

REPORT 1562948039960

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 - [Service: jagent_web](#)
 - [Service: app_web](#)
 - [Service: filebeat_web](#)

1. 测试硬件

```

1 | $ wget -qO- bench.sh | bash
2 |
3 | -----
4 | CPU model          : AMD EPYC 7601 32-Core Processor
5 | Number of cores    : 6
6 | CPU frequency      : 2199.996 MHz
7 | Total size of Disk : 315.0 GB (2.2 GB Used)
8 | Total amount of Mem : 16040 MB (120 MB Used)
9 | Total amount of Swap : 511 MB (0 MB Used)
10 | System uptime     : 0 days, 0 hour 2 min
11 | Load average       : 0.29, 0.22, 0.09
12 | OS                 : Ubuntu 18.04.2 LTS
13 | Arch               : x86_64 (64 Bit)
14 | Kernel              : 4.15.0-50-generic
15 | -----
16 | I/O speed(1st run)  : 892 MB/s
17 | I/O speed(2nd run)  : 1.1 GB/s
18 | I/O speed(3rd run)  : 1.0 GB/s
19 | Average I/O speed   : 1014.1 MB/s
20 | -----
21 | Node Name           IPv4 address        Download
22 | CacheFly            205.234.175.175  144MB/s
23 | Linode, Tokyo, JP   106.187.96.148  20.7MB/s
24 | Linode, Singapore, SG 139.162.23.4  6.48MB/s
25 | Linode, London, UK  176.58.107.39  9.71MB/s
26 | Linode, Frankfurt, DE 139.162.130.8  15.4MB/s
27 | Linode, Fremont, CA 50.116.14.9  205MB/s
28 | Softlayer, Dallas, TX 173.192.68.18  44.9MB/s
29 | Softlayer, Seattle, WA 67.228.112.250  44.8MB/s
30 | Softlayer, Frankfurt, DE 159.122.69.4  4.92MB/s
31 | Softlayer, Singapore, SG 119.81.28.170  8.21MB/s
32 | Softlayer, HongKong, CN 119.81.130.170  10.4MB/s
33 | -----
34 | Node Name           IPv6 address        Download
35 | Linode, Atlanta, GA 2600:3c02::4b  39.3MB/s
36 | Linode, Dallas, TX  2600:3c00::4b  28.9MB/s
37 | Linode, Newark, NJ  2600:3c03::4b  18.3MB/s
38 | Linode, Singapore, SG 2400:8901::4b  5.36MB/s
39 | Linode, Tokyo, JP   2400:8900::4b  20.5MB/s
40 | Softlayer, San Jose, CA 2607:f0d0:2601:2a::4  95.4MB/s
41 | ...
42 | -----

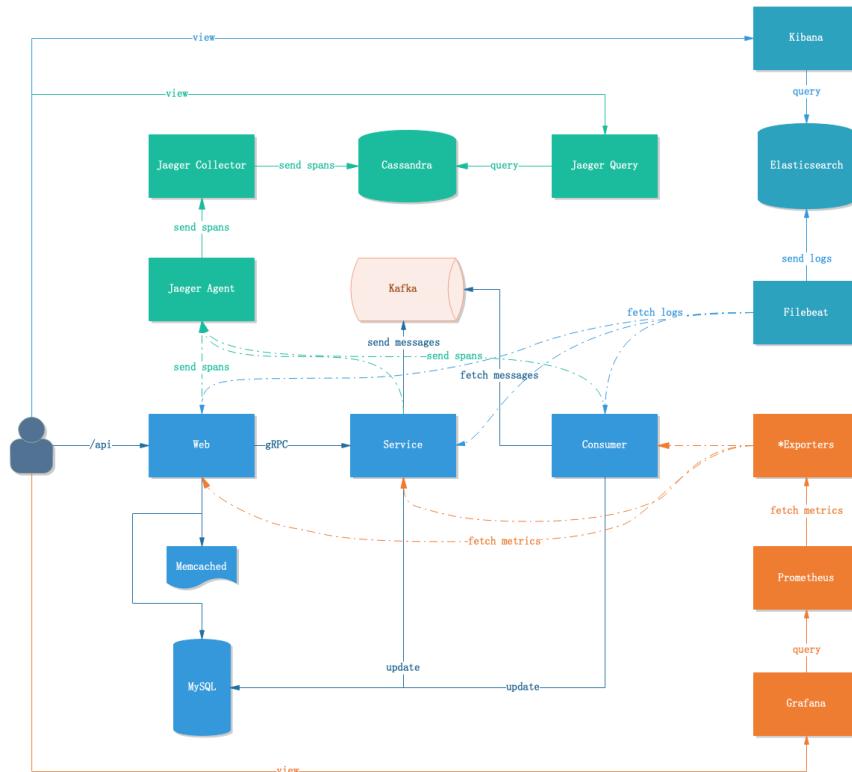
```

```
1 | $ (curl -s wget.racing/nench.sh | bash) 2>&1 | tee nench.log
2 |
3 | -----
4 | nench.sh v2019.06.29 -- https://git.io/nench.sh
5 | benchmark timestamp: 2019-07-12 05:48:17 UTC
6 | -----
7 |
8 | Processor: AMD EPYC 7601 32-Core Processor
9 | CPU cores: 6
10 | Frequency: 2199.996 MHz
11 | RAM: 15G
12 | Swap: 511M
13 | Kernel: Linux 4.15.0-50-generic x86_64
14 |
15 | Disks:
16 | sda 319.5G HDD
17 | sdb 512M HDD
18 |
19 | CPU: SHA256-hashing 500 MB
20 | 2.962 seconds
21 | CPU: bzip2-compressing 500 MB
22 | 6.310 seconds
23 | CPU: AES-encrypting 500 MB
24 | 1.362 seconds
25 |
26 | ioping: seek rate
27 | min/avg/max/mdev = 62.2 us / 112.5 us / 2.94 ms / 75.5 us
28 | ioping: sequential read speed
29 | generated 16.5 k requests in 5.00 s, 4.03 GiB, 3.30 k iops, 824.3
30 |
31 | dd: sequential write speed
32 | 1st run: 855.45 MiB/s
33 | 2nd run: 1049.04 MiB/s
34 | 3rd run: 1049.04 MiB/s
35 | average: 984.51 MiB/s
36 |
37 | IPv4 speedtests
38 | your IPv4: 173.255.252.xxxx
39 |
40 | Cachefly CDN: 175.13 MiB/s
41 | Leaseweb (NL): 13.85 MiB/s
42 | Softlayer DAL (US): 38.74 MiB/s
43 | Online.net (FR): 11.06 MiB/s
44 | OVH BHS (CA): 16.75 MiB/s
```

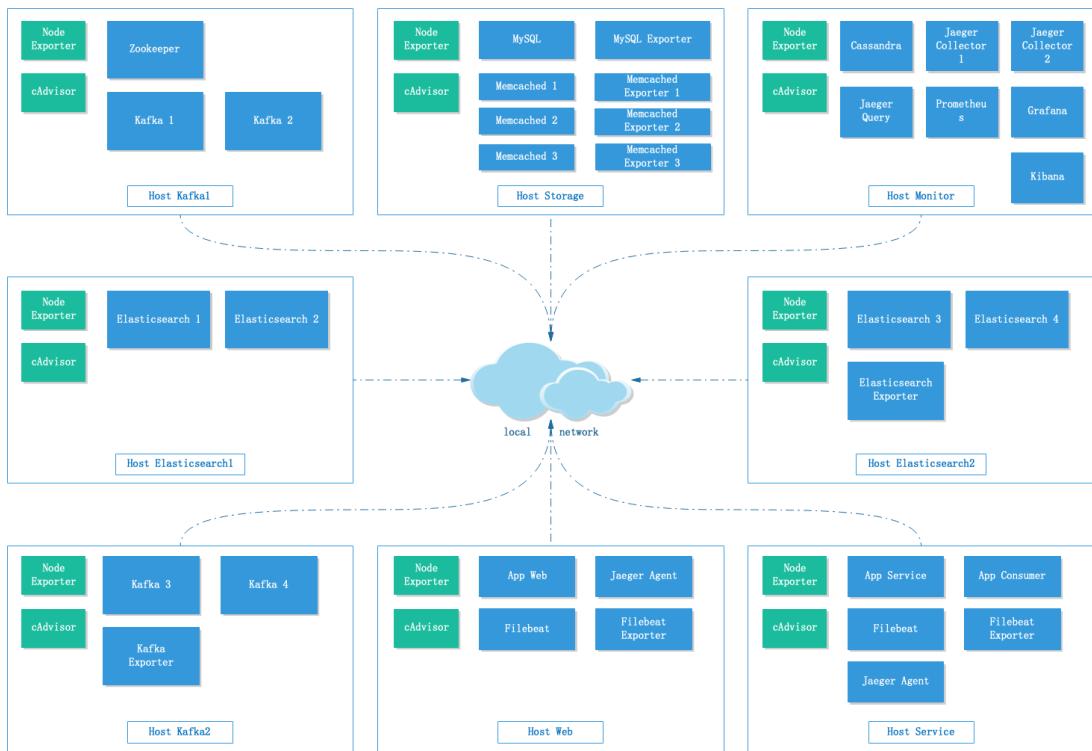
```
45
46 IPv6 speedtests
47 your IPv6: 2600:3c01::xxxx
48
49 Leaseweb (NL): 7.77 MiB/s
50 Softlayer DAL (US): 0.00 MiB/s
51 Online.net (FR): 8.44 MiB/s
52 OVH BHS (CA): 17.60 MiB/s
53 -----
```

2. 服务器架构 & 拓扑

2.1 架构图



2.2 部署拓扑图



3. 测试变量

- 客户端连接数：10000
- 客户端请求速率：1000/s
- 数据库表量级：5000000
- 数据库连接：1000
- Kafka Topic的分片数量：20
- 各服务的JVM设置：
 - Kafka: KAFKA_HEAP_OPTS="-Xms6G -Xmx6G"
 - Elasticsearch: ES_JAVA_OPTS="-Xms6G -Xmx6G"
 - Cassandra:
 - JAVA_OPTS="-Dfile.encoding=UTF-8 -Xms9G -Xmx9G"
 - MAX_HEAP_SIZE=8G
 - HEAP_NEWSIZE=600M
- 消费者计算因子：37

4. 压测客户端报表

1	Requests	[total, rate]	1800000, 1000.00
2	Duration	[total, attack, wait]	30m0.953501265s, 29m59.999s
3	Latencies	[mean, 50, 95, 99, max]	40.957878ms, 7.532908ms, 96.099ms, 100.00%, 120.00ms
4	Bytes In	[total, mean]	121656572, 67.59
5	Bytes Out	[total, mean]	0, 0.00
6	Success	[ratio]	100.00%
7	Status Codes	[code:count]	200:1799999 500:1
8	Error Set:		
9	500 Internal Server Error		

小结：30分钟，180万请求，请求速率为1000/s，报错500一次，成功率基本上100%，95%的请求耗时在96ms以内。

5. 分析 & 结论

5.1 分析

首先观察各物理主机的性能指标，第一轮观察下来直接就找到了问题：[Service: node service](#)

的 CPU使用率 (5m) 系统平均负载 CPU使用率、磁盘每秒的I/O操作耗费时间 (%) 显示Service及Consumer所在的服务器的CPU达到了上限。

然后看下cAdvisor给出的信息，了解下该物理主机上到底是哪个容器消耗了CPU：

[Service: cadvisor service](#)的 CPU Usage per Container 显示 app_consumer 占用了绝大部分的CPU，其次是 app_service。

接下来就需要了解Consumer内部到底什么东西消耗了CPU，观察[8.3 Consumer > CPU](#)可以了解到 common.Consume 消耗了几乎100%的CPU。该函数（逻辑）设计的目的本来就是为了人为制造CPU瓶颈，因此问题出在这里可以说是意料之中。配置中的 消费者计算因子：37 就是表示Consume函数的消耗会比较剧烈。

这里还可以看下Jaeger采集的Trace信息来进行佐证：[7.5 Consumer](#)显示Consumer每条Kafka消息的消费都需要耗费1秒以上的时间，而下面两张Trace内部Span耗时图显示， calc函数（common.Consume 的入口）需要耗费1秒左右的时间，这基本上等于全部了。

而Consumer的性能瓶颈除了会导致其本身的性能问题之外，还影响了Kafka消息的消费，观察[Service: kafka exporter](#)的 Message in per minute 可以看到每份

分钟Kafka消息进入3000条，而 `Message consume per minute` 显示消费为1000条不到，因此消息开始急剧累积（`Lag by Consumer Group`）。

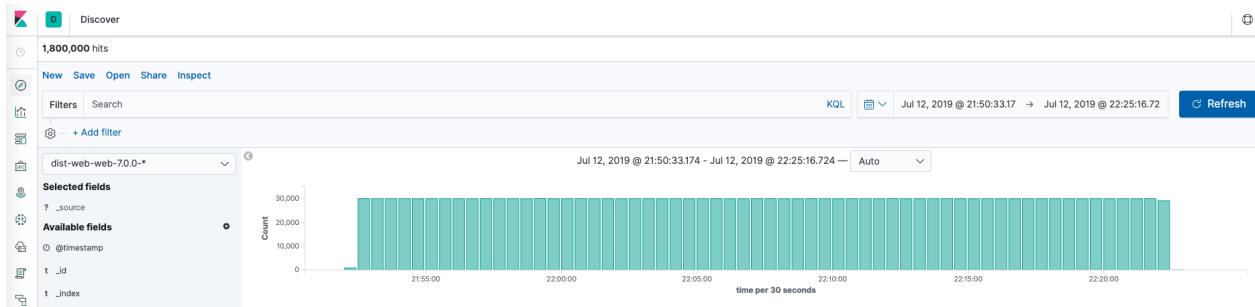
5.2 结论

当前系统瓶颈为容器 `app_consumer`，其内部业务逻辑CPU消耗过大，导致Kafka消息消费速度较慢，造成了大量消息的堆积。

后续优化目标：解决 `app_consumer` 的CPU消耗问题。

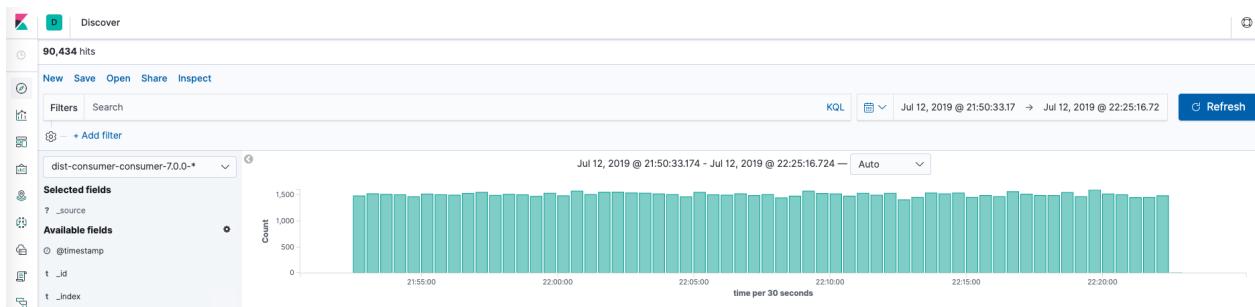
6. Elasticsearch数据

6.1 All Web requests



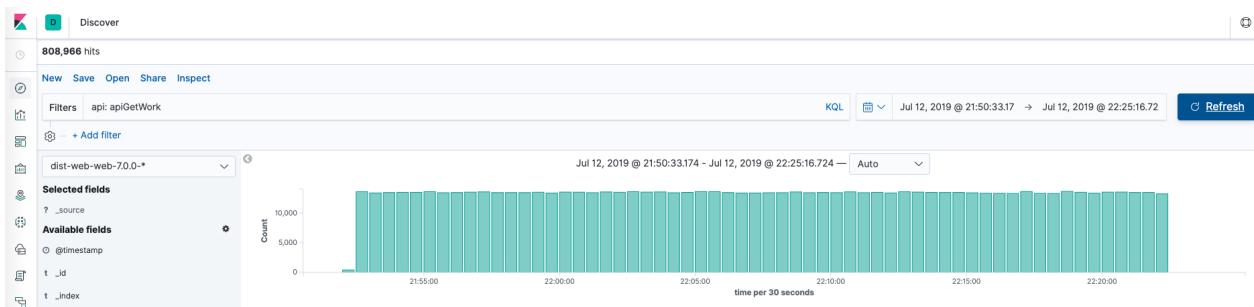
请求数量1800000符合压测客户端给出的数值；√

6.2 All Consumer requests



$90434 / 1800000 = 5.02\%;$ √

6.3 GetWork



$$808966 / 1800000 = 44.94\%; \checkmark$$

6.4 UpdateViewed



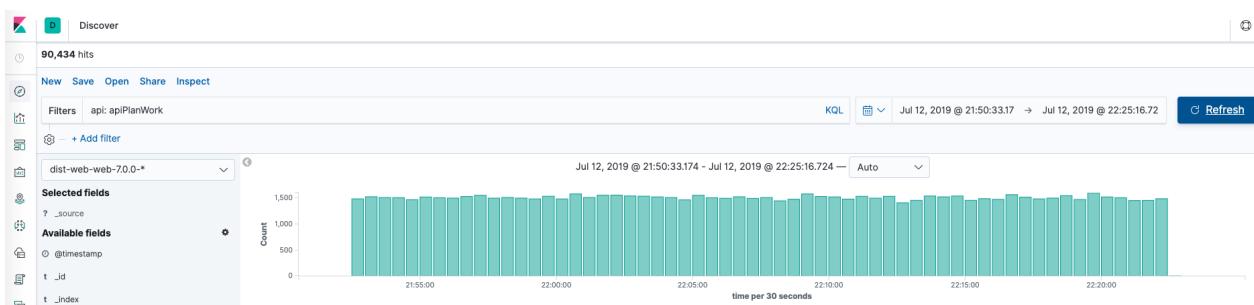
$$450760 / 1800000 = 25.04\%; \checkmark$$

6.5 GetAchievement



$$449839 / 1800000 = 24.99\%; \checkmark$$

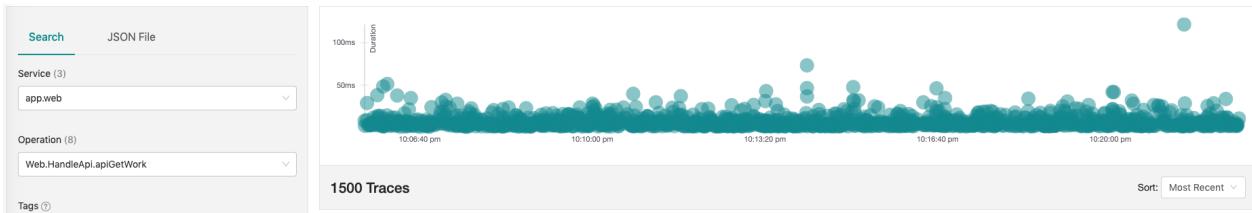
6.6 PlanWork



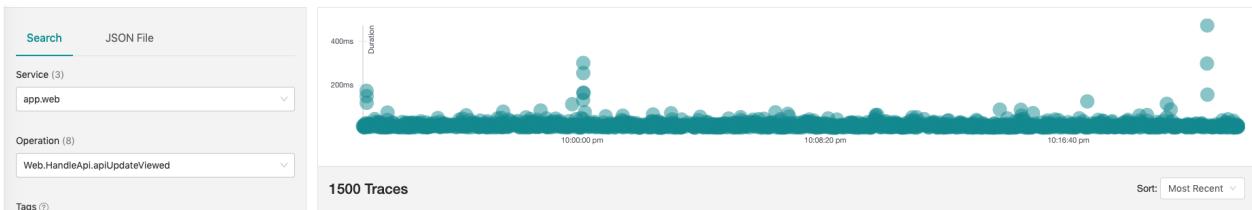
请求数量90434与Consumer消费计数匹配; \checkmark

7. Jaeger数据

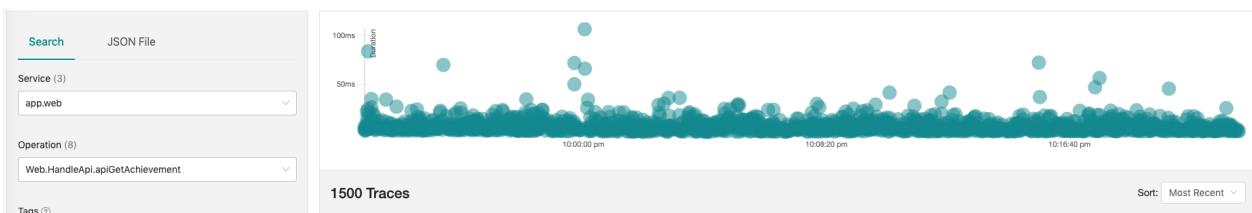
7.1 GetWork



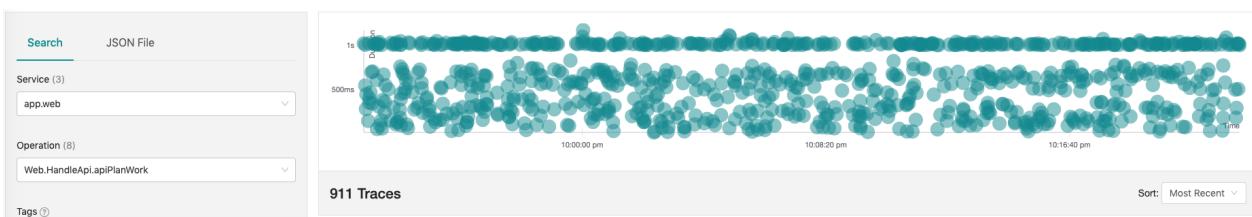
7.2 UpdateViewed



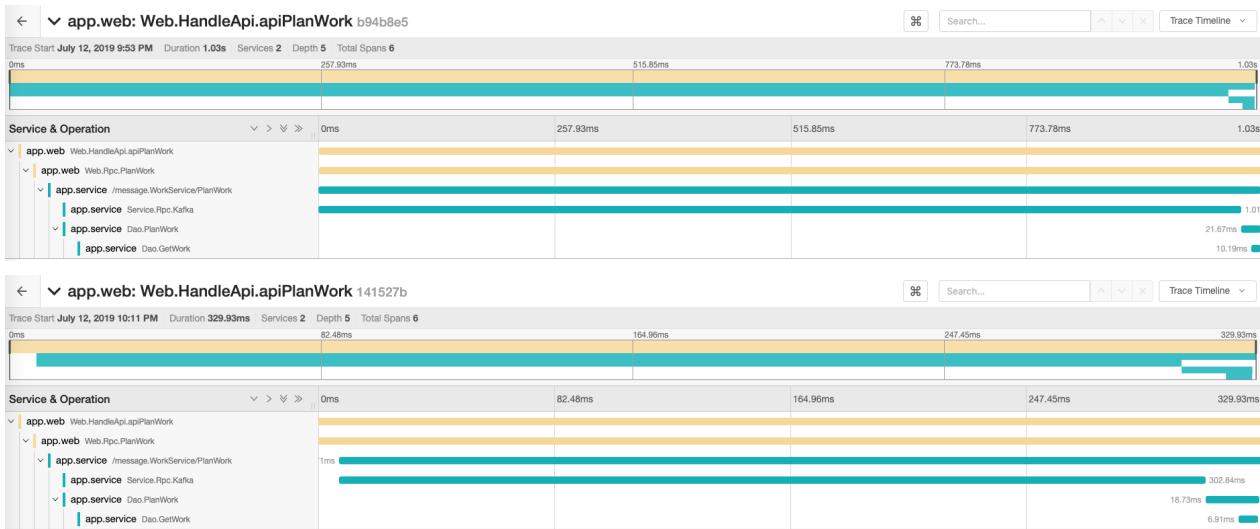
7.3 GetAchievement



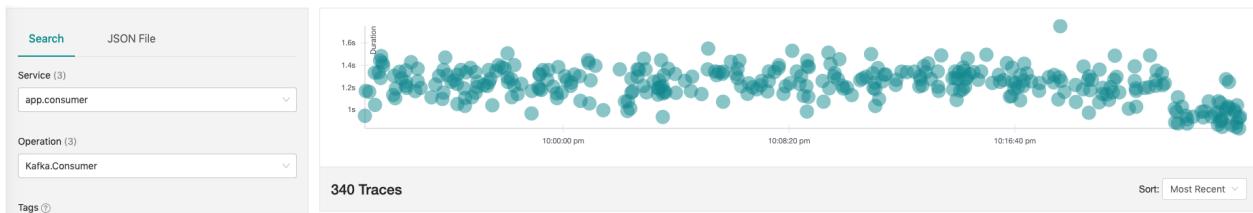
7.4 PlanWork



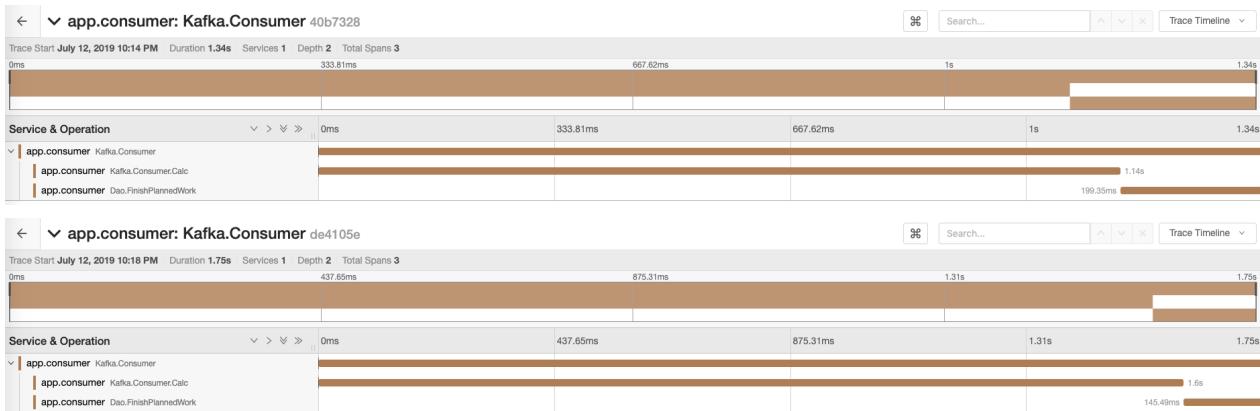
这里找了两个范例来展示下内部耗时，其中一个是最大值，另一个则是中位数：



7.5 Consumer



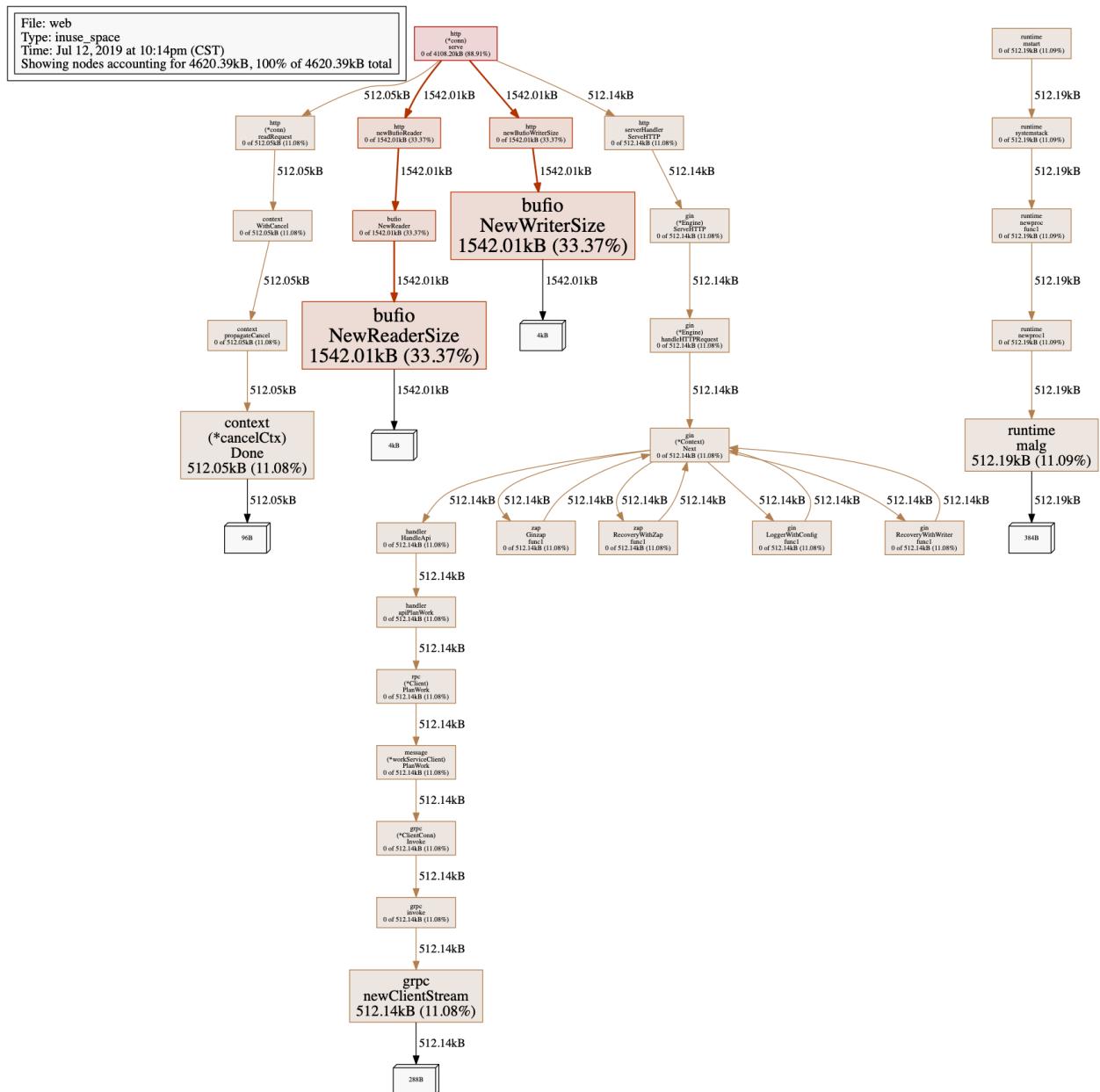
同样找了两个范例来展示内部耗时：



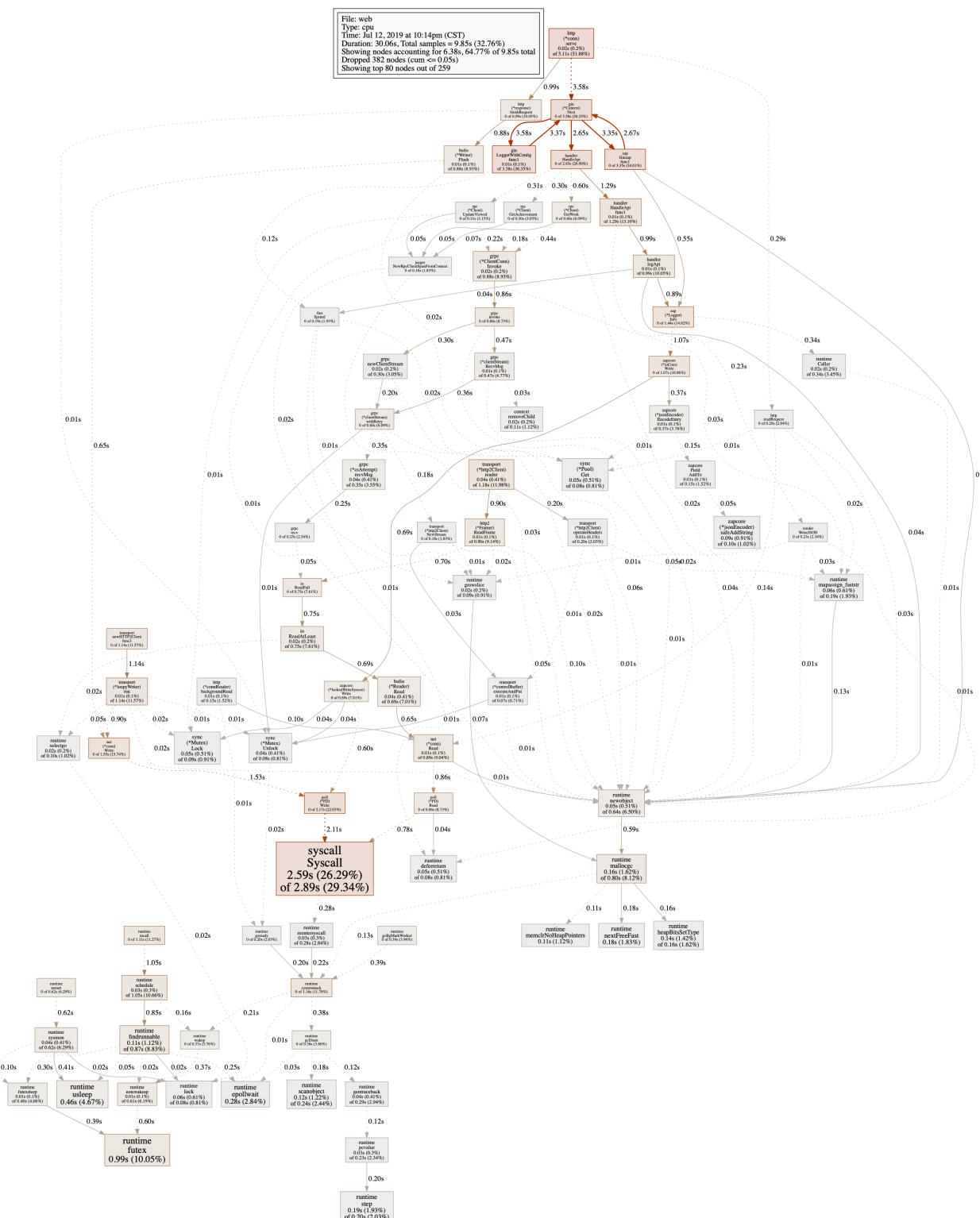
8. Go App Profiling

8.1 Web

Memory HEAP



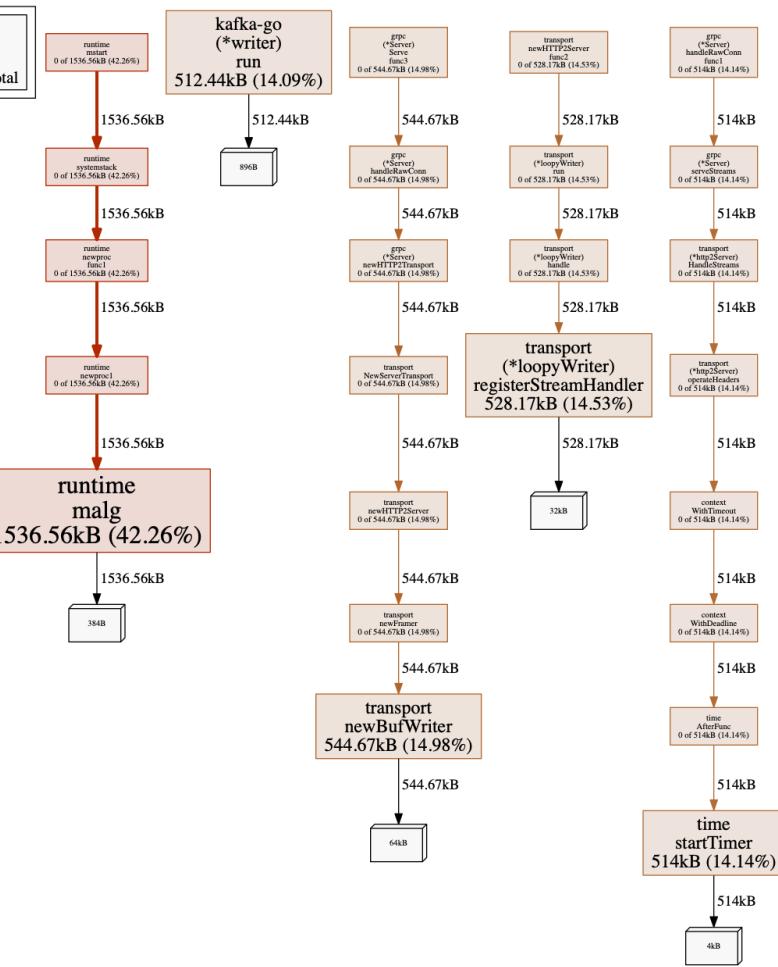
CPU



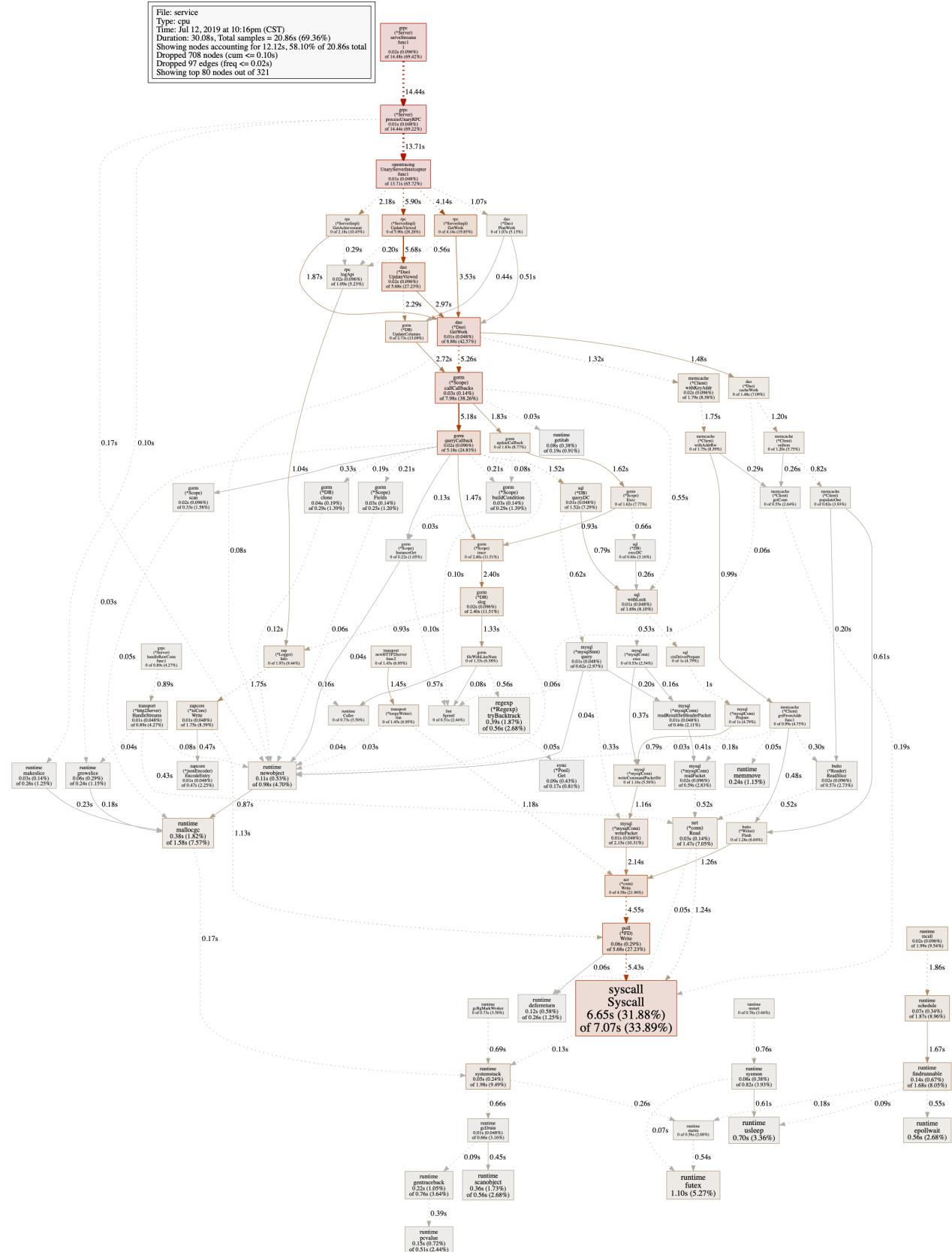
8.2 Service

Memory HEAP

File: service
 Type: inuse_space
 Time: Jul 12, 2019 at 10:16pm (CST)
 Showing nodes accounting for 3635.83kB, 100% of 3635.83kB total

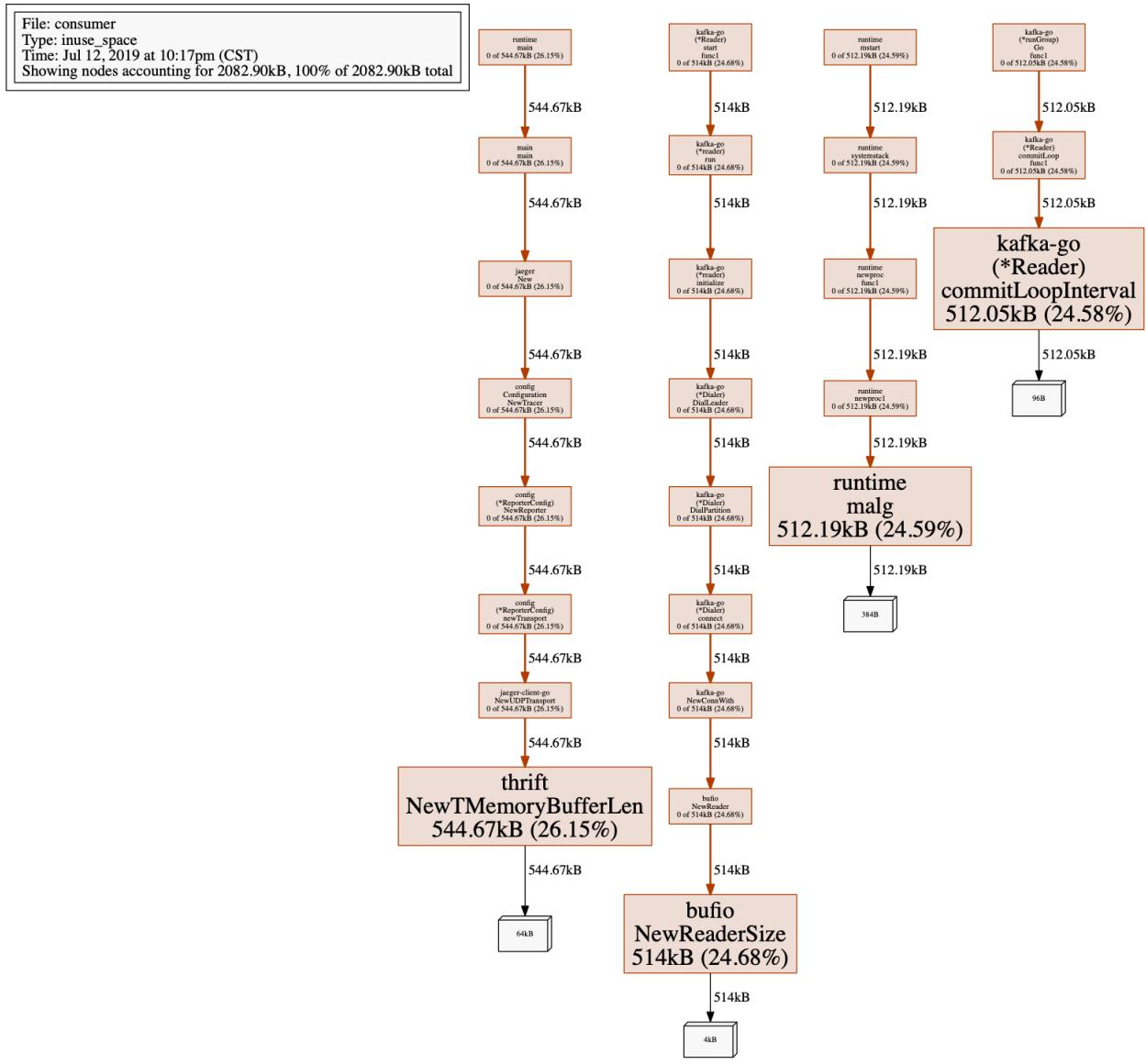


CPU



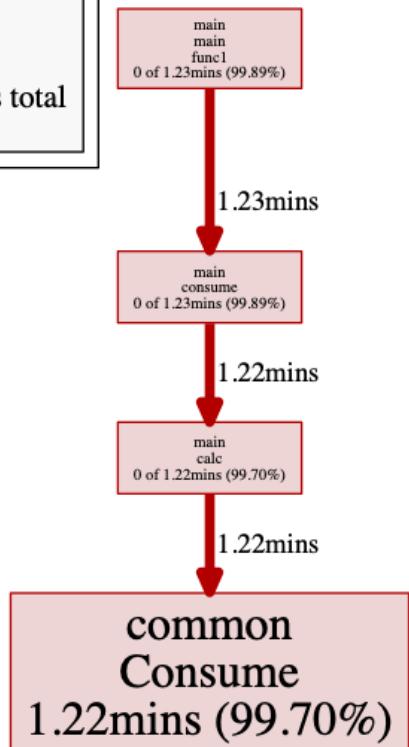
8.3 Consumer

Memory HEAP



CPU

```
File: consumer
Type: cpu
Time: Jul 12, 2019 at 10:17pm (CST)
Duration: 30.16s, Total samples = 1.23mins (244.18%)
Showing nodes accounting for 1.22mins, 99.70% of 1.23mins total
Dropped 127 nodes (cum <= 0.01mins)
```



9. 监控指标

Host: client

- name: client
- type: client

Service: node_client

- name: node_client
- type: node_exporter

系统运行时间

System Up Time

8.7 hour

CPU 核数

CPU Core

6

内存总量

Total Memory

15.7 GiB

CPU使用率 (5m)

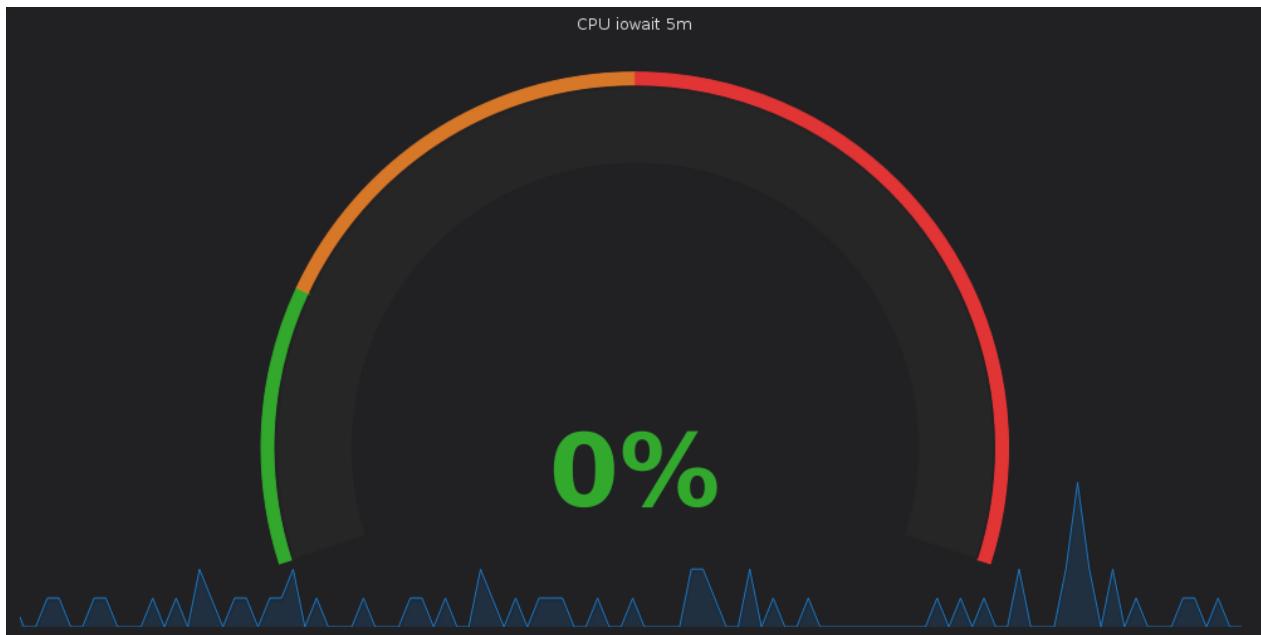
CPU Usage 5m

0.72%

CPU iowait (5m)

CPU iowait 5m

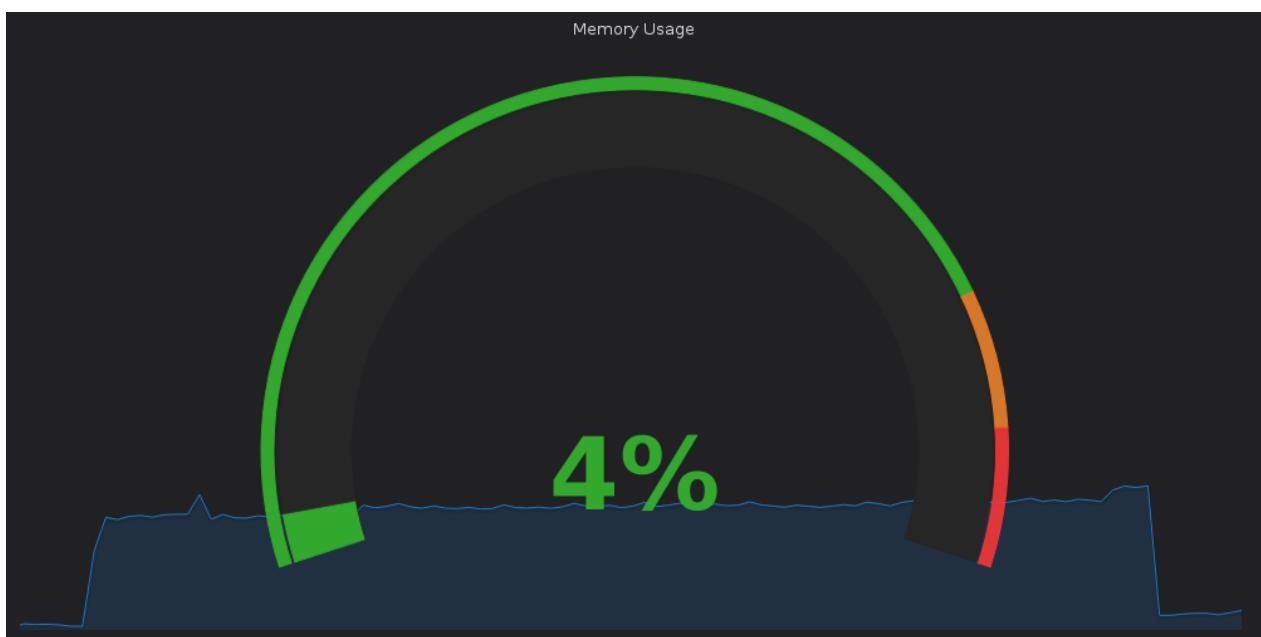
0%



内存使用率

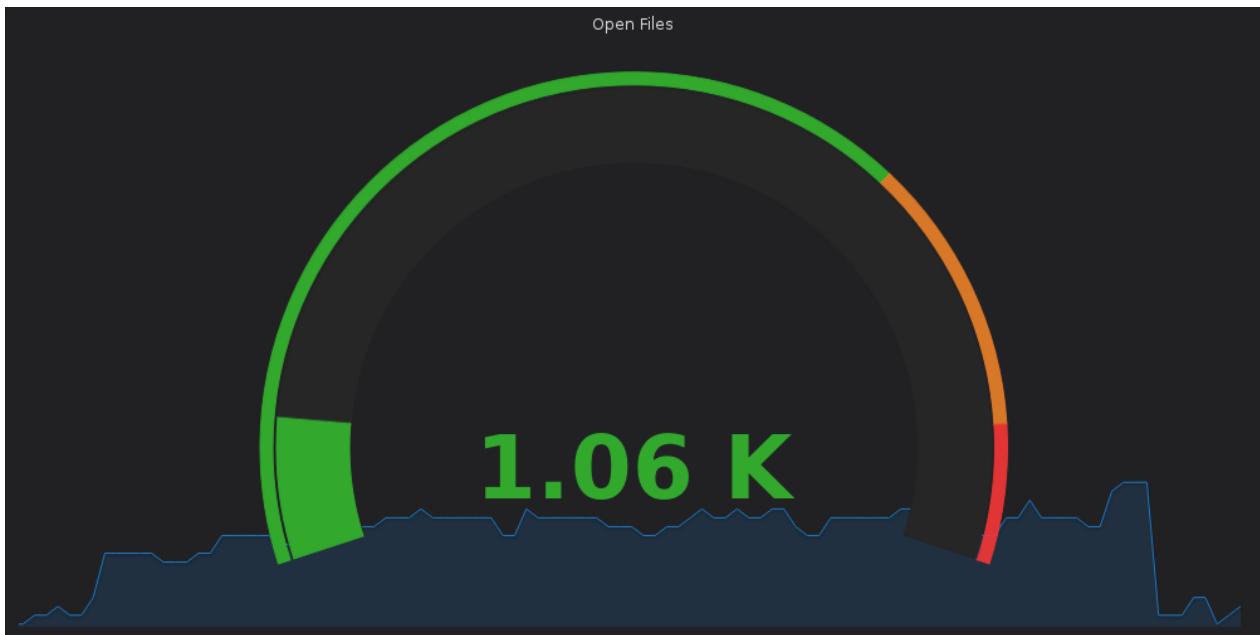
Memory Usage

4%



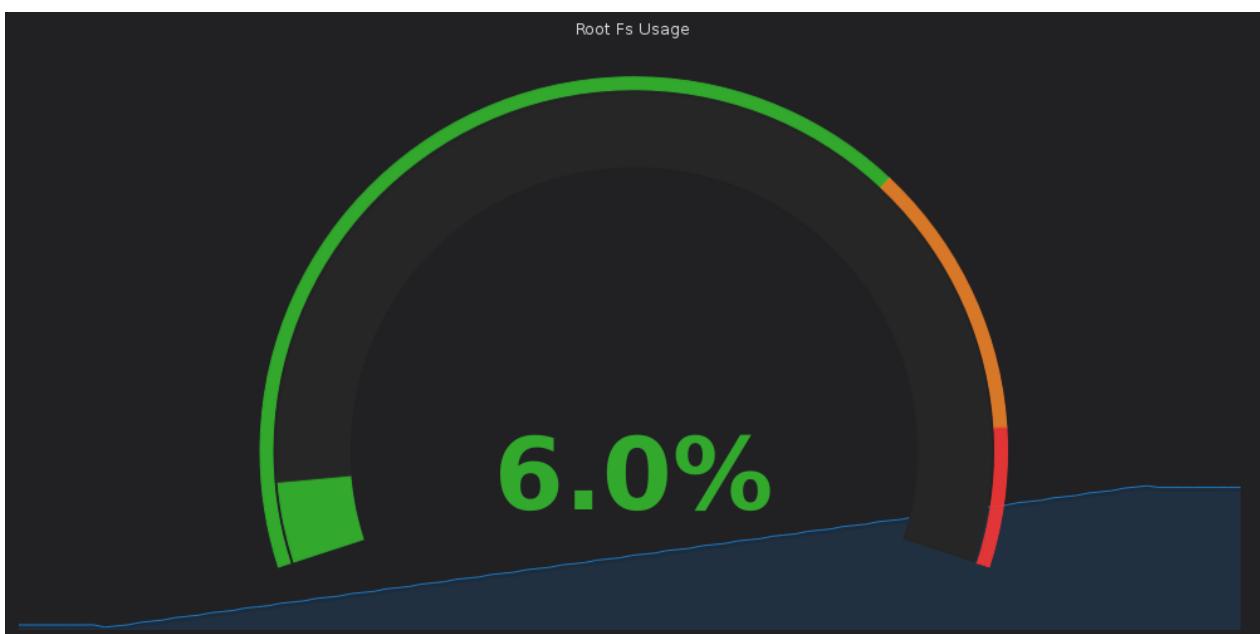
当前打开的文件描述符

Open Files

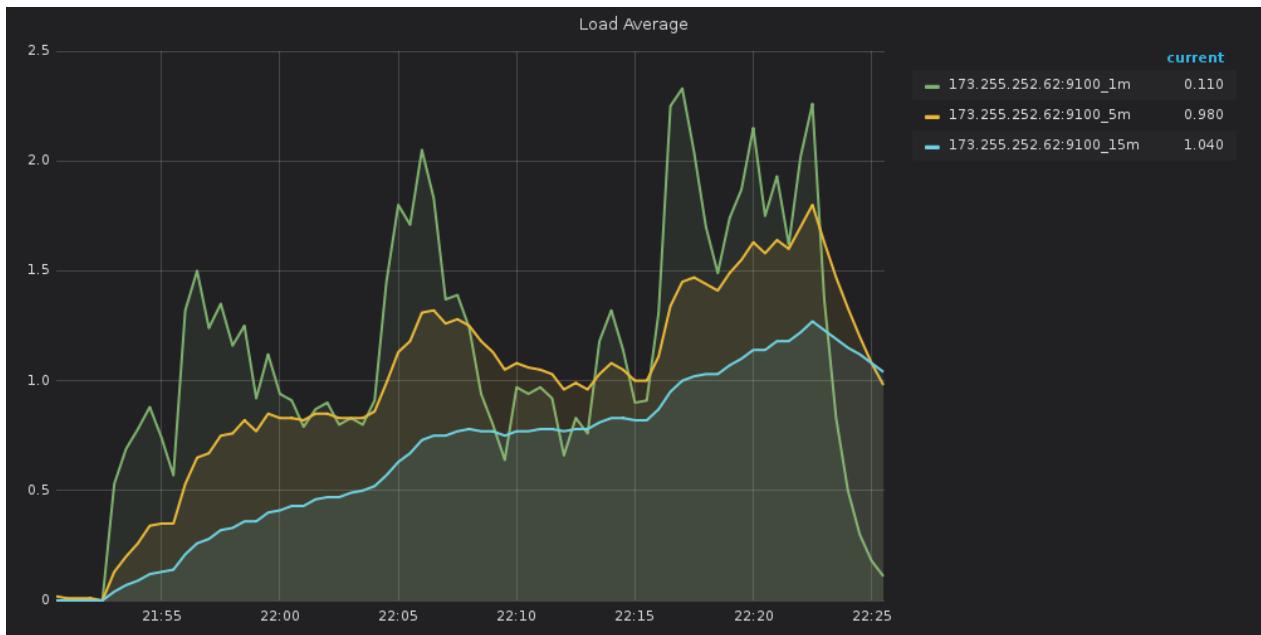


根分区使用率

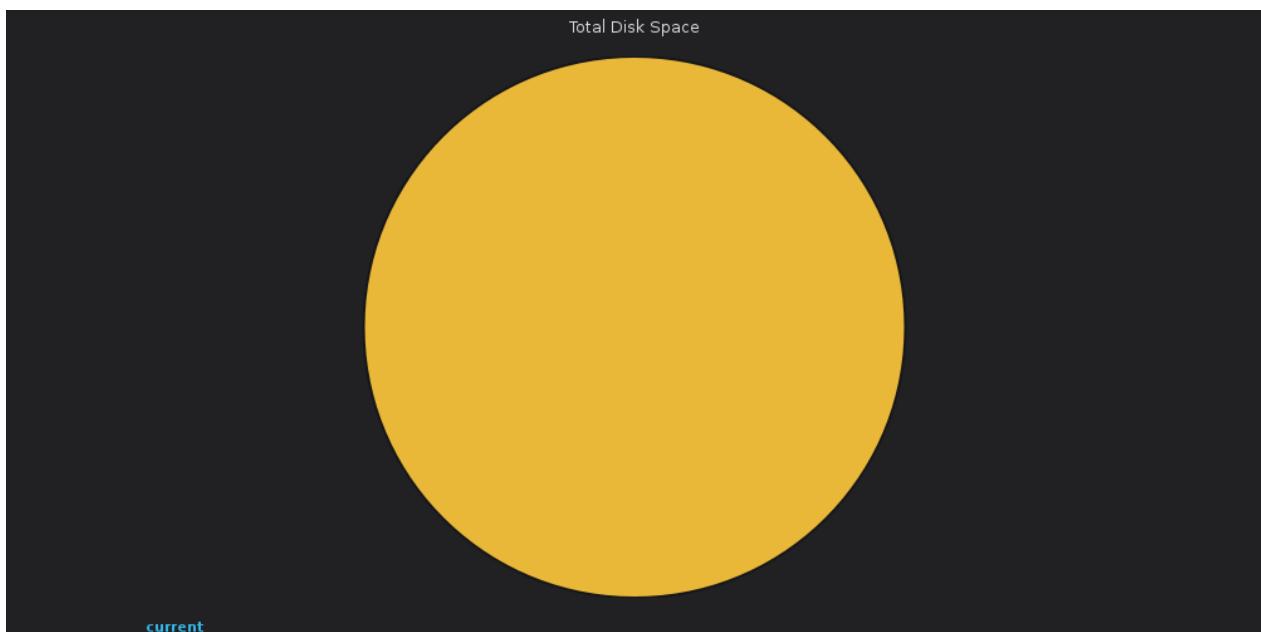
Root Fs Usage



系统平均负载



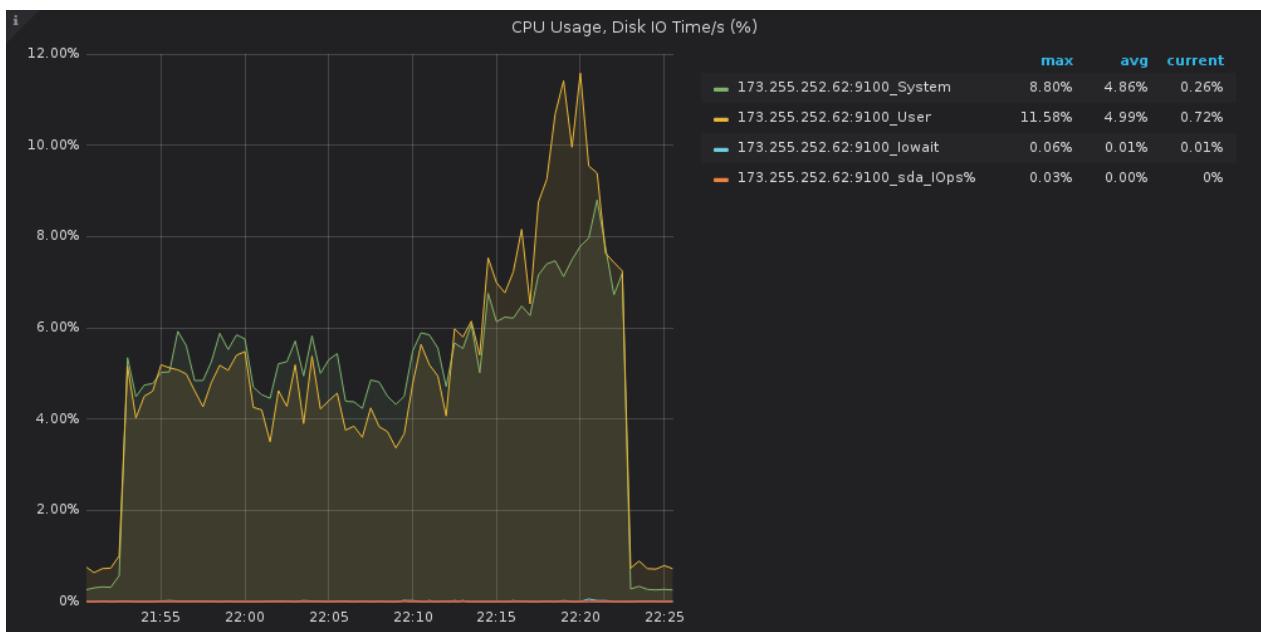
磁盘总空间



各分区可用空间

Volumes Available				
File System	IP	Mount ▲	Available	Usage
ext4	173.255.252.62:9100	/	295.80 GiB	0.88%

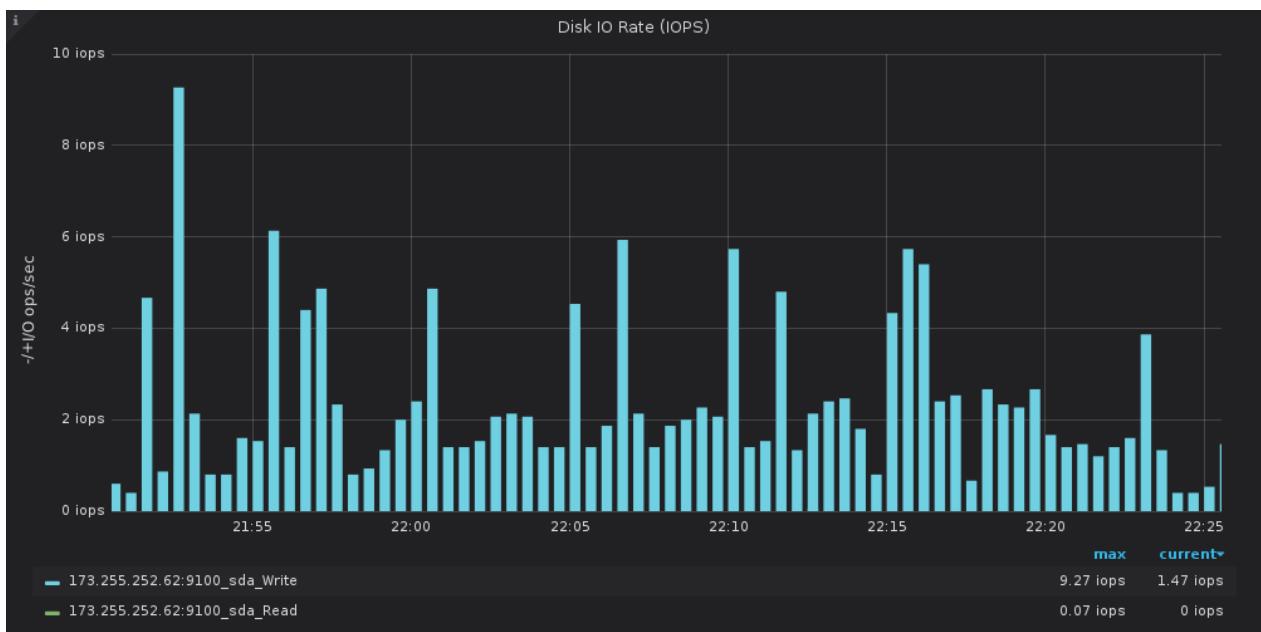
CPU使用率、磁盘每秒的I/O操作耗费时间 (%)



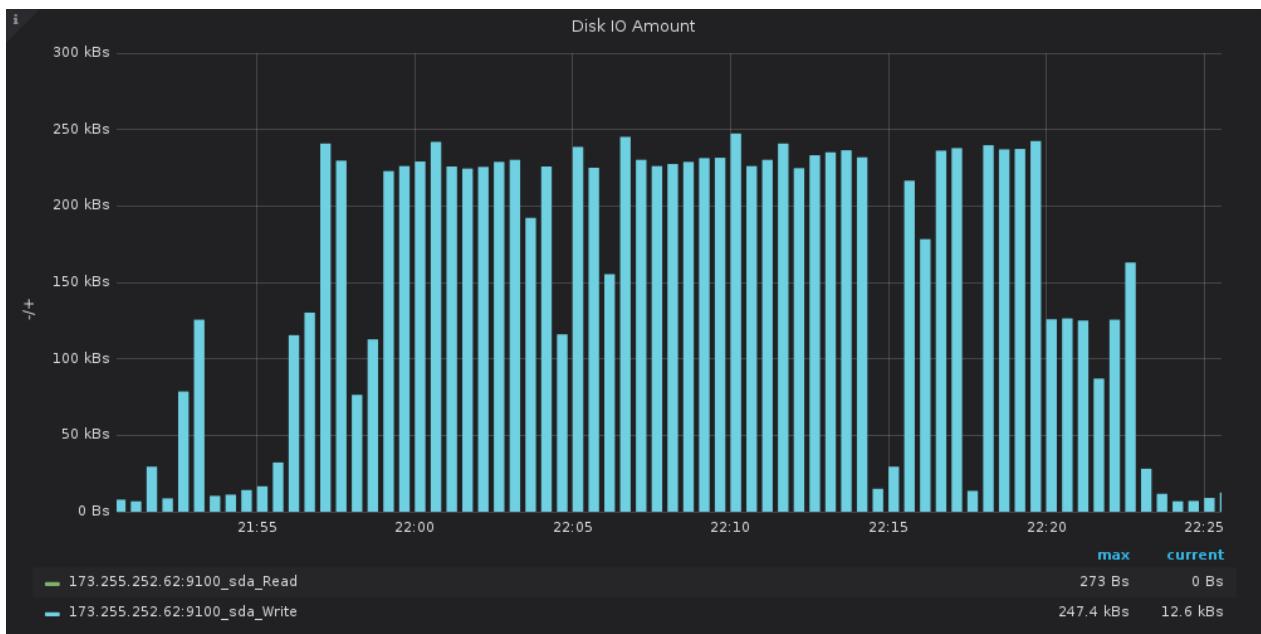
内存信息



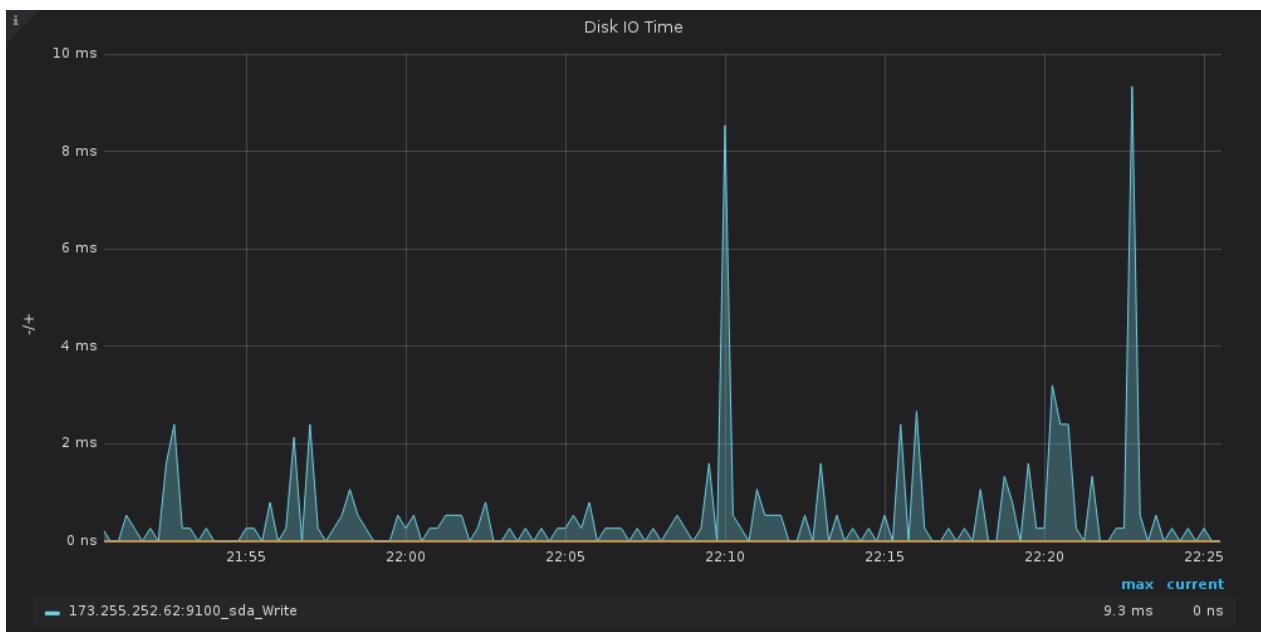
磁盘读写速率 (IOPS)



