Mindtree

# IDA

# Performance Test Report

# For

# Execution of

# Demographic Authentication API – 100 users

Date: 20 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 the two API Endpoints sequentially running for a duration of 20 minutes.

The objective of this load test was to observe and record the behavior of the application when users access the name based and address based authentication APIs.

Below are the scenario details:

| | |
|---|---|
| **Sprint/Report Name** | FIT - 3<br>IDA – Demographic Authentication |
| **Run Date** | 20-February-2019 |
| **Period** | 06:00 PM to 06:20 PM |
| **Number of concurrent users** | 100 |
| **Ramp up** | 1 user per second |
| **Run Duration** | 20 minutes |
| **Ramp down** | 100 user per 25 seconds |

The transaction response times observed were as below:

| Label | #Sample | Average | 90% line(ms) | Min(ms) | Max(ms) | Error% | Throughput/Sec |
|---|---|---|---|---|---|---|---|
| Address Authentication | 11545 | 1706 | 2410 | 223 | 42024 | 0.17% | 9.05 |
| Name Authentication | 11495 | 1678 | 2361 | 242 | 42084 | 0.18% | 9.10 |

## Performance Test Execution Details

The average and the 90$^{th}$ percentile transaction response time are within the SLA of 3 seconds.

During the test, it was observed that the CPU resource is utilized close to 90% for most of the time and there are no other issues observed in the integration server.

There were few failures observed during the load test due to network error.

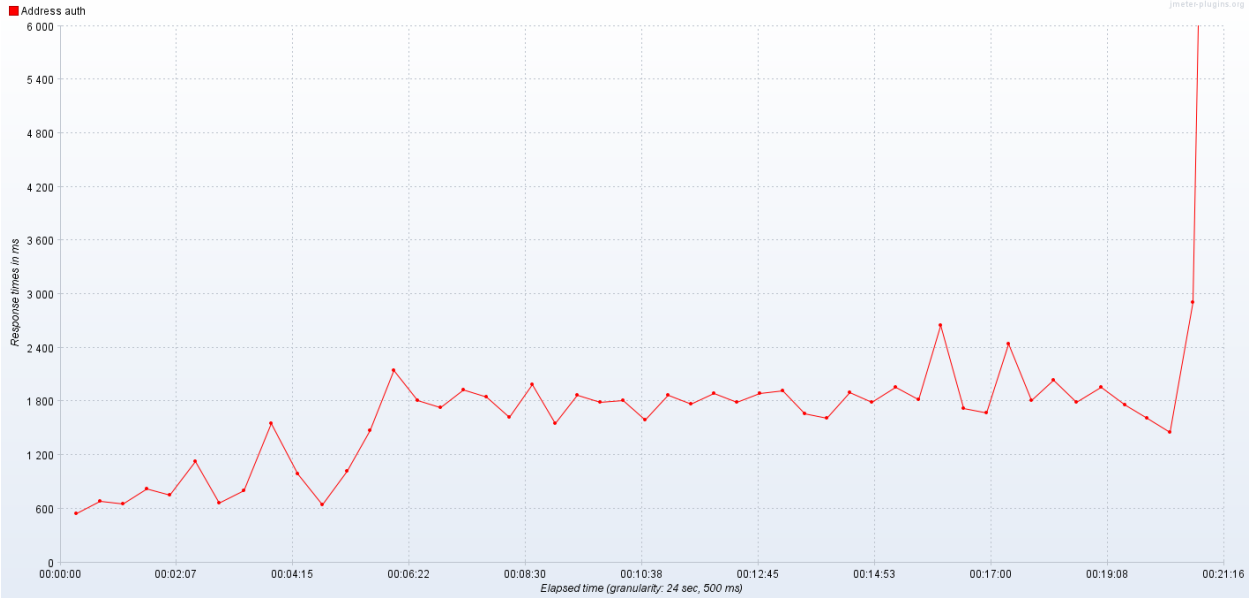
## Test Environment

The Integration test environment used for test execution.

