Mindtree

Kernel Master Data

Performance Test Report

For

Execution of

Registration Controller APIs – 100 users

Date: 18 February 2019

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Summary

This report presents the observations and findings of the load test conducted for a load of 100 users accessing all the eight API Endpoints sequentially running for a duration of 30 minutes.

The objective of this load test was to observe and record the behavior of the application when users access all the different end points cocurrently.

Below are the scenario details:

Sprint/Report Name	FIT - 3 Kernel Master Data API – Registration Module(Get Requests)
Run Date	18-February-2019
Period	05:40 PM to 06:10 PM
Number of concurrent users	100
Ramp up	50 user per 30 seconds
Run Duration	30 minutes in full load
Ramp down	50 user per 30 seconds

The transaction response times observed were as below:

Label	#Sample	Average	90% line(ms)	Min(ms)	Max(ms)	Error%	Throughput/Sec
GetAllRegistrationCentersDetails	5607	2107	3977	210	93652	0.16%	2.85
GetCoordinateSpecificRegistrationCenters	5646	1974	3793	277	48812	0.09%	2.86
GetRegistrationCenterByHierarchyLevelAndListTextAndlangCode	5574	2004	3730	104	202381	0.16%	2.85
GetRegistrationCenterByHierarchyLevelAndTextAndlangCode	5586	2022	3900	97	93694	0.04%	2.85
GetRegistrationCenterDetailsByLocationCode	5634	2349	3798	96	1958175	0.16%	2.75
GetRegistrationCenterHolidays	5624	1983	3799	104	93846	0.14%	2.85
GetSpecificRegistrationCenterById	5596	1938	3754	98	83107	0.11%	2.85
ValidateTimestamp	5559	2377	3854	97	1731434	0.16%	2.75

Performance Test Execution Details

The transaction response times for all the transactions are exceeding the SLA. The SLA is 300ms for each API where in the response time is more than 1900ms for all the API endpoints.

During the test, it was observed that all the resources were utilized minimally and there are no issues observed in the integration server.

There were few failures observed during the load test due to 503 service unavailable error.

Test Environment

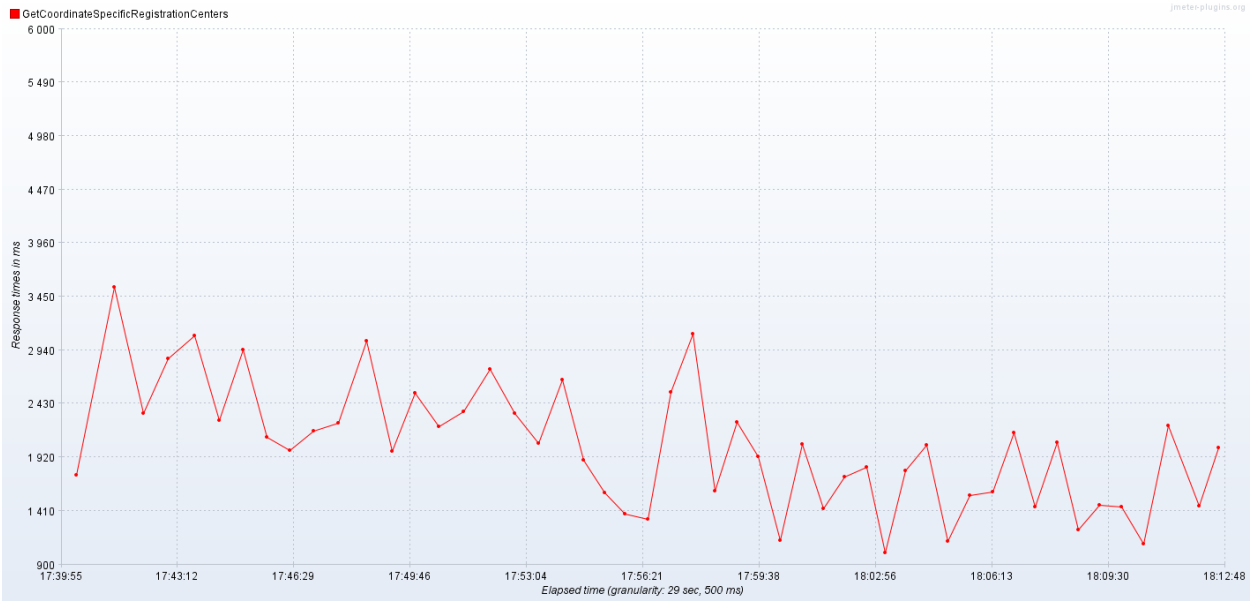
The Integration test environment used for test execution.

