run was successful with a 100% pass rate. It also shows us how good the average response time is. None of the endpoints have an average above 500ms. The results are consistently good in all the cycles.



The graphic shows us that the response time appears to stay stable as the number of concurrent users increases. Over 11,000 requests have a response time below 500ms.

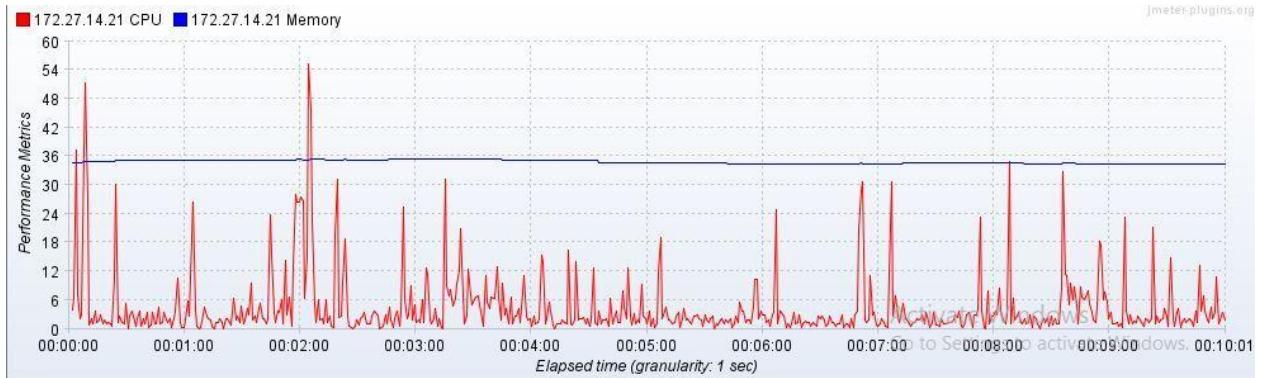
## ERRORS FOUND

Top 5 Errors by sampler														
Sample ▲	#Samples ♦	#Errors ♦	Error ♦	#Errors ♦										
Total	13920	0												

The test passed with no server error.

