

IDA

Performance Test Report

For

Execution of

ID Repo API – 50 users

Date: 11 March 2019

Author: Gaurav Sharan

Summary

This report presents the observations and findings of the load test conducted for a load of 50 users accessing the POST and GET API Endpoints of id-repo for a duration of 15 minutes.

The objective of this load test was to observe and record the behavior of the application when end user adds new identity using the id repo POST end point and retrieves the same.

Below are the scenario details:

Sprint/Report Name	SPRINT - 9 Kernel Id Repo Service
Run Date	11-March-2019
Period	14:36 to 14:54
Number of concurrent users	50
Ramp up	1 user per 2 seconds
Run Duration	15 minutes
Ramp down	

The transaction response time observed were as below:

Label	# Samples	Average	90% Line	Min	Max	Error %	Throughput
mosip_kernel_generateUin	1206	59	65	50	203	0.00%	1.20305
mosip_idrepo_addIdentity	1198	25214	47249	763	60020	1.25%	1.17638
mosip_idrepo_retrieveIdentity	1161	72	80	34	231	1.98%	1.17114
TOTAL	3565	8516	35568	34	60020	1.07%	3.48326

Performance Test Execution Details

The average and the 90th percentile transaction response time for addIdentity API are outside SLA (1 second) during the test.

Average response time during the test run is 25.2 second. 90 percentile response time is 47 seconds. The error seen in add identity request is because of time out

exception on NGINX server. Because of failing add identity requests; retrieve identity requests have also failed.

It is observed that the CPU resource is utilized less than 10% for most of the time.

Test Environment

The Integration test environment used for test execution.

No of Cores: 8

Memory: 16 GB

Response Time Graph

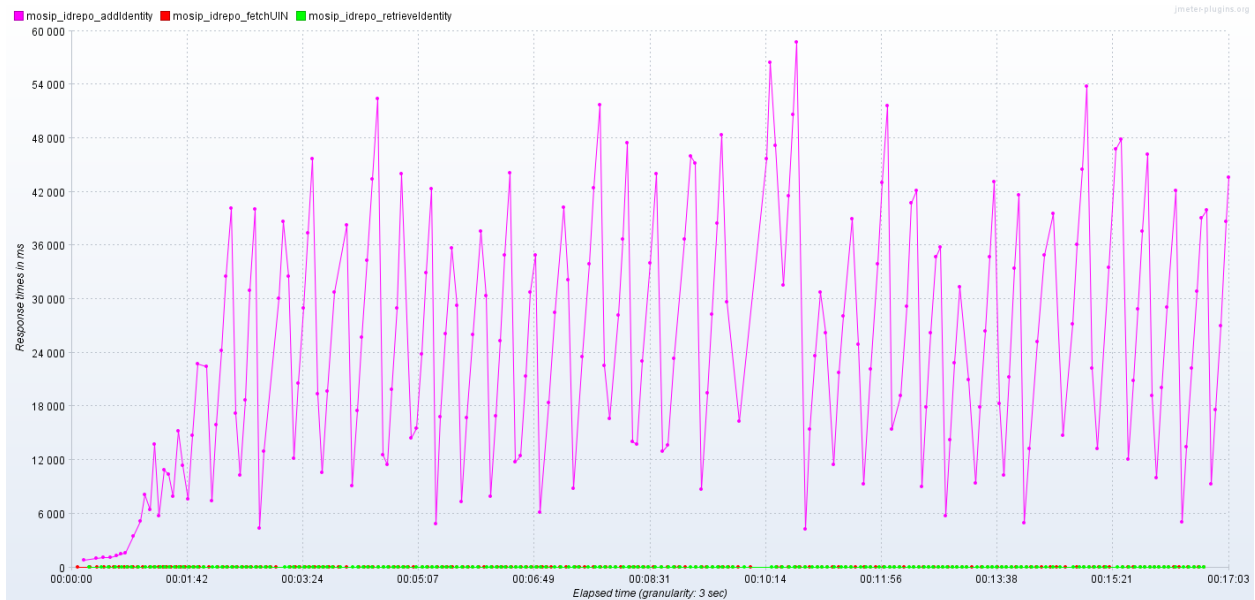
The response times of add identity request forms saw like pattern during the test duration, and it varies from 5 second to 60 seconds. Response times for other APIs like generate UIN and retrieve UIN is below 100 ms.