Response Time Graph

The response times of all the transactions were fluctuating throughout the duration of the test. There were very high response time noticed during the test for few requests.

1. GetAllRegistrationCentersDetails

2. GetCoordinateSpecificRegistrationCenters

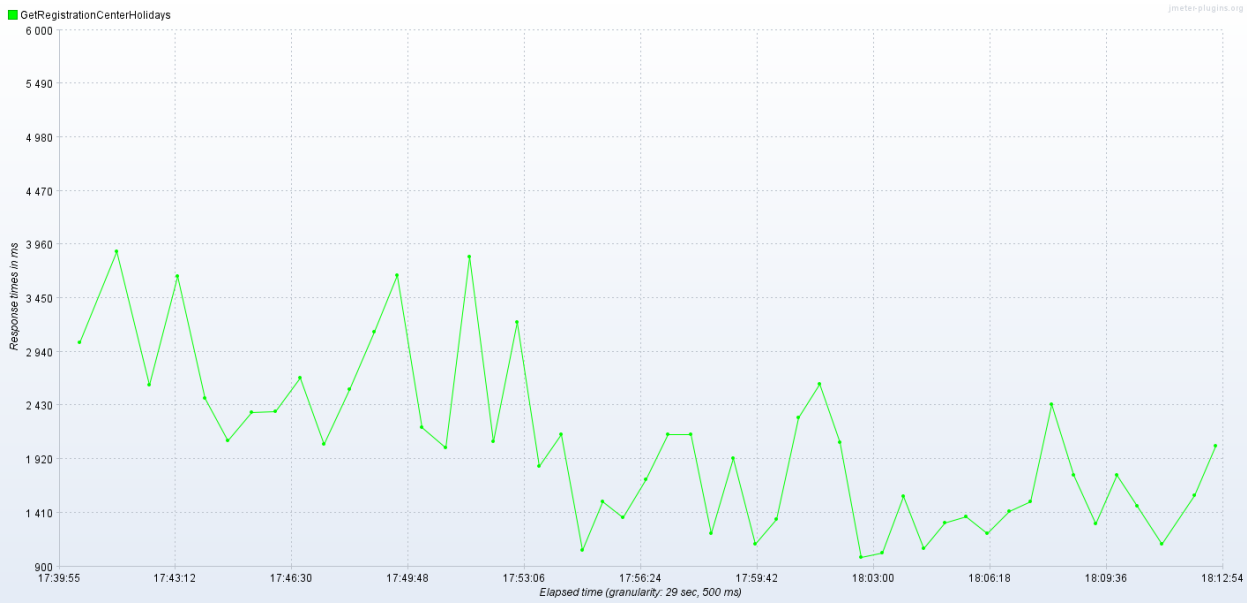


3. GetRegistrationCenterByHierarchyLevelAndListTextAndlangCode