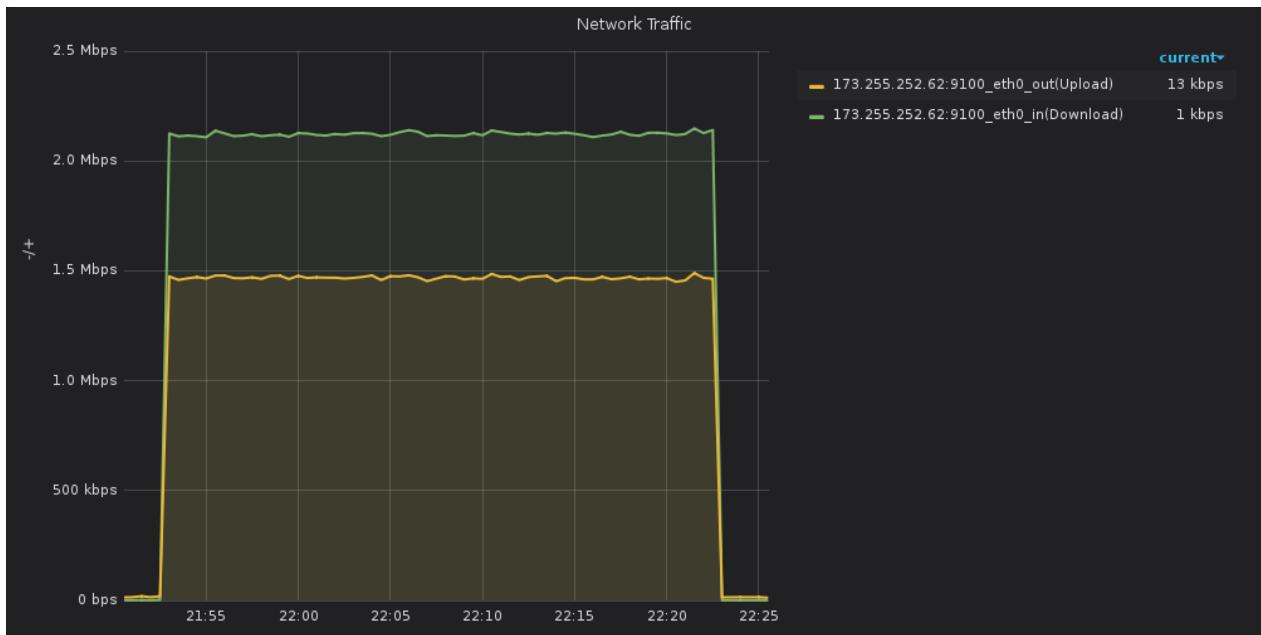
磁盘读写容量大小



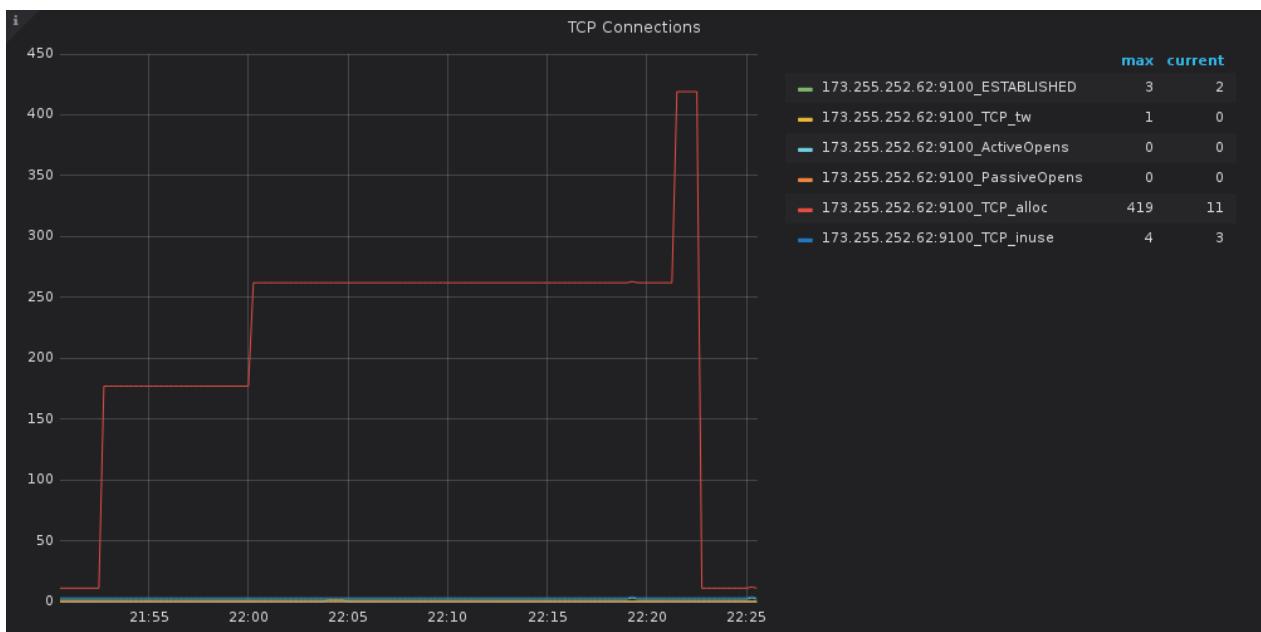
磁盘IO读写时间



网络流量



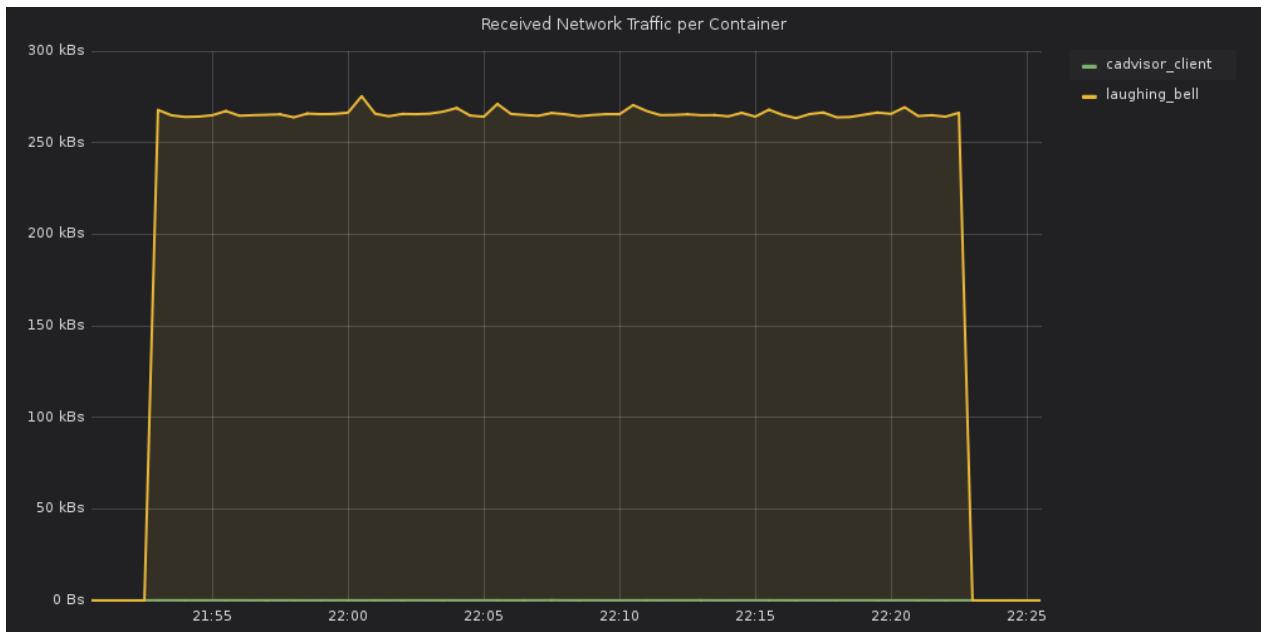
TCP 连接情况



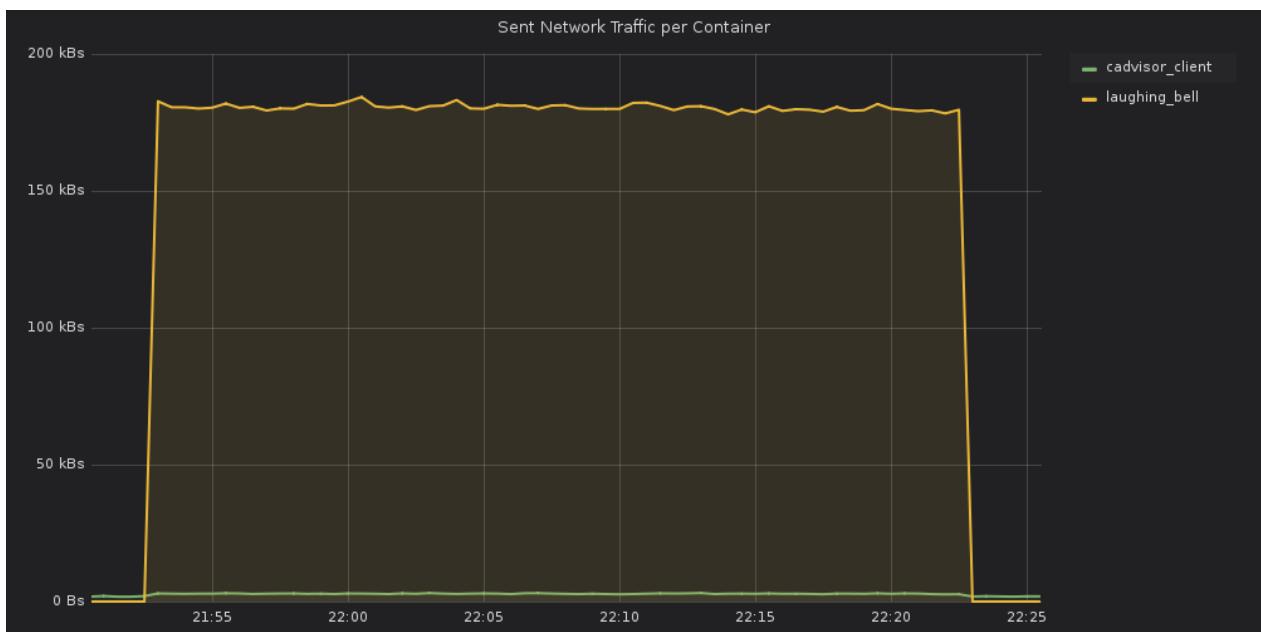
Service: cAdvisor_client

- name: cadvisor_client
- type: cadvisor

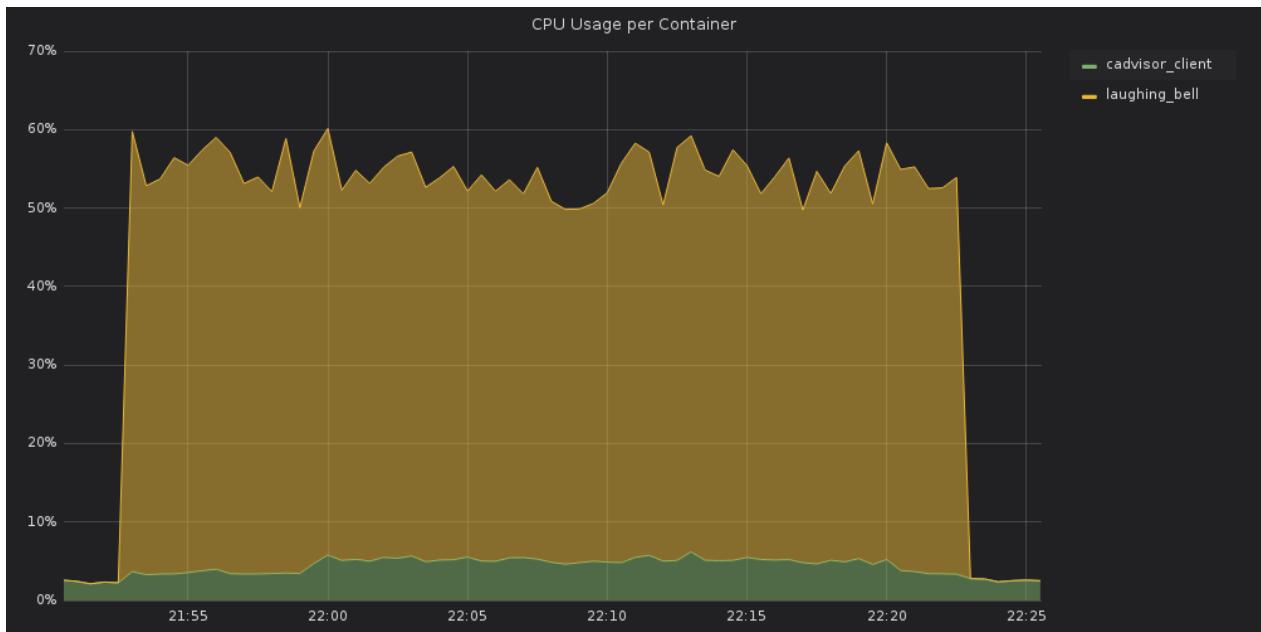
Received Network Traffic per Container



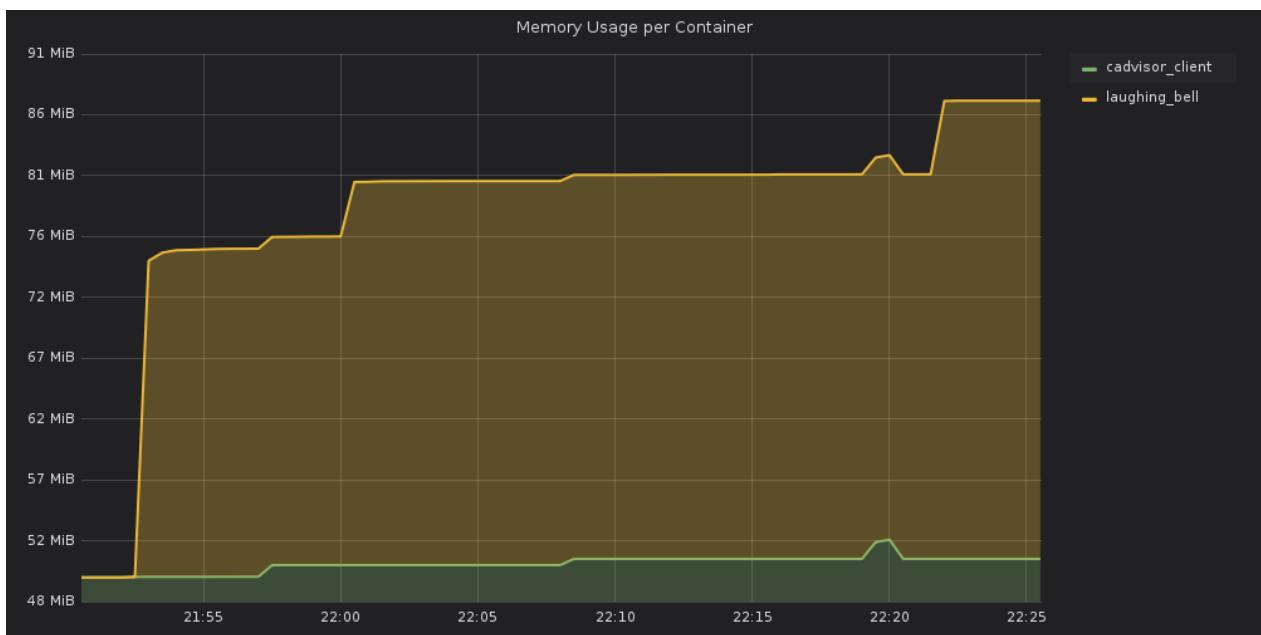
Sent Network Traffic per Container



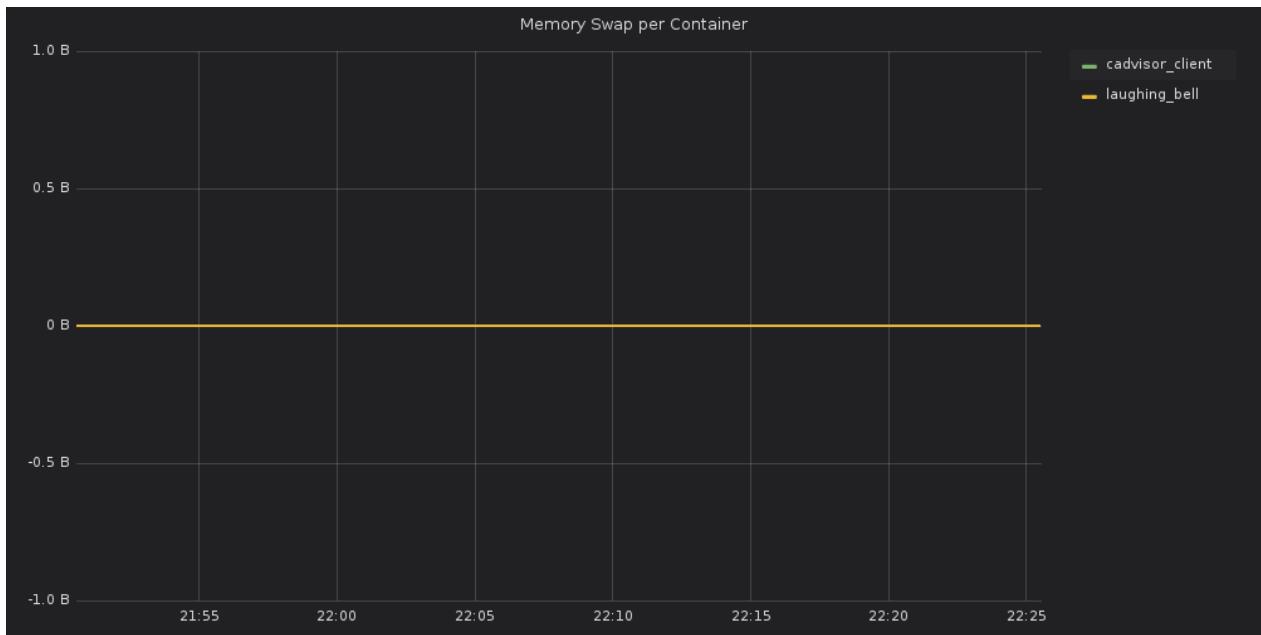
CPU Usage per Container



Memory Usage per Container



Memory Swap per Container



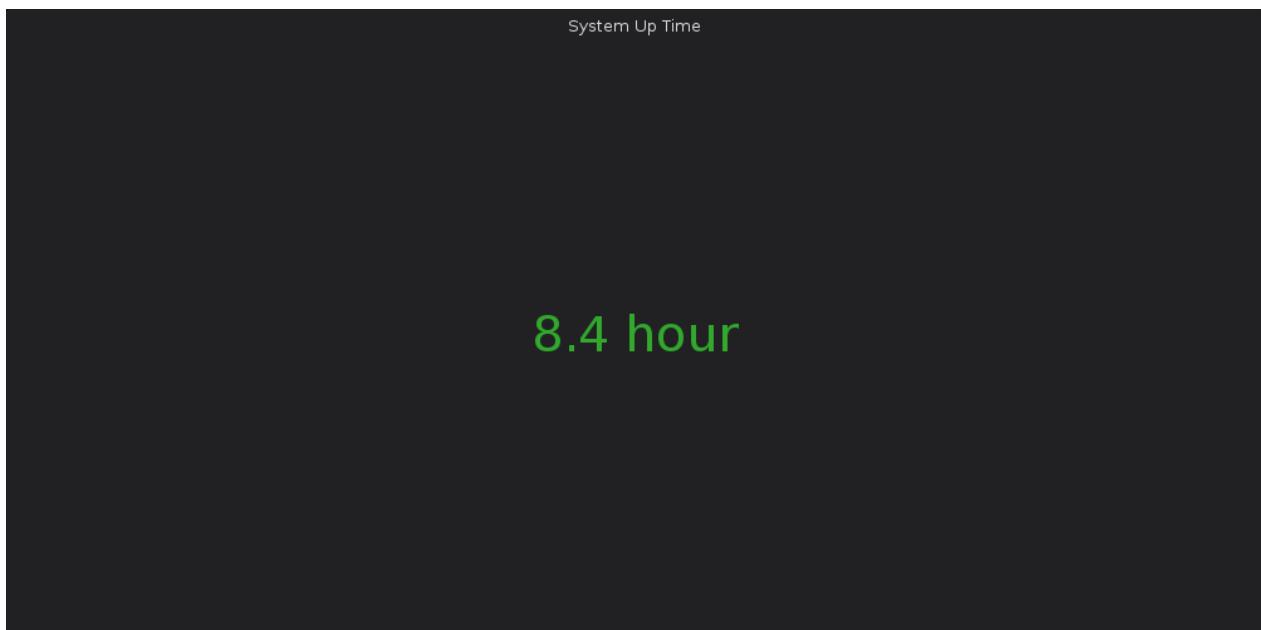
Host: storage

- name: storage
- type: storage

Service: node_storage

- name: node_storage
- type: node_exporter

系统运行时间



CPU 核数

CPU Core

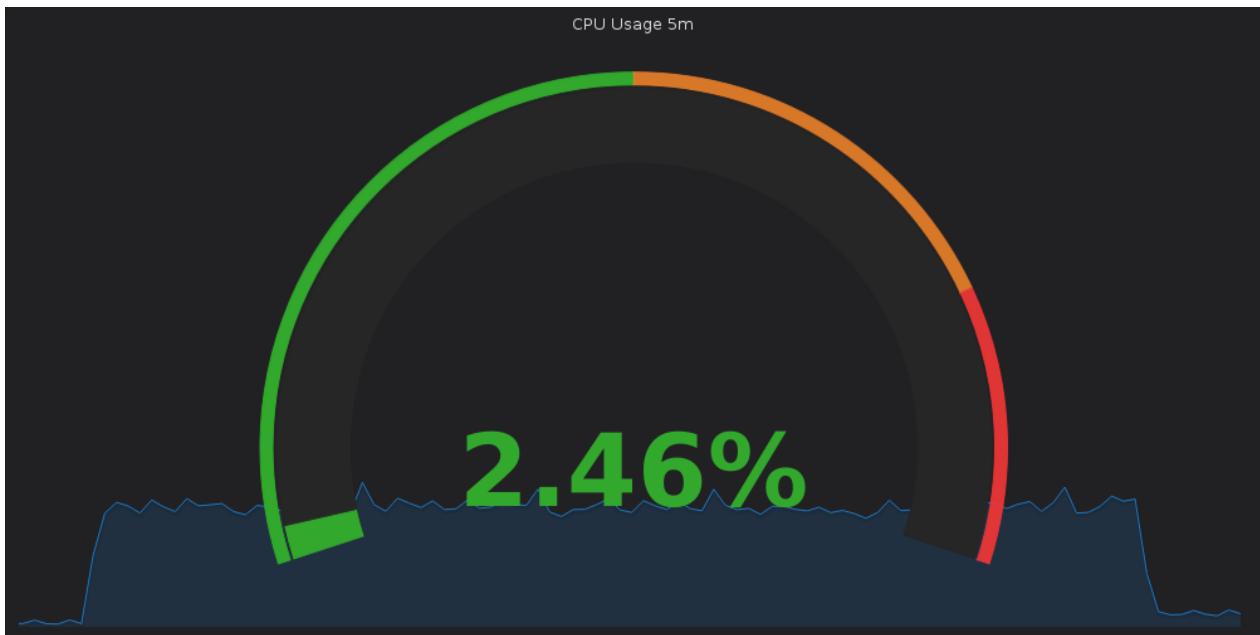
6

内存总量

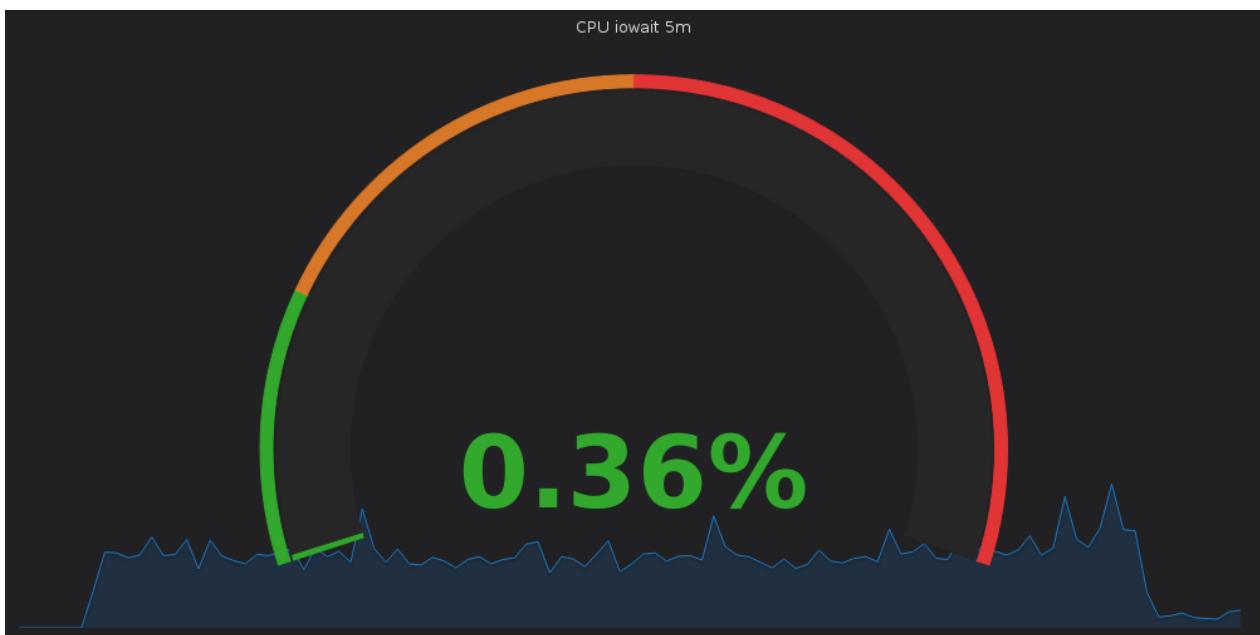
Total Memory

15.7 GiB

CPU使用率 (5m)

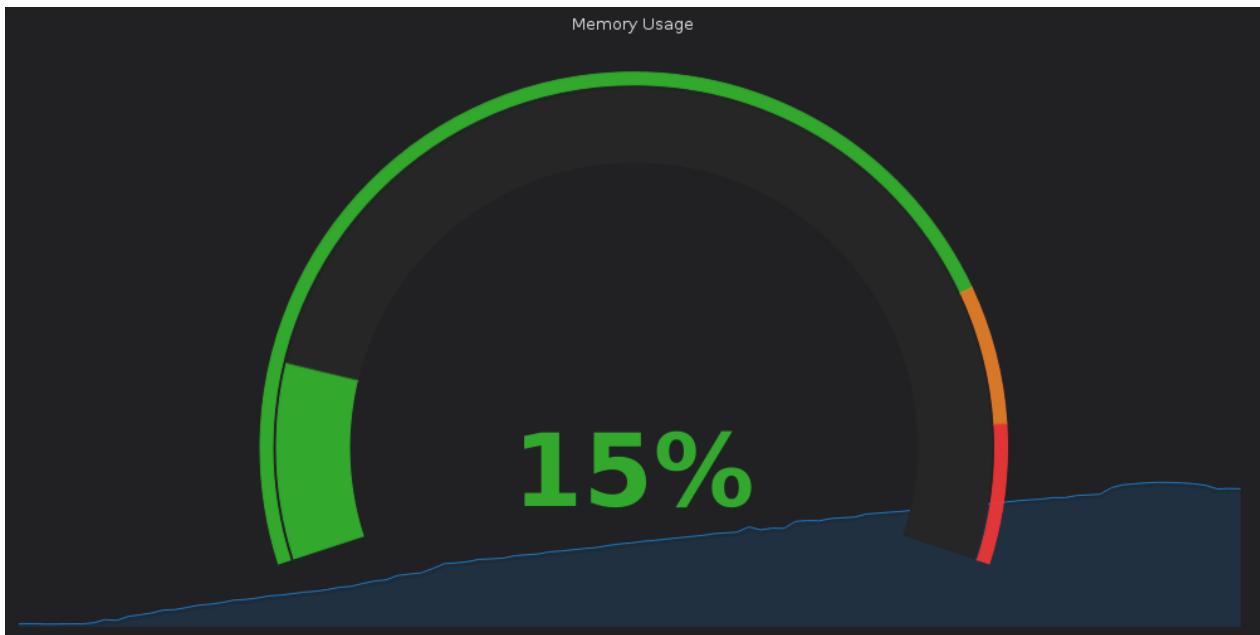


CPU iowait (5m)



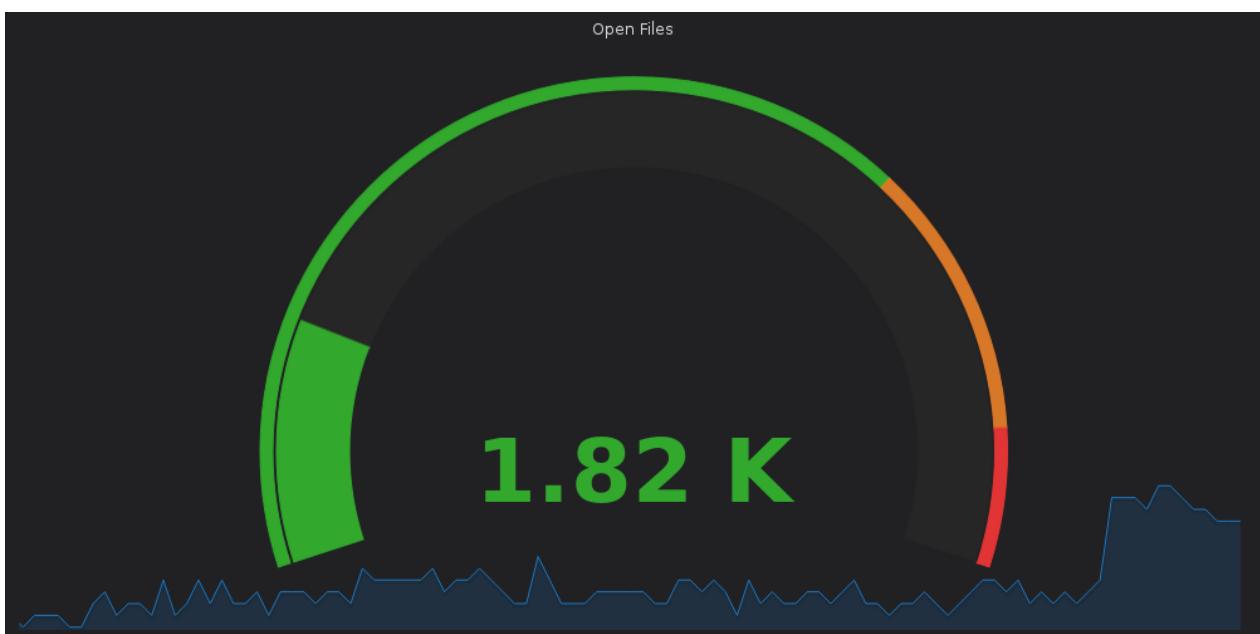
内存使用率

Memory Usage

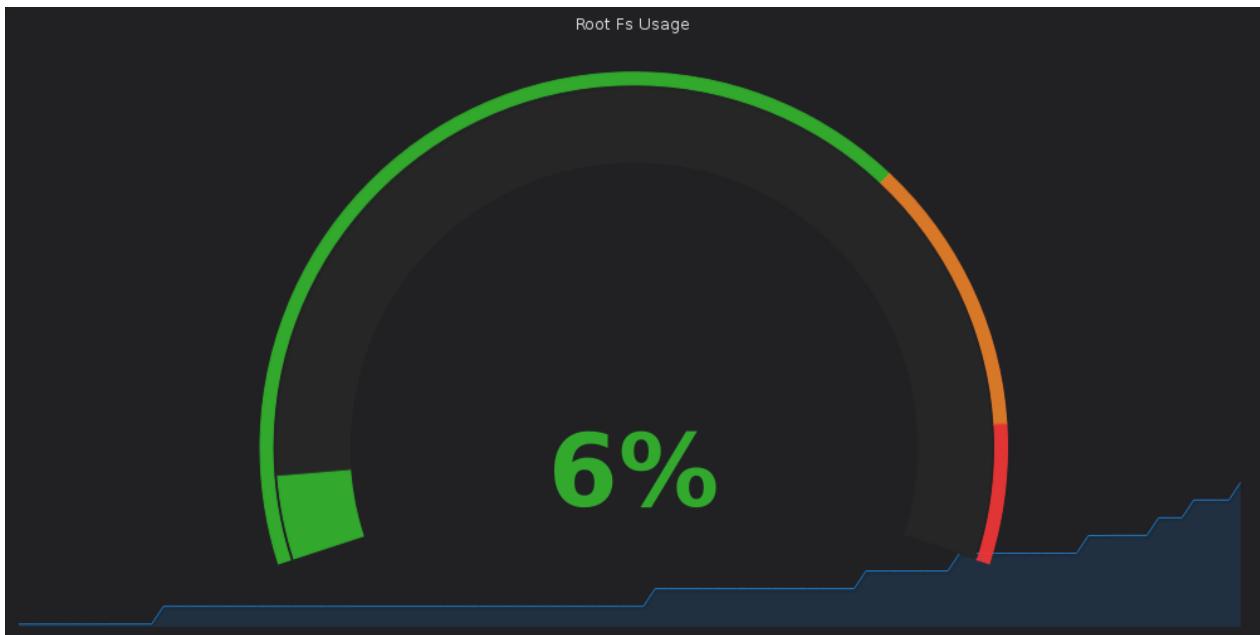


当前打开的文件描述符

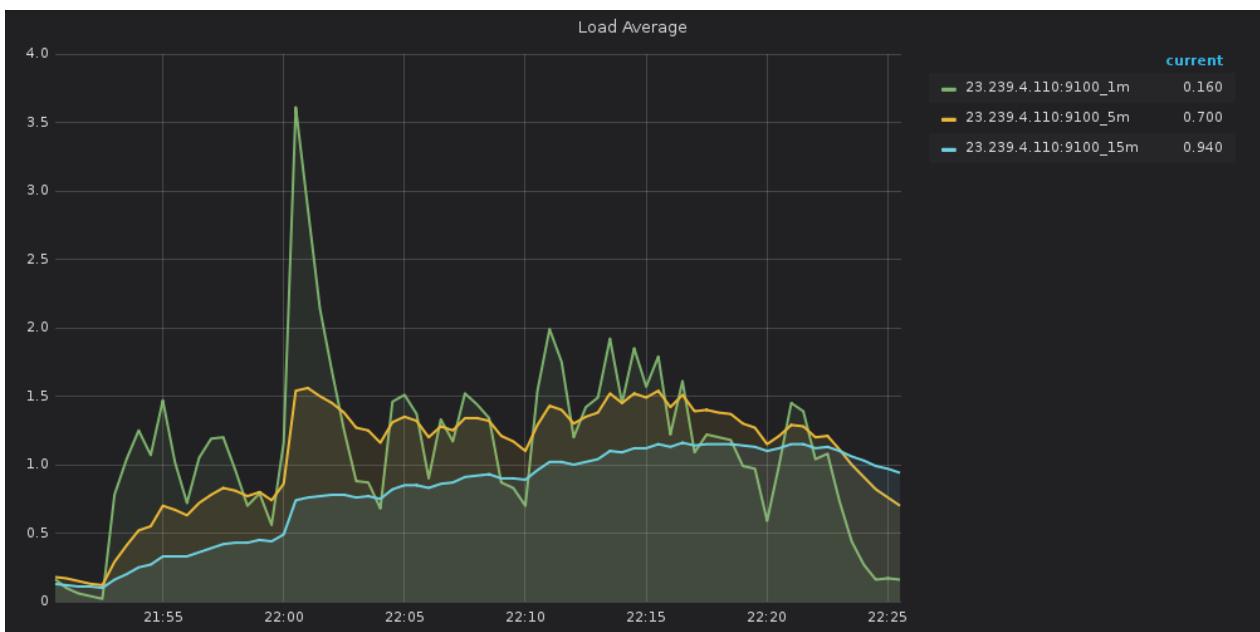
Open Files



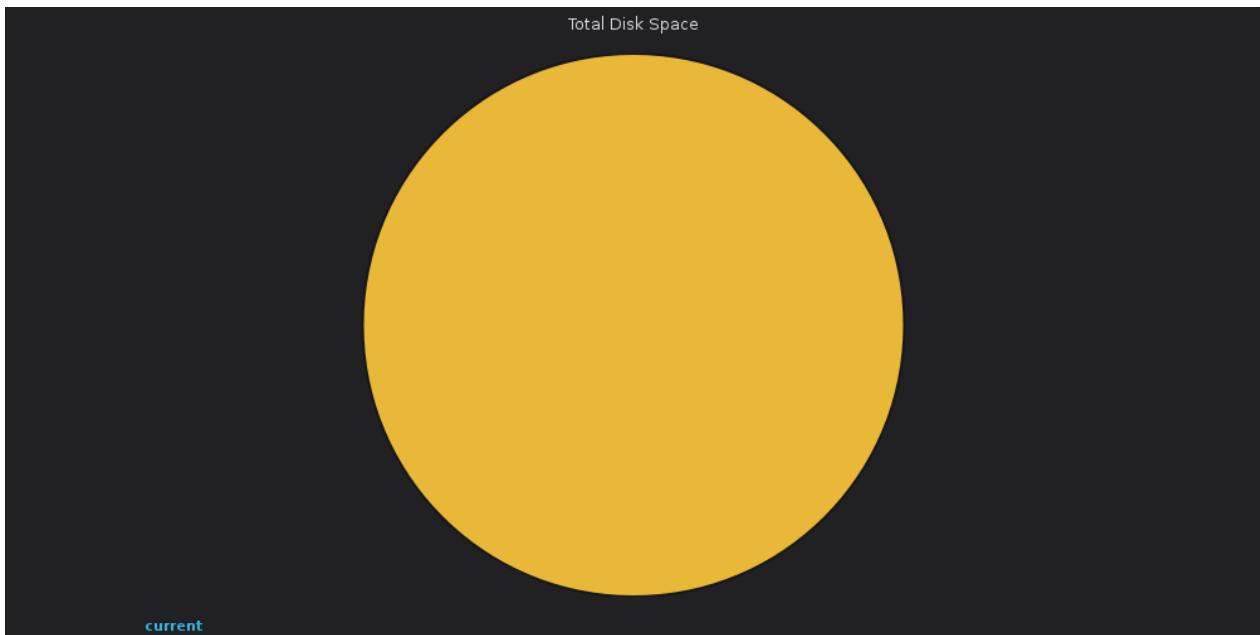
根分区使用率



系统平均负载



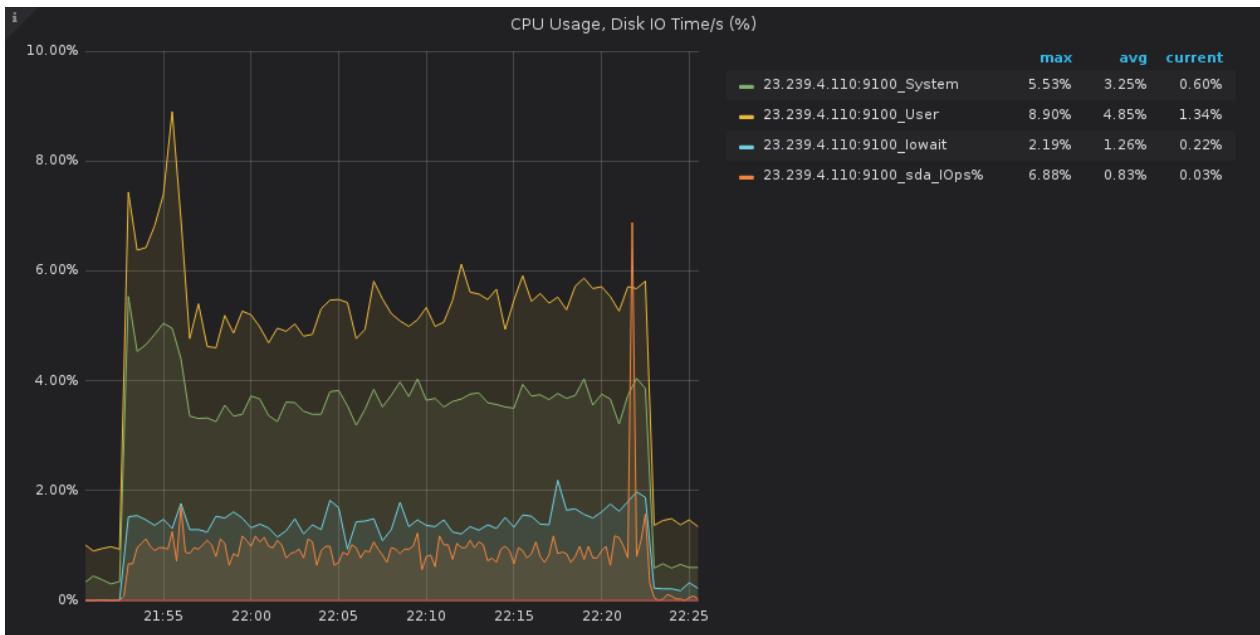
磁盘总空间



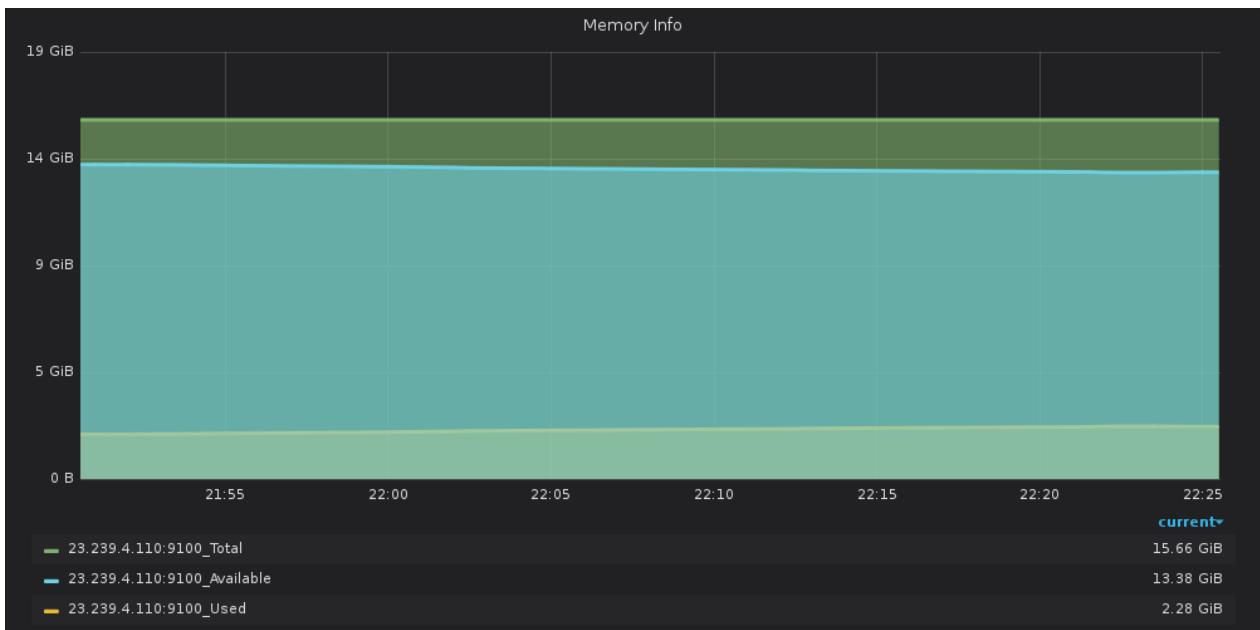
各分区可用空间

Volumes Available				
File System	IP	Mount ▲	Available	Usage
ext4	23.239.4.110:9100	/	295.01 GiB	1.13%

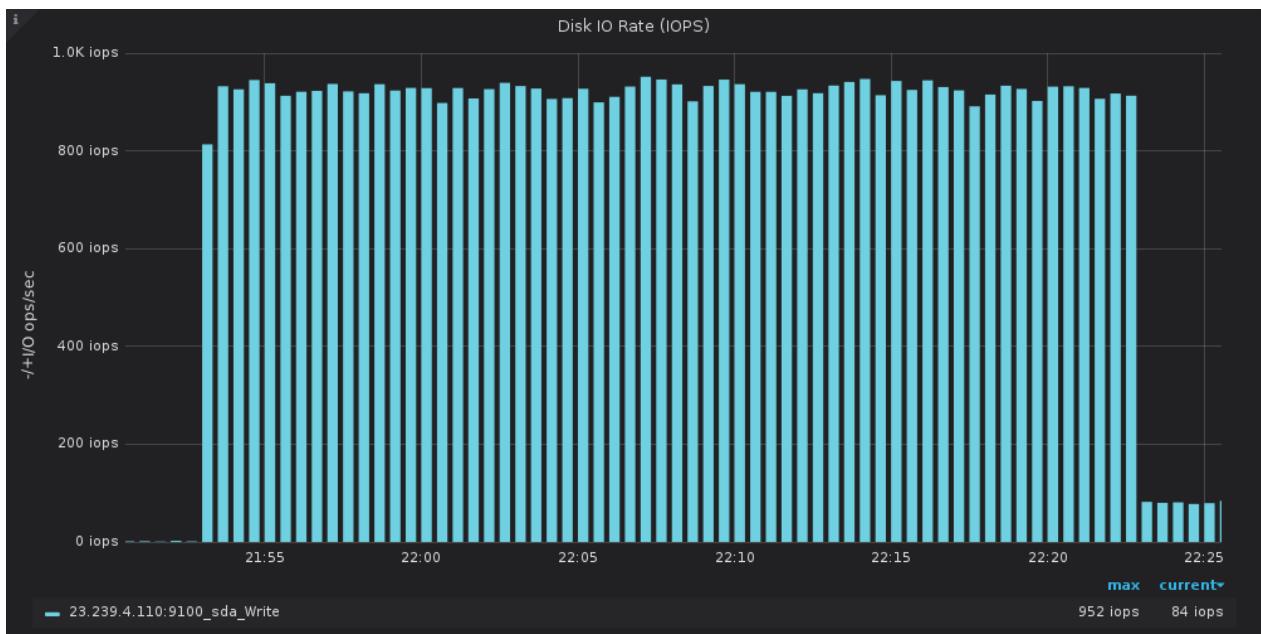
CPU使用率、磁盘每秒的I/O操作耗费时间 (%)



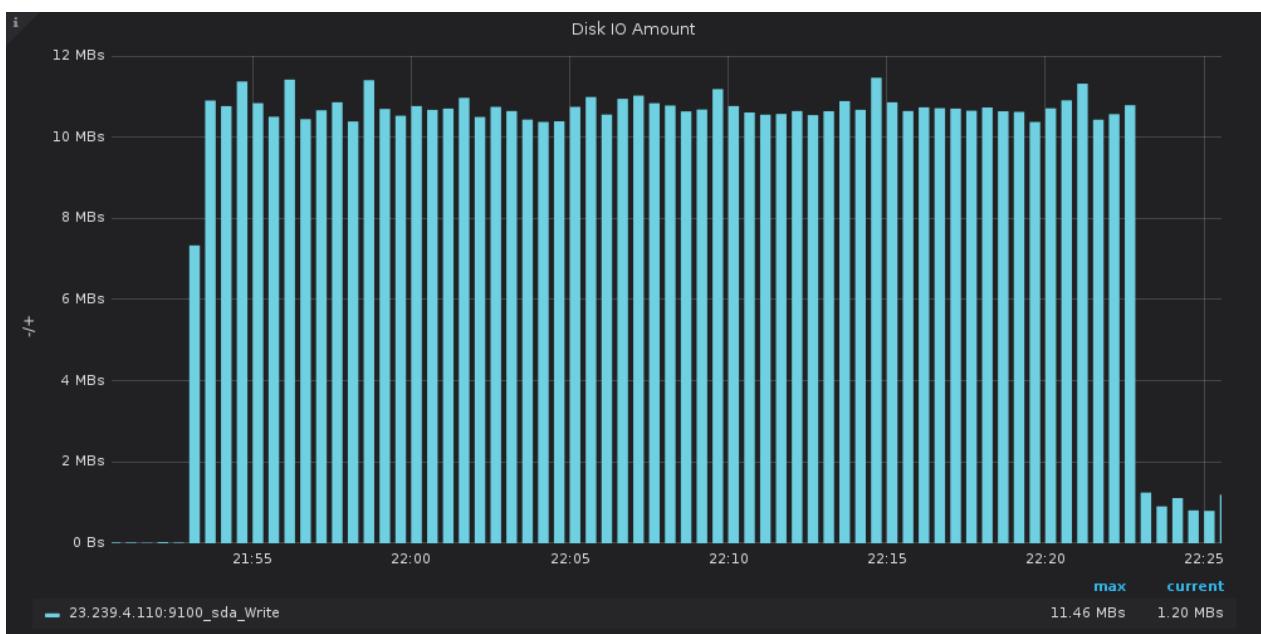
内存信息



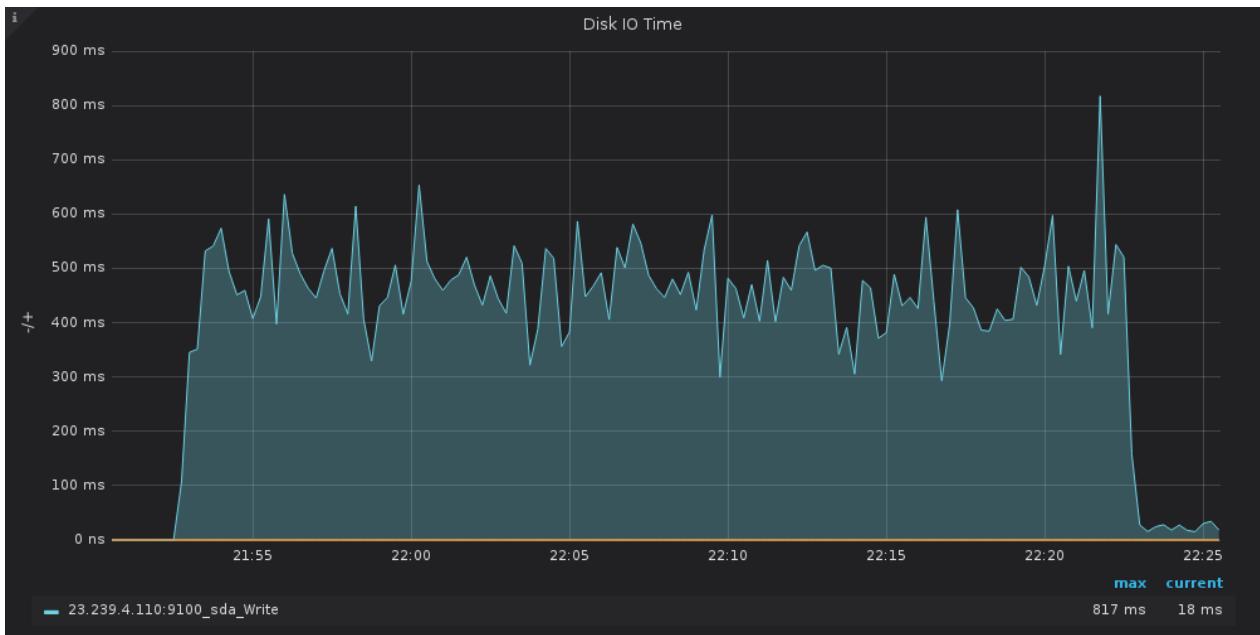
磁盘读写速率 (IOPS)