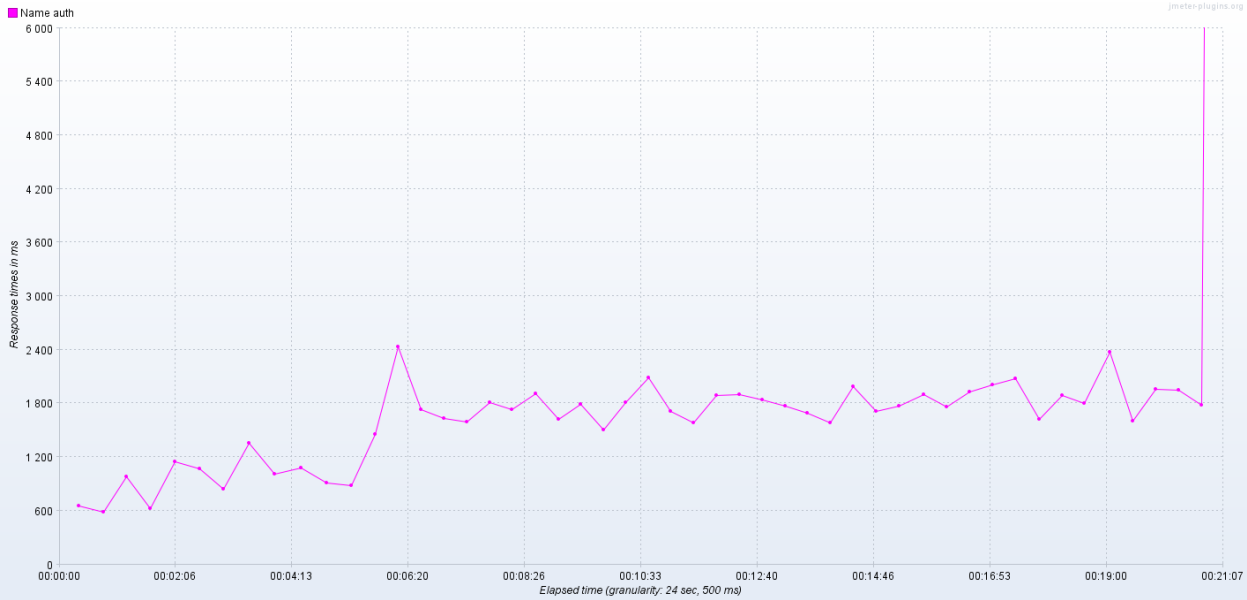
## Response Time Graph

The response times of all the transactions were normal and below the SLA throughout the duration of the test. There were no very high response time noticed during the test.

