

# Performance Test Report



## eRL Performance Test

**Submitted To:**



**Version: 1.0**

**Prepared By: Dhanuka Dulanjana**

**Date: 26/09/2023**

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Performance Test Report				
Environment : Production		Portal Names: Internal Portal		
Client : ERL				
PREPARED BY :				
Name : Dhanuka Dulanjana		Designation : Software Quality Assurance Engineer		
Signature : 		Date : 26-September -2023		
REVIEW & APPROVAL:				
	Name	Designation	Signature	Date
Reviewed By:	Saranga Egodage	Manager QA		9/26/2023
Approved By :				

DOCUMENT REVISION HISTORY:			
Version No.	Date	Description	Author (name)
1.0	26-September-2023	Performance Test Result - Phase 1	Dhanuka Dulanjana

## Tested Environment and Pre-requisites:

### Hardware

Hardware capacities of instances are mentioned below.

Instance Name	CPU	RAM	HD (GB)
erl prod private cluster rke node1	8	16	650
erl prod private cluster rke node 2	8	16	650
erl prod private cluster rke node 3	8	16	650
erl prod public cluster rke node 1	16	32	650
erl prod public cluster rke node 2	16	32	650
erl prod public cluster rke node 3	16	32	650
erl prod private cluster rke node 4	8	16	600
erl prod public cluster rke node 4	16	32	600
erl prod public cluster rke node 5	16	32	600
erl prod private cluster rke node 5	24	48	800

### Software

Name	Details
Jmeter	v5.5
Grafana	v9.0.2
InfluxDB	v 1.8.0

## Detailed Summary

Module	Business Critical Scenario Name	Performance Test Status	Highest Success Scenario Details
<b>Internal Portal</b>	Normal License Issuance. [Without Through DMT Service]	Script: Done Testing: Done	<ul style="list-style-type: none"> <li>• <b>1974</b> Licenses issued within 6 Minutes. <a href="#"><u>1.1 License Issuance(1974) – 6 Minutes (Passed)</u></a></li> </ul>
	Normal License Issuance. [Through DMT Service]	Script: Done Testing: Done	<ul style="list-style-type: none"> <li>• <b>1619</b> Licenses issued within 6 Minutes. <a href="#"><u>1.2 Total License Issuance(1619) – 6 Minutes (Passed)</u></a></li> </ul>
	Normal License Issuance. [Endurance Test]	Script: Done Testing: Done	<ul style="list-style-type: none"> <li>• <b>42130</b> Licenses issued within 5 hours <a href="#"><u>2.1 Total License Issuance (42130) – 5 hours (Passed)</u></a></li> </ul>
	Login & Start Counter Sessions.	Script: Done Testing: Done	<ul style="list-style-type: none"> <li>• <b>1541</b> Logins within 1 Minute.</li> <li>• <b>1375</b> Start Counter Sessions within 6 Minute. <a href="#"><u>3.1 Total Logins (1541) – 1 minute (Passed)</u></a></li> </ul>
<b>Staging Environment</b>	Daily Counter Transaction Summary Report –Staging Environment	Script: Done Testing: Done	<ul style="list-style-type: none"> <li>• <b>841</b> Reports Generated within 2 Minute. <a href="#"><u>4.1 200 Concurrent Users– 2 minute (Passed)</u></a></li> </ul>

## Execution Results

### 1. Test Scenario: ERL – Internal Portal –Normal License Issuance (Load Test)

#### 1.1 License Issuance(1974) – 6 Minutes (Passed)

Time Duration: 6 Minutes

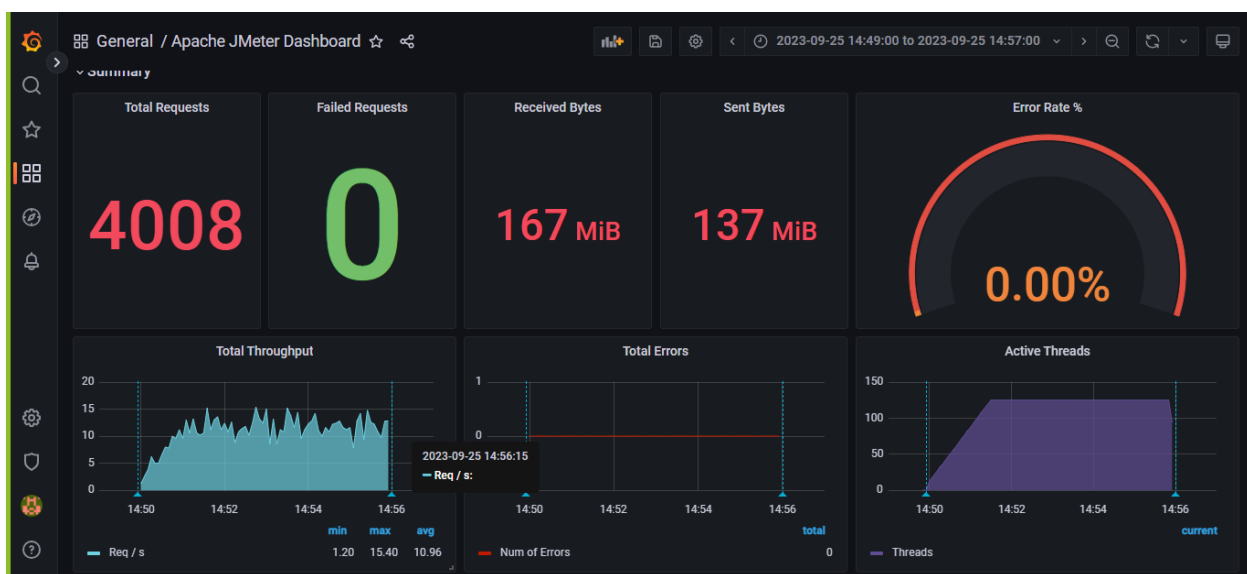
Test Started At: 2023-09-25 14:49:00 PM

Test Started At: 2023-09-25 14:57:00 PM

No of Threads:-125

Total License Issuance;- 1974

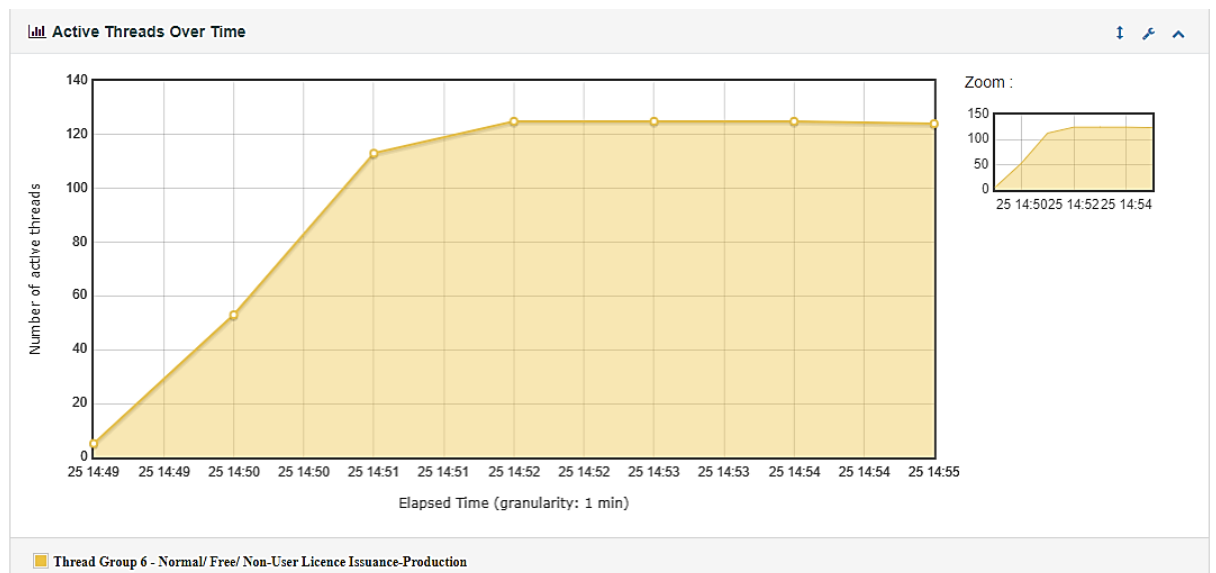
(Gateway Timeout -; 120s)



Write results to file / Read from file										
Filename: <input type="text"/>										
<input type="button" value="Browse..."/> <input type="checkbox"/> Log/Display Only: <input type="checkbox"/> Errors										
Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	St	
Search Vehicle [VE...	2034	11053	669	14627	1896.67	0.00%	5.6/sec	407.22	St	
Issue Licence [VET ...]	1974	8369	159	23289	3621.53	0.00%	5.5/sec	64.96	St	
TOTAL	4008	9731	159	23289	3175.89	0.00%	11.0/sec	466.67	St	

[Figure 1.1 – Summary Details]

According to Figure 1.1 throughput value of Licence issuance scenario is 5.5 per second which means this system with current allocated server capacities is able to handle/issue around 5 licences successfully per second [300 licenses per minute and 18,000 per hour]

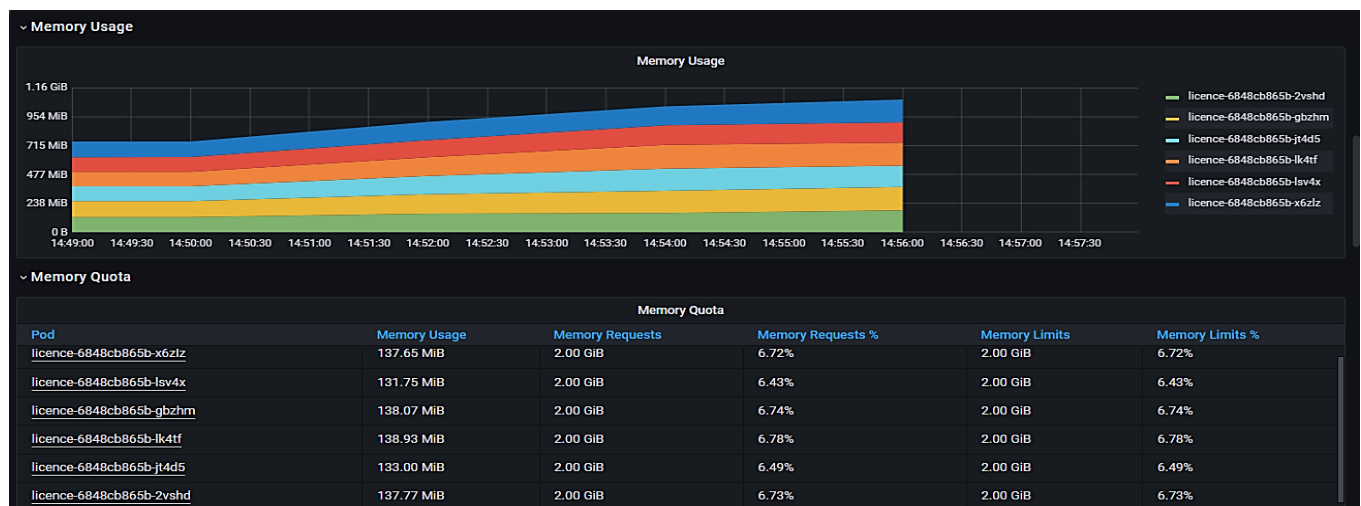


[Figure 1.11 – Thread Group Details]

Figure 1.11 refers to how 125 concurrent users stayed in the system during the 6-minute execution time period.

