Mindtree

Performance Test Report

For

Execution of

Preregistration module – 300 users

Date: 14 Apr 2020

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Summary

This report presents the observations and findings of the load test conducted for a load of 300 concurrent users performing booking full flow scenario for 1.05-hour duration

The objective of this load test was to observe and record the behavior of the application when users are performing booking full flow scenario

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Below are the scenario details:

Identified Key scenarios:

1) MOSIP_PT_PreReg_UI_BookingfullFlow

Run Date	14-Apr-2019
Period	08:45 to 09:51 AM (UTC)
Number of concurrent users	300
Ramp up	300 users ramp up in 4 min and steady for 60 min
Run Duration	1.05 hours
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	6229	126	274	55	4824	0.00%	1.62236
TR_prereg_sendotp	6212	477	456	298	180014	0.05%	1.6226
TR_prereg_validateotp	6199	381	363	215	182641	0.05%	1.54927
TR_prereg_viewbasicdetails	6178	89	127	50	552	0.00%	1.6216
TR_prereg_submitdemographic	6168	514	688	342	1551	0.00%	1.62103
TR_prereg_uploadpoidocument	6157	334	430	226	1760	0.00%	1.62087
TR_prereg_uploadpoadocument	6147	327	355	163	60458	0.11%	1.62094
TR_prereg_searchregcenter	6131	112	131	75	4289	0.00%	1.61877
TR_prereg_openbookappointmentpage	6113	1047	698	270	29315	0.00%	1.61799
TR_prereg_bookappointment	6100	59.111	132760	503	178782	0.00%	1.59213
TR_prereg_notify	5939	38.431	180013	315	180083	20.32%	1.58161
TR_prereglogout	4722	142	204	80	5609	0.00%	1.79324

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Important Note:

- Logout is not working in preprod environment ,So ignored errors – https://mosip.atlassian.net/browse/MOS-30796
- We have major blocker issue with auth token failures for submit demographic ,As a workaround we have restarted all pods of kernel as well prereg modules and started performance run - https://mosip.atlassian.net/browse/MOS-31208

Performance Test Execution Details

Most of the transactions average response times were more than 3sec mentioned below:

1. TR_prereg_bookappointment -59.111 sec
2. TR_prereg_notify-38.431 sec

The error rate for below transactions are more than 1%:

Transactions	Error %
TR_prereg_notify	20.32%

For pre-registration-booking service observed high response time

For pre-registration-notification-service observed spike of intermittent invalid response and read timeout errors -https://mosip.atlassian.net/browse/MOSIP-436 , https://mosip.atlassian.net/browse/MOS-27275

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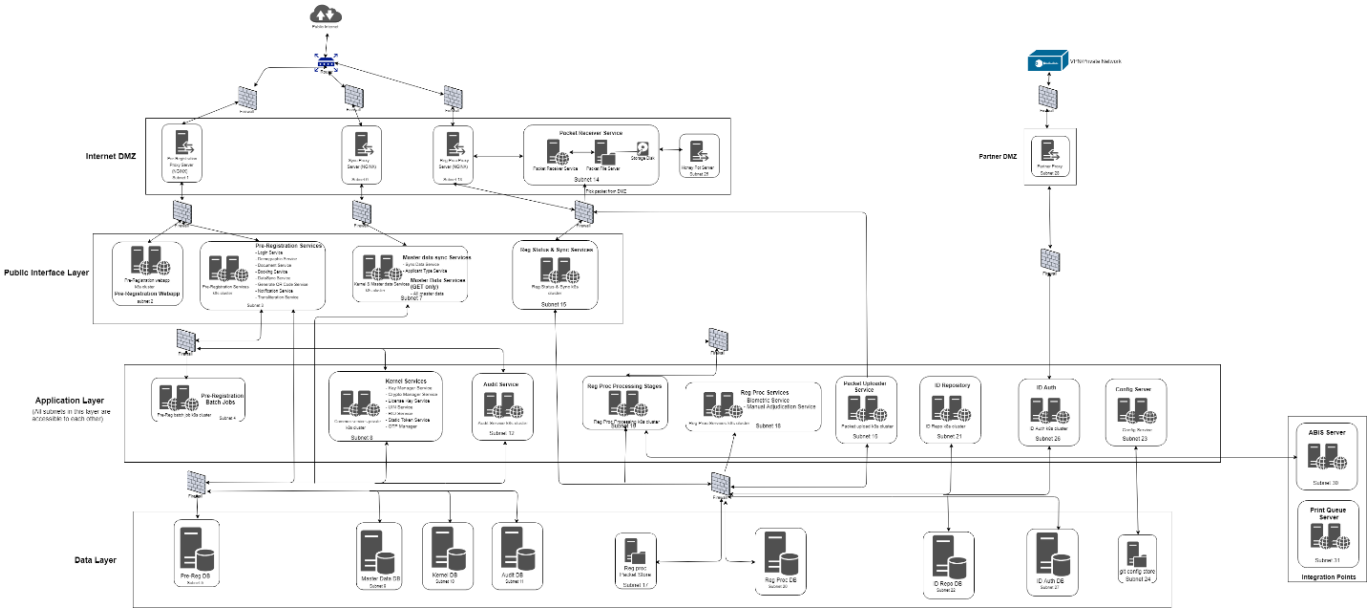
Test Environment : we are using scale-down version of below Architecture