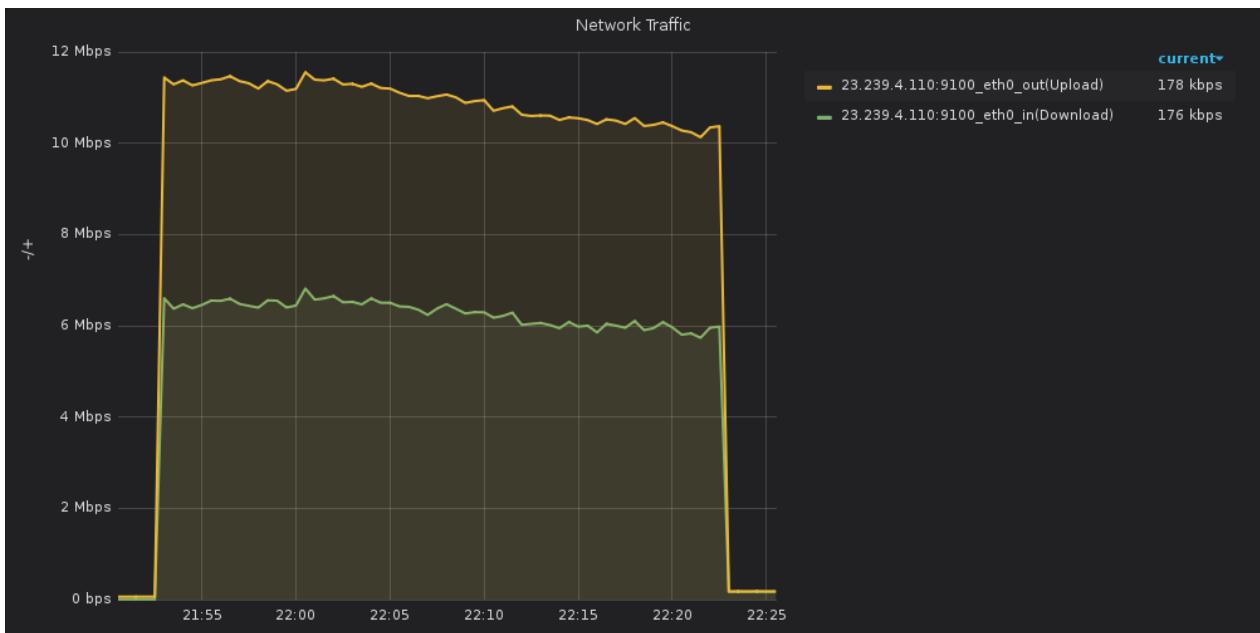
磁盘读写容量大小



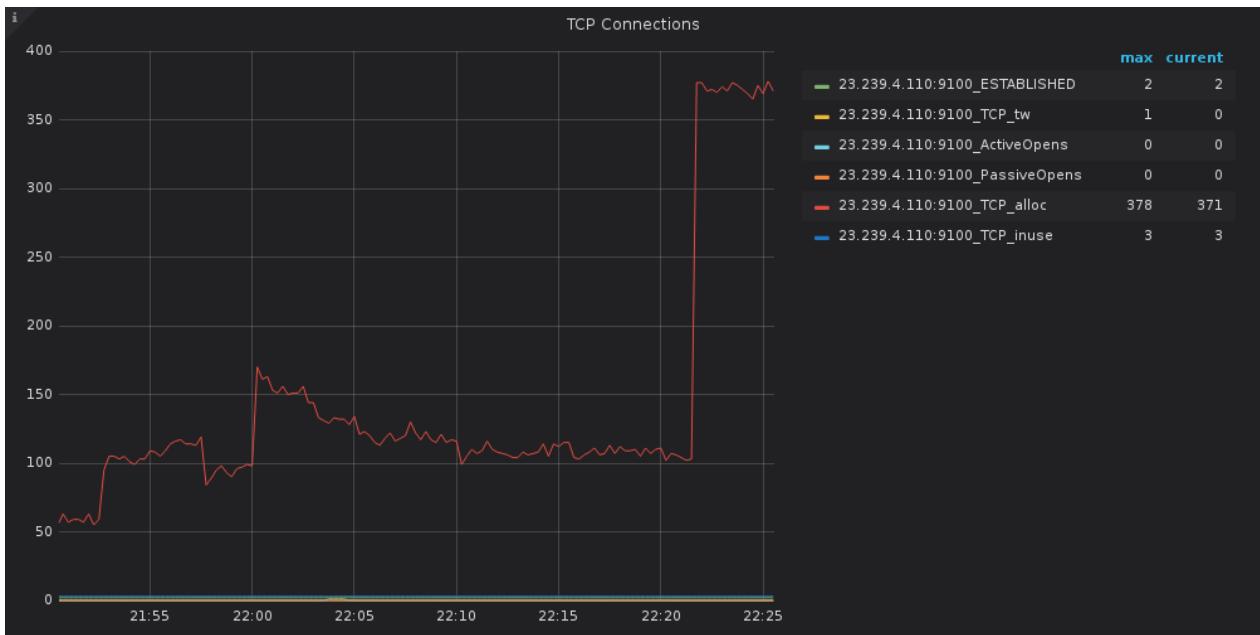
磁盘IO读写时间



网络流量



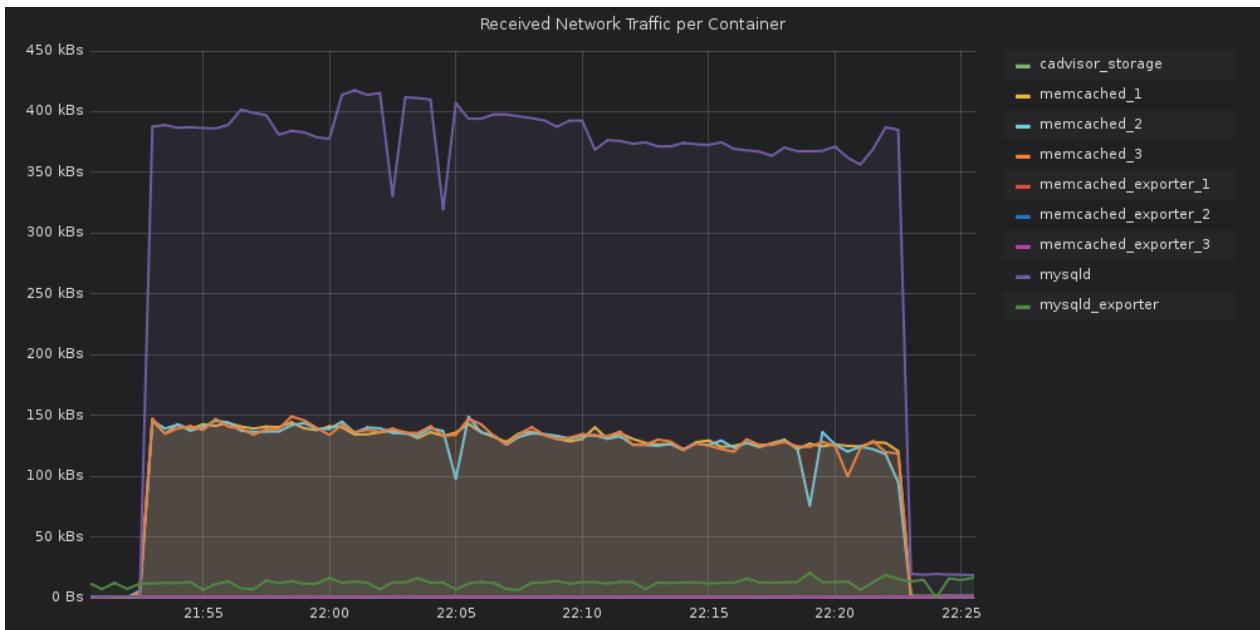
TCP 连接情况



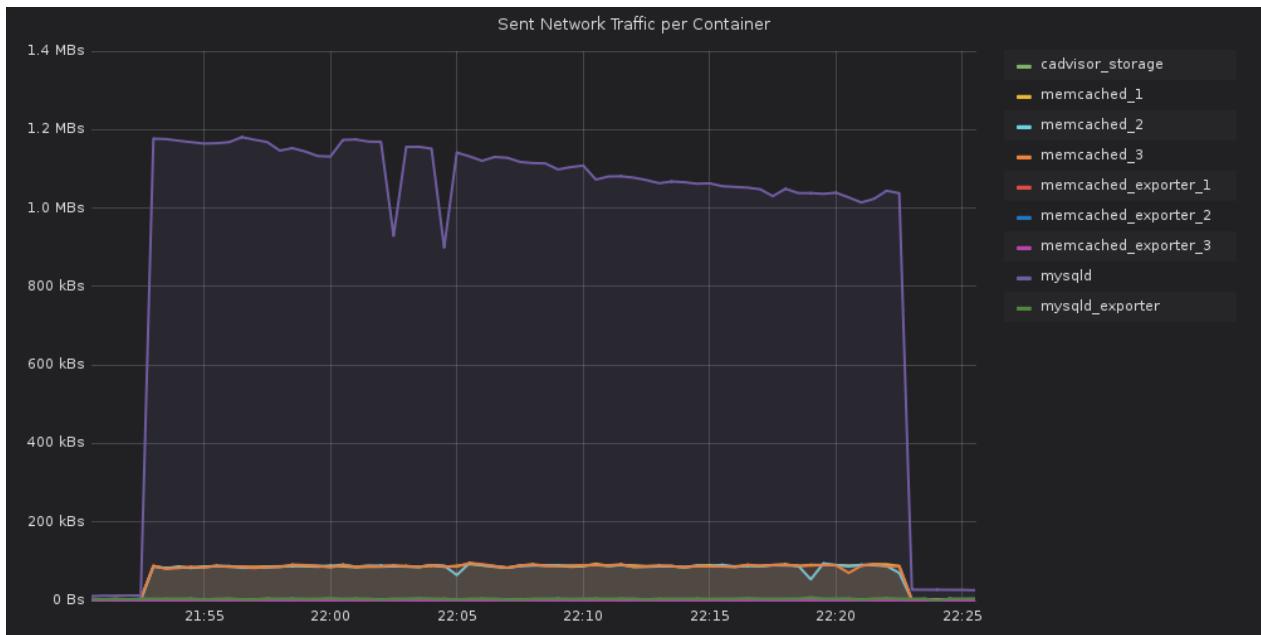
Service: cAdvisor_storage

- name: cadvisor_storage
- type: cadvisor

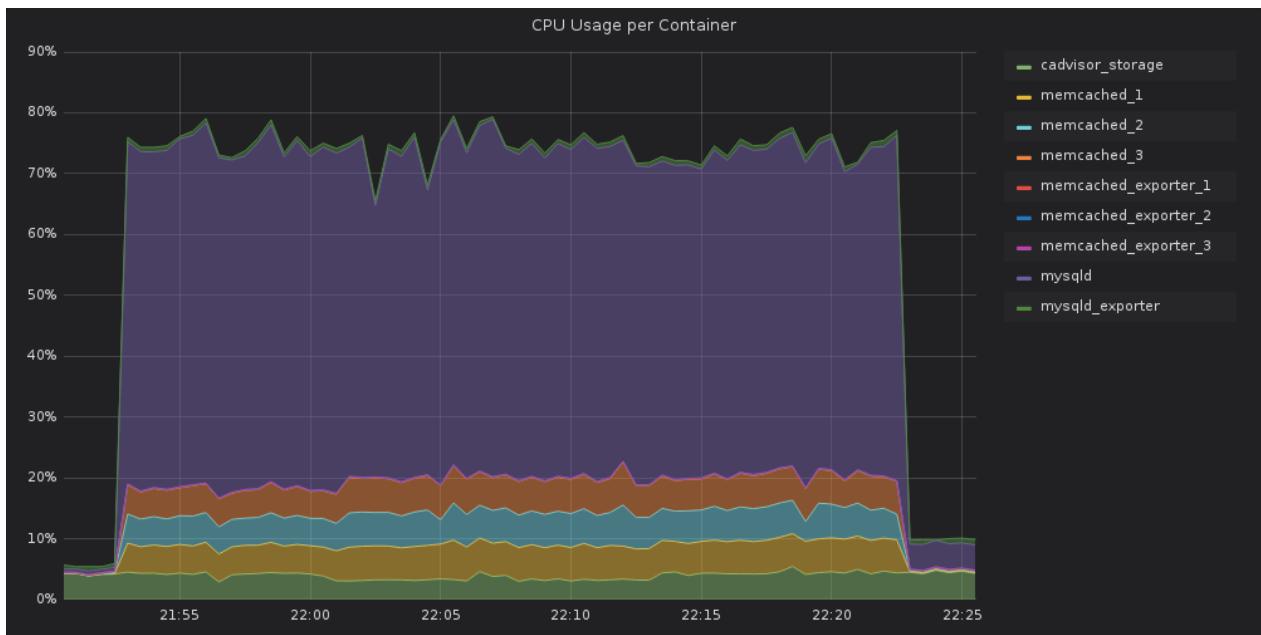
Received Network Traffic per Container



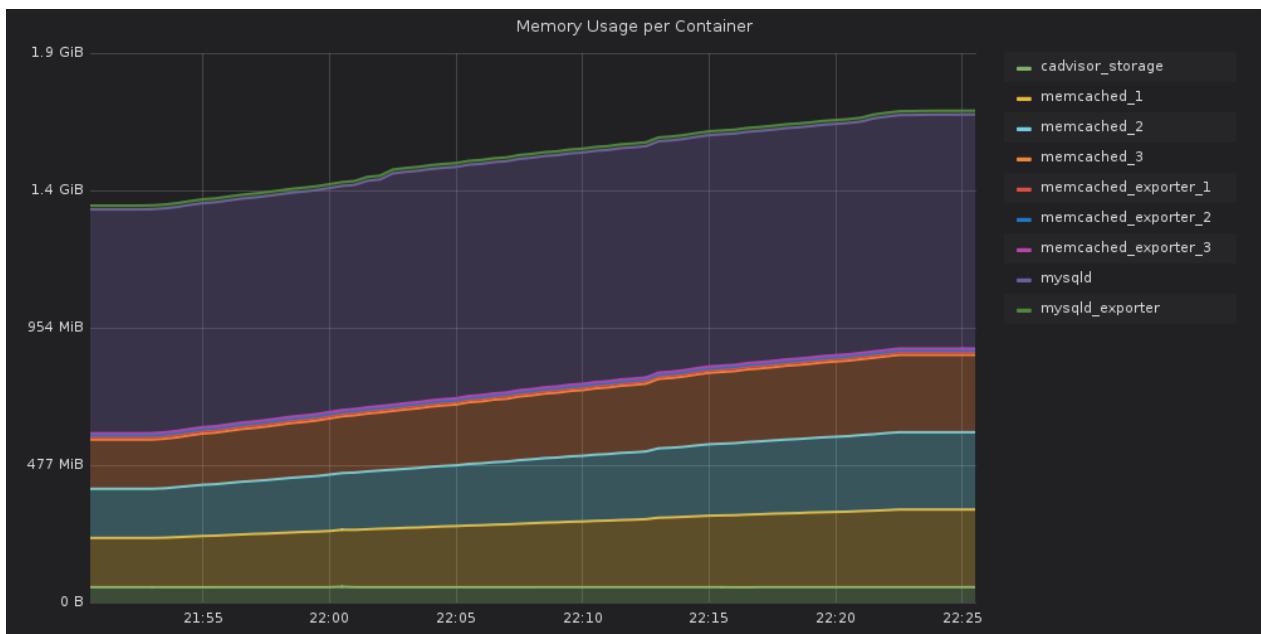
Sent Network Traffic per Container



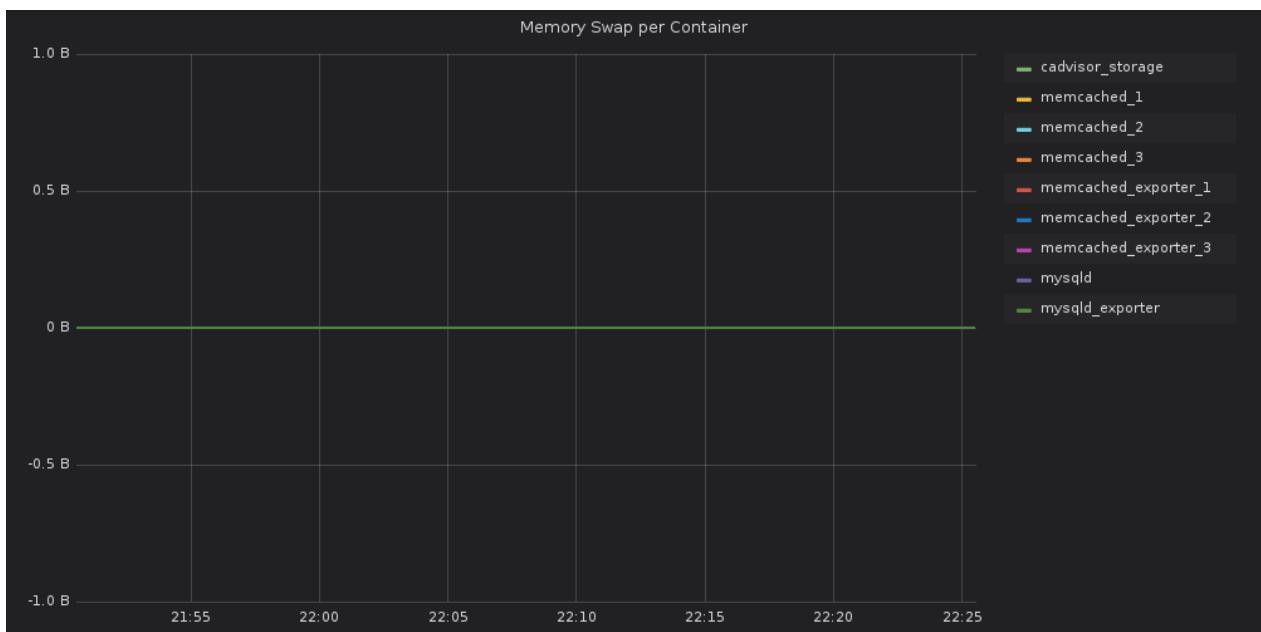
CPU Usage per Container



Memory Usage per Container



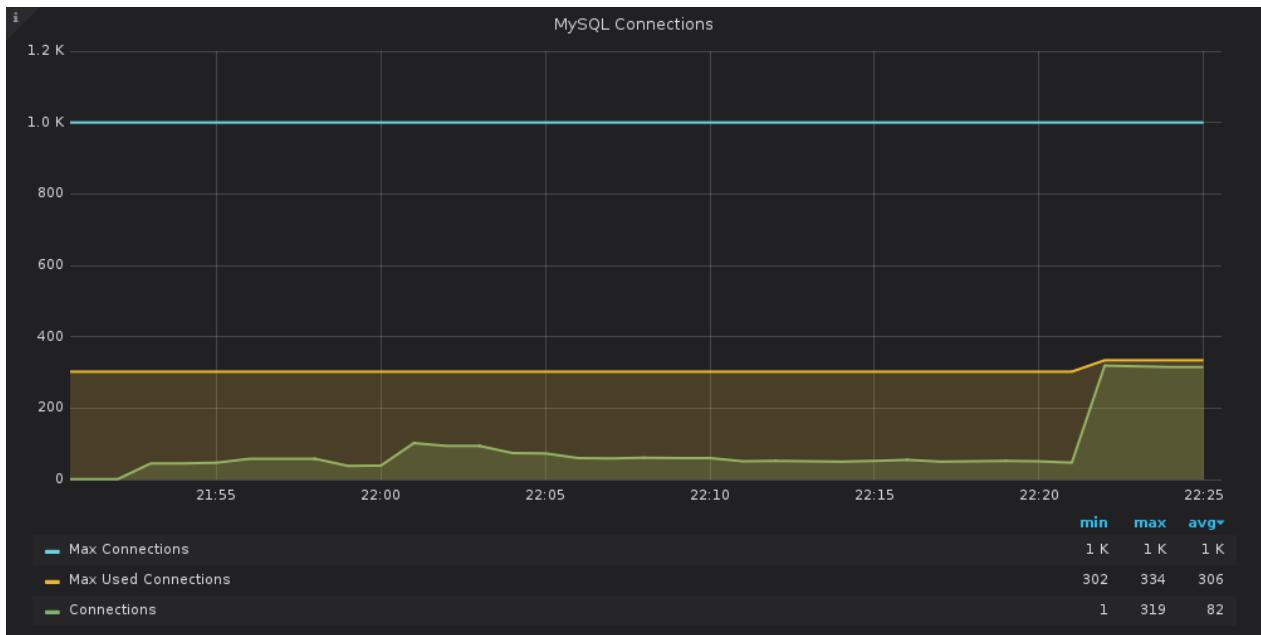
Memory Swap per Container



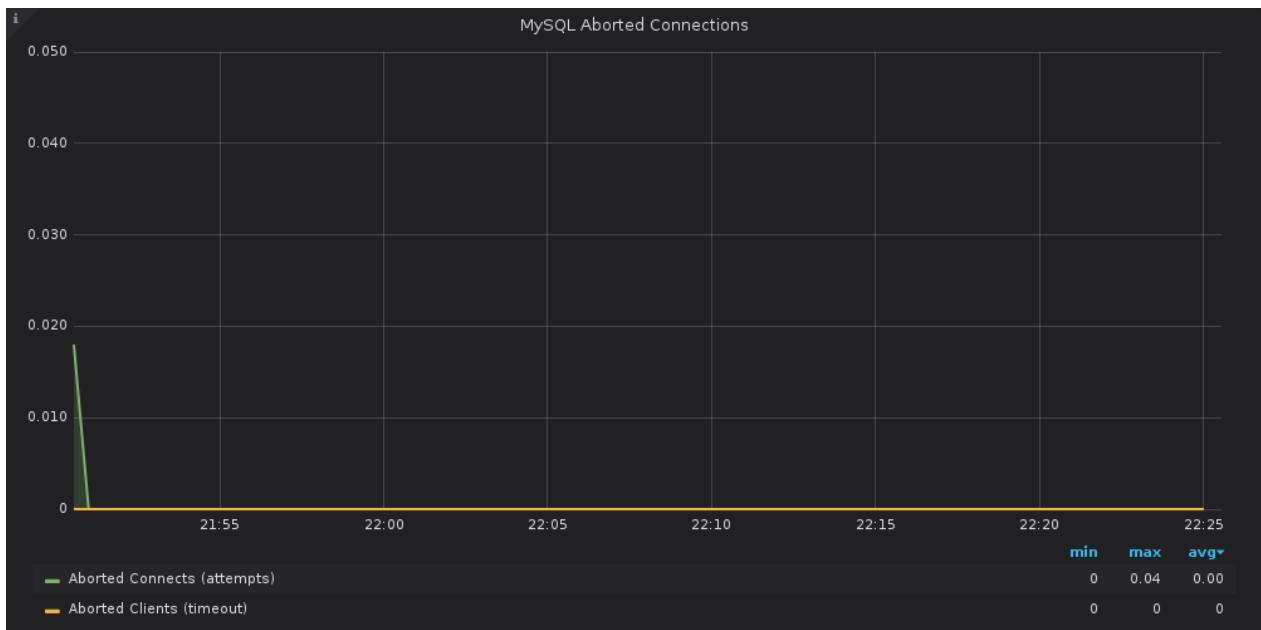
Service: mysqld

- name: mysqld
- type: mysqld

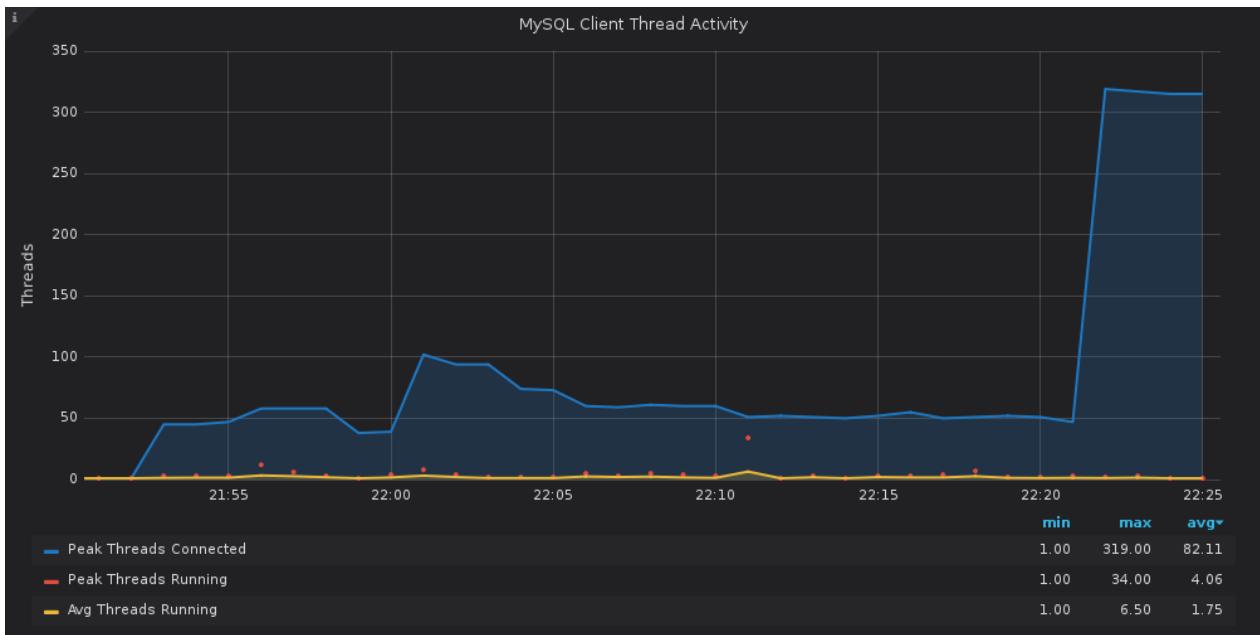
MySQL Connections



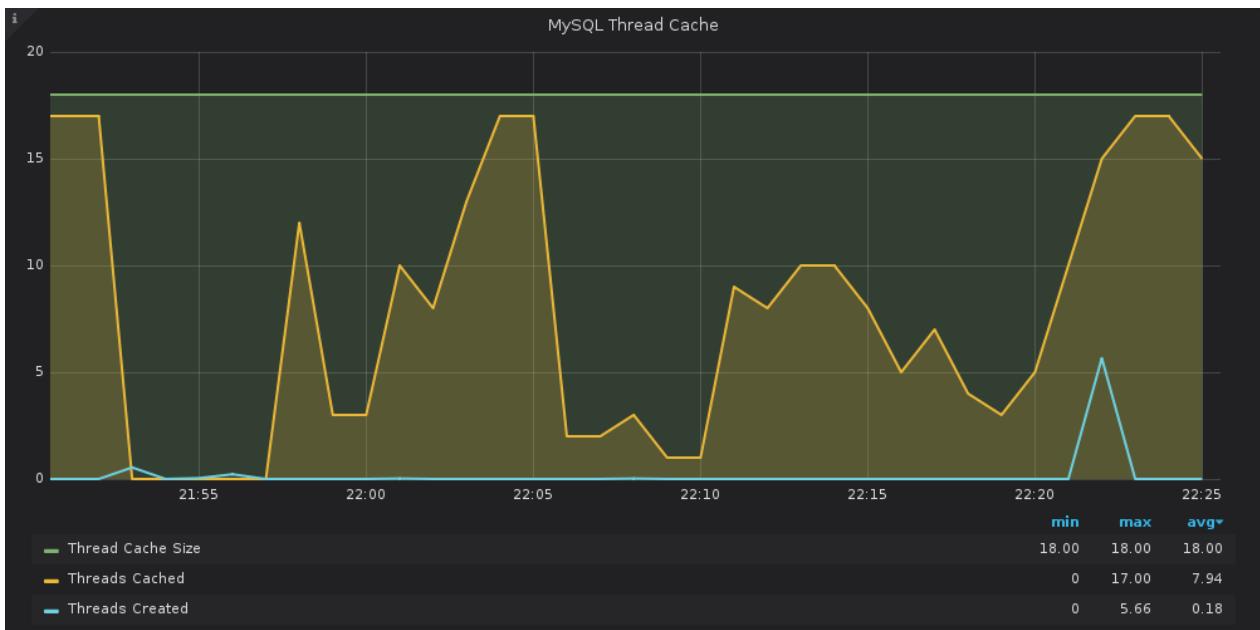
MySQL Aborted Connections



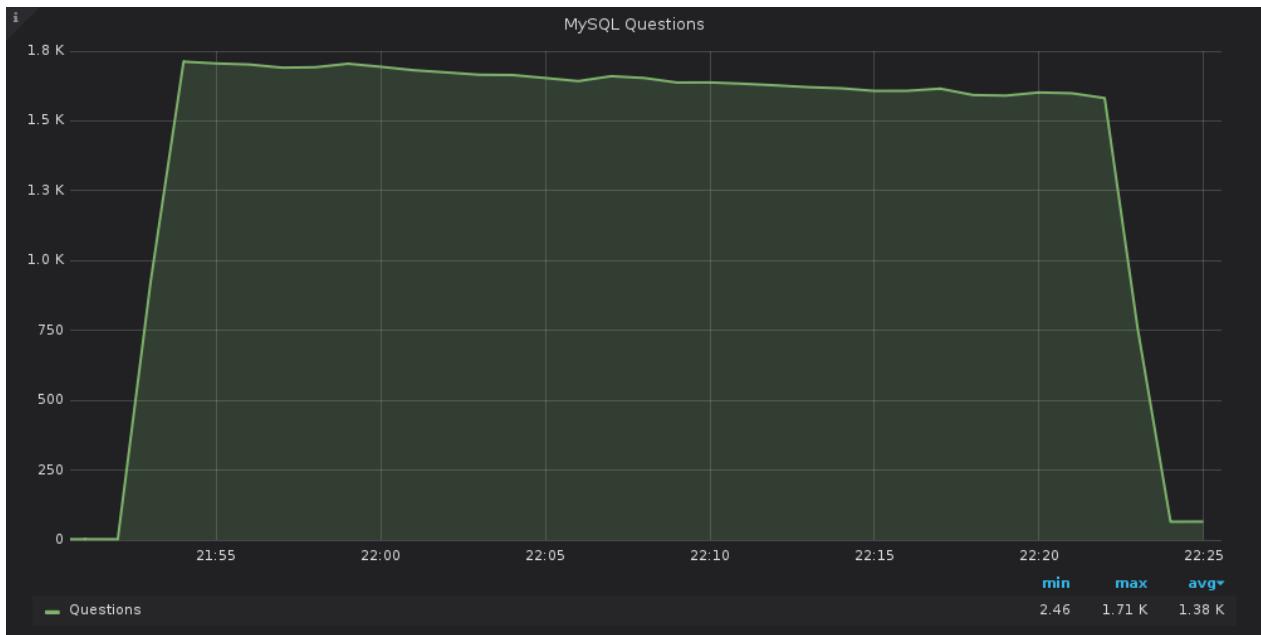
MySQL Client Thread Activity



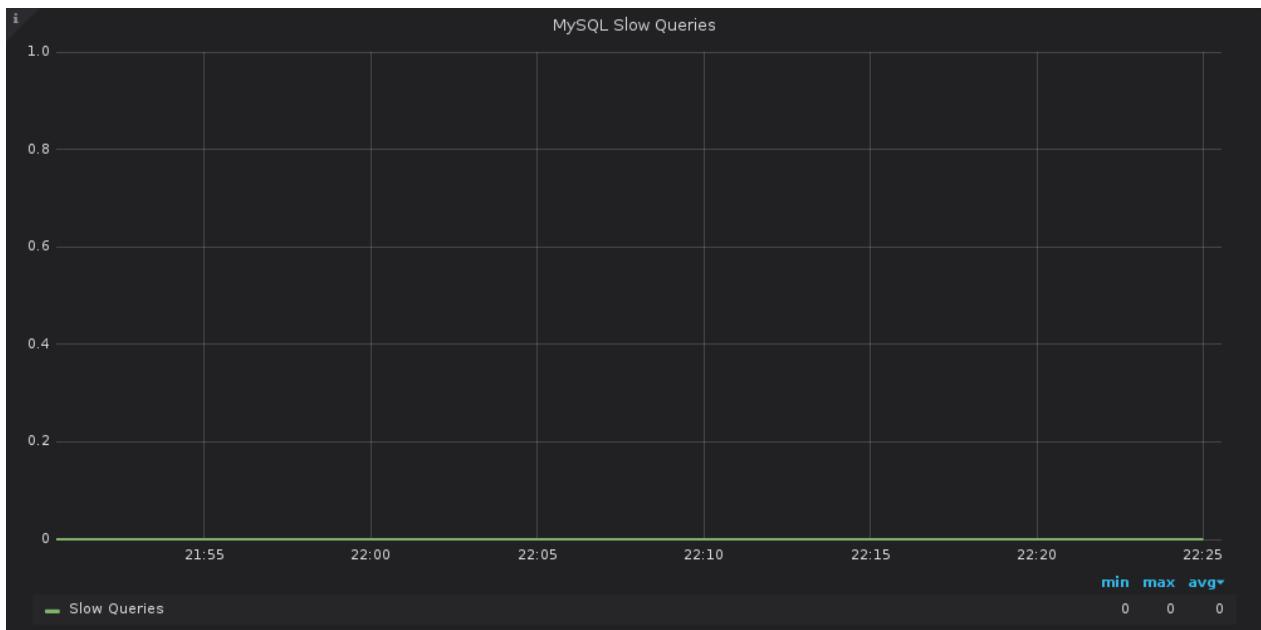
MySQL Thread Cache



MySQL Questions



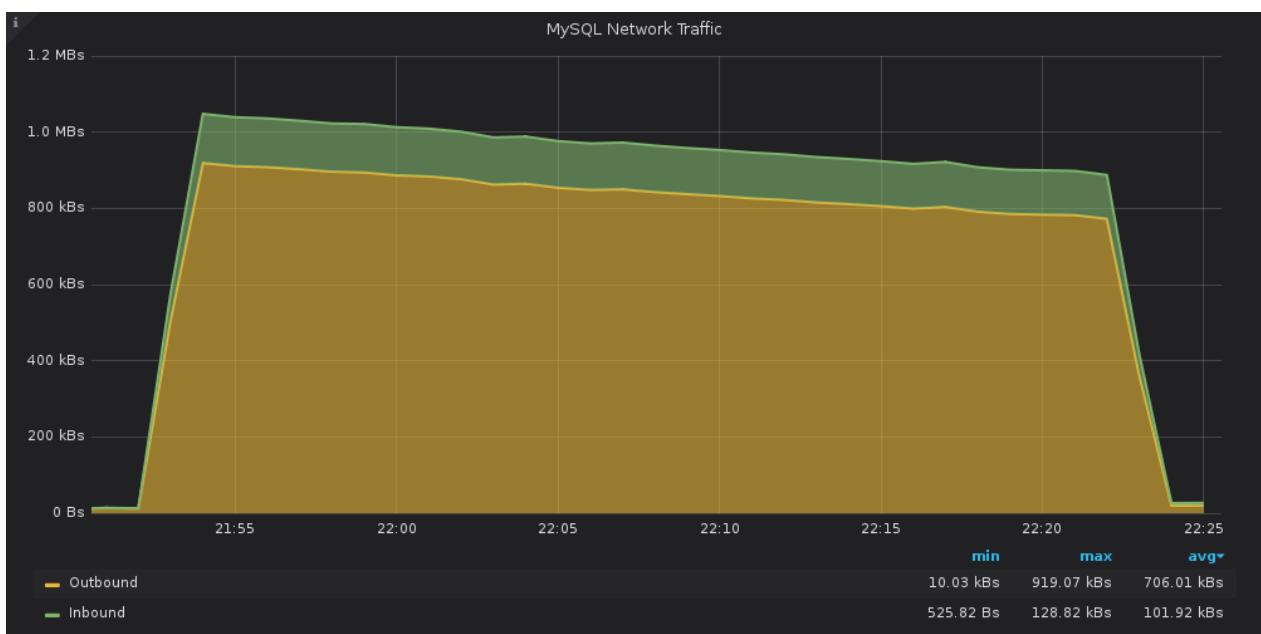
MySQL Slow Queries



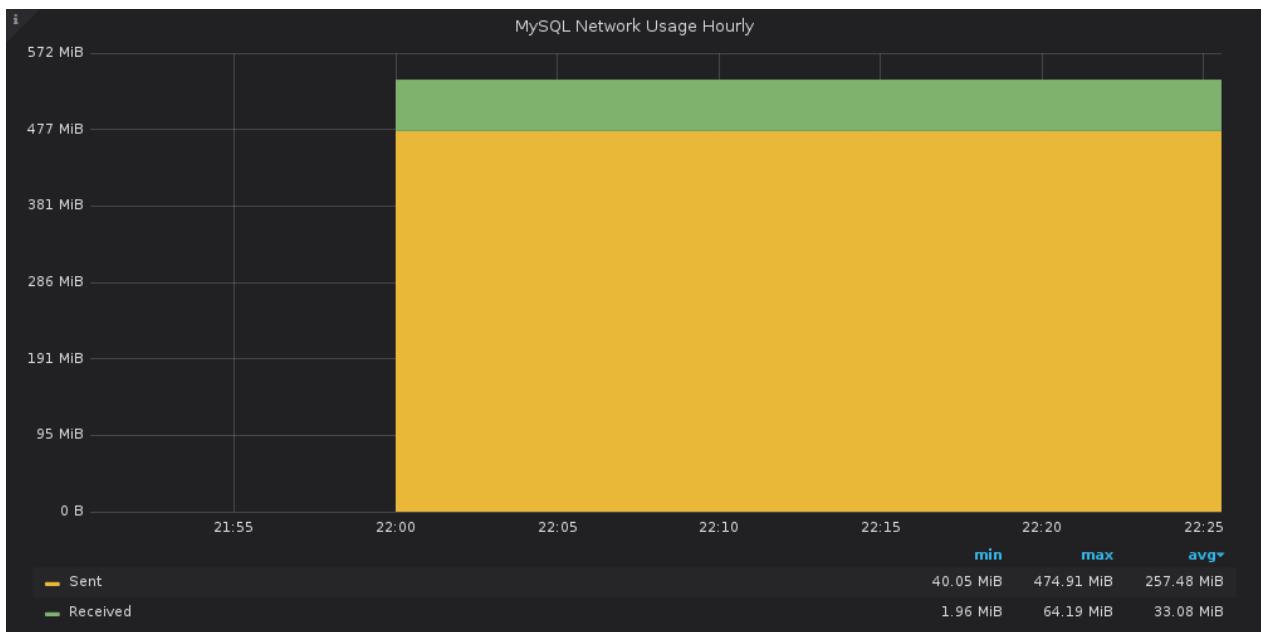
MySQL Table Locks



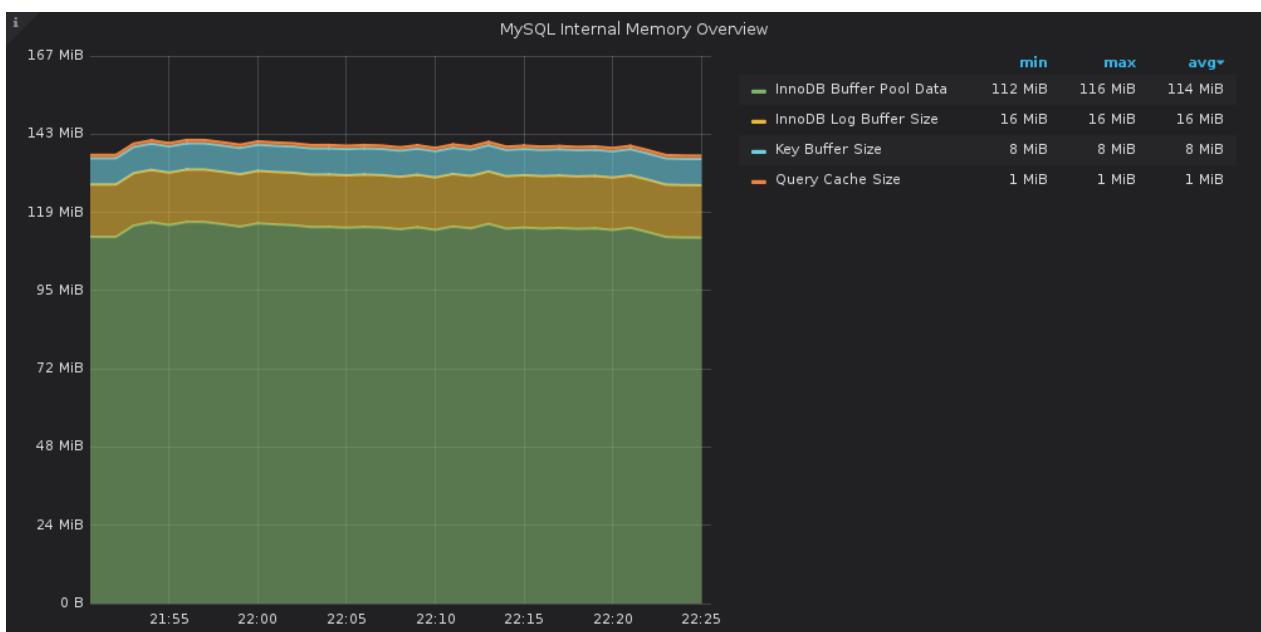
MySQL Network Traffic



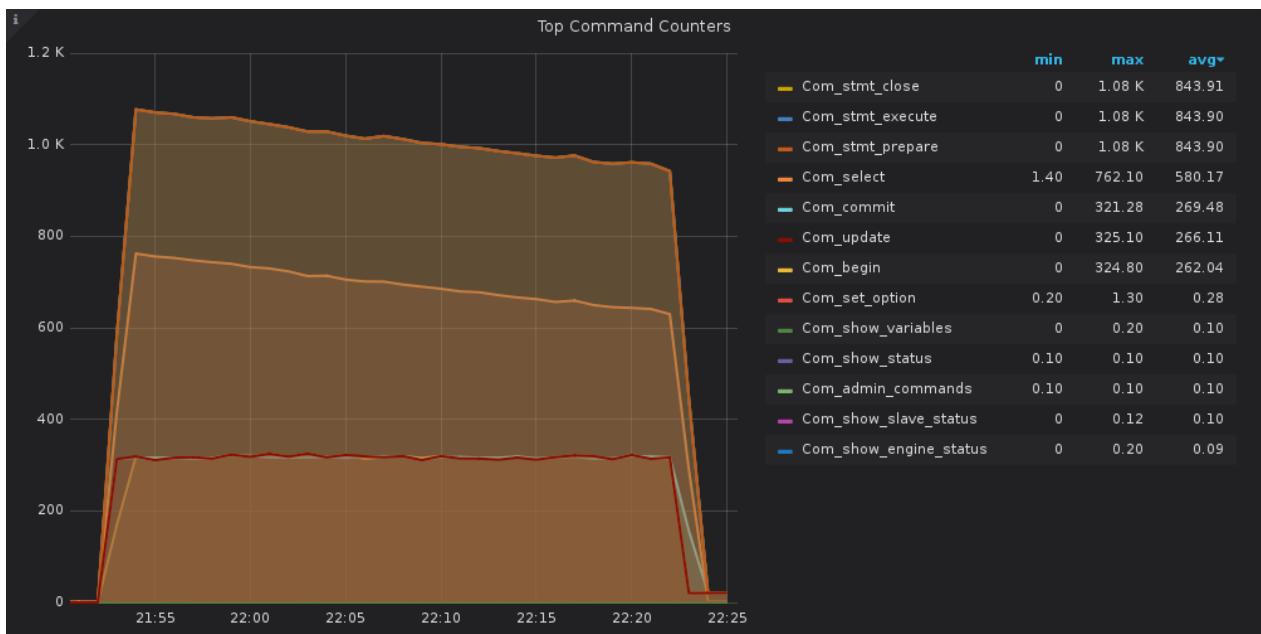
MySQL Network Usage Hourly



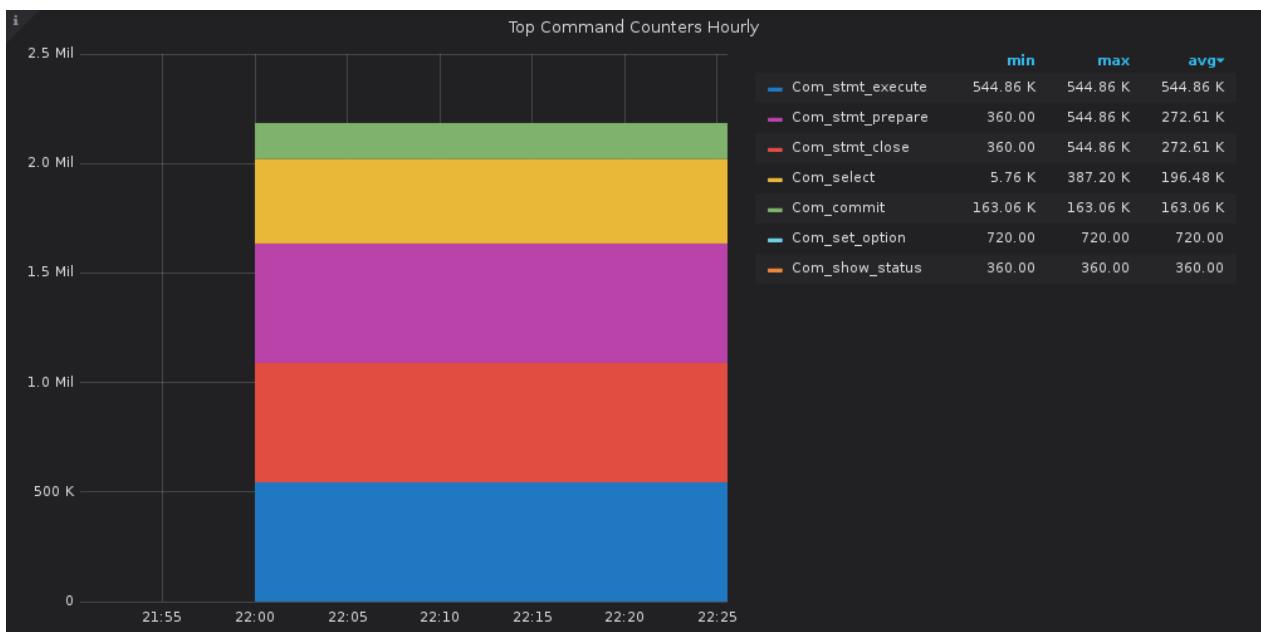
MySQL Internal Memory Overview



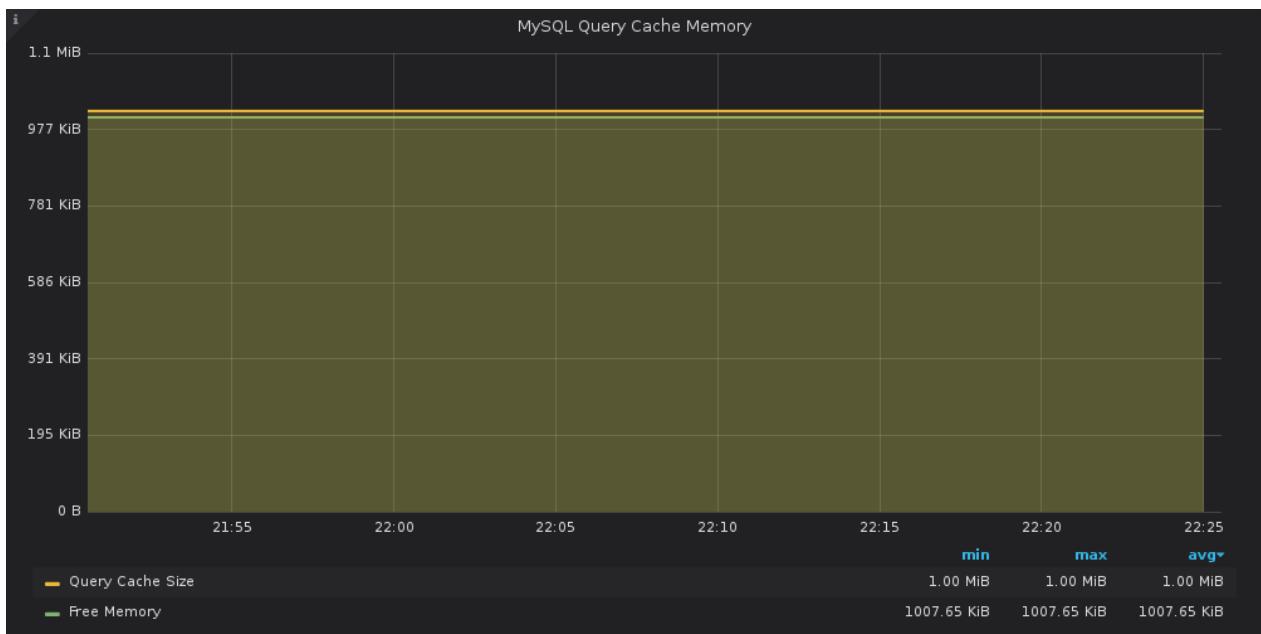
Top Command Counters



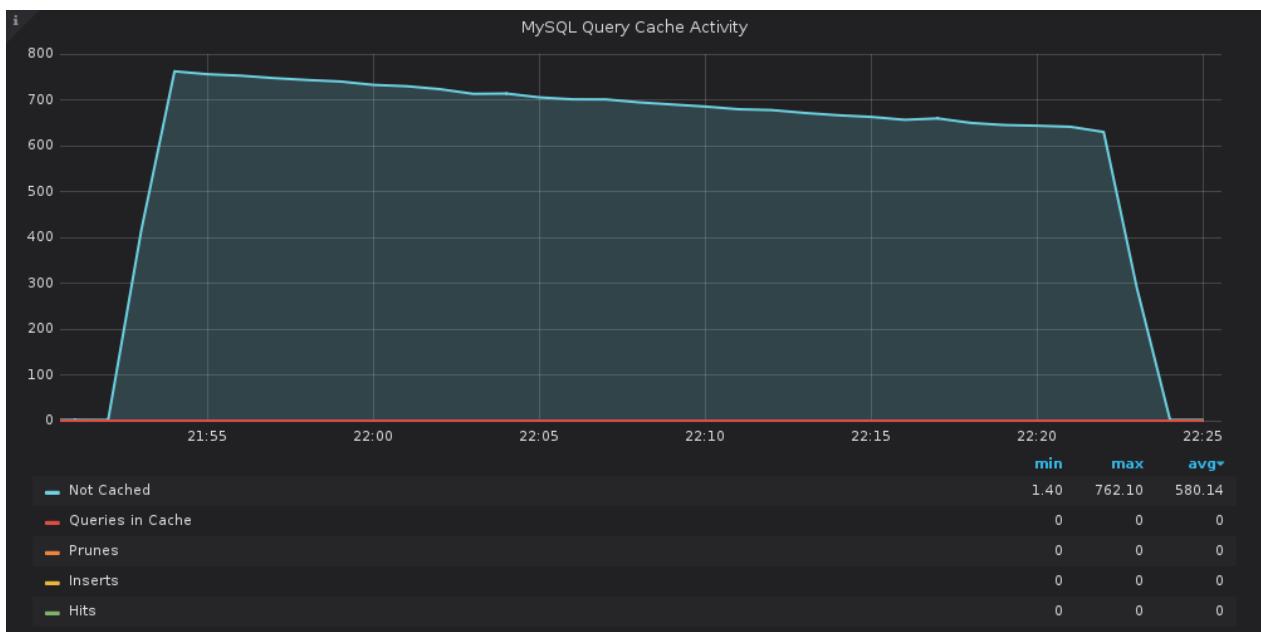
Top Command Counters Hourly



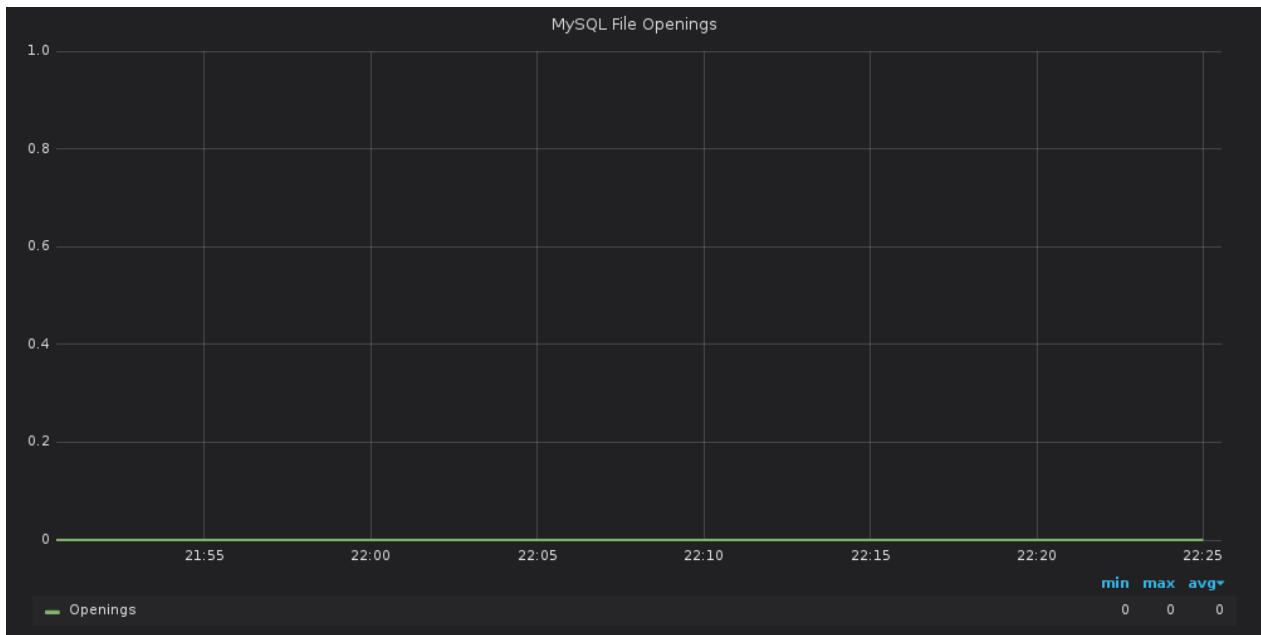
MySQL Query Cache Memory



MySQL Query Cache Activity



MySQL File Openings



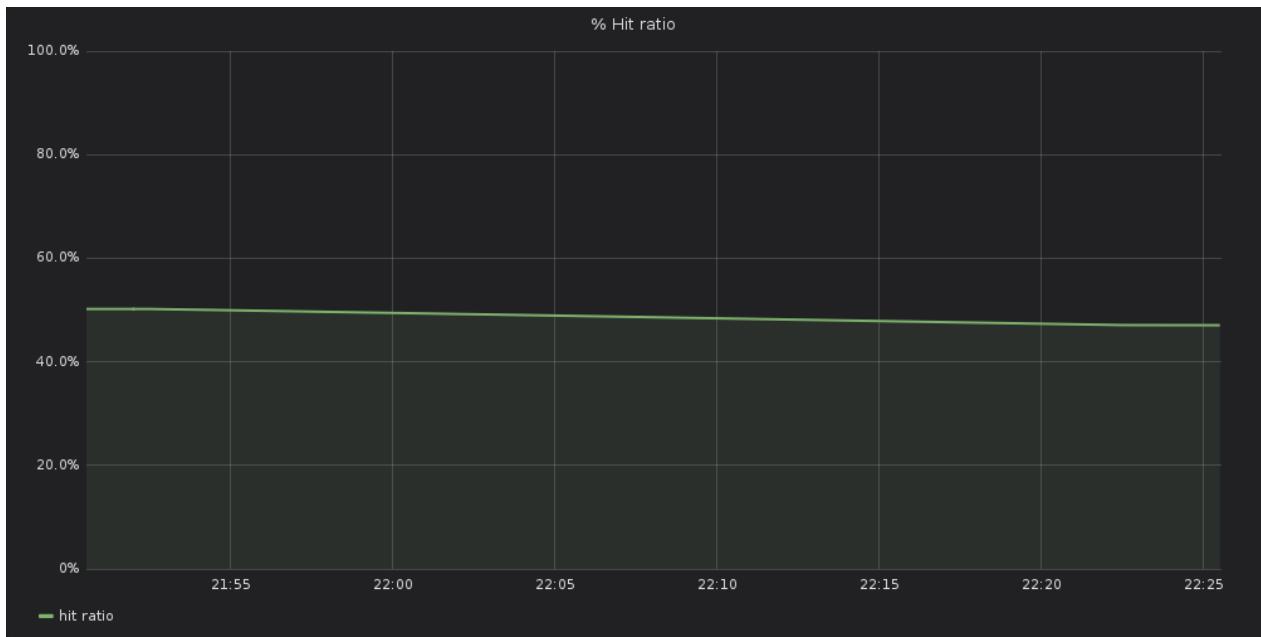
MySQL Open Files



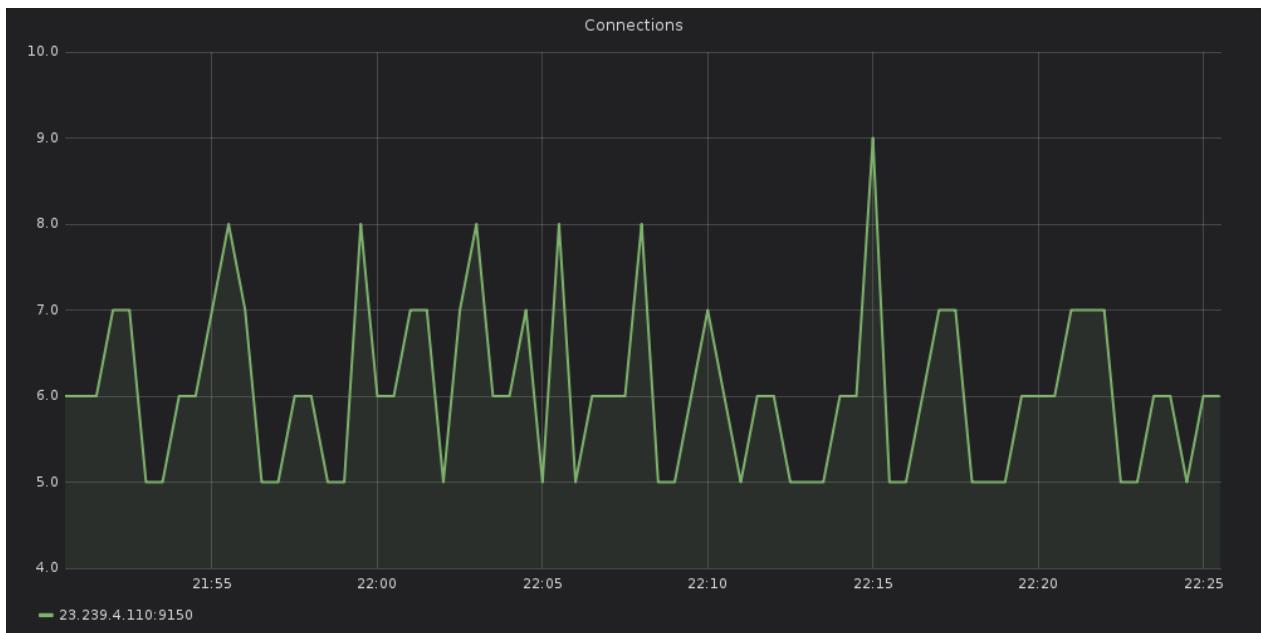
Service: memcached_1

- name: memcached_1
- type: memcached

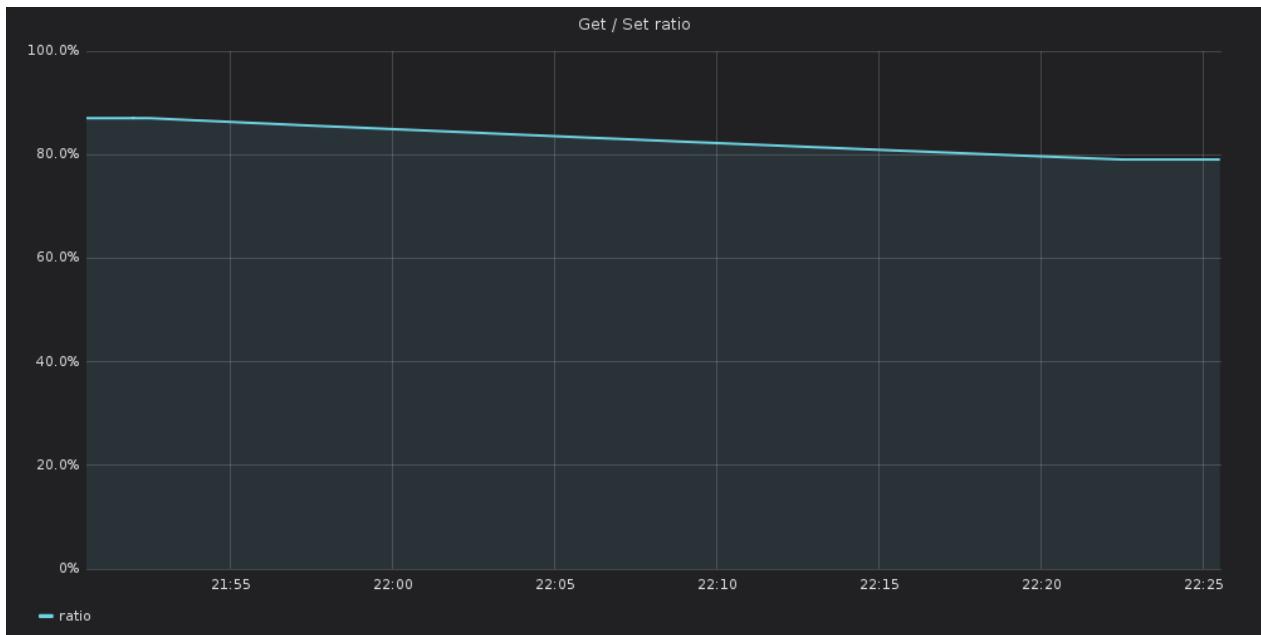
% Hit ratio



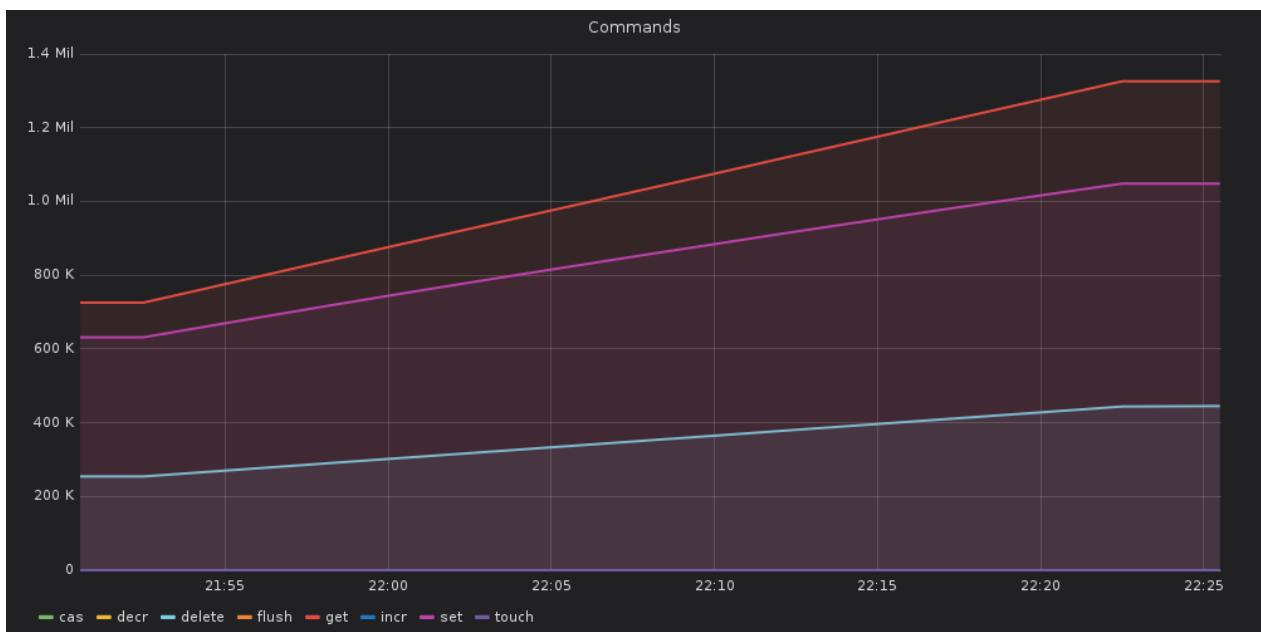
Connections



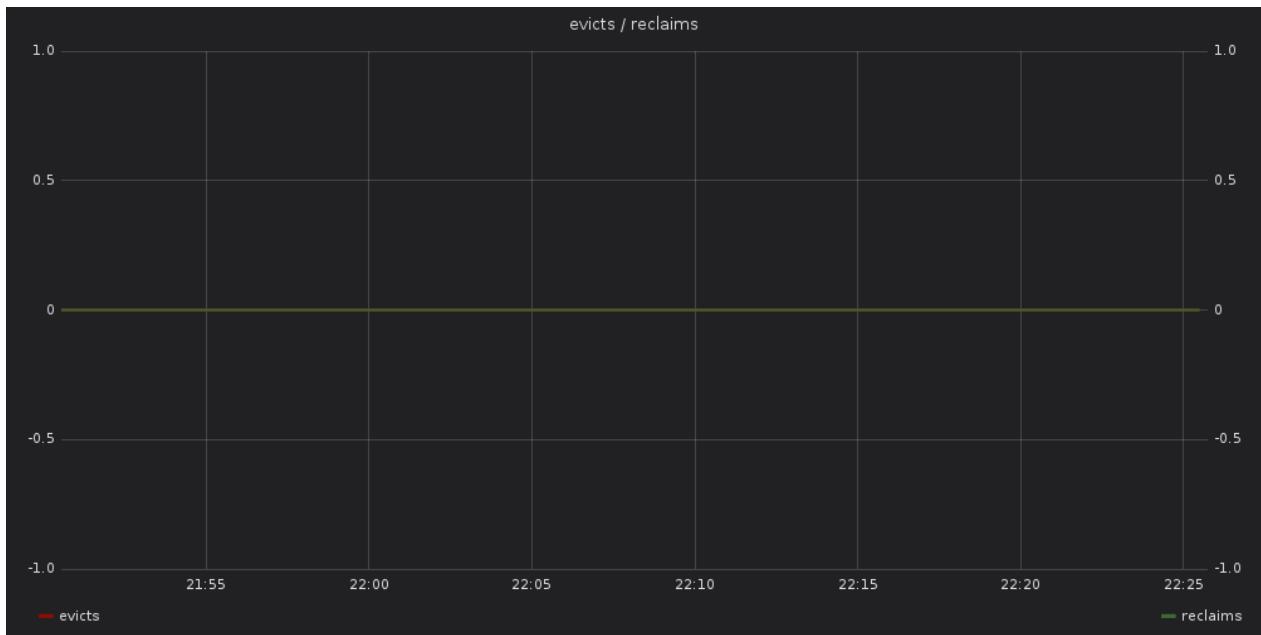
Get / Set ratio



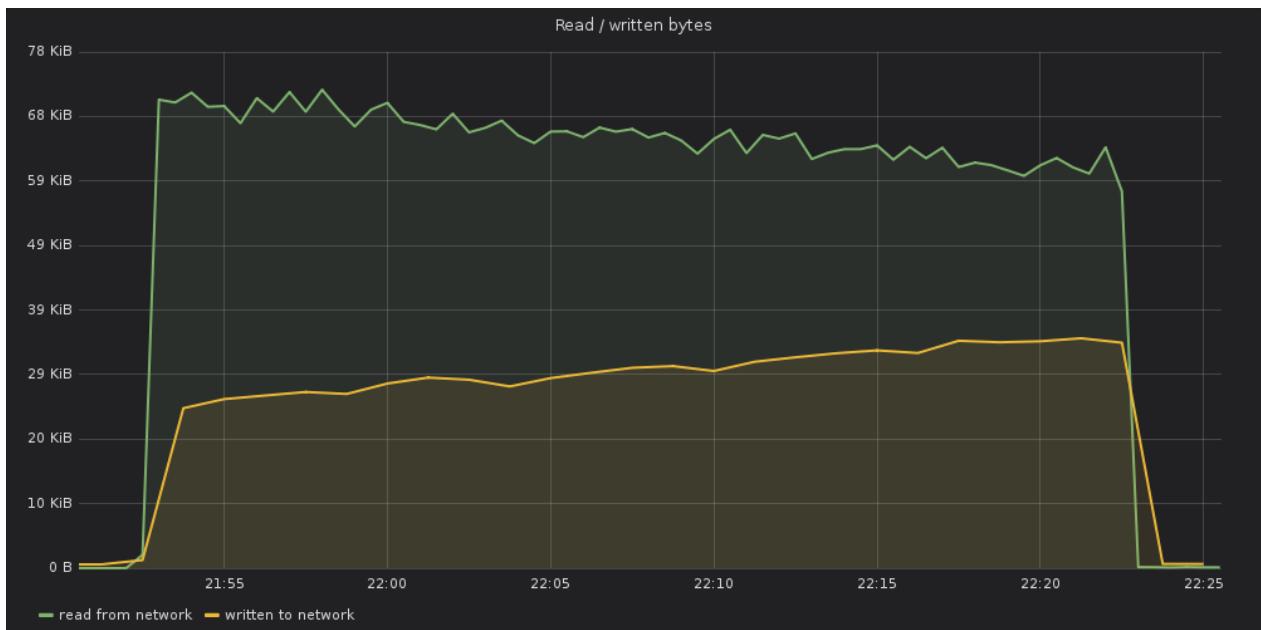
Commands



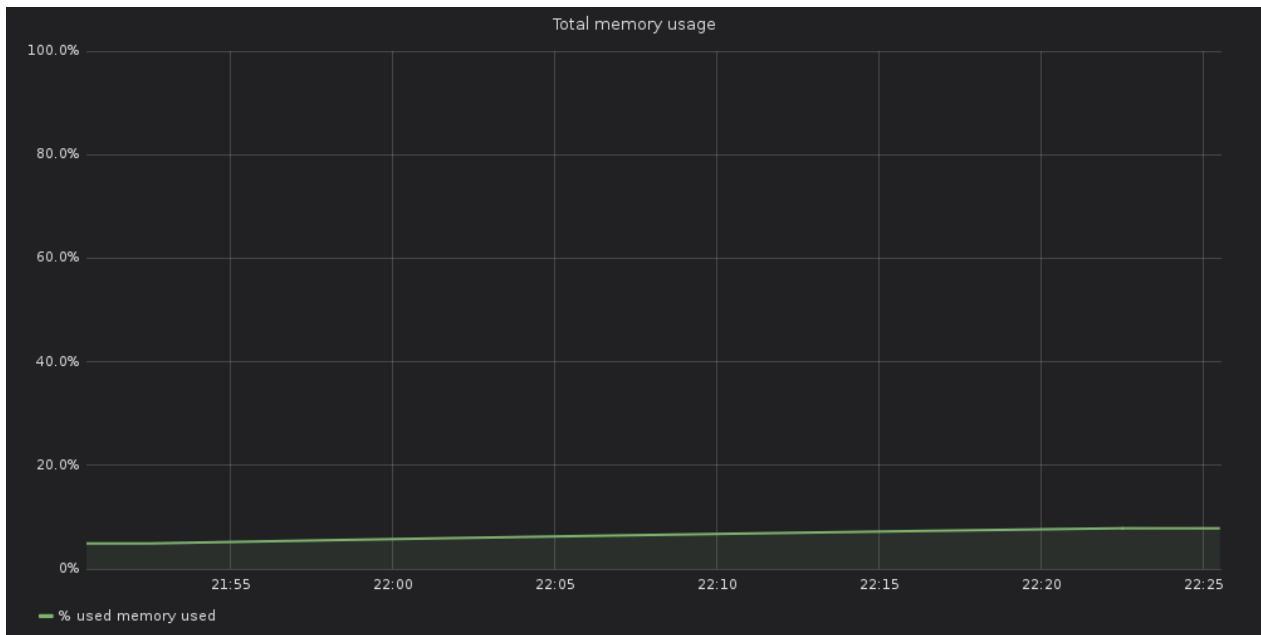
evicts / reclaims



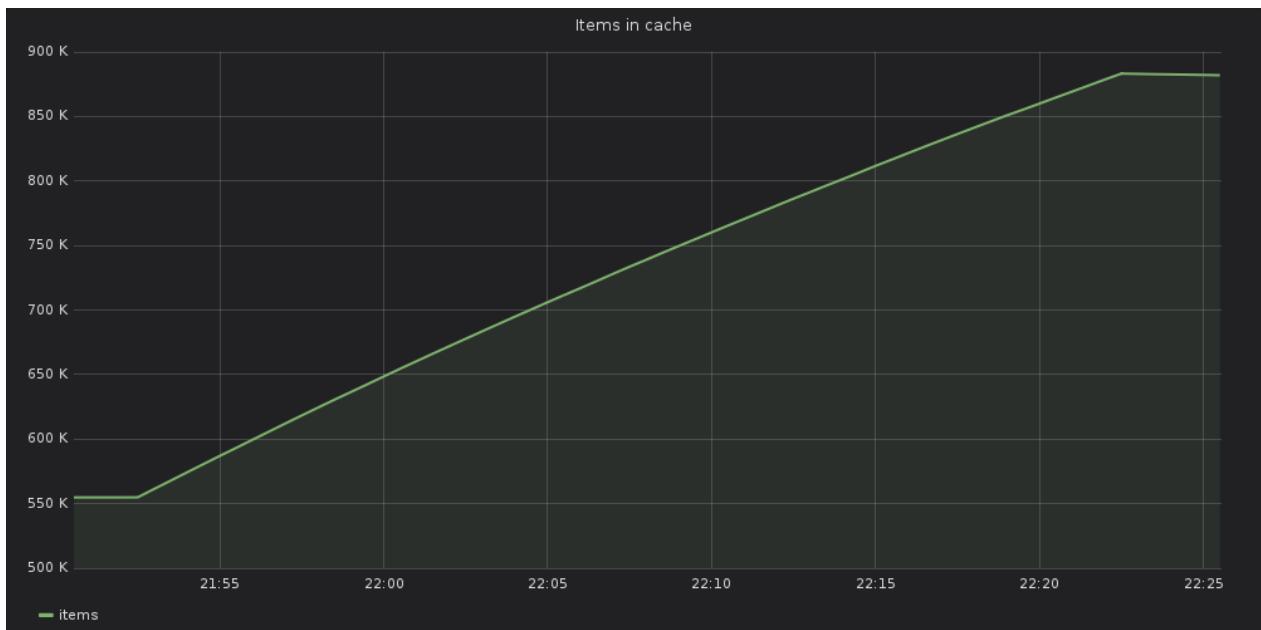
Read / written bytes



Total memory usage



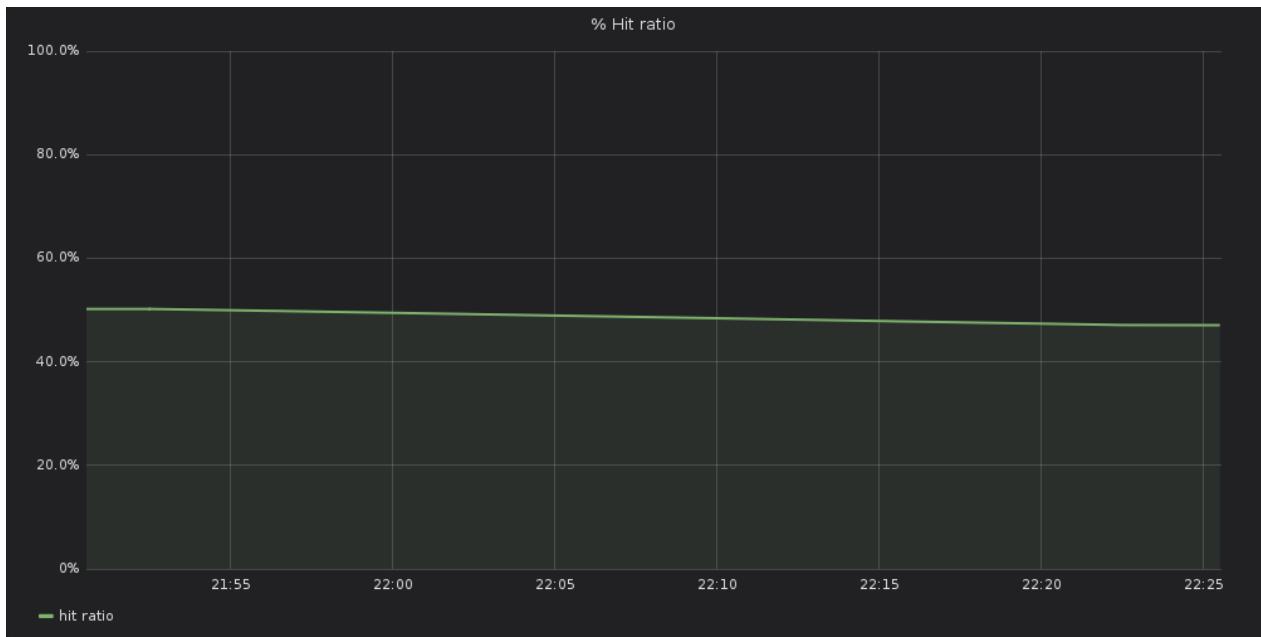
Items in cache



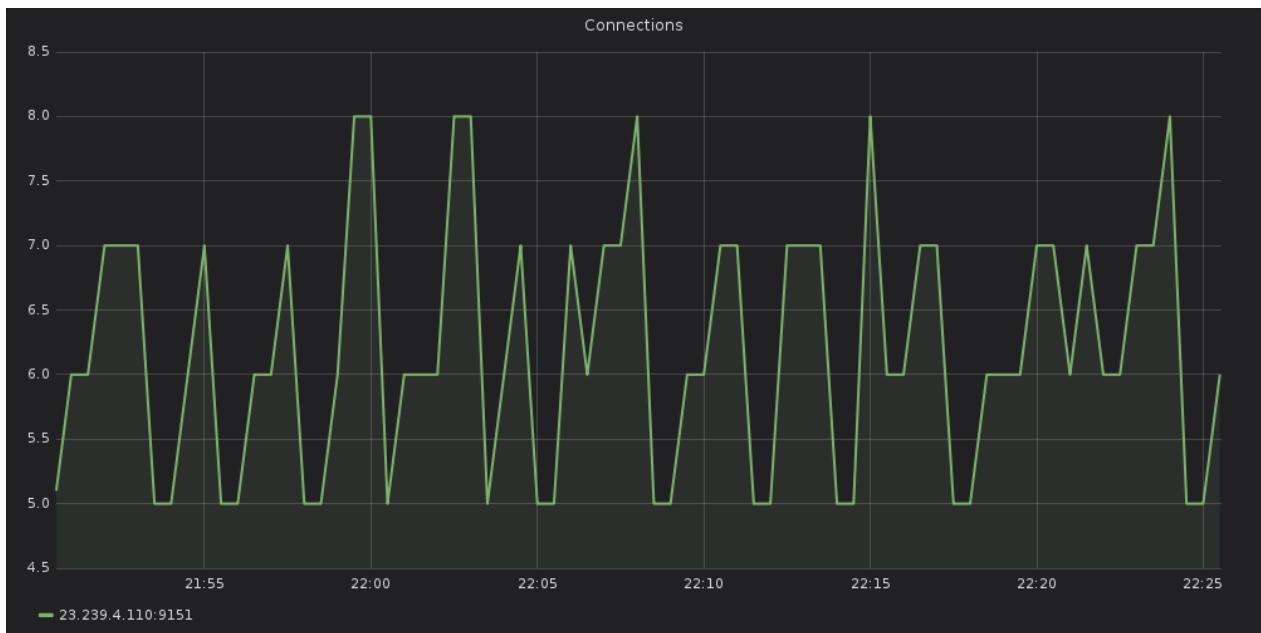
Service: memcached_2

- name: memcached_2
- type: memcached

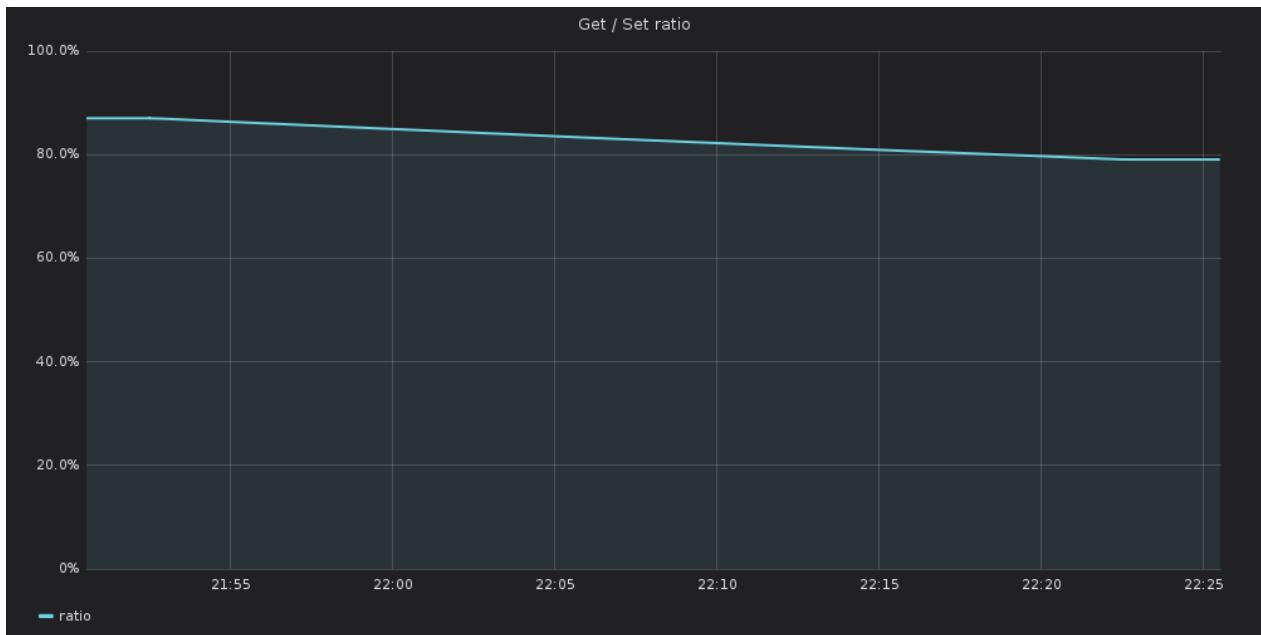
% Hit ratio



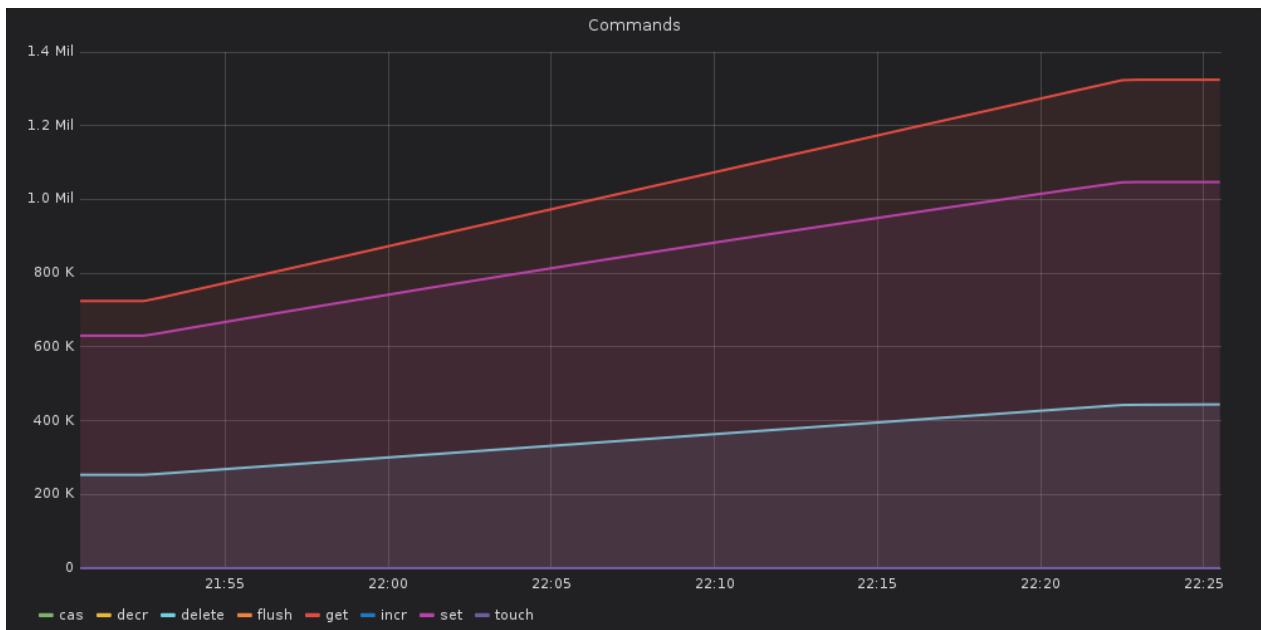
Connections



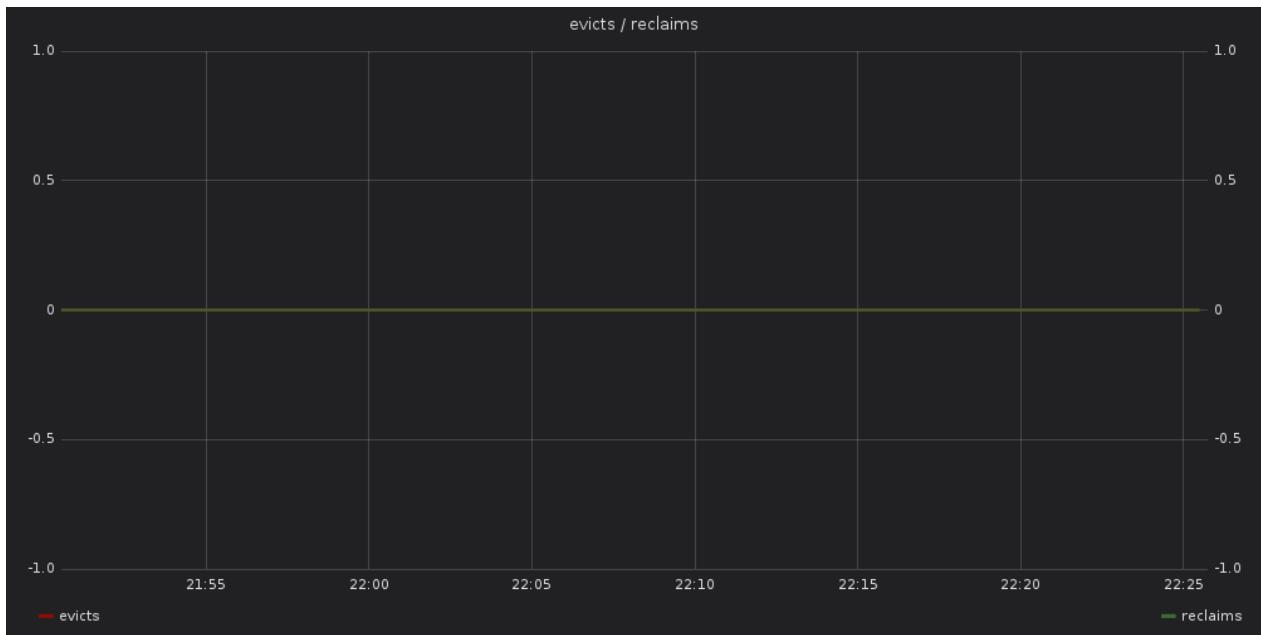
Get / Set ratio



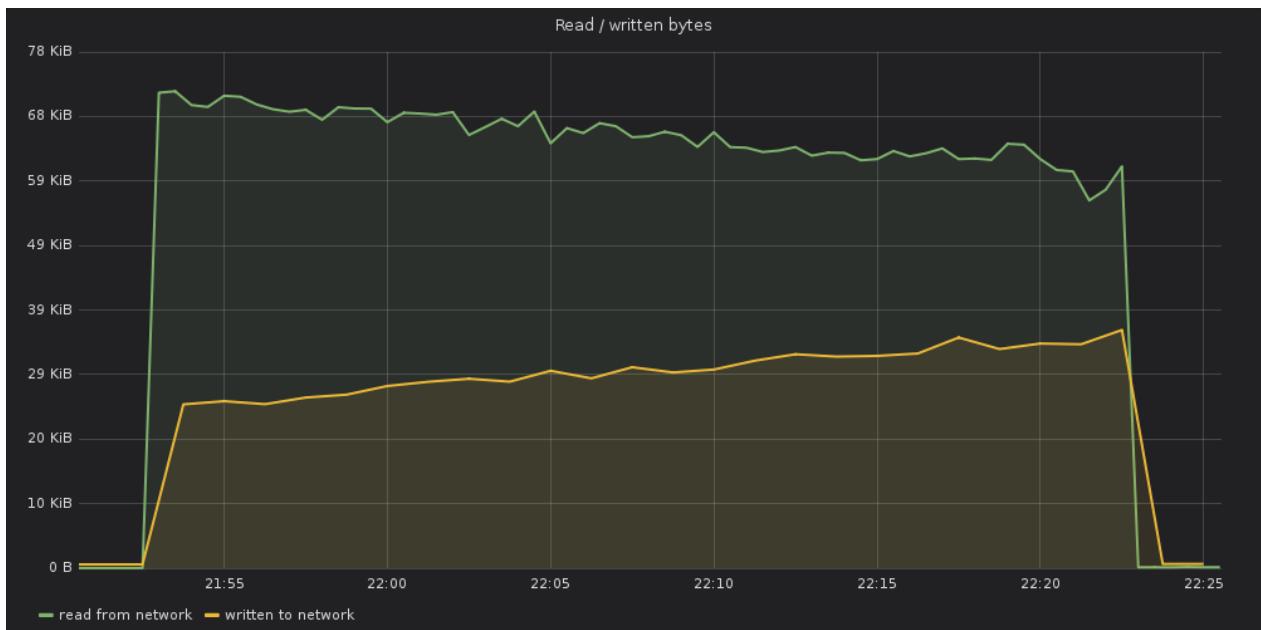
Commands



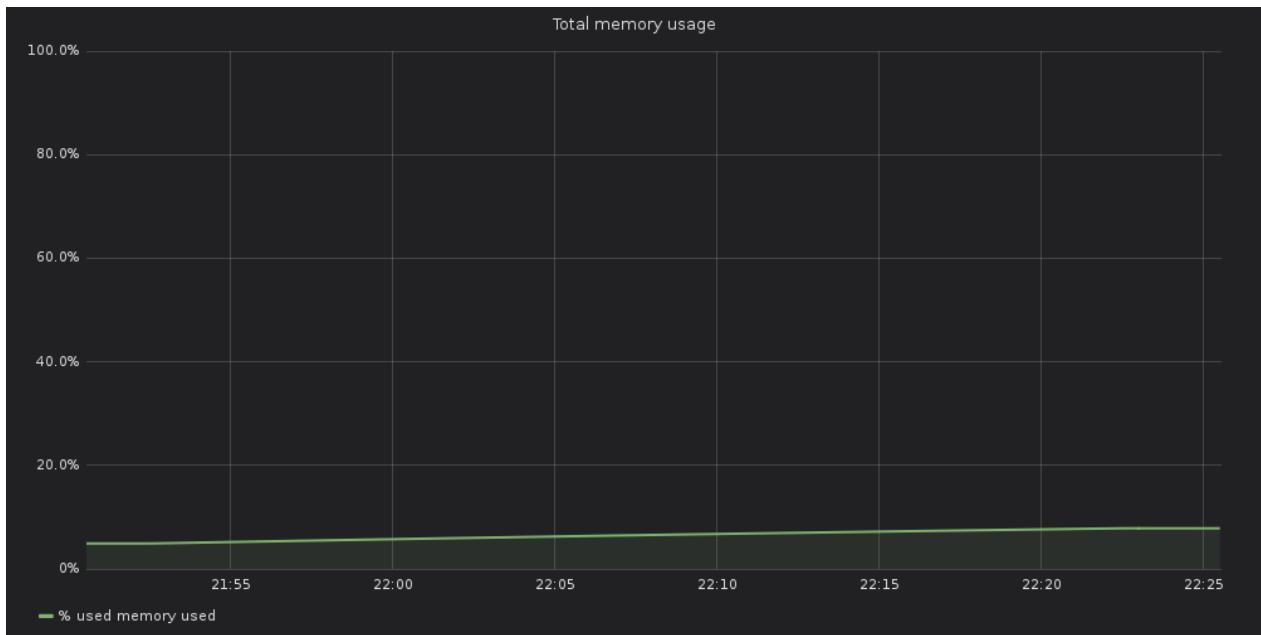
evicts / reclaims



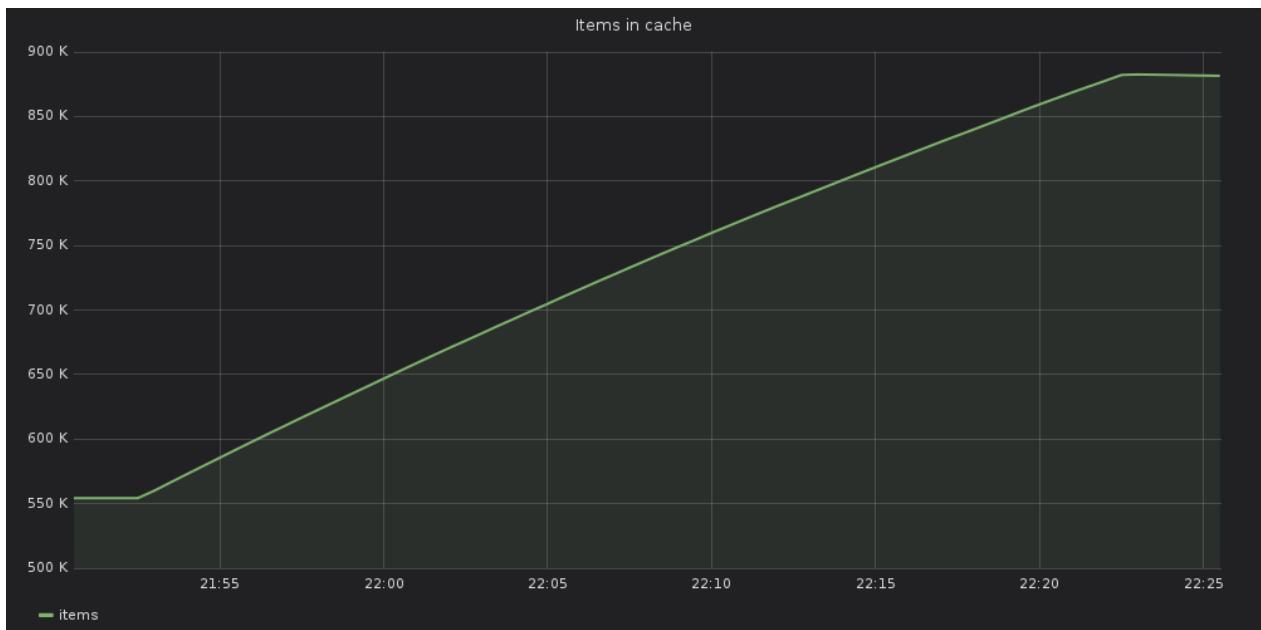
Read / written bytes



Total memory usage



Items in cache



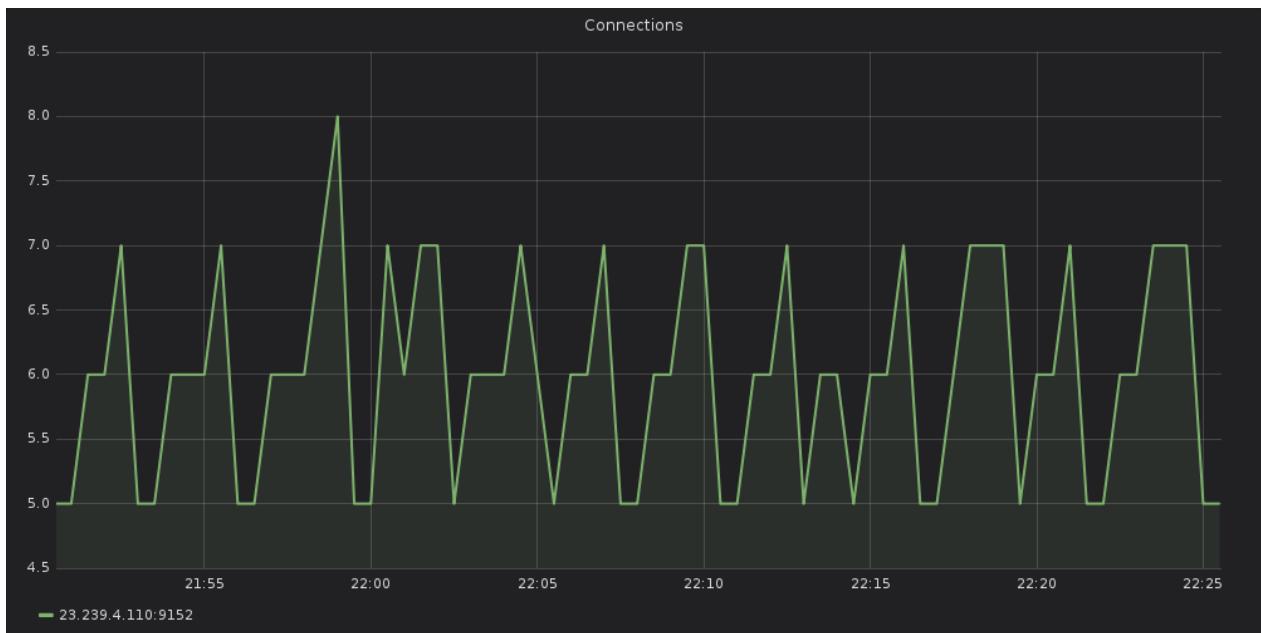
Service: memcached_3

- name: memcached_3
- type: memcached

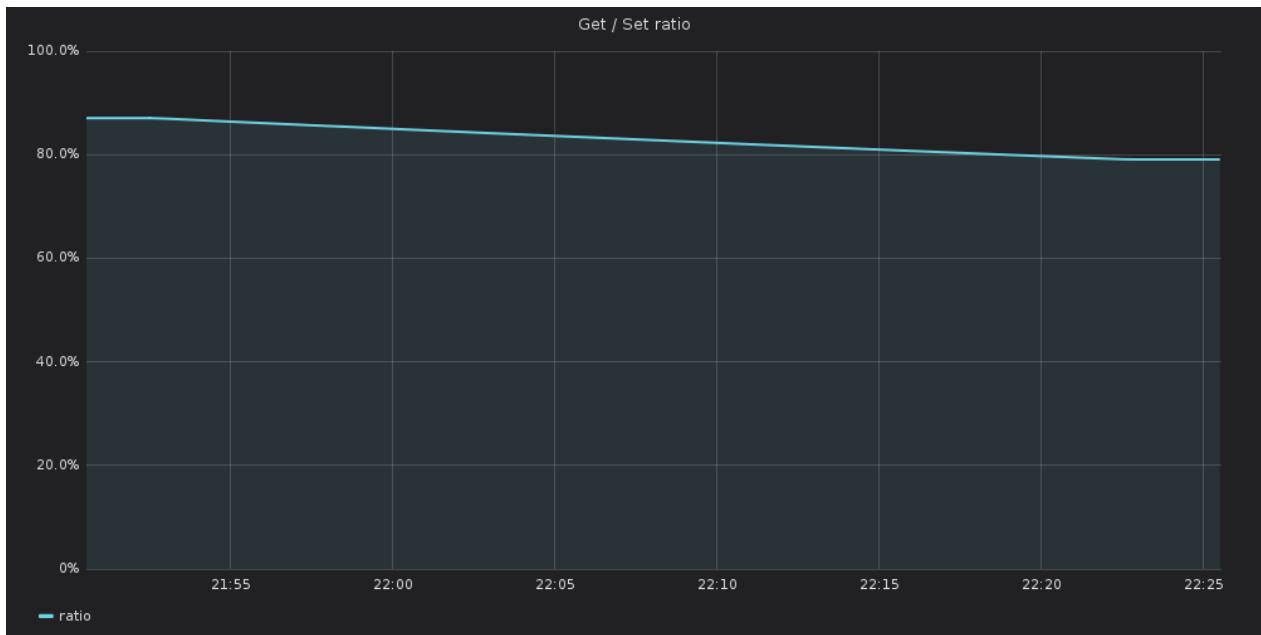
% Hit ratio



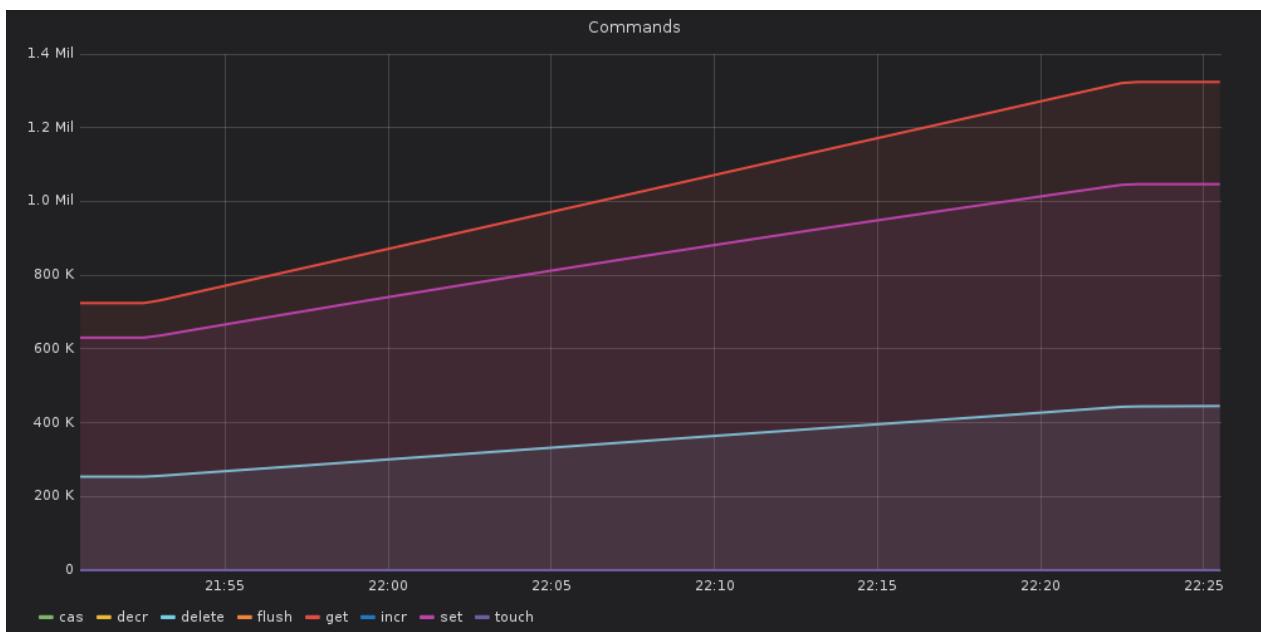
Connections



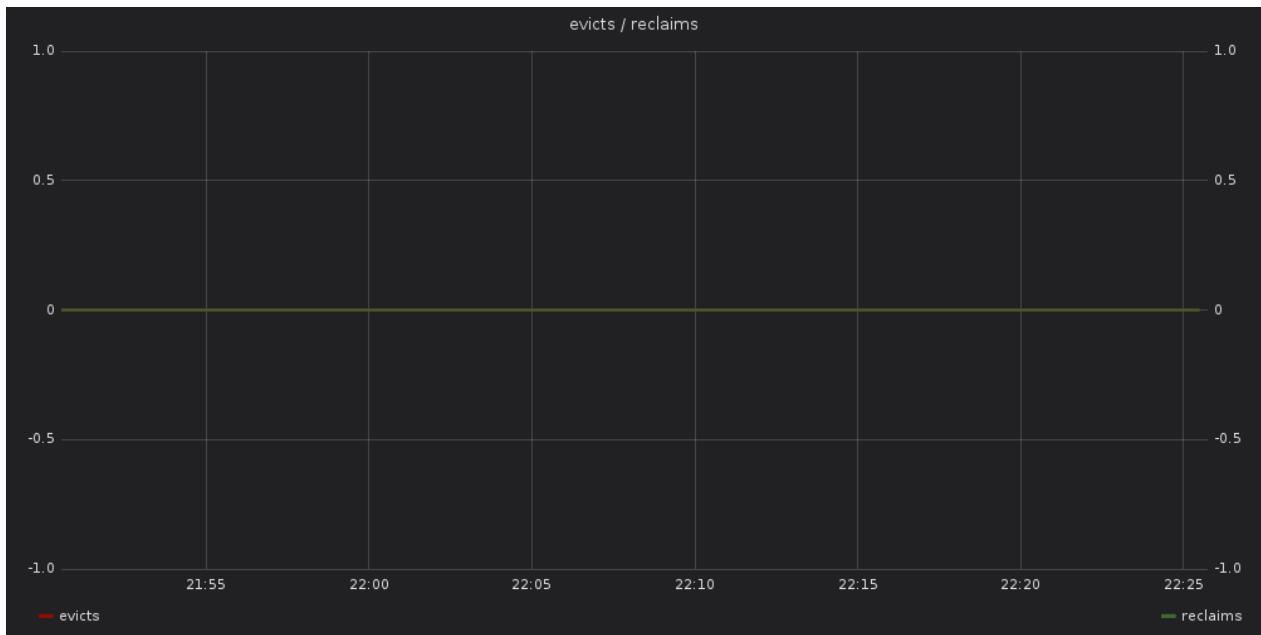
Get / Set ratio



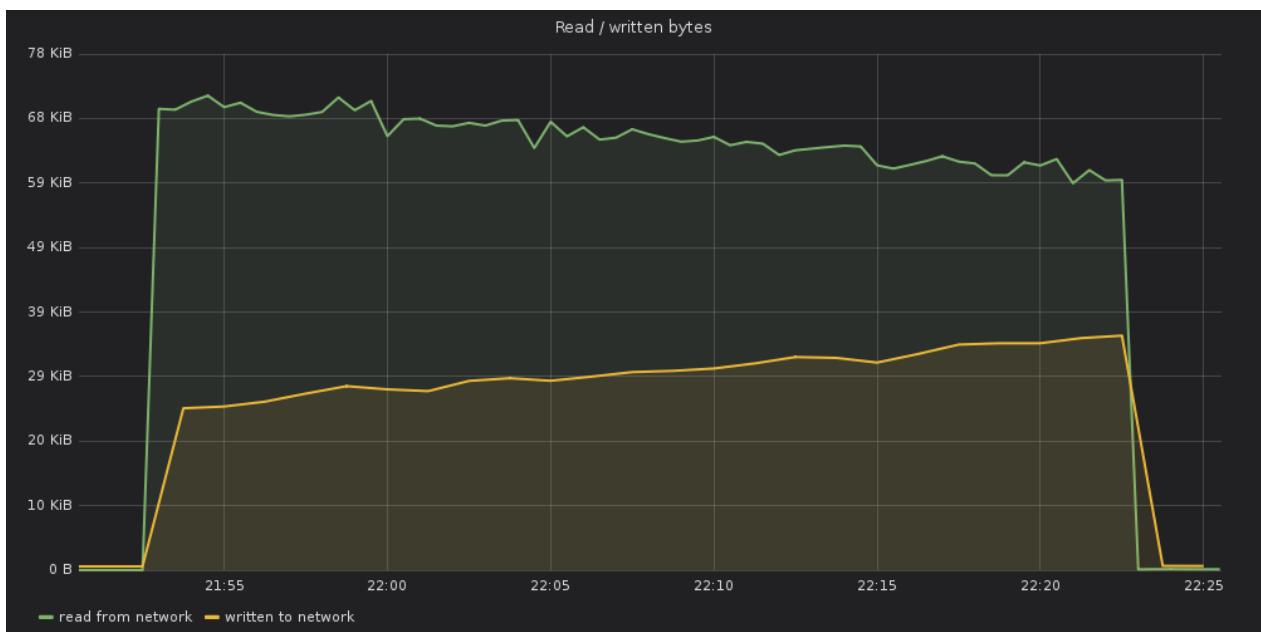
Commands



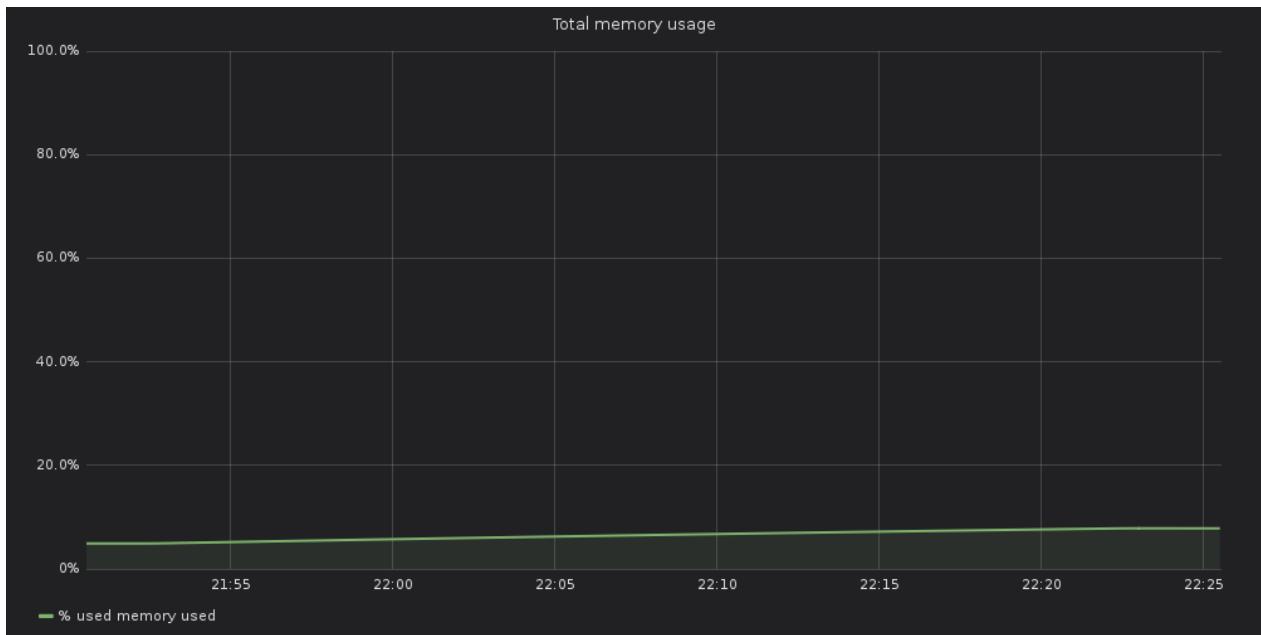
evicts / reclaims



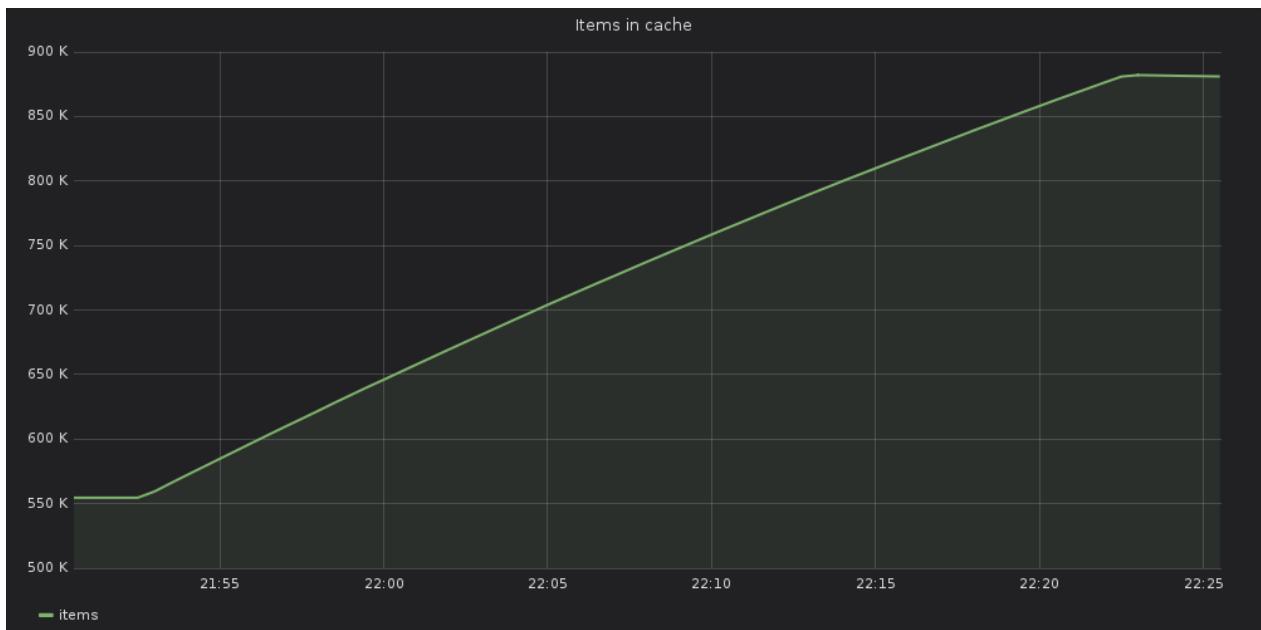
Read / written bytes



Total memory usage



Items in cache



Host: kafka1

- name: kafka1
- type: kafka

Service: node_kafka_1

- name: node_kafka_1
- type: node_exporter

系统运行时间

System Up Time

8.4 hour

CPU 核数

CPU Core

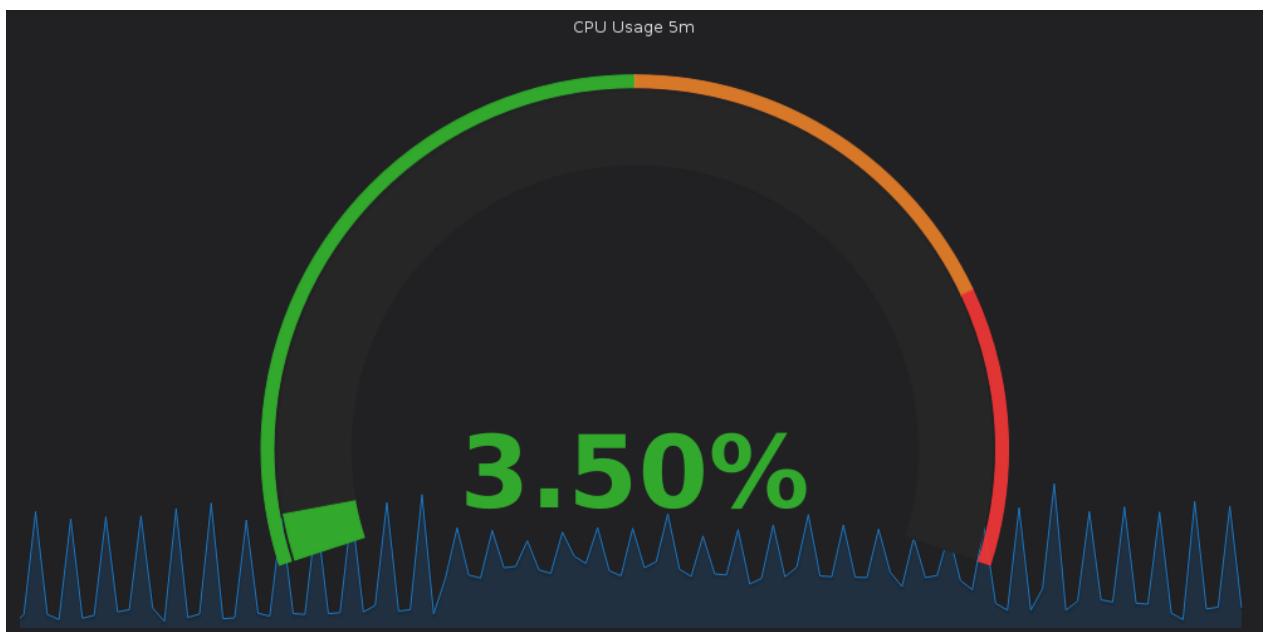
6

内存总量

Total Memory

15.7 GiB

CPU使用率 (5m)



CPU iowait (5m)

CPU iowait 5m

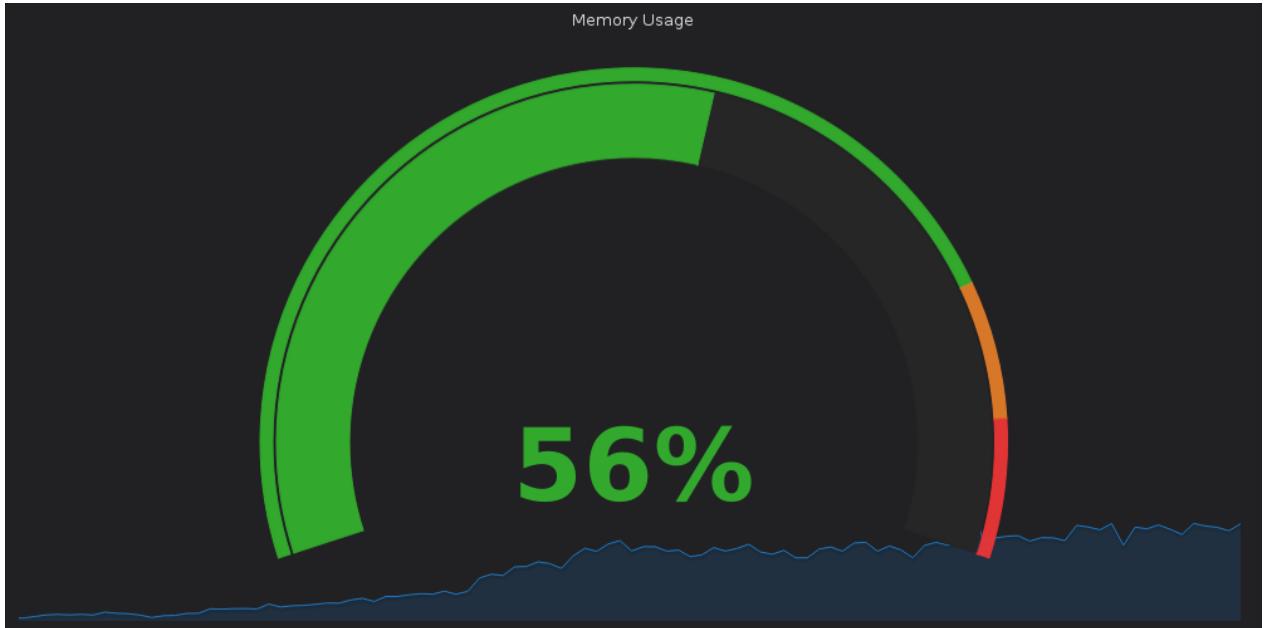


0.02%

A circular gauge chart with a dark gray background. The outer ring is red, and the inner ring is orange. A green arc indicates the value, which is labeled "0.02%". Below the gauge is a blue line graph showing fluctuating data points.

