Mindtree

IDA

Performance Test Report

For

Execution of

ID Repo API – 100 users

Date: 29 March 2019

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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 - 10 Kernel Id Repo Service
Run Date	29-March-2019
Period	13:00 to 13:17
Number of concurrent users	100
Ramp up	1 user per 2 seconds
Run Duration	15 minutes
Ramp down	100 users 10 seconds

The transaction response time observed were as below:

Label	# Samples	Average	90% Line	Min	Max	Error %	Throughput
mosip_idrepo_fetchUIN	4070	1598	2414	203	42036	0.07%	3.99311
mosip_idrepo_addIdentity	4025	910	756	78	42019	0.40%	4.03544
mosip_idrepo_retrieveIdentity	4001	766	494	75	42045	0.40%	4.02616
TOTAL	12096	1094	1900	75	42045	0.29%	11.86749

Performance Test Execution Details

The average transaction response time for APIs are within SLA (1 second) during the test.

Average response time during the test run is 1.0 second. 90 percentile response time is within 1 second.

The errors seen in add identity request are server side error which needs to be looked into . Because of failing add identity requests; retrieve identity requests have also failed.

Some of the fetch UIN requests have failed because of network errors.

It is observed that the CPU resource is utilized less than 30% for most of the time.

Some spikes are seen in CPU usage while the load test.

Test Environment

The Integration test environment used for test execution.