1. Address Authentication:

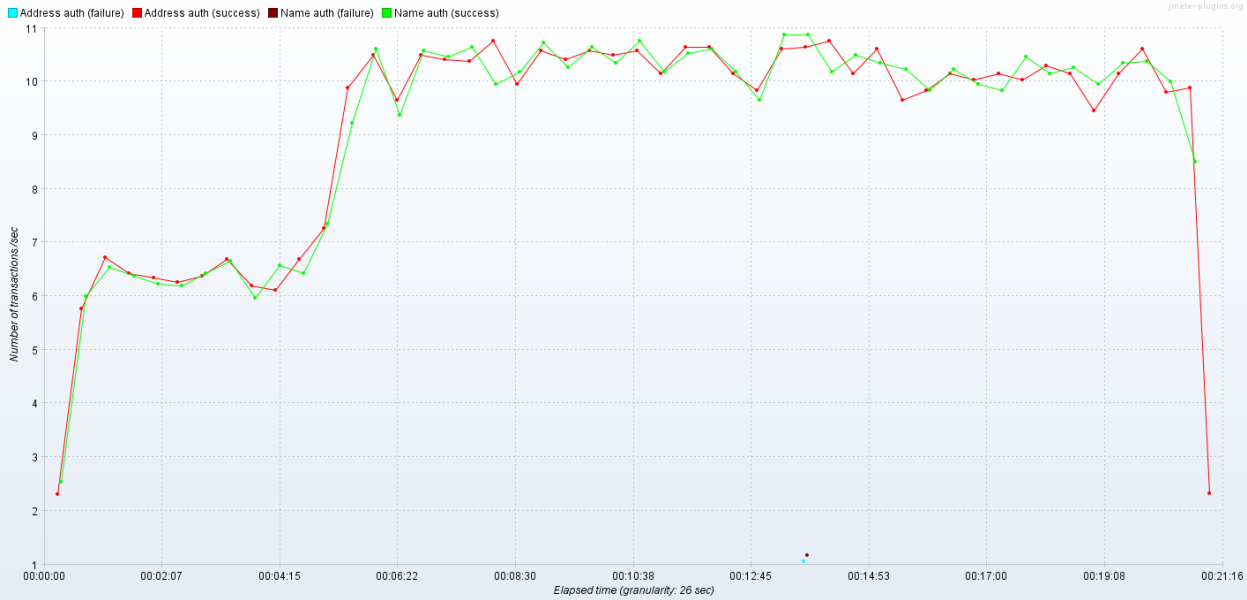


2. Name Authentication:




**Transactions per second**:

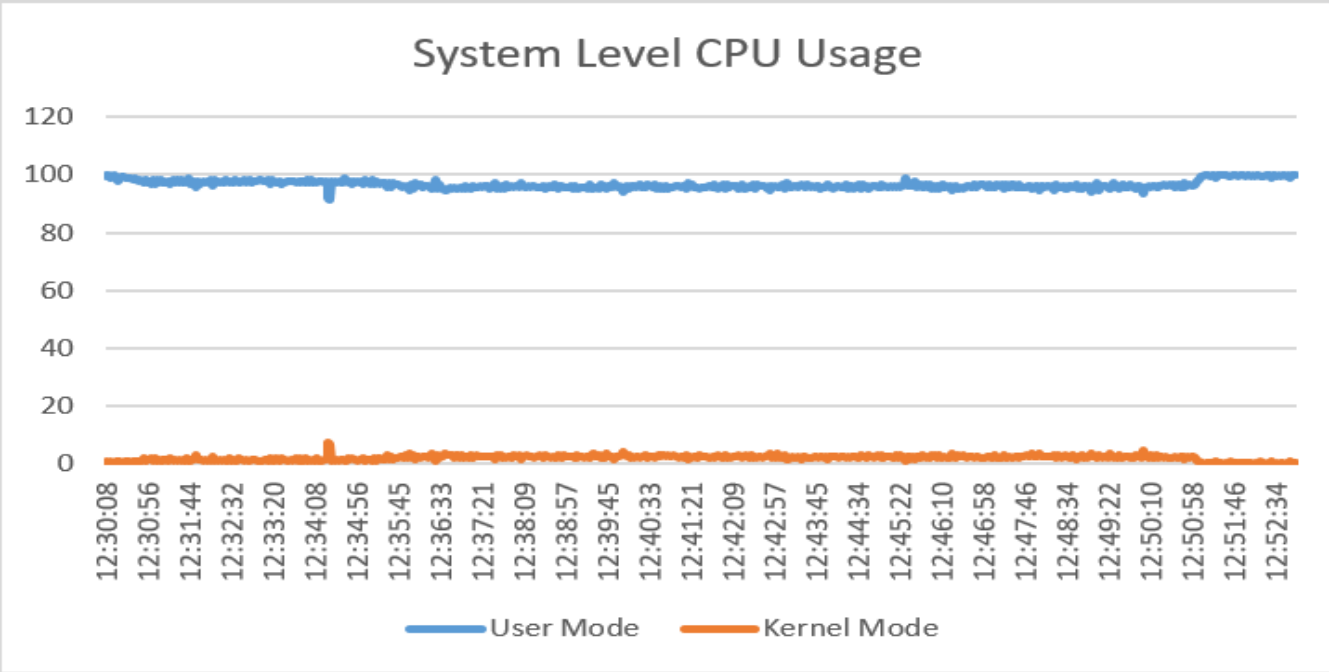
2 API Endpoints with Success and failed transactions



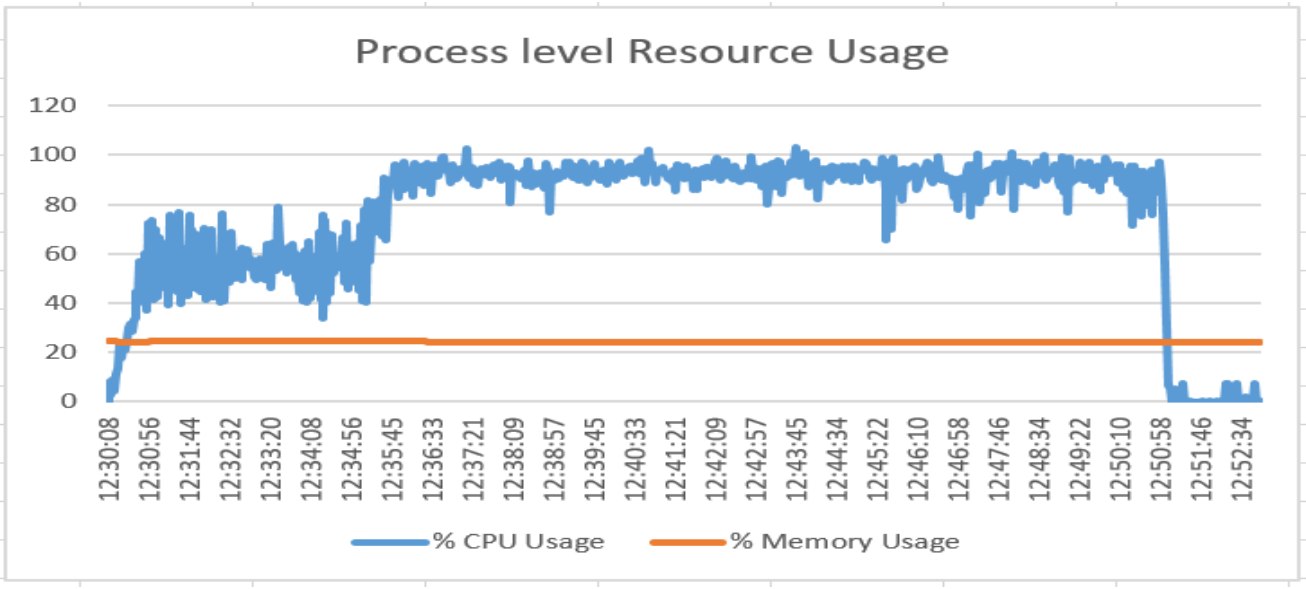

## Resource Usage Metrics

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 the below graphs.

## CPU Usage at System and User level:



## Process Level CPU and Memory Usage




## Conclusion and Next Steps

The CPU usage was around 90% level when users count ramped to 100. It was close to 50% with when the load was 50 users.

The response time of the transactions are within the expected SLA of 3 seconds for each APIs. The results will be shared with the development team further to analyze the root cause of exceeding CPU Usage with a Jira defect ID.