Mindtree

Performance Test Report

For

Execution of

Kernel UIN Generator API – 300 users

Date: 28 April 2020

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Summary

This report presents the observations and findings of the load test conducted for a load of 300 users on kernel UIN generator service.

Kernel database's uin table was emptied before start of the test and around 2 Lakh UIN records were created in the table in course of script execution. UIN generation in the database is a part of UINs buffer creation.

The objective of this load test was to observe and record behavior of the application when user load is scaled from 50 to 300 in steps of 50 in 1 hour duration of run.

UIN generaor API is hosted in preprod environment kubernetes cluster.

Below are the scenario details:

Script/Report Name	Kernel UIN Generator
Run Date	28-April-2020
Period	10:23 UTC to 11:24 UTC
Number of concurrent users	50 to 300
Ramp up	01 users per second
Run Duration	----
Ramp down	NA

The transaction response times observed were as below:

Label	# Samples	Average(ms)	90% Line(ms)	Min(ms)	Max(ms)	Error %	Throughput
TR_kernel_generate-uin	67458	8575	17545	32	28603	0.00%	18.4/Sec

Performance Test Execution Details

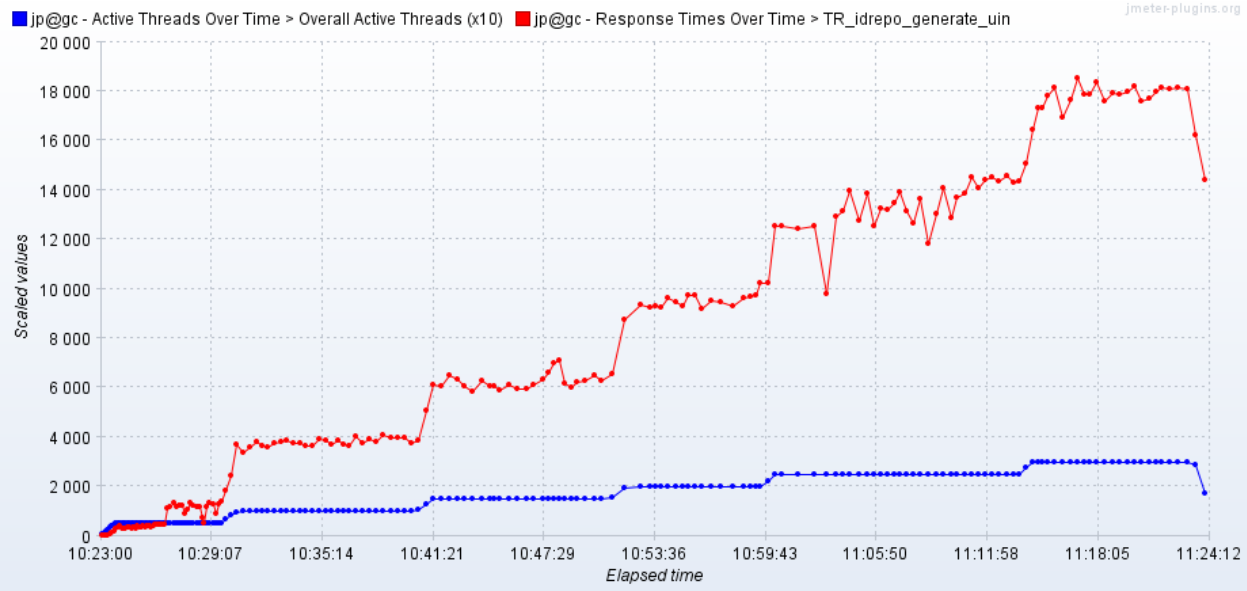
We have executed JMeter script for kernel UIN generator service, which has transactions mentioned in the above table.