## CPU & RAM UTILIZATION

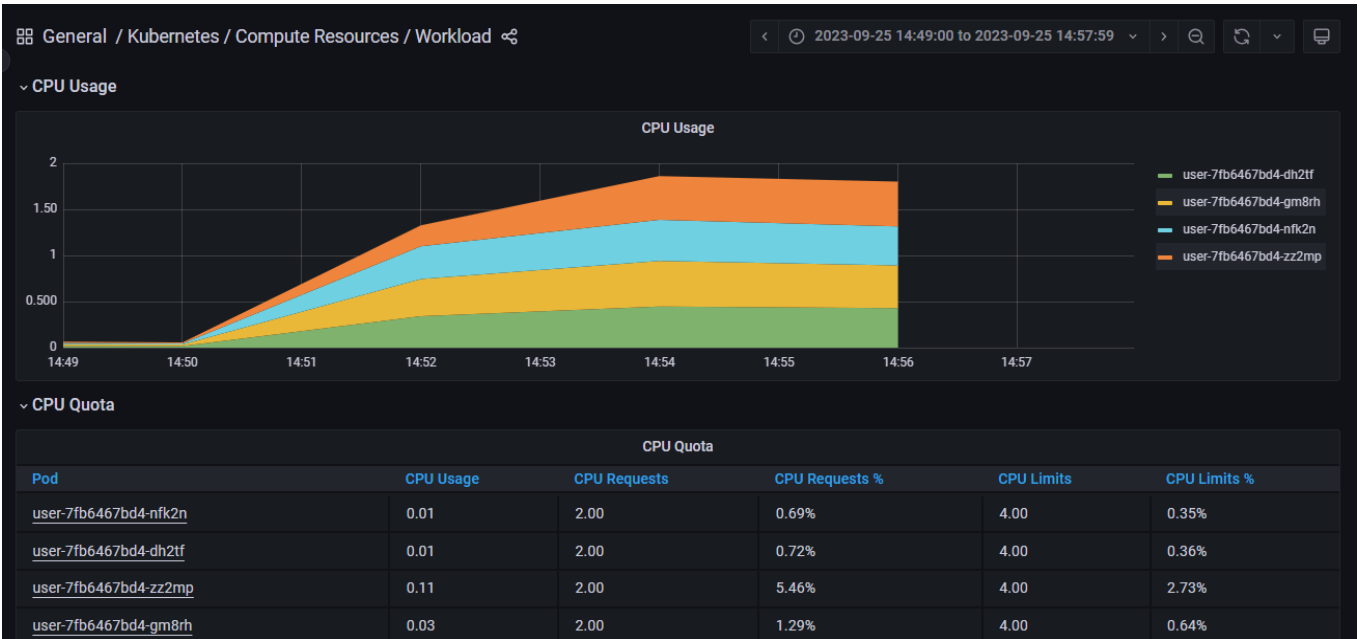
### Ram Utilization of Licence Service



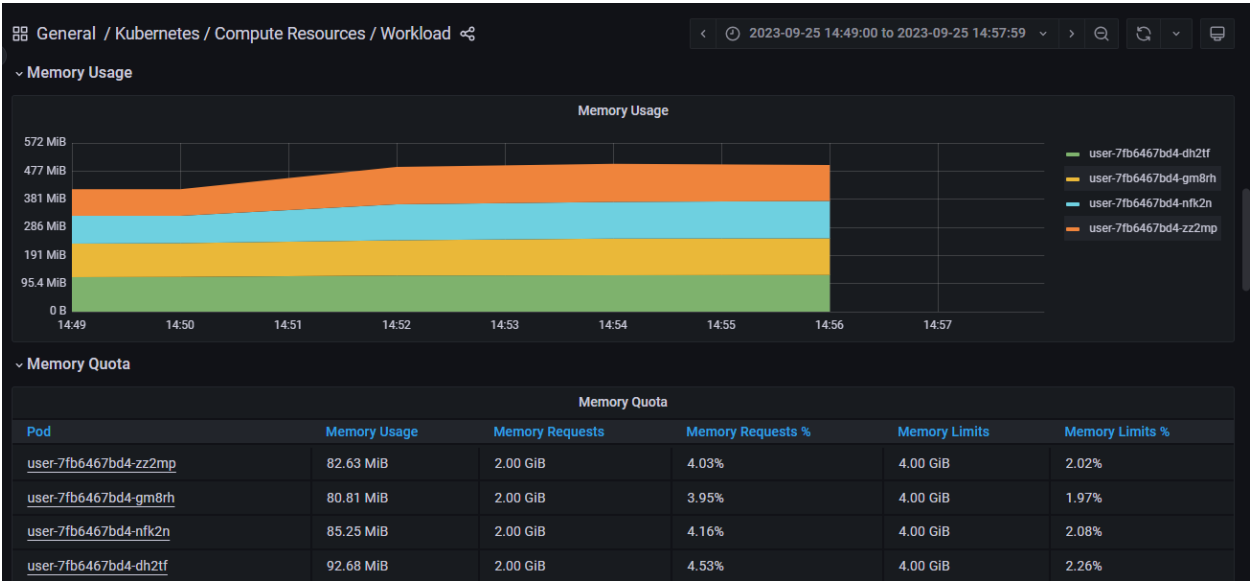
CPU Utilization of Licence Service



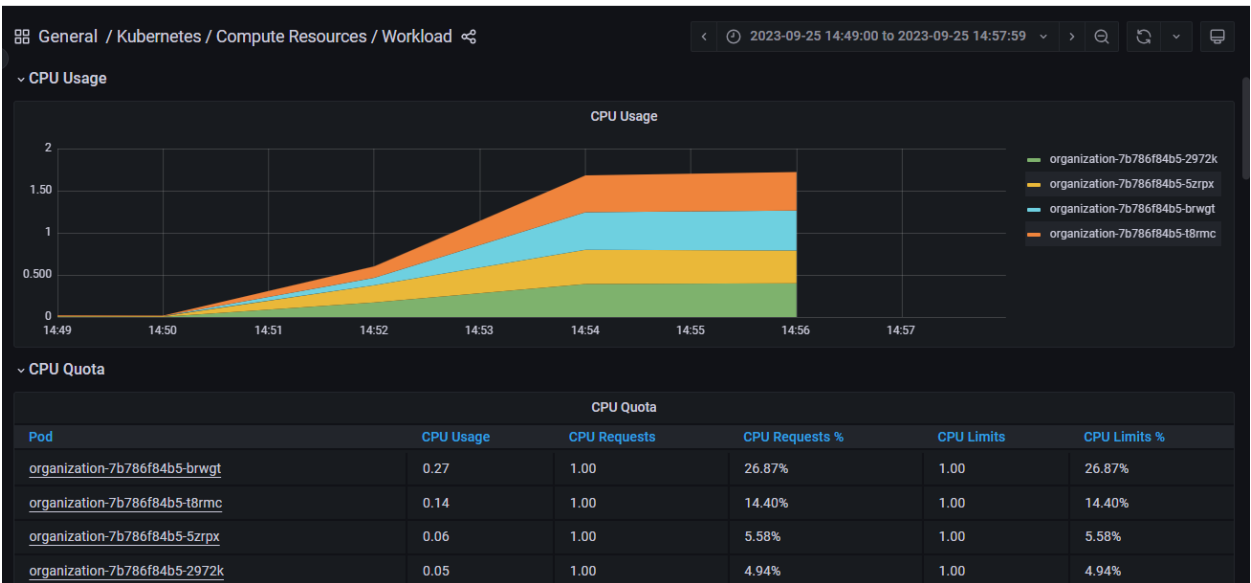
CPU Utilization of User Service



RAM Utilization of User Service

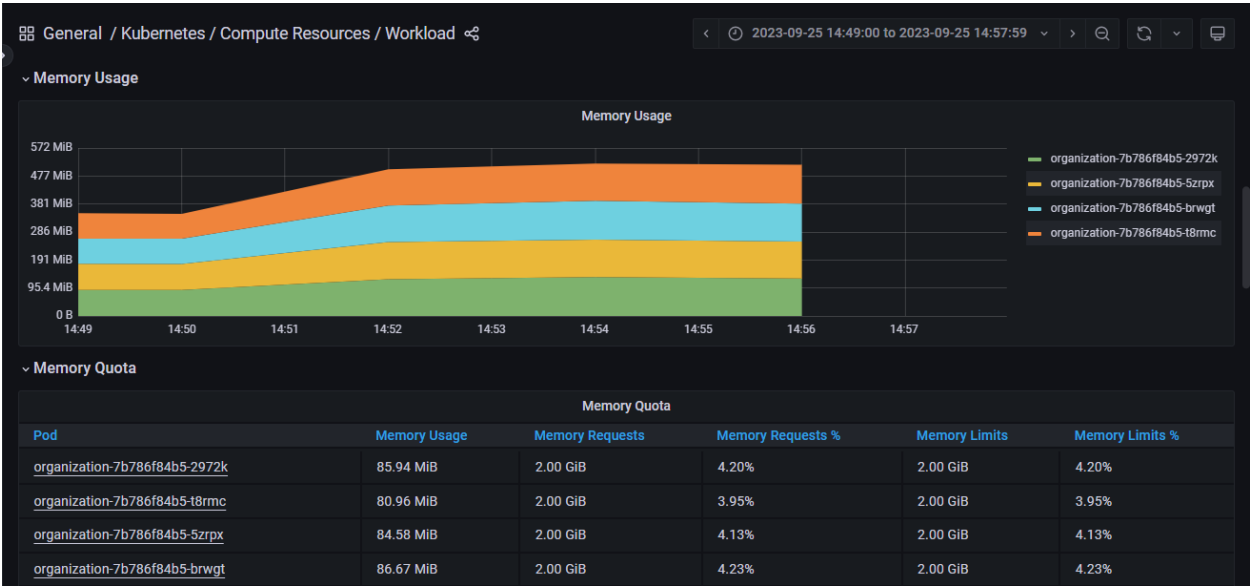


CPU Utilization of Organization Service





# RAM Utilization of User Service



## 1.2 Total License Issuance(1619) – 6 Minutes (Passed)

Time Duration: 6 Minutes

Test Started At: 2023-09-25 18:24:00 PM

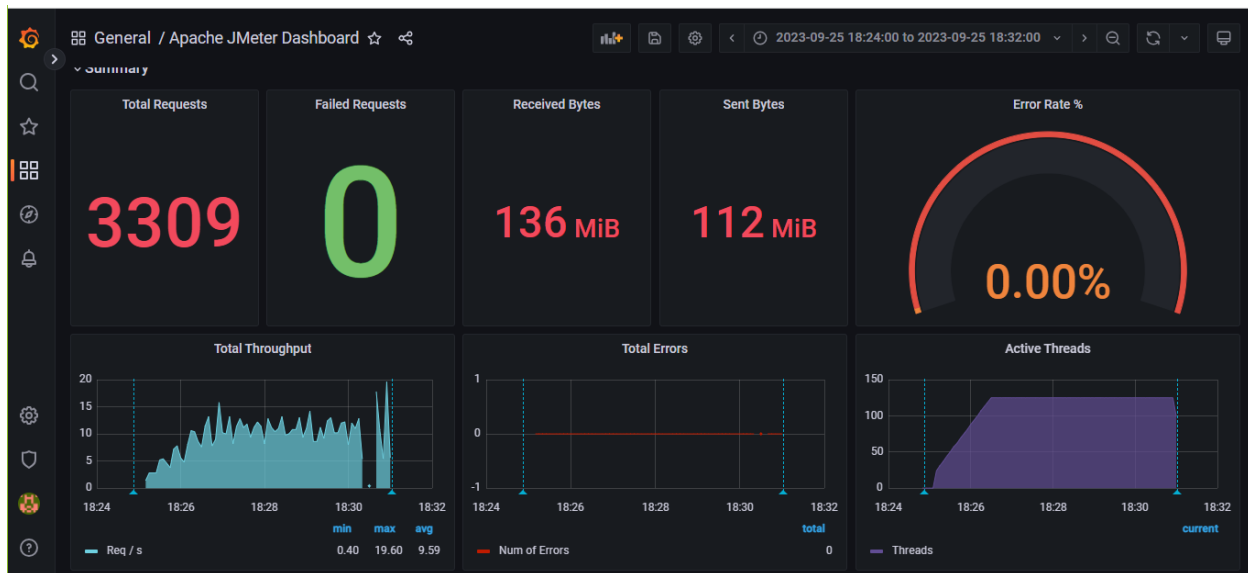
Test Started At: 2023-09-25 18:32:00 PM

No of Threads:-125

Total License Issuance;- 1619

(Gateway Timeout -; 120s)

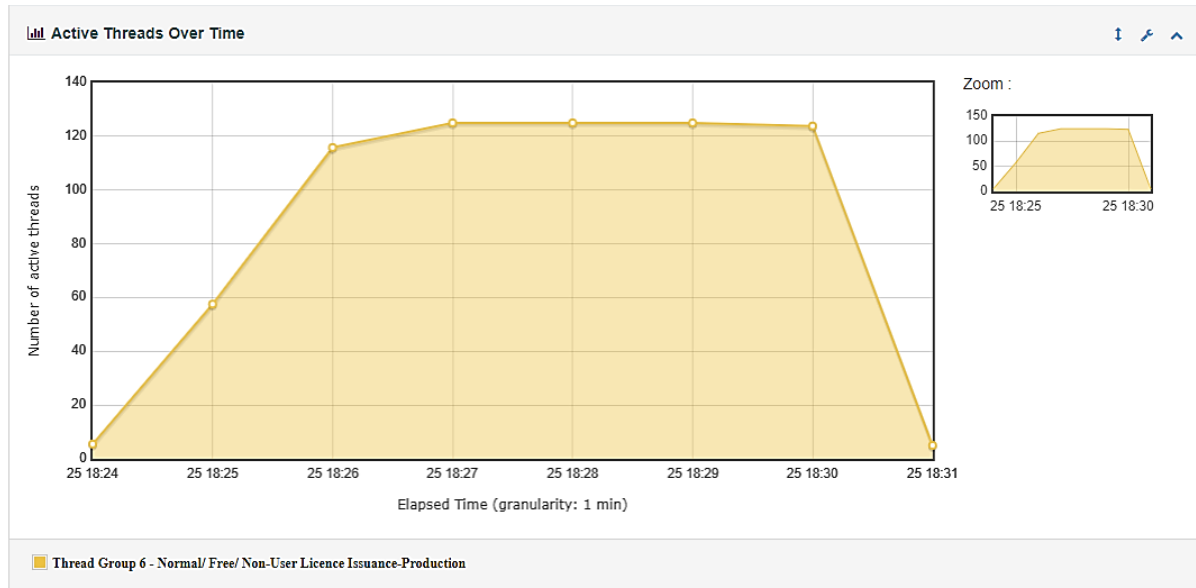
\*Through DMT Service\*



Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	S
Search Vehicle [VET...	1690	17461	195	37856	3575.10	0.00%	4.6/sec	326.26	S
Issue Licence [VET ...	1619	5982	2041	22793	3361.01	0.00%	4.6/sec	54.77	
TOTAL	3309	11845	195	37856	6706.73	0.00%	8.9/sec	378.02	

[Figure 1.2 – Summary Details]

According to Figure 1.2 throughput value of License issuance scenario is 4.6 per second which means this system with current allocated server capacities is able to handle/issue around 4 licenses successfully per second [240 licenses per minute and 14,400 per hour]

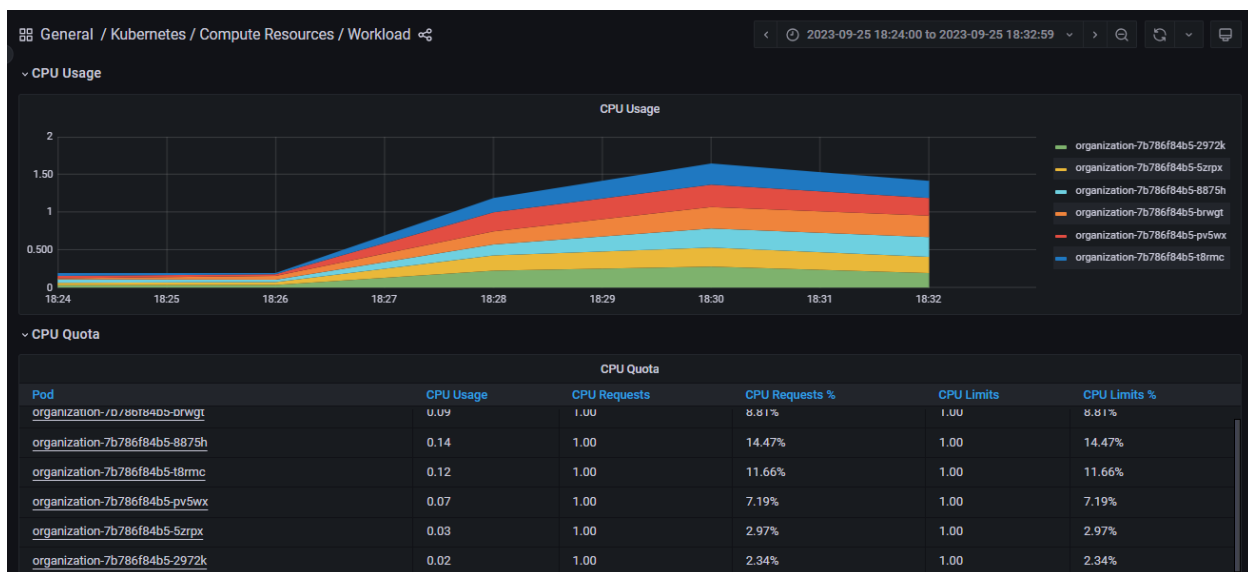


[Figure 1.21 – Thread Group Details]

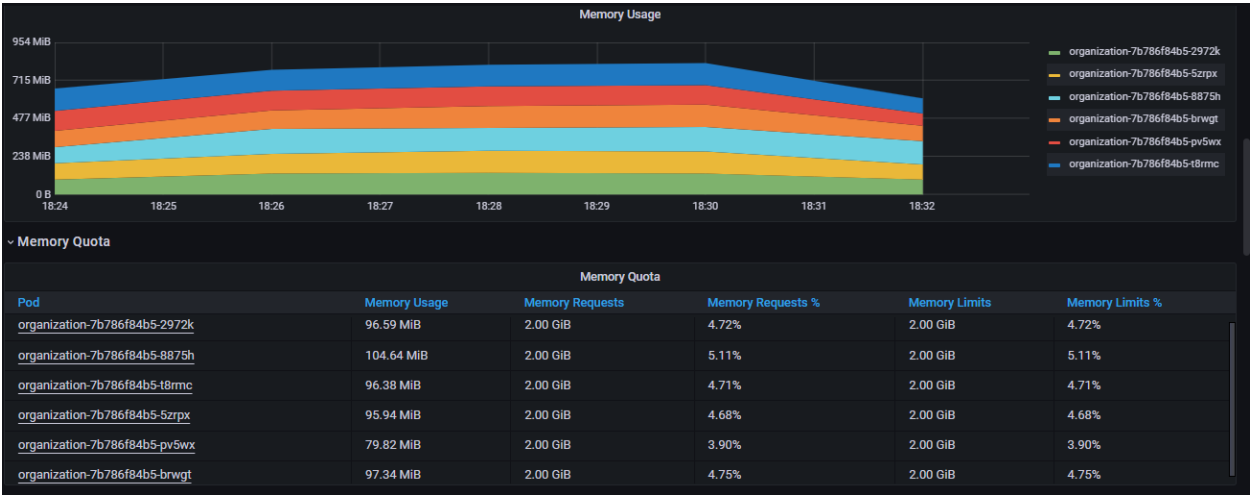
Figure 1.21 refers to how 125 concurrent users stayed in the system during the 6-minute execution time period.