内存使用率

Memory Usage

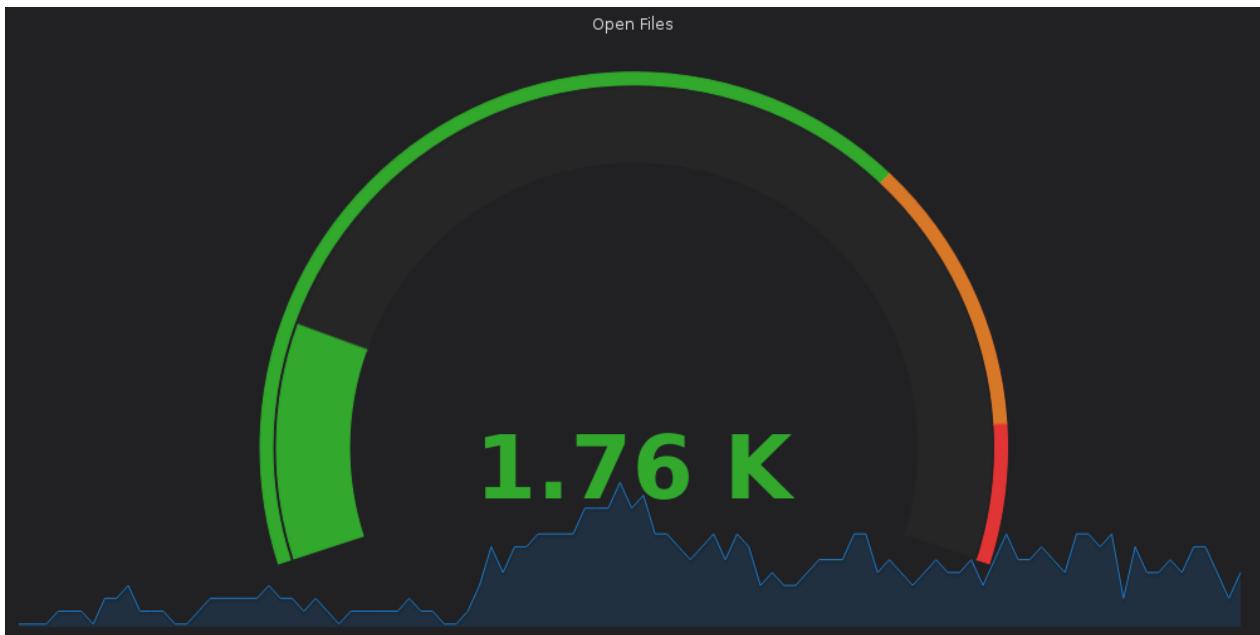


56%

A circular gauge chart with a dark gray background. The outer ring is red, and the inner ring is orange. A green arc indicates the value, which is labeled "56%". Below the gauge is a blue line graph showing a steady upward trend.

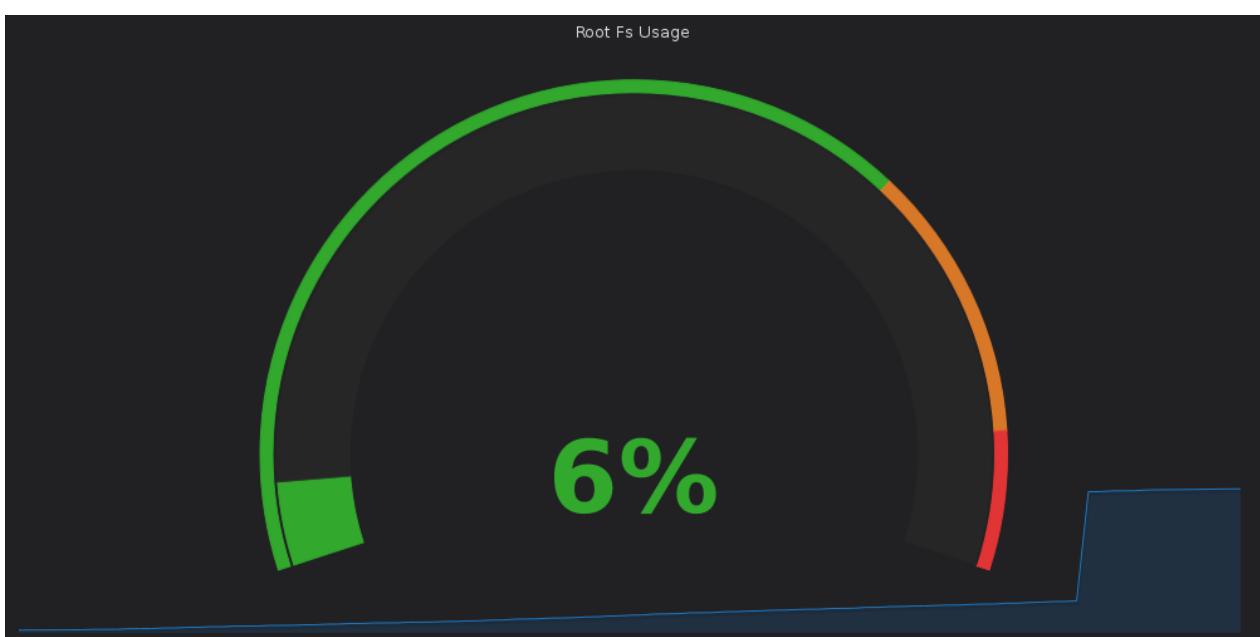
当前打开的文件描述符

Open Files

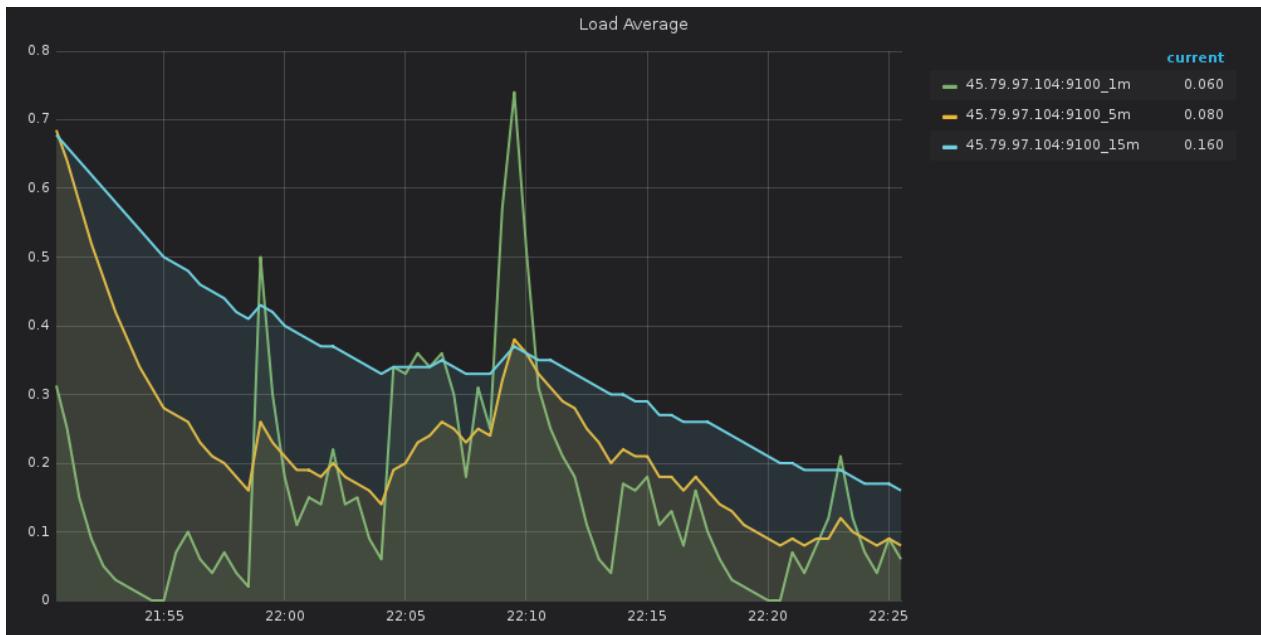


根分区使用率

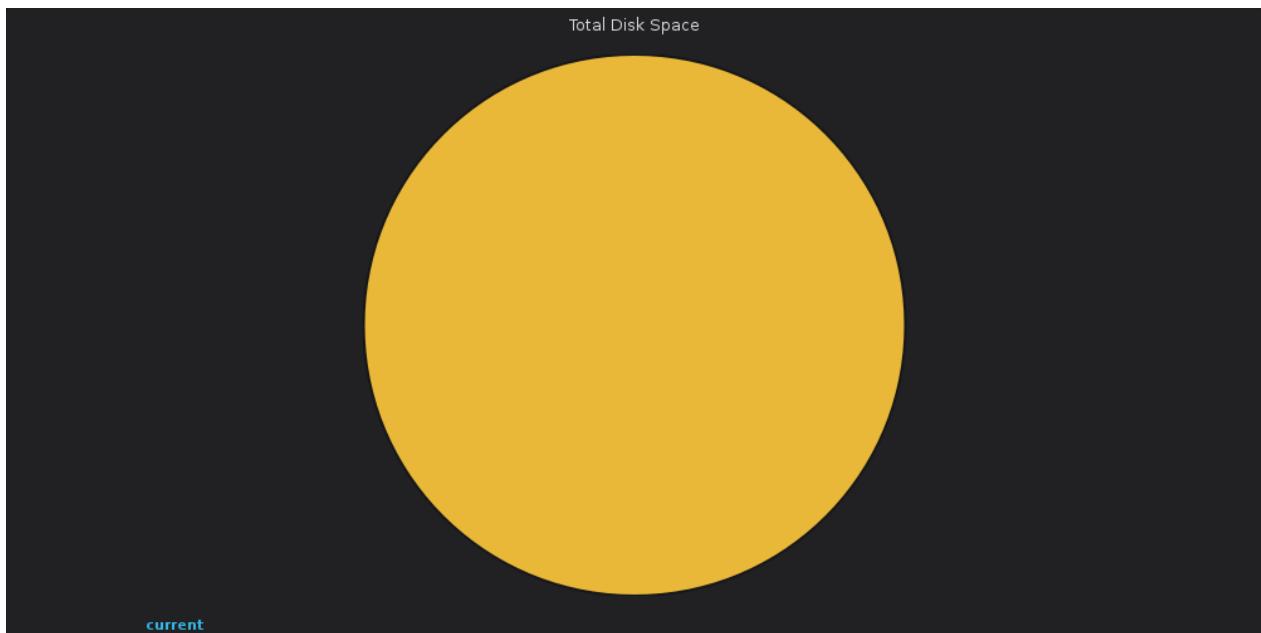
Root Fs Usage



系统平均负载



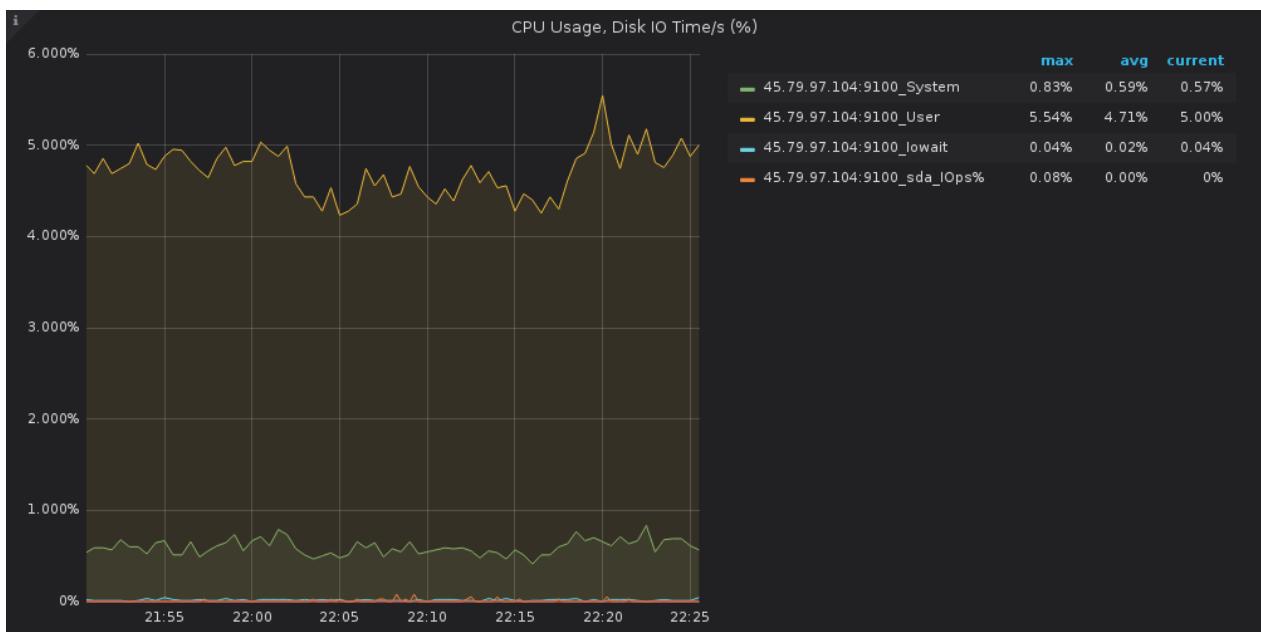
磁盘总空间



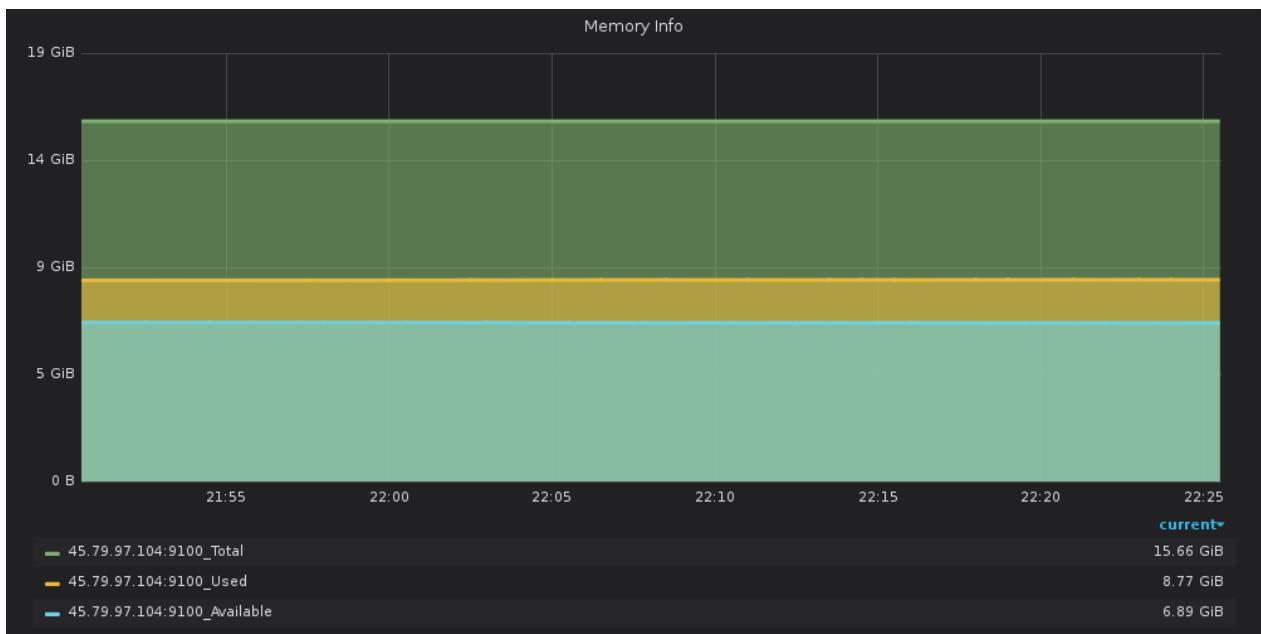
各分区可用空间

Volumes Available				
File System	IP	Mount ▲	Available	Usage
ext4	45.79.97.104:9100	/	295.04 GiB	1.12%

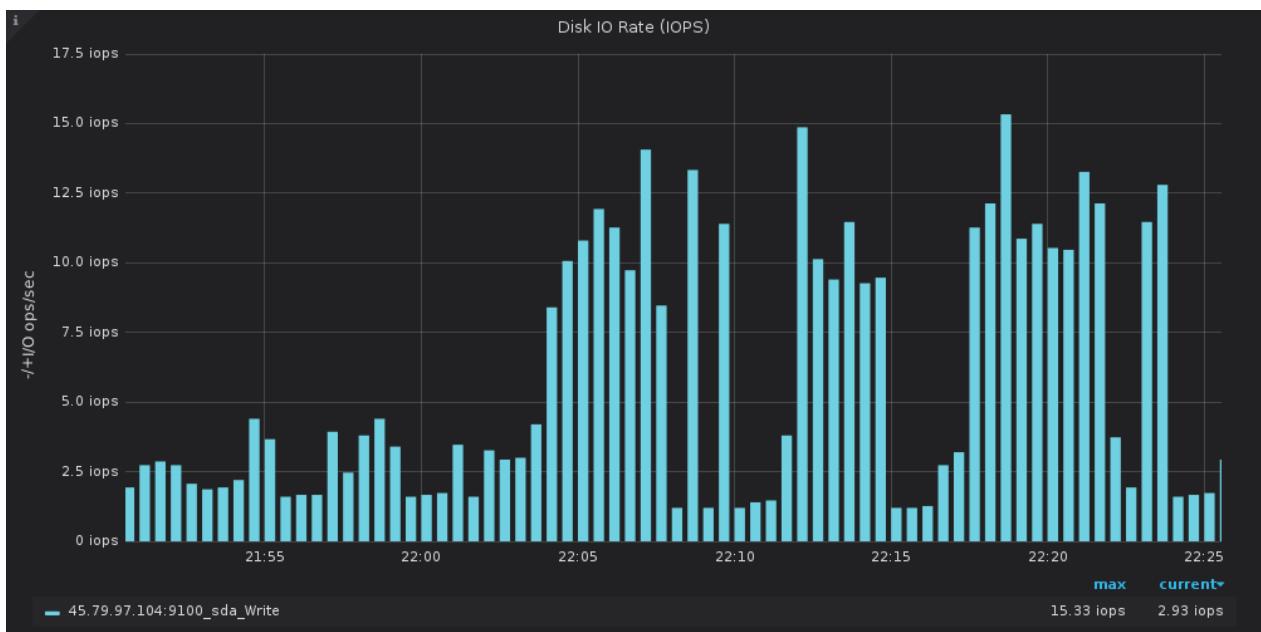
CPU使用率、磁盘每秒的I/O操作耗费时间 (%)



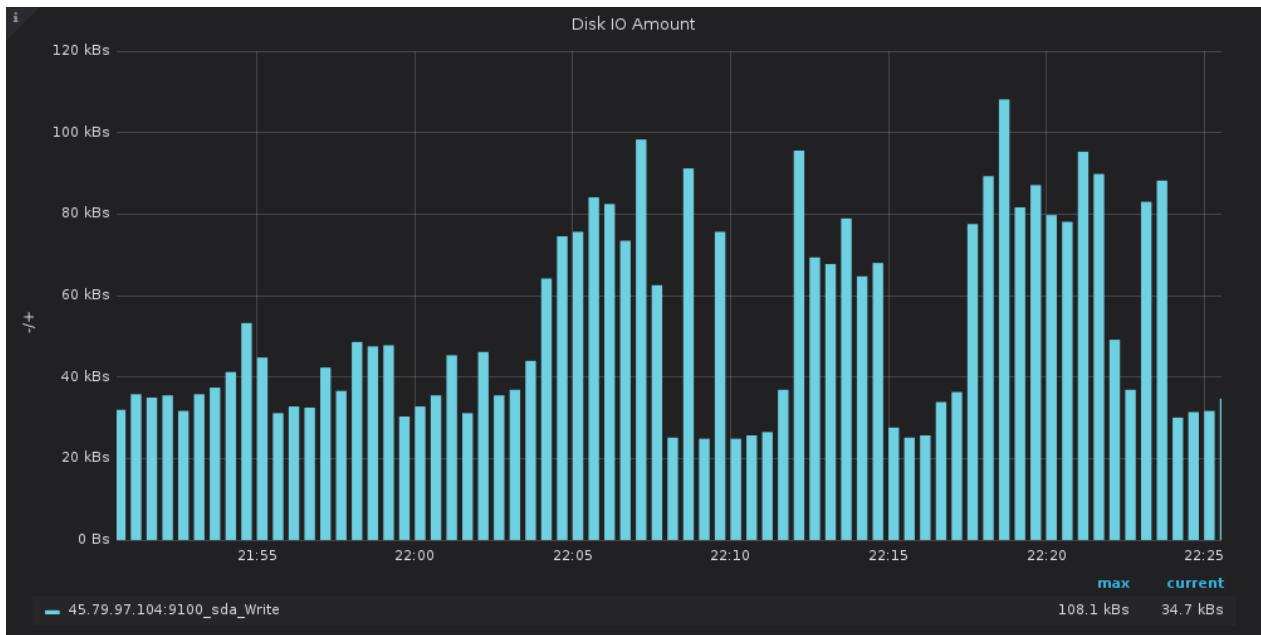
内存信息



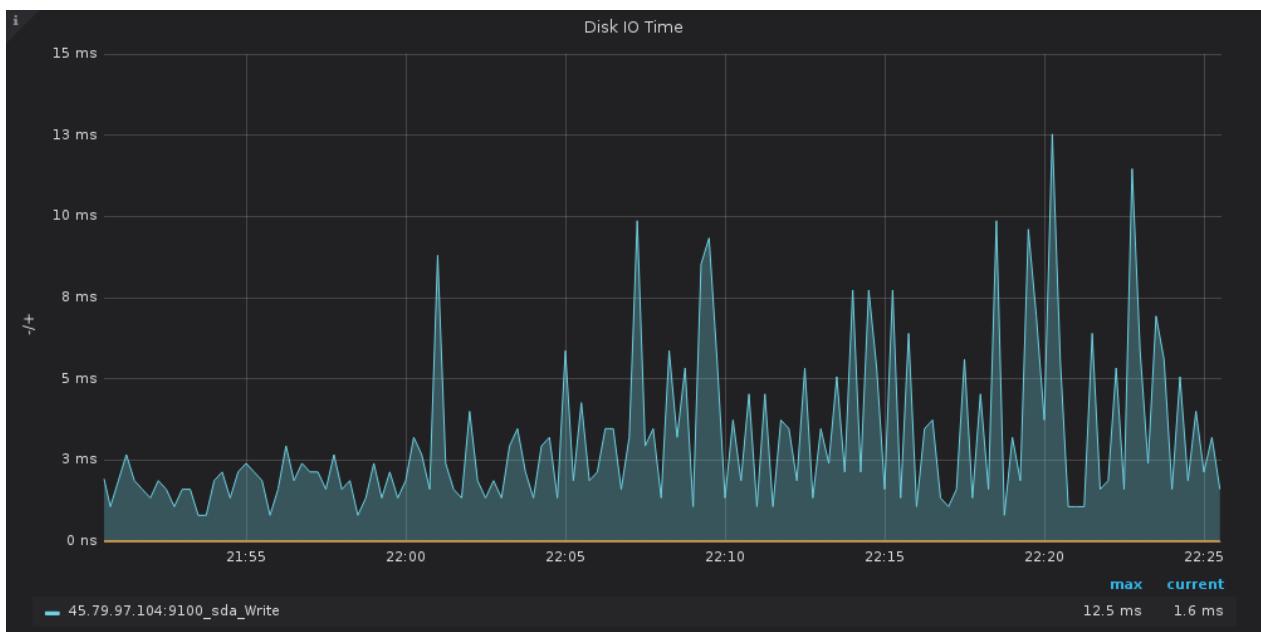
磁盘读写速率 (IOPS)



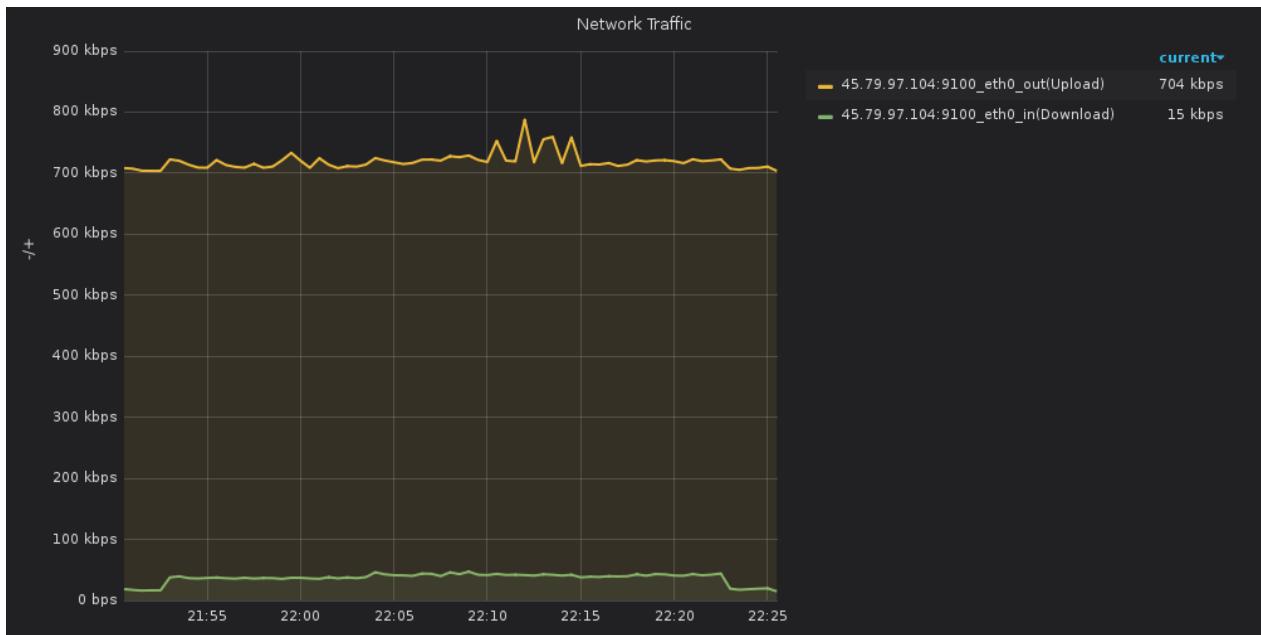
磁盘读写容量大小



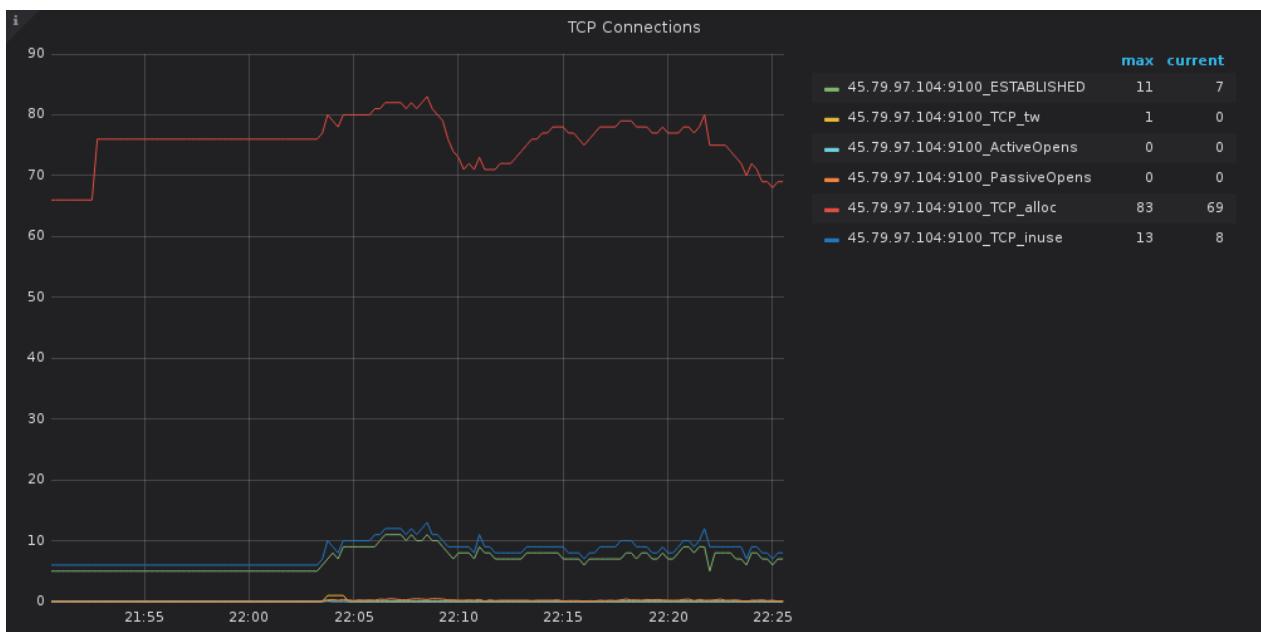
磁盘IO读写时间



网络流量



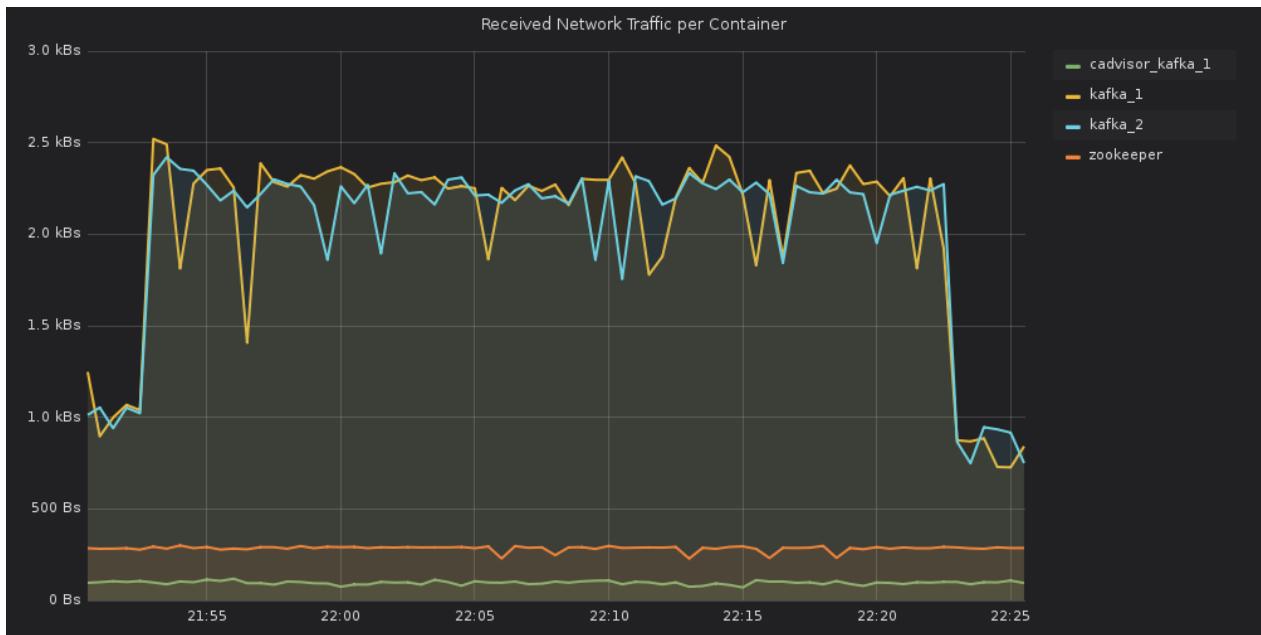
TCP 连接情况



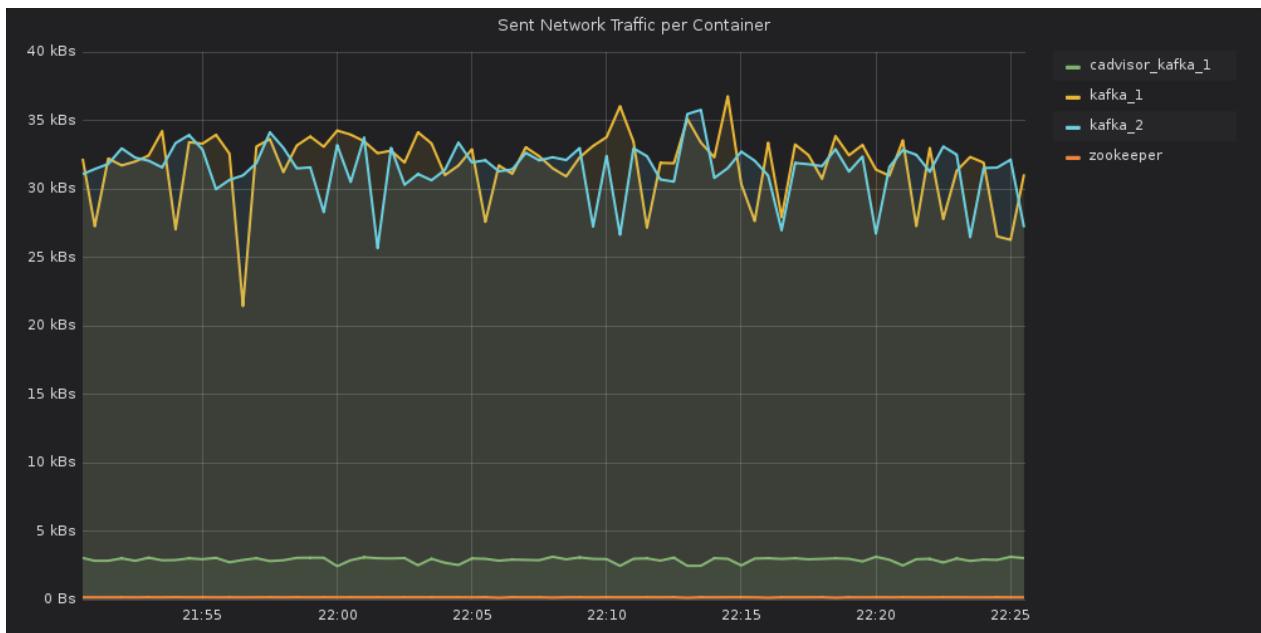
Service: cAdvisor_kafka_1

- name: cAdvisor_kafka_1
- type: cAdvisor

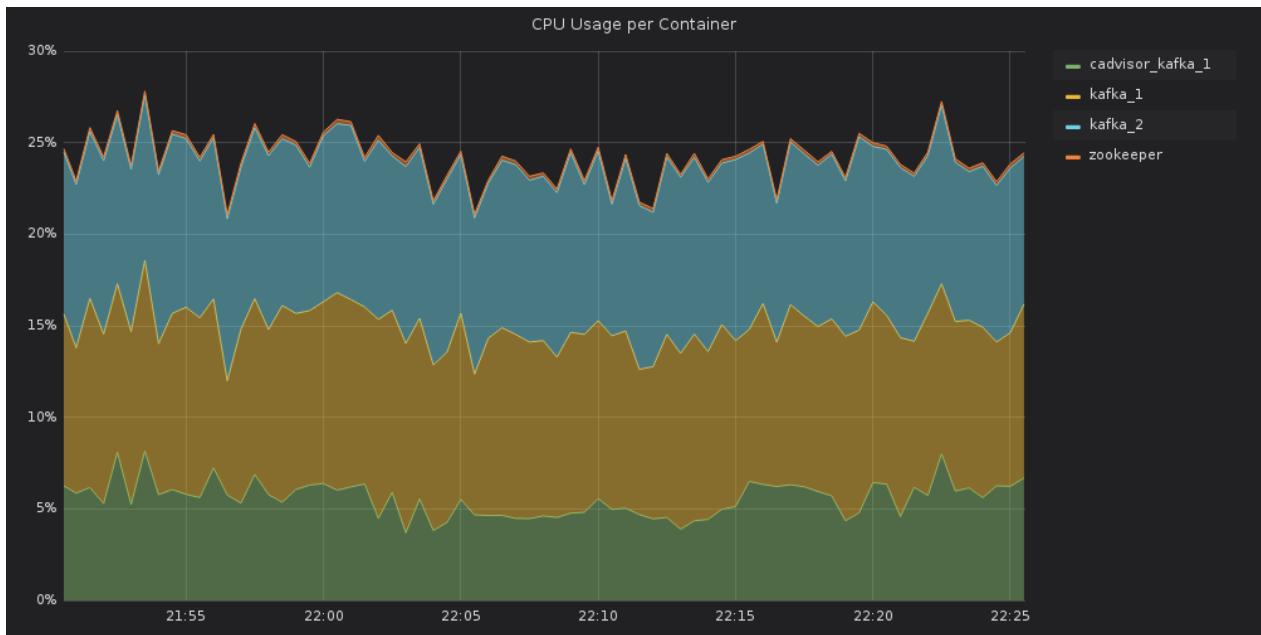
Received Network Traffic per Container



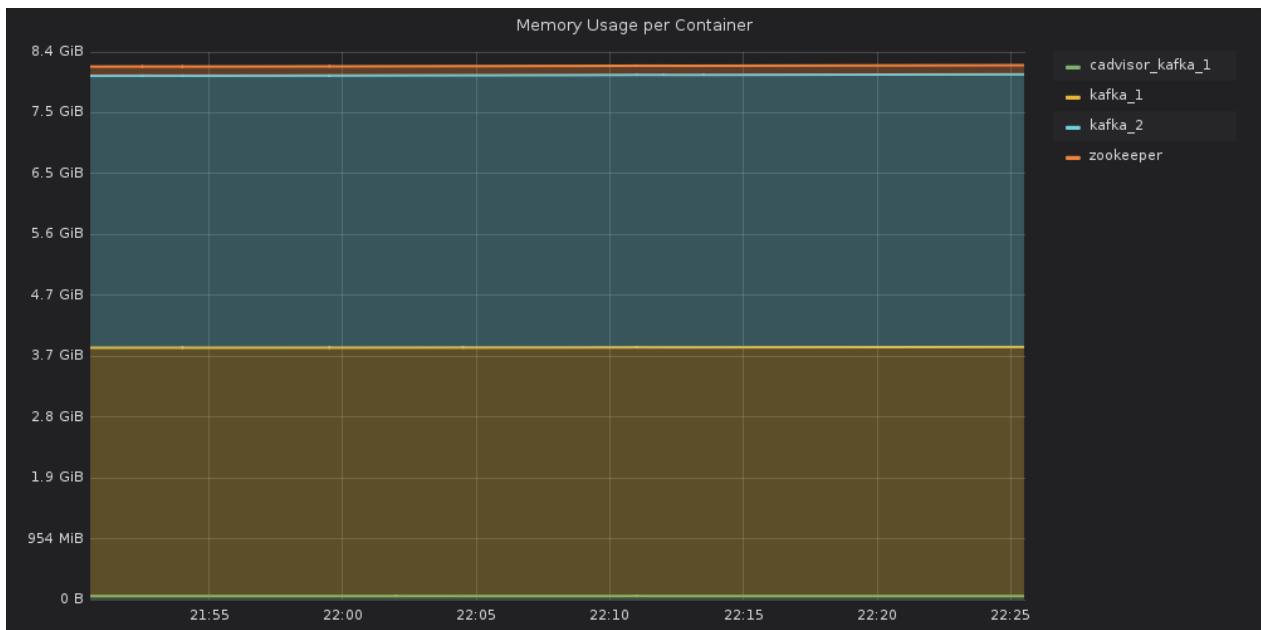
Sent Network Traffic per Container



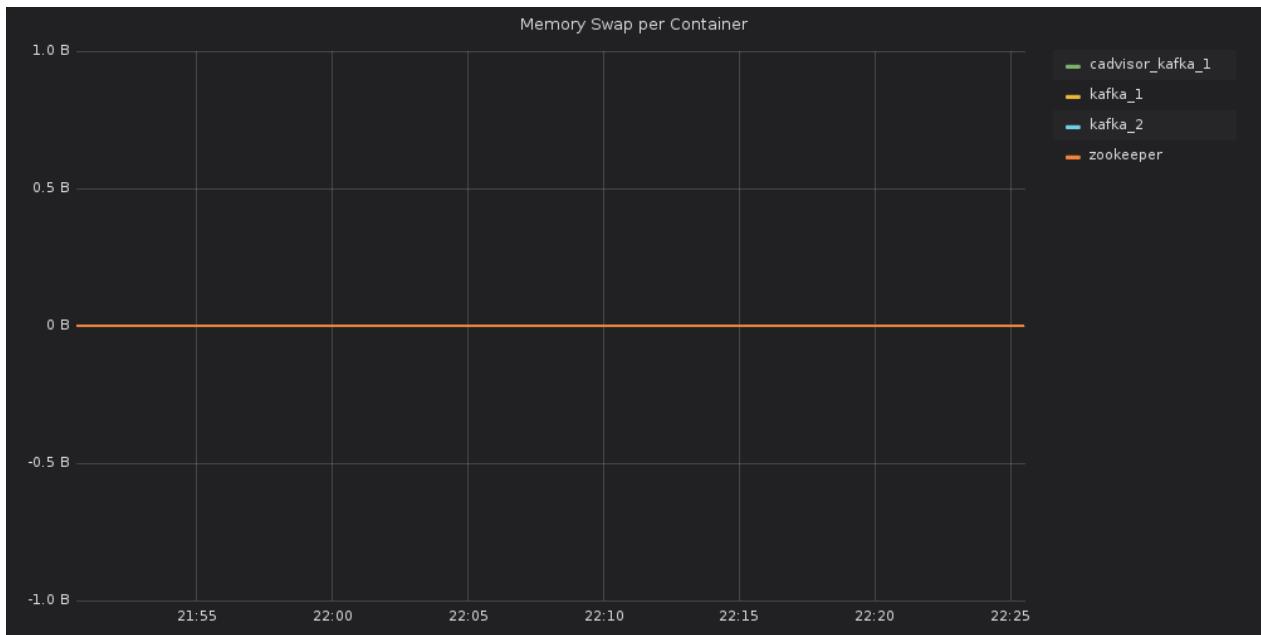
CPU Usage per Container



Memory Usage per Container



Memory Swap per Container



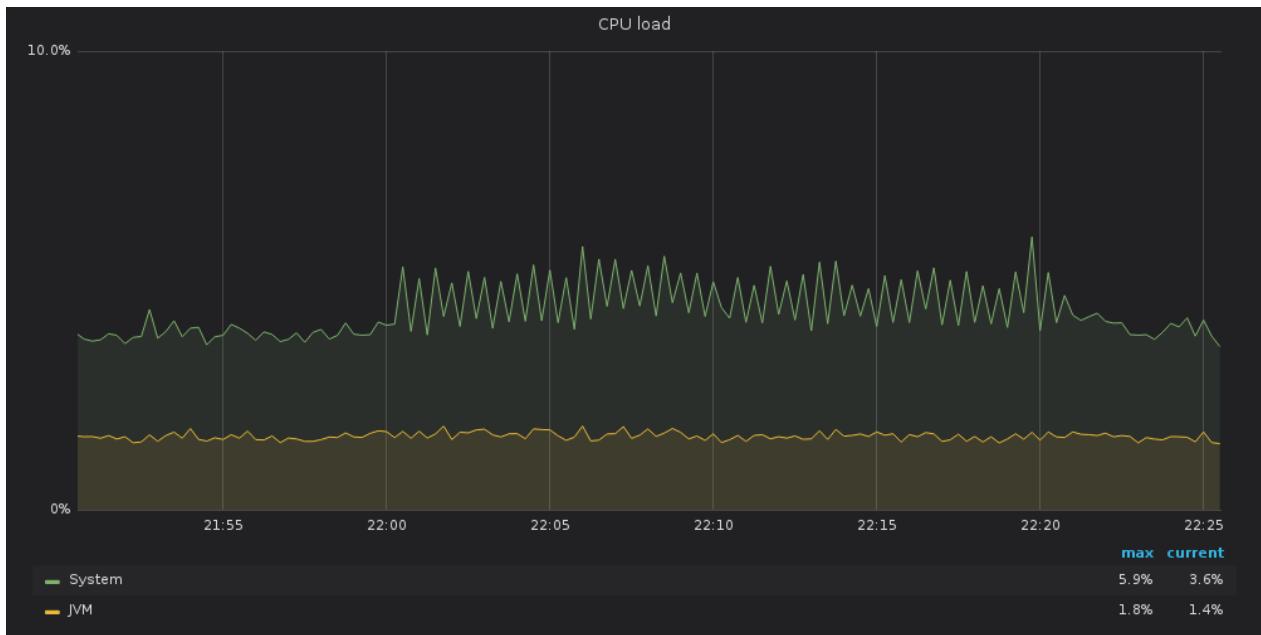
Service: kafka_1

- name: kafka_1
- type: kafka

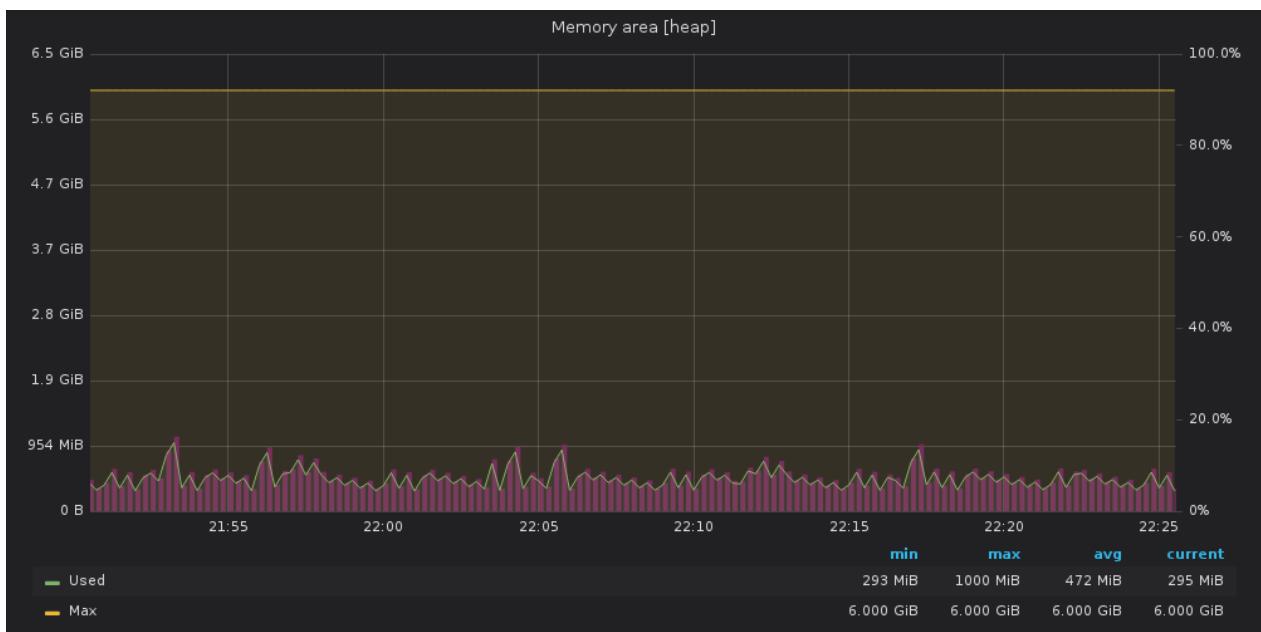
Open file descriptors



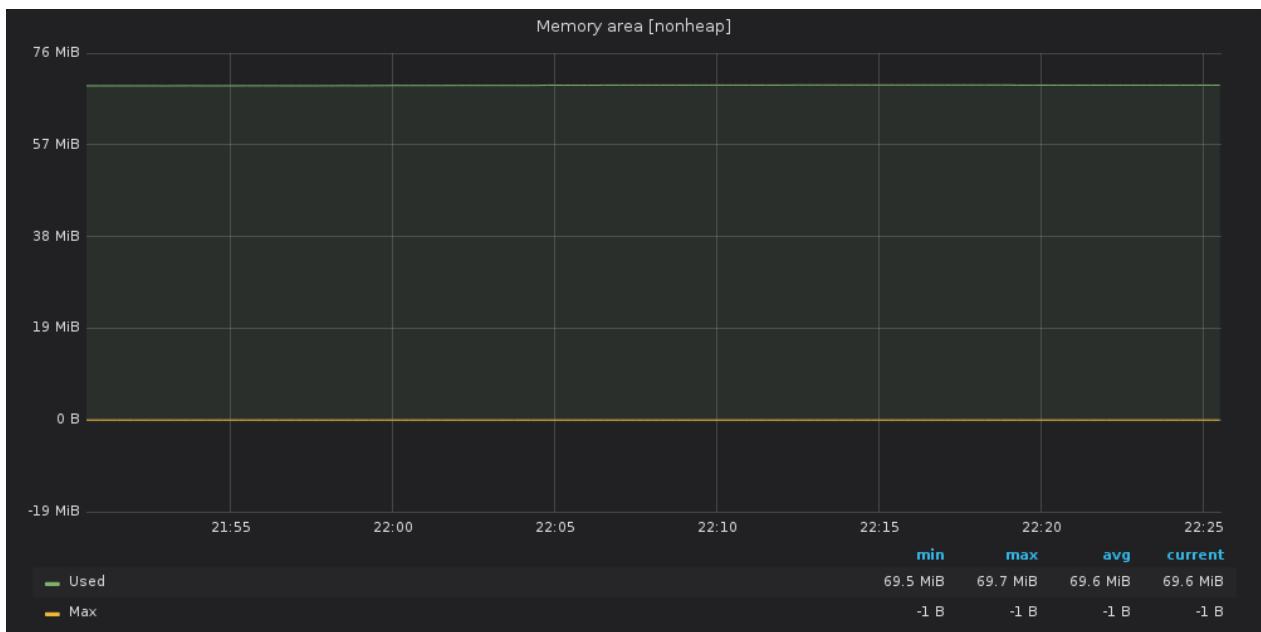
CPU load



Memory area [heap]



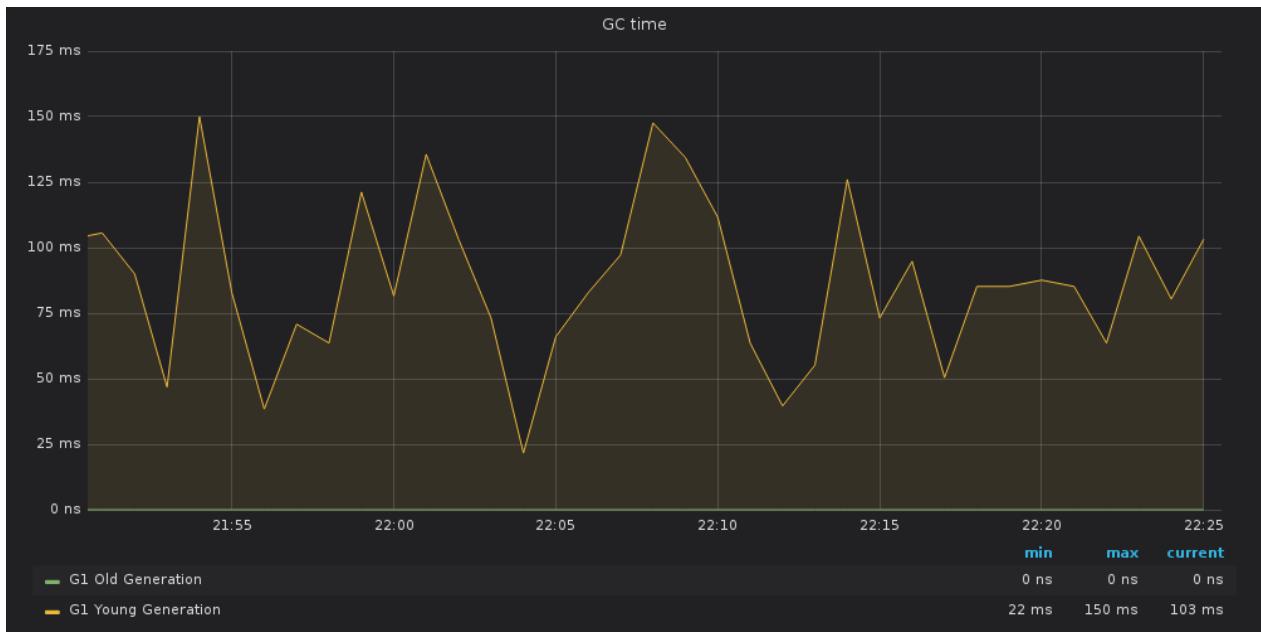
Memory area [nonheap]



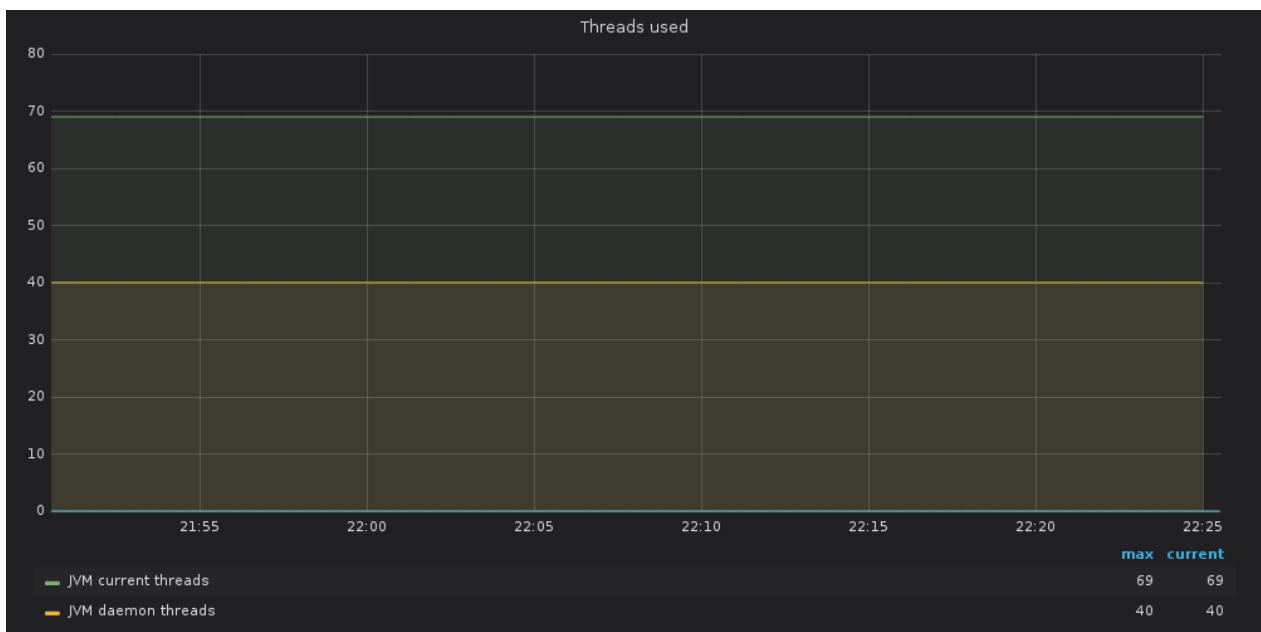
GC count increase



GC time



Threads used



Physical memory



Service: kafka_2

- name: kafka_2
- type: kafka

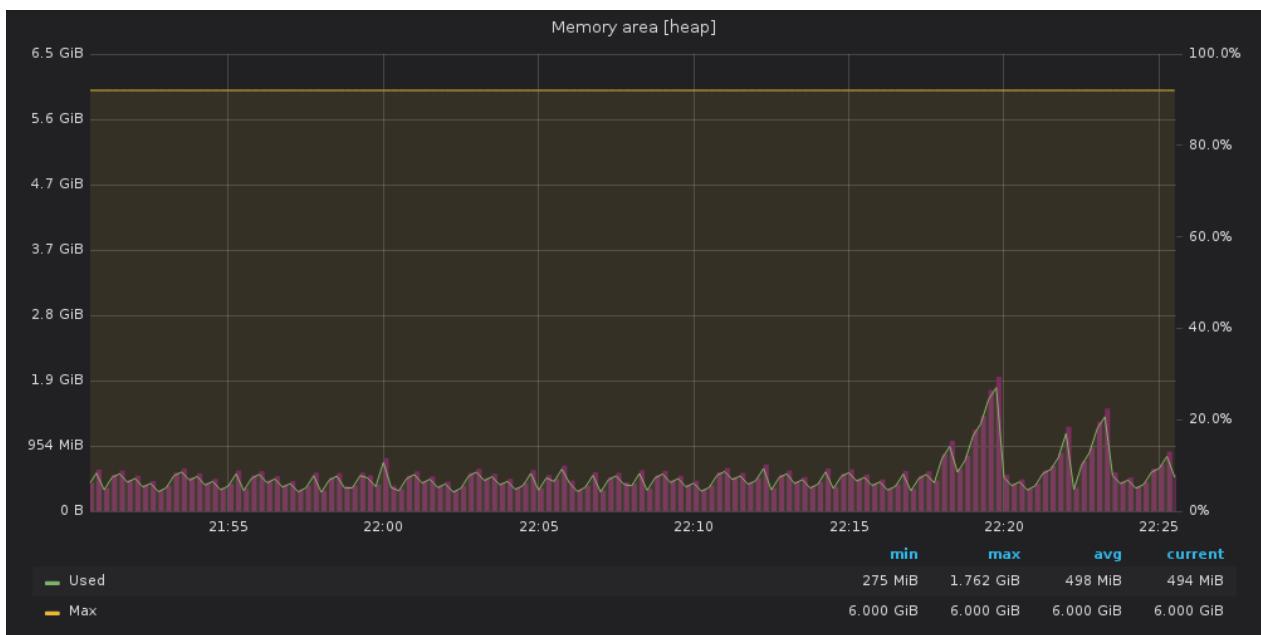
Open file descriptors



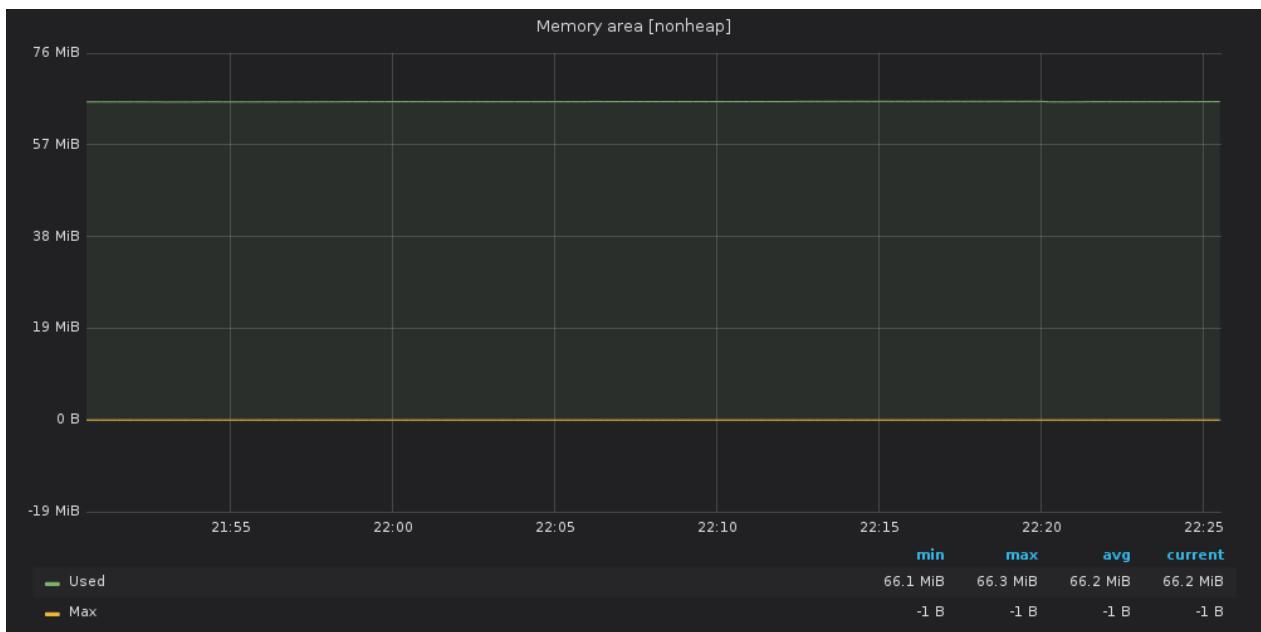
CPU load



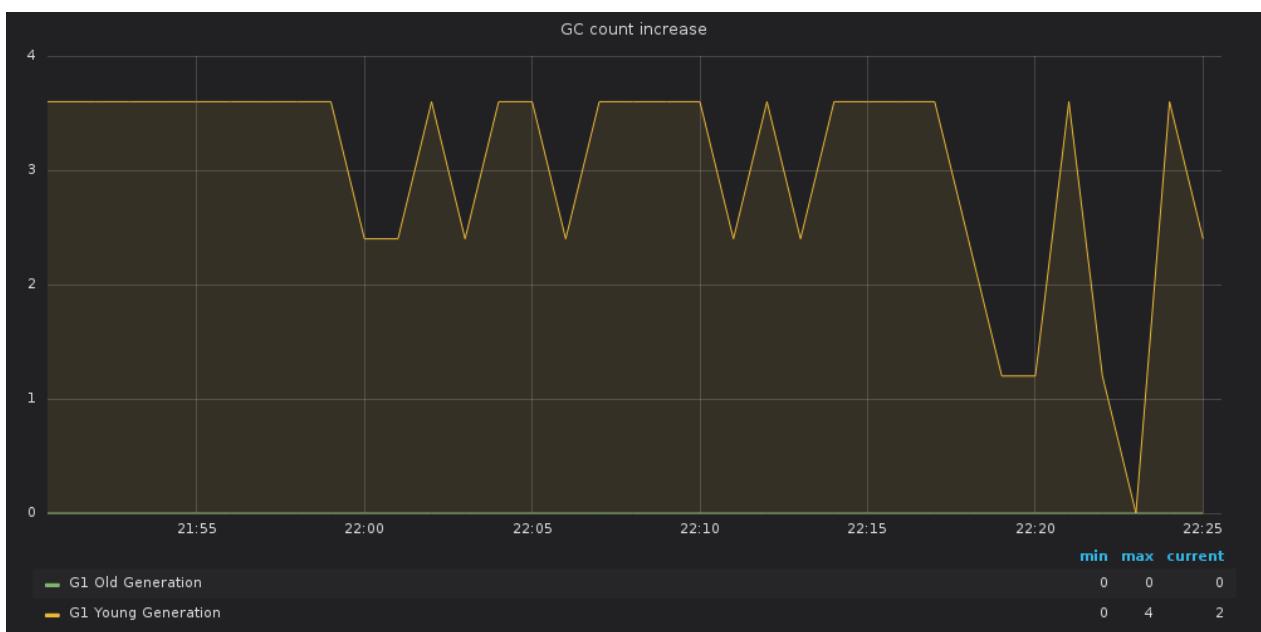
Memory area [heap]



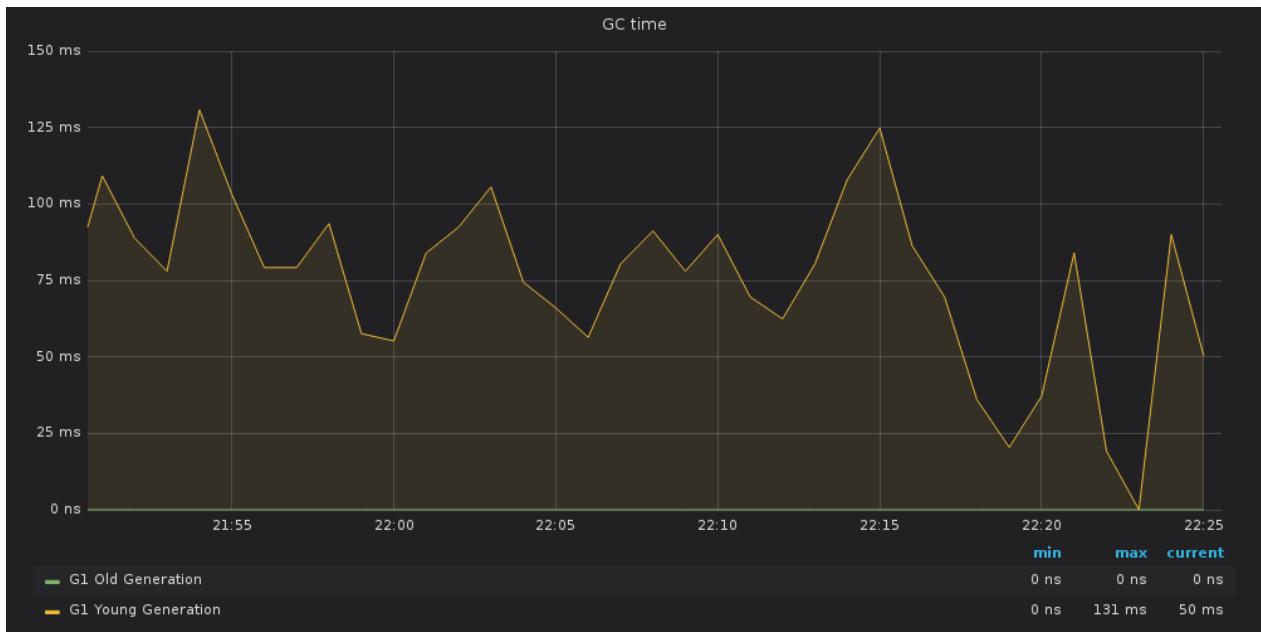
Memory area [nonheap]



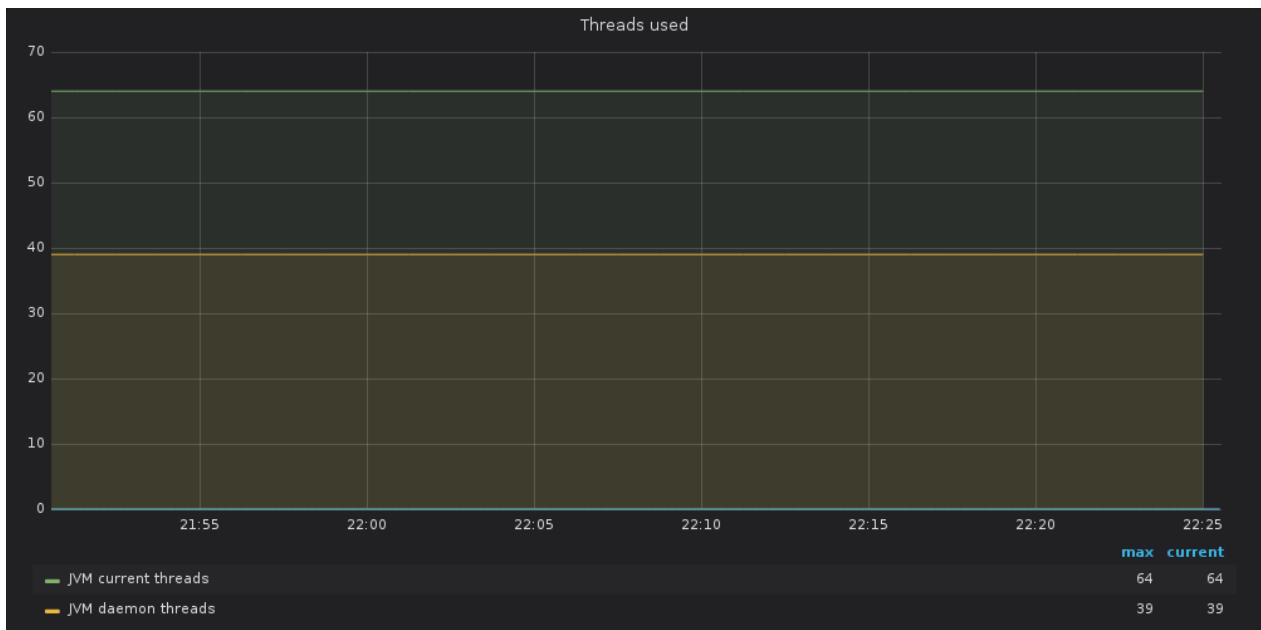
GC count increase



GC time



Threads used



Physical memory



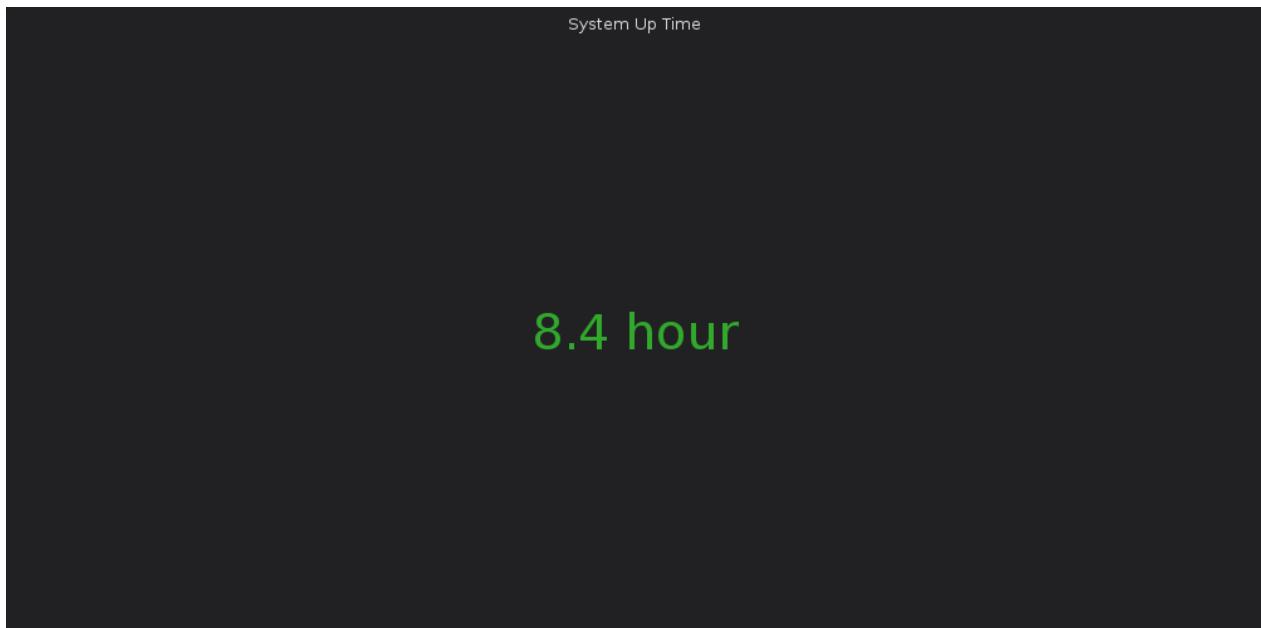
Host: kafka2

- name: kafka2
- type: kafka

Service: node_kafka_2

- name: node_kafka_2
- type: node_exporter

系统运行时间



CPU 核数

CPU Core

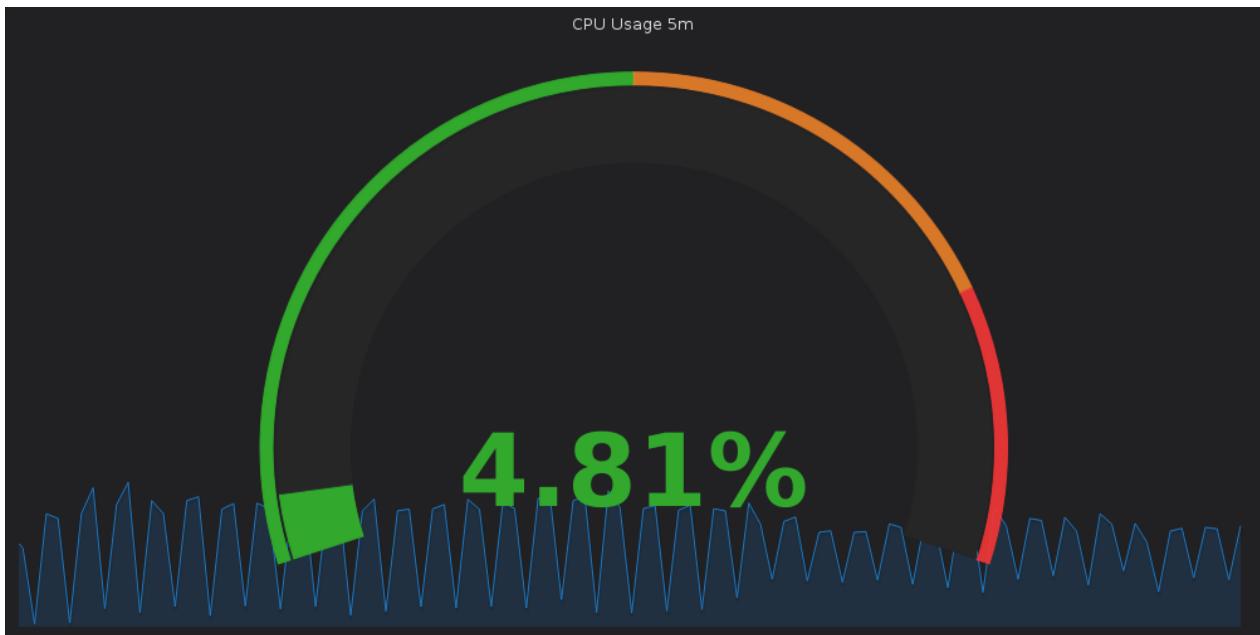
6

内存总量

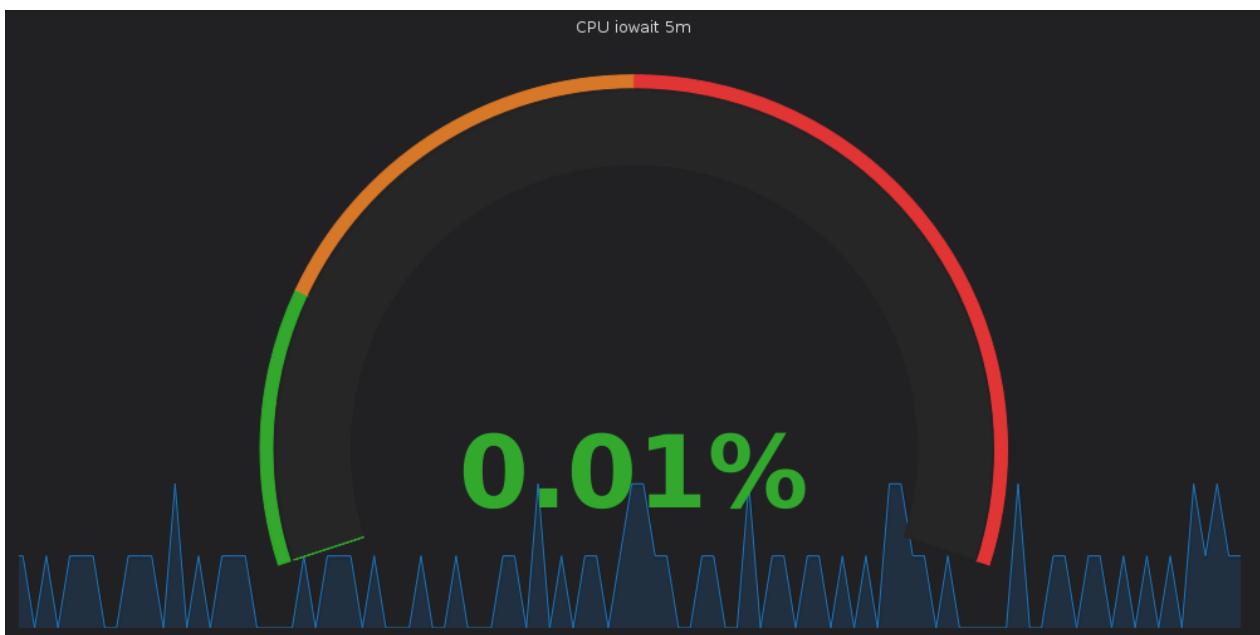
Total Memory

15.7 GiB

CPU使用率 (5m)

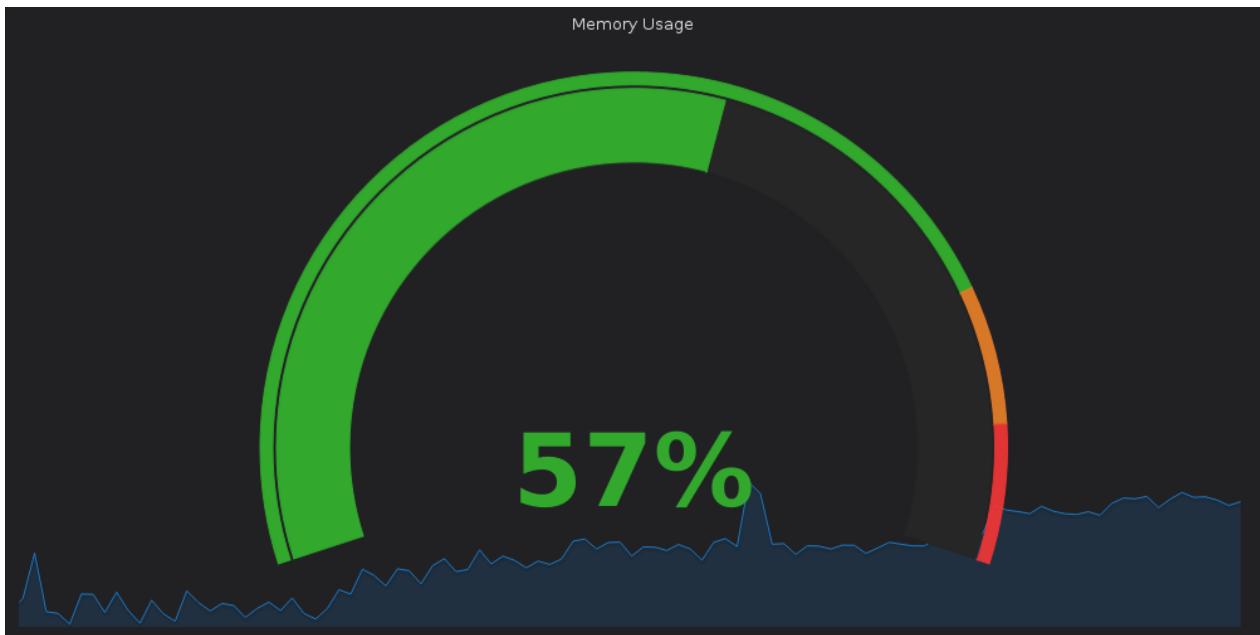


CPU iowait (5m)



