

Performance Test Report

For

Execution of

Kernel key manager service APIs – 250 users –Run1

Date: 2 Jun 2020

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Summary

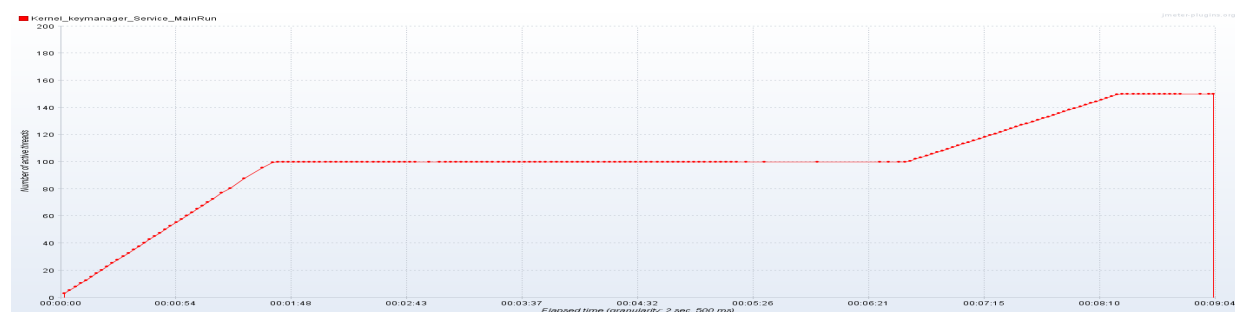
This report presents the observations and findings of the load test conducted for a load of 250 concurrent users on key manager sign and signature validate API's of Crypto signature service

The objective of this load test was to observe and record the behavior of the application when users are calling keymanager sign and signature validate API's of Crypto signature service API's

Below are the scenario details:

Script/Report Name	Kernel Key Manager service
Run Date	2-Jun-2020
Period	11:55 to 12:04 AM (UTC) – Run aborted due to huge count of errors
Number of concurrent users	0 to 100 to 150
Ramp up	Refer pic of Concurrent users Ramp up pattern shown below
Run Duration	1.1 hours(aborted run @ 9 Min)
Ramp down	1 min

Concurrent users Ramp up pattern:



The transaction response times observed were as below:

Label	# Samples	Average (ms)	90% Line (ms)	Min (ms)	Max (ms)	Error %	Throughput (sec)
TR_kernel_sign	40199	290	142	10	30023	83.74%	73.82818
TR_kernel_validate_sign	6536	328	701	17	9922	0.41%	20.21339

Performance Test Execution Details

Both APIs transactions average response times were less than 3sec mentioned below:

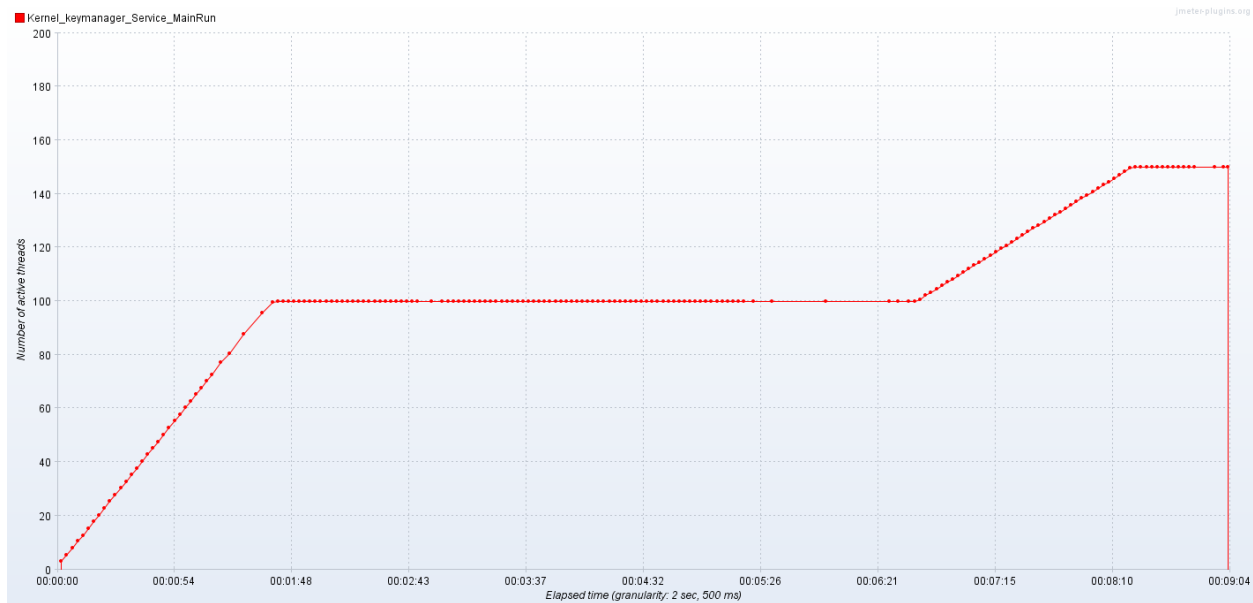
1. TR_kernel_sign -0.290 sec
2. TR_kernel_validate_sign -0.328 sec