## CPU & RAM UTILIZATION

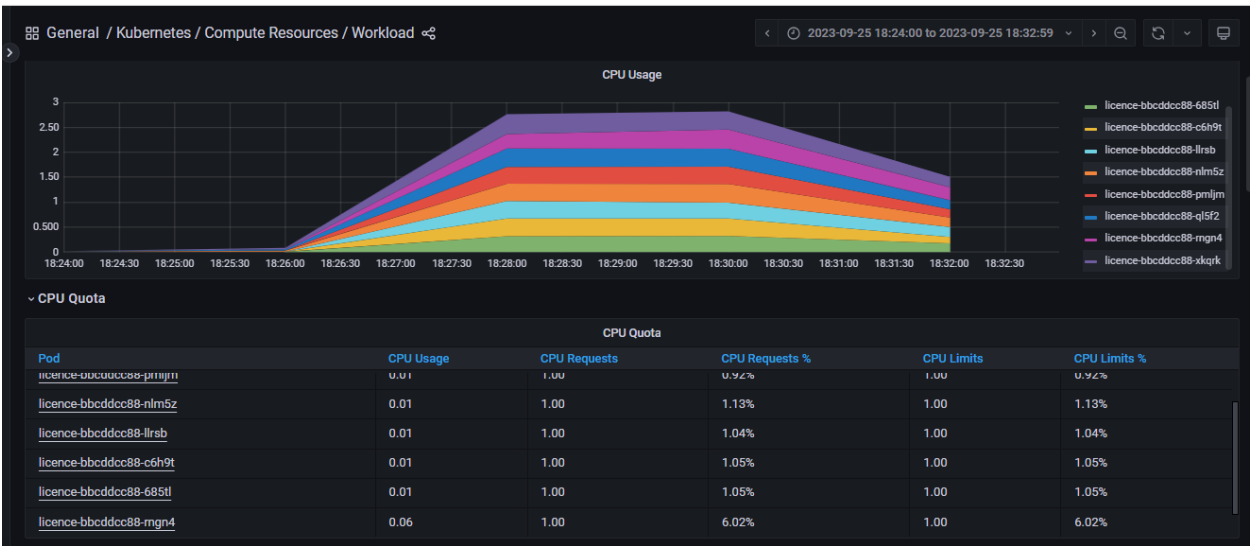
### CPU Utilization of Organization Service