Active Threads Over Time:





Response Times Over Time:

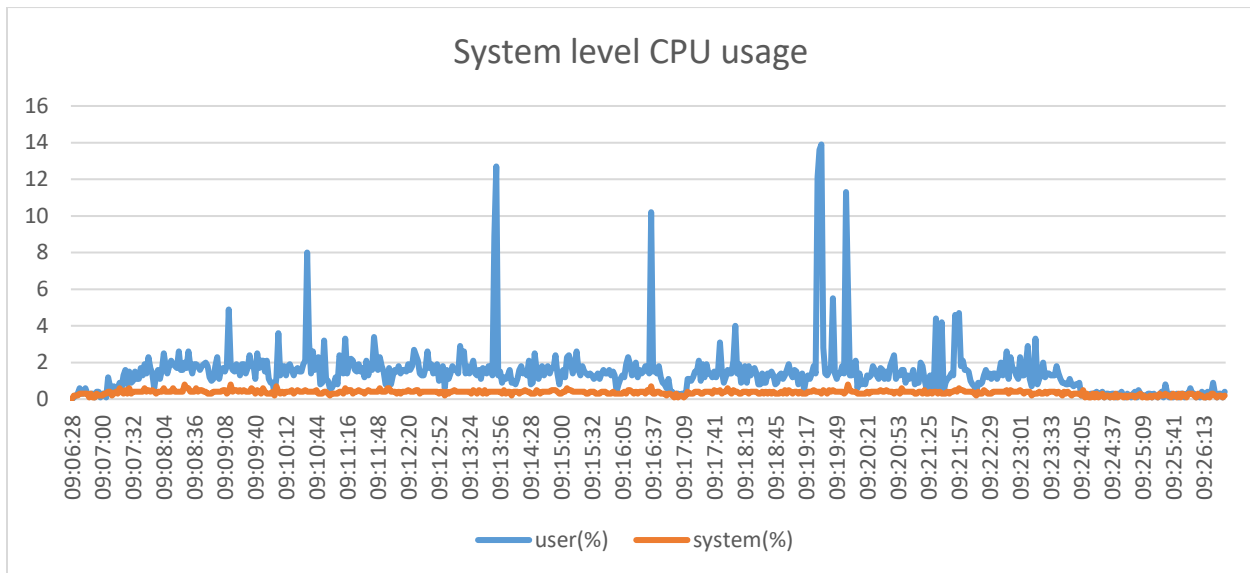


Resource Usage Metrics

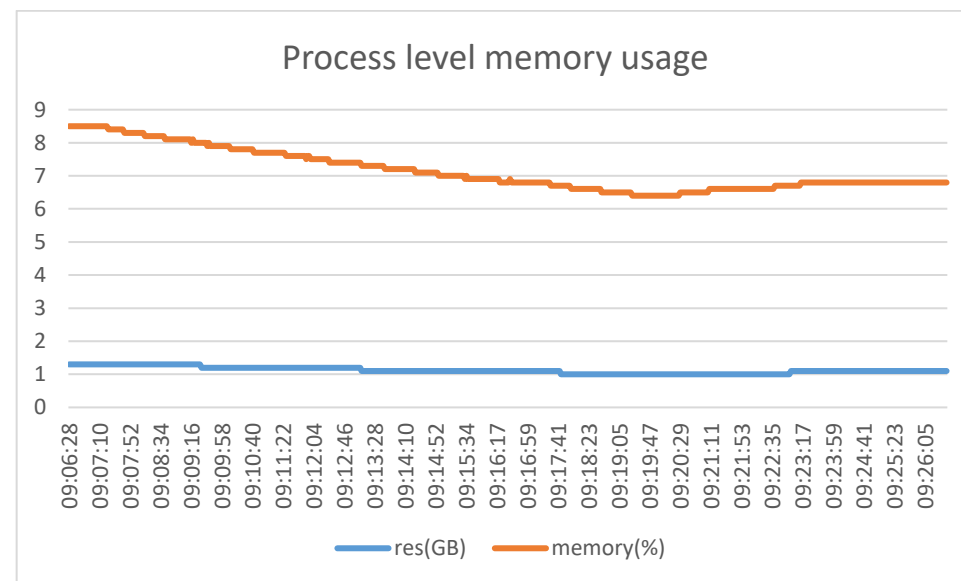
Top command of Linux was used to monitor and record the resource usage. System level and process level data for CPU and memory usage is demonstrated in the below graphs.

