

Performance Test Report

For

Execution of

PreRegistration – 400 users

Date: 17 July 2019

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Summary

This report presents the observations and findings of the load test conducted for a load of 400 users performing booking appointments full flow planned for 60 min duration

The objective of this load test was to observe and record the behavior of the application when users are booking appointments for 400 concurrent users with 100K preregistration applications already created in DB.

Below are the scenario details:

Sprint/Report Name	Booking appointments
Run Date	12-July-2019
Period	09:27 AM to 09:53 PM
Number of concurrent users	500
Ramp up	4 min
Run Duration	60 minutes
Ramp down	4min

The transaction response times observed were as below:

Label	# Samples	Average (ms)	90% Line (ms)	Min (ms)	Max (ms)	Error %	Throughput (sec)
TR_prereg_homepage	4497	24917	102712	13	246304	75.96%	3.13655
TR_prereg_sendotp	1081	16697	53749	12	74570	11.19%	0.75571
TR_prereg_validateotp	959	10890	43449	16	74843	19.29%	0.70033
TR_preReg_submitdemographic	774	1463	3530	73	10449	13.31%	0.56499
TR_prereg_uploadpoidocument	671	515	1309	23	6127	12.07%	0.49152
TR_prereg_uploadpoadocument	590	296	629	86	5307	5.42%	0.43392
TR_openpreviewpage_uploadpoidocument	558	34	14	8	3173	0.18%	0.41129
TR_prereg_openregcener_selectionpage	557	161	60	39	4679	4.49%	0.41025
TR_prereg_searchregcenter	532	47	25	17	1904	1.13%	0.39484
TR_prereg_openbookappointmentpage	526	1177	1283	631	5662	1.33%	0.3901
TR_prereg_bookappointment	519	192	214	122	5202	1.16%	0.38623
TR_prereglogout	468	77272	151210	625	248043	11.97%	0.35096

Performance Test Execution Details

We have executed the booking appointment user flow, which has transactions mentioned in above table.

All the transactions average response times were less than 3sec except below:

1. Homepage – **24.917** sec
2. Logout – **77.272**sec
3. Send otp - **16.697**sec
4. Validate otp – **10.890** sec

Under Homepage and Logout page observed that below request is taking more time:

- <https://pt.mosip.io/preregistration/v1/login/config> - **77.241** sec

Test Environment

	Common proxy server (NGINX)	(Kubernetes cluster) apache Tomcat 8.5.31	DB Postgress SQL 10.2
Number Of nodes	1	4	1
RAM	4 GB	112 GB	16GB
PROCESSOR	2 cores	16 core	4 cores

Active threads over Time:



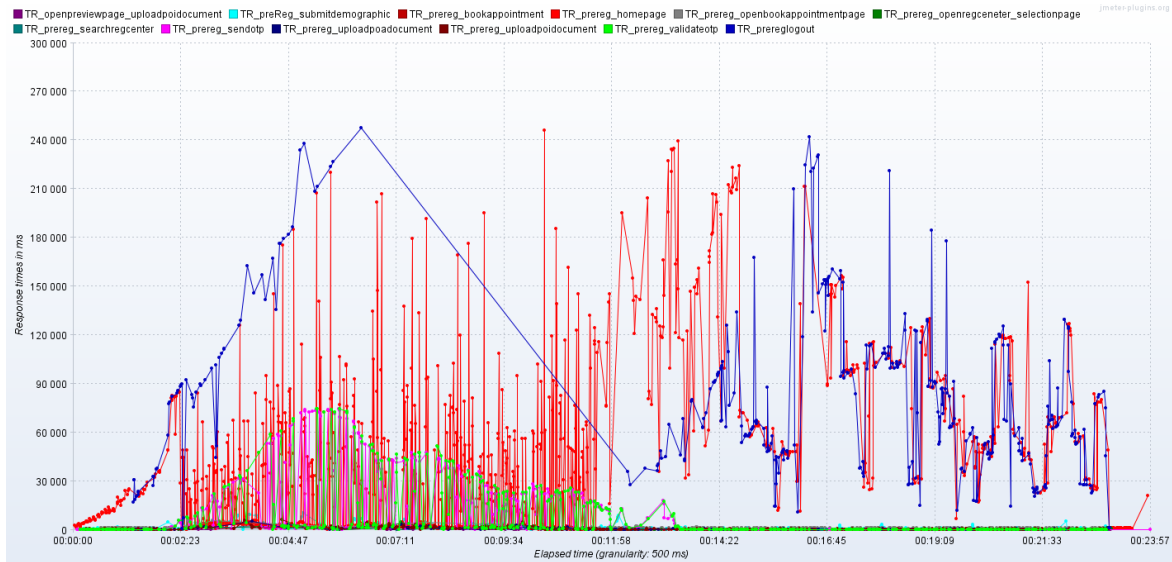
Response Time Graph

All the transactions average response times were less than 3sec except below:

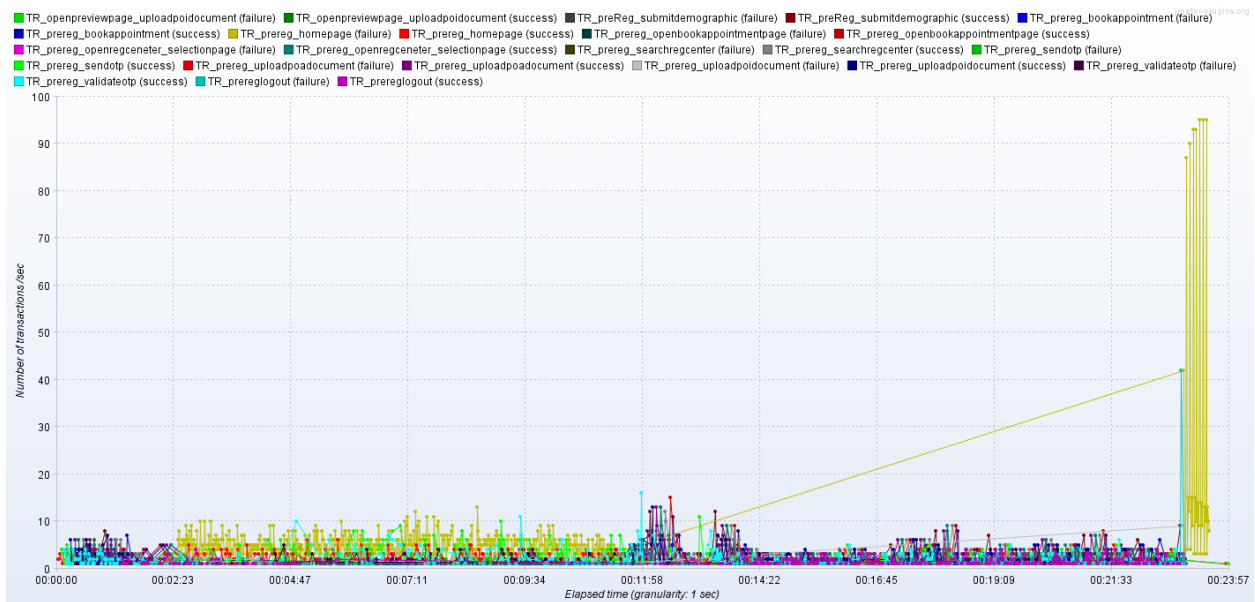
1. Homepage – 24.917 sec
2. Logout – 77.272sec
3. Send otp -16.697sec
4. Validate otp –10.890 sec

Under Logout page observed that below request is taking more time:

- <https://pt.mosip.io/preregistration/v1/login/config> - 77.241 sec



Transactions per second:



Huge spike of errors were observed for the homepage ,Send otp ,validate otp,Logout transactions ,Observed below error messages

```
<html>

<head><title>500 Internal Server Error</title></head>

<body>

<center><h1>500 Internal Server Error</h1></center>

<hr><center>nginx/1.15.12</center>

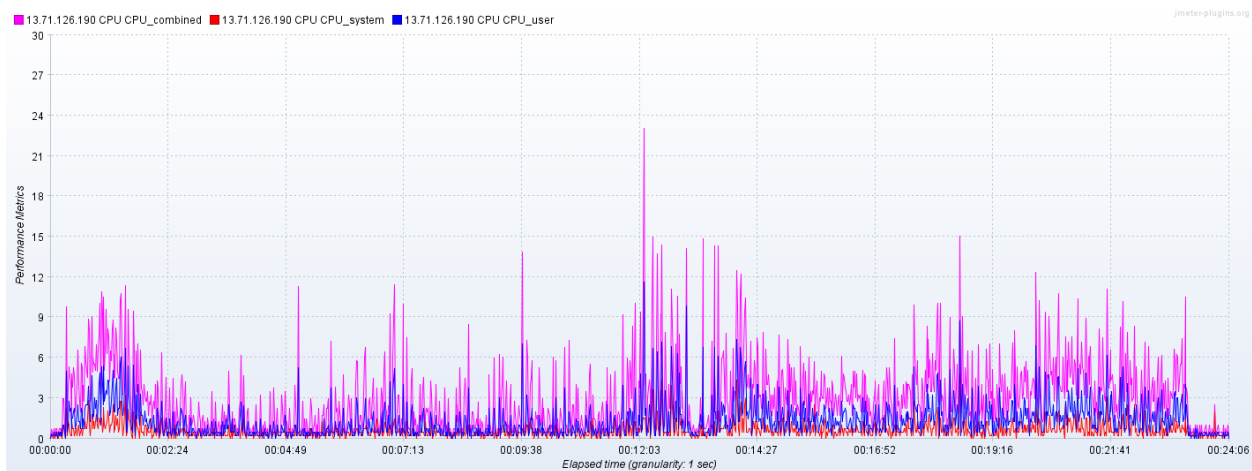
</body>

</html>
```

Resource usage pattern of DB Server:

CPU Usage:

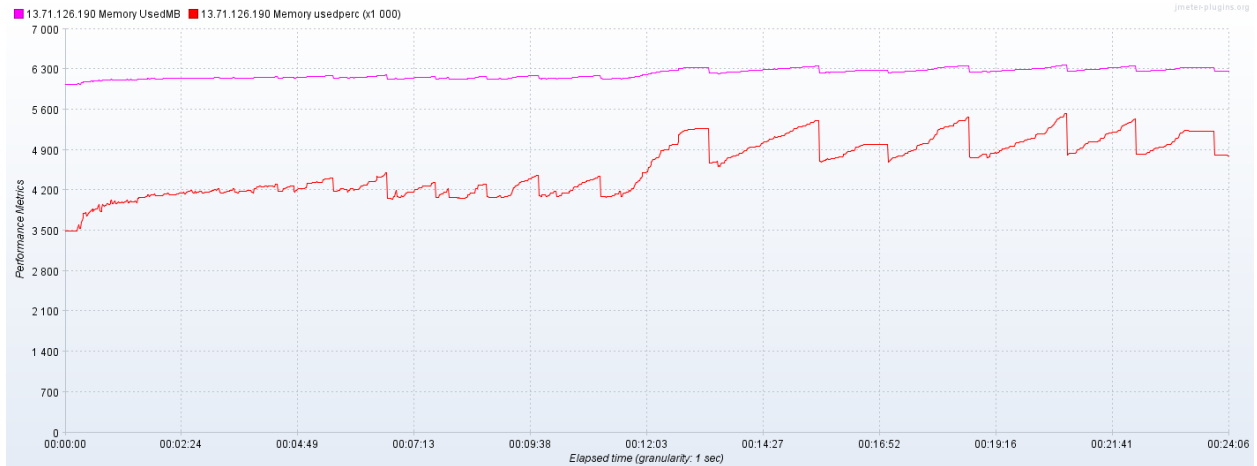
There were intermittent spikes observed in overall CPU usage however overall utilization is less than 25%