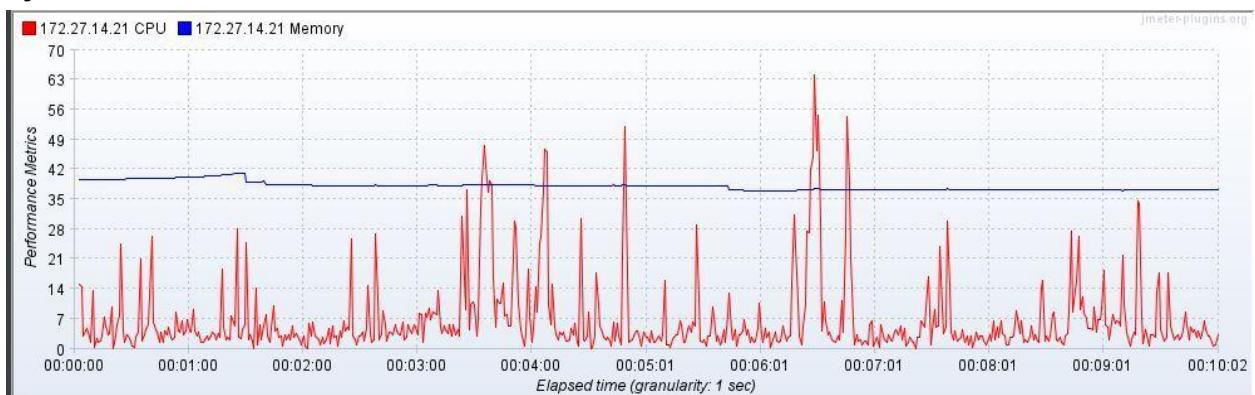
## CPU AND MEMORY UTILIZATION

## Cycle 1



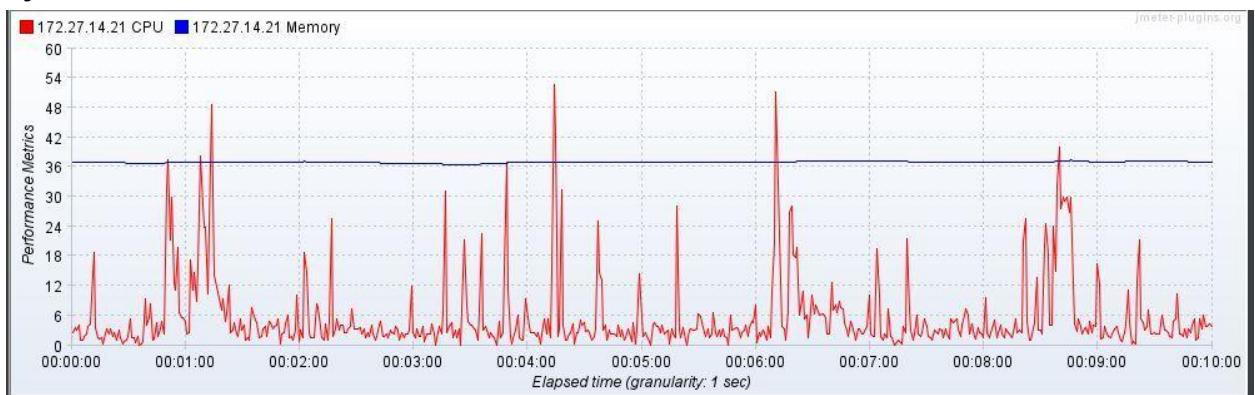
Here the memory stayed at 38% unaffected by the load whereas the CPU spiked to 55% during this run

## Cycle 2



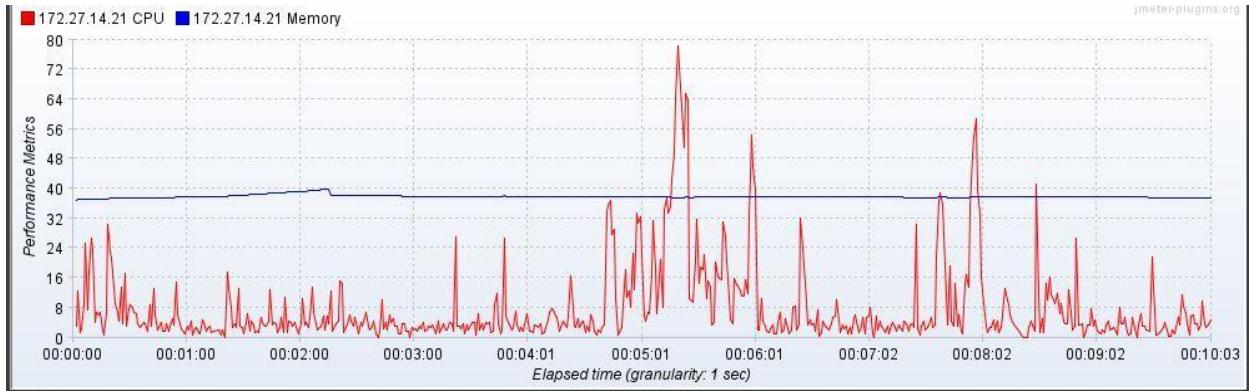
Here the memory stayed at 38% unaffected by the load whereas the CPU spiked to 64% during this run