4. GetRegistrationCenterByHierarchyLevelAndTextAndlangCode

5. GetRegistrationCenterDetailsByLocationCode

6. GetRegistrationCenterHolidays

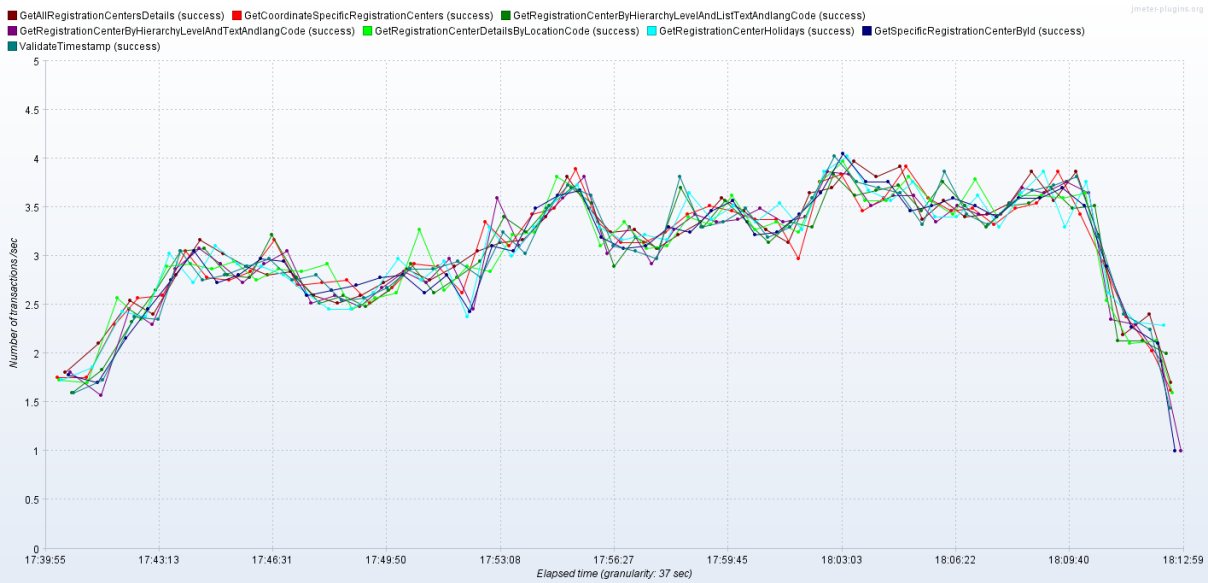


7. GetSpecificRegistrationCenterById

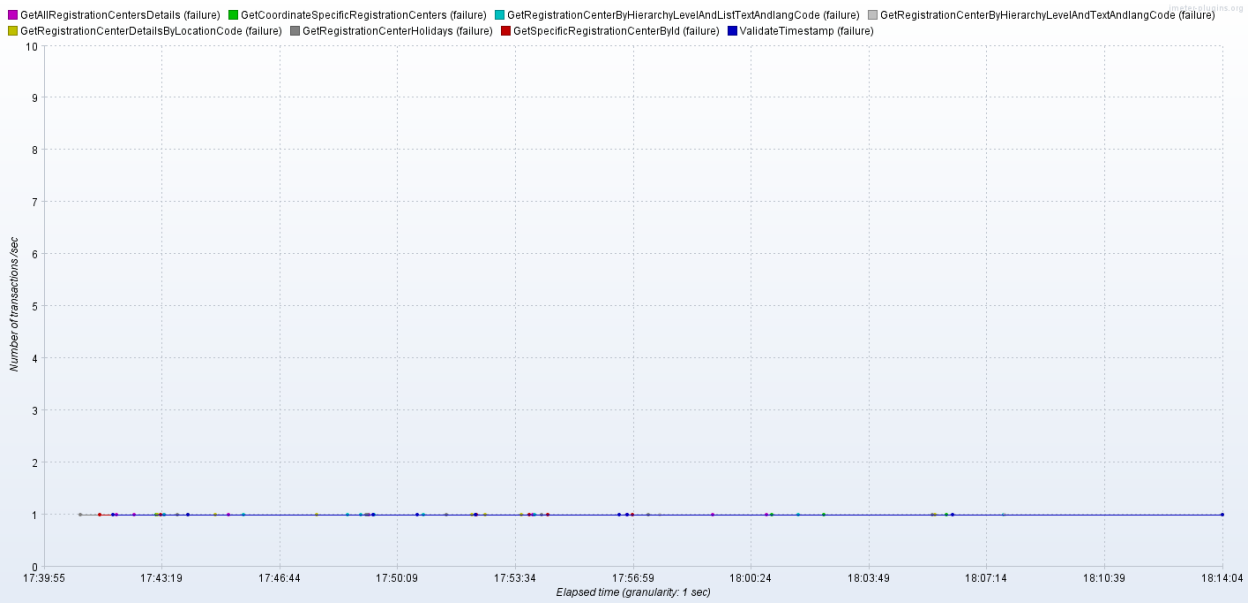
8. ValidateTimestamp

Transactions per second: For all 8 API Endpoints:

Success Transactions:



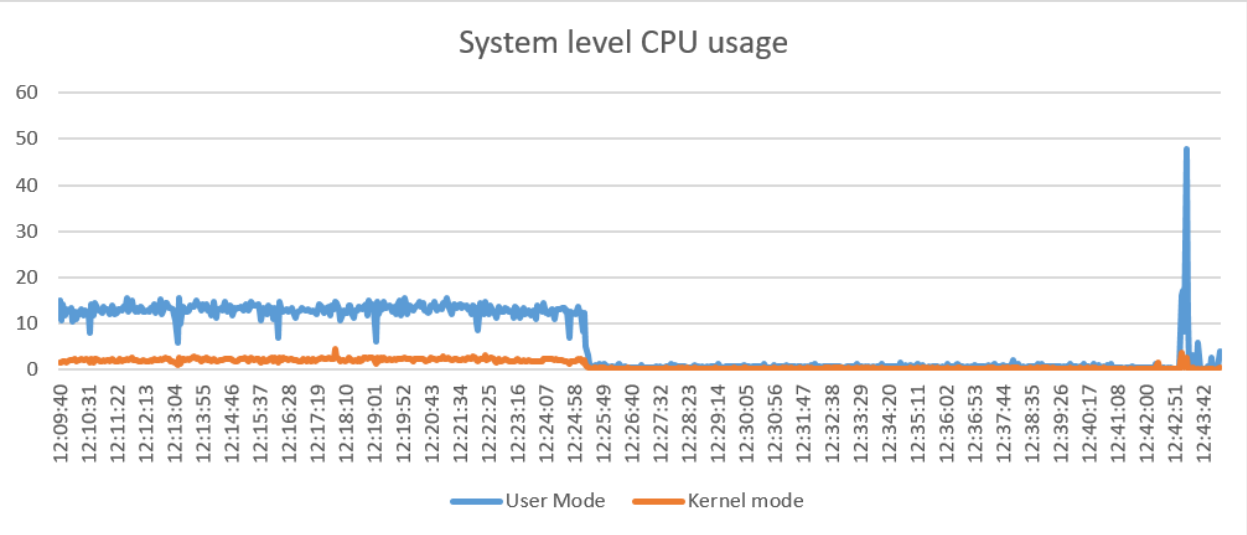
Failed Transactions:



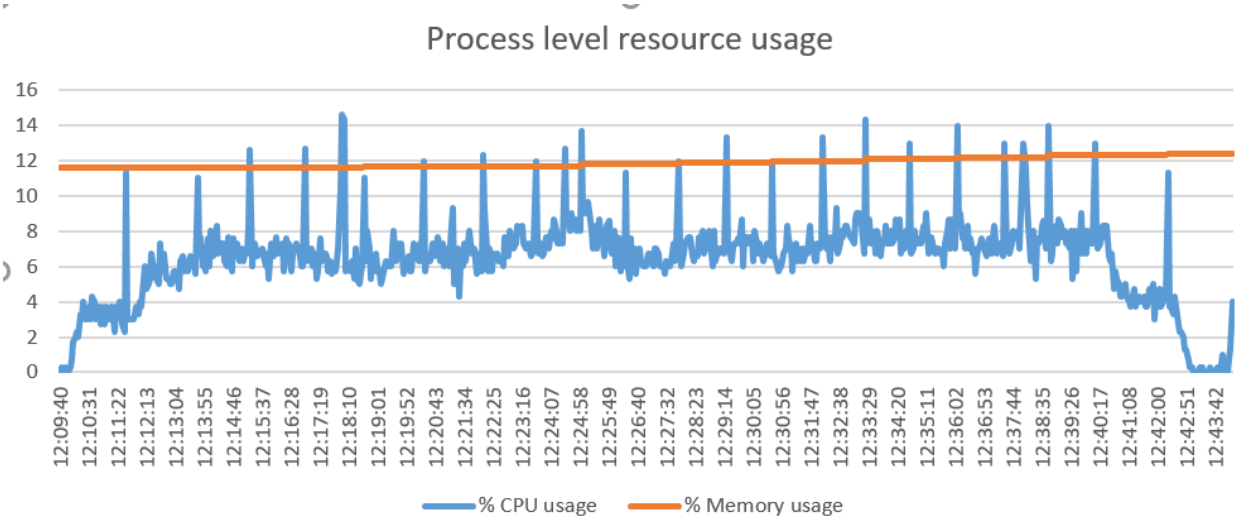
Resource Usage Metrics

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 below graphs.

CPU Usage at System and User level:



Process Level CPU and Memory Usage



Conclusion and Next Steps

There were no issues found in the test environment during the test. The response time of the transactions was not within the expected SLA of 300milliseconds for each APIs. The results will be shared with the development team further to analyze the root cause of exceeding the SLA with a Jira defect ID.