Active threads over Time:

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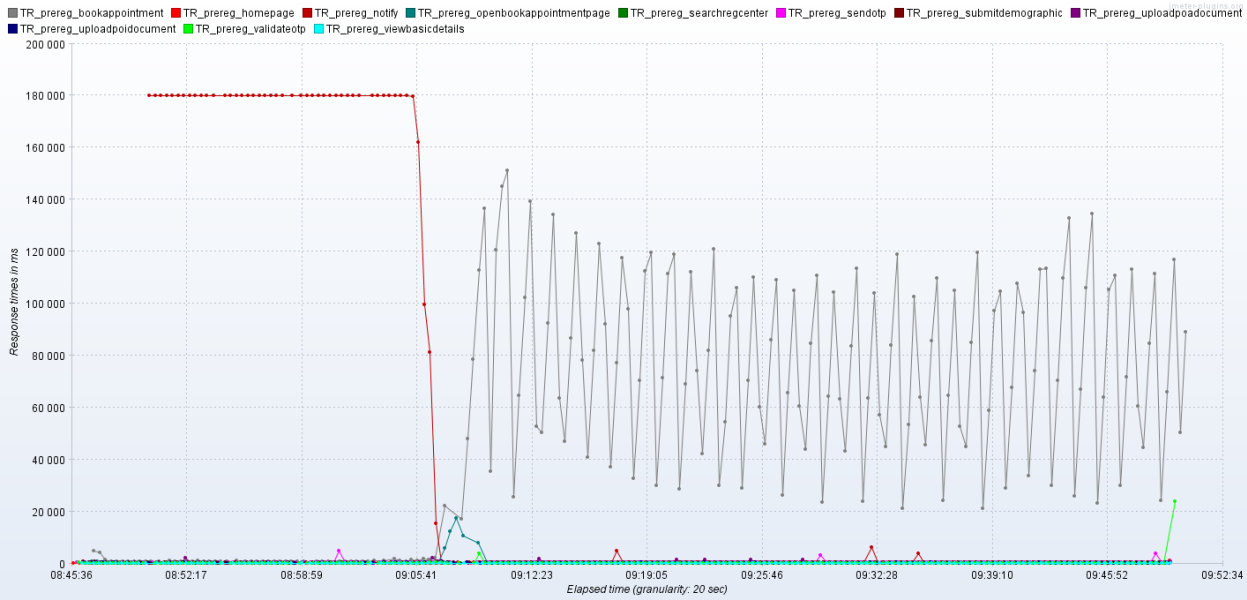
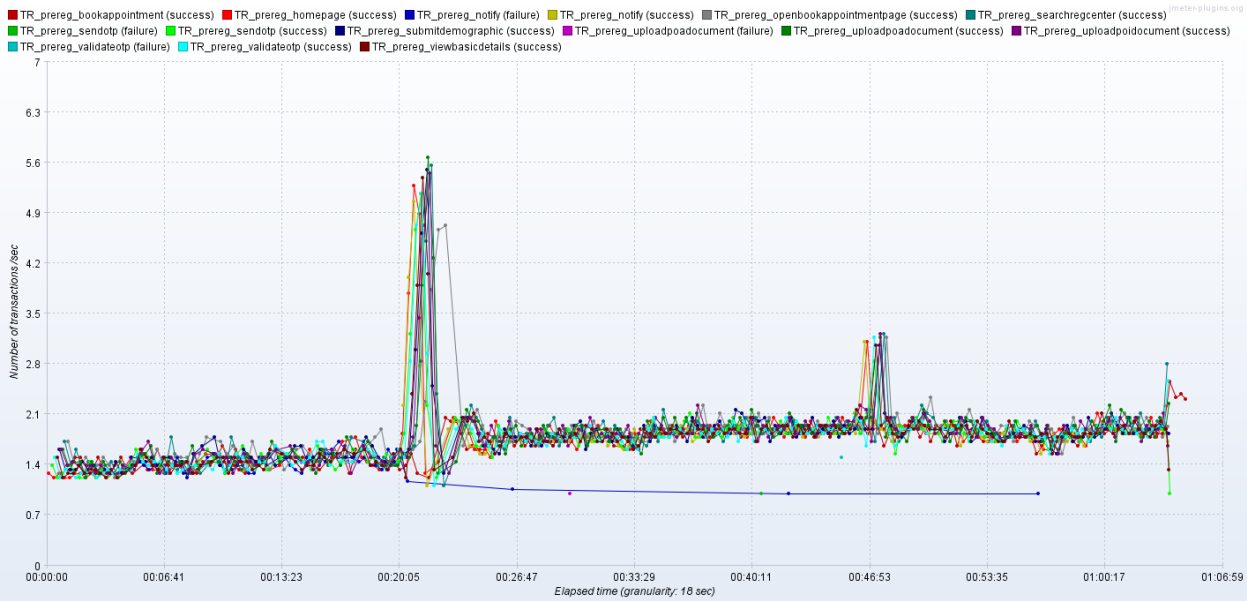
Response Time Graph