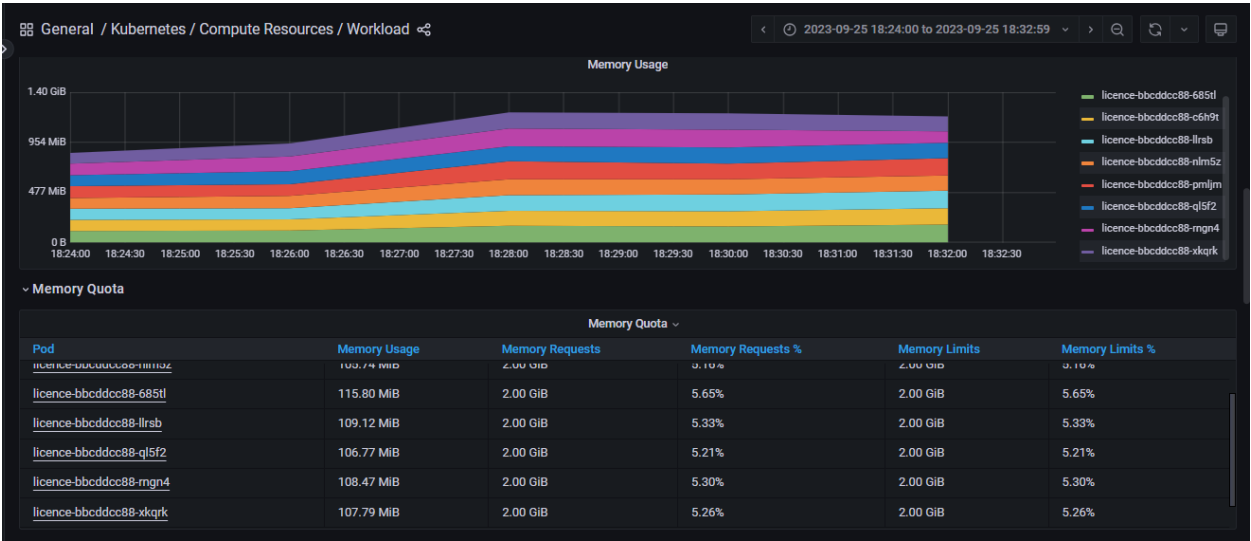
RAM Utilization of Organization Service



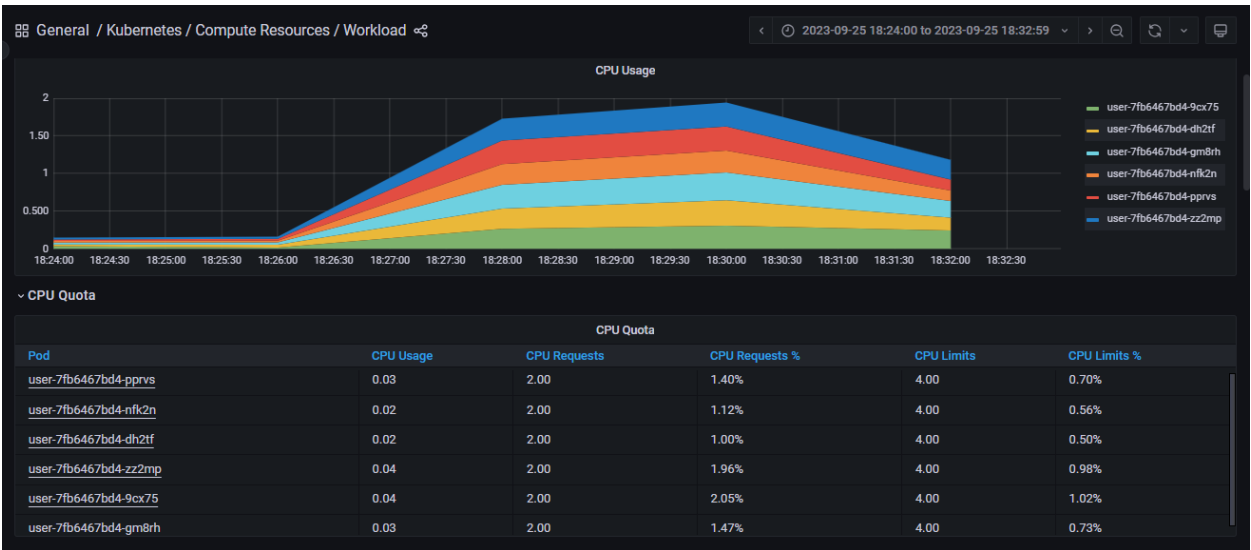
CPU Utilization of Licence Service



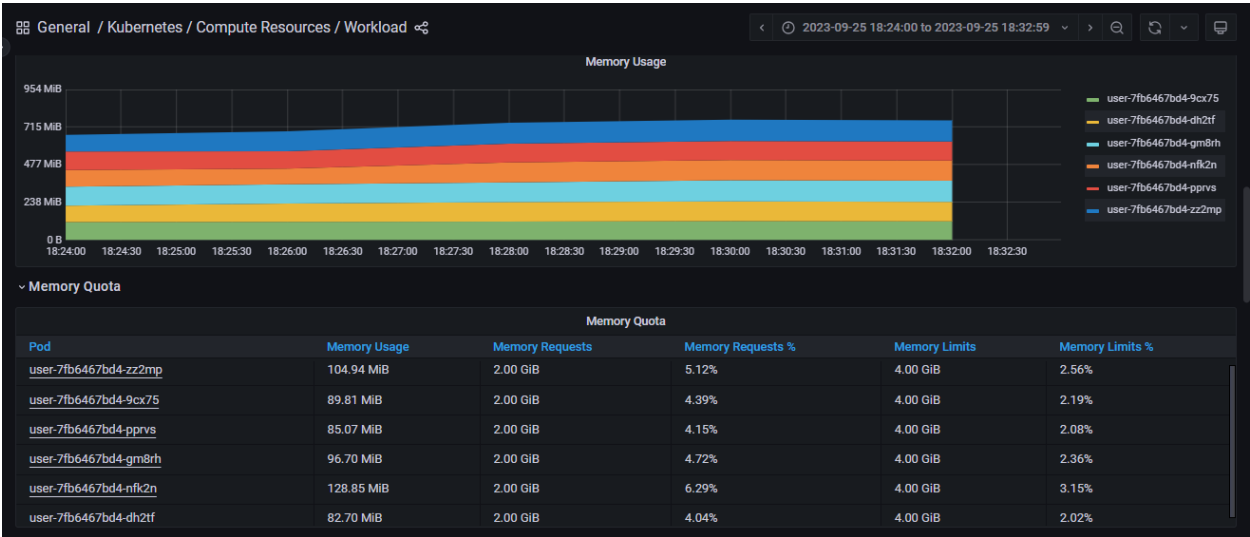
RAM Utilization of Licence Service



CPU Utilization of User Service



# RAM Utilization of User Service



## 2. Test Scenario: ERL – Internal Portal –Normal License Issuance (Endurance Test)

### 2.1 Total License Issuance (42130) – 5 hours (Passed)

Time Duration: 5 hours

Test Started At: 2023-09-25 21:33:00 PM

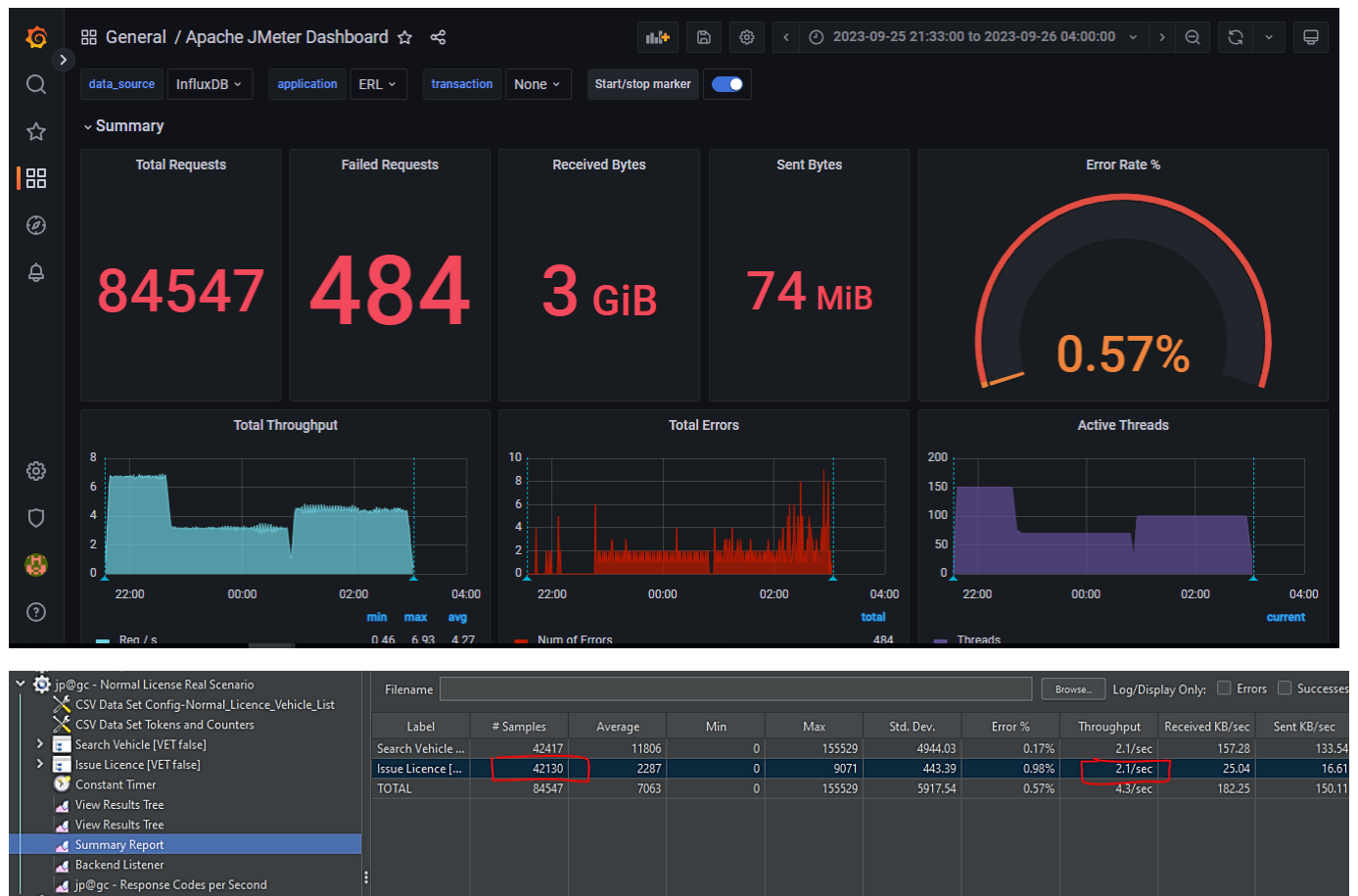
Test Started At: 2023-09-26 03:10:00 AM

No of Threads:-125

Total License Issuance;- 42130

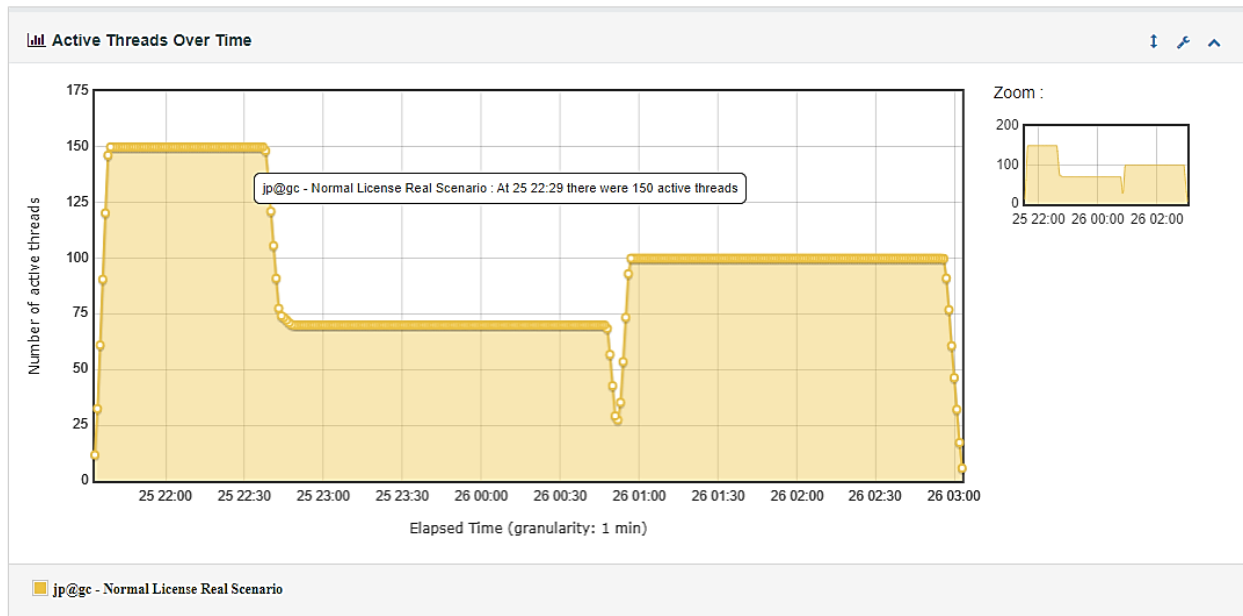
(Gateway Timeout -; 120s)

\*Through DMT Service\*



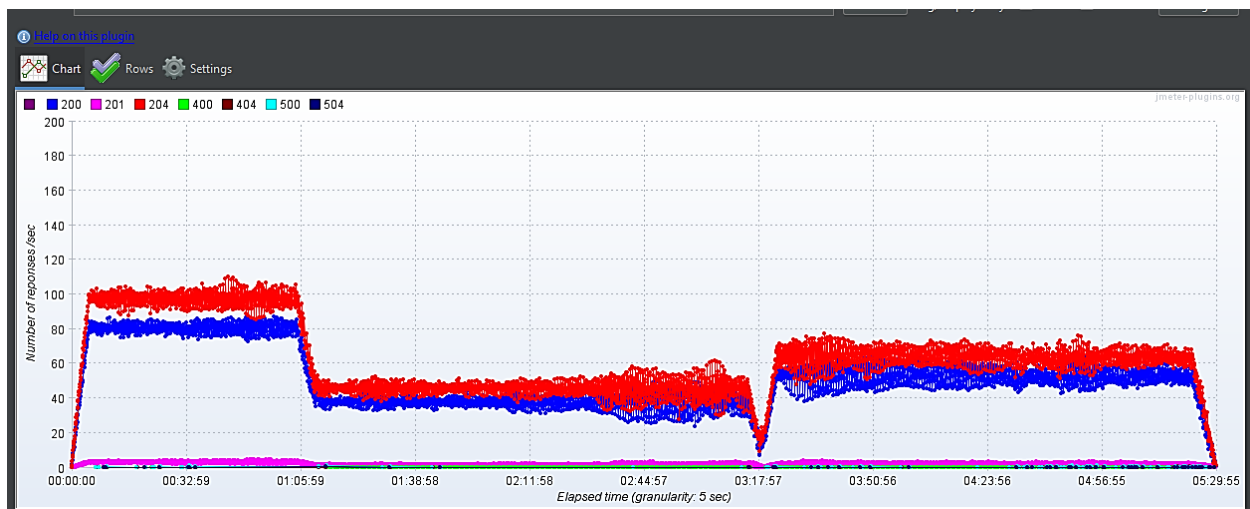
[Figure 2.1 – Summary Details]