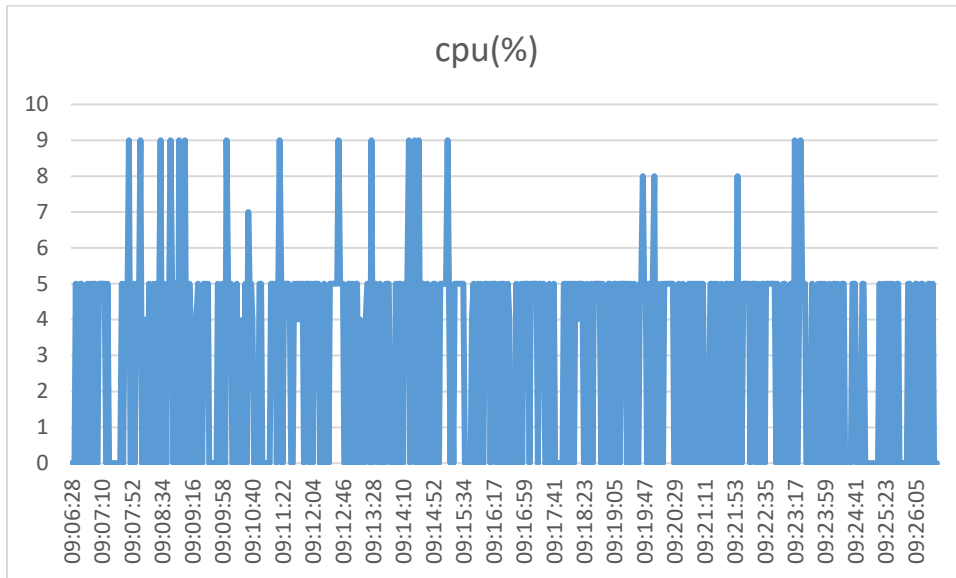


CPU Usage at System and User level:



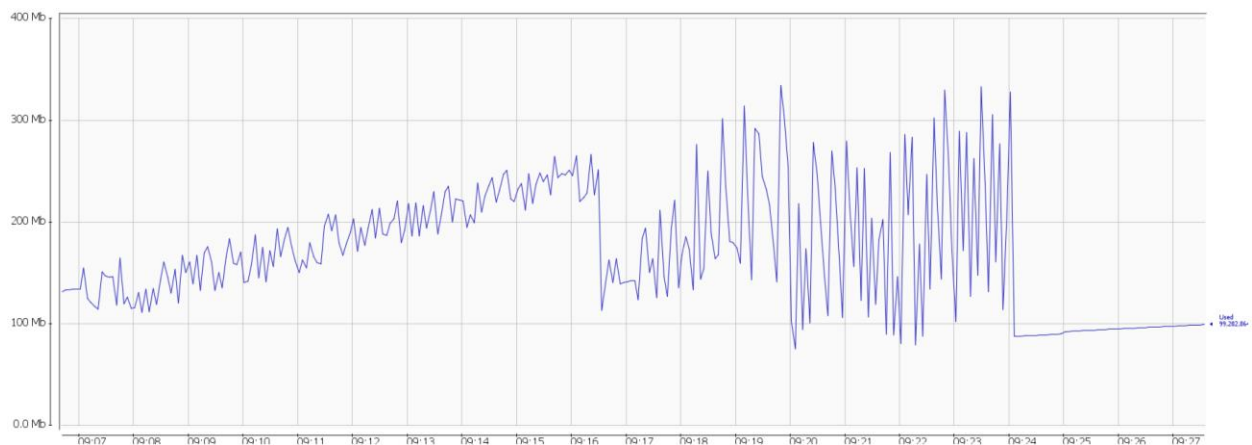
Process Level CPU and Memory Usage:





Summary of Data Collected in JConsole

Memory Usage



Memory usage was continuously increasing until GC was performed explicitly.



Conclusion and Next Steps

The CPU usage at system level had been below 10%.

The average response time of add transaction is observed to be 25.2 second which is very high as compared to SLA of 1 second.