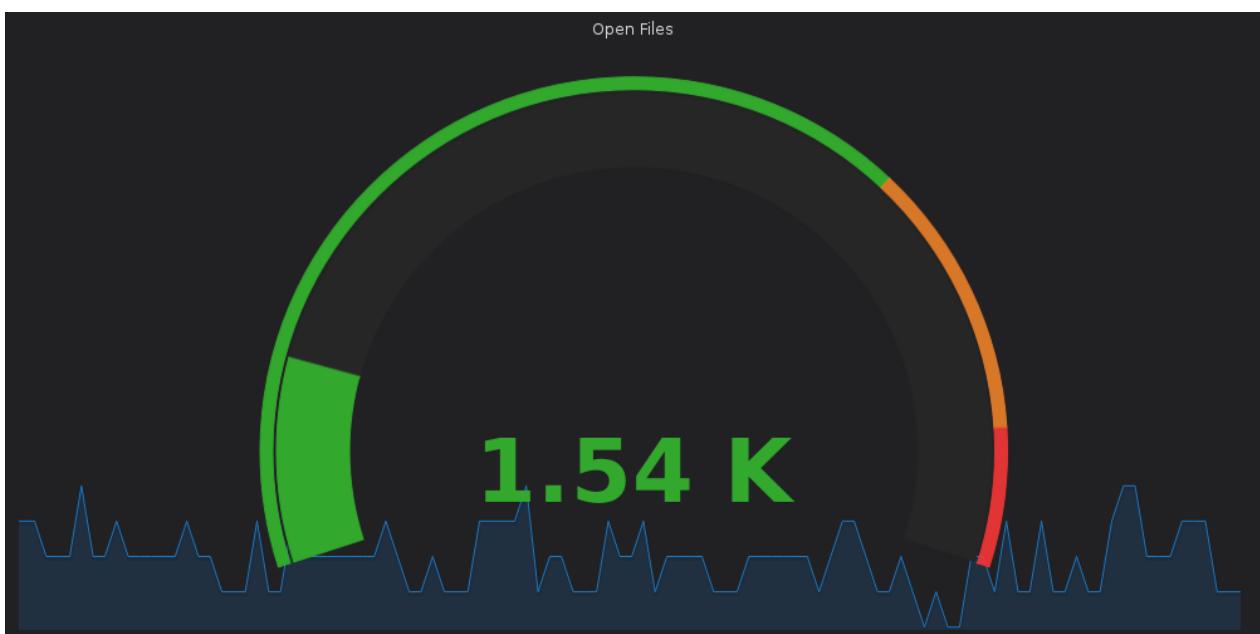
内存使用率

Memory Usage

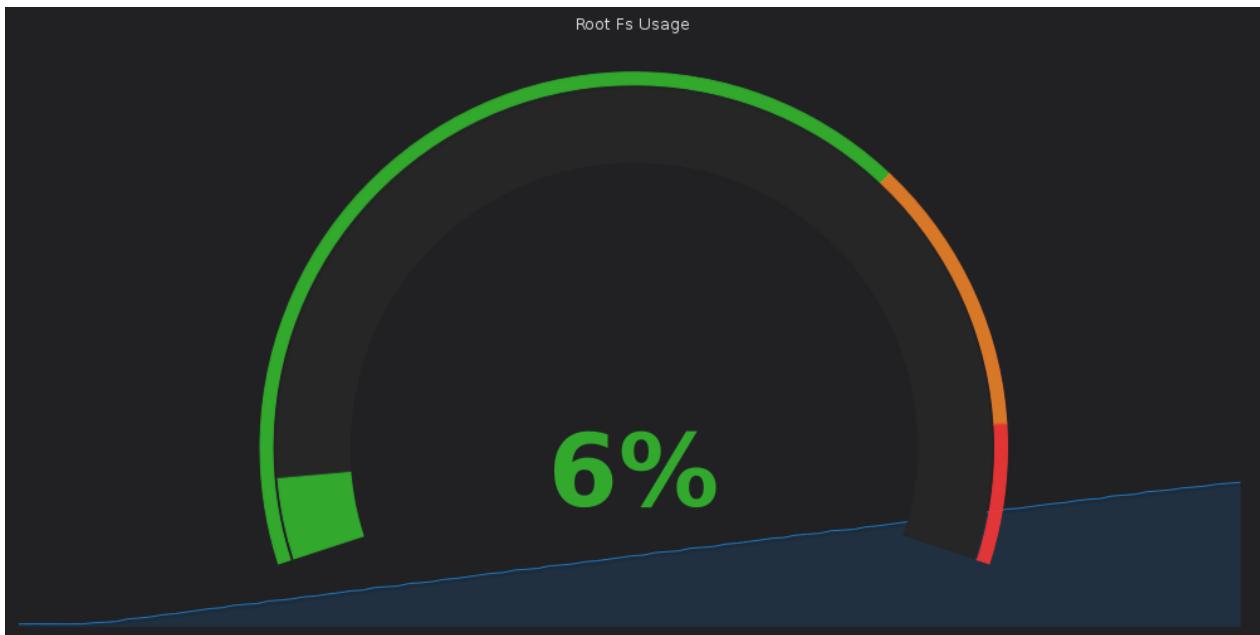


当前打开的文件描述符

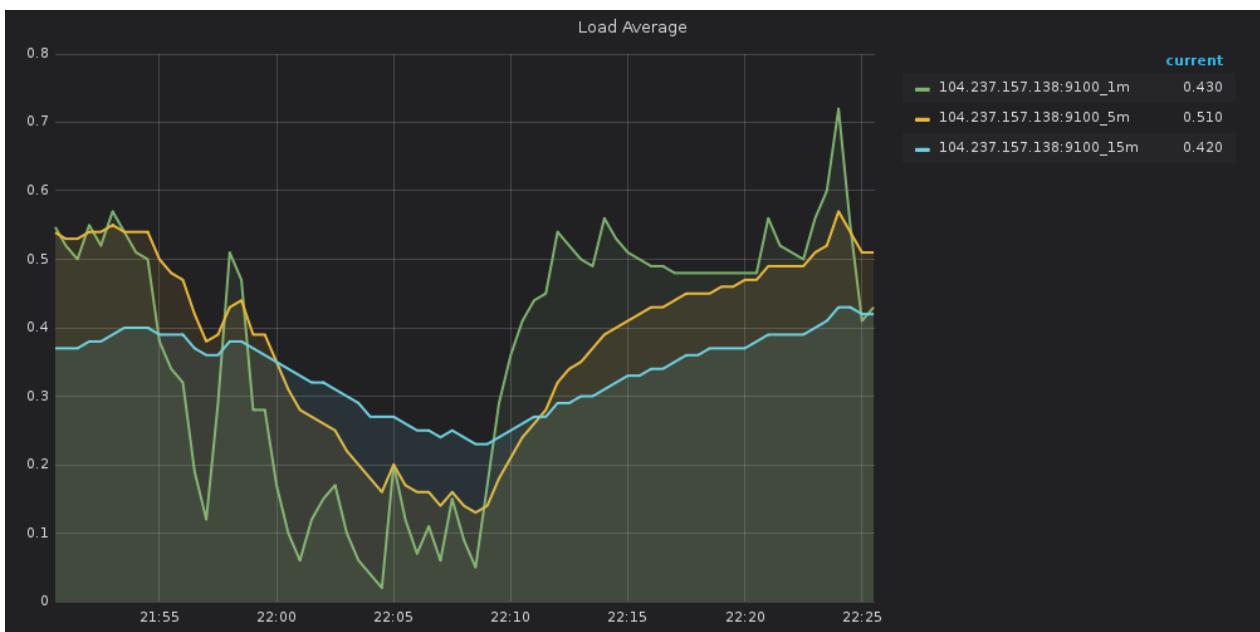
Open Files



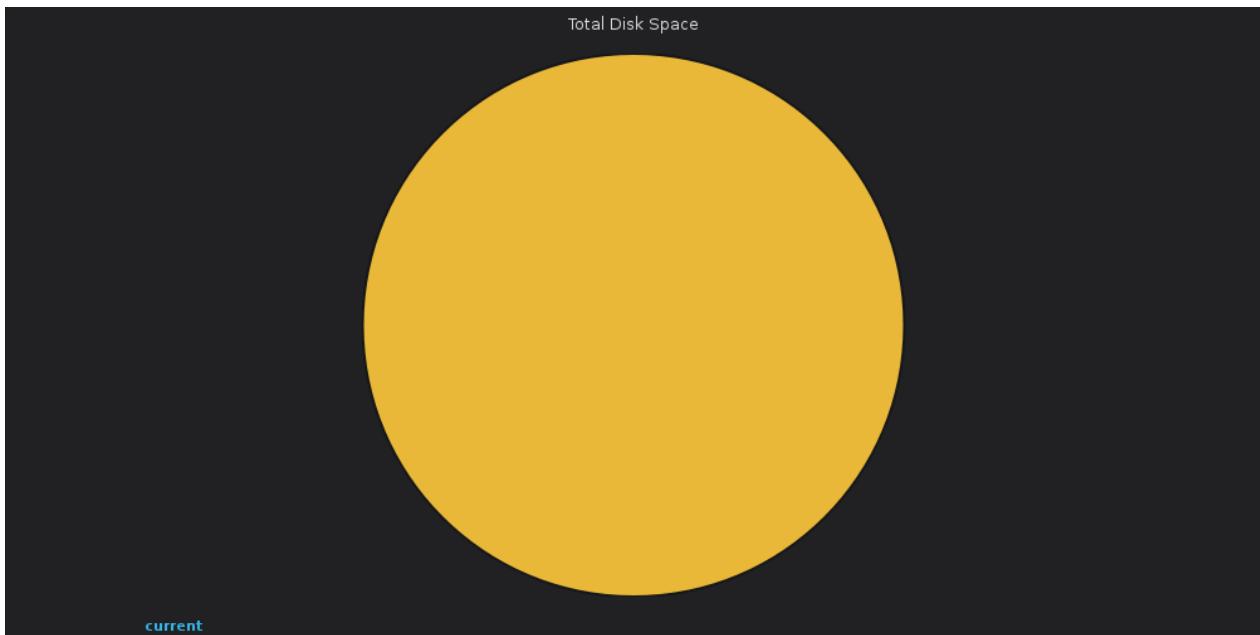
根分区使用率



系统平均负载



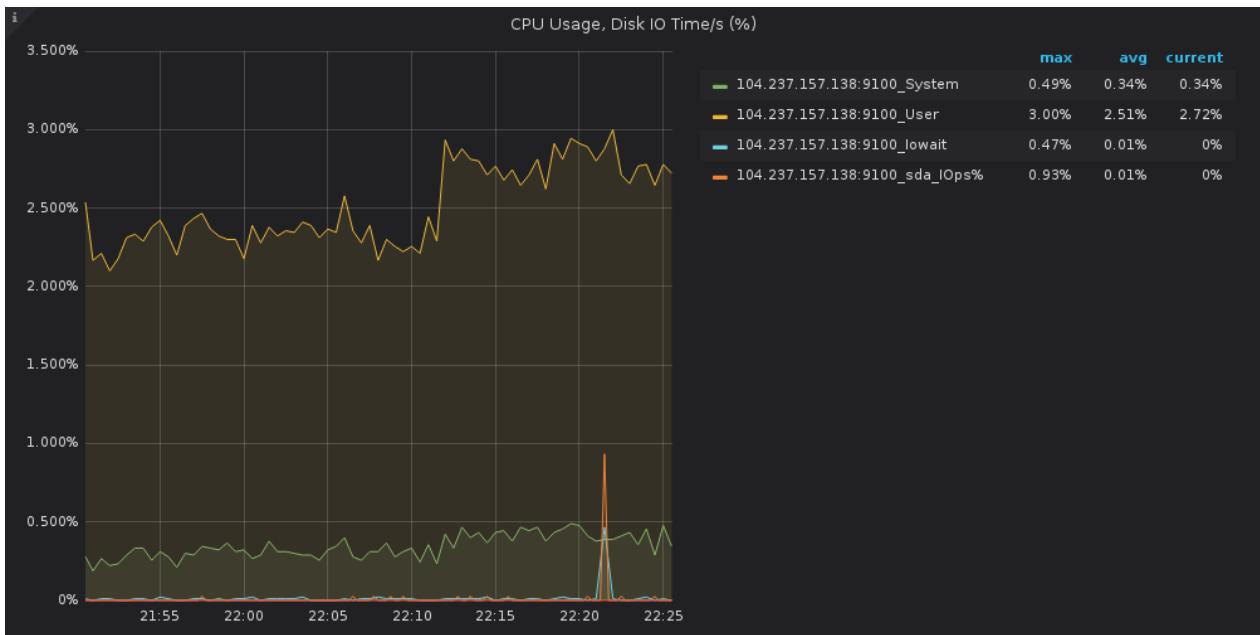
磁盘总空间



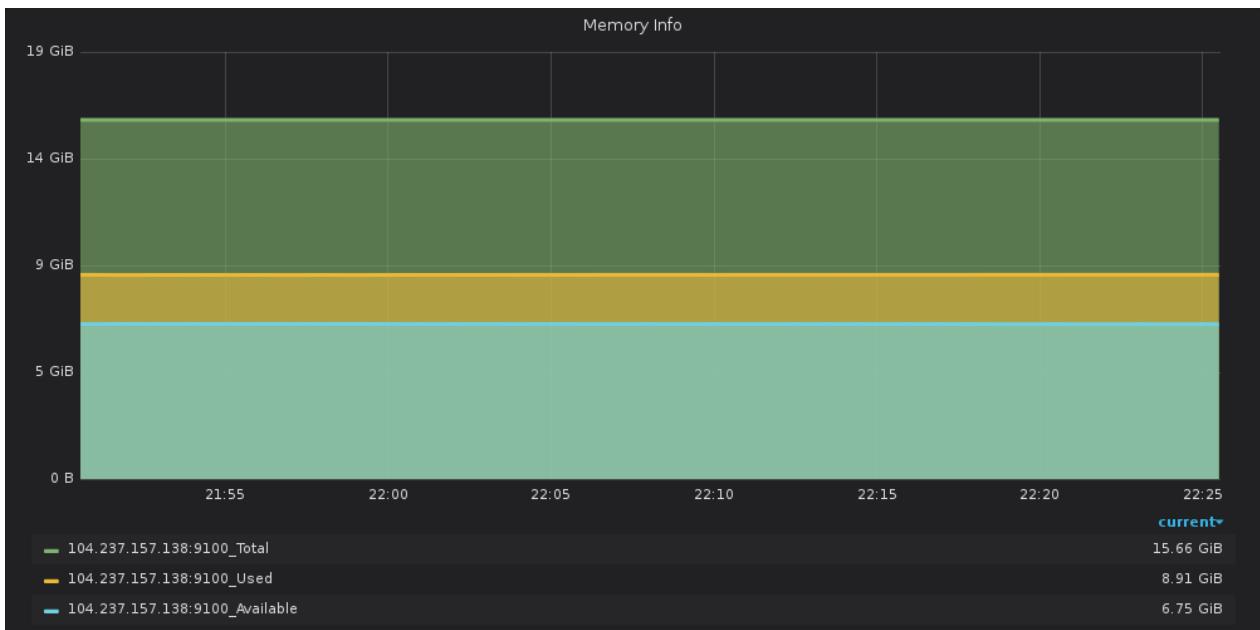
各分区可用空间

Volumes Available				
File System	IP	Mount ▲	Available	Usage
ext4	104.237.157.138:9100	/	295.55 GiB	0.95%

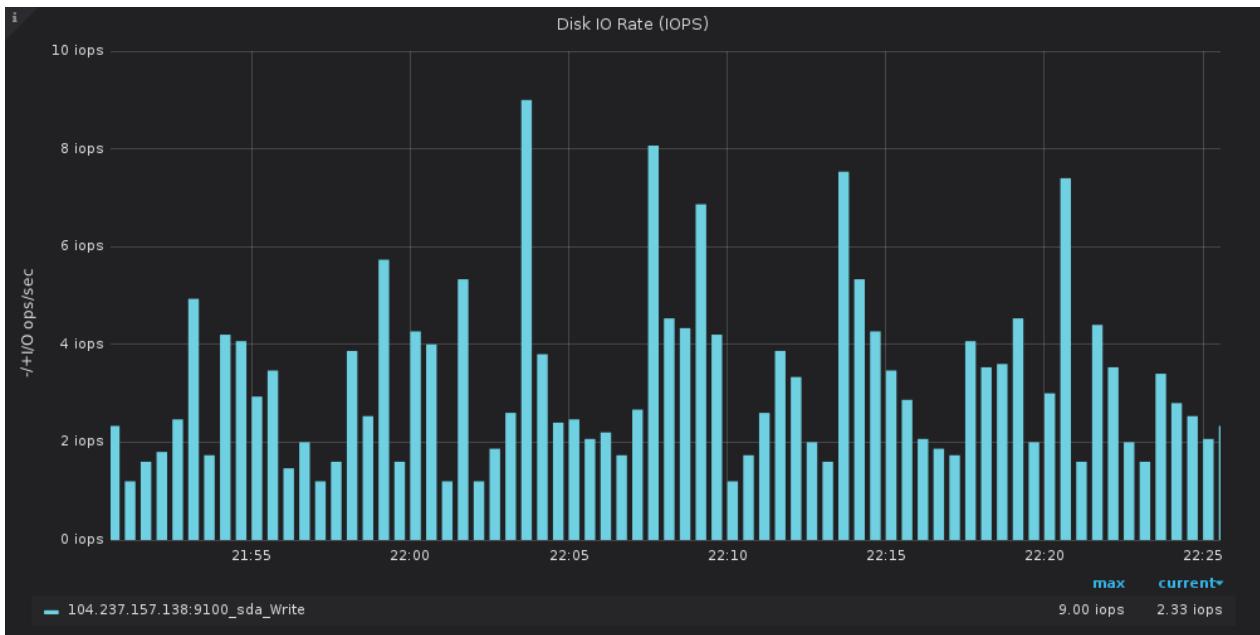
CPU使用率、磁盘每秒的I/O操作耗费时间 (%)



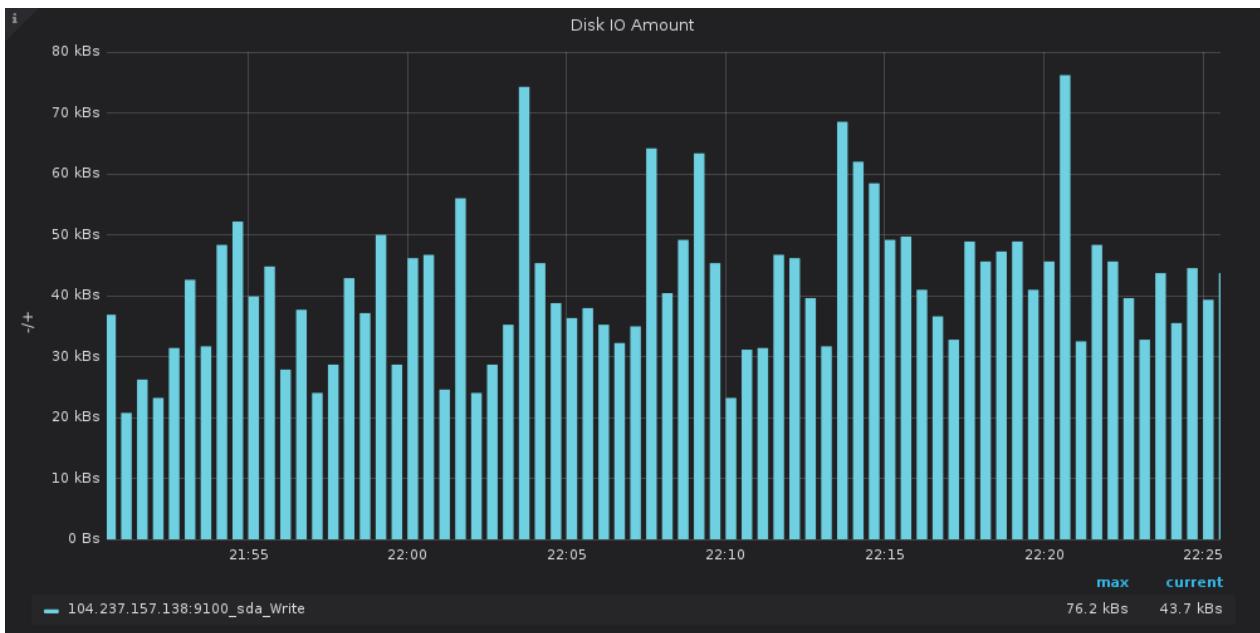
内存信息



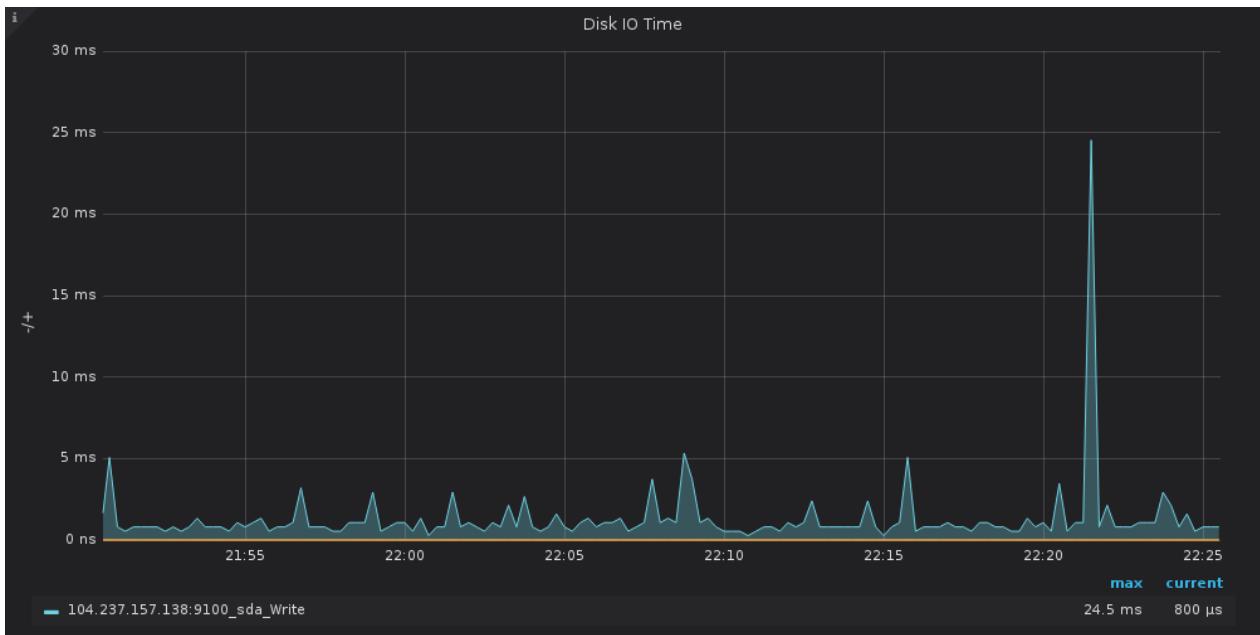
磁盘读写速率 (IOPS)



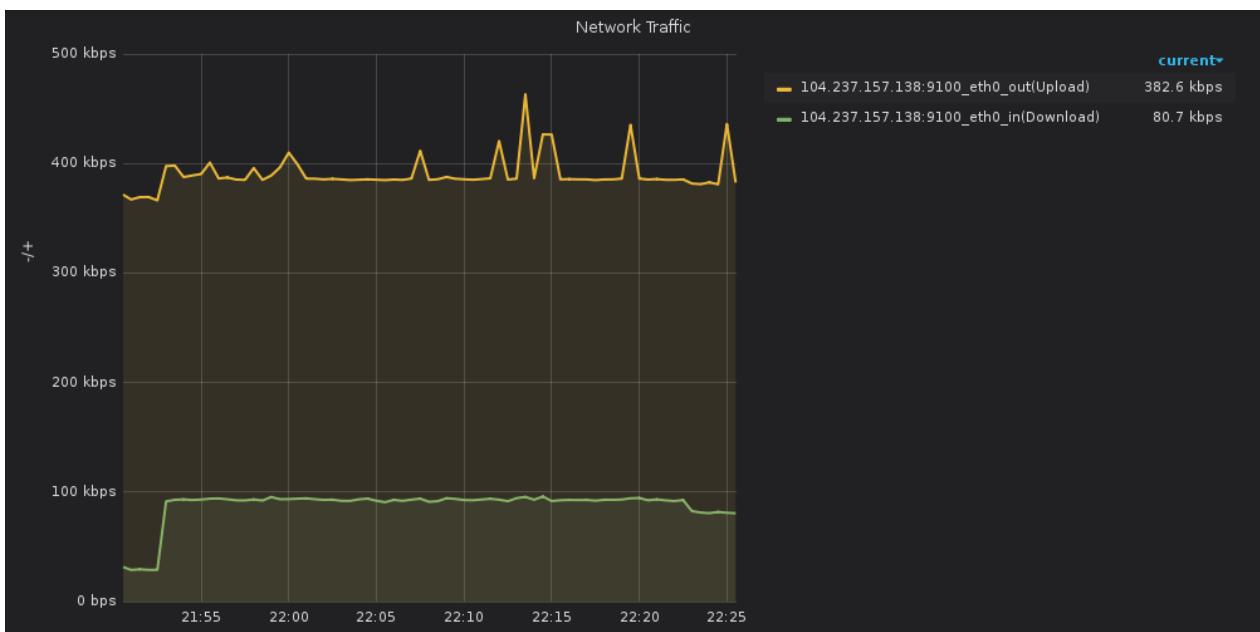
磁盘读写容量大小



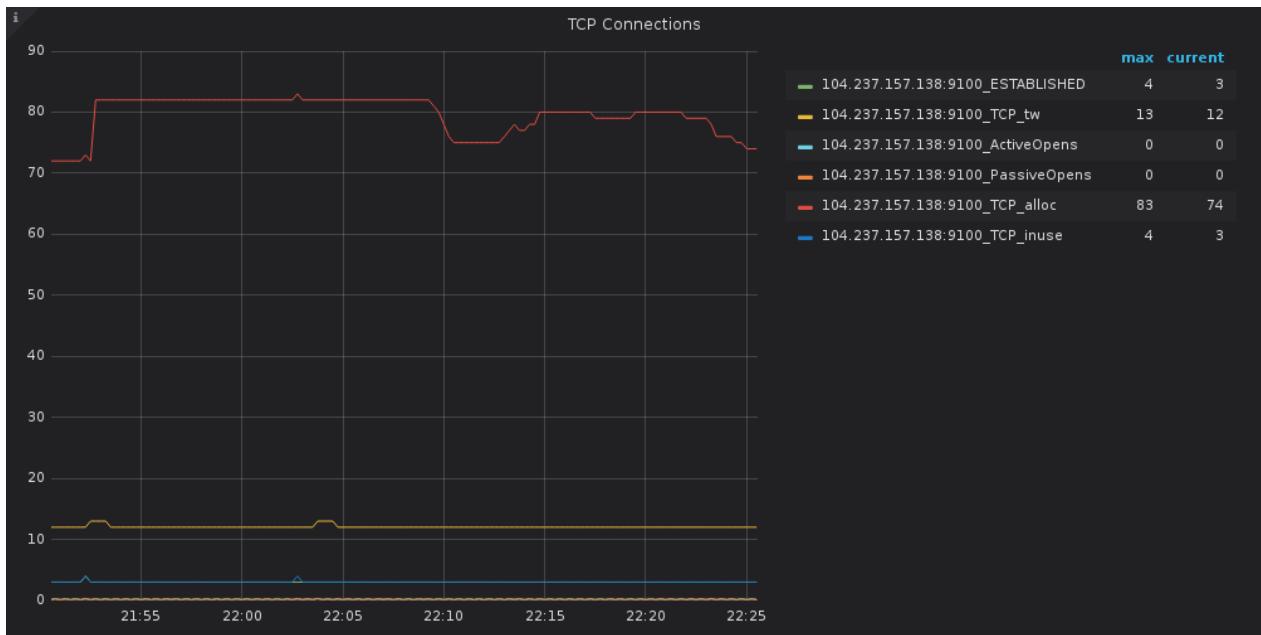
磁盘IO读写时间



网络流量



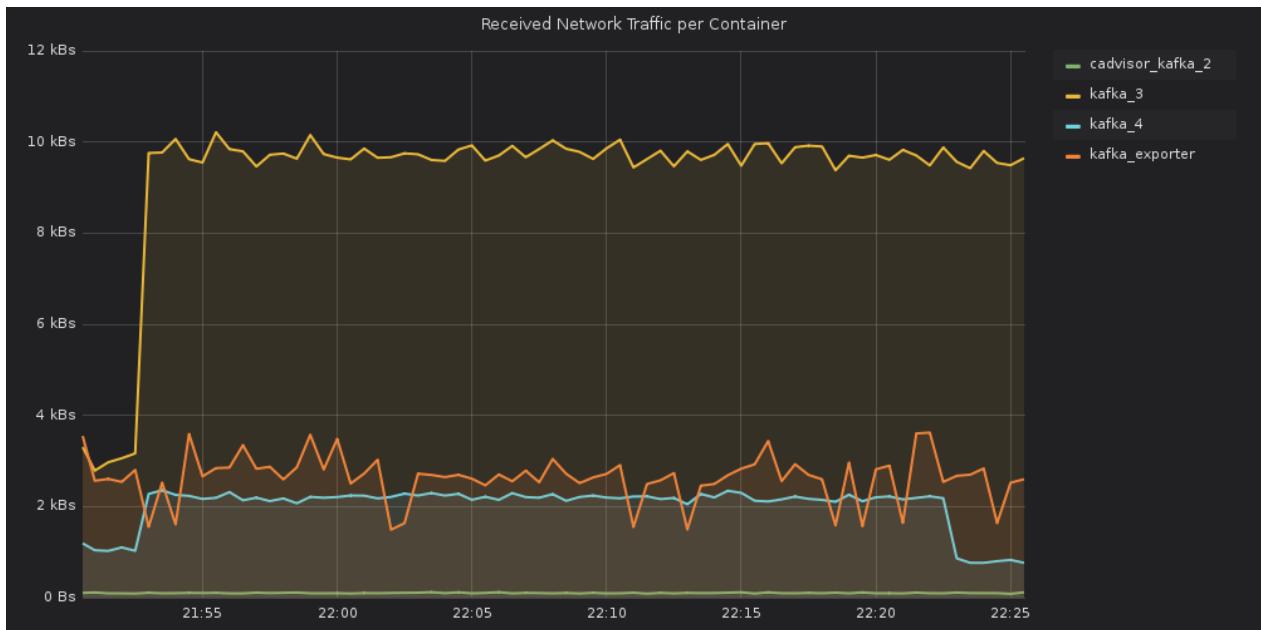
TCP 连接情况



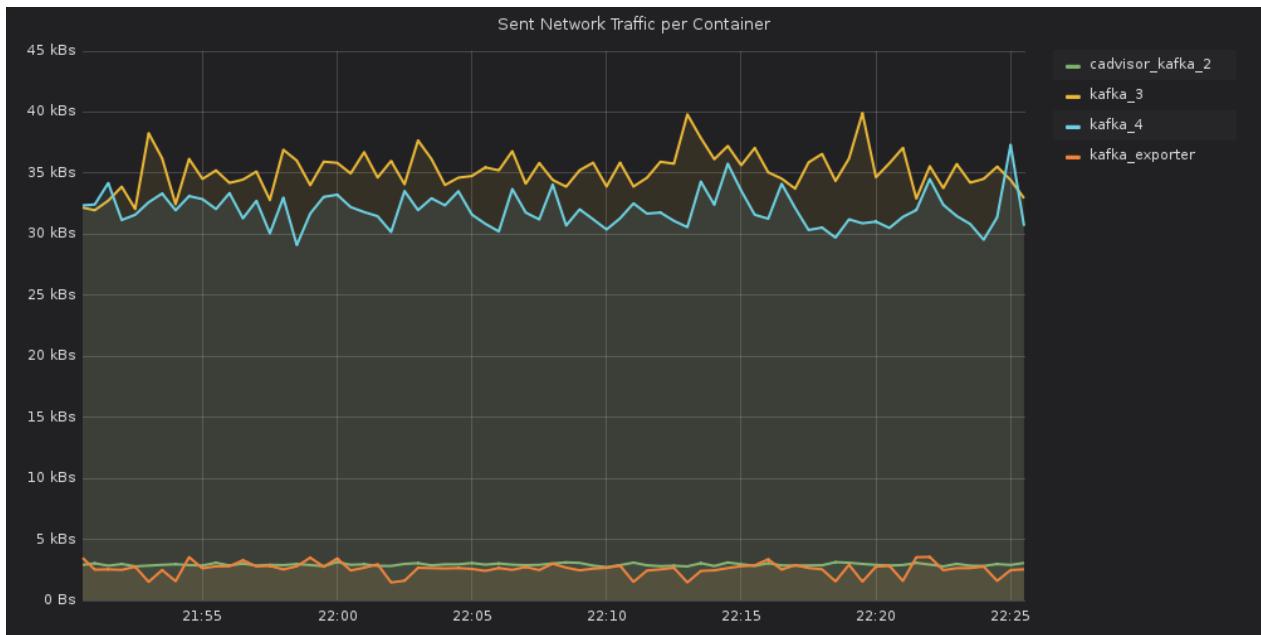
Service: cAdvisor_kafka_2

- name: cAdvisor_kafka_2
- type: cAdvisor

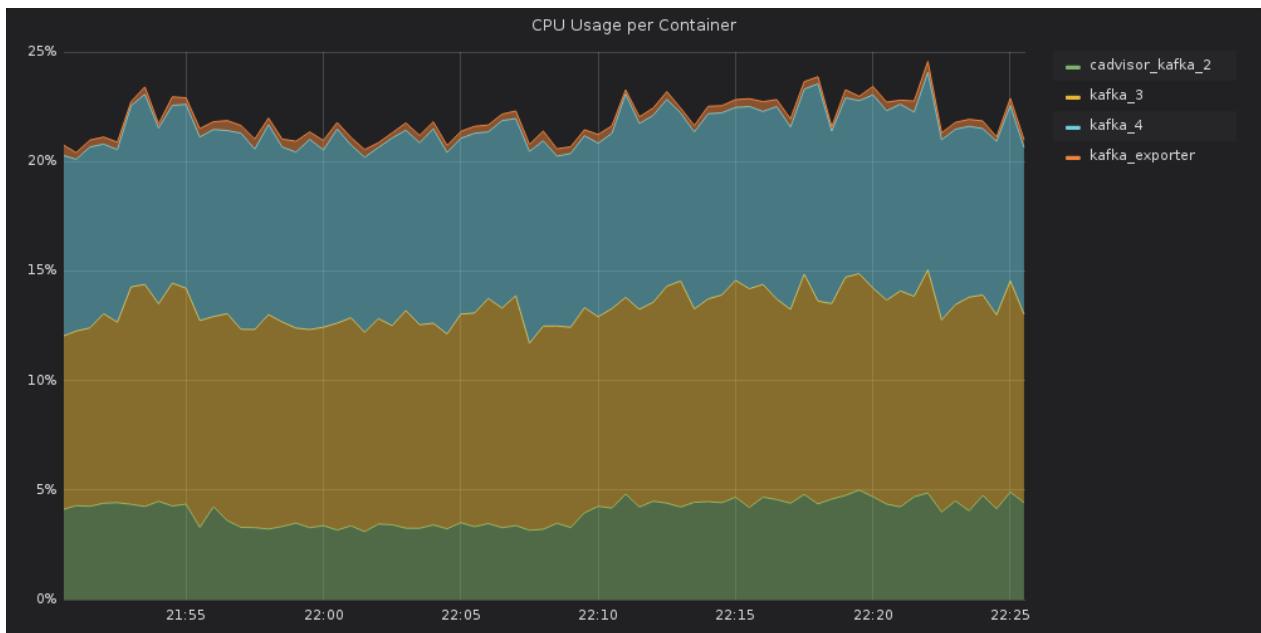
Received Network Traffic per Container



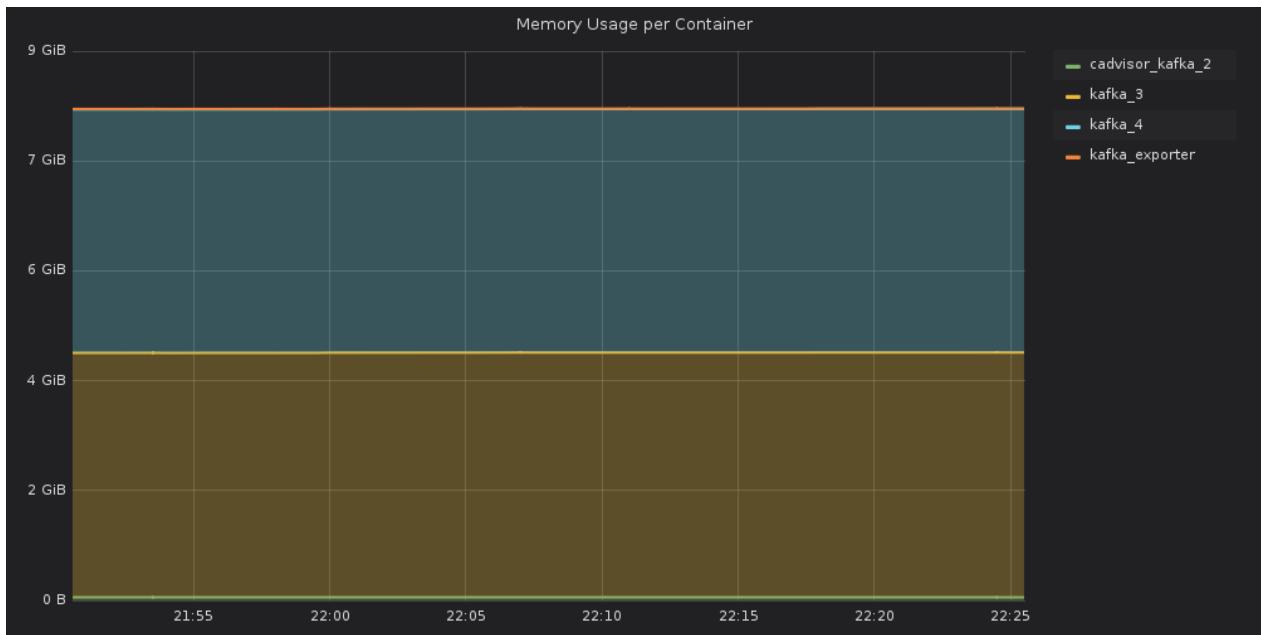
Sent Network Traffic per Container



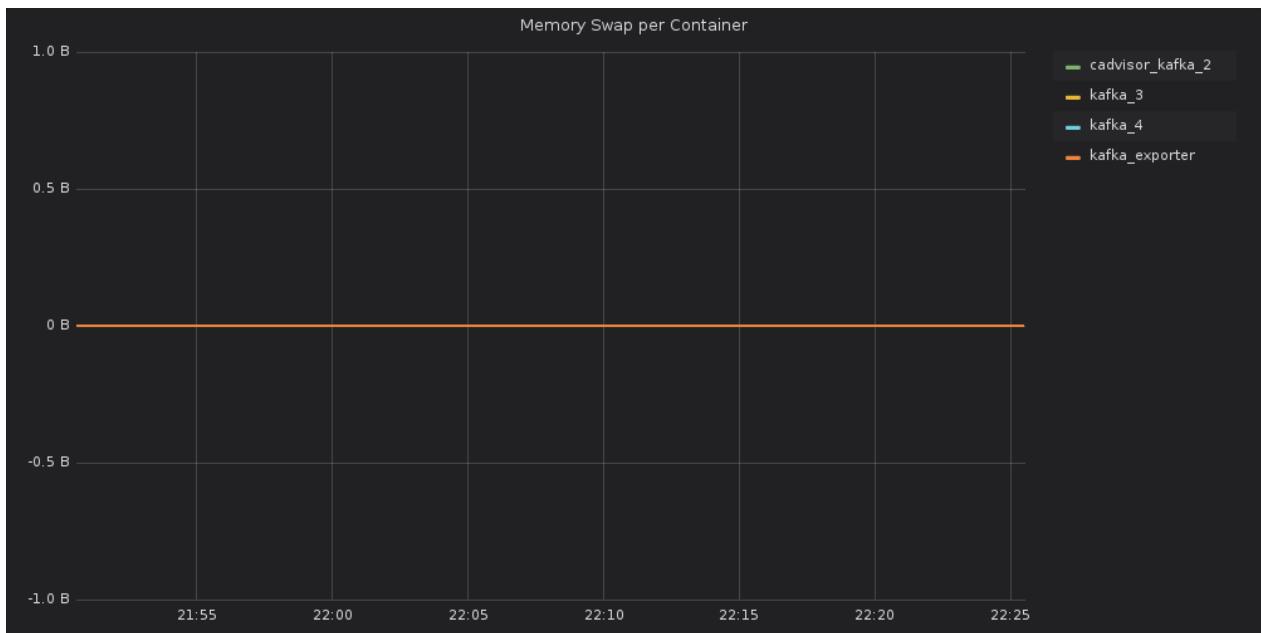
CPU Usage per Container



Memory Usage per Container



Memory Swap per Container



Service: kafka_3

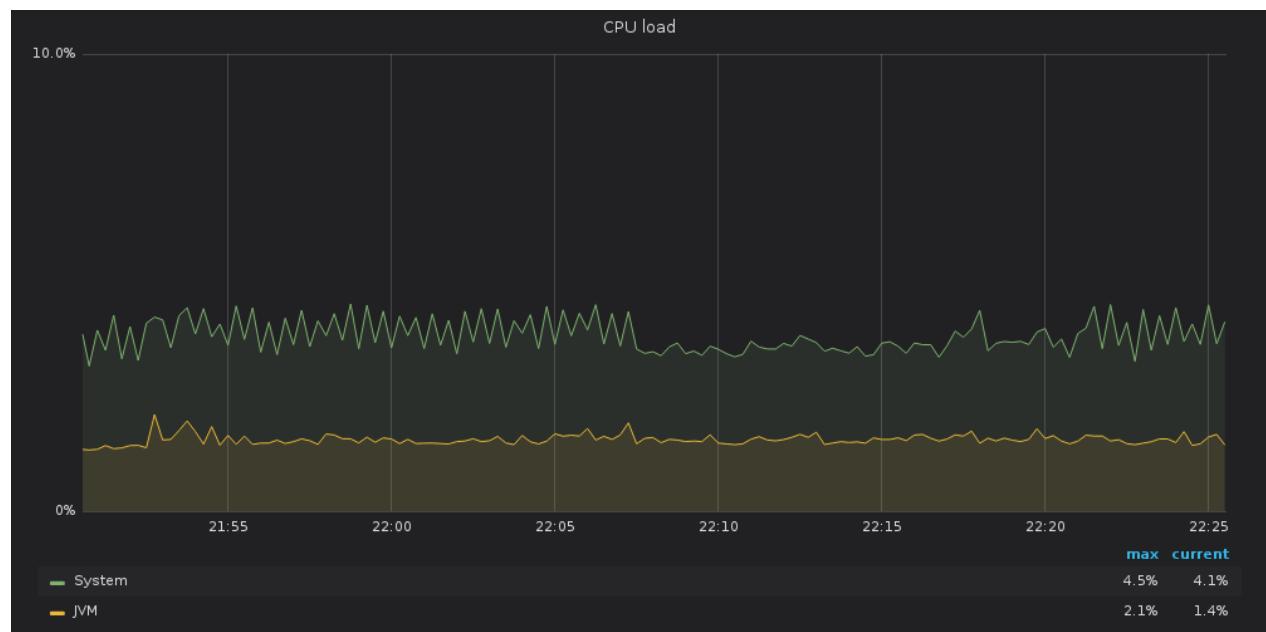
- name: kafka_3
- type: kafka

Open file descriptors

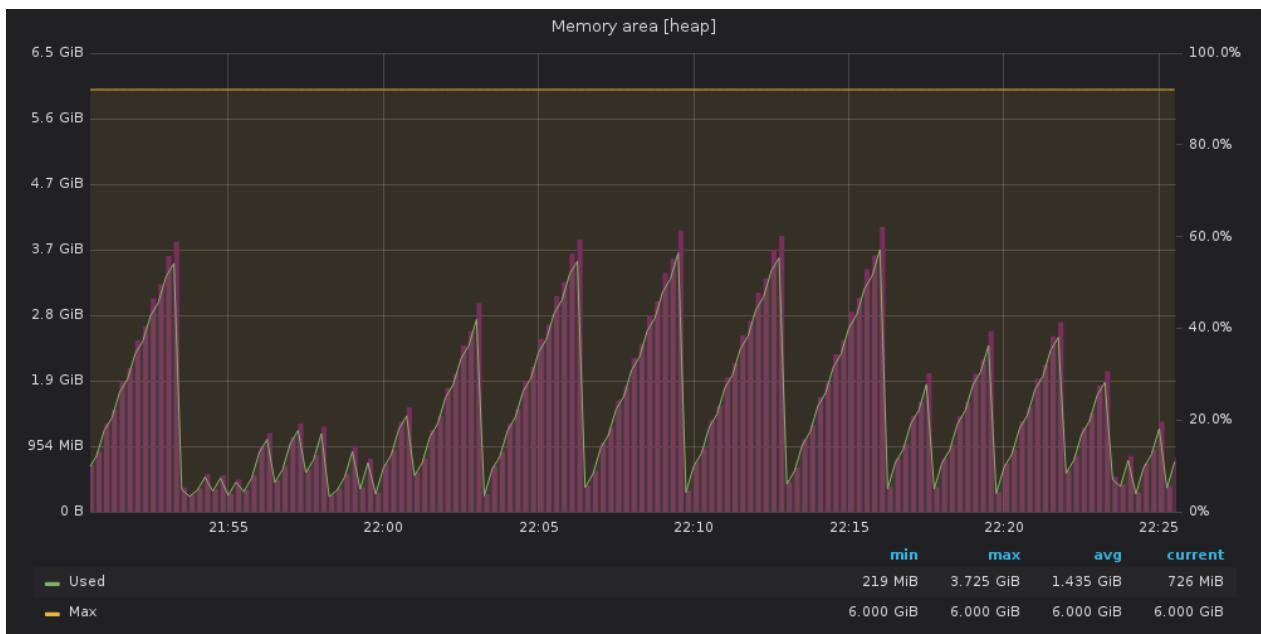
Open file descriptors

181

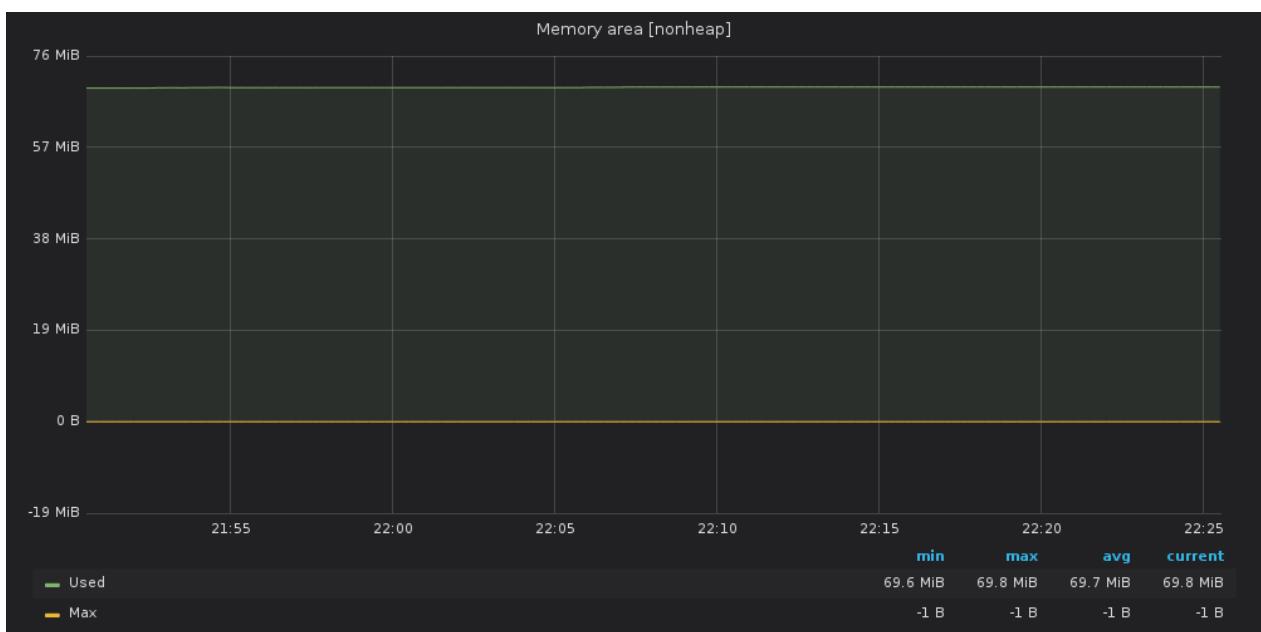
CPU load



Memory area [heap]



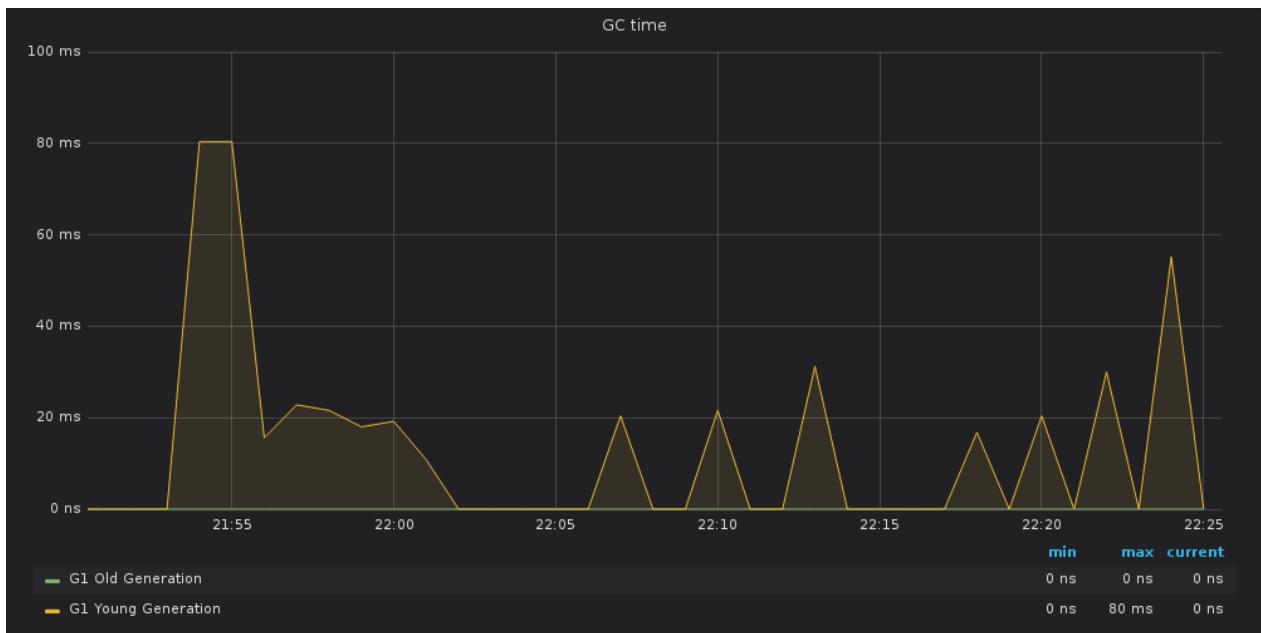
Memory area [nonheap]



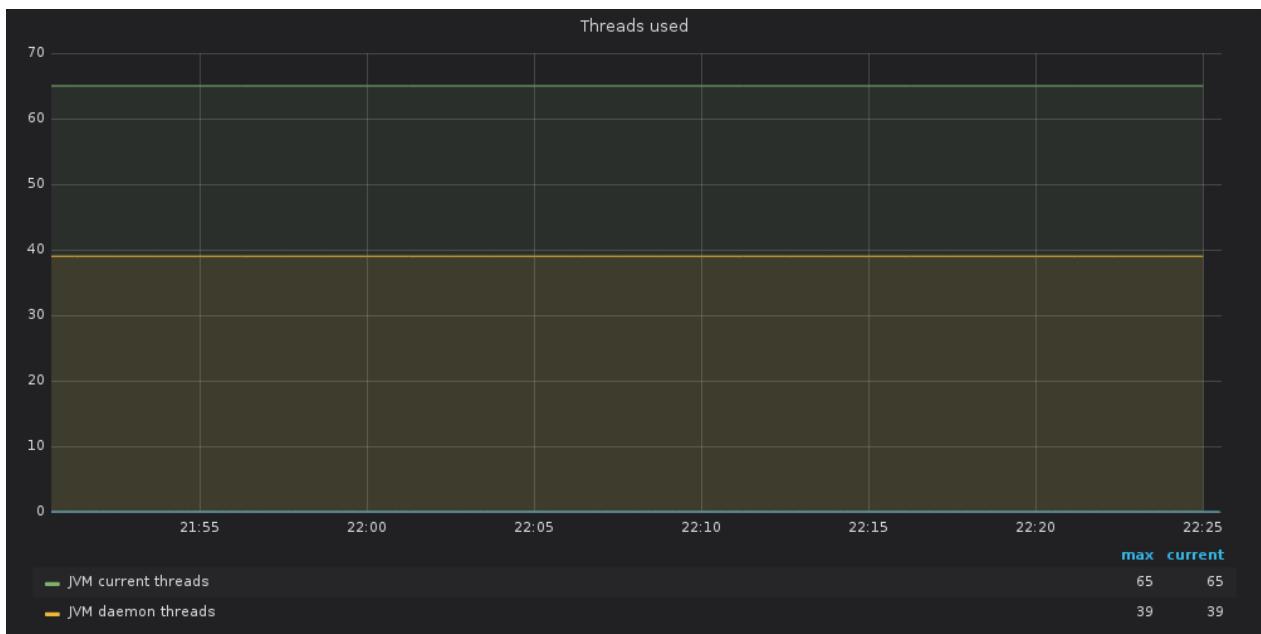
GC count increase



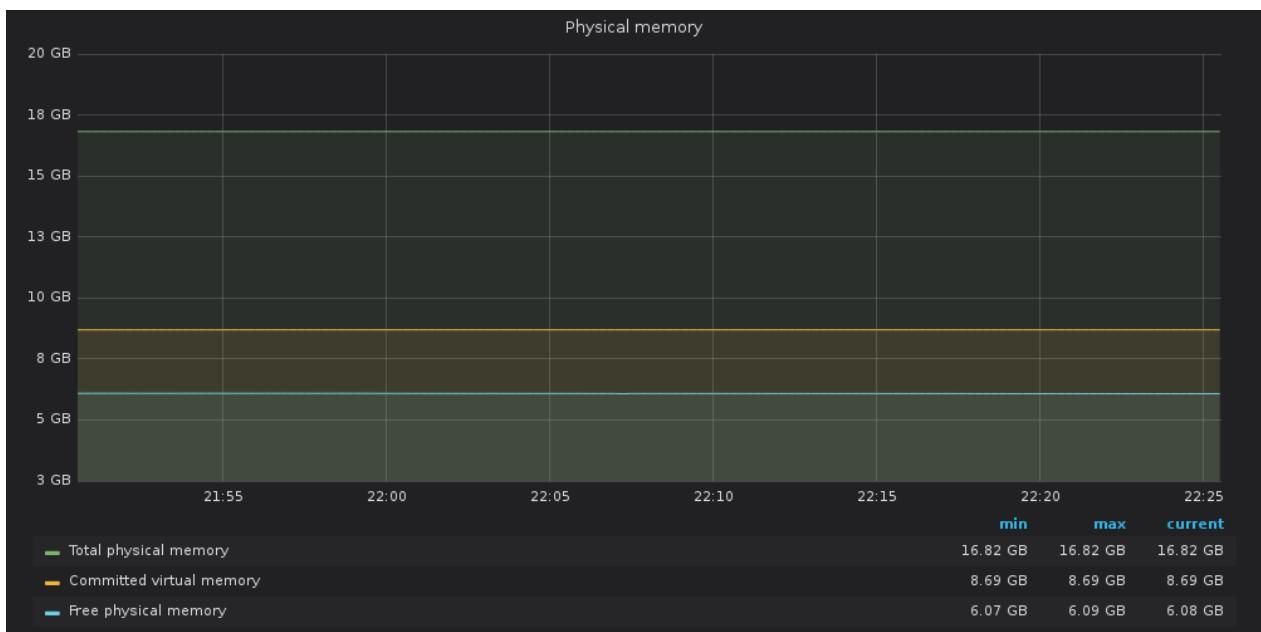
GC time



Threads used



Physical memory



Service: kafka_4

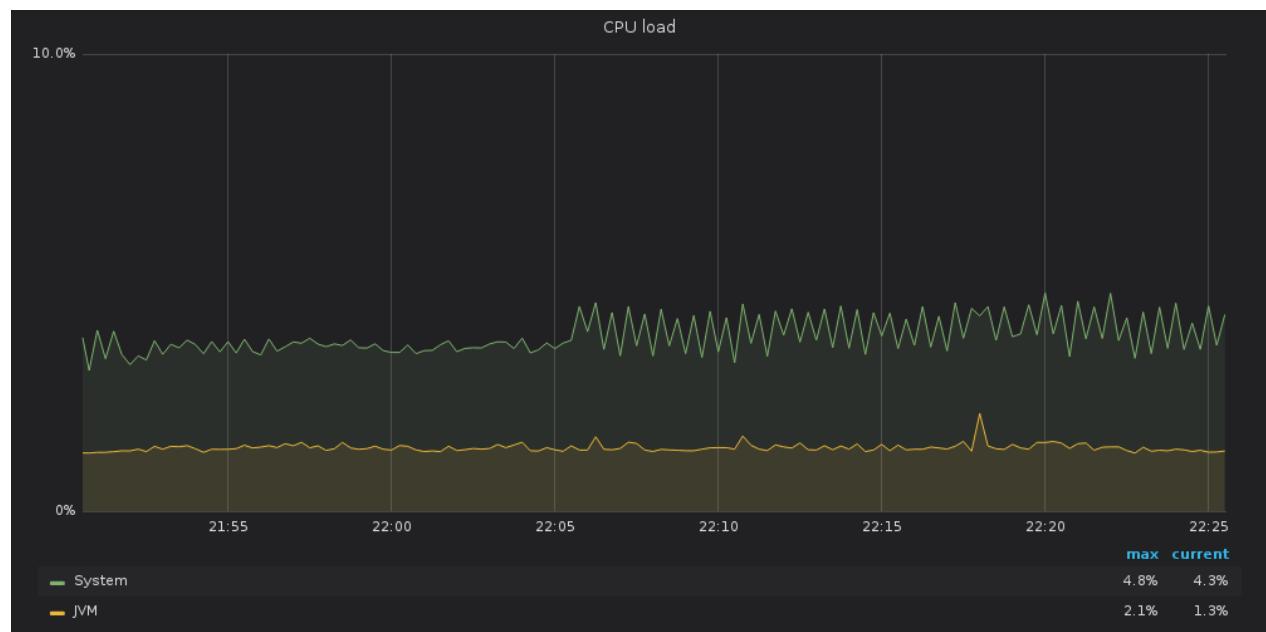
- name: kafka_4
- type: kafka

Open file descriptors

Open file descriptors

161

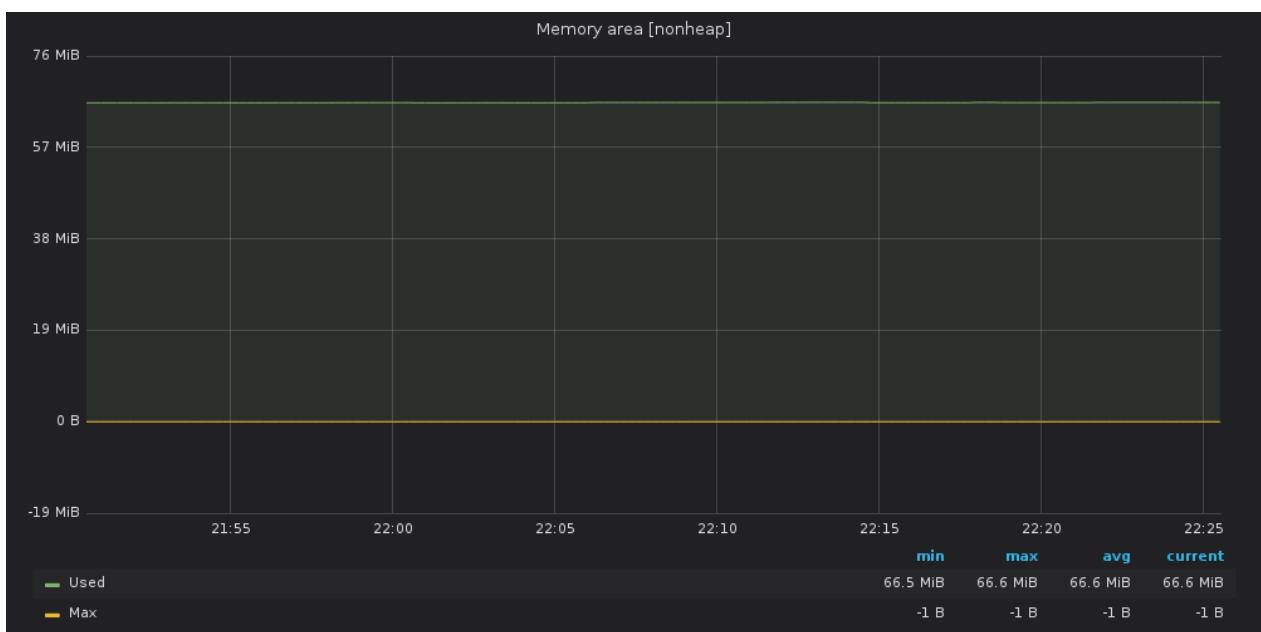
CPU load



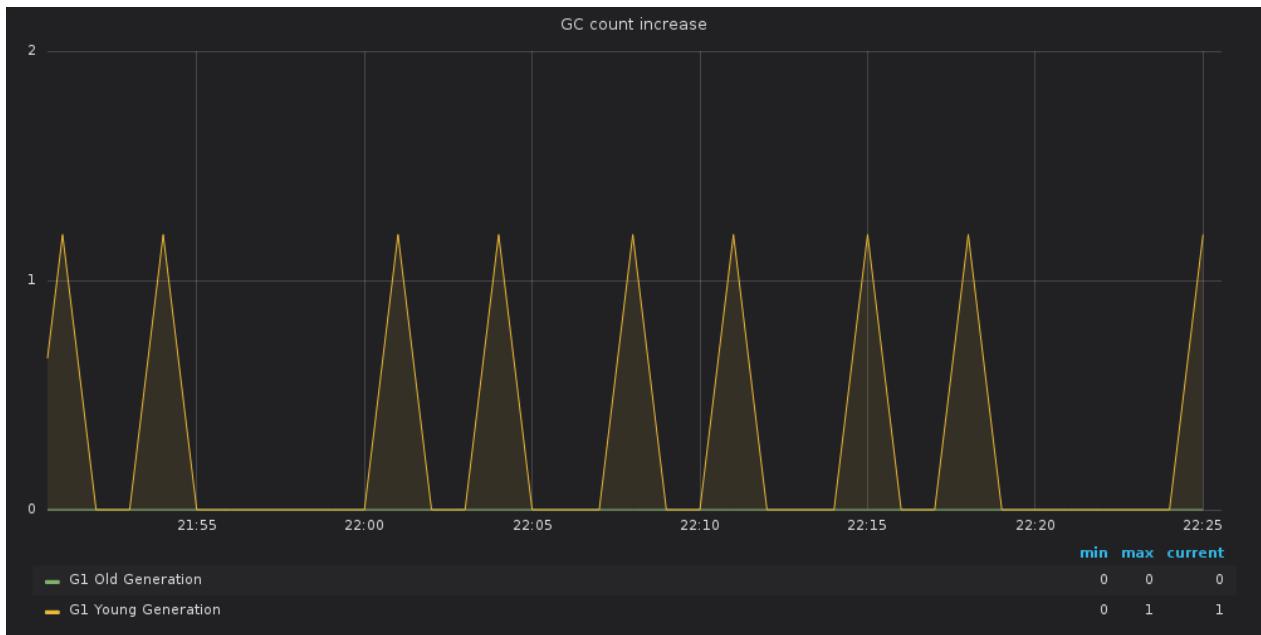
Memory area [heap]



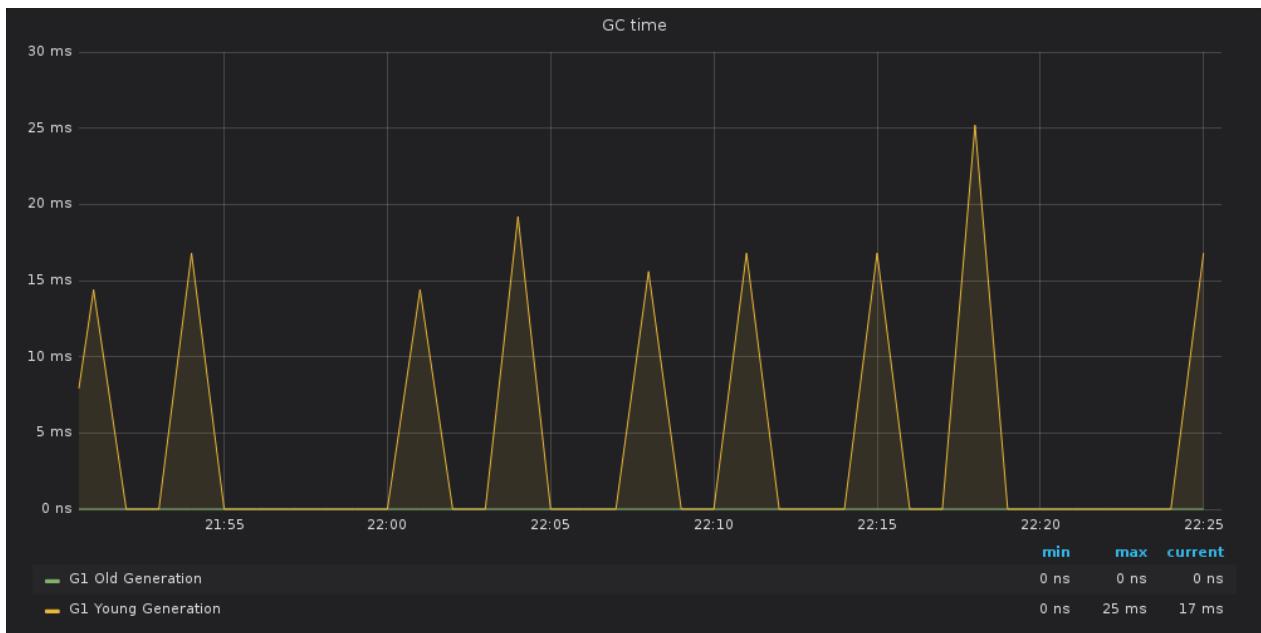
Memory area [nonheap]



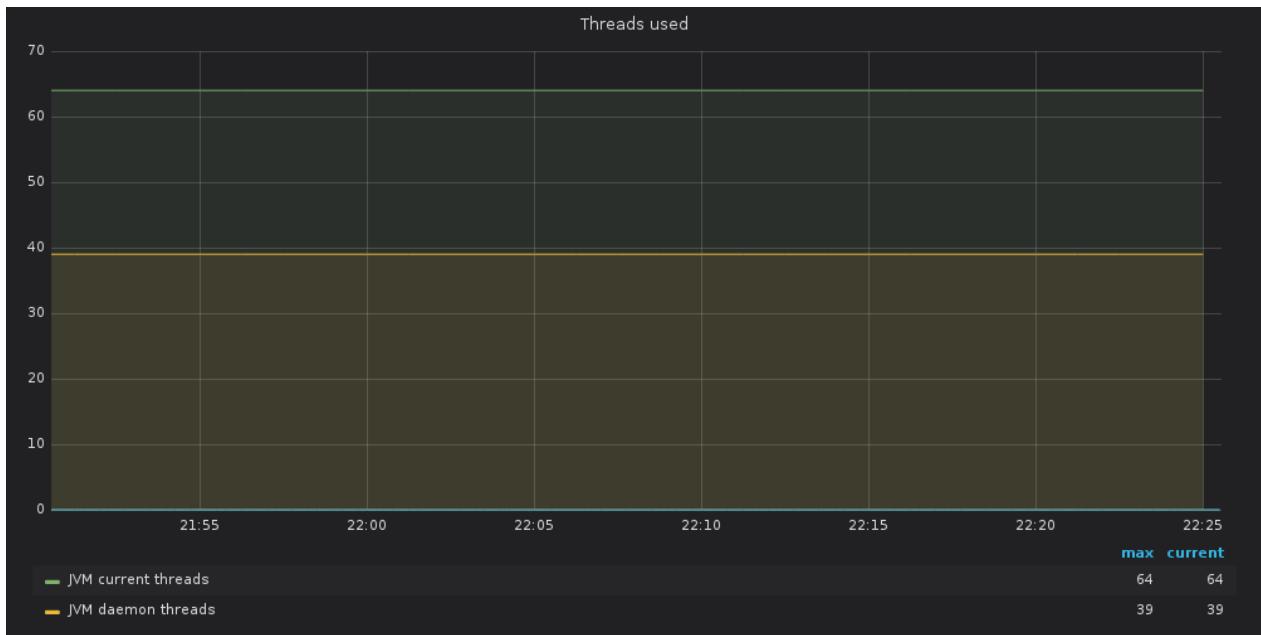
GC count increase



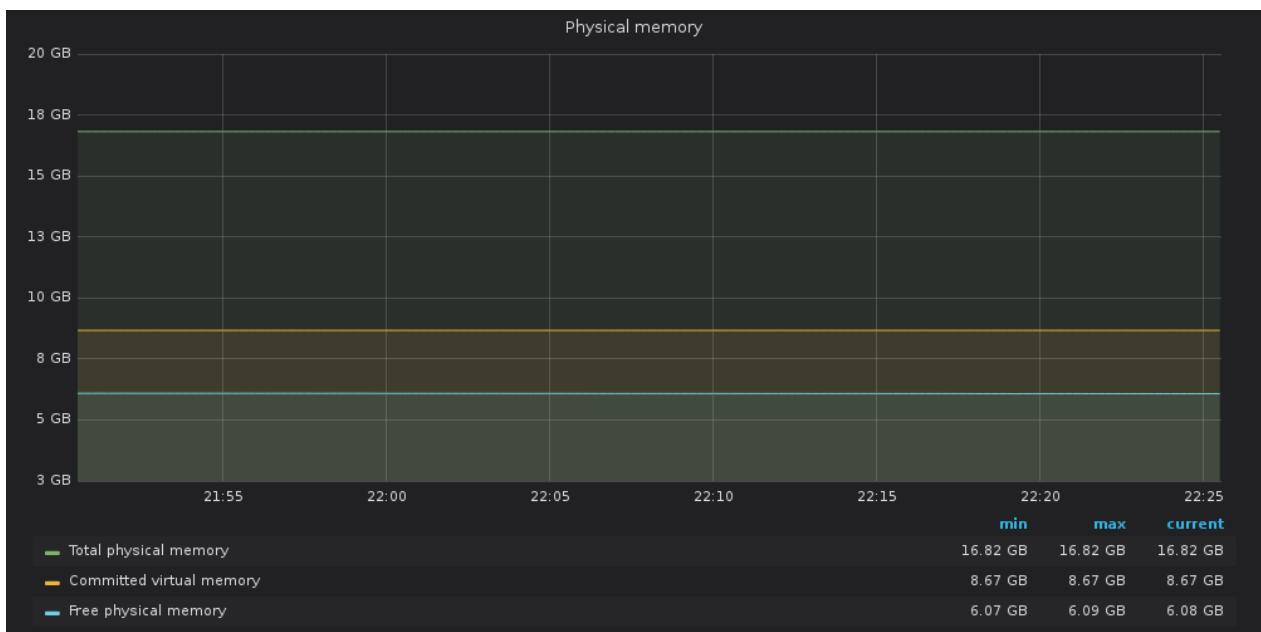
GC time



Threads used



Physical memory



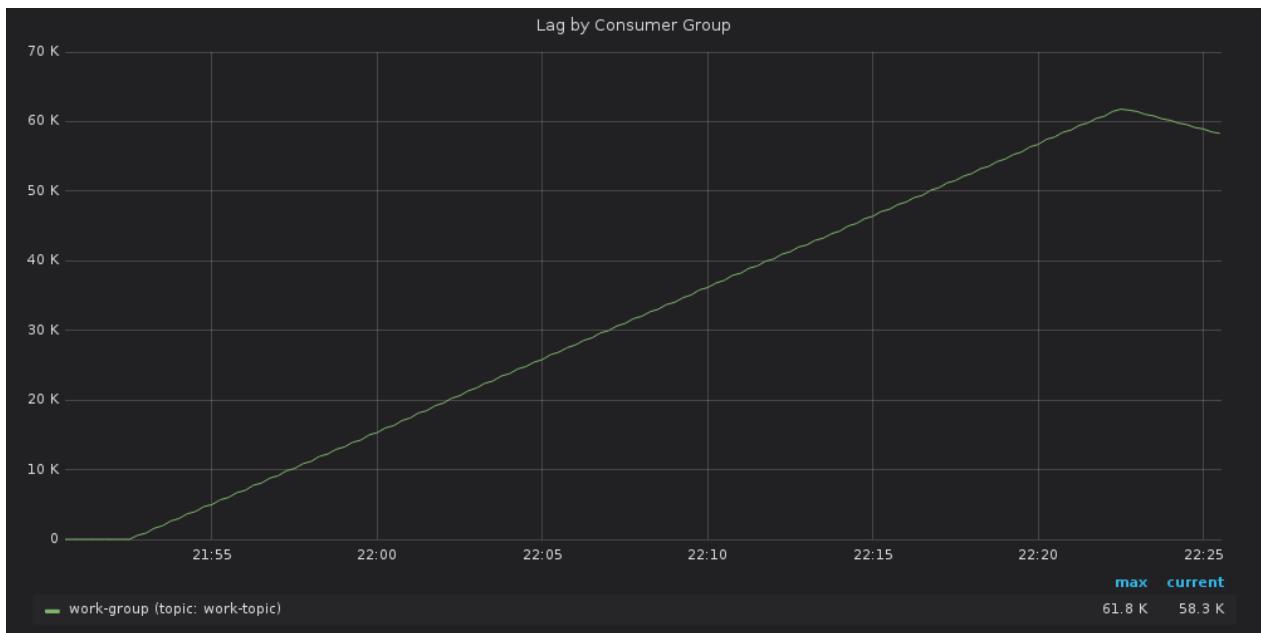
Service: kafka_exporter

- name: kafka_exporter
- type: kafka_exporter

Message in per second



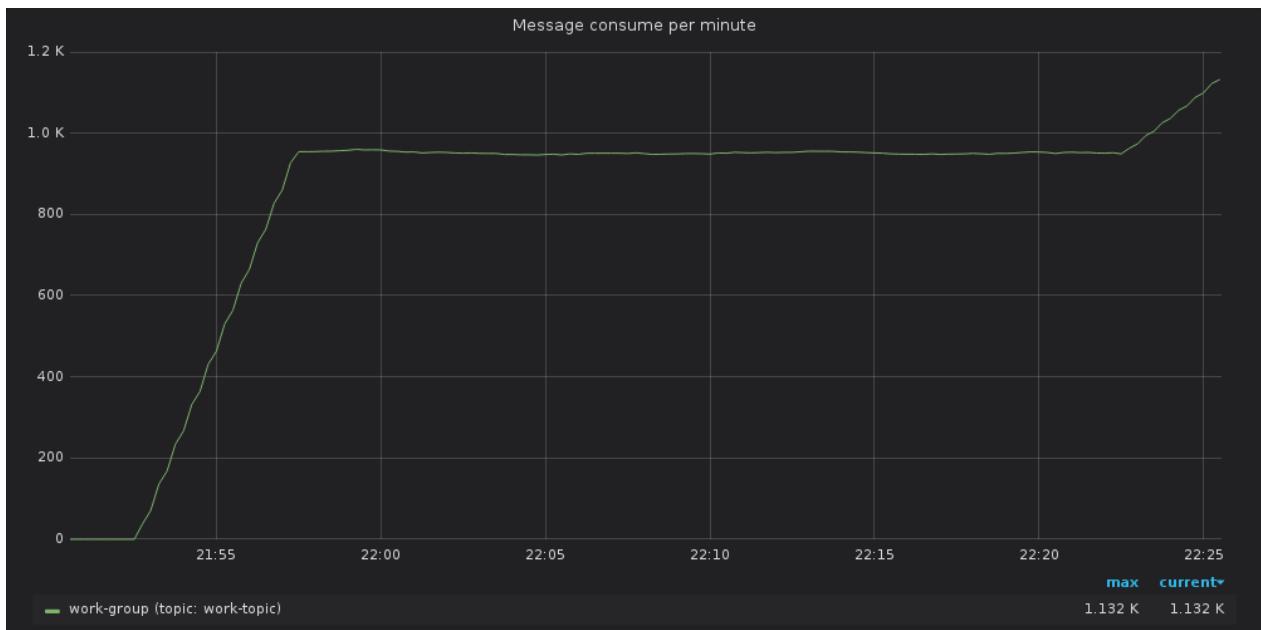
Lag by Consumer Group



Message in per minute



Message consume per minute



Host: es1

- name: es1
- type: elasticsearch

Service: node_es_1

- name: node_es_1
- type: node_exporter

系统运行时间

System Up Time

8.3 hour

CPU 核数

CPU Core

6

内存总量

Total Memory

15.7 GiB

CPU使用率 (5m)

CPU Usage 5m

4.07%

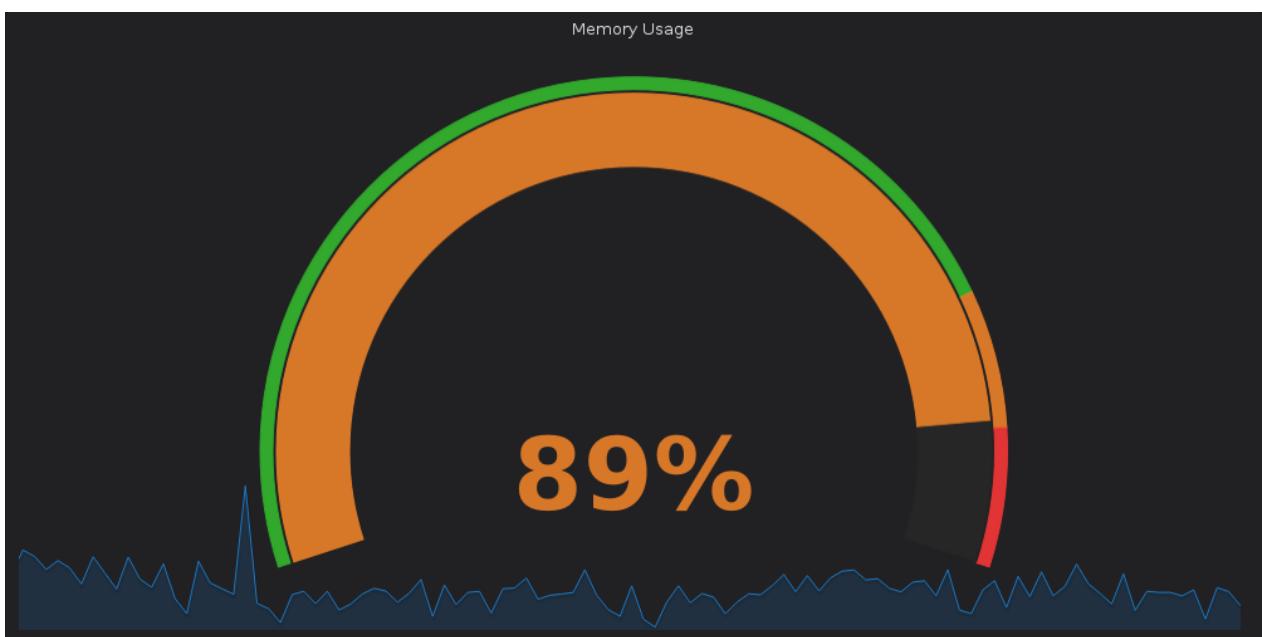
CPU iowait (5m)