## Cycle 3



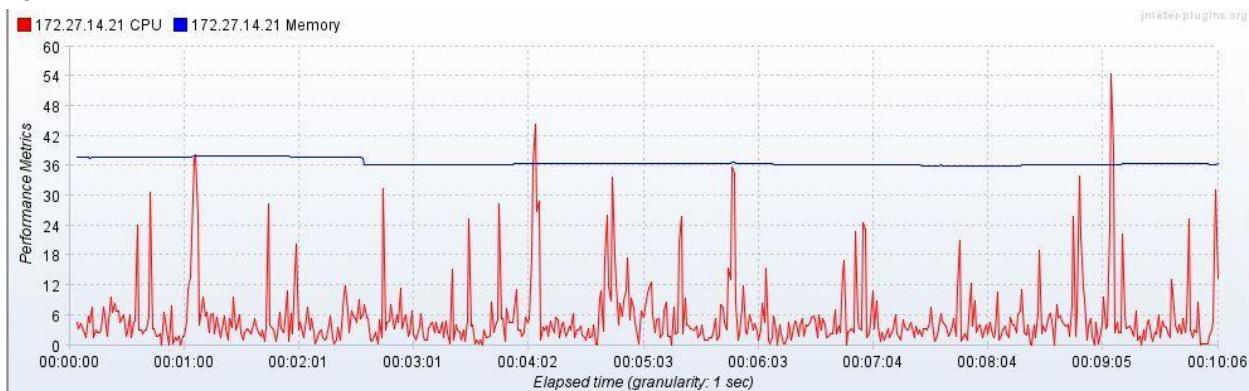
Here the memory stayed at 37% unaffected by the load whereas the CPU spiked to 53% during this run. This is the highest CPU spike during the performance test.

#### Cycle 4



Here the memory stayed at 39% unaffected by the load whereas the CPU spiked to 78% during this run. This is the highest CPU spike during the performance test.

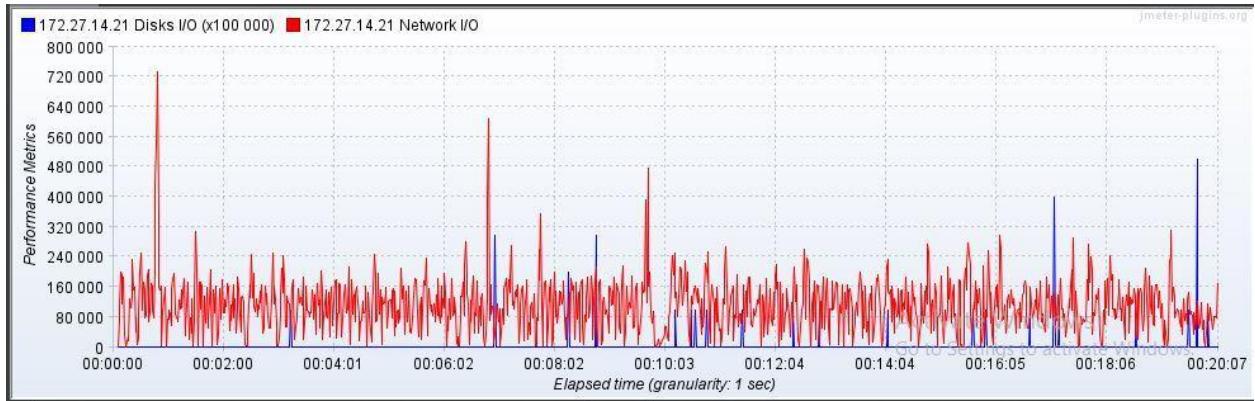
#### Cycle 5



Here the memory stayed at 38% unaffected by the load whereas the CPU spiked to 55% during this run.