Transactions per second:



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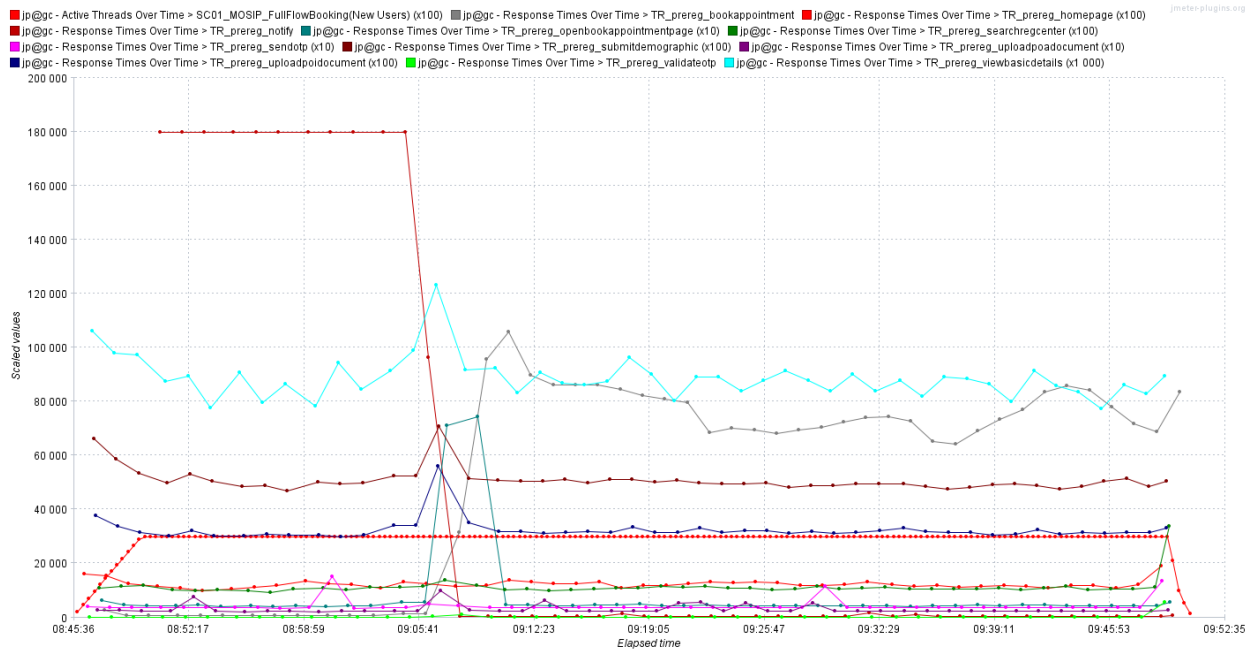
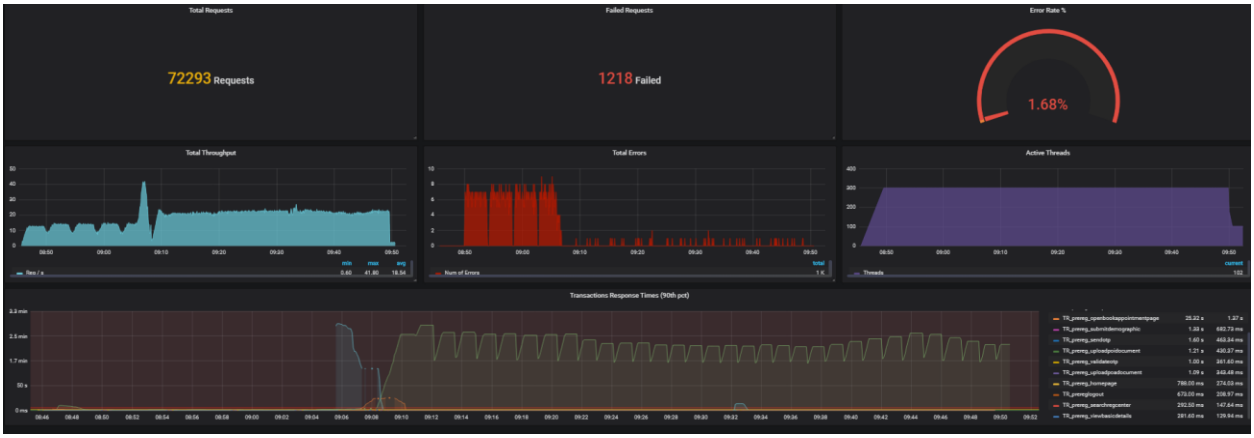
Active threads vs response times over time:



JMeter graph:



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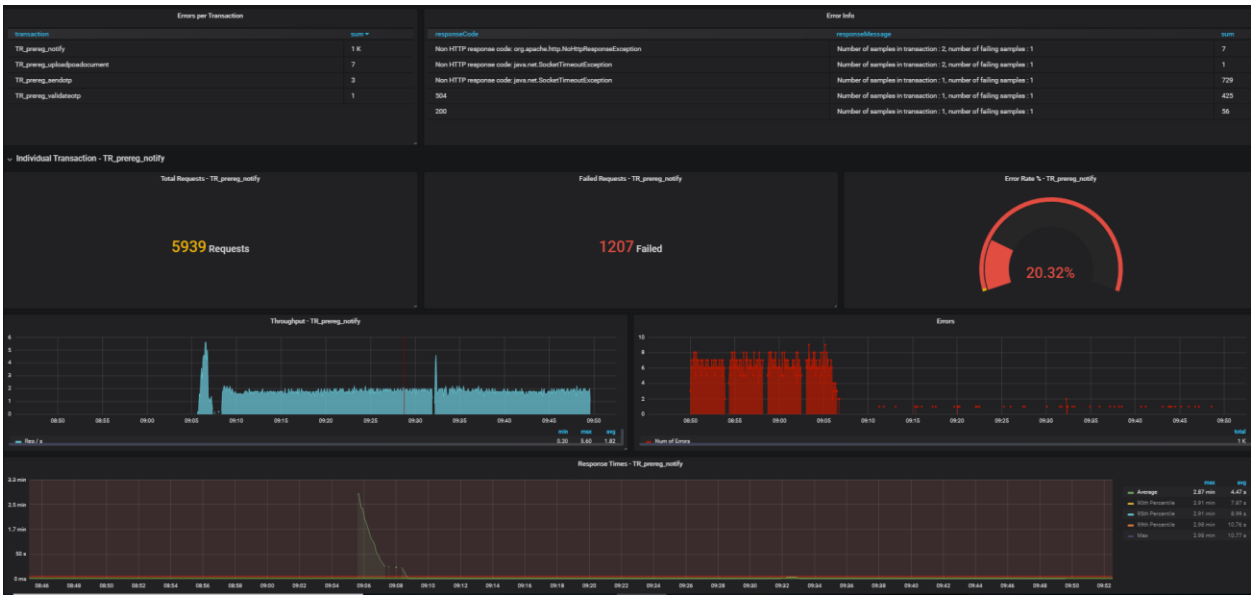