CPU iowait 5m



内存使用率

Memory Usage



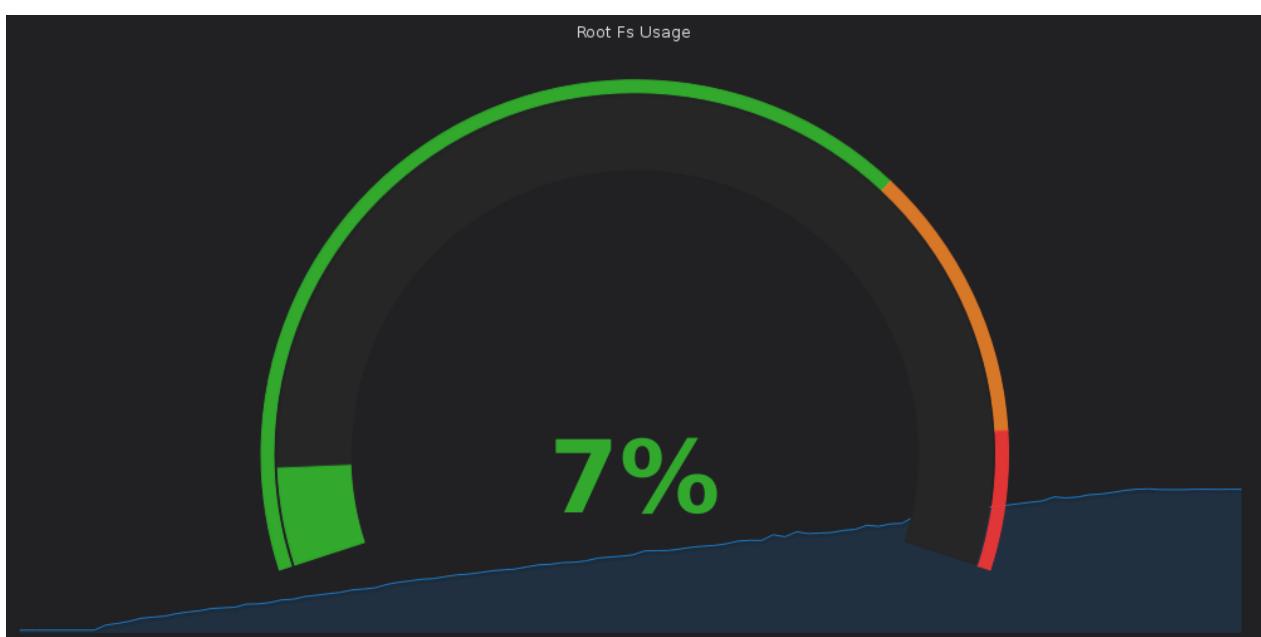
当前打开的文件描述符

Open Files

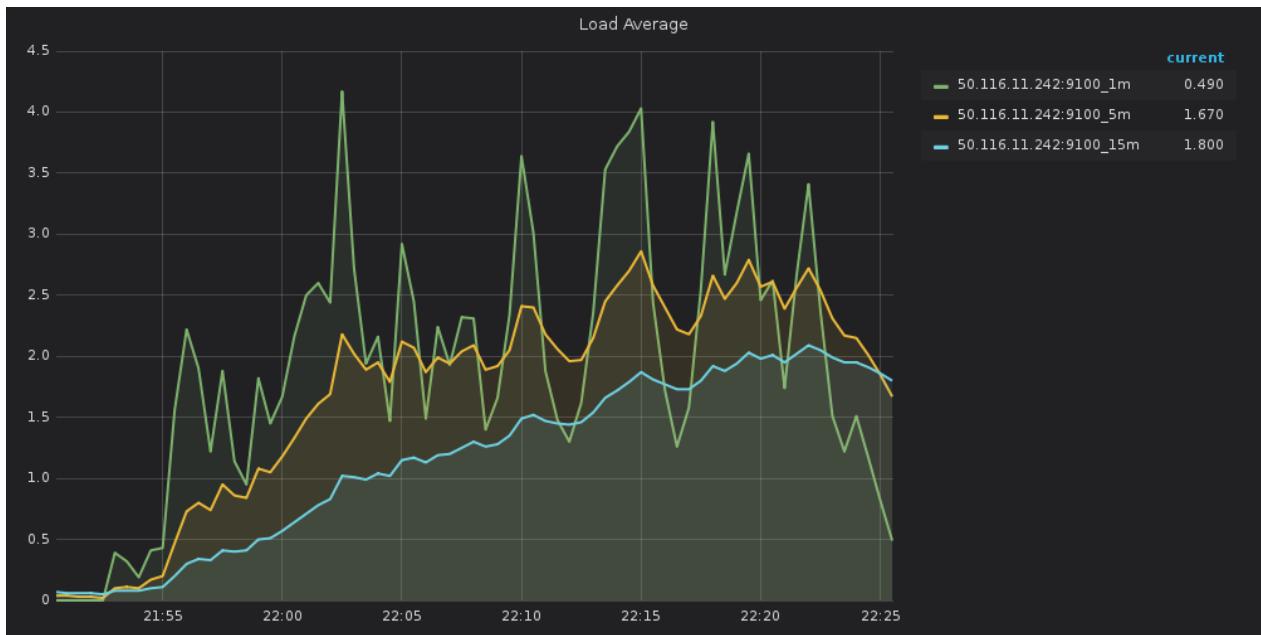


根分区使用率

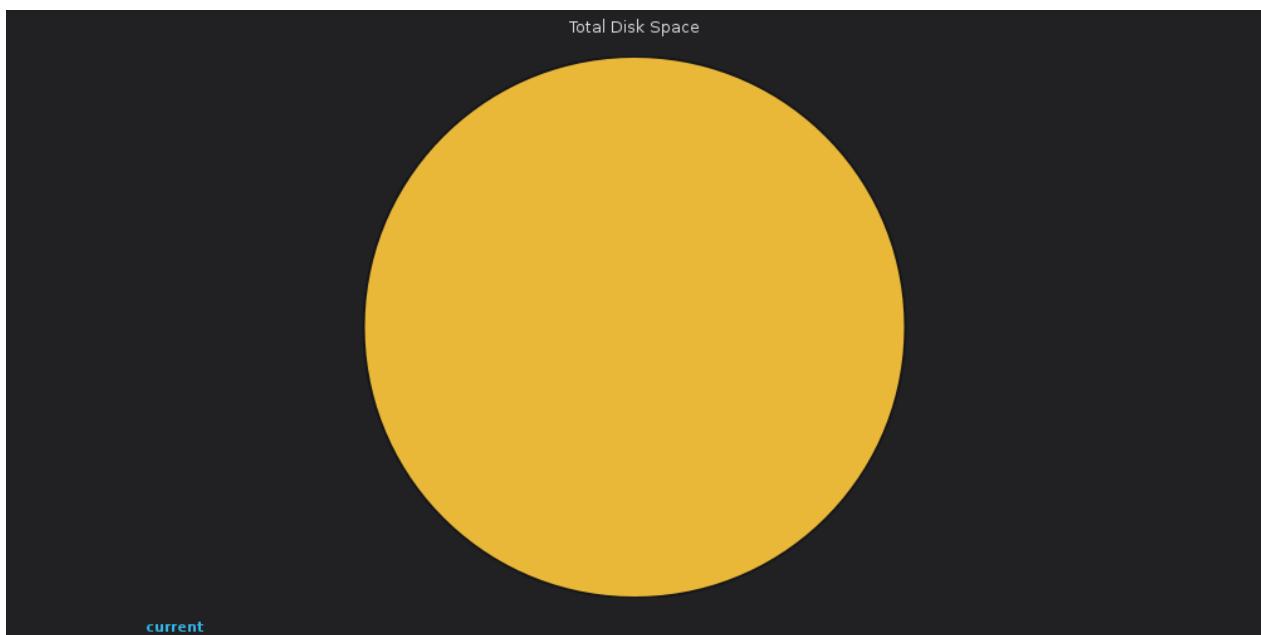
Root Fs Usage



系统平均负载



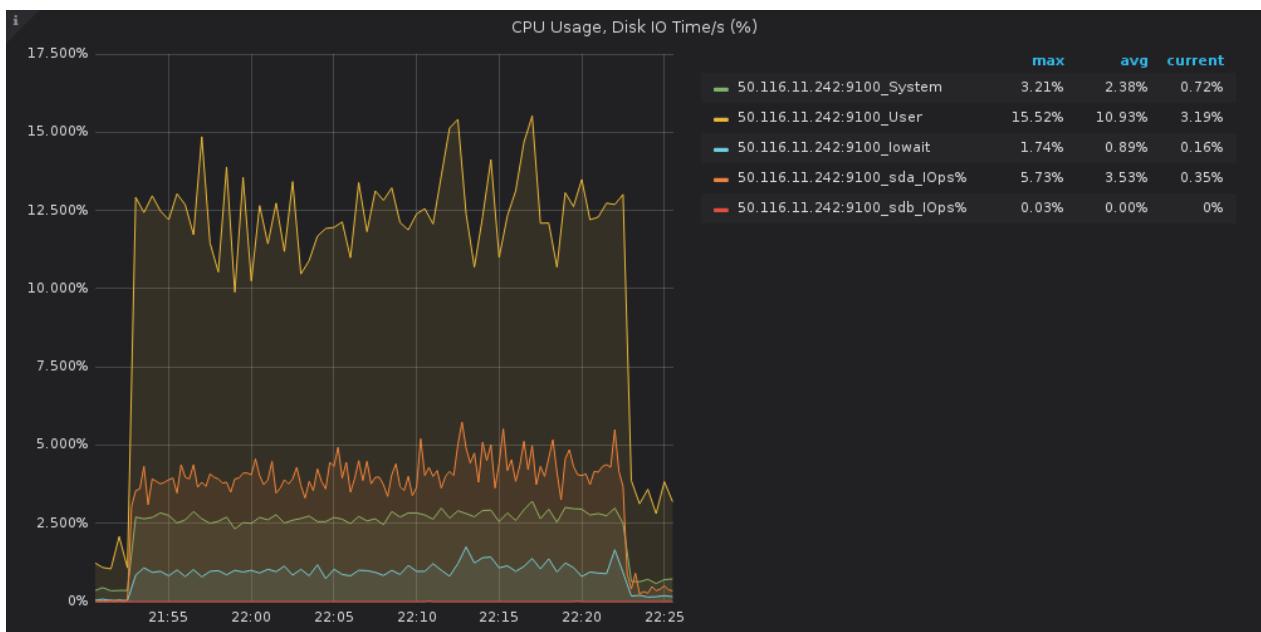
磁盘总空间



各分区可用空间

Volumes Available				
File System	IP	Mount ▲	Available	Usage
ext4	50.116.11.242:9100	/	291.58 GiB	2.22%

CPU使用率、磁盘每秒的I/O操作耗费时间 (%)



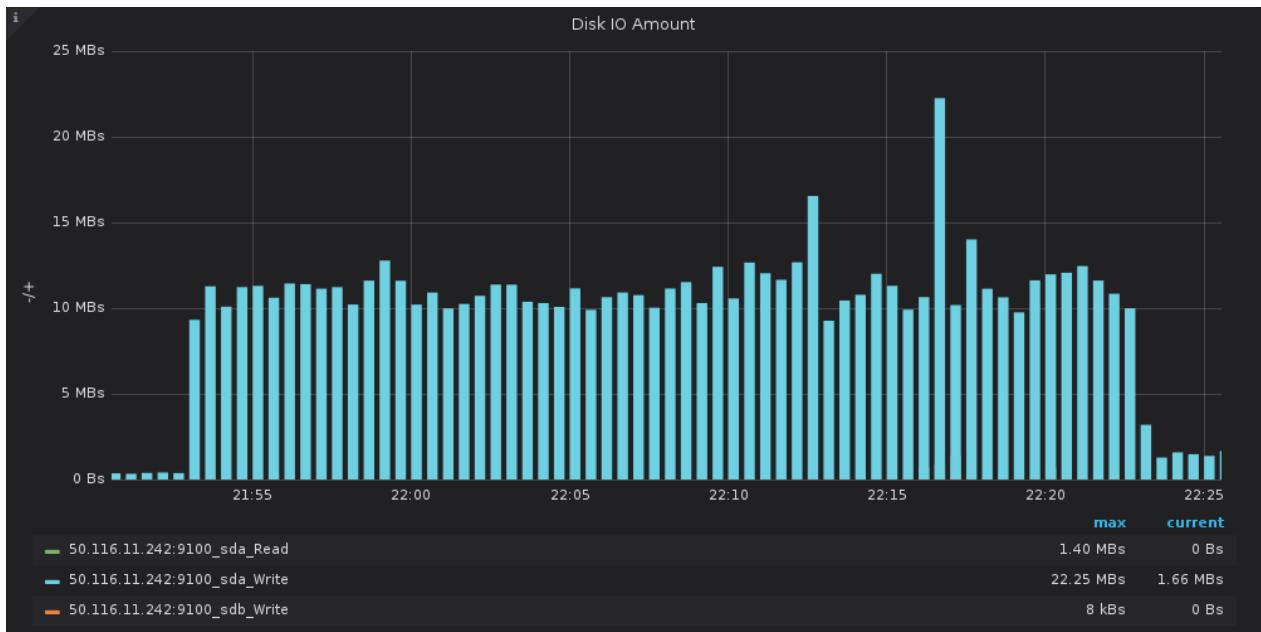
内存信息



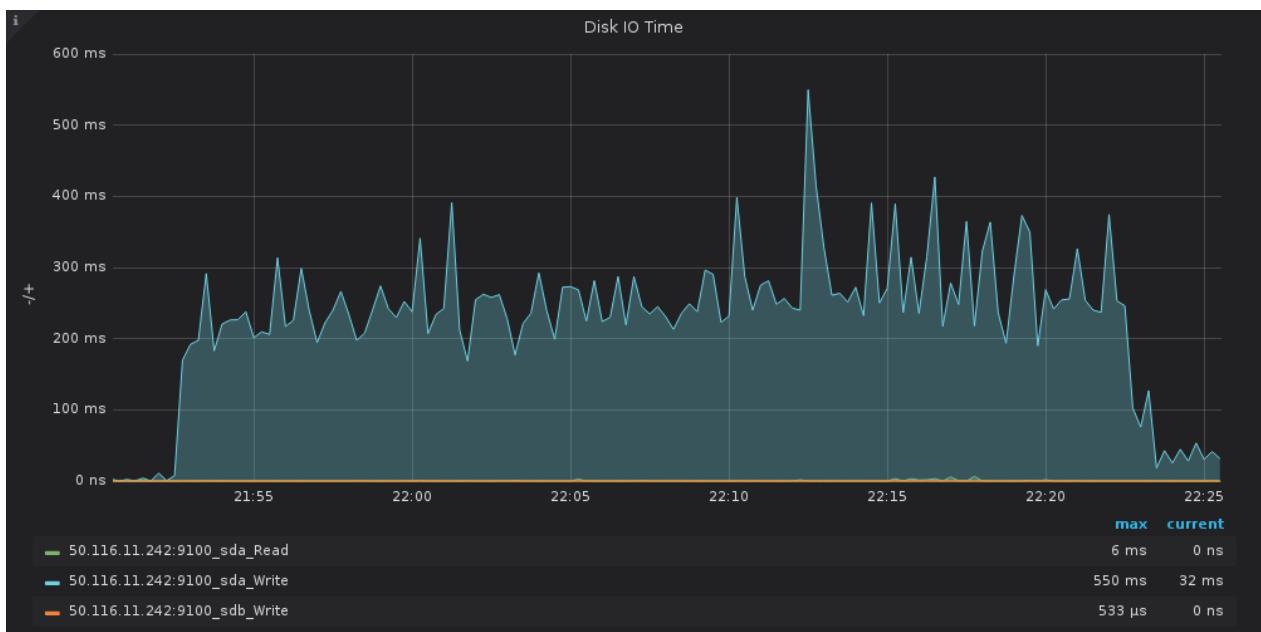
磁盘读写速率 (IOPS)