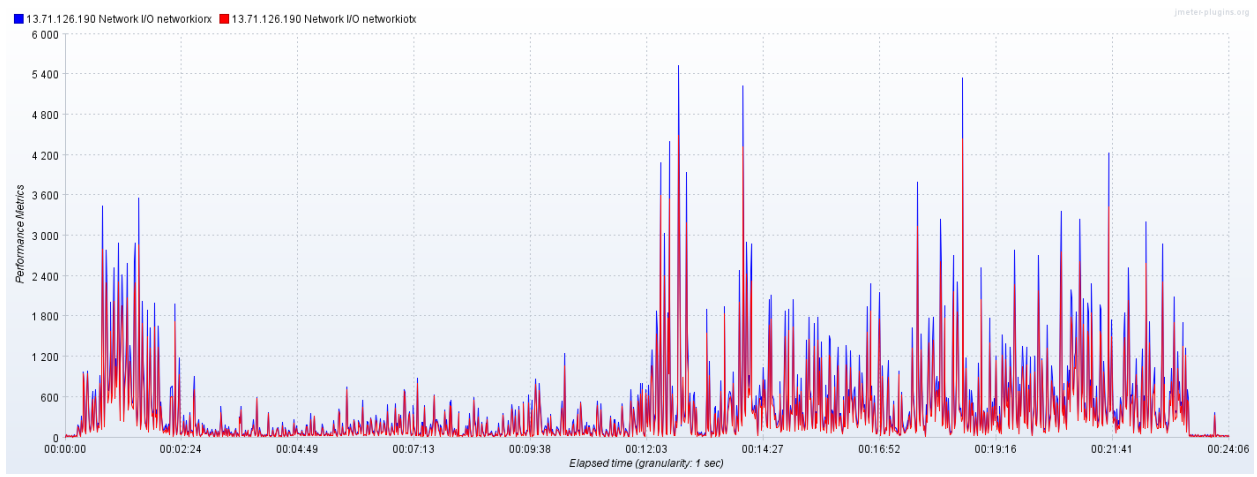
Memory utilization:



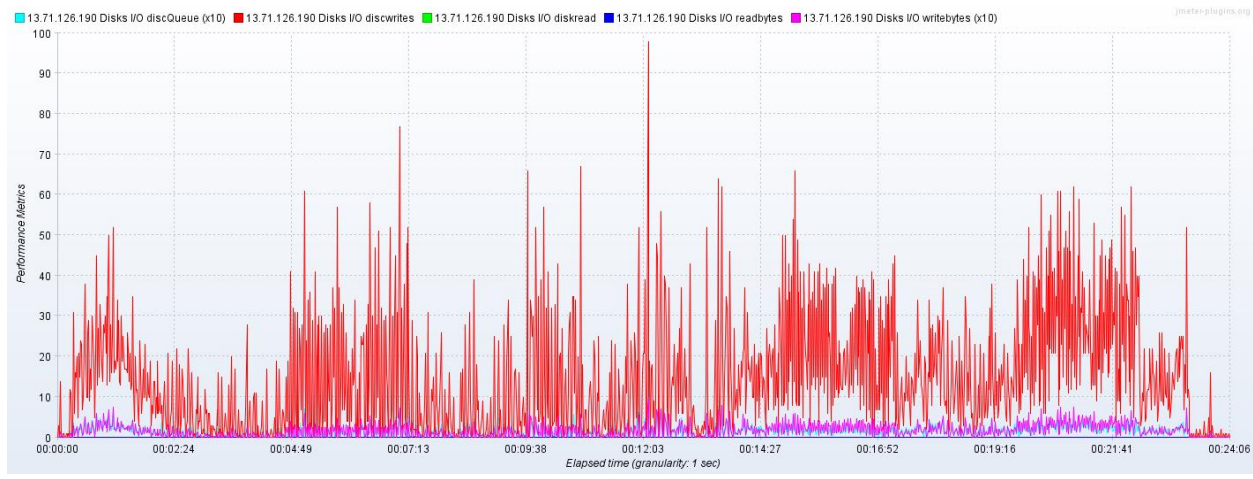
Memory utilization 55% used out of 16GB



Network io:



Disc Read/writes:



Conclusion and Next Steps:

We observed that there were many spike of errors observed from nginx and issue is raised under MOS-25581, We will continue retest after the fix deployed.