According to Figure 2.1 throughput value of License issuance scenario is **2.1** per second which means this system with current allocated server capacities is able to handle/issue around 2 licenses successfully per second [**120** licenses per minute and **7200** per hour]



[Figure 2.11 – Thread Group Details]

**Figure 2.11** refers to how 125, 75 and 100 concurrent users stayed in the system during the 5-hours of execution time period.



[Figure 2.12 – Thread Group Details]

**Figure 2.12** refers to Error codes that occurred with the time

504 Errors – 65 as a percentage **0.07%**

(Only This API -; /api/bff-internal/licence-service/vehicle-owner/AAK-3276-23)

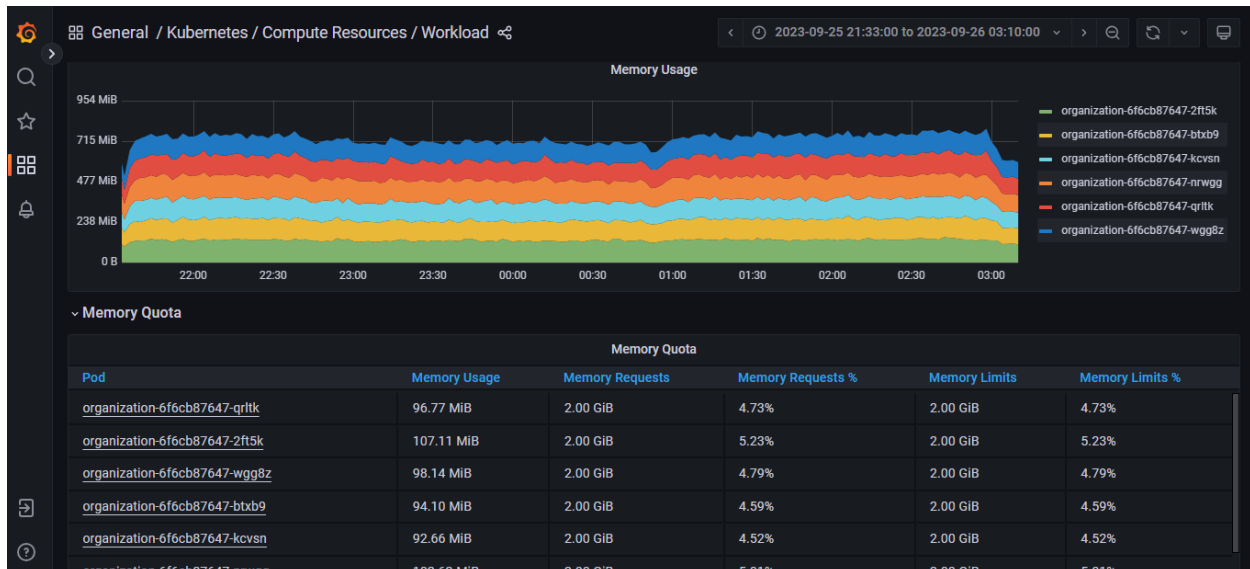


## CPU & RAM UTILIZATION

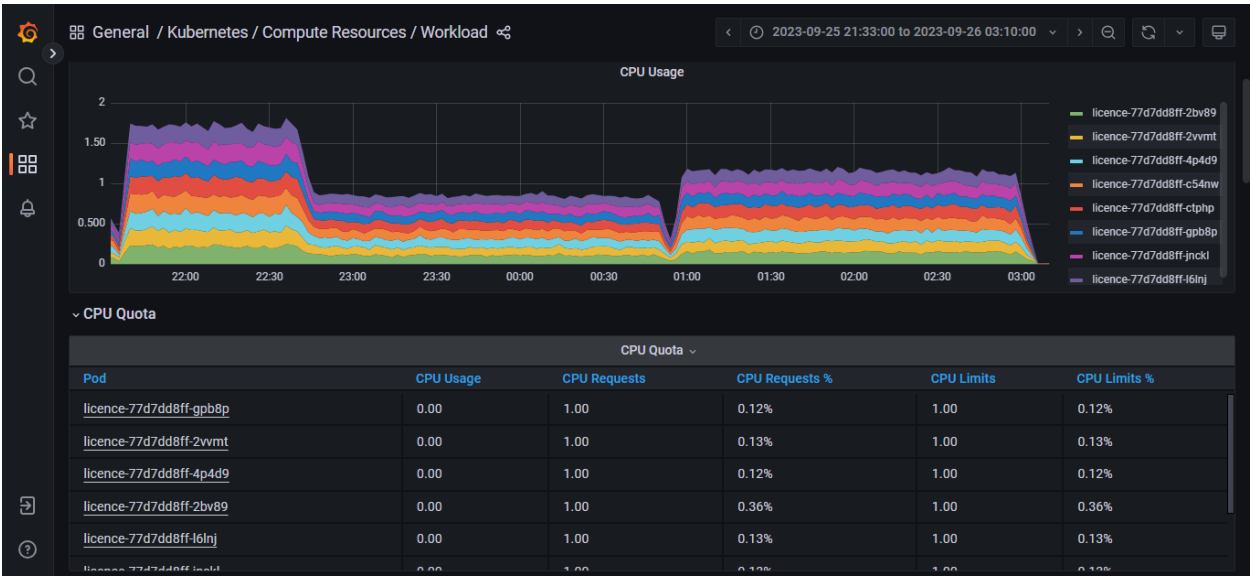
### CPU Utilization of Organization Service