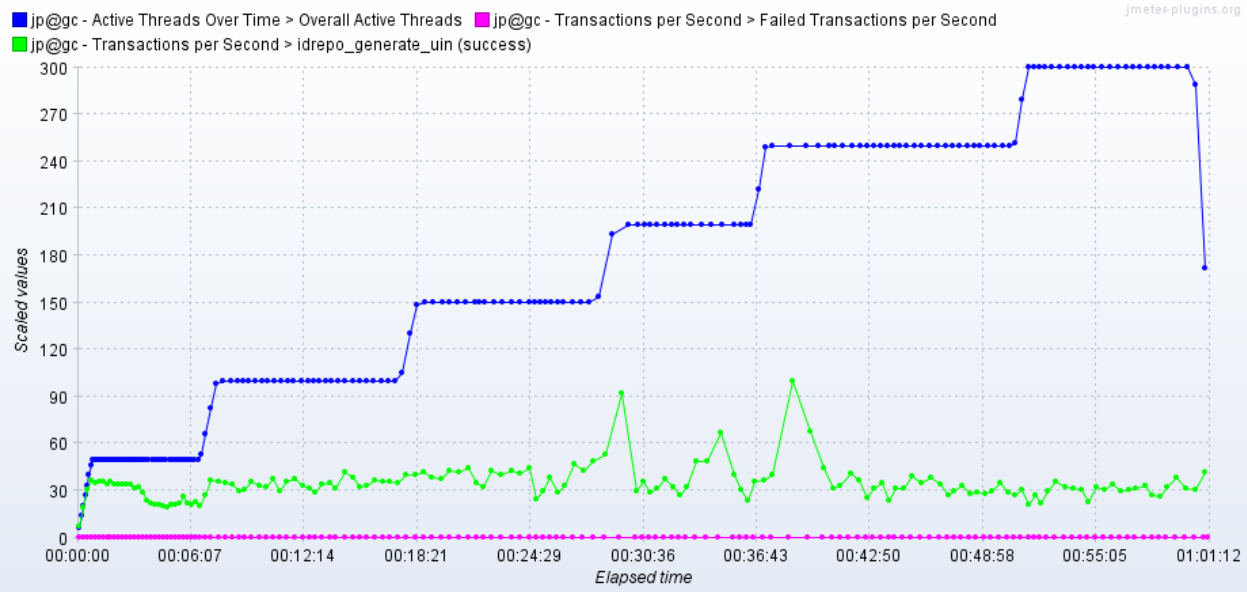
Average response time of the APIs is 8575 ms with 0% error rate.

Response time of the API is approx. 1.208 seconds when 50 users are active, it increases with increase in number of users. It reaches ~50 seconds when 60 users are active and gets to 18 second when 300 users are accessing the API.

TPS of the API is approx. 37.5 when 100 users are active and stays almost at same level.

Response Time and TPS Graph:





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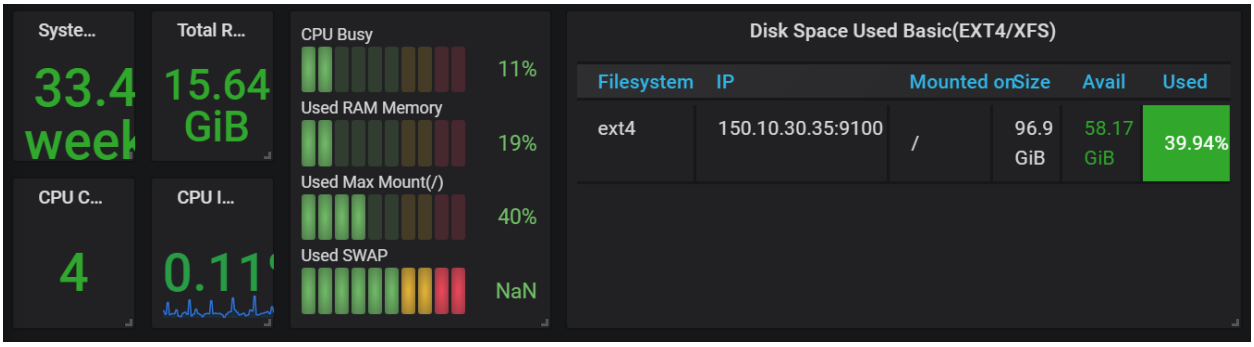
Resource Usage Pattern:

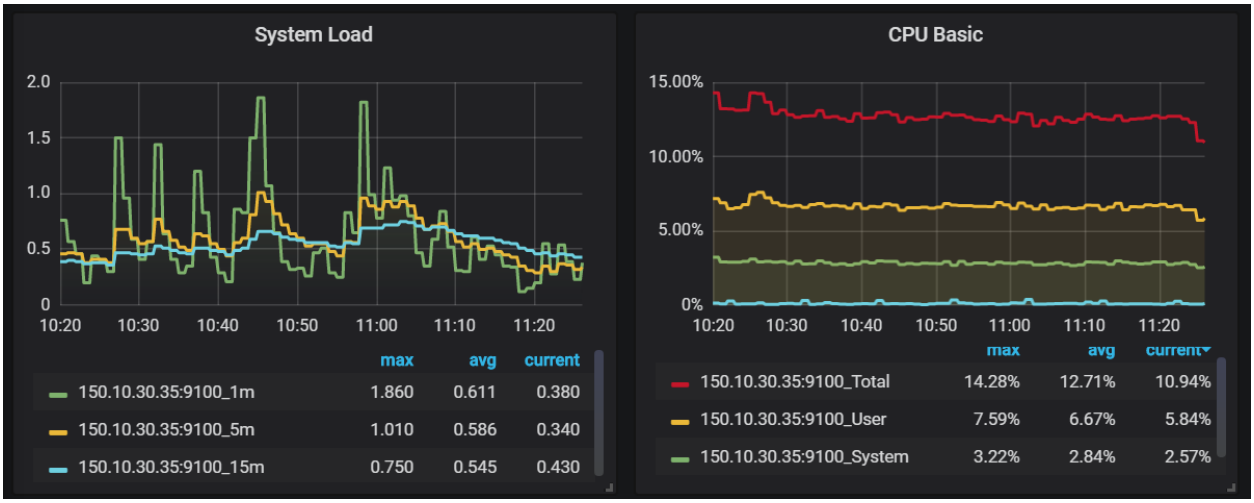
kernel Service cluster VM resource usage:

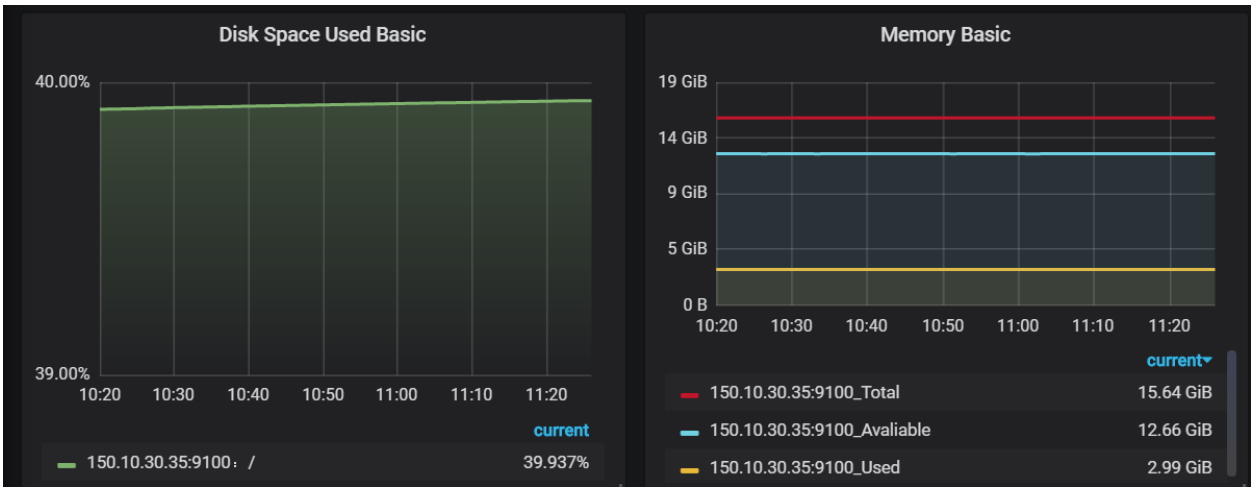
Average system load – 0.611 (4 cores)

Average CPU usage – 12.71 %

Memory used – 2.3 GB / 15.64 GB







Kernel DB resource usage:

Average system load – 6.35 (2 cores) increases as test progresses, or say with increase in volumes in the uin table

Average CPU usage – 70.47 % (user mode)

Memory used – 2.4 GB / 7.78 GB