Preregistration cluster node monitoring

Observations:

- Max Total CPU basic is 19.18% and Avg is 17.87%
- Max used memory is 5.42 Gib out of 15.64 Gib

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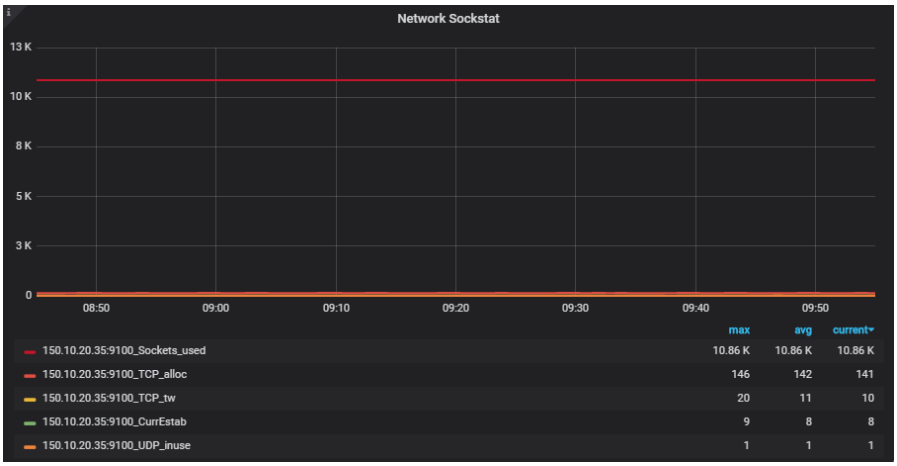
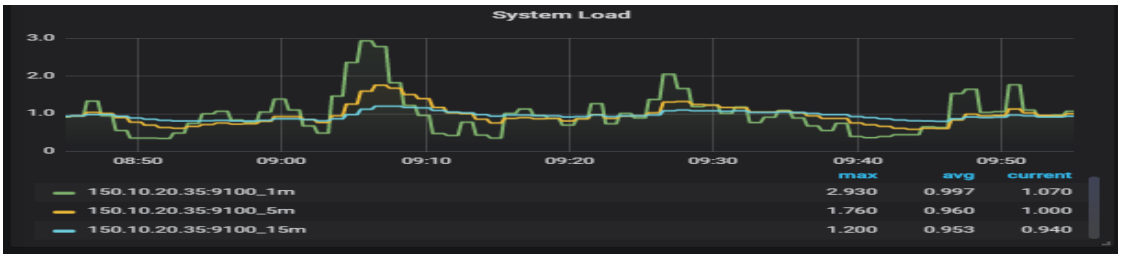


System avg load:

Observations:

- Max system load for 1 min interval is **2.930** and average is **0.997**



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Preregistration DB node monitoring:

Observations:

- Max Total CPU basic is 14.20% and Avg is 05.59%
- Max used memory is 1.01 Gib out of 7.78 Gib