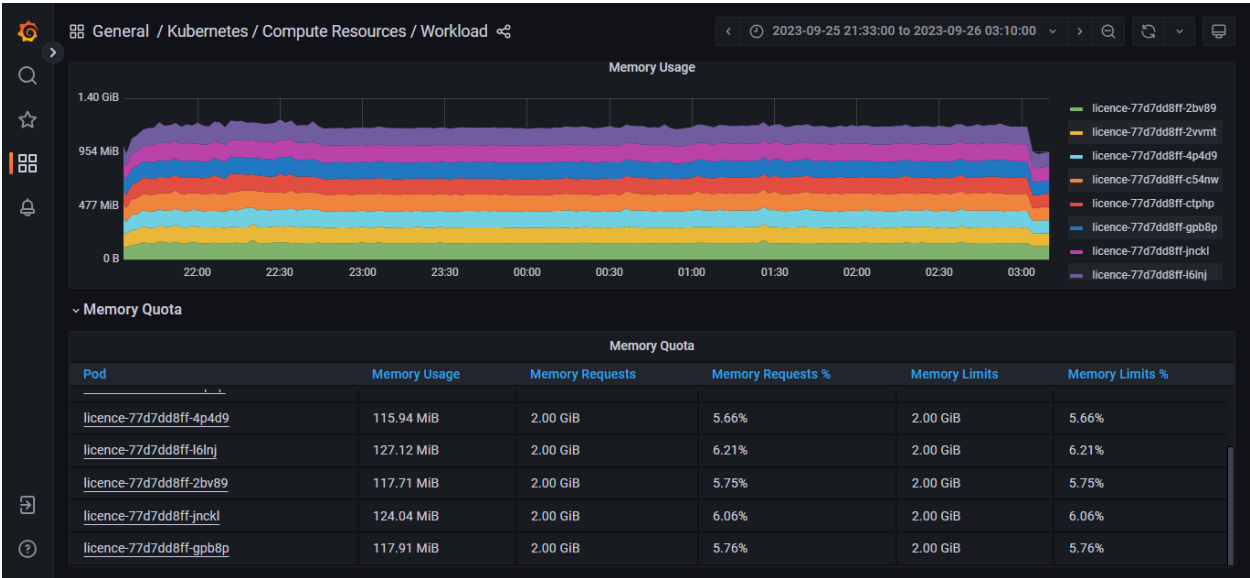
### RAM Utilization of Organization Service



## CPU Utilization of Licence Service



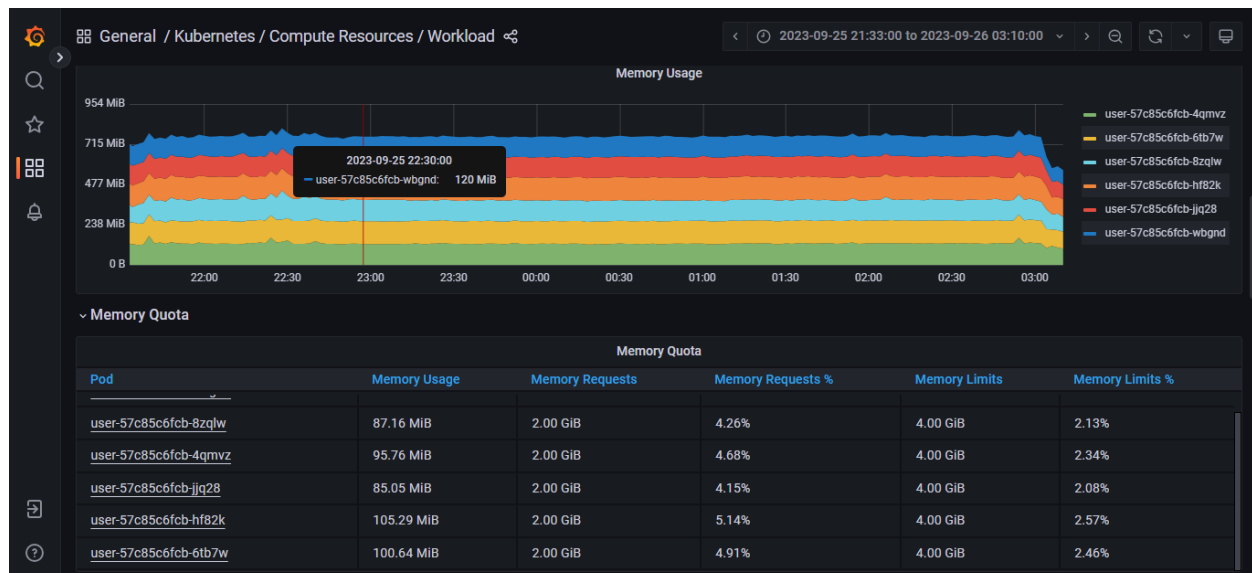
## RAM Utilization of Licence Service



## CPU Utilization of User Service



## RAM Utilization of User Service



### 3. Test Scenario: ERL – Internal Portal –Login & Start Counter Sessions

#### 3.1 Total Logins (1541) – 1 minute (Passed)

Time Duration: 1 minute

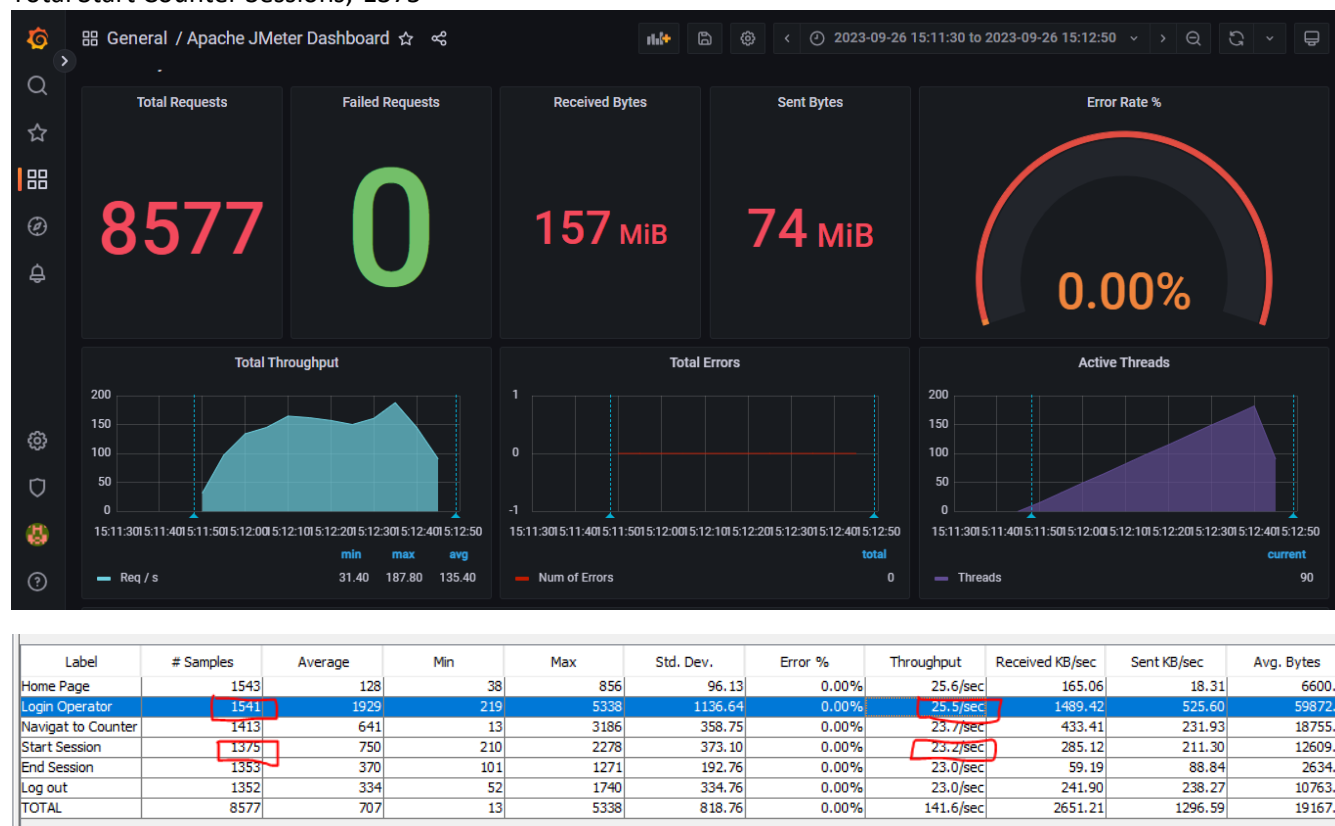
Test Started At: 2023-09-26 15:11:30 PM

Test Started At: 2023-09-26 15:12:50 PM

No of Threads:-200

Total Logins;- 1541

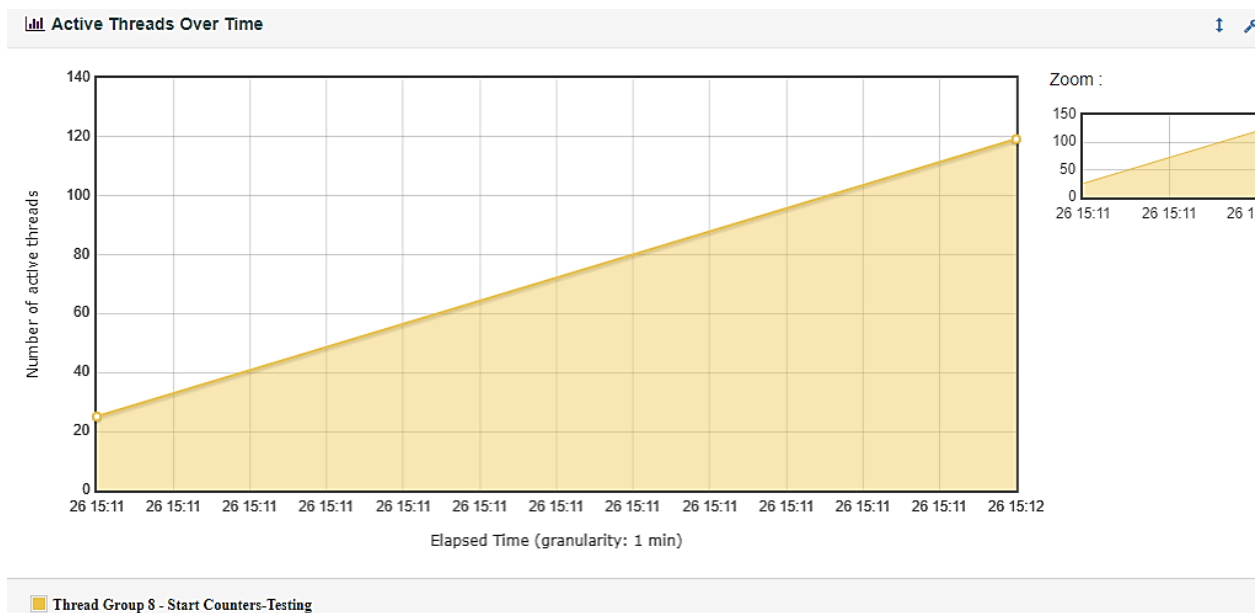
Total Start Counter Sessions;-1375



[Figure 3.1- Summary Details]