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

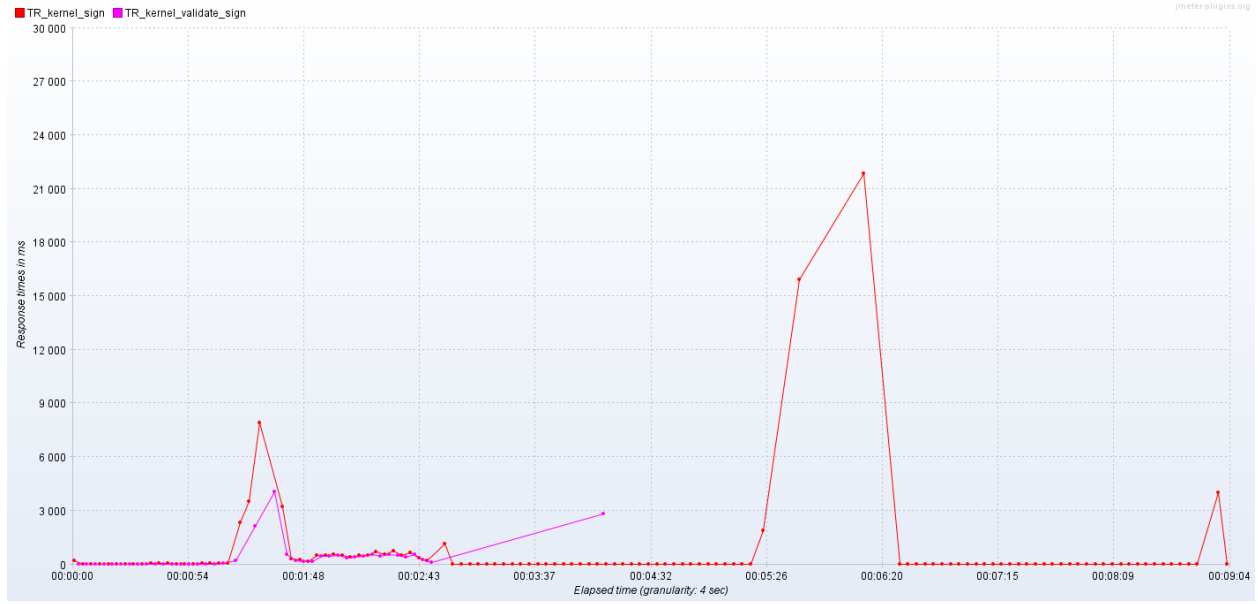
Transactions	Error %
TR_kernel_sign	83.64%

Sandbox preprod Environment : we are using sandbox preprod environment

Active threads over Time:



Response Time Graph



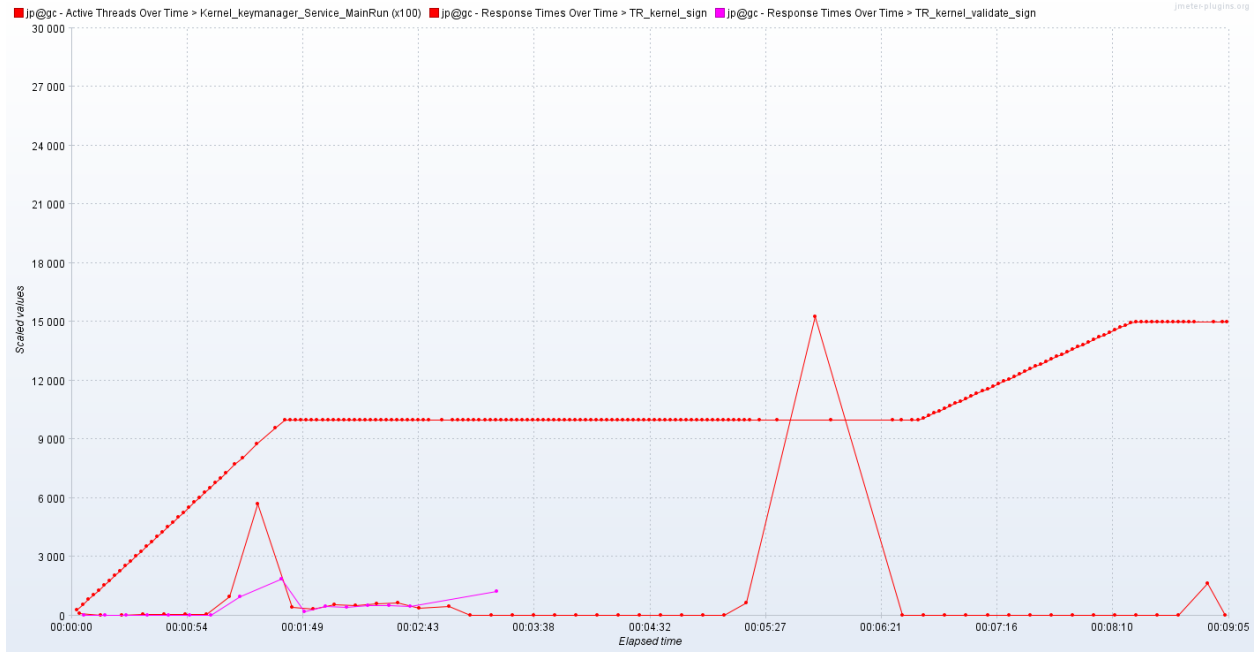
Transactions per second: (success)