磁盘读写容量大小



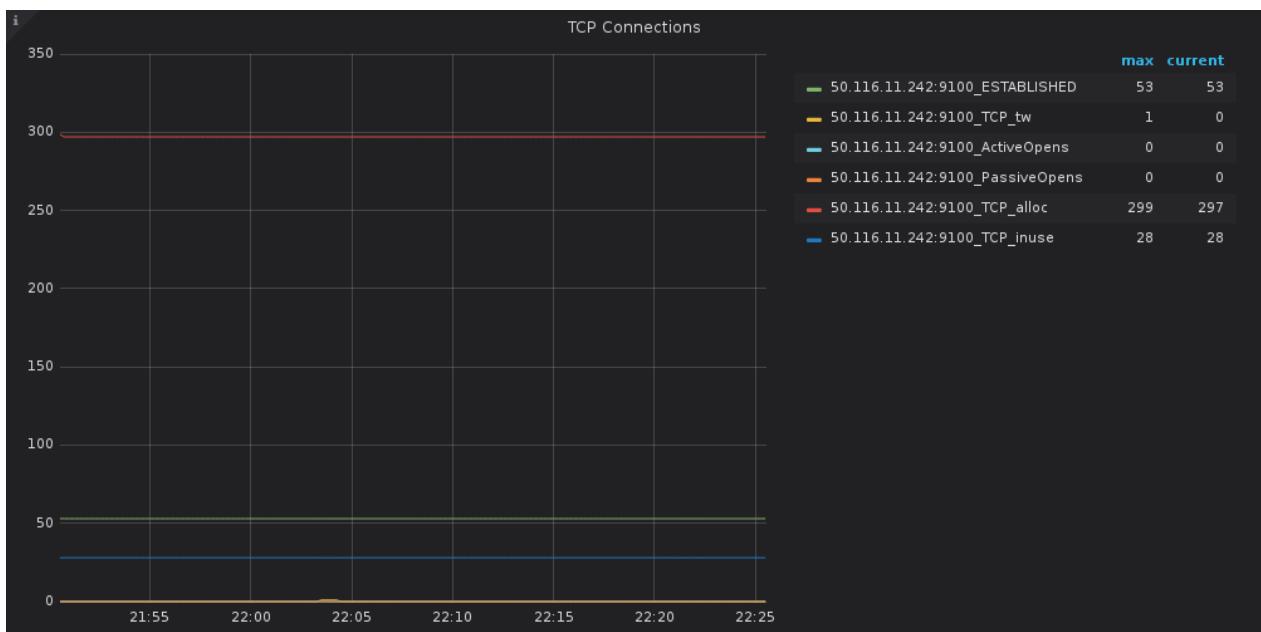
磁盘IO读写时间



网络流量



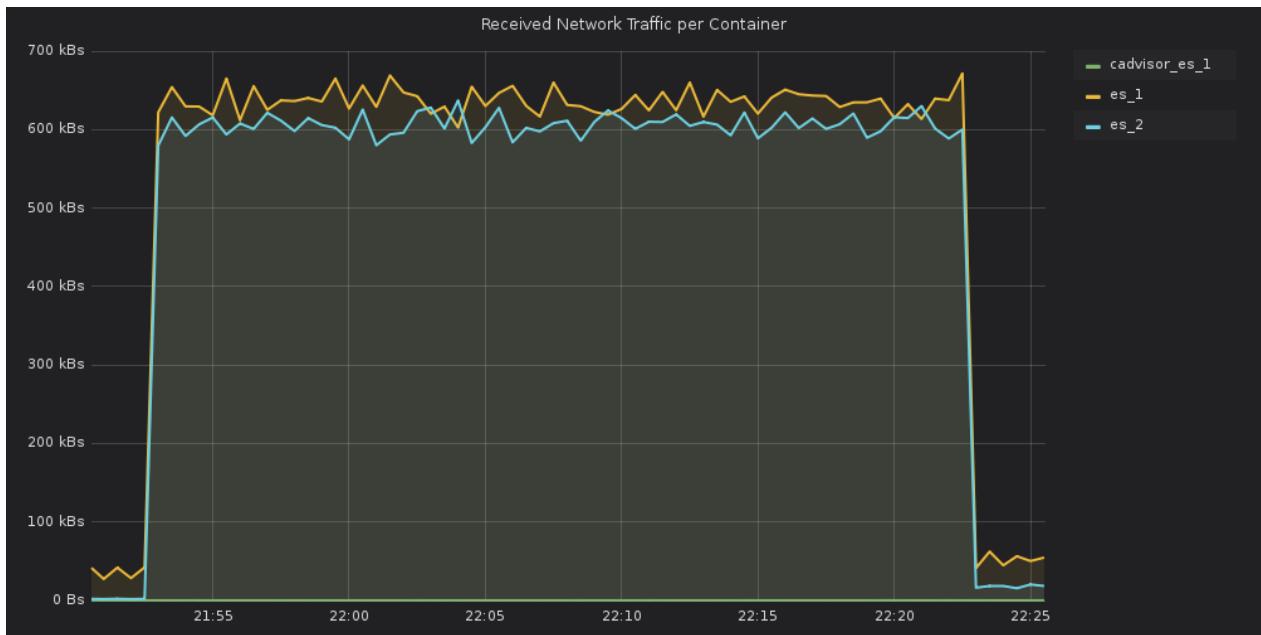
TCP 连接情况



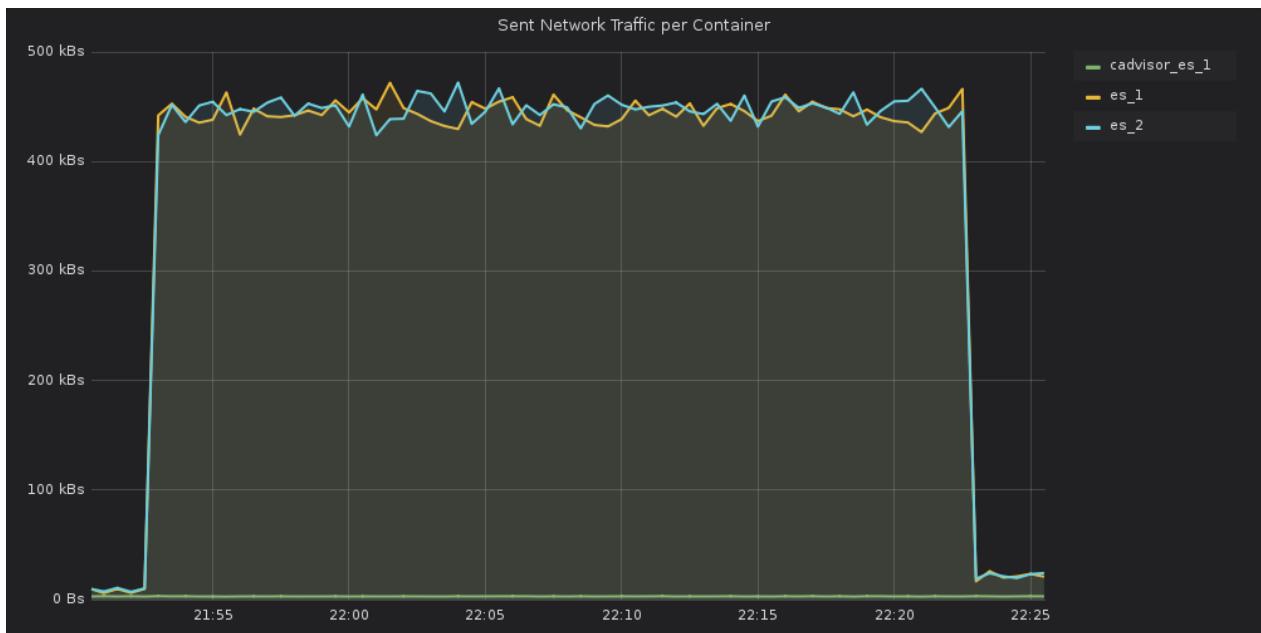
Service: cAdvisor_es_1

- name: cAdvisor_es_1
- type: cAdvisor

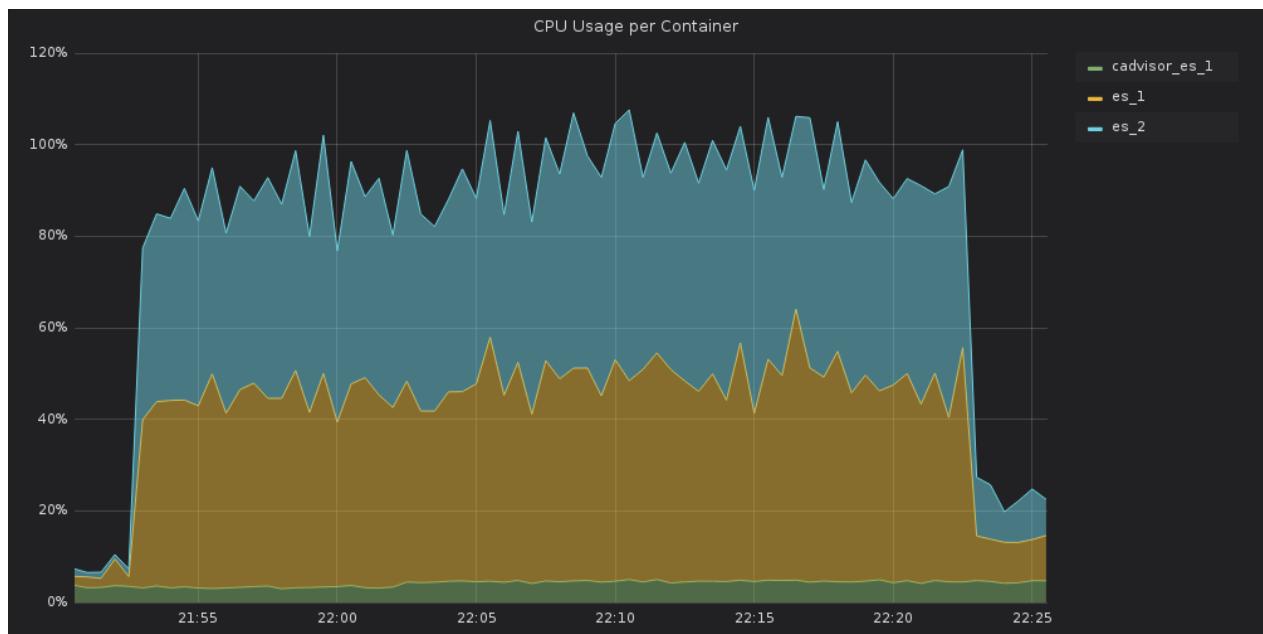
Received Network Traffic per Container



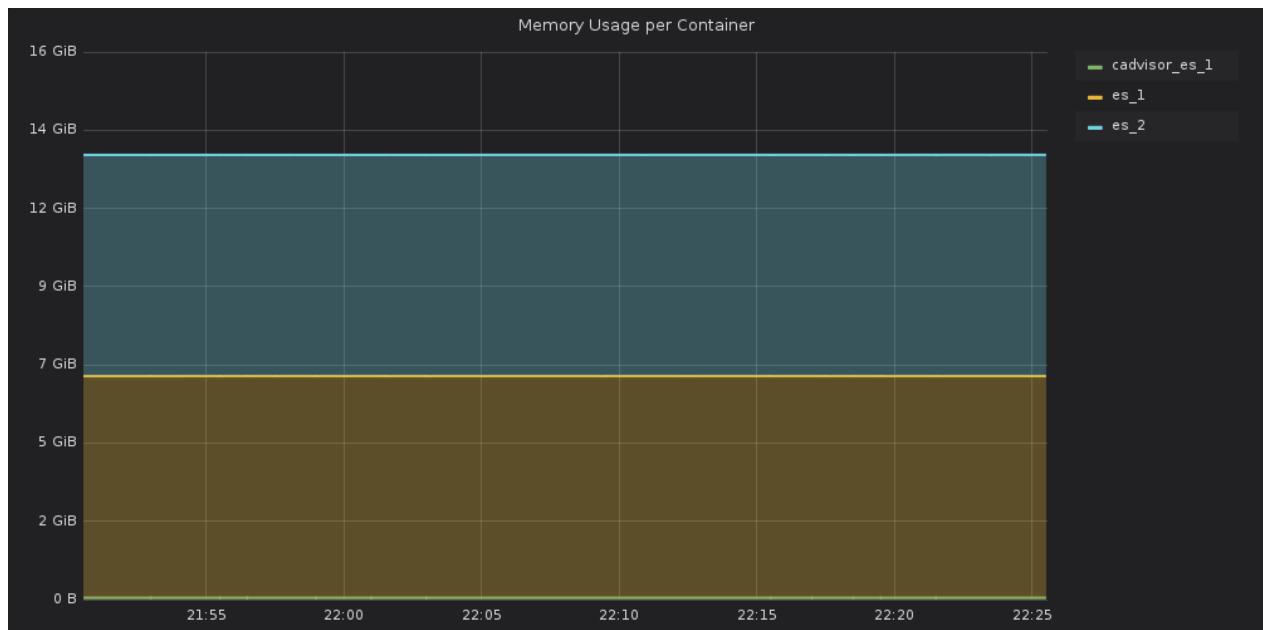
Sent Network Traffic per Container



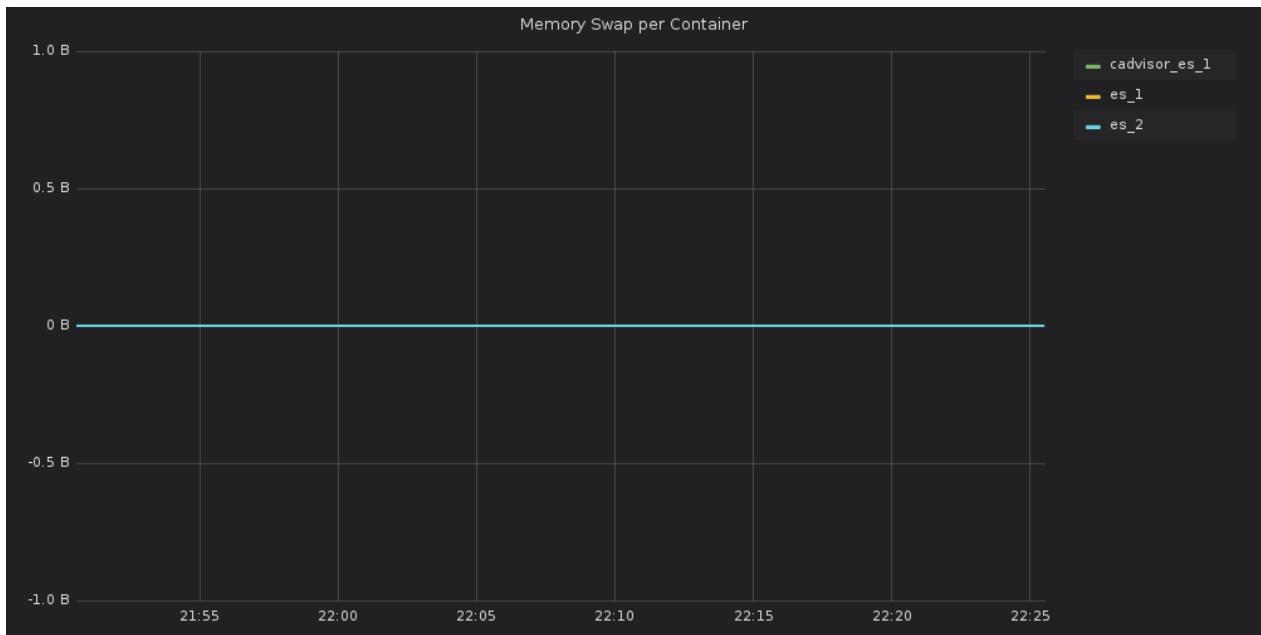
CPU Usage per Container



Memory Usage per Container



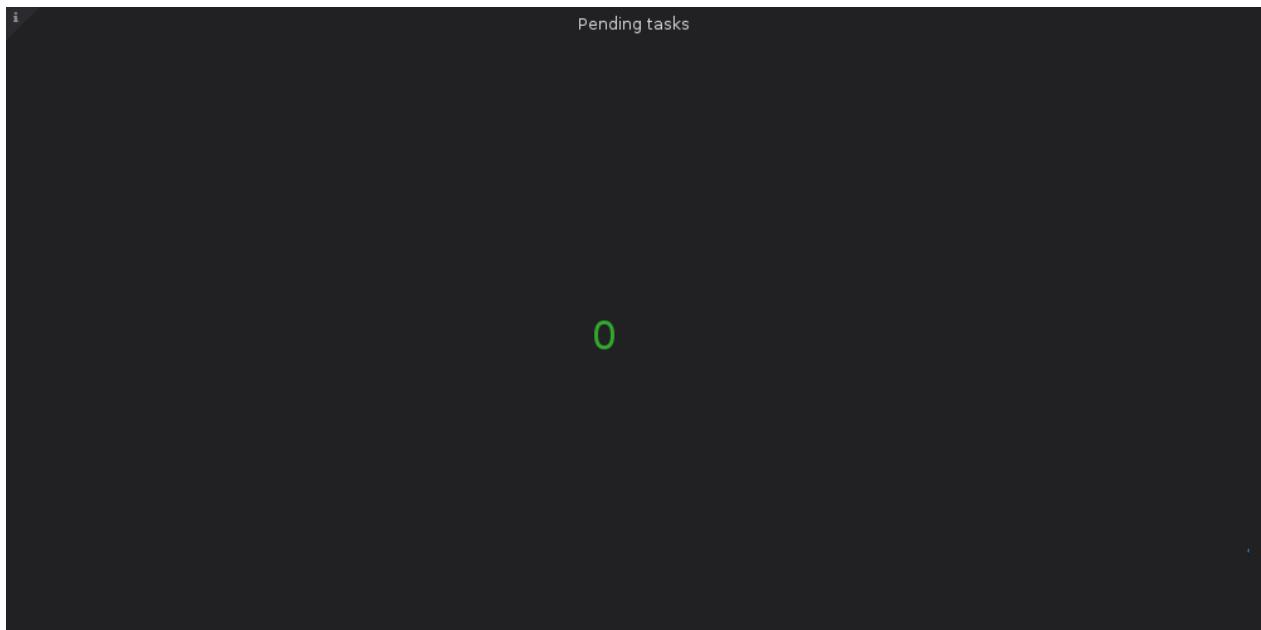
Memory Swap per Container



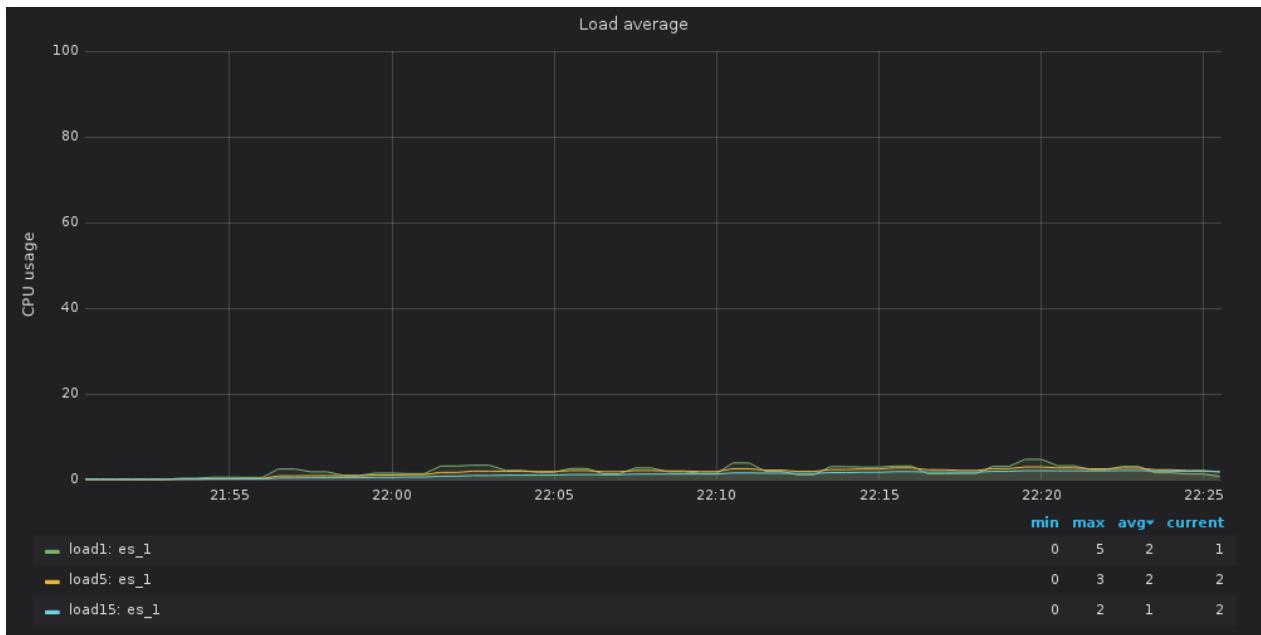
Service: es_1

- name: es_1
- type: elasticsearch

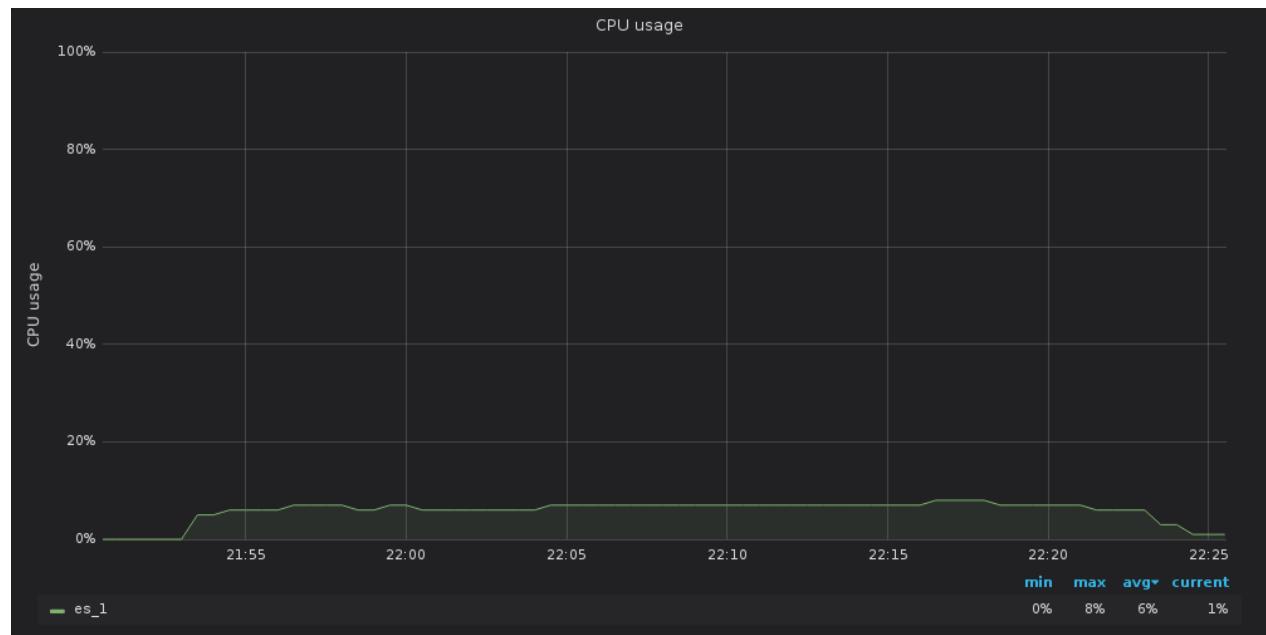
Pending tasks



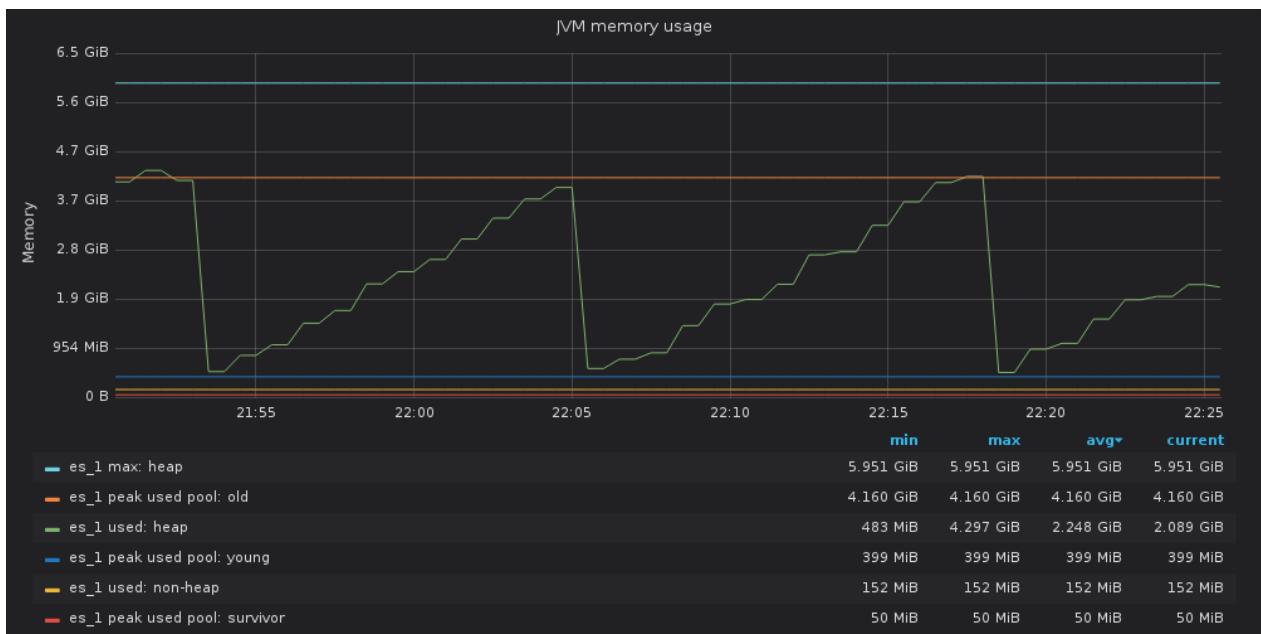
Load average



CPU usage



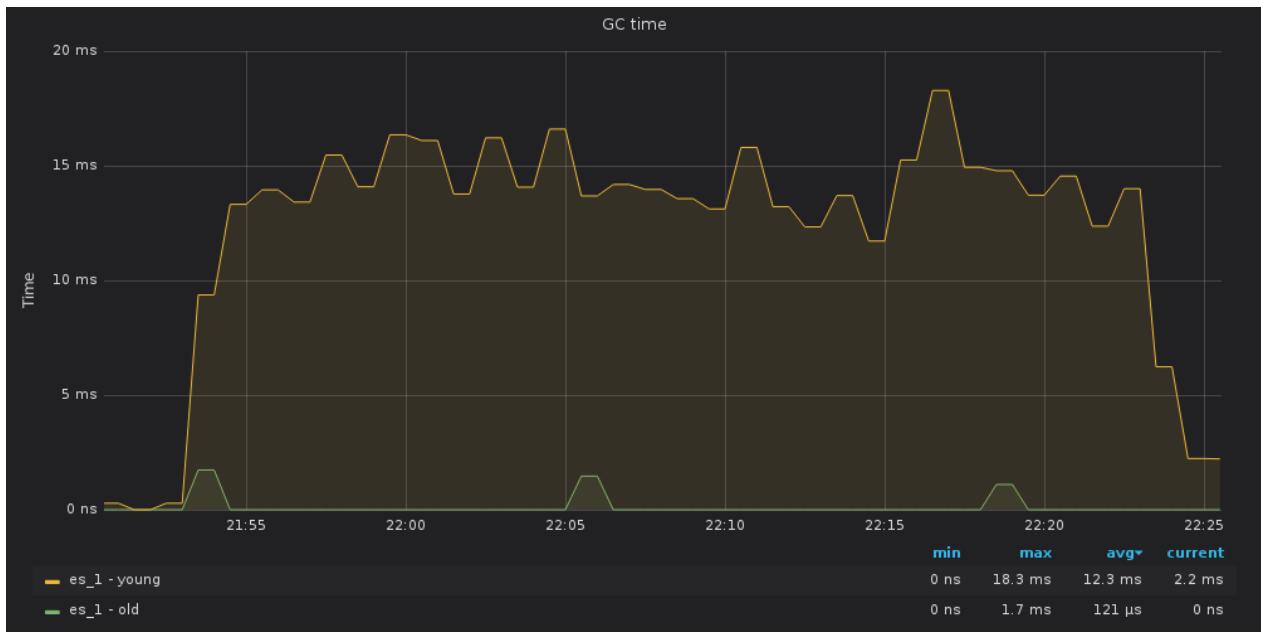
JVM memory usage



GC count



GC time



Total translog operations



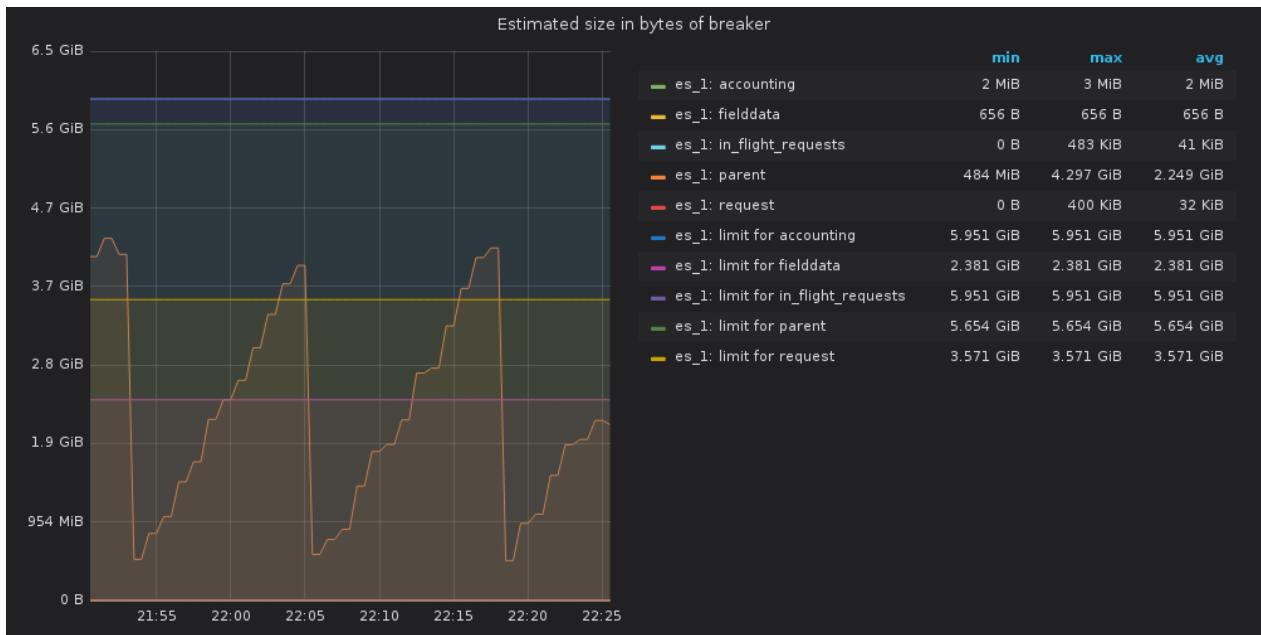
Total translog size in bytes



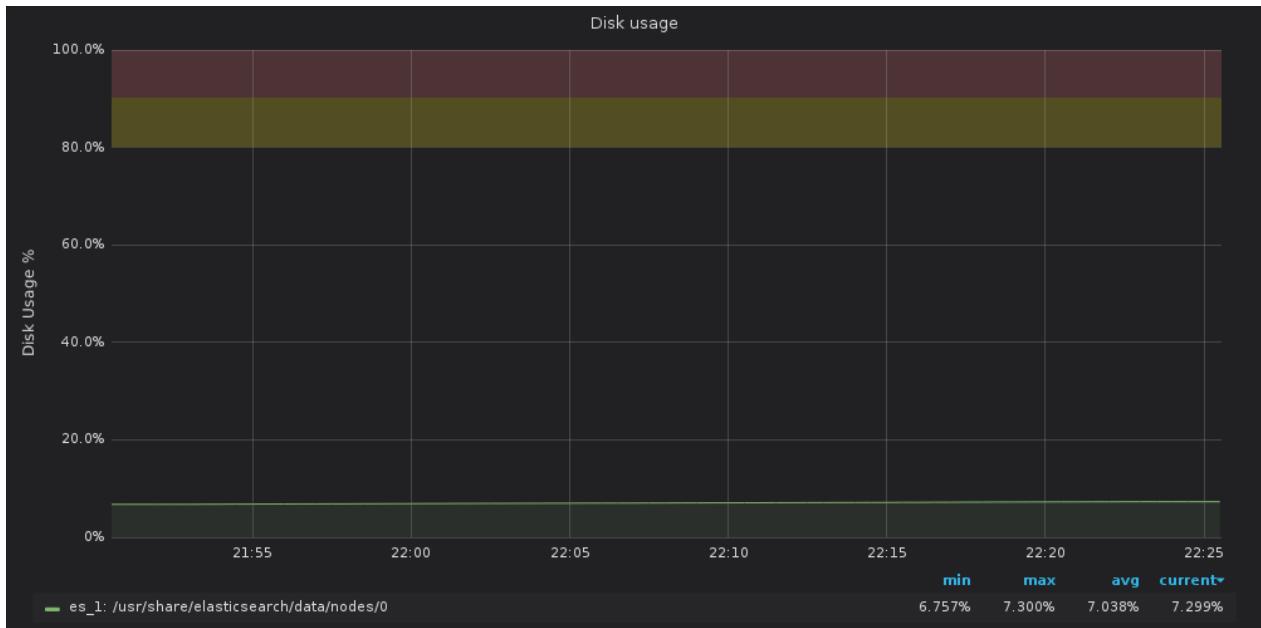
Tripped for breakers



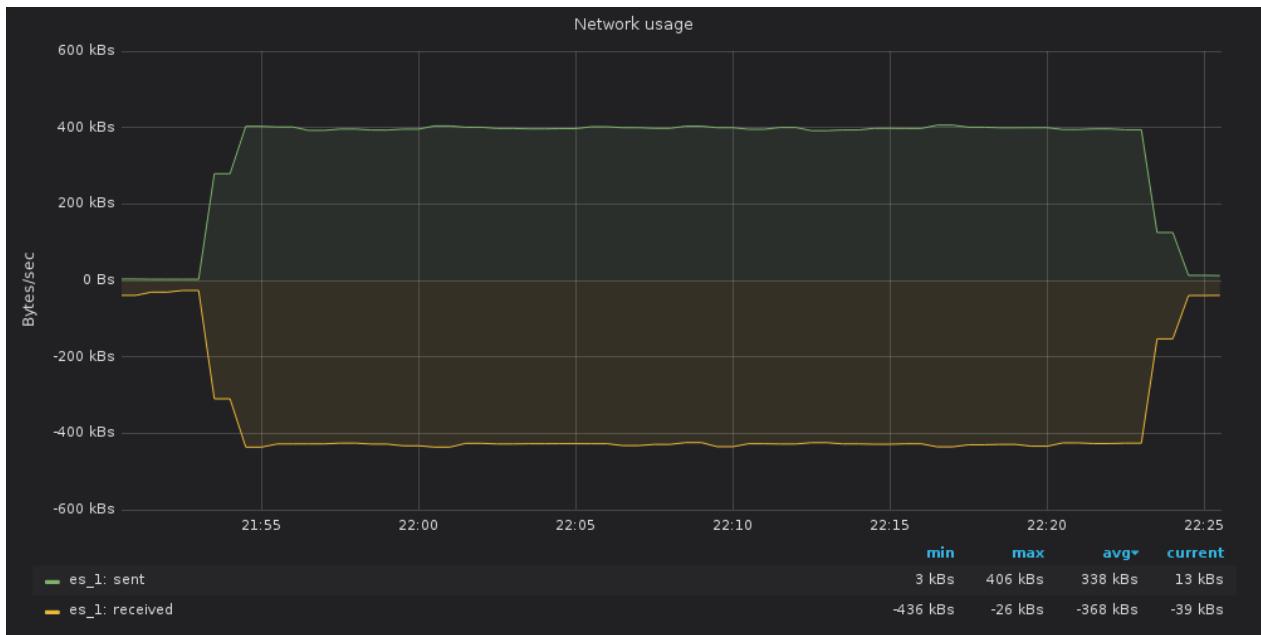
Estimated size in bytes of breaker



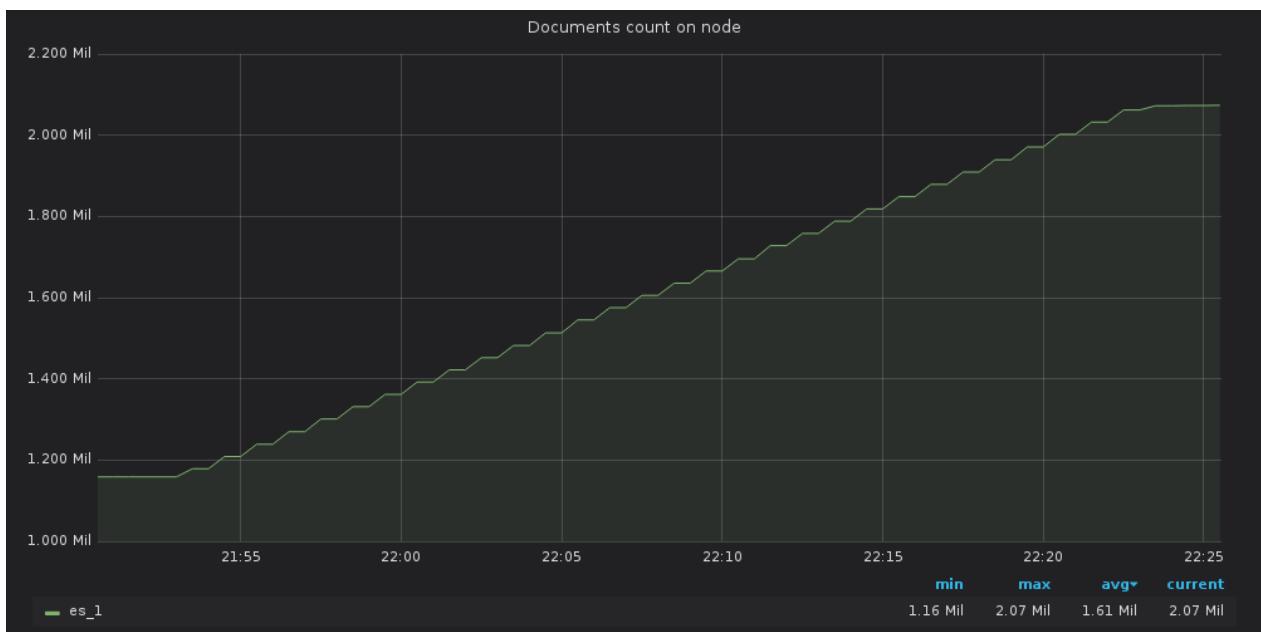
Disk usage



Network usage



Documents count on node



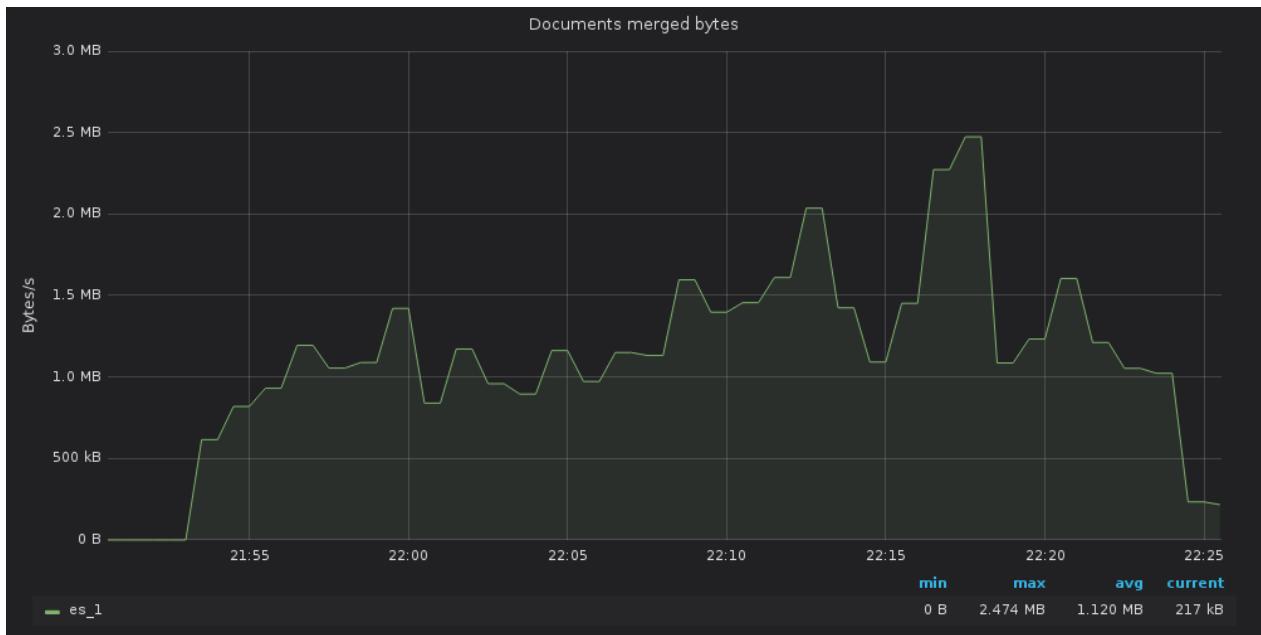
Documents indexed rate



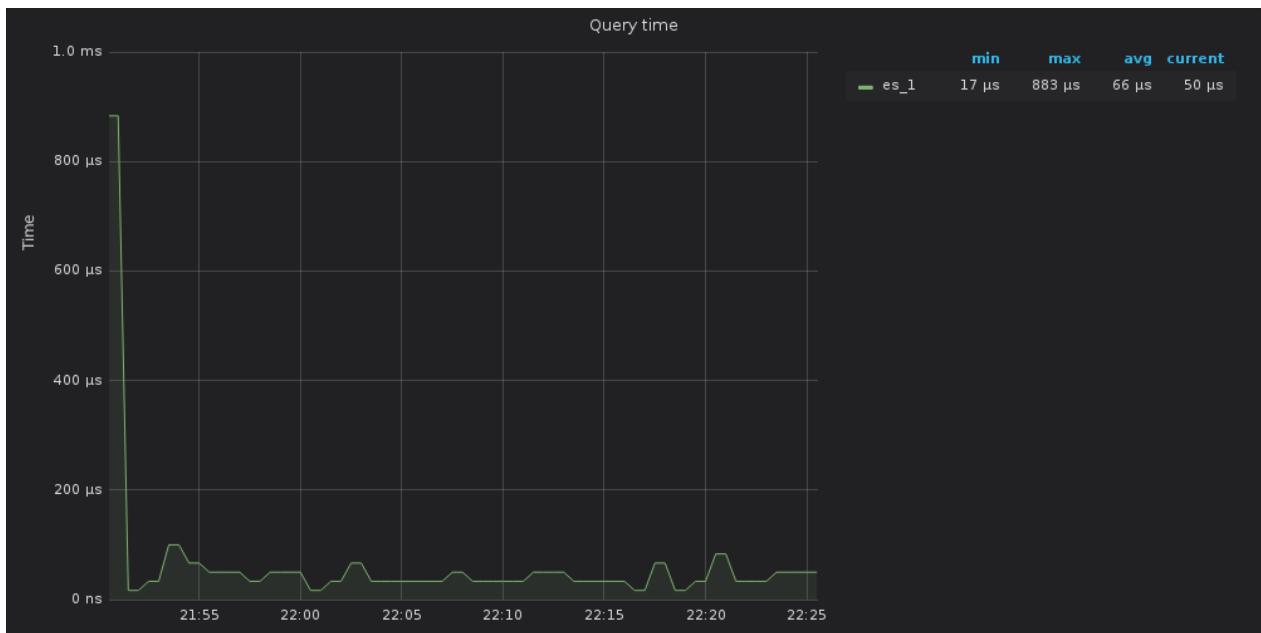
Documents merged rate



Documents merged bytes



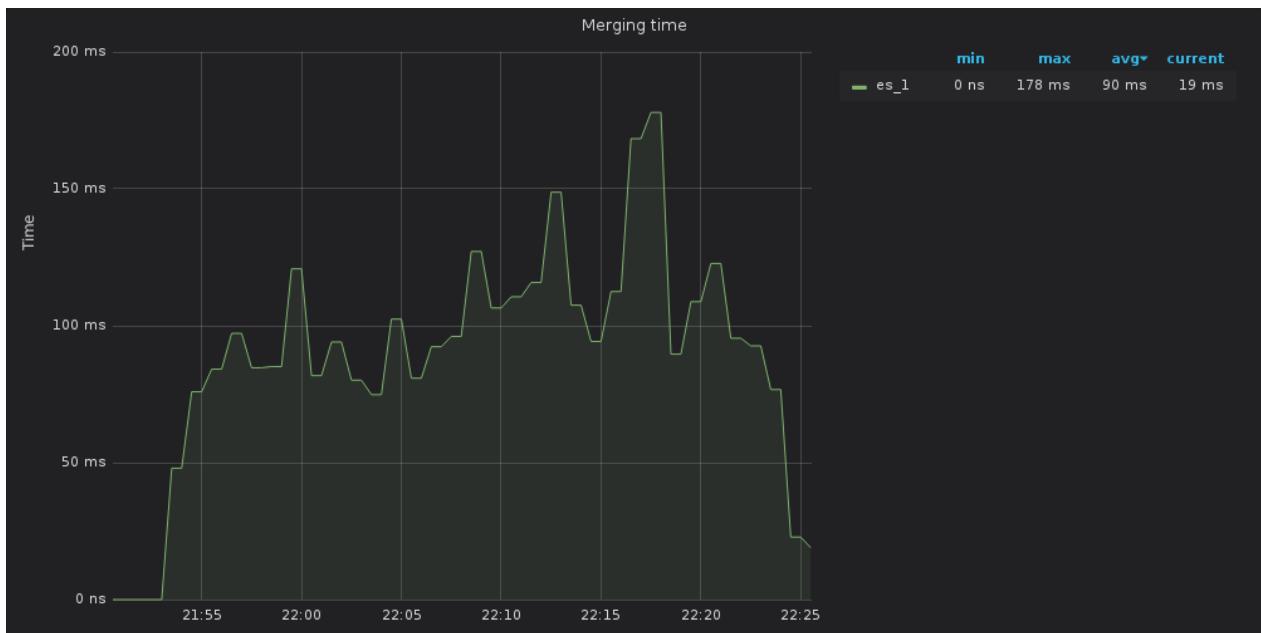
Query time



Indexing time



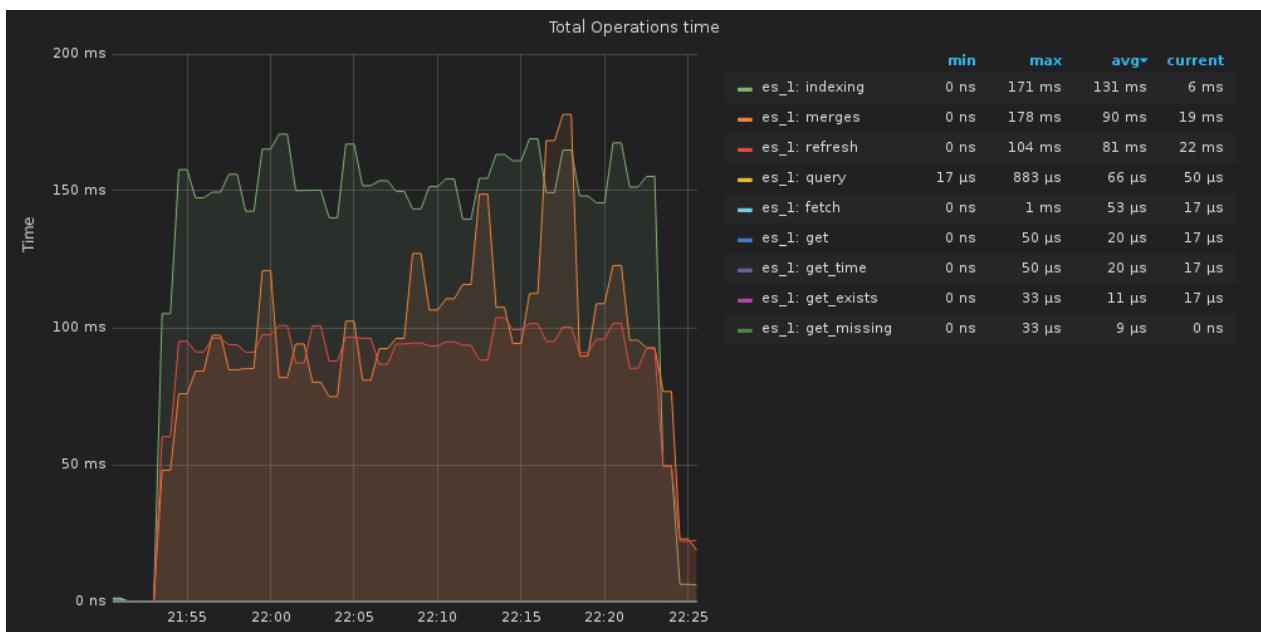
Merging time



Total Operations rate



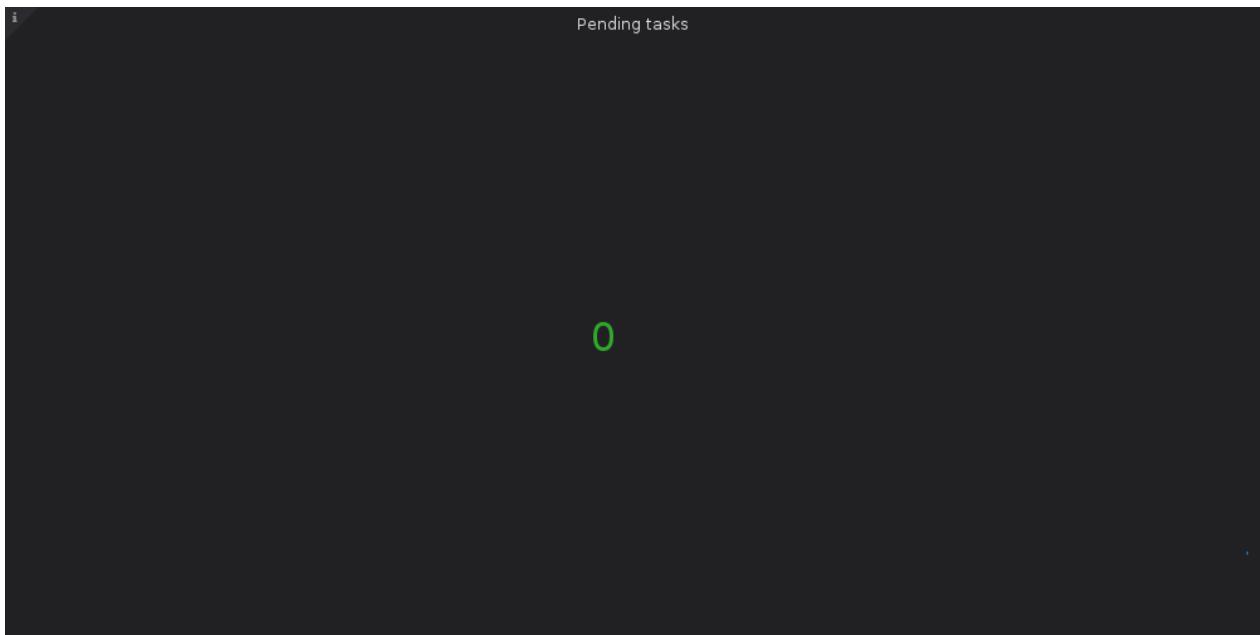
Total Operations time



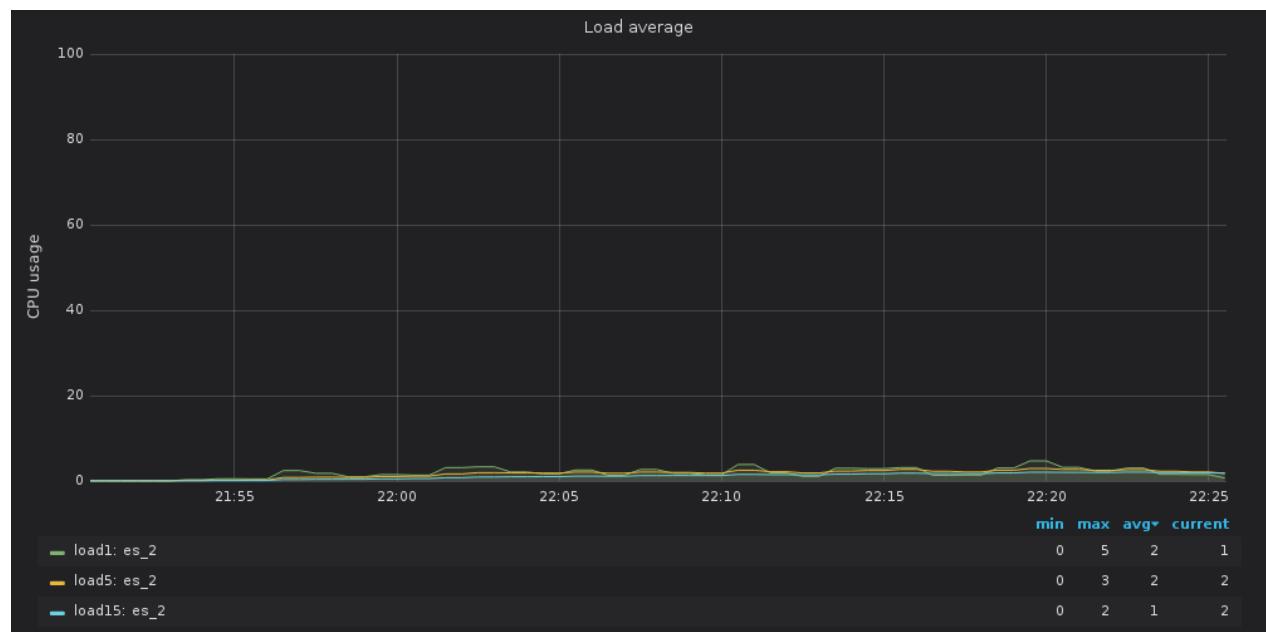
Service: es_2

- name: es_2
- type: elasticsearch

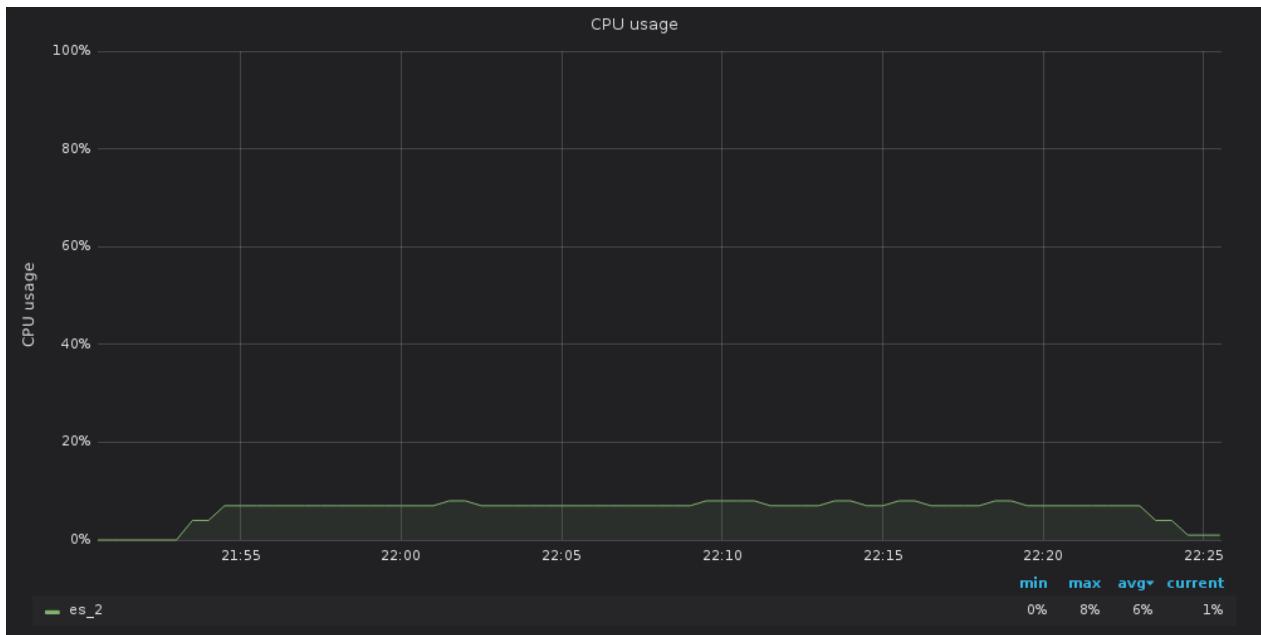
Pending tasks



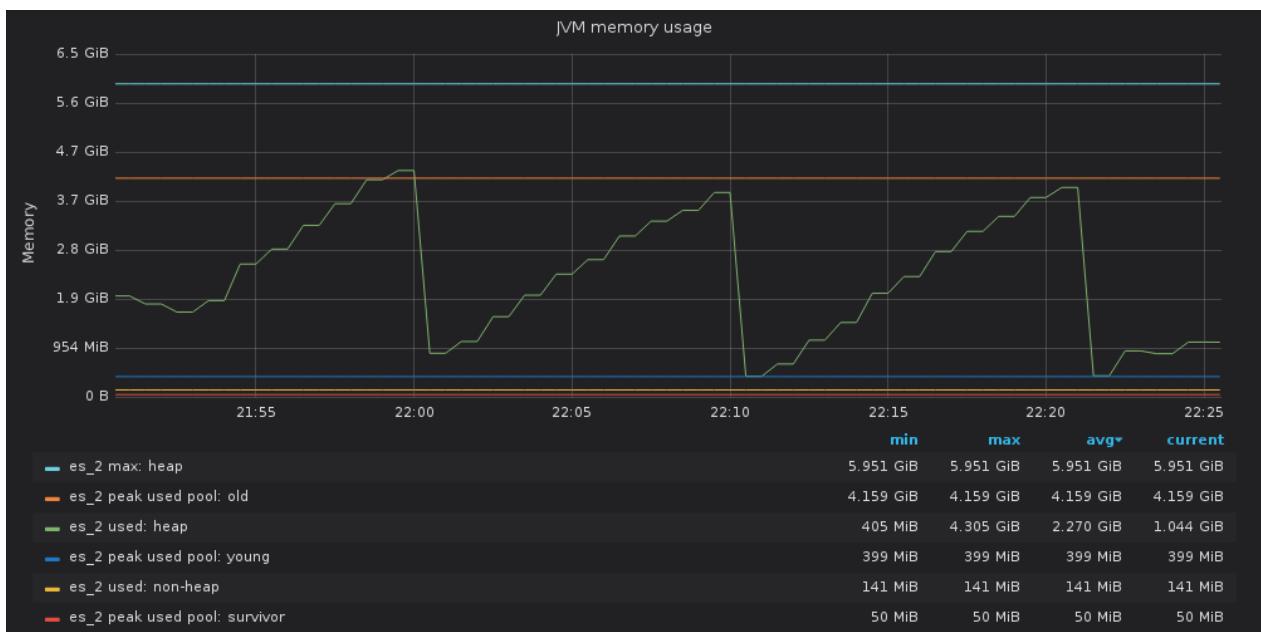
Load average



CPU usage



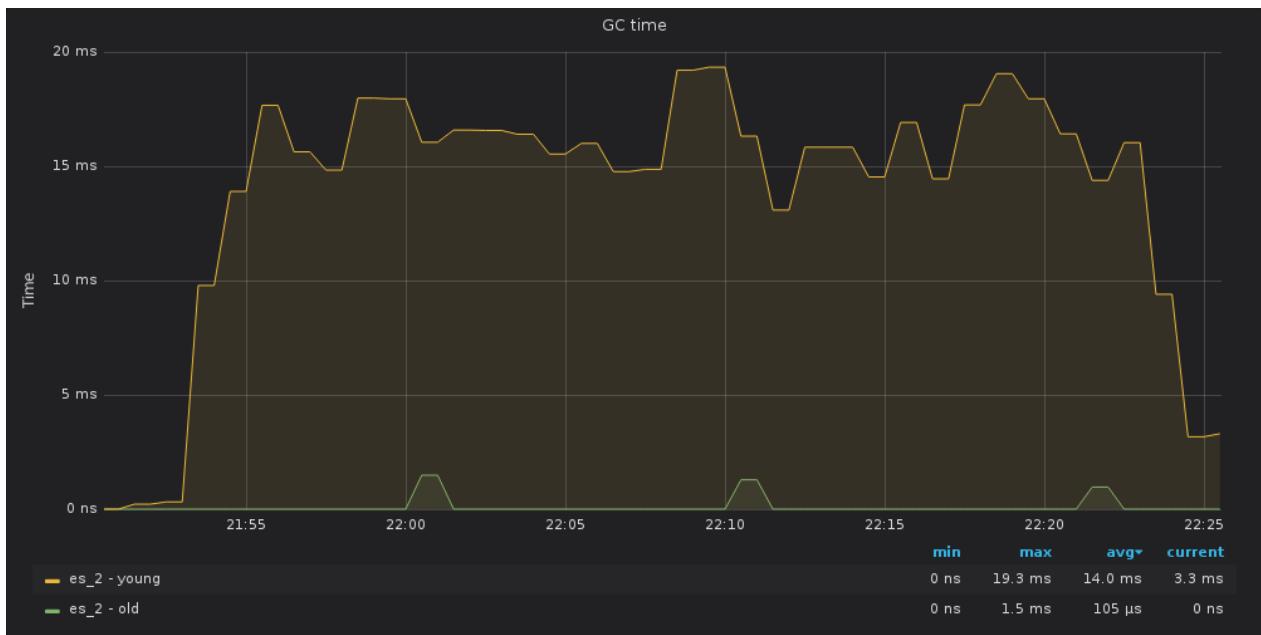
JVM memory usage



GC count



GC time



Total translog operations



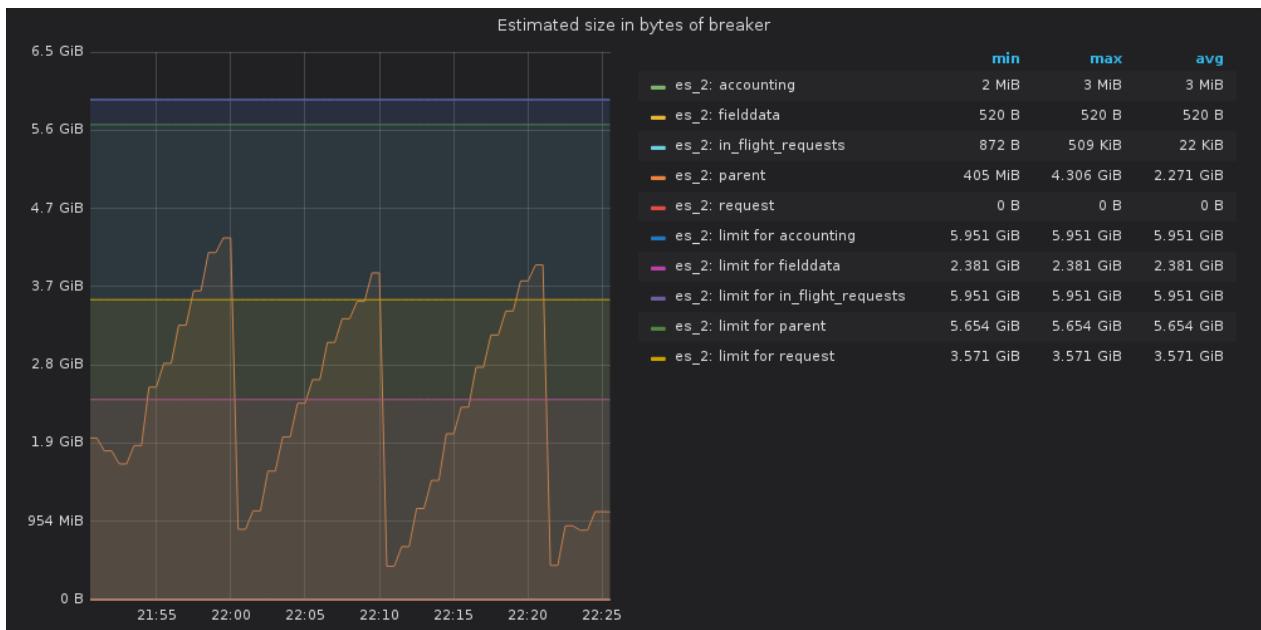
Total translog size in bytes



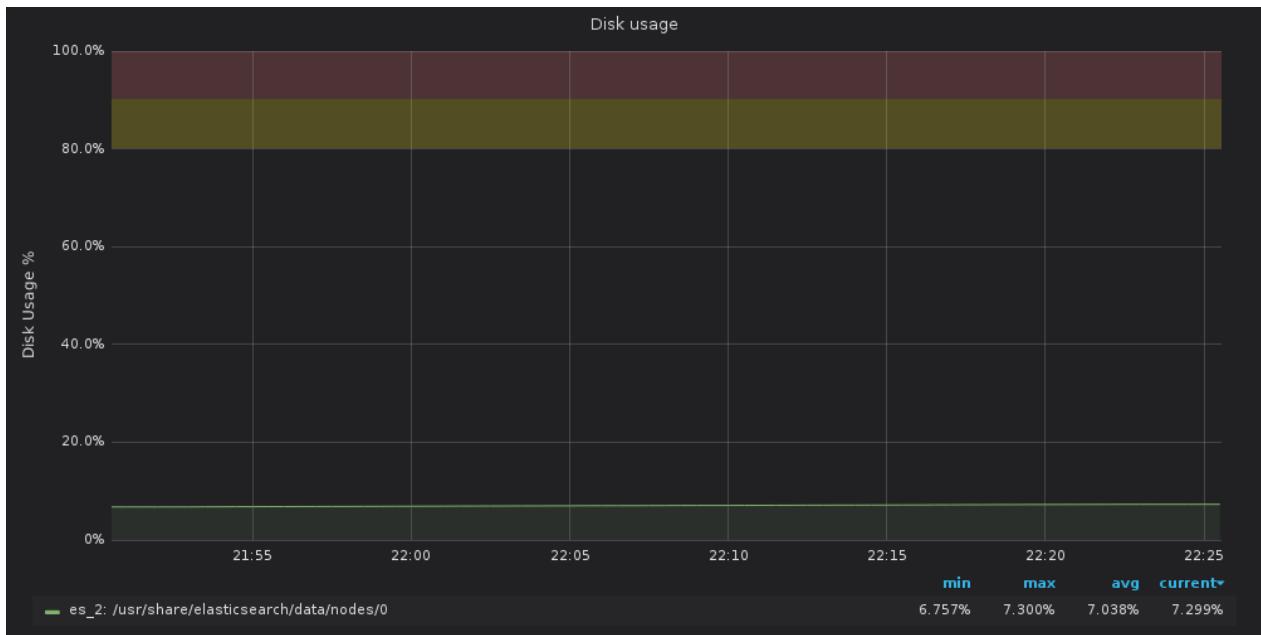
Tripped for breakers



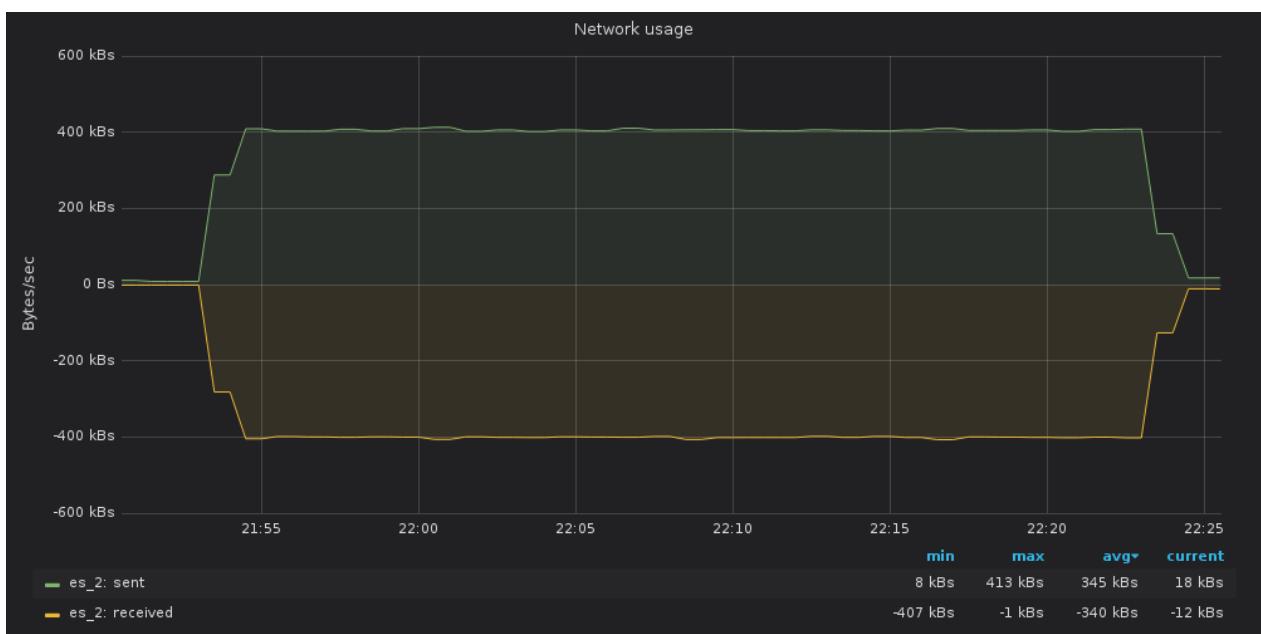
Estimated size in bytes of breaker



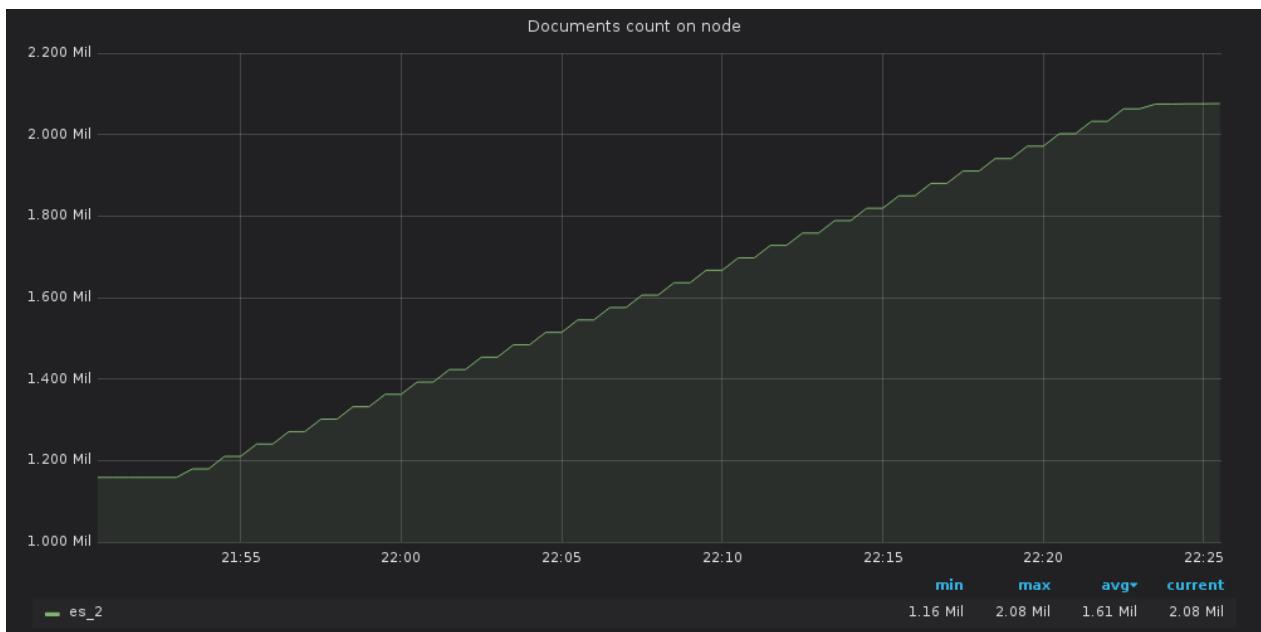
Disk usage



Network usage



Documents count on node



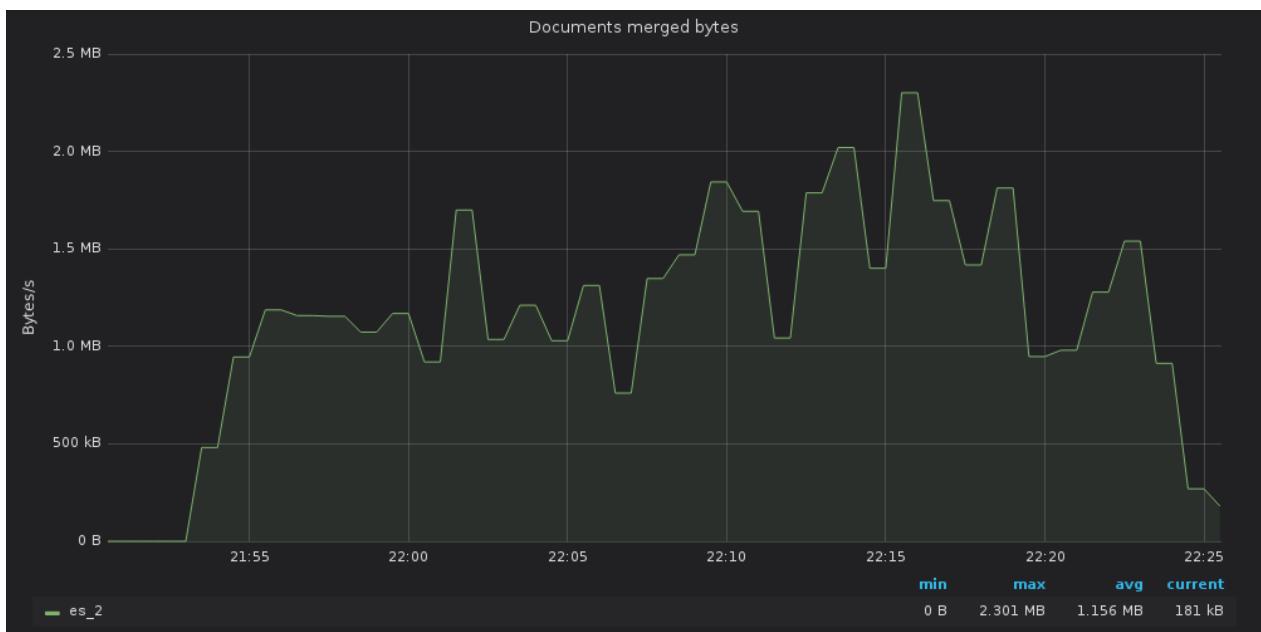
Documents indexed rate



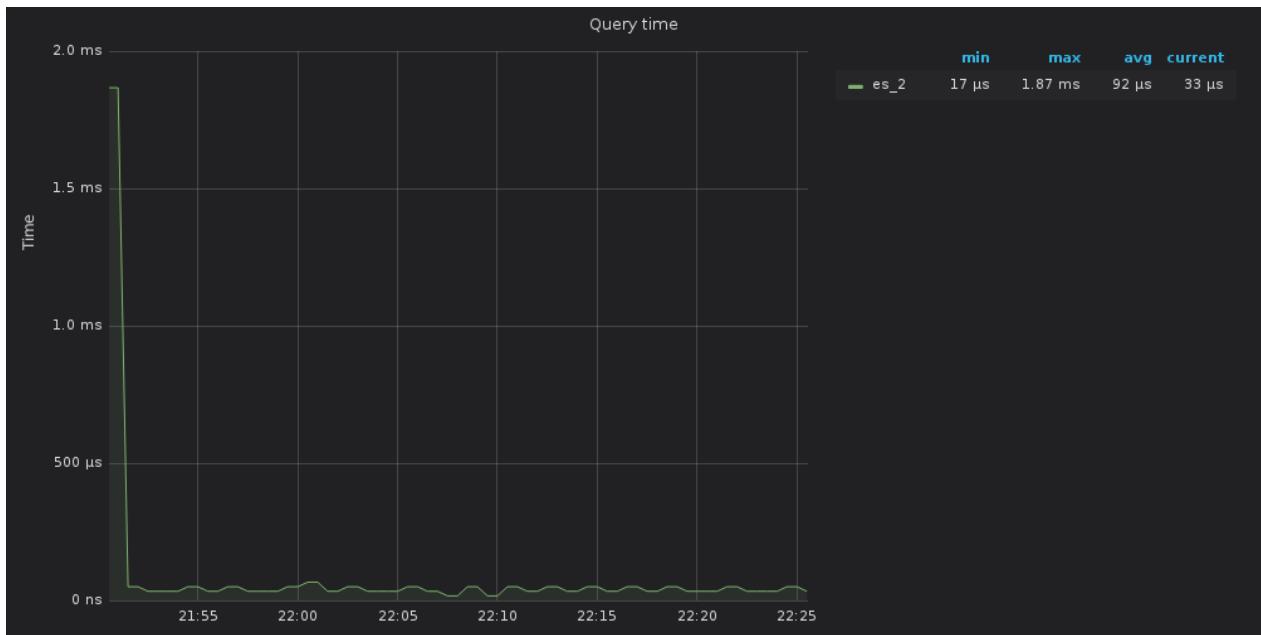
Documents merged rate



Documents merged bytes



Query time



Indexing time



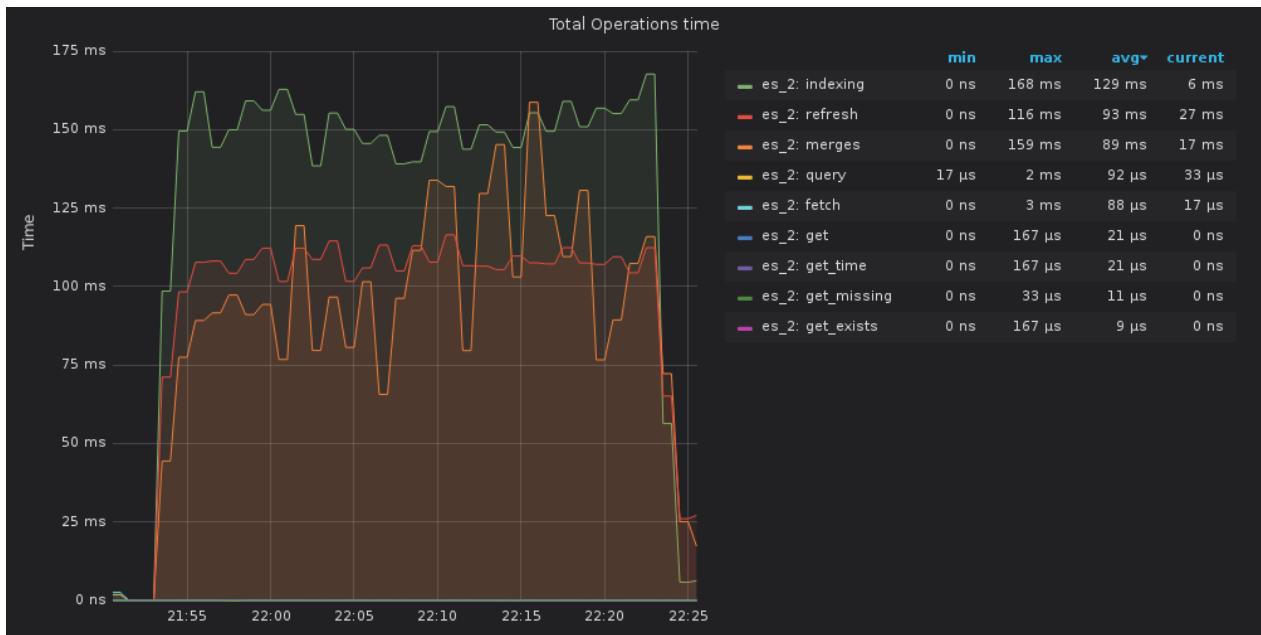
Merging time



Total Operations rate



Total Operations time



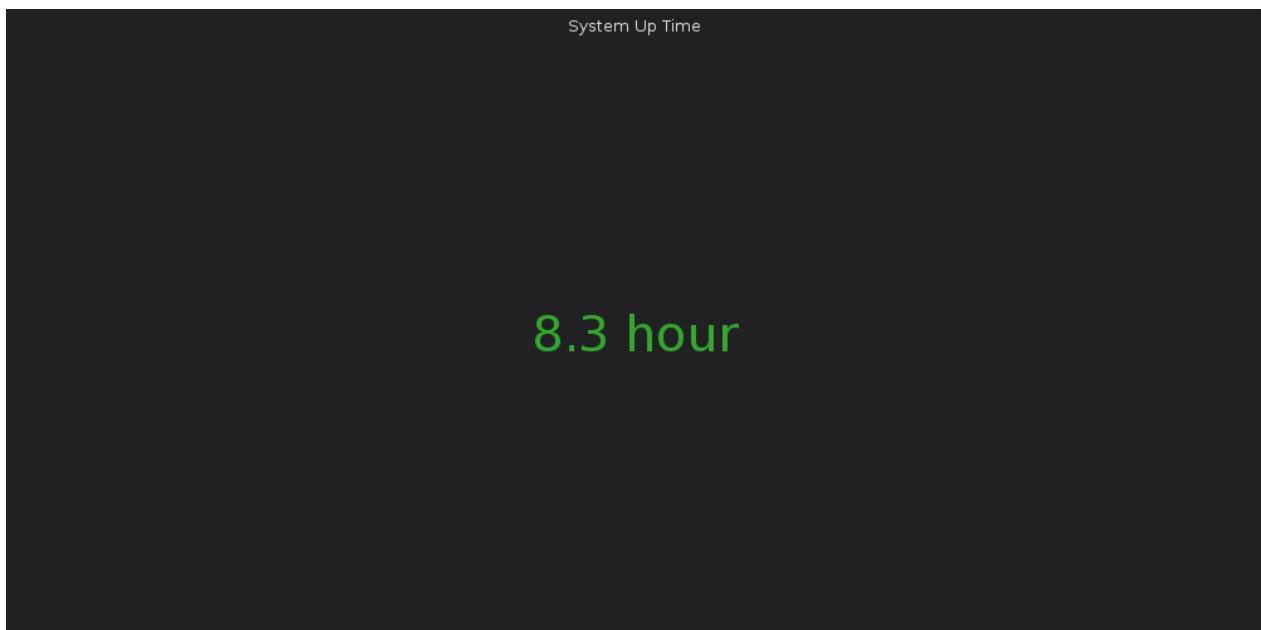
Host: es2

- name: es2
- type: elasticsearch

Service: node_es_2

- name: node_es_2
- type: node_exporter

系统运行时间



CPU 核数

CPU Core

6

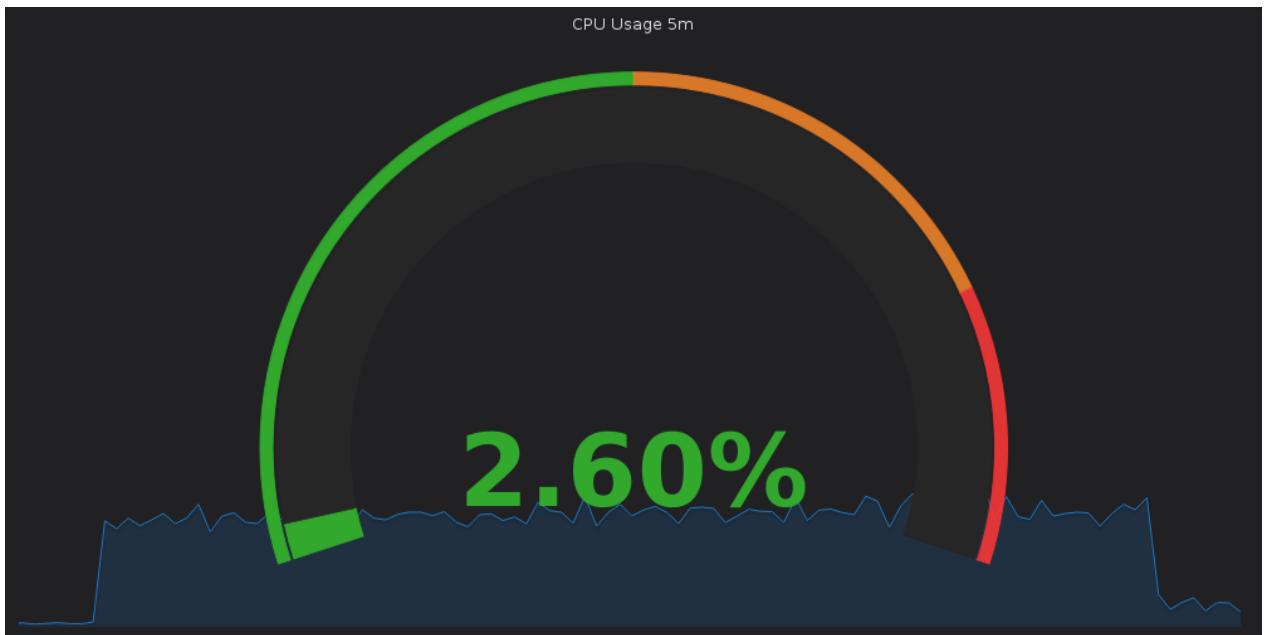
内存总量

Total Memory

15.7 GiB

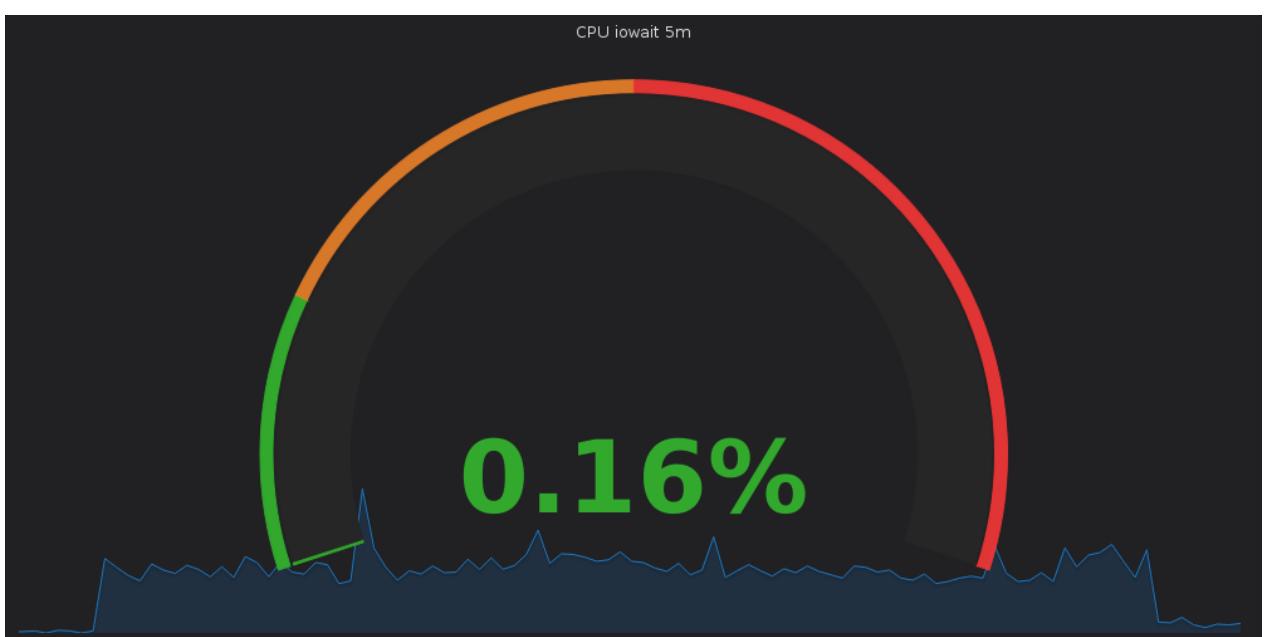
CPU使用率 (5m)

CPU Usage 5m



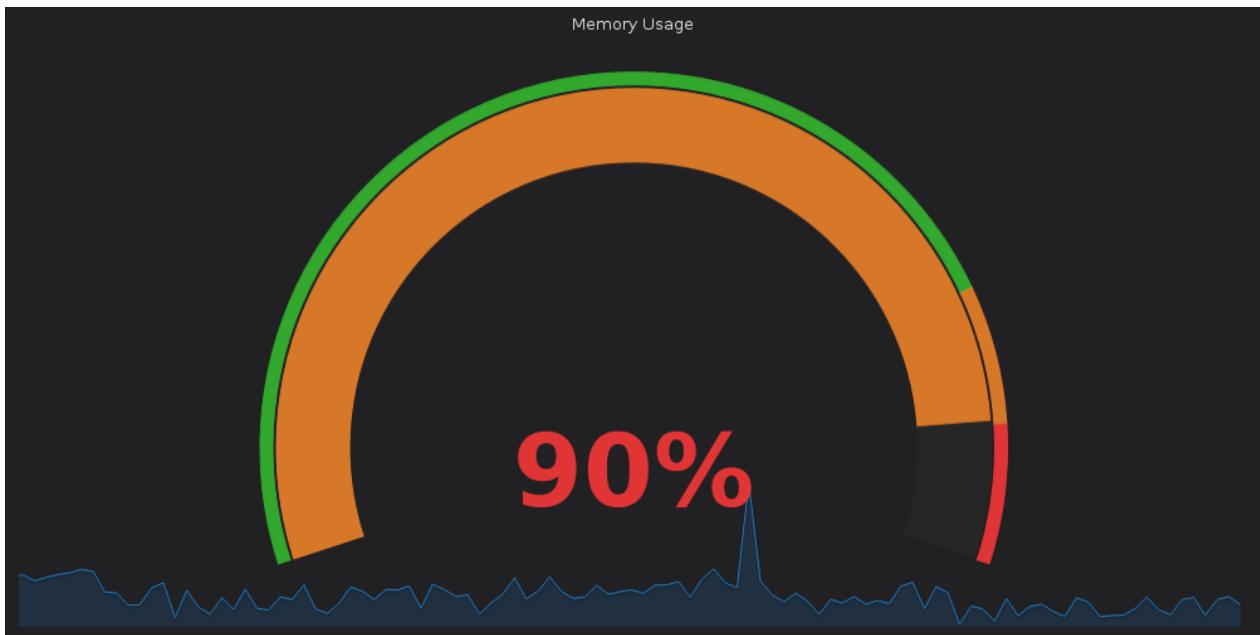
CPU iowait (5m)

CPU iowait 5m



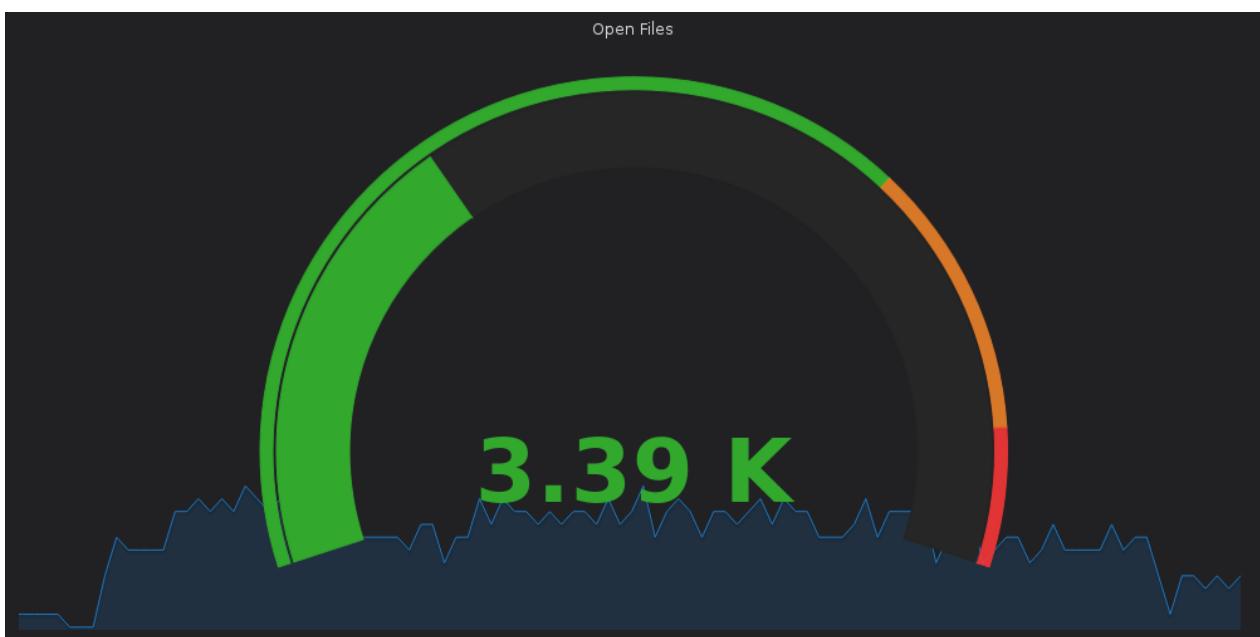
内存使用率

Memory Usage

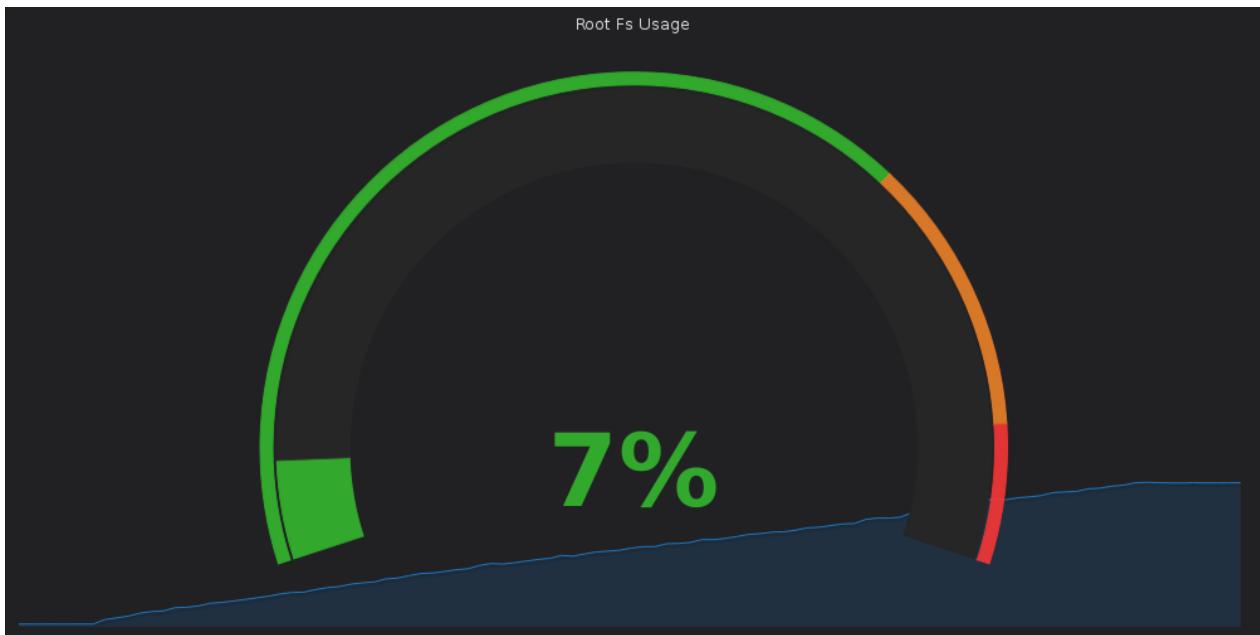


当前打开的文件描述符

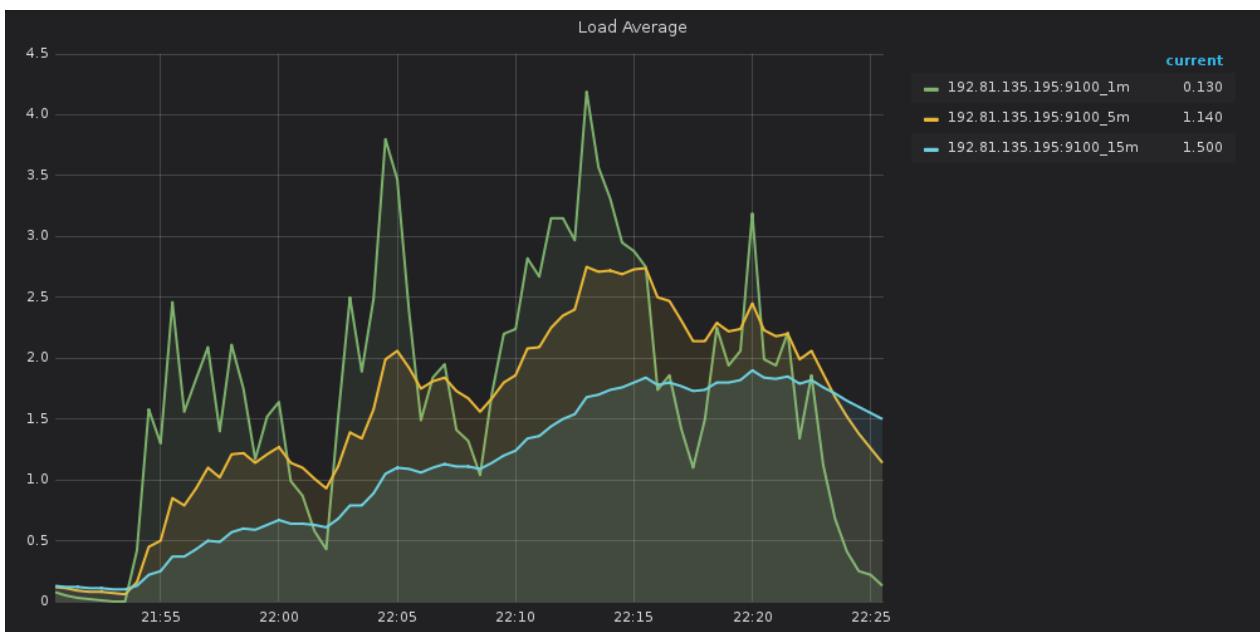
Open Files



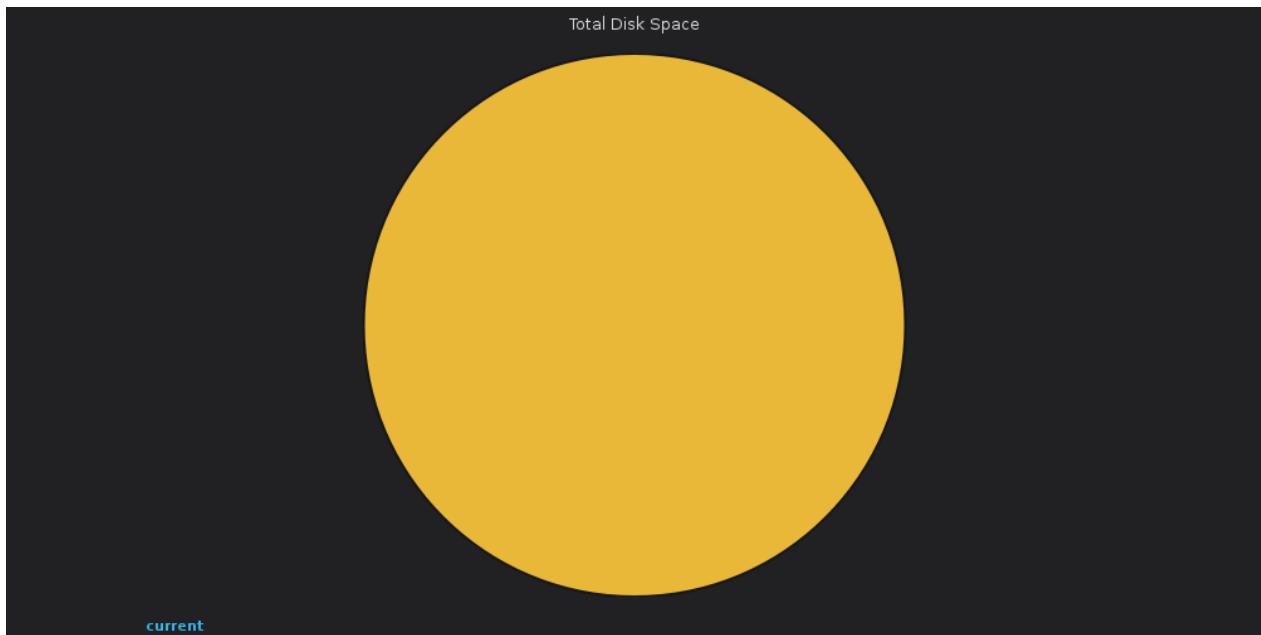
根分区使用率



系统平均负载



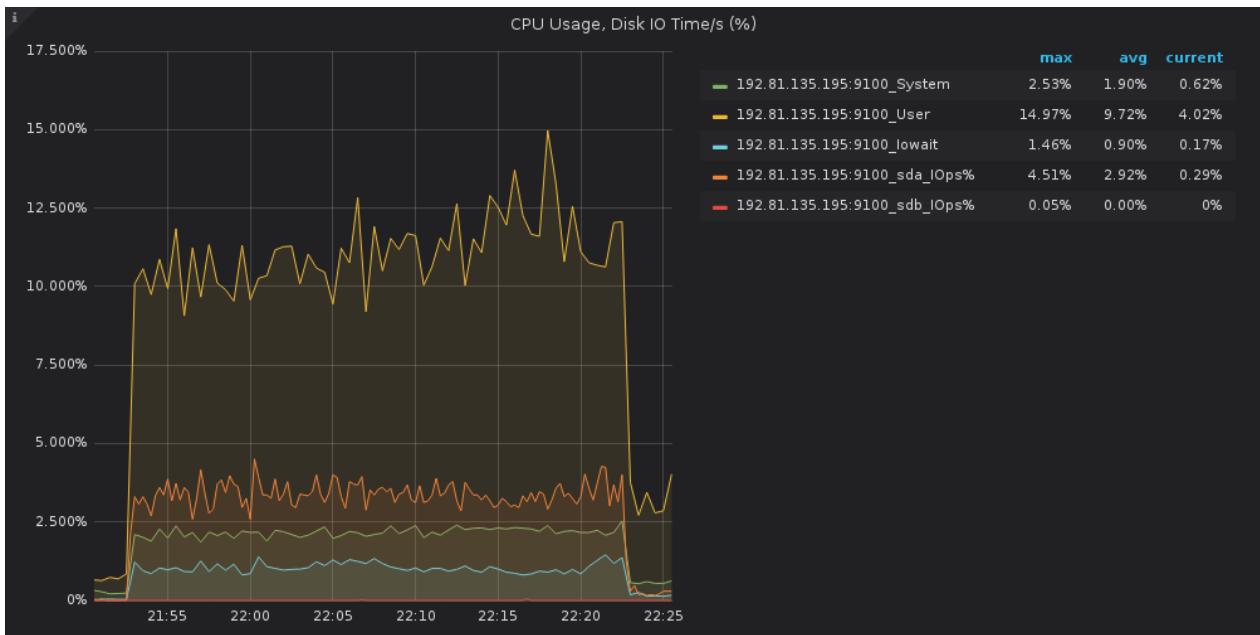
磁盘总空间



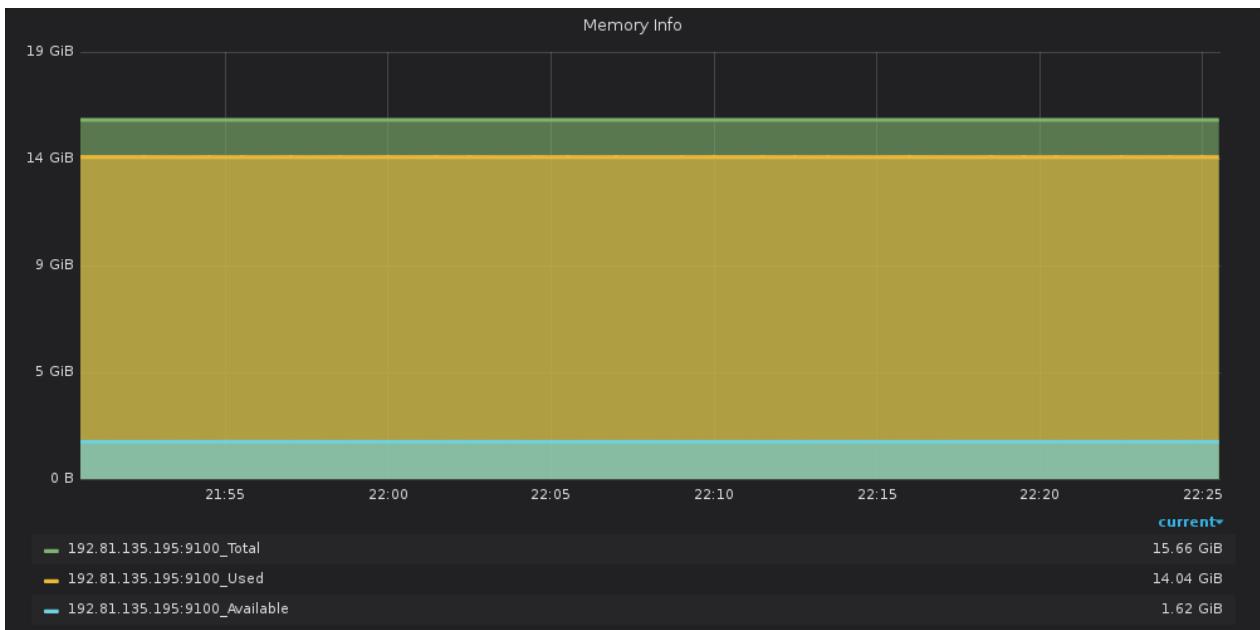
各分区可用空间

Volumes Available				
File System	IP	Mount ▲	Available	Usage
ext4	192.81.135.195:9100	/	291.54 GiB	2.23%

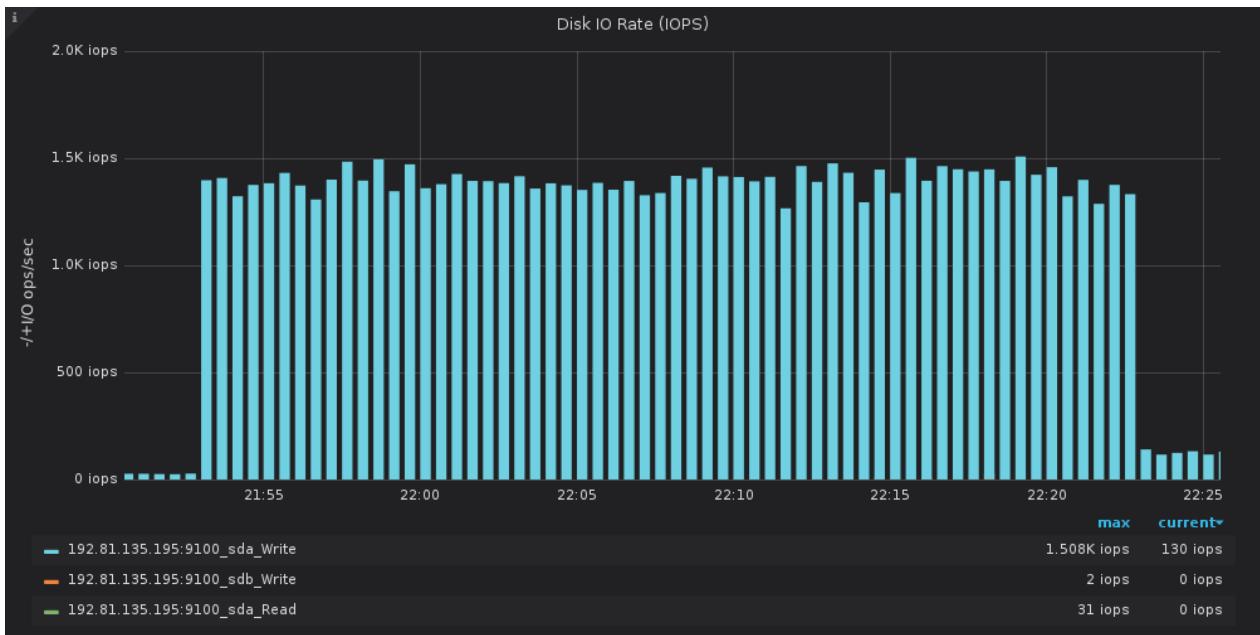
CPU使用率、磁盘每秒的I/O操作耗费时间 (%)



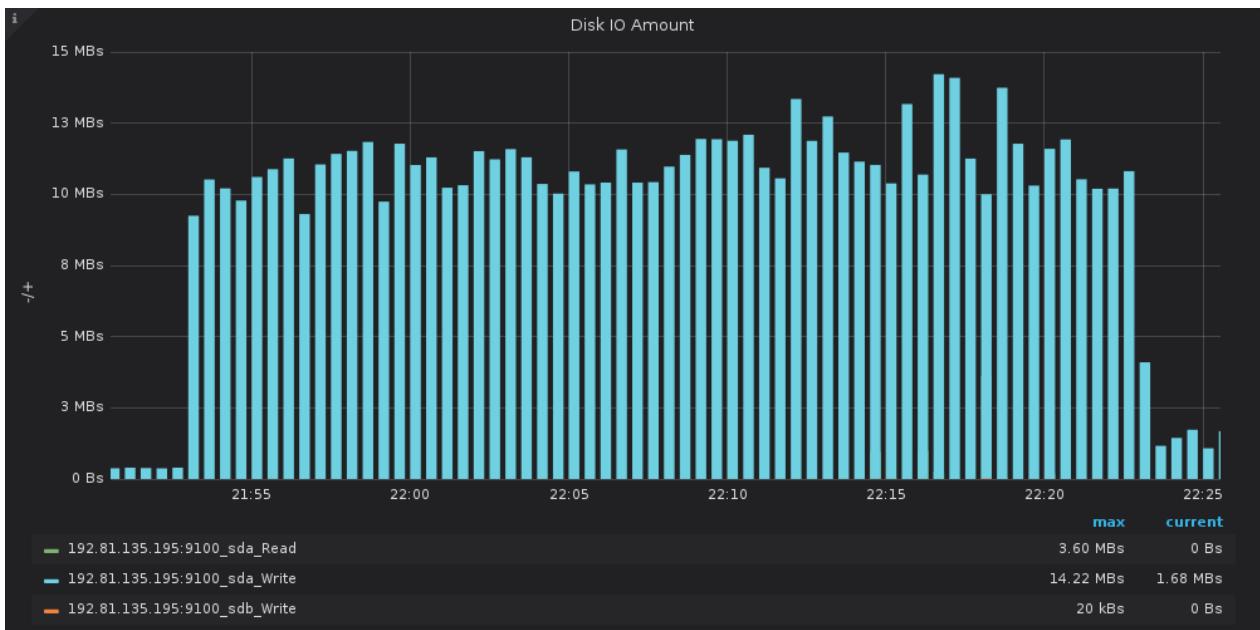
内存信息



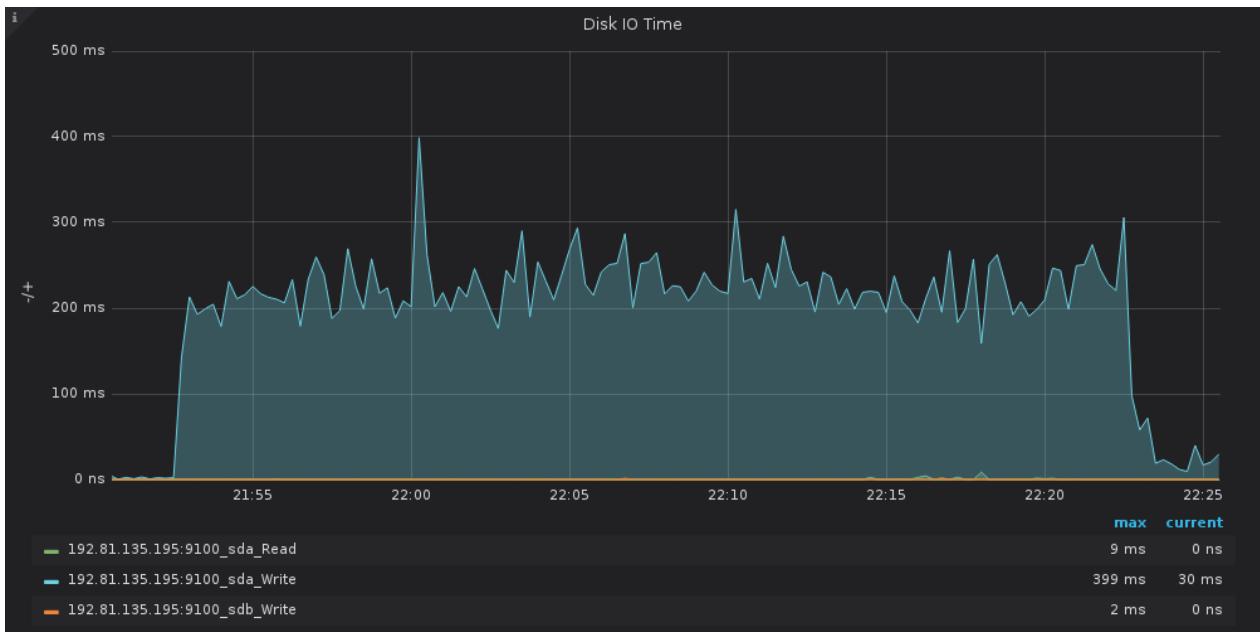
磁盘读写速率 (IOPS)