According to Figure 3.1 throughput value of Login scenario is **25.5** per second which means this system with current allocated server capacities is able to handle/Login around **25** users successfully per second [**150** logins per minute]

According to Figure 3.1 throughput value of Start Counter Session scenario is **23.2** per second which means this system with current allocated server capacities is able to handle/Start around **23** different counters successfully per second [**1380** counters per minute]

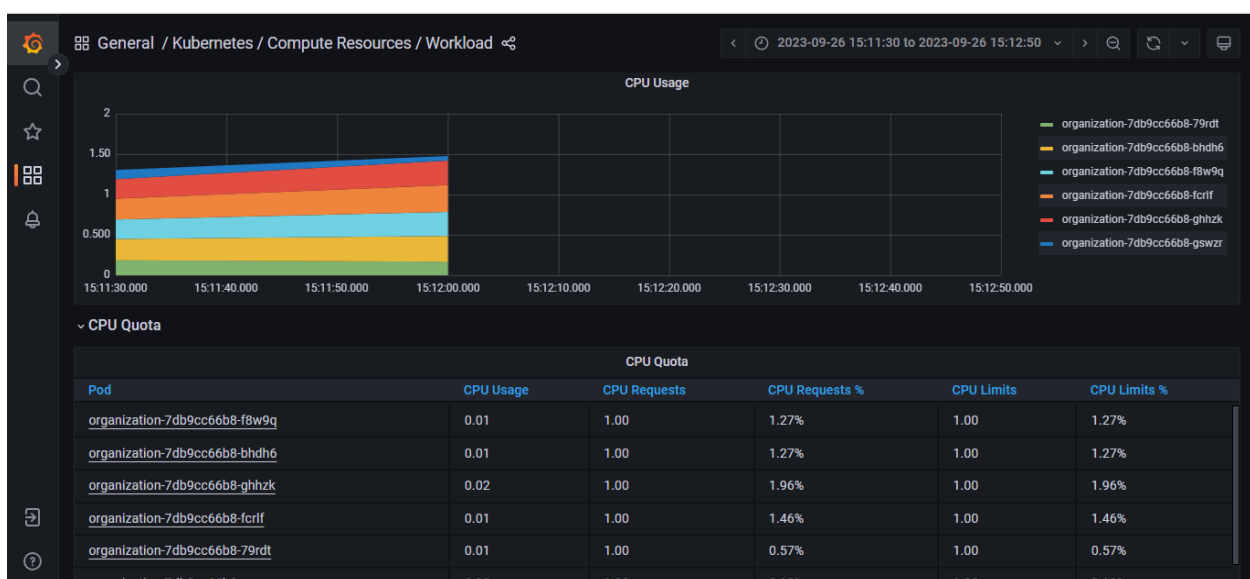


[Figure 3.11 – Thread Group Details]

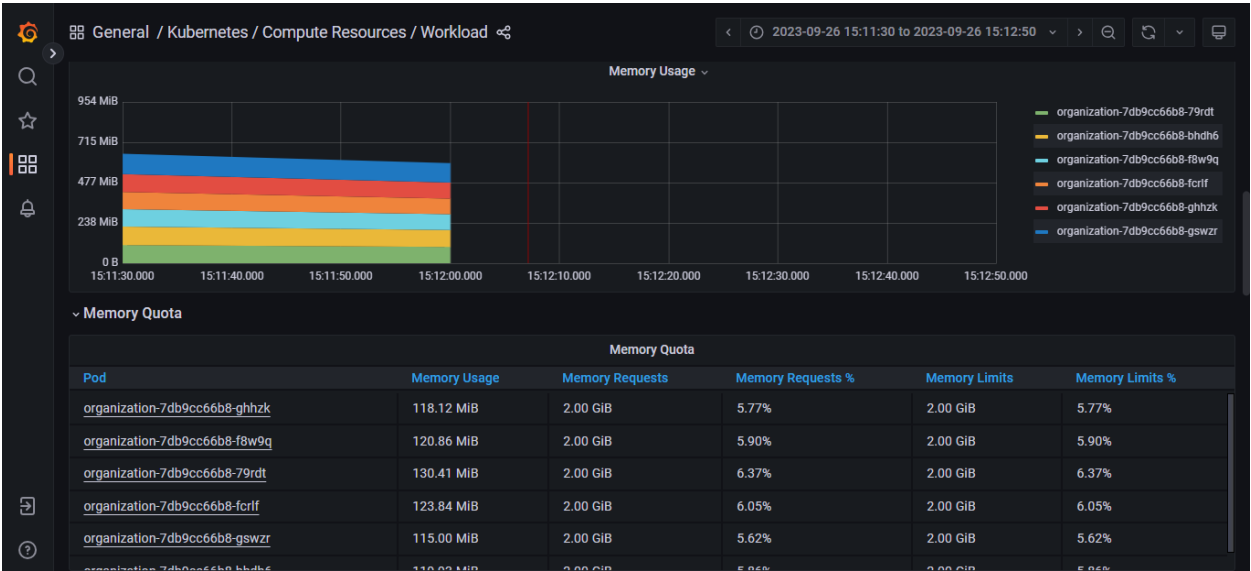
Figure 3.11 refers to how 125, 75 and 100 concurrent users stayed in the system during the 5-hours of execution time period.

## CPU & RAM UTILIZATION

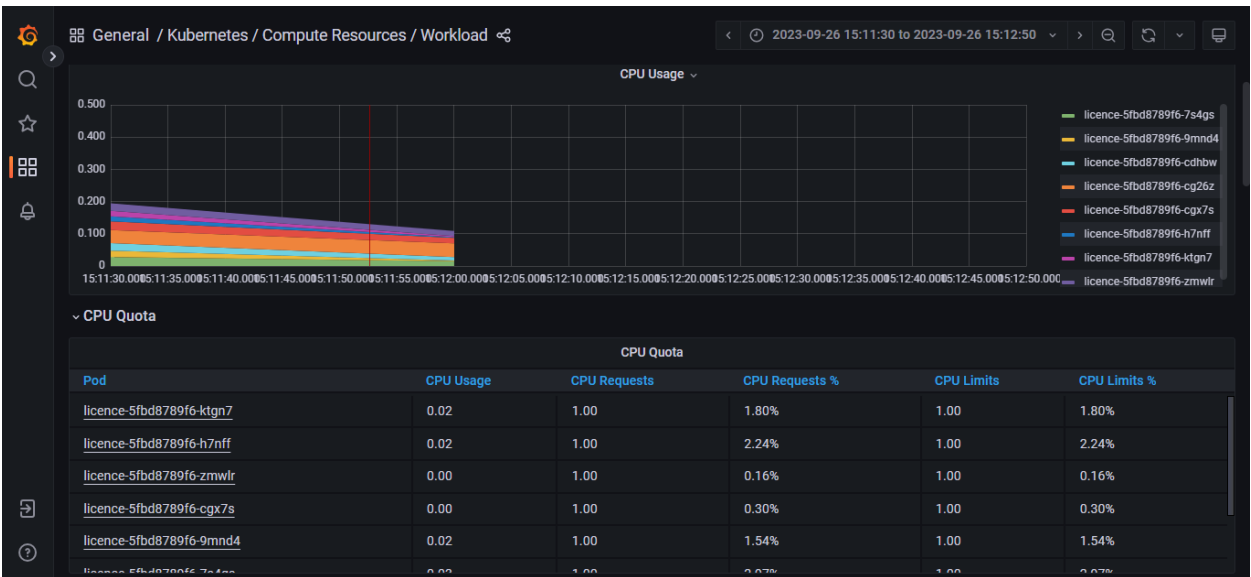
### CPU Utilization of Organization Service