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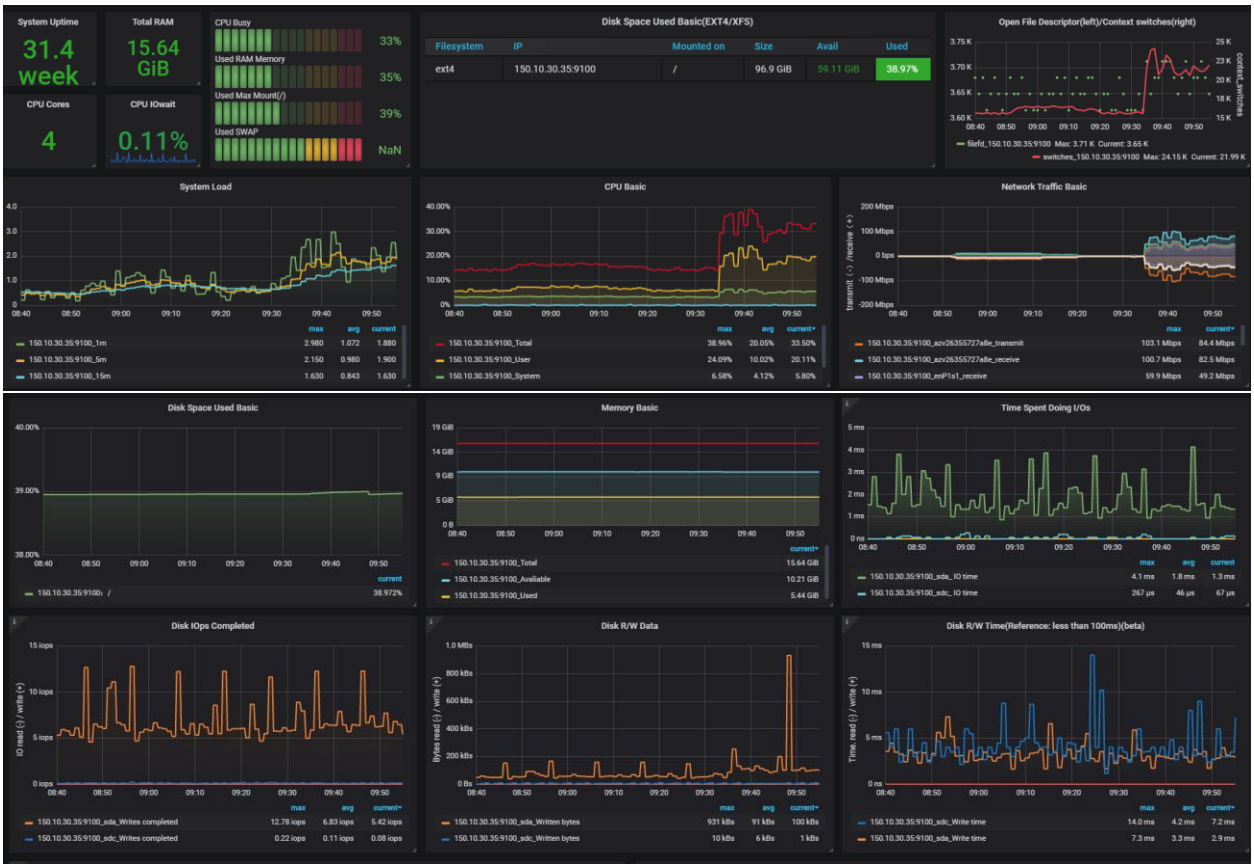
Kernel cluster node 0 monitoring:

Observations:

- Max Total CPU basic is 38.96% and Avg is 20.05%
- Max used memory is 5.44 Gib out of 15.64 Gib



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Kernel cluster node 1 monitoring:

Observations:

- Max Total CPU basic is 28.04% and Avg is 10.26%
- Max used memory is 4.45 Gib out of 15.64 Gib

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Conclusion and Next Steps:

We have decided to test for 300 as we were receiving more number of read timeout errors for most of the transactions for 400, 500, 600 and 700 concurrent users

Issues for 300 concurrent users:

For pre-registration-notification-service observed spike of intermittent invalid response and read timeout errors

1. https://mosip.atlassian.net/browse/MOSIP-436
2. https://mosip.atlassian.net/browse/MOS-27275

Observed high average response time for booking appointment (~59.12 sec) - https://mosip.atlassian.net/browse/MOSIP-697

https://mosip.atlassian.net/browse/MOS-30796

Issues for 400 concurrent users:

https://mosip.atlassian.net/browse/MOS-31257,
https://mosip.atlassian.net/browse/MOSIP-436 ,
https://mosip.atlassian.net/browse/MOS-27275

Issues for 500,600 and 700 concurrent users:

https://mosip.atlassian.net/browse/MOS-31257
https://mosip.atlassian.net/browse/MOSIP-436
https://mosip.atlassian.net/browse/MOS-27275
https://mosip.atlassian.net/browse/MOSIP-261
https://mosip.atlassian.net/browse/MOSIP-262
https://mosip.atlassian.net/browse/MOSIP-544
https://mosip.atlassian.net/browse/MOSIP-243
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