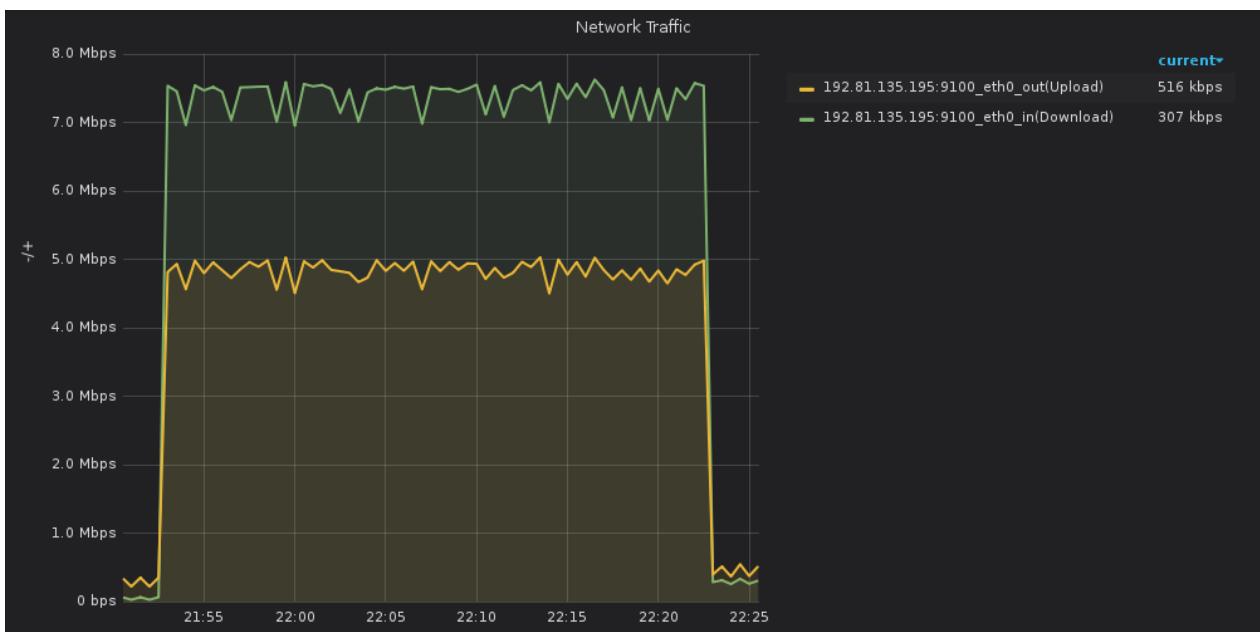
磁盘读写容量大小



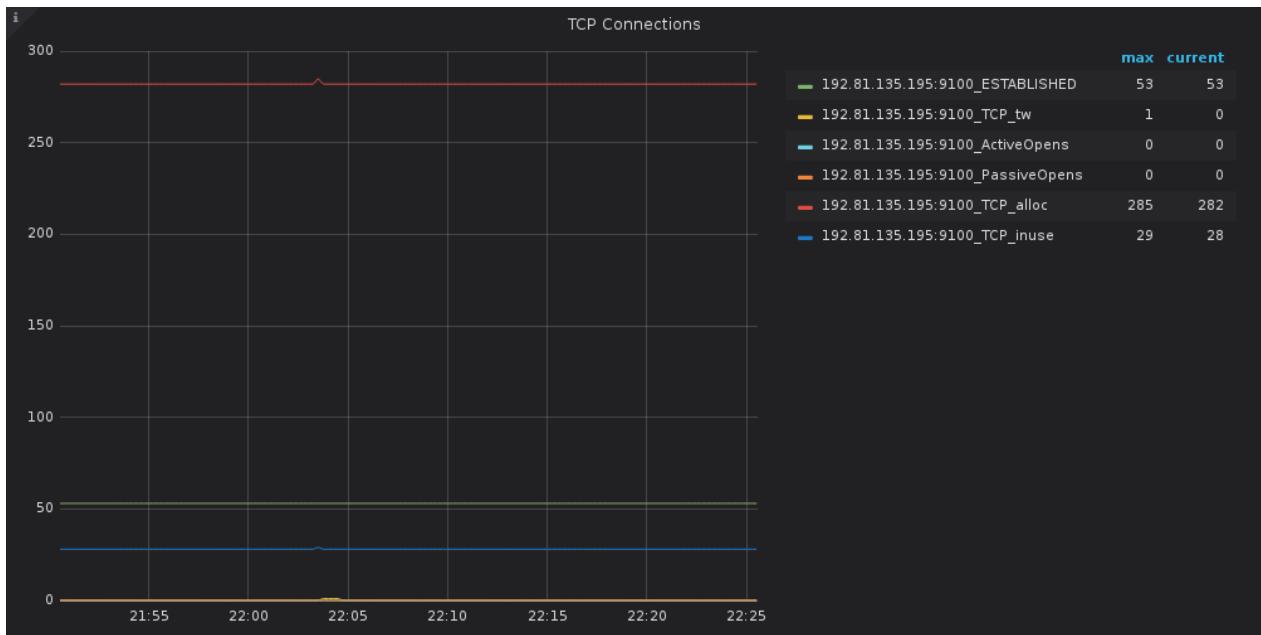
磁盘IO读写时间



网络流量



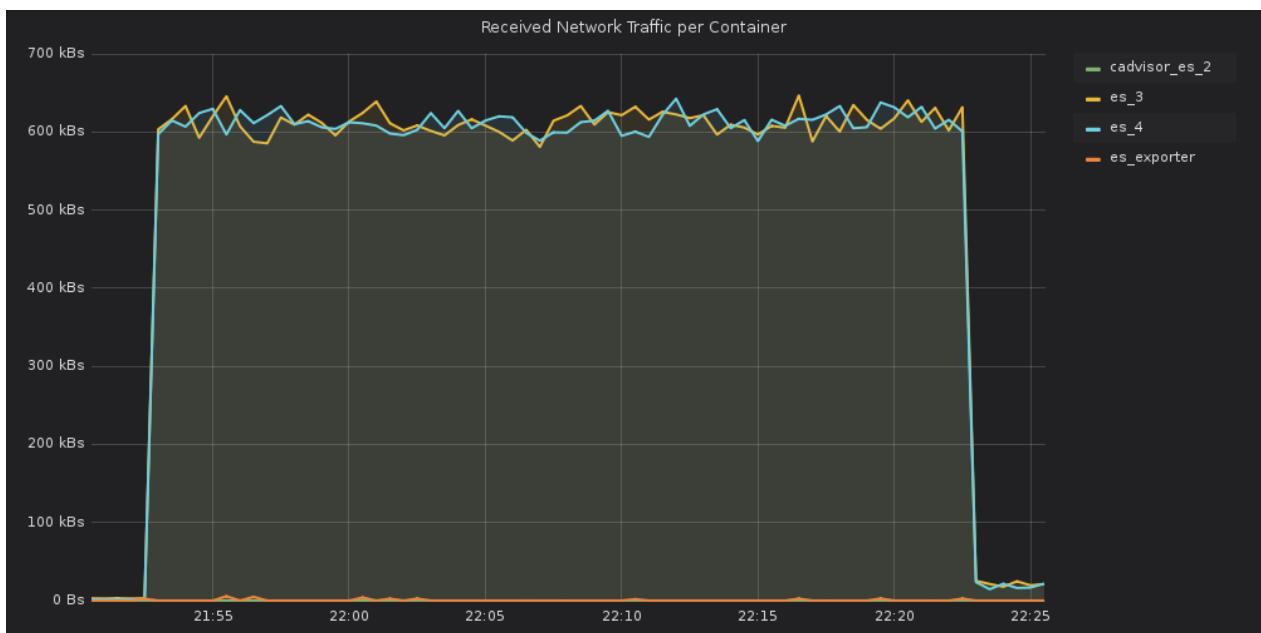
TCP 连接情况



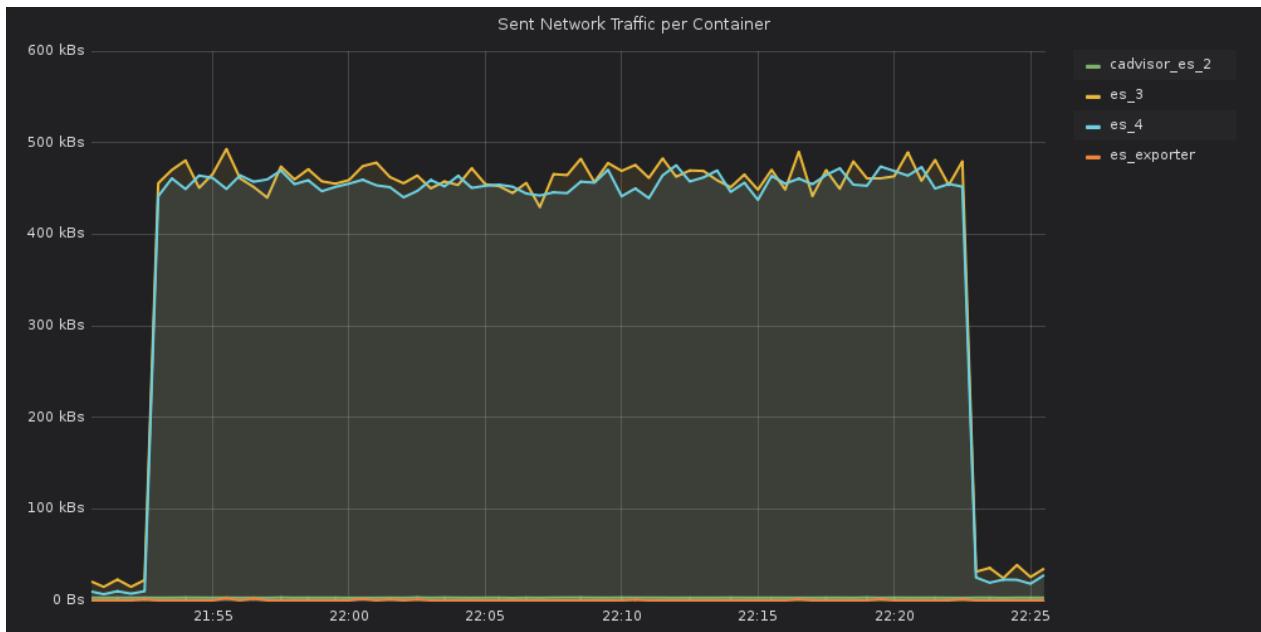
Service: cAdvisor_es_2

- name: cAdvisor_es_2
- type: cAdvisor

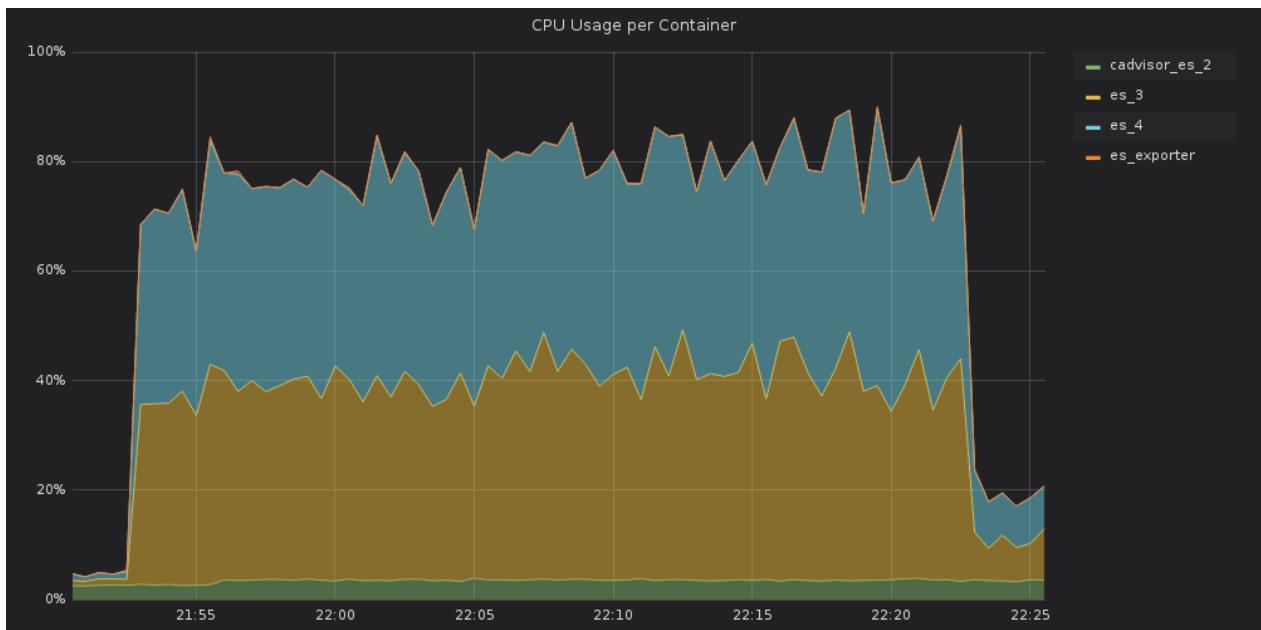
Received Network Traffic per Container



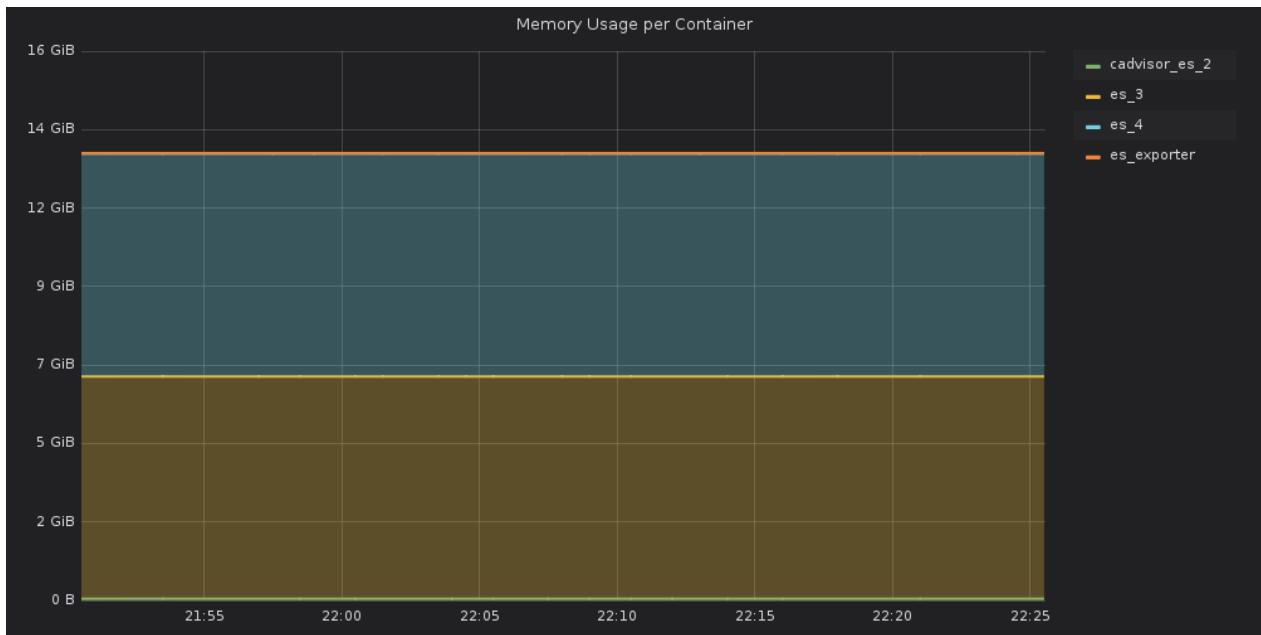
Sent Network Traffic per Container



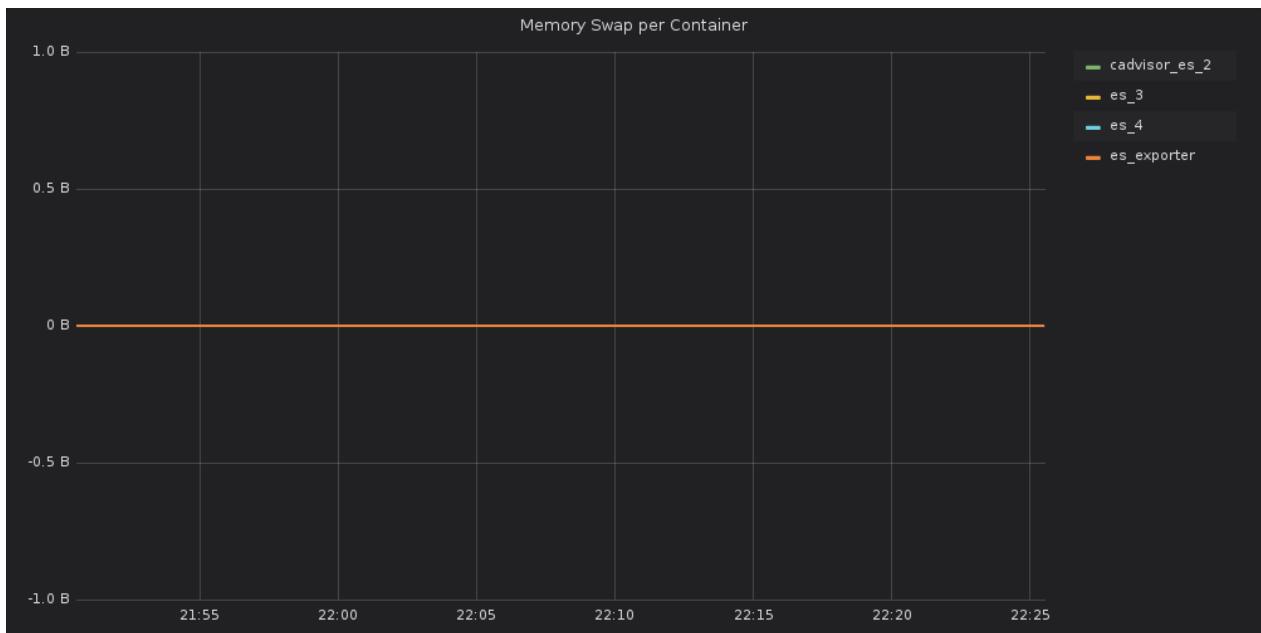
CPU Usage per Container



Memory Usage per Container



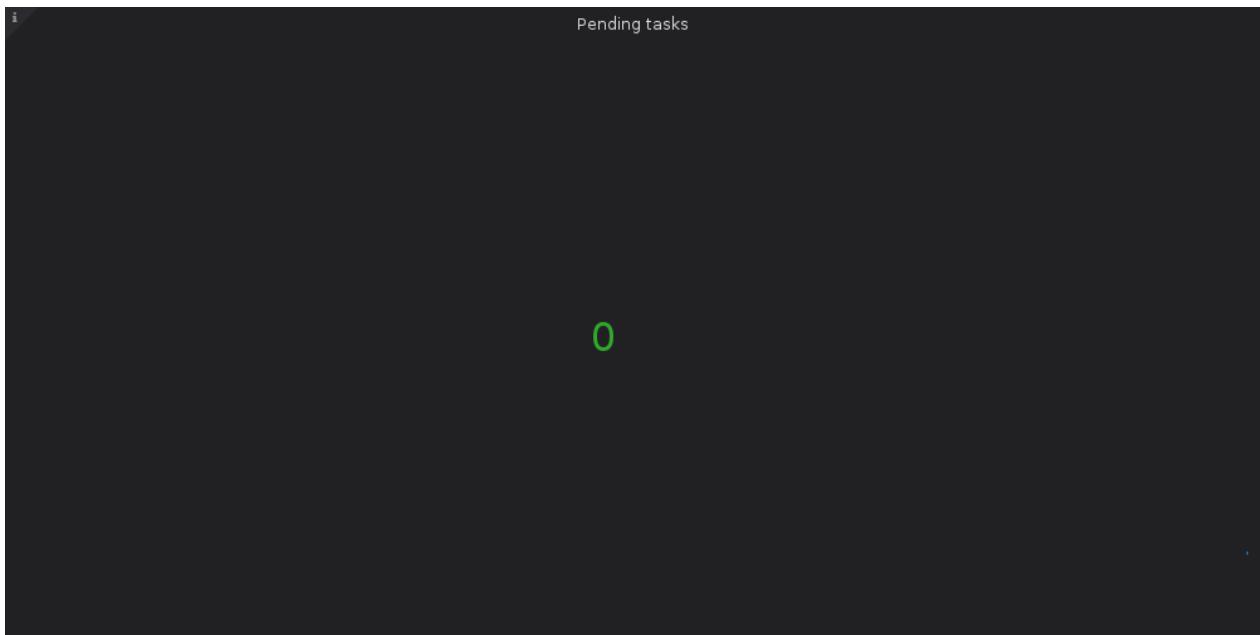
Memory Swap per Container



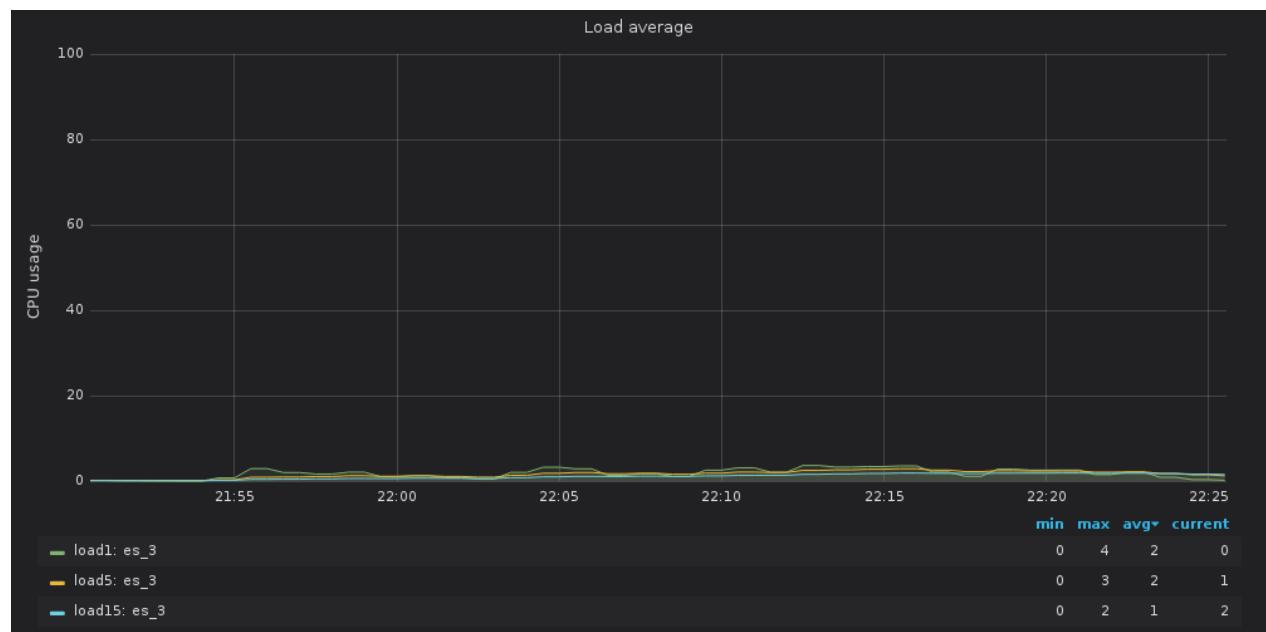
Service: es_3

- name: es_3
- type: elasticsearch

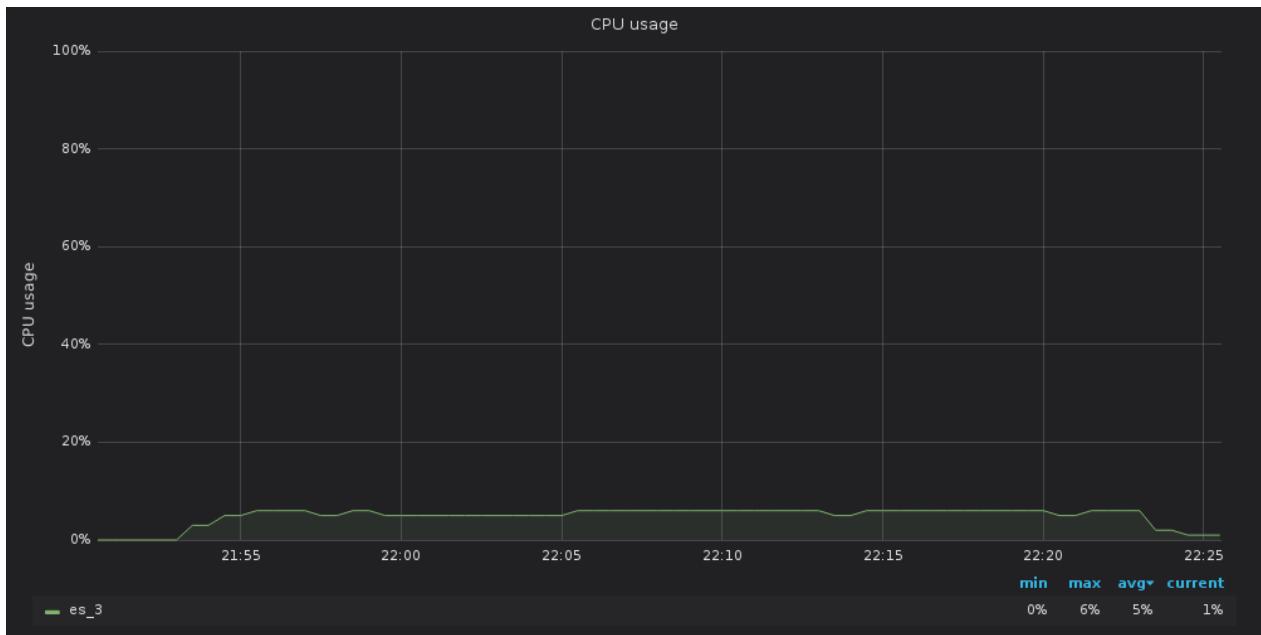
Pending tasks



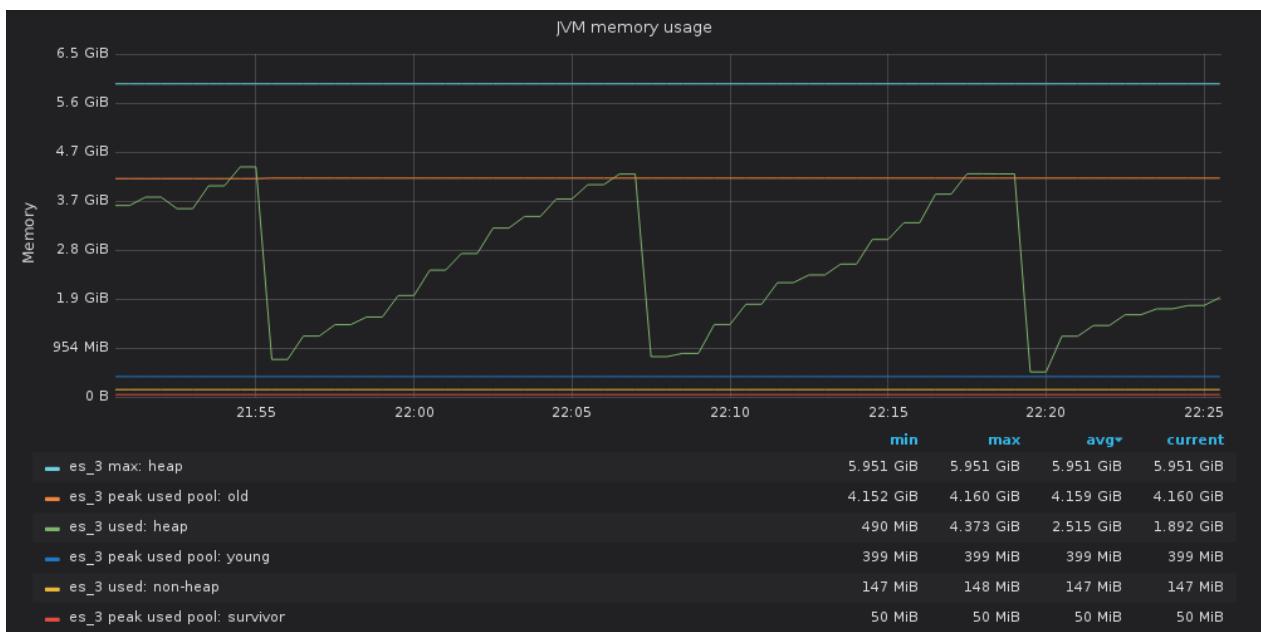
Load average



CPU usage



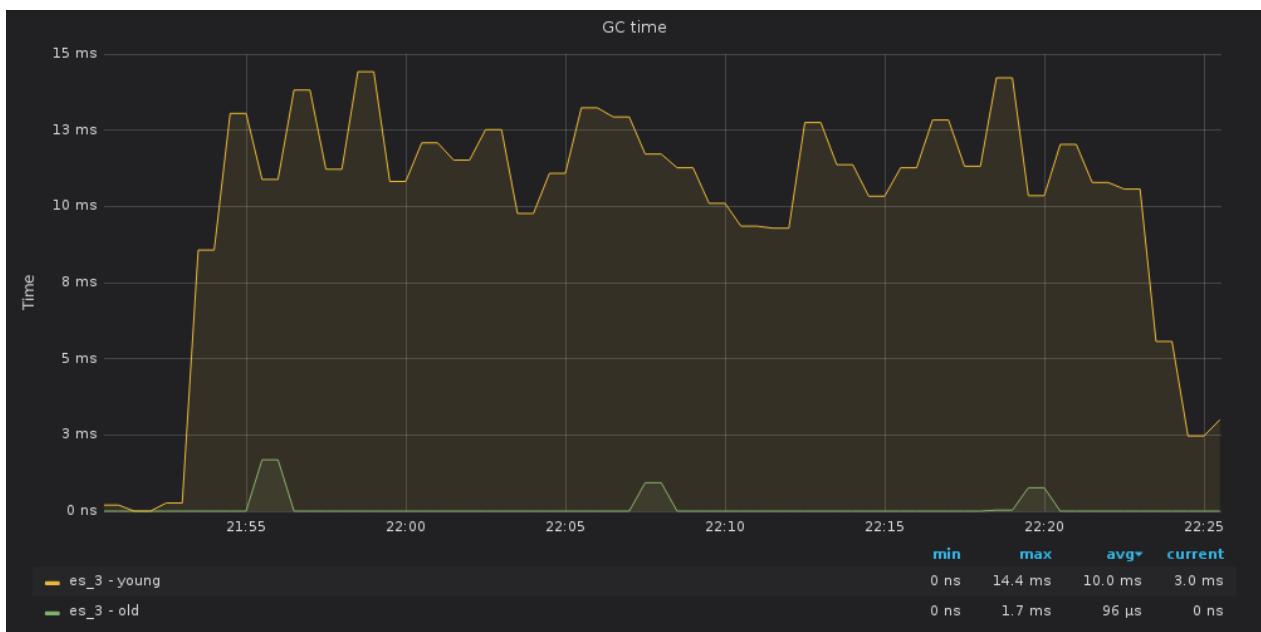
JVM memory usage



GC count



GC time



Total translog operations



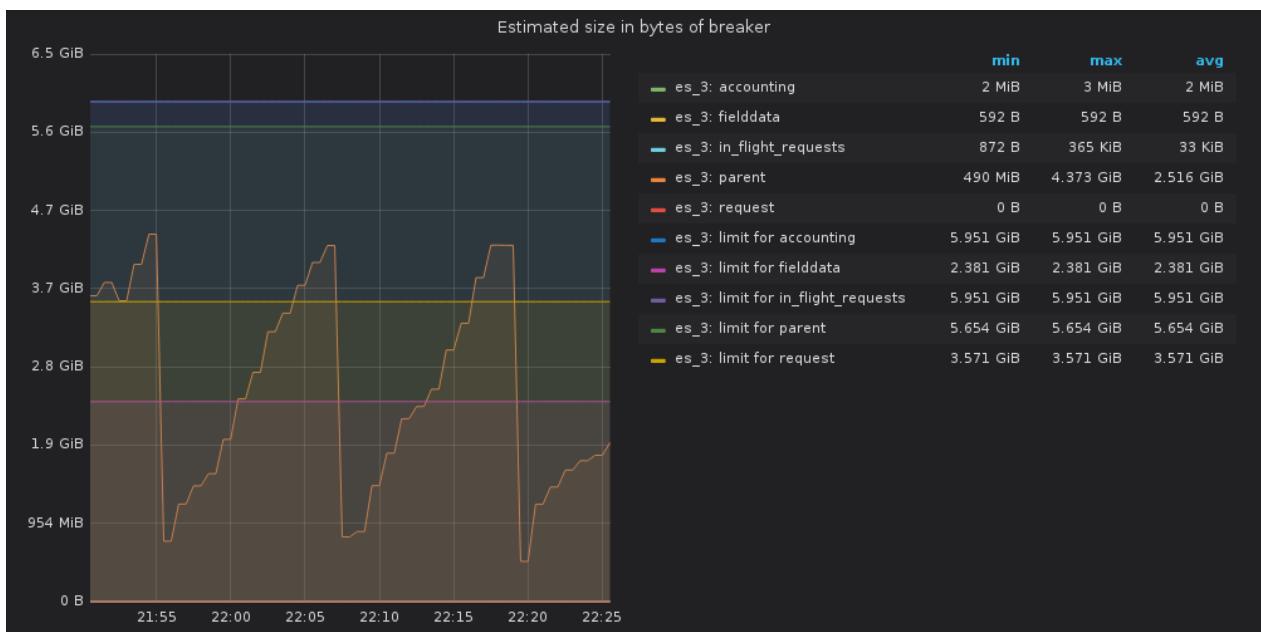
Total translog size in bytes



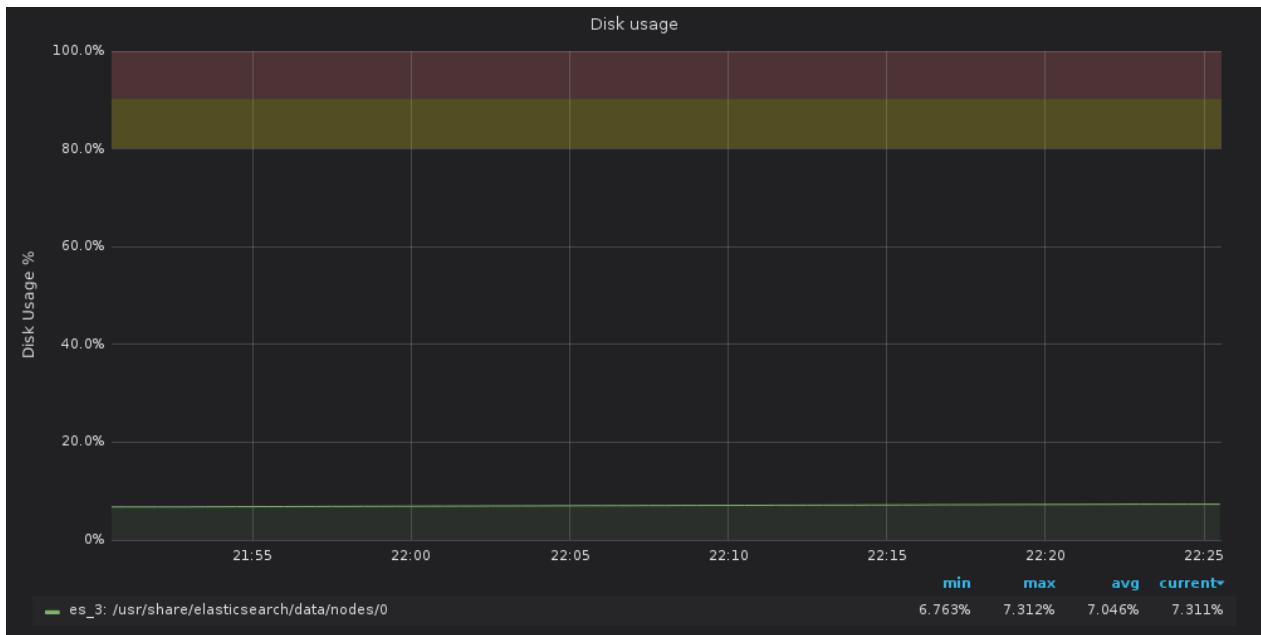
Tripped for breakers



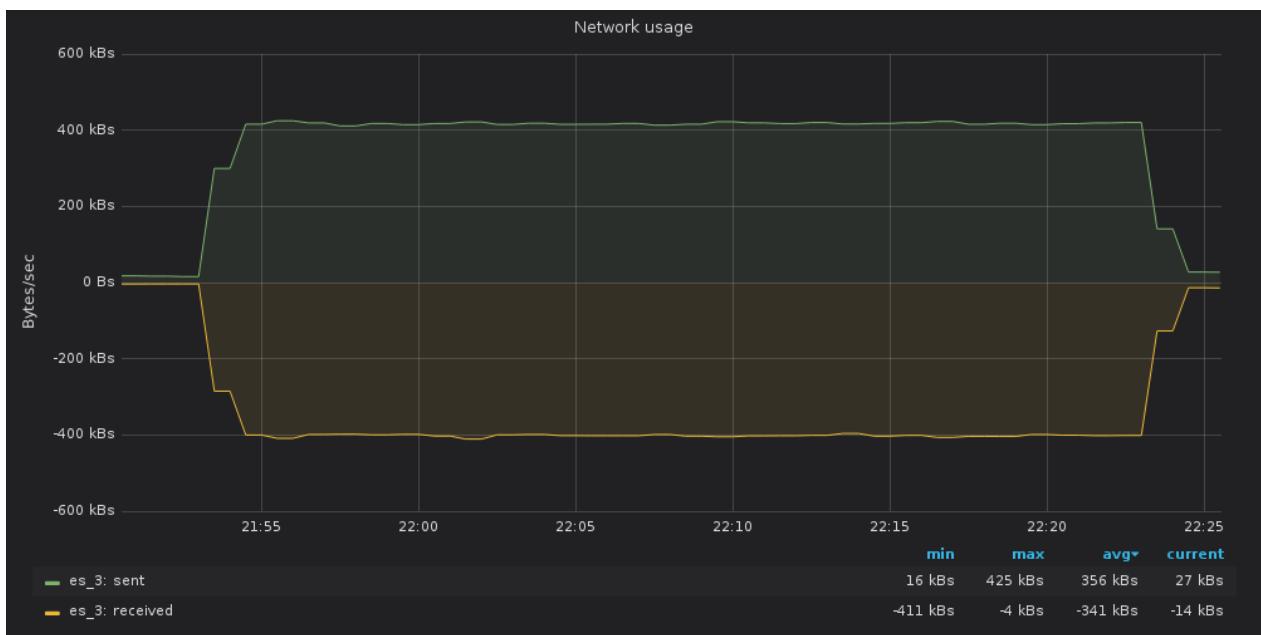
Estimated size in bytes of breaker



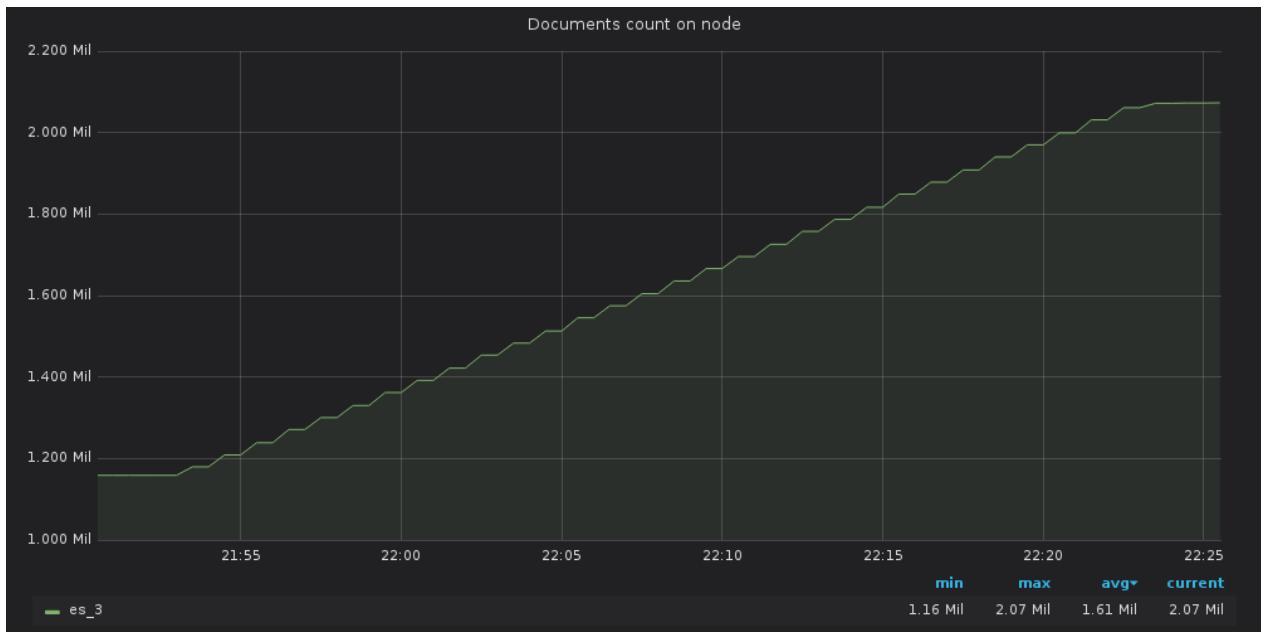
Disk usage



Network usage



Documents count on node



Documents indexed rate



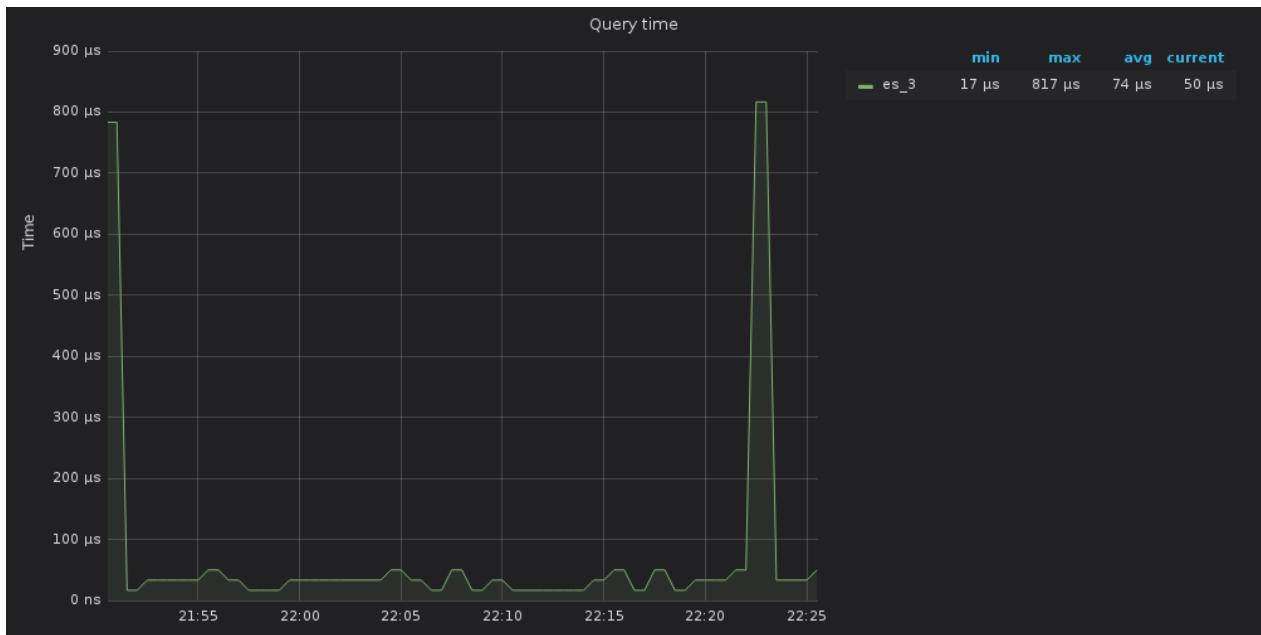
Documents merged rate



Documents merged bytes



Query time



Indexing time



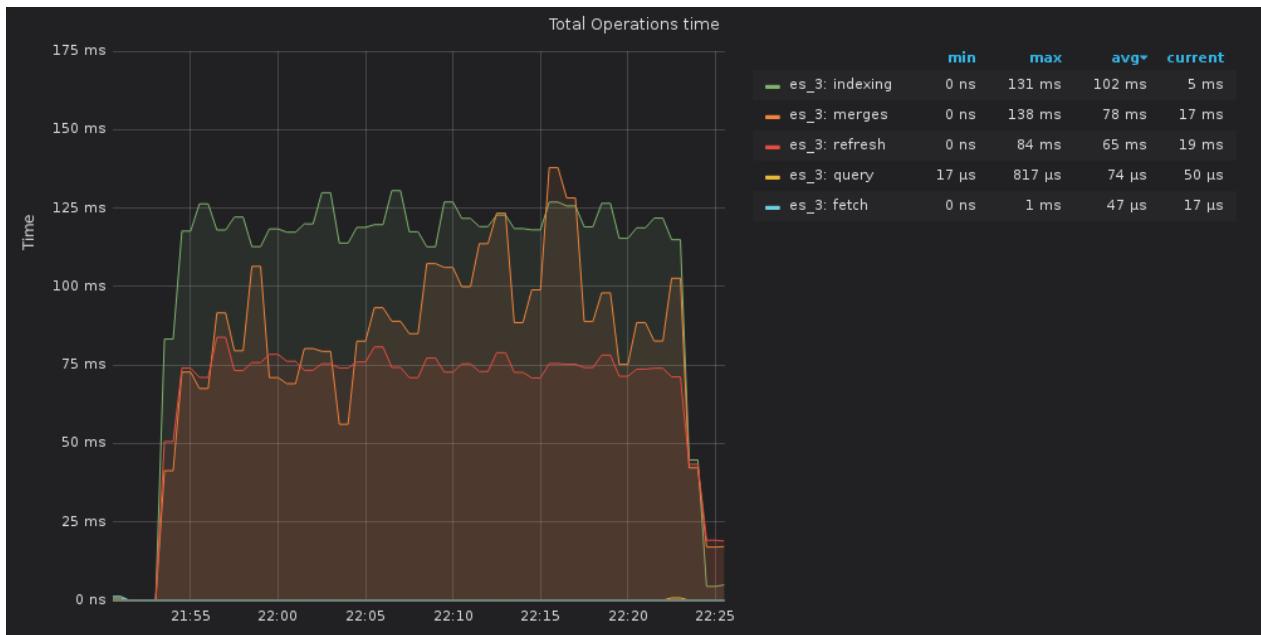
Merging time



Total Operations rate



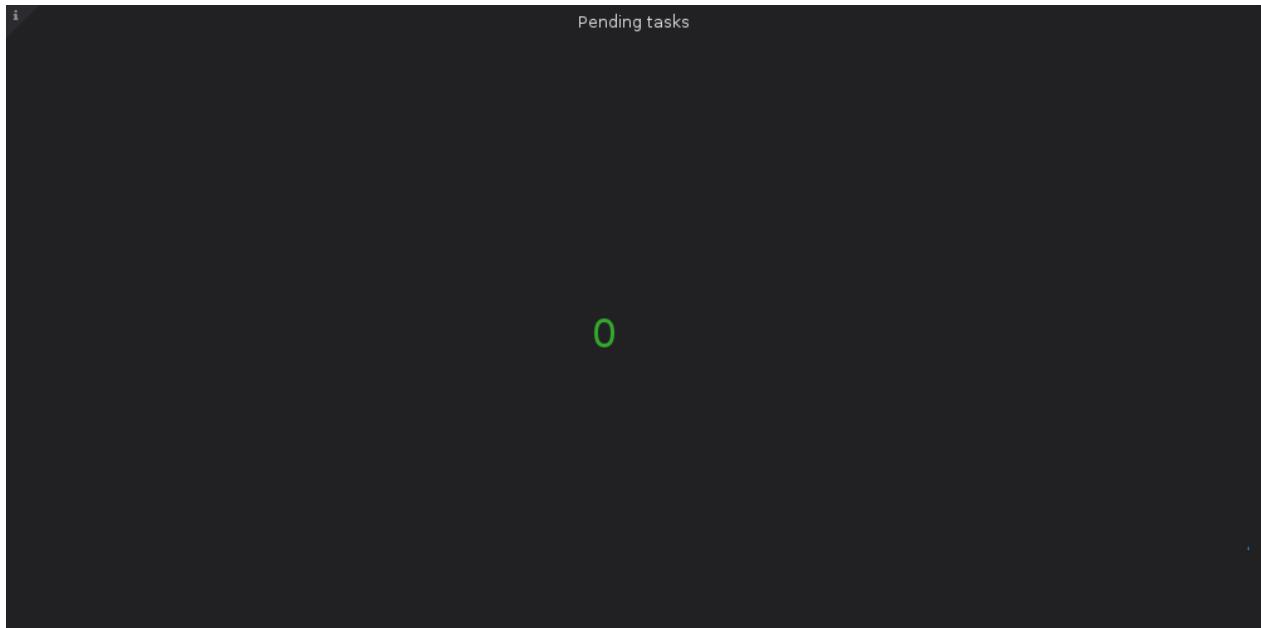
Total Operations time



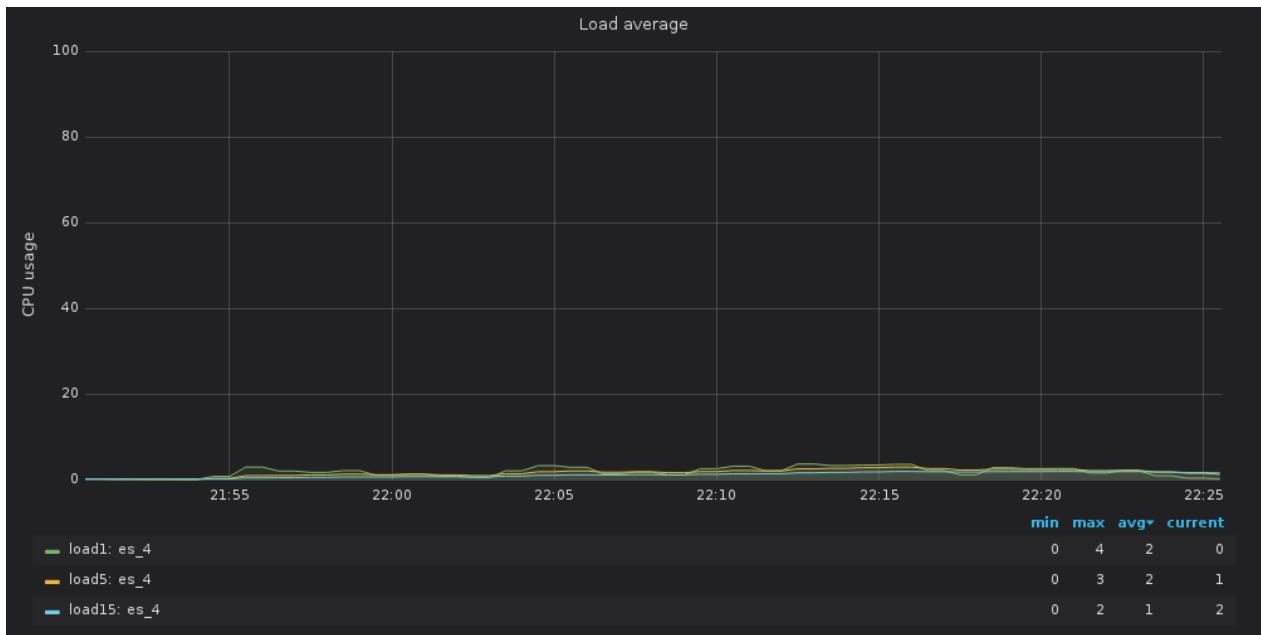
Service: es_4

- name: es_4
- type: elasticsearch

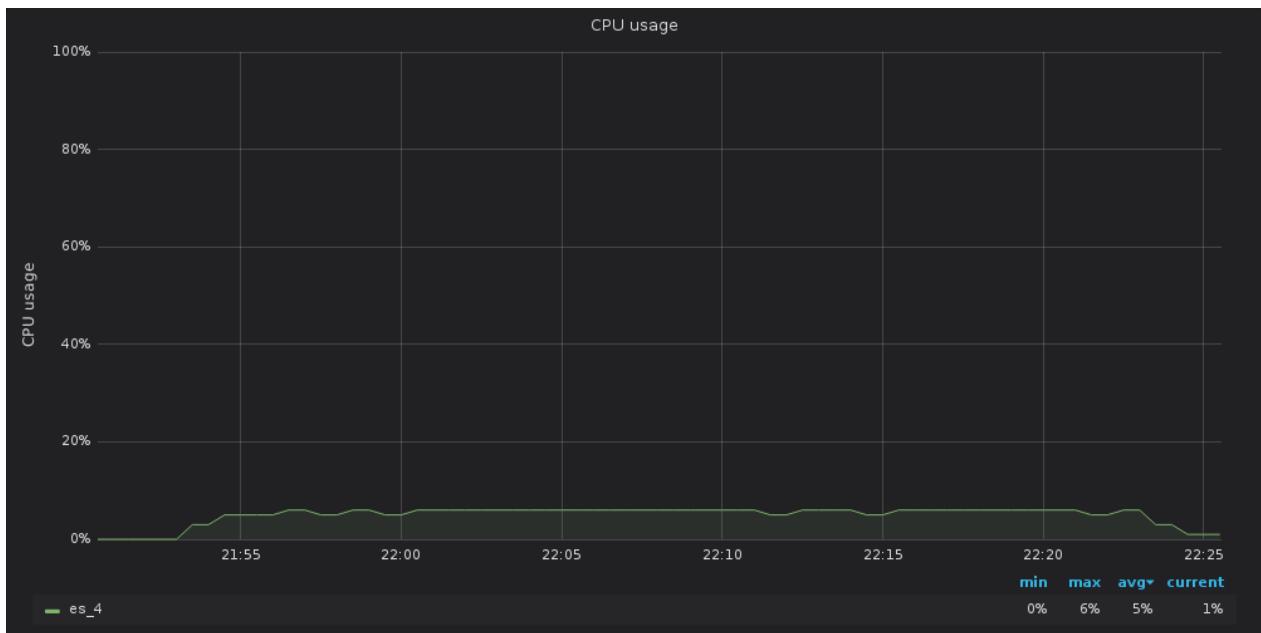
Pending tasks



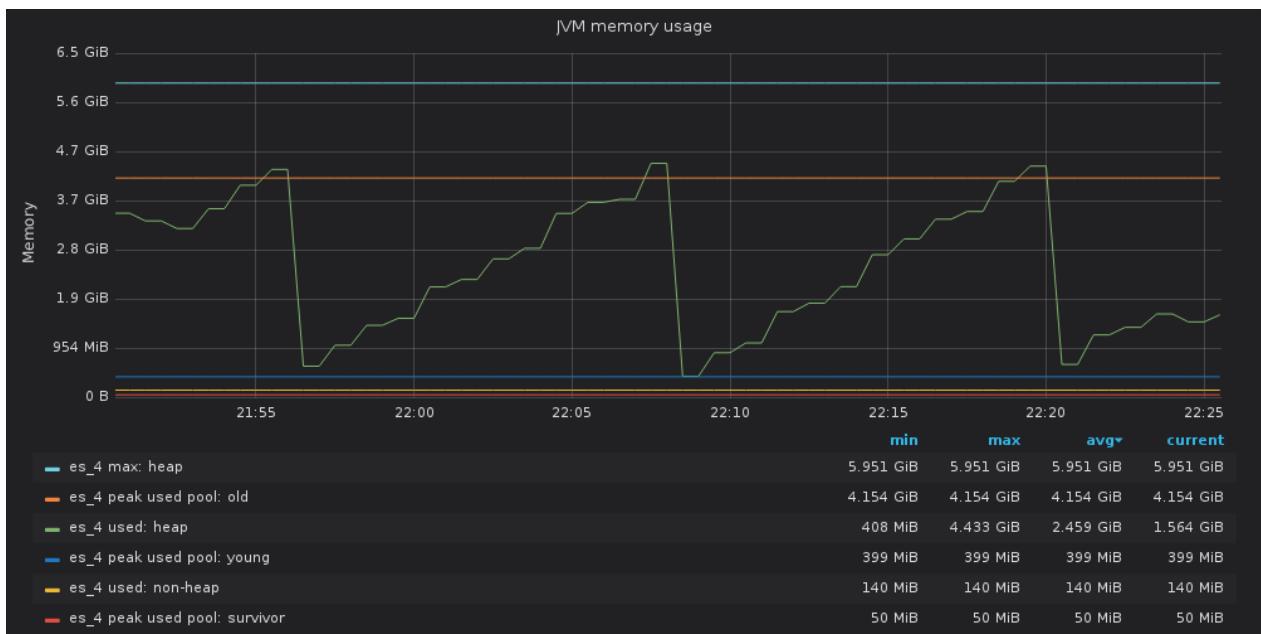
Load average



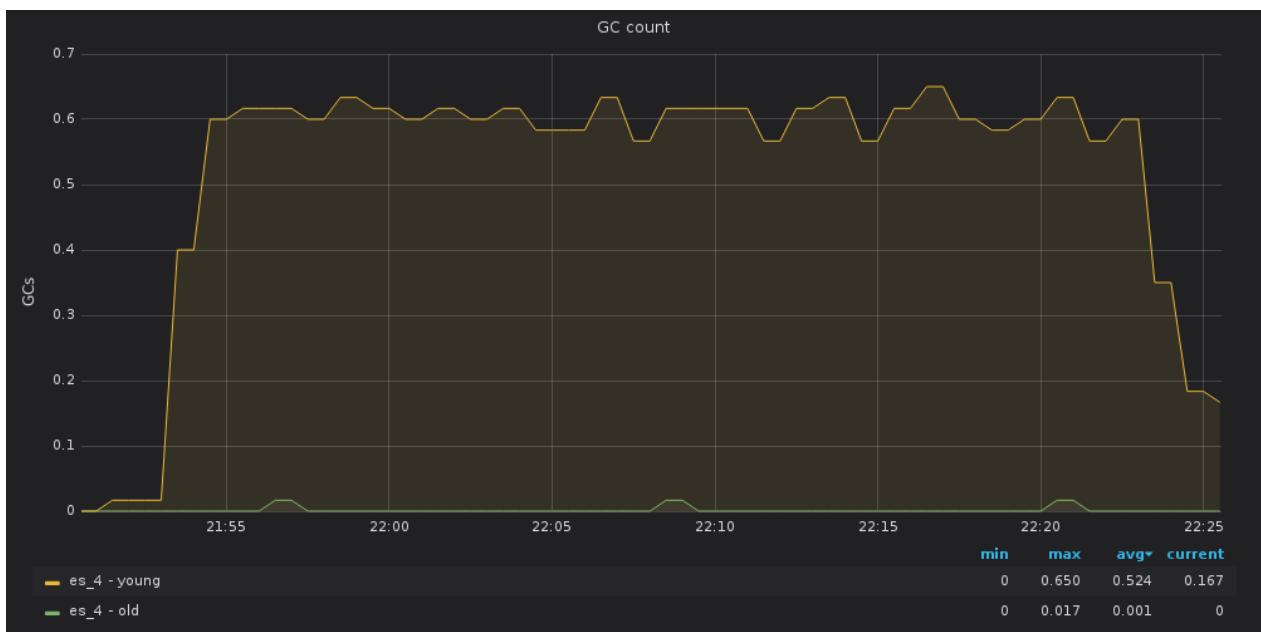
CPU usage



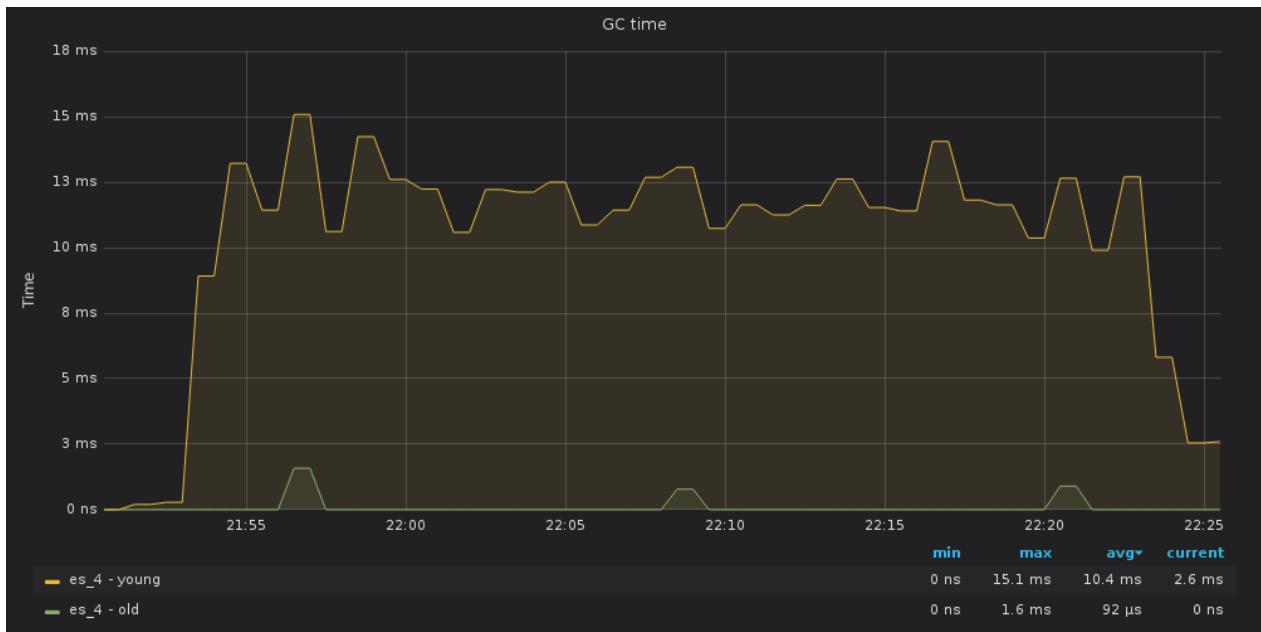
JVM memory usage



GC count



GC time



Total translog operations



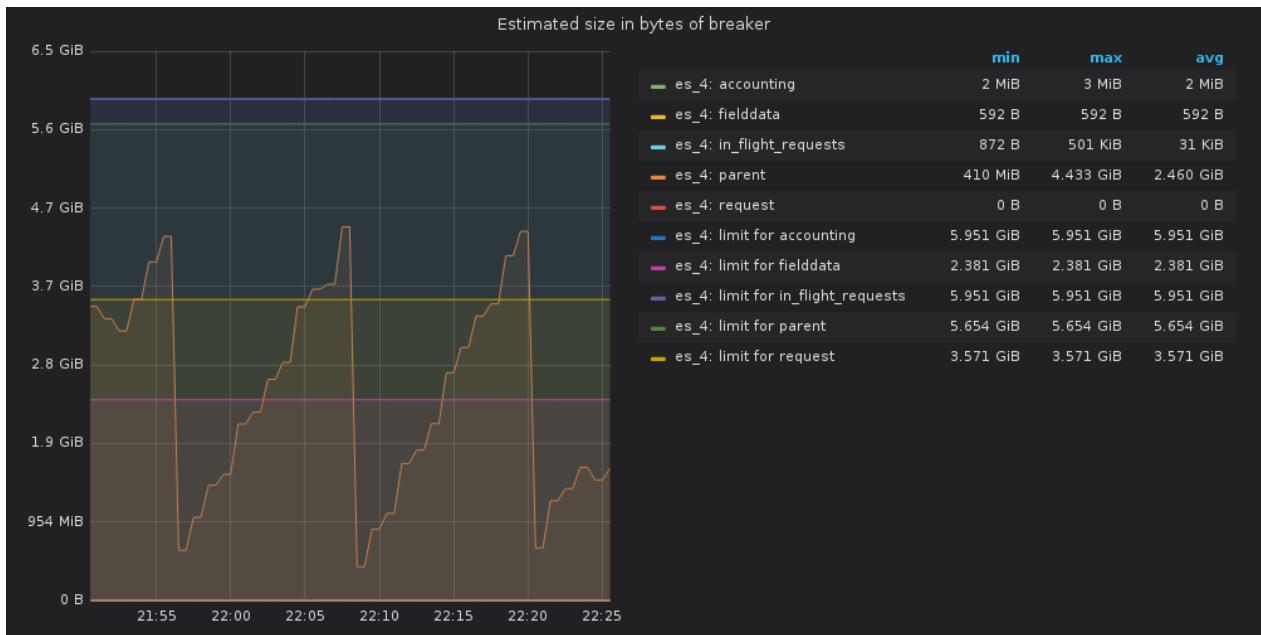
Total translog size in bytes



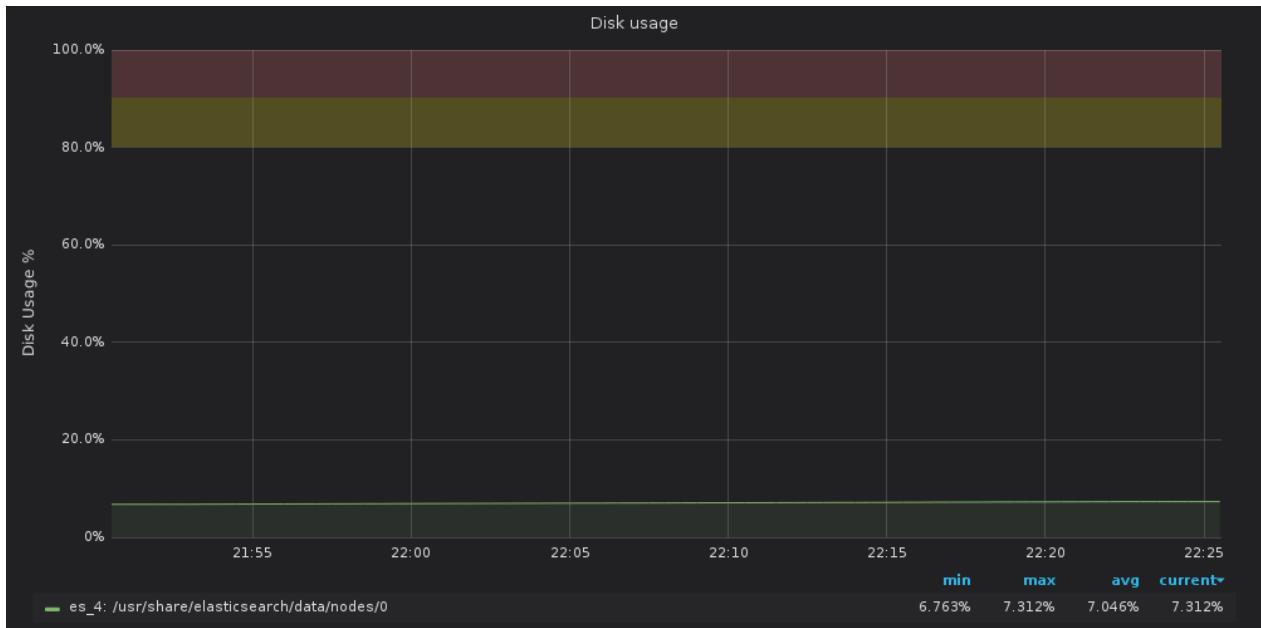
Tripped for breakers



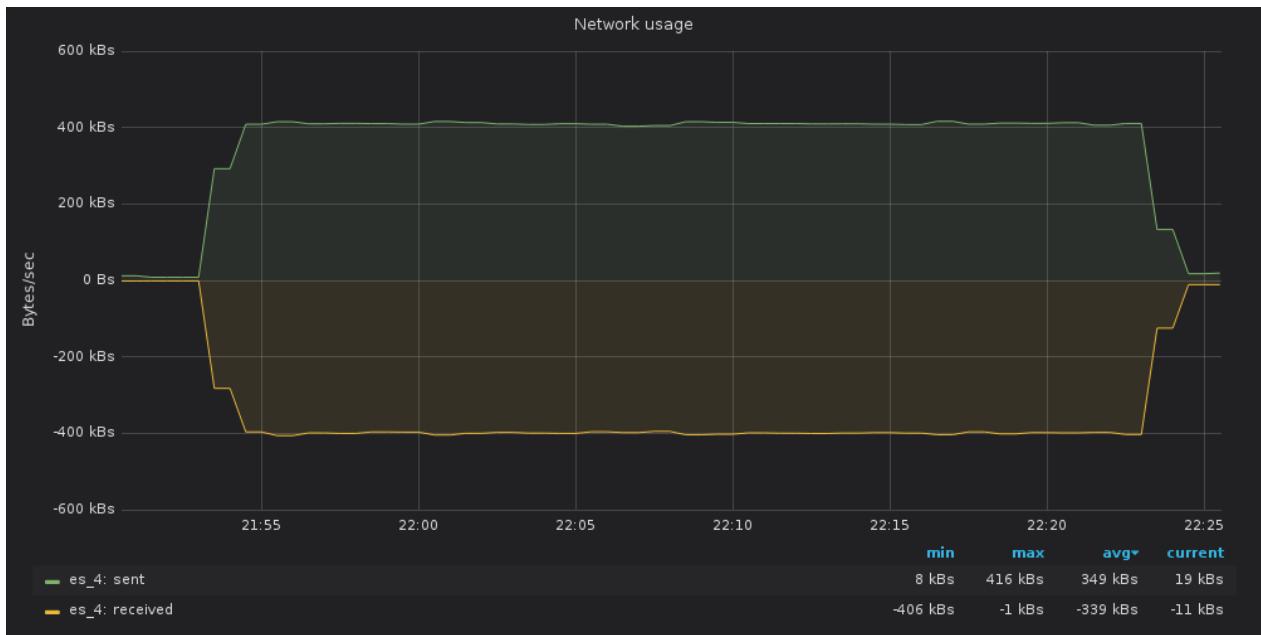
Estimated size in bytes of breaker



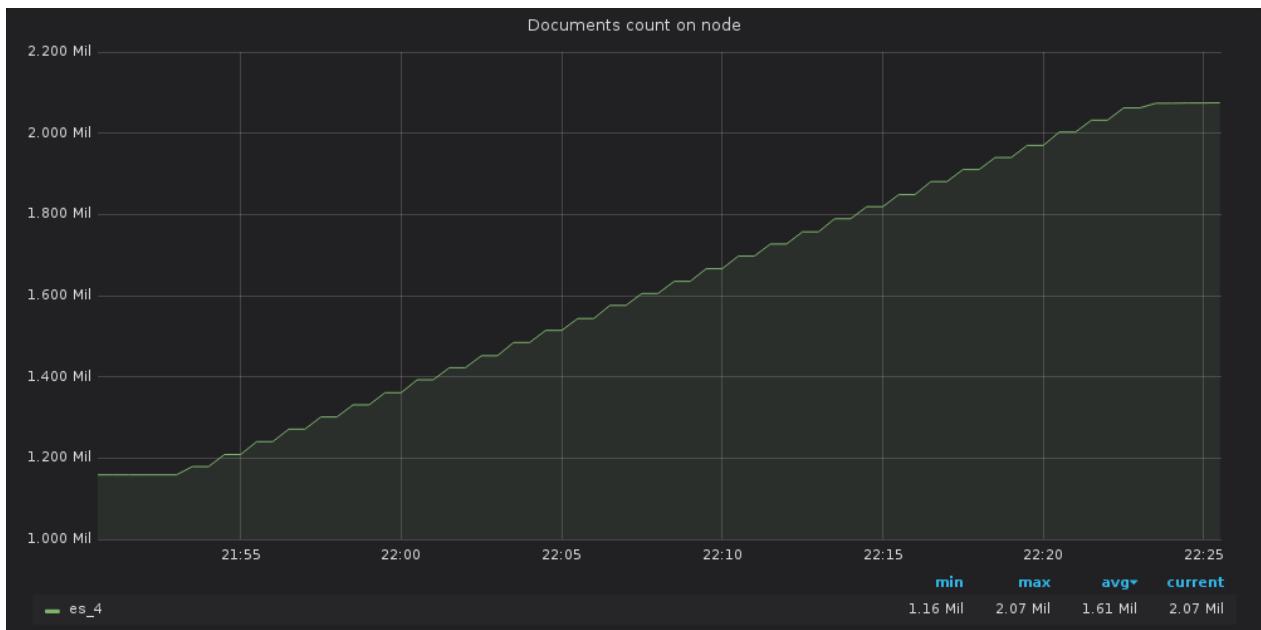
Disk usage



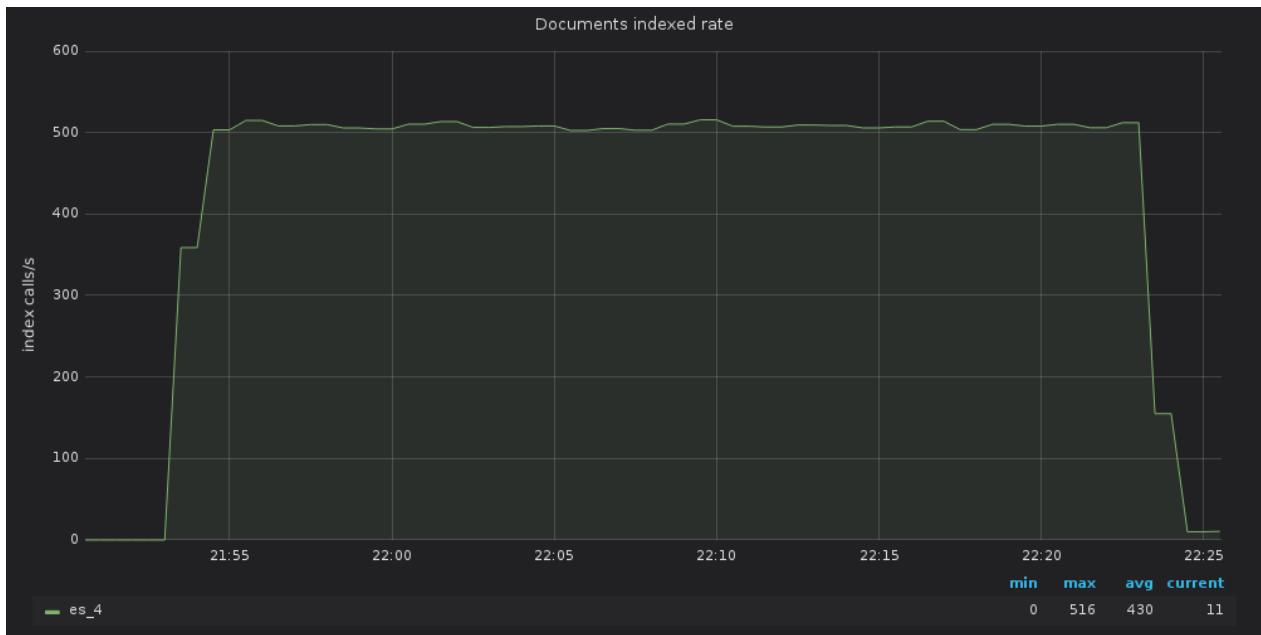
Network usage



Documents count on node



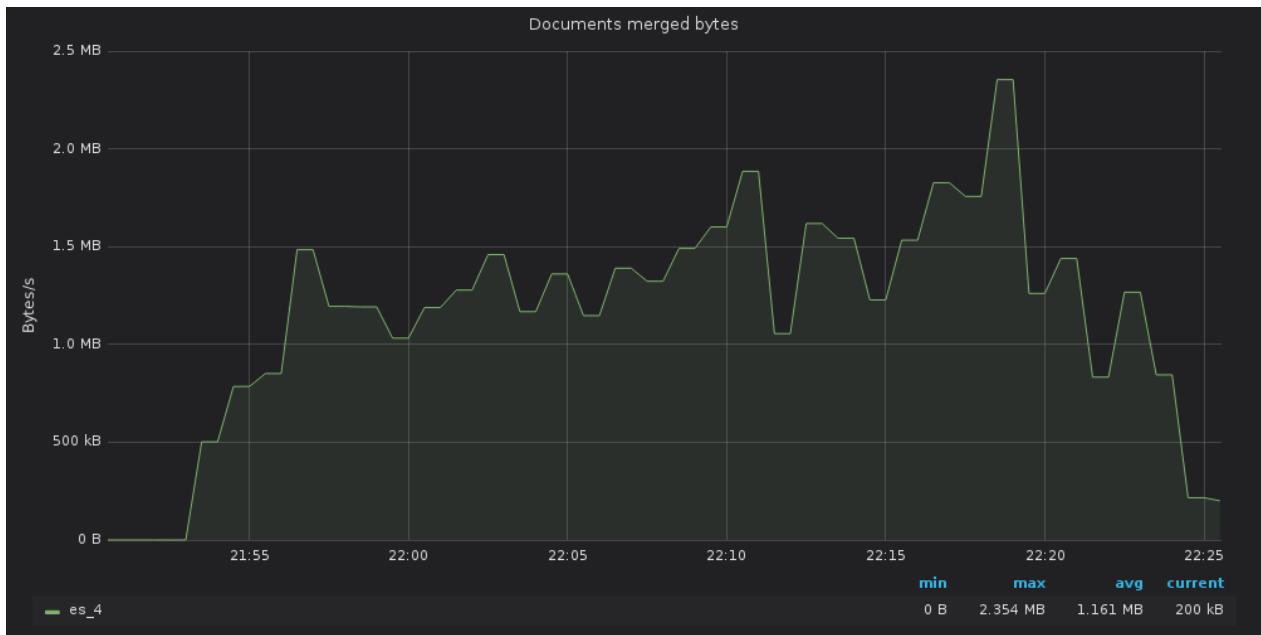
Documents indexed rate



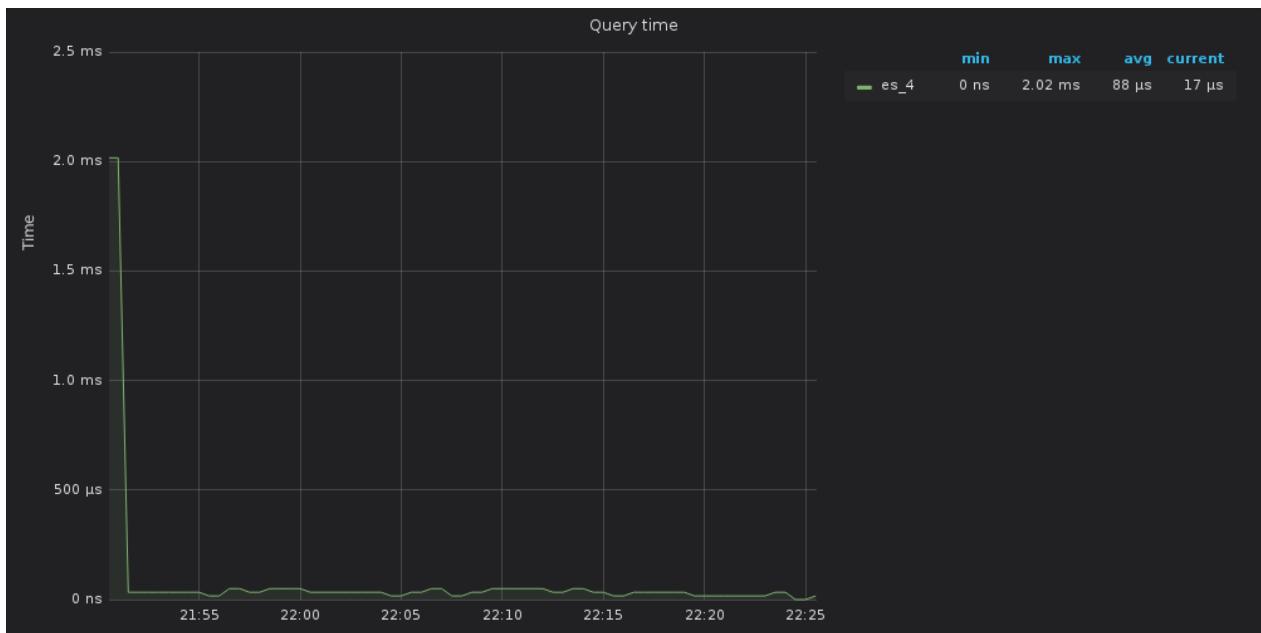
Documents merged rate



Documents merged bytes



Query time



Indexing time



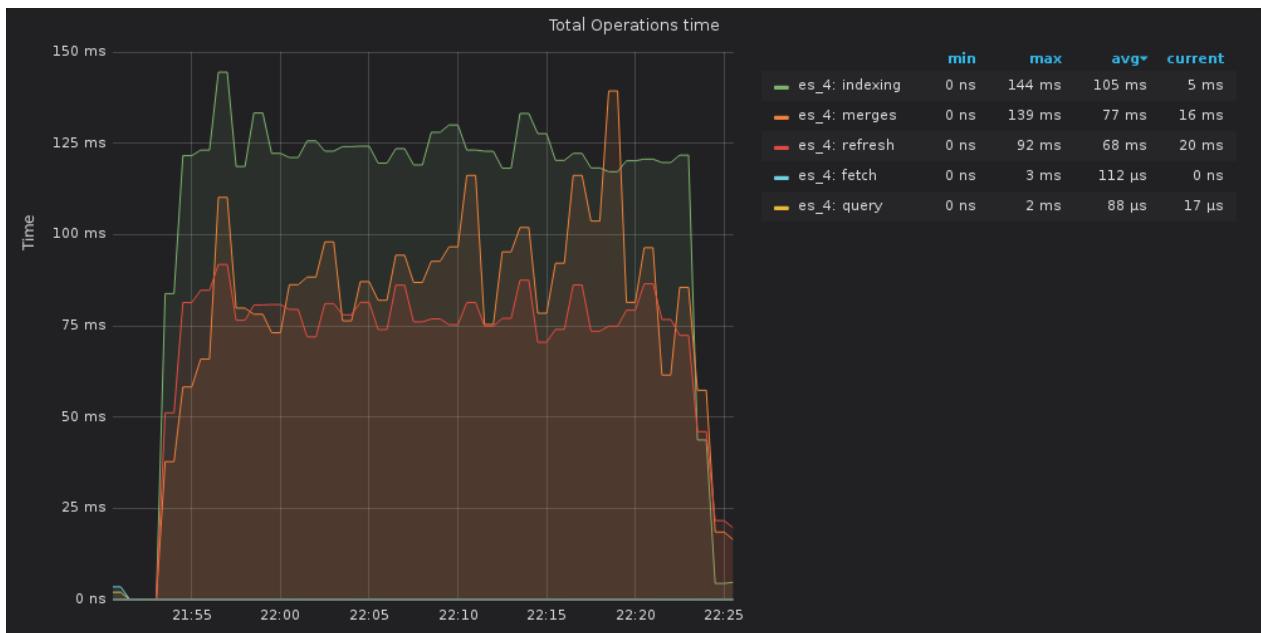
Merging time



Total Operations rate



Total Operations time



Host: monitor

- name: monitor
- type: monitor

Service: node_monitor

- name: node_monitor
- type: node_exporter

系统运行时间

System Up Time

8.3 hour

CPU 核数

CPU Core

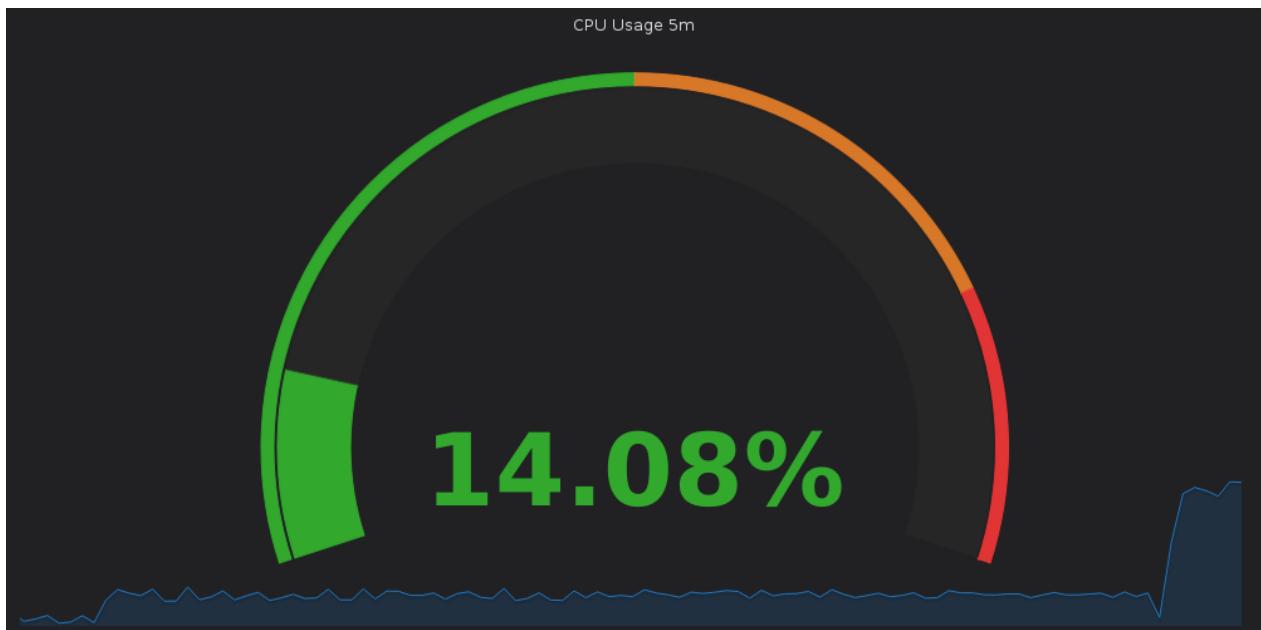
6

内存总量

Total Memory

15.7 GiB

CPU 使用率 (5m)



CPU iowait (5m)

CPU iowait 5m

0.01%

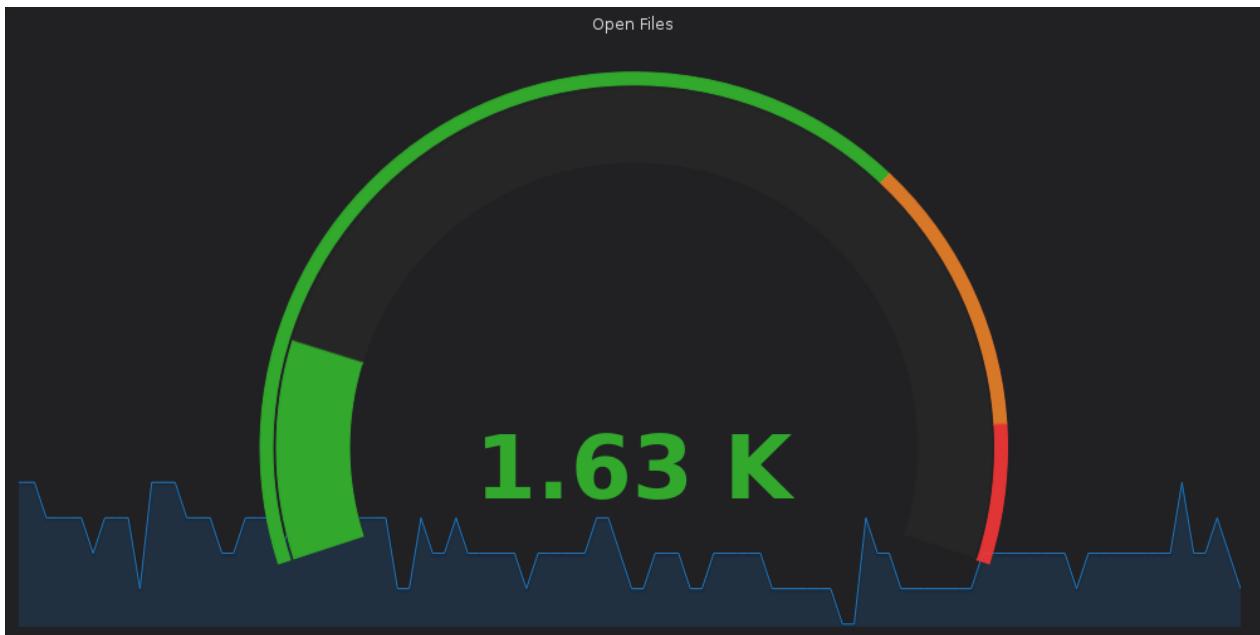
内存使用率

Memory Usage

63%

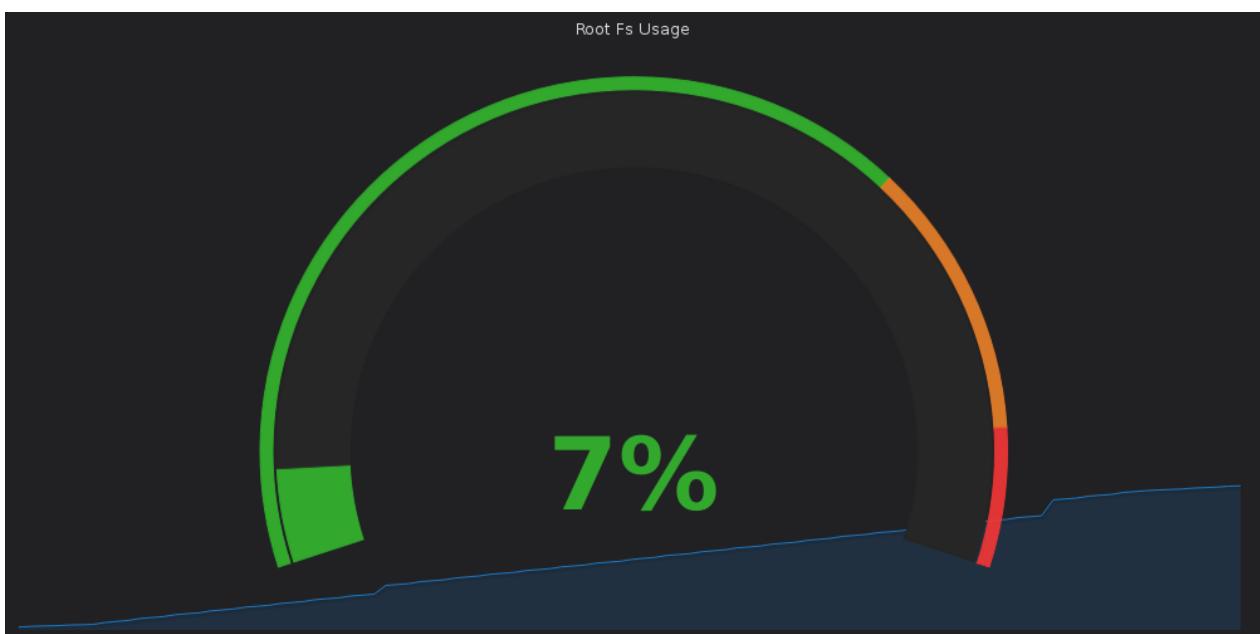
当前打开的文件描述符

Open Files

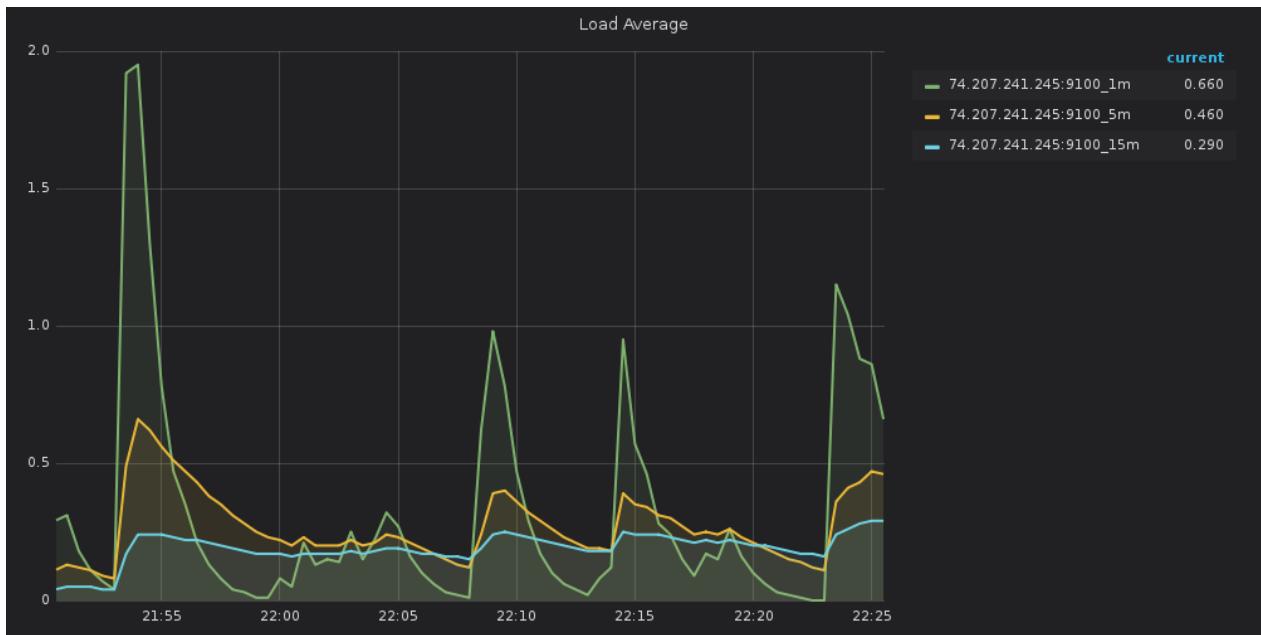


根分区使用率

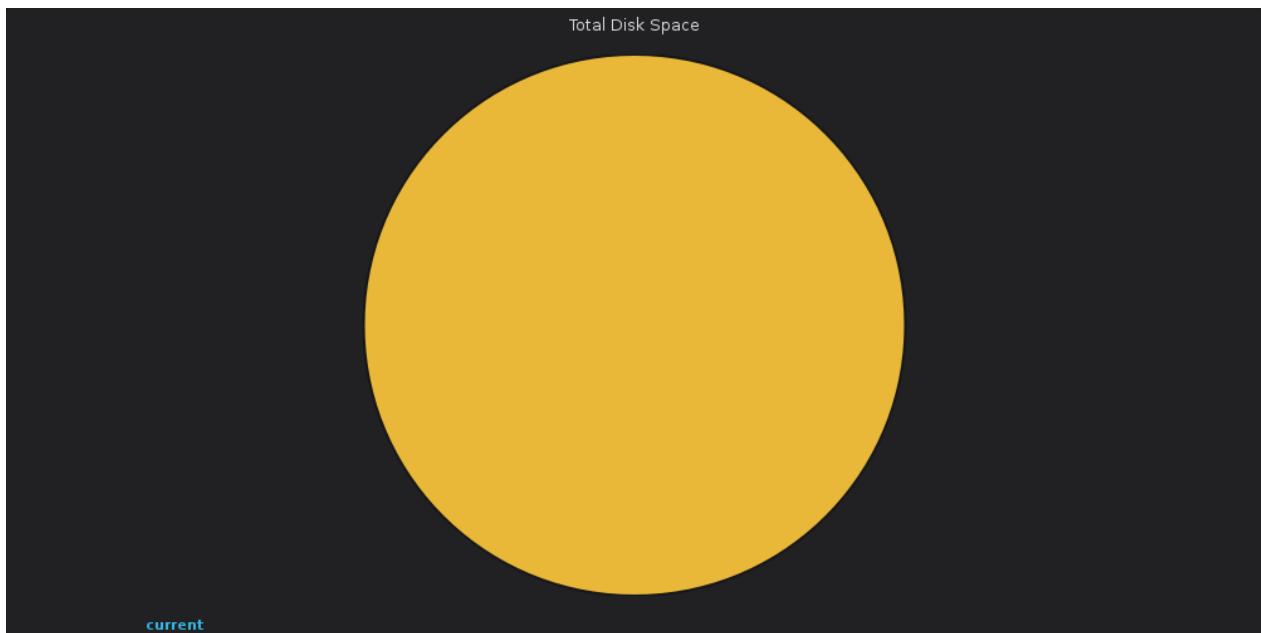
Root Fs Usage



系统平均负载



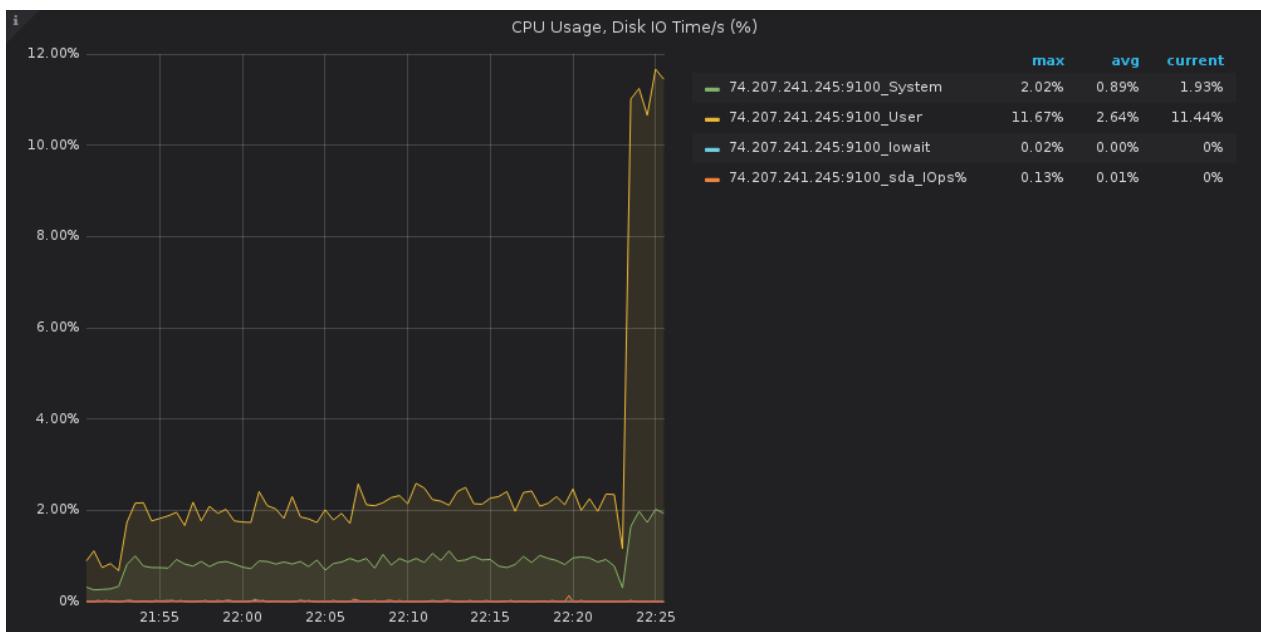
磁盘总空间



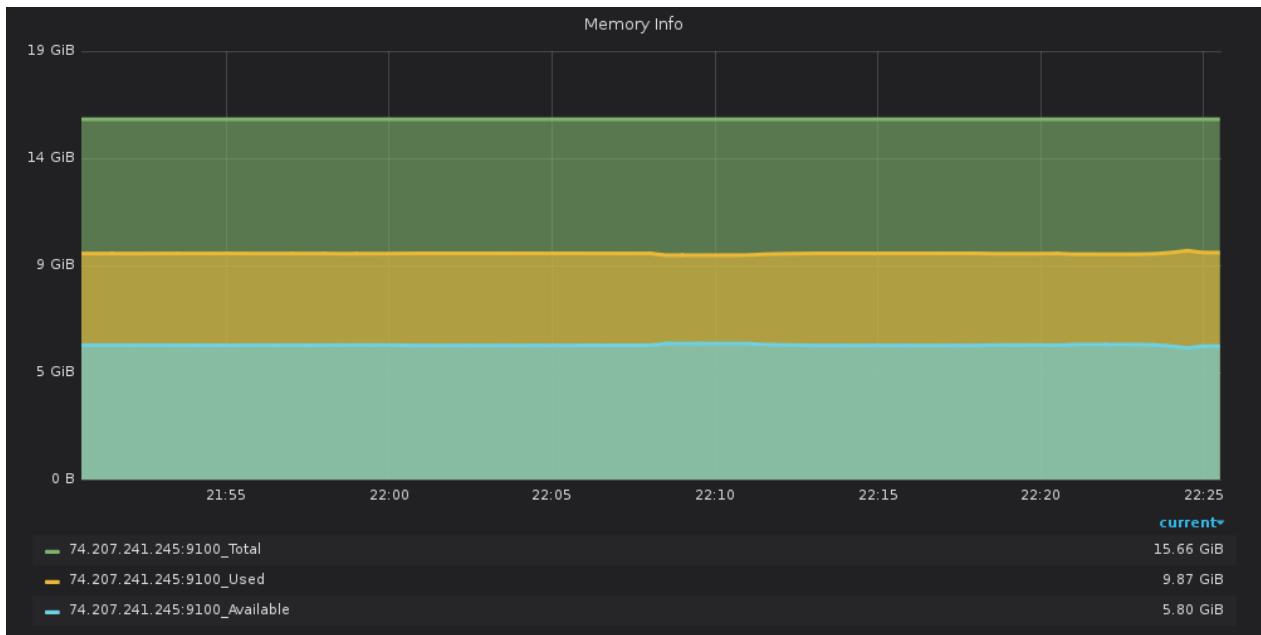
各分区可用空间

Volumes Available				
File System	IP	Mount ▲	Available	Usage
ext4	74.207.241.245:9100	/	292.67 GiB	1.87%

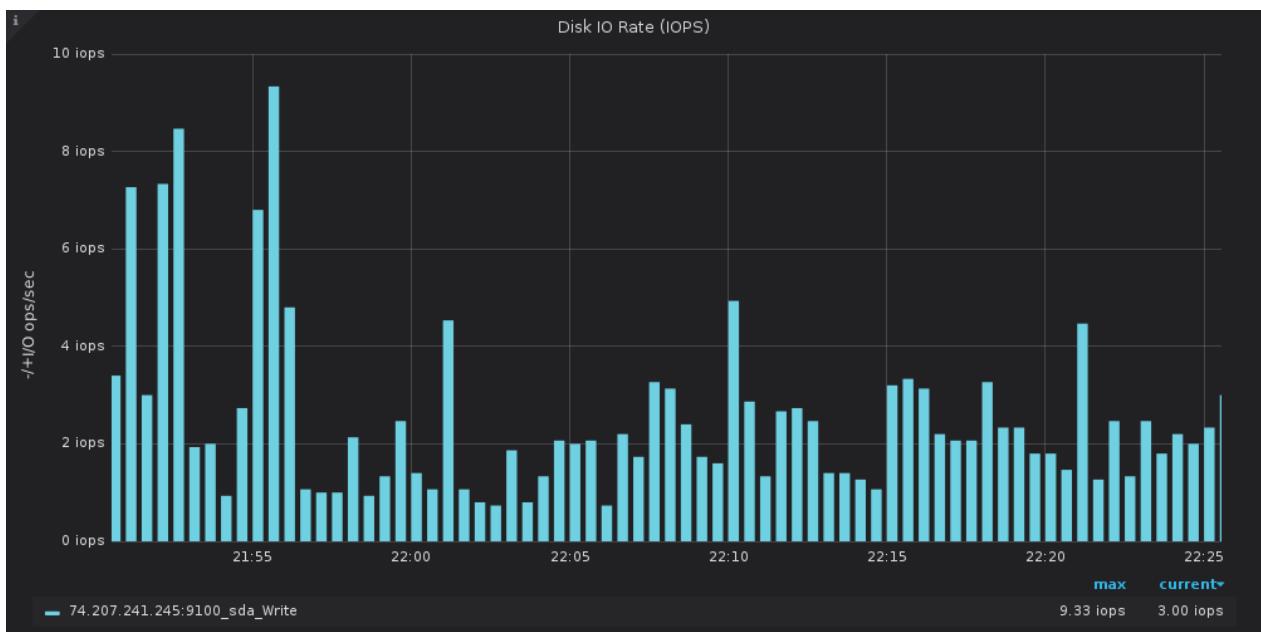
CPU使用率、磁盘每秒的I/O操作耗费时间 (%)



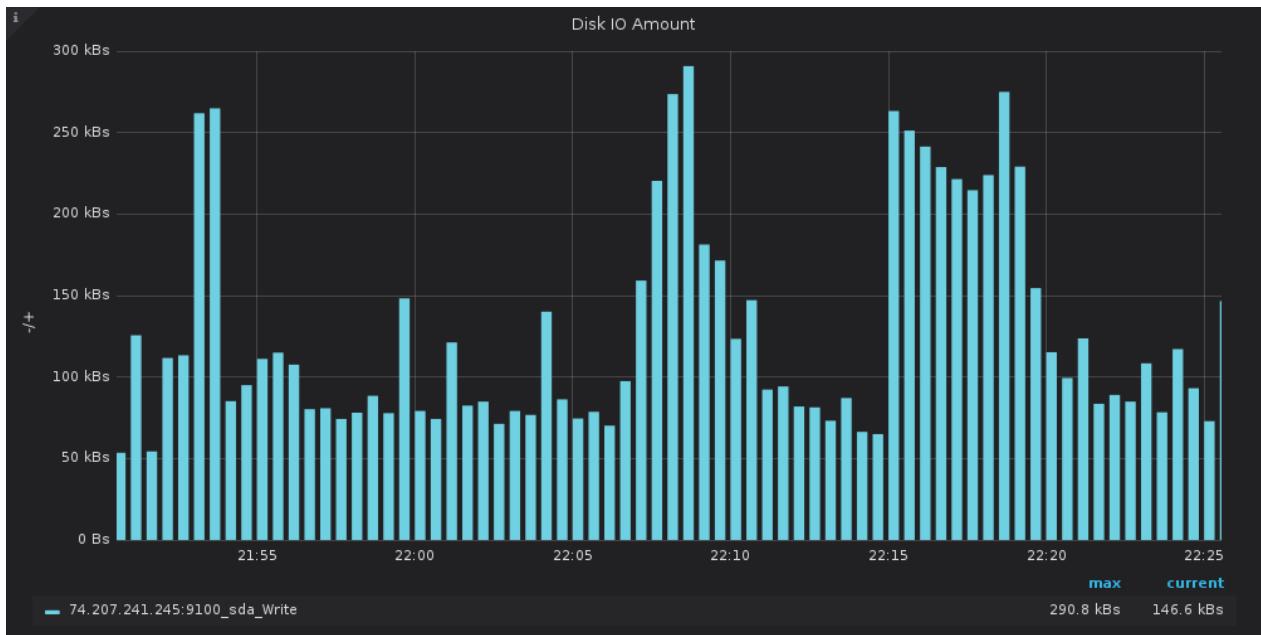
内存信息



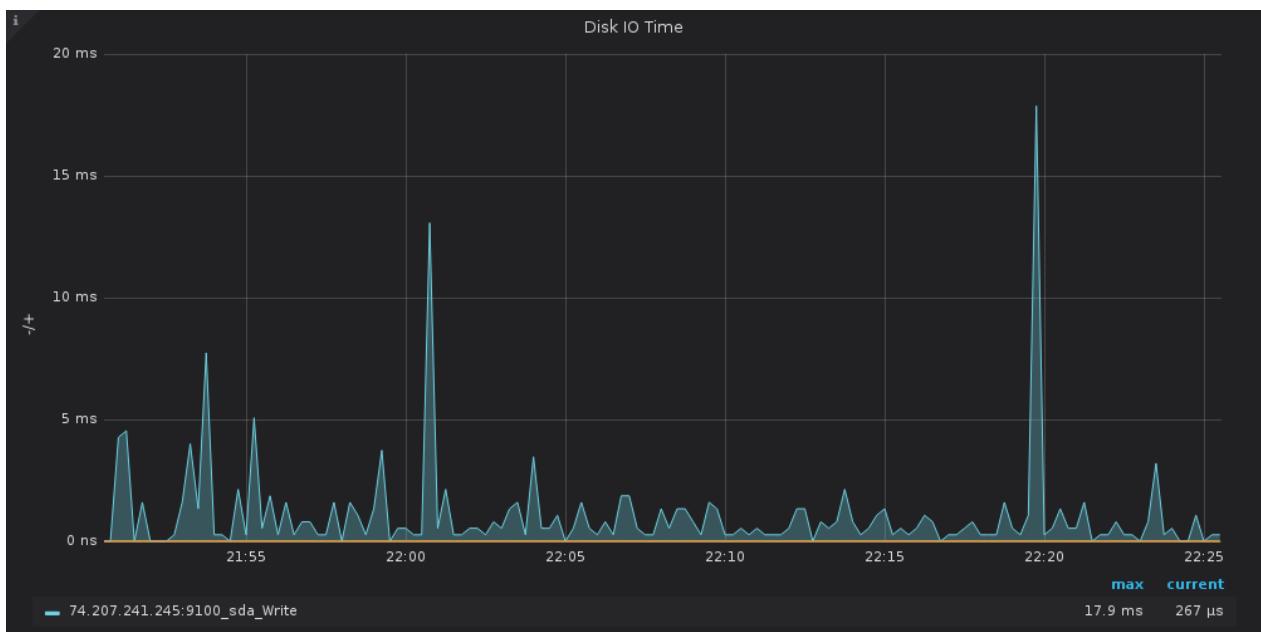
磁盘读写速率 (IOPS)



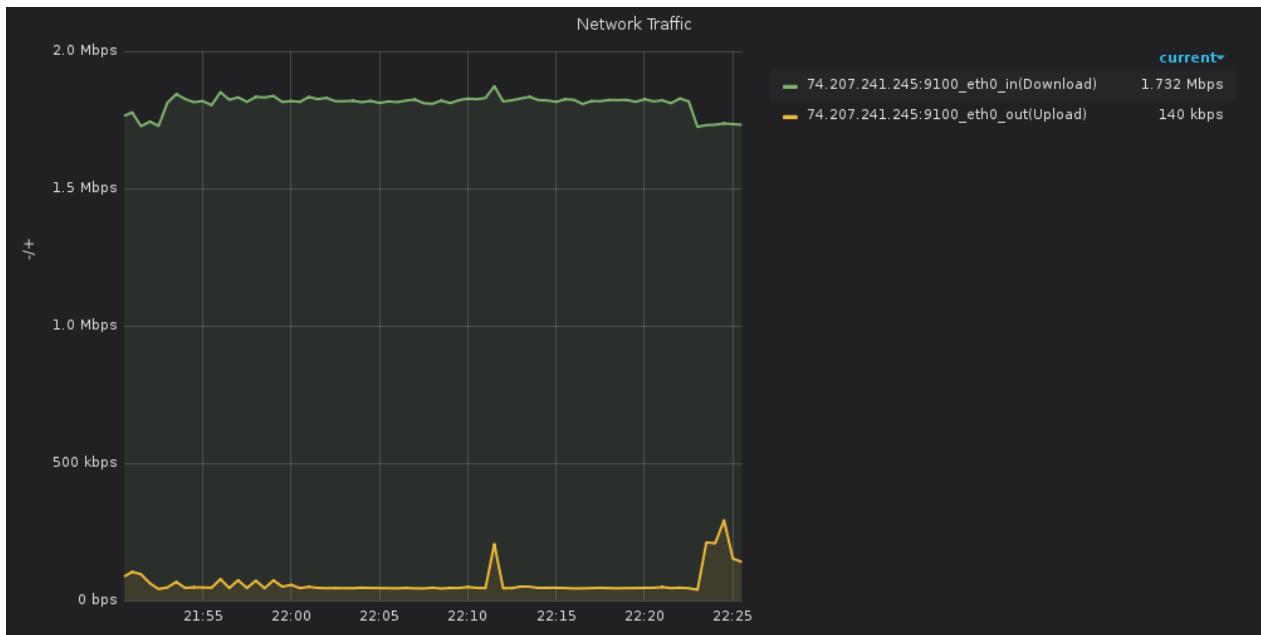
磁盘读写容量大小



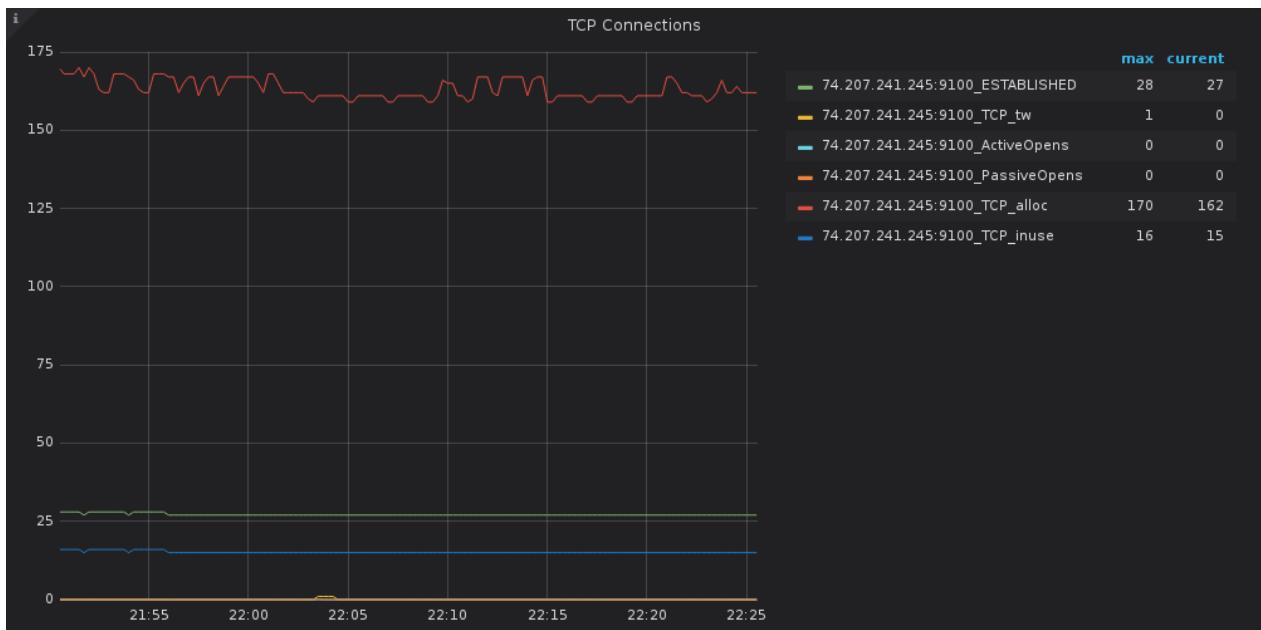
磁盘IO读写时间



网络流量



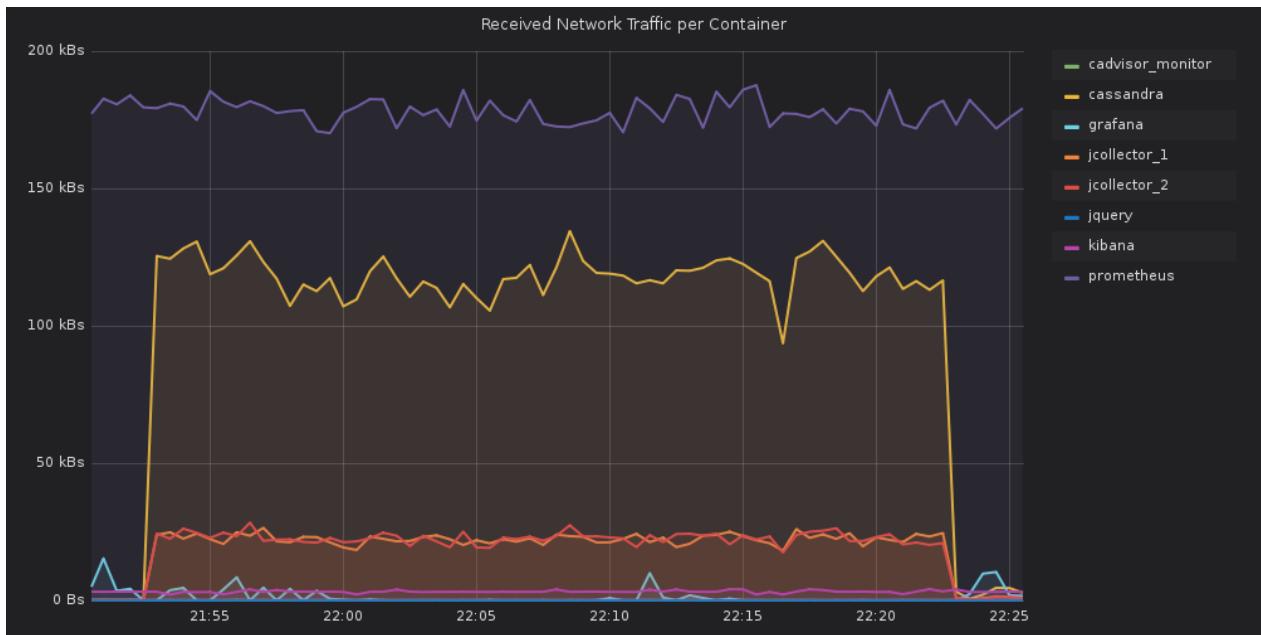
TCP 连接情况