No of Cores: 8

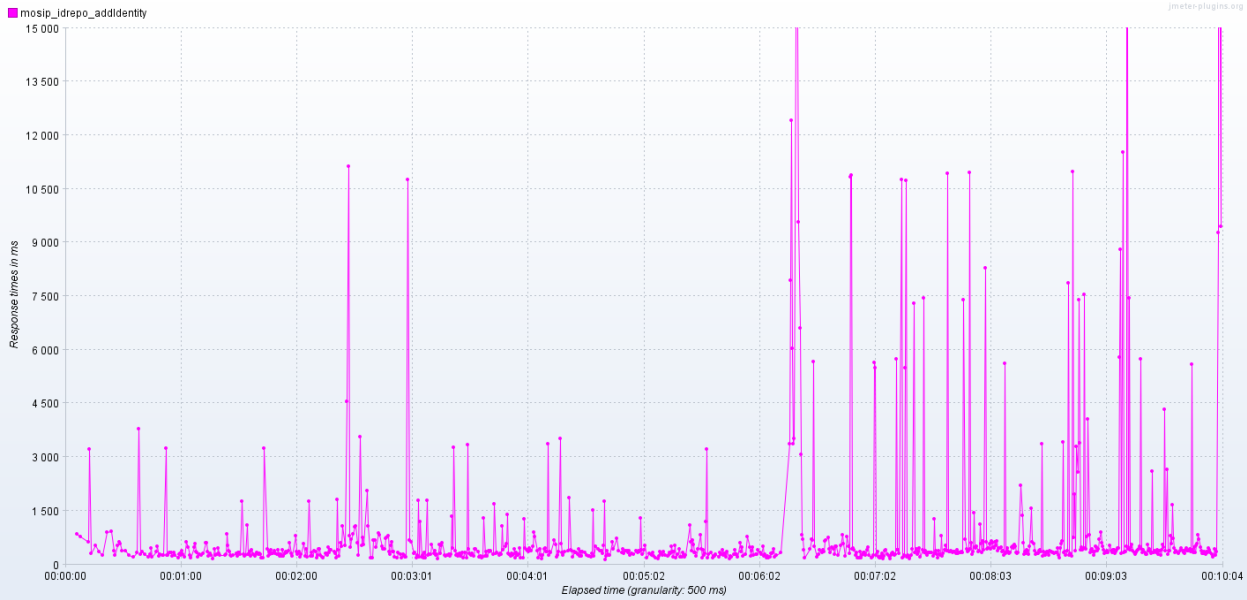
Memory: 16 GB

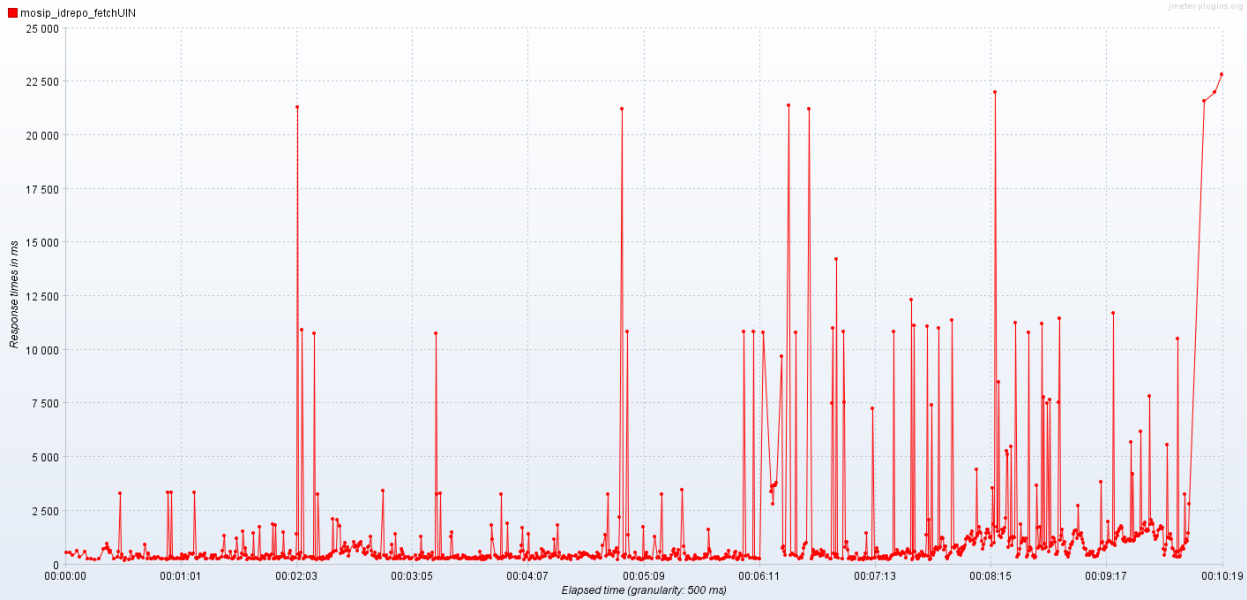
Response Time Graph

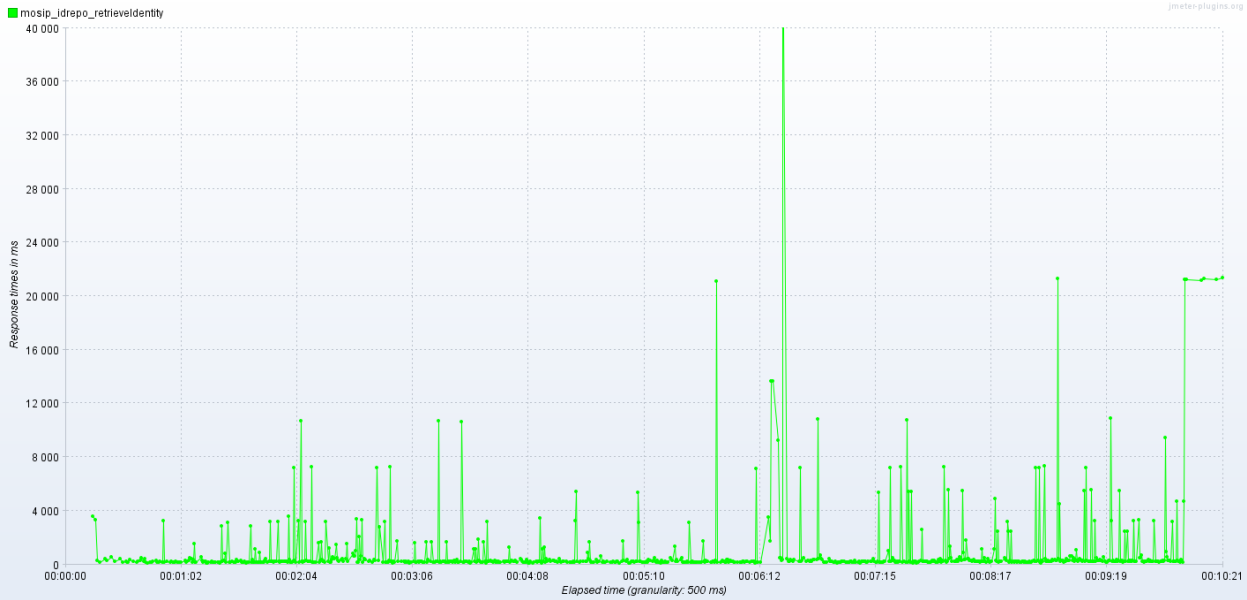
Spikes are observed in the response times over the whole test duration. Spikes are for few requests only Most of the response times data stay around the level of 1 second.

Active Threads Over Time:

Response Times Over Time:



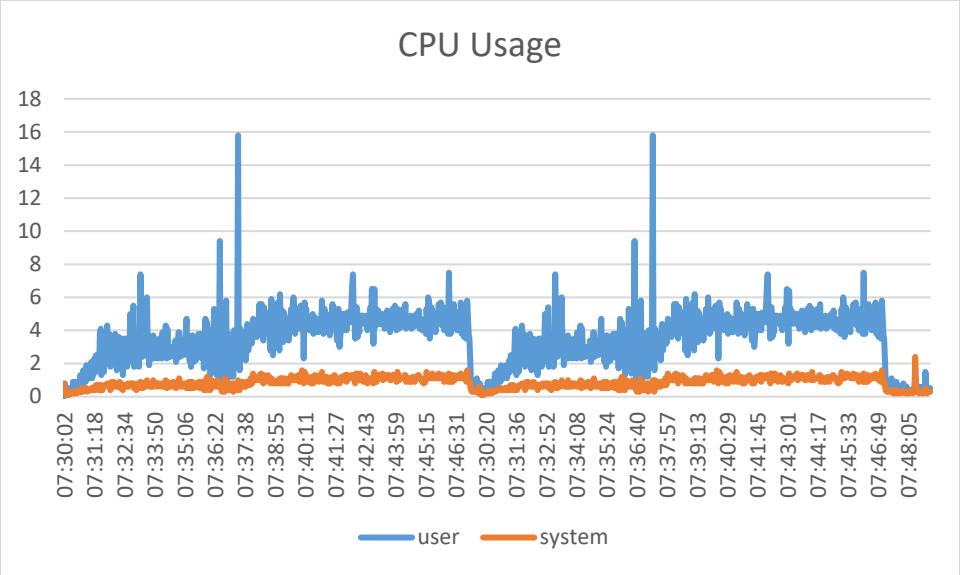




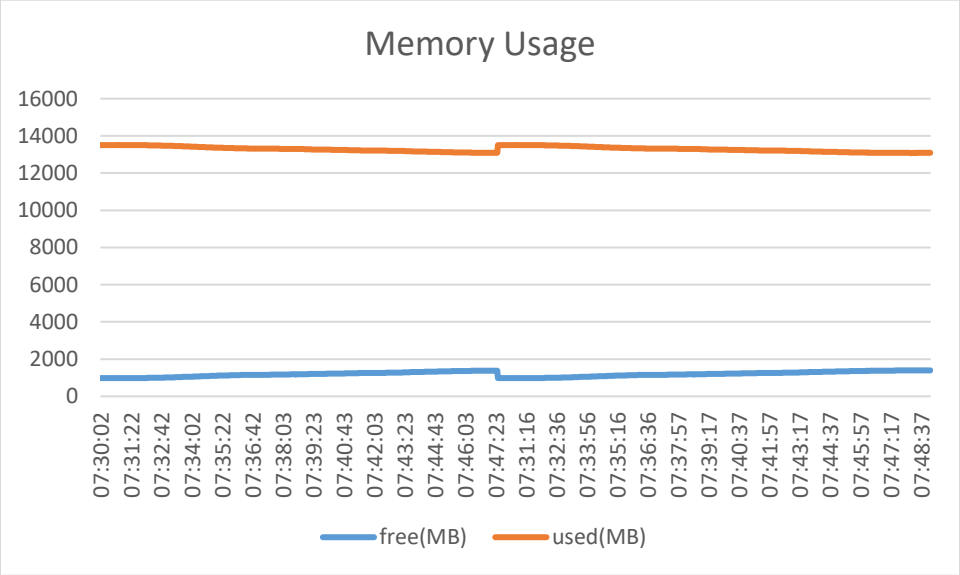
Resource Usage Metrics

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.

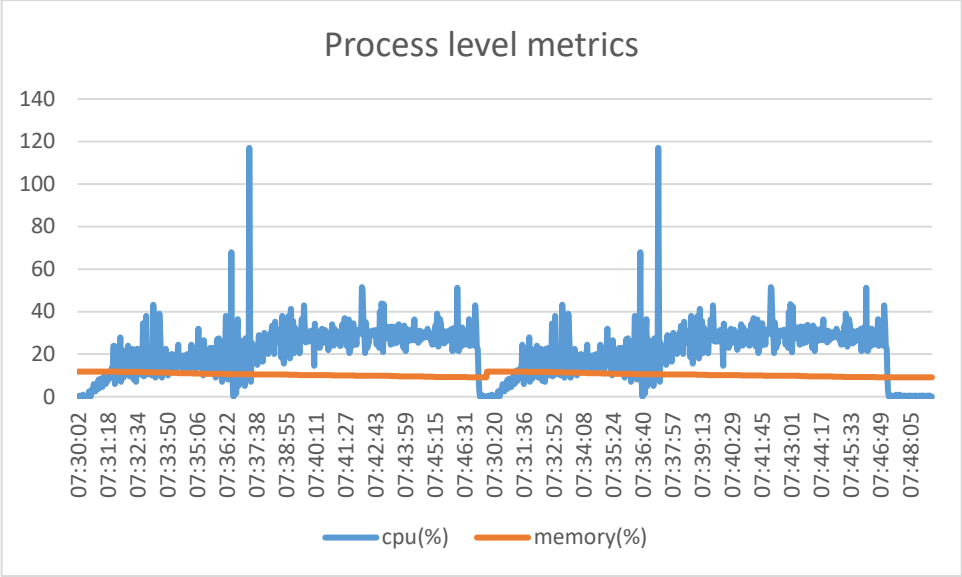
CPU Usage at System level:



Memory Usage at System level:



Process Level CPU and Memory Usage:



The CPU usage at the process level had been at around 30%. CPU usage has dropped once in between the test. Some spikes in CPU usage are seen during the test, which are short time only.

Memory usage at process level stays uniform during the load test duration.

Conclusion and Next Steps

The average response time of add transaction is observed to be 1.0 second which is low as compared to earlier when it used to be at 25.2 second.

Still, some server side error(s) are seen which need to be looked into.