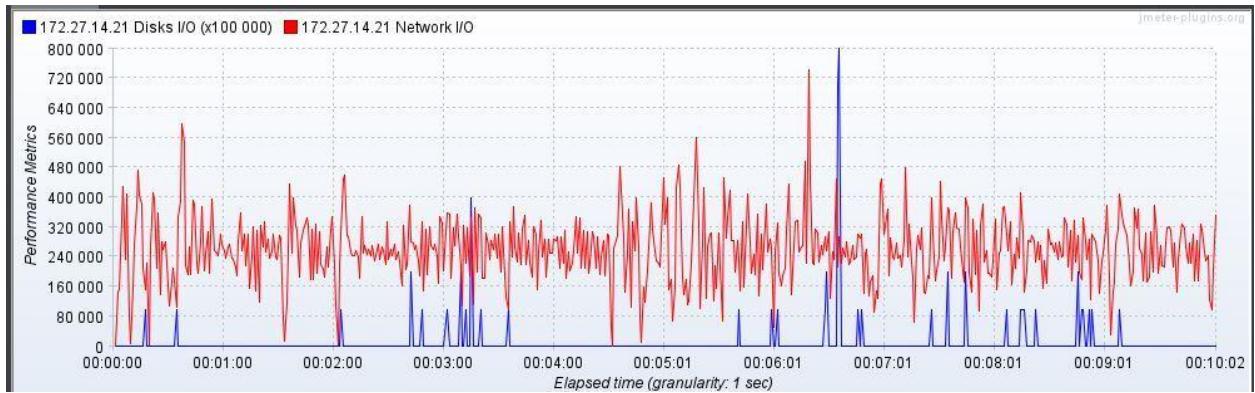
## DISK AND NETWORK UTILIZATION

#### Cycle 1



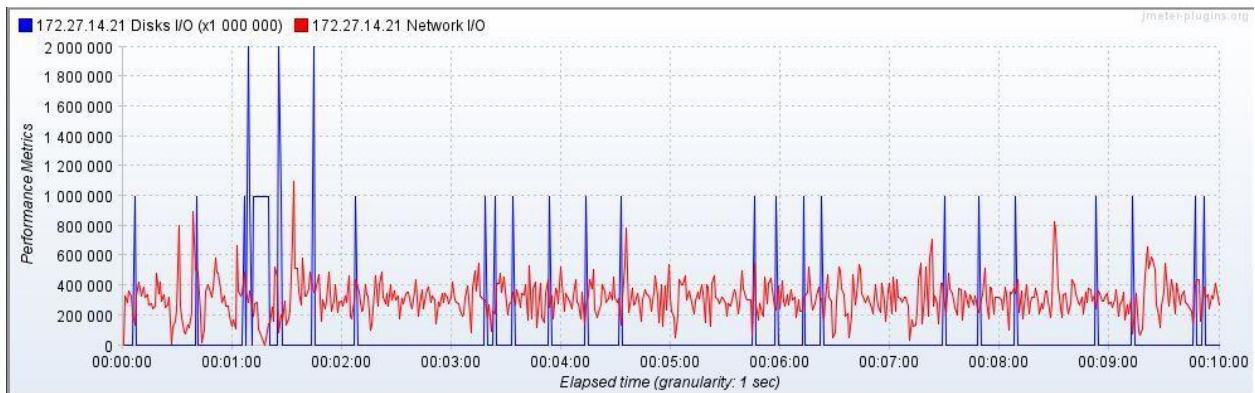
Here the Disk utilization is below 10% which is good. It is at 5% usage. The Network utilization is at 7.2Mb/s.