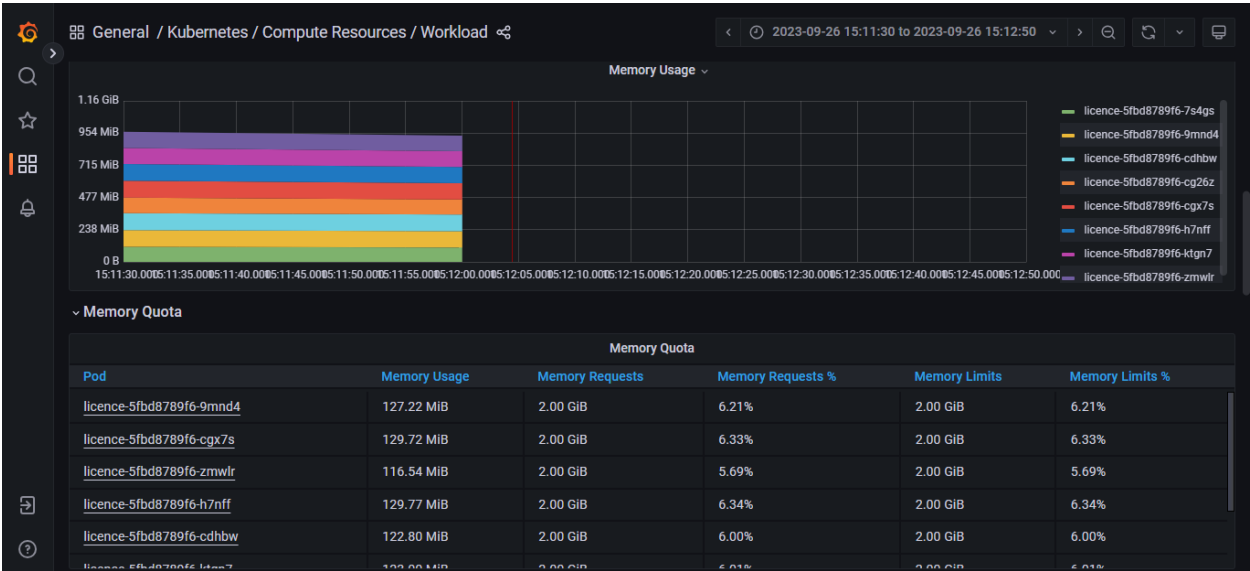
RAM Utilization of Organization Service



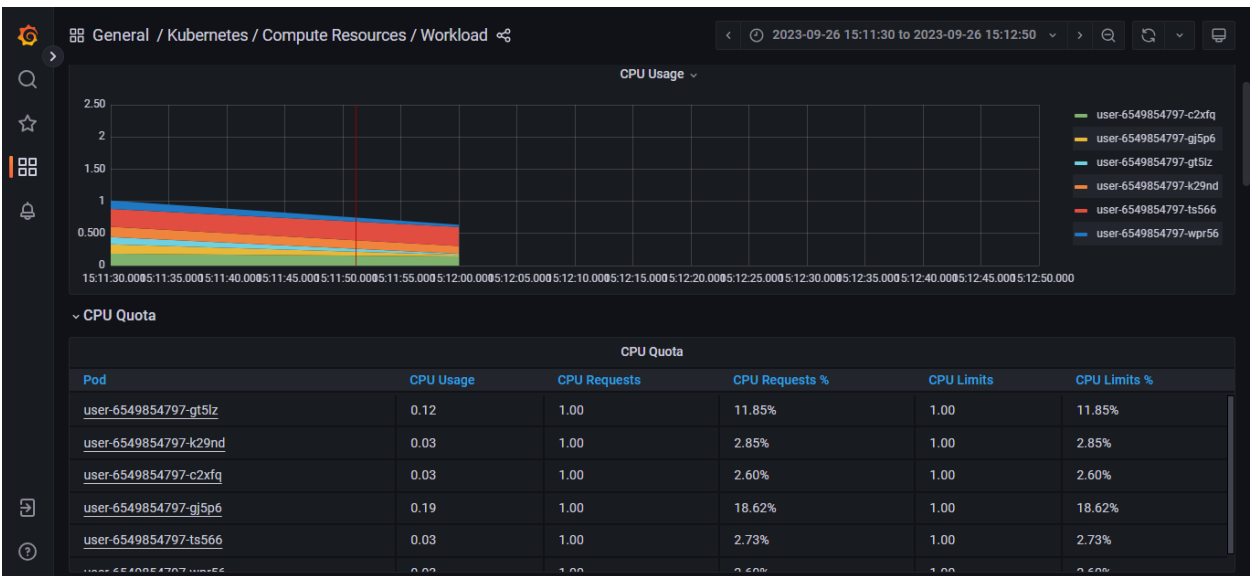
CPU Utilization of Licence Service



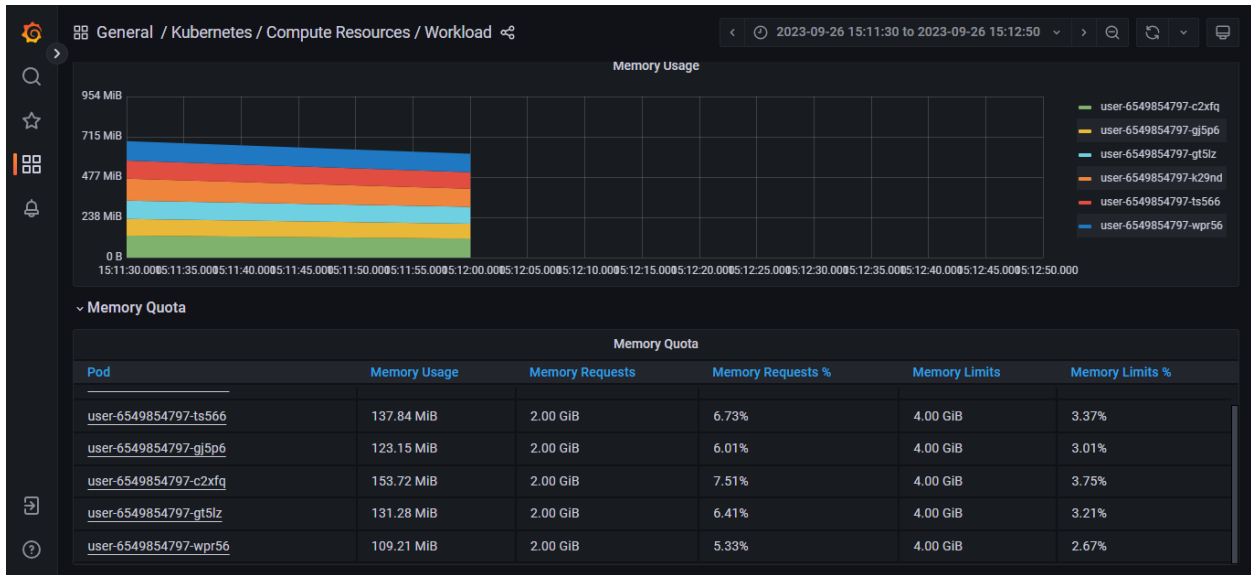
## RAM Utilization of Licence Service



## CPU Utilization of User Service



### Memory Utilization of User Service





#### 4. Test Scenario: ERL – Internal Portal –Daily Counter Transaction Summary Report – Staging Environment

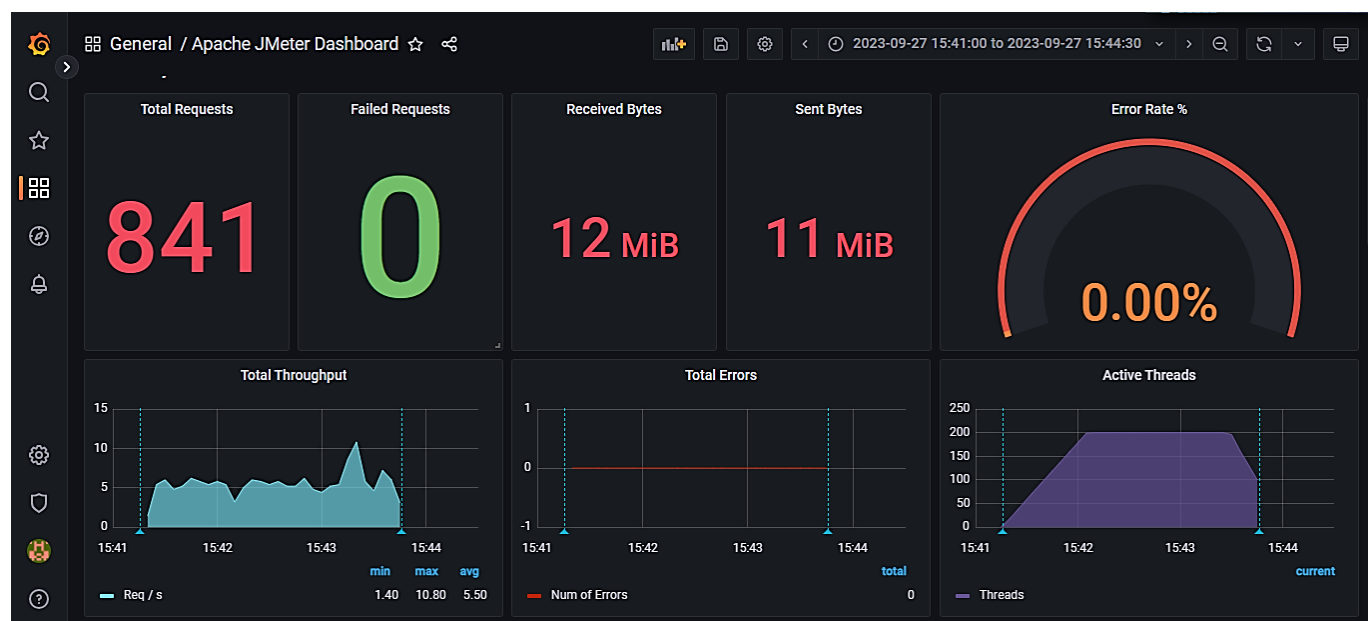
##### 4.1 200 Concurrent Users– 2 minute (Passed)

Time Duration: 2 minute

Test Started At: 2023-09-27 15:28:00 PM

Test Started At: 2023-09-27 15:30:30 PM

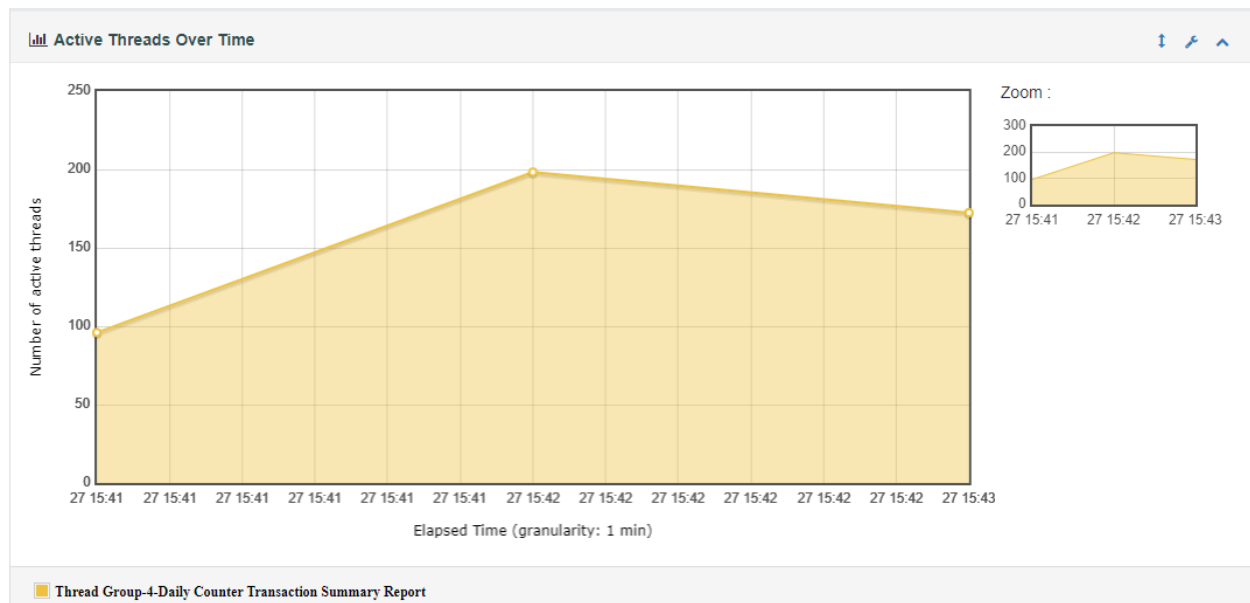
No of Threads:-200



Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/...	Sent KB/sec	Avg. Bytes
Report-Gener...	841	24123	0	55823	12769.53	0.00%	5.6/sec	79.51	77.62	14511.5
TOTAL	841	24123	0	55823	12769.53	0.00%	5.6/sec	79.51	77.62	14511.5

[Figure 4.1 –Summary Details]

According to Figure 4.1 throughput value of Generate Daily Counter Transaction Summary scenario is 5.6 per second which means this system with current allocated server capacities is able to handle/generate around 5 reports successfully per second [300 generate per minute]



[Figure 4.11 – Thread Group Details]

**Figure 4.11 refers to how 200 concurrent users stayed in the system during the 2-minutes of execution time period**

## Conclusion

### **Licence Issuance**

- According to the test results, around 300 licences can be issued per minute [18,000 per hour].

### **Login**

- According to the test results, around 1500 users/operators can login per minute.

### **Start Counter Sessions**

- According to the test results, around 1300 users/operators can start different counters per minute.

### **Daily Counter Transaction Summary Report**

- According to the test results, around 420 reports can be generated per minute.