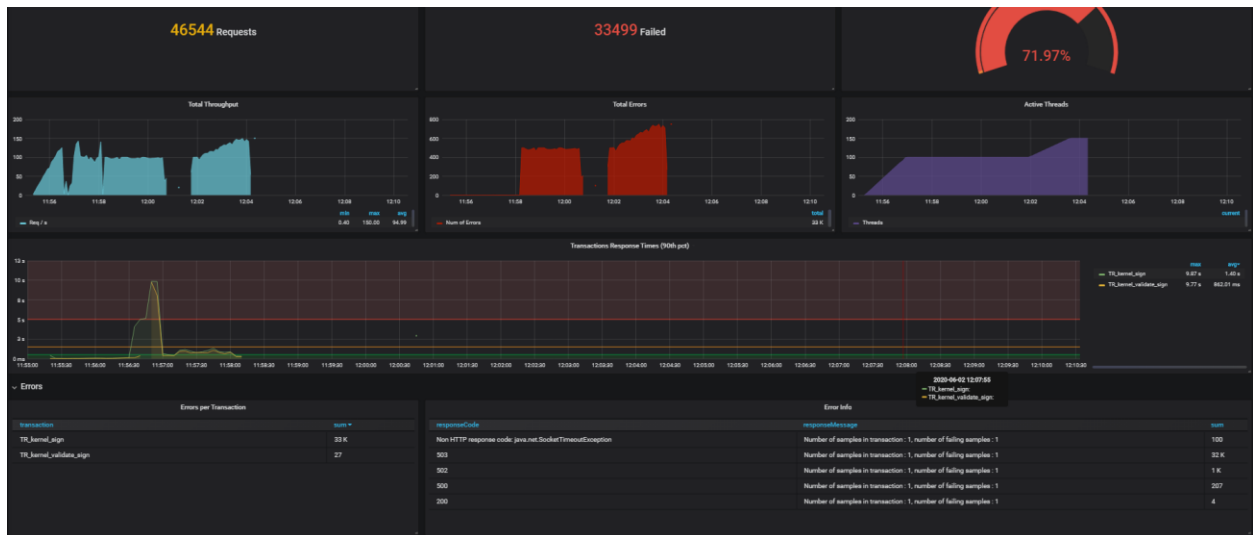
Transactions per second: (failure)

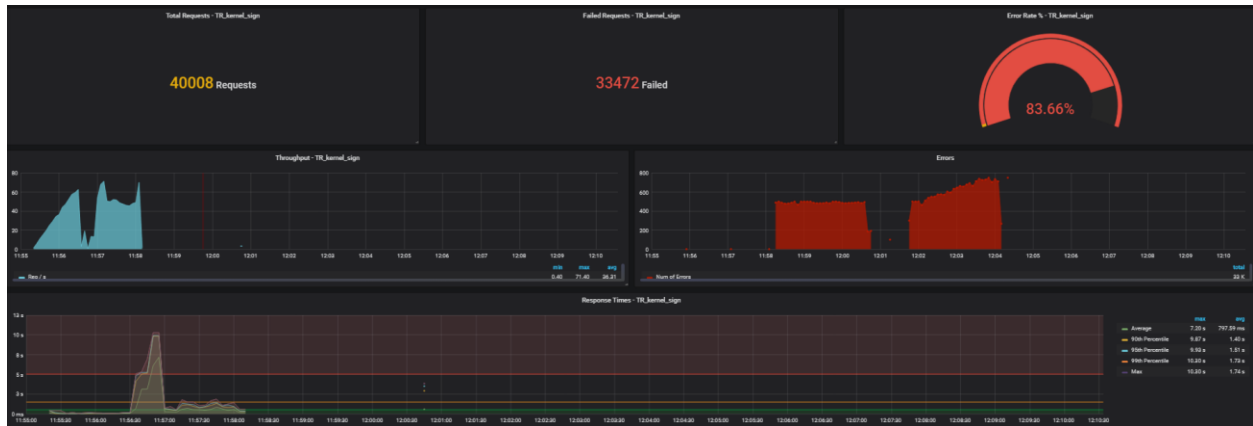


Active threads vs response times over time:



JMeter graph:





Conclusion and Next Steps:

When concurrent users reached 100 we have observed high count of HTTP -502 “BAD Gate way ” errors for the <https://preprod.southindia.cloudapp.azure.com/v1/keymanager/sign> requests and also below error messages

```
{
  "id": "string",
  "version": "1.0",
  "responsetime": "2020-06-02T11:57:06.042Z",
  "metadata": null,
  "response": null,
  "errors": [
    {
      "errorCode": "KER-KMS-006",
      "message": "Text '2020-06-02T11:57:06Z' could not be parsed at index 19 timestamp should be in ISO 8601 format yyyy-MM-ddTHH:mm:ss.SSSZ"
    }
  ]
}
```

Since its sandbox preprod environment once the complete setup with monitoring tools are installed we will execute one more test for detailed analysis ,since it will failing for 100 concurrent users ,I will change the load profile like 50 ,75 and 100 concurrent users and execute the test again