## Cycle 2



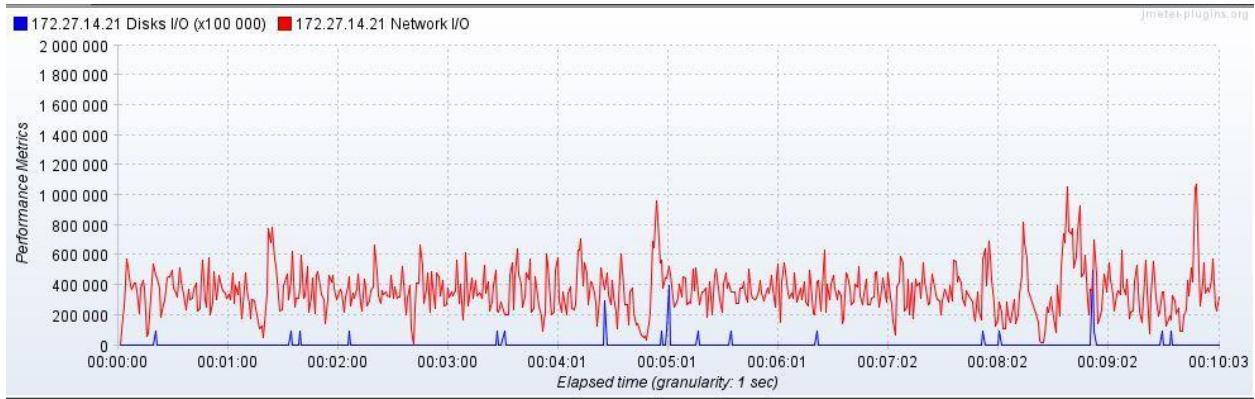
Here the Disk utilization is below 10% which is good. It is at 8% usage. The Network utilization is at 7.5Mb/s.

## Cycle 3



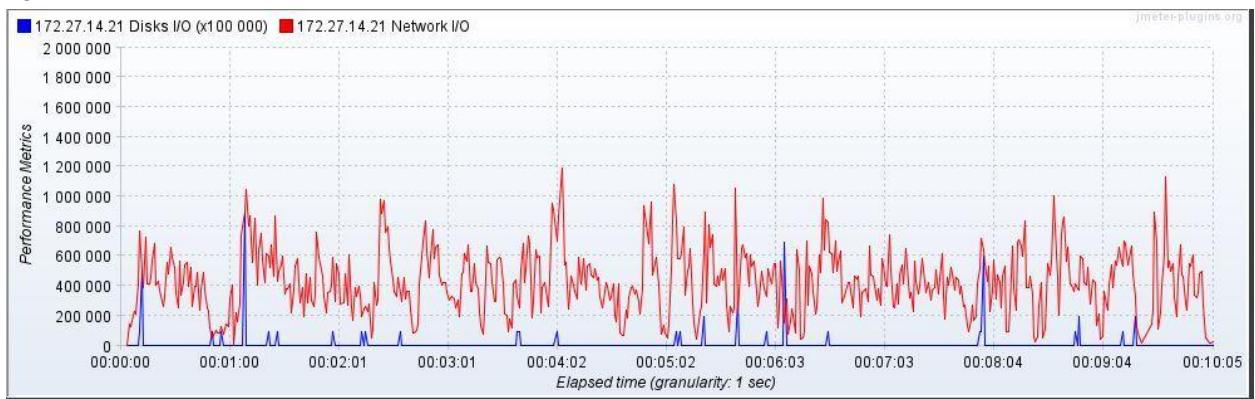
Here the Disk utilization is below 10% which is good. It is at 2% usage. The Network utilization is at 11Mb/s.

## Cycle 4



Here the Disk utilization is below 10% which is good. It is at 4% usage. The Network utilization is at 11Mb/s.

### Cycle 5



Here the Disk utilization is below 10% which is good. It is at 8.5% usage. The Network utilization is at 12Mb/s. The network peaked at 12Mb/s.

## Conclusion

The performance testing of the HRMS environment can be seen as a success. The result of a 100% pass rate for the minimum number of concurrent users. The response time during the load was less than 500 milliseconds with over 11,000 requests sent. The memory was unaffected by the load staying constantly at 38%. The CPU spike didn't pass 80% at double the minimum number of concurrent users. The disk usage maintained was below 10%. This is considered a good record.

## Recommendation

The server 172.27.14.21 for the HRMS application is seen as a success and can be recommended to go live for the number of concurrent users planned.

## **Finally (Not Part of the Report)**

Creating a performance test summary report is a critical step in the performance testing process. A well-crafted report can help stakeholders understand the implications of the test results and make informed decisions about whether to deploy the application or system. By following the best practices outlined in this article and including the key components discussed, you can create a performance test summary report that effectively communicates the results and their implications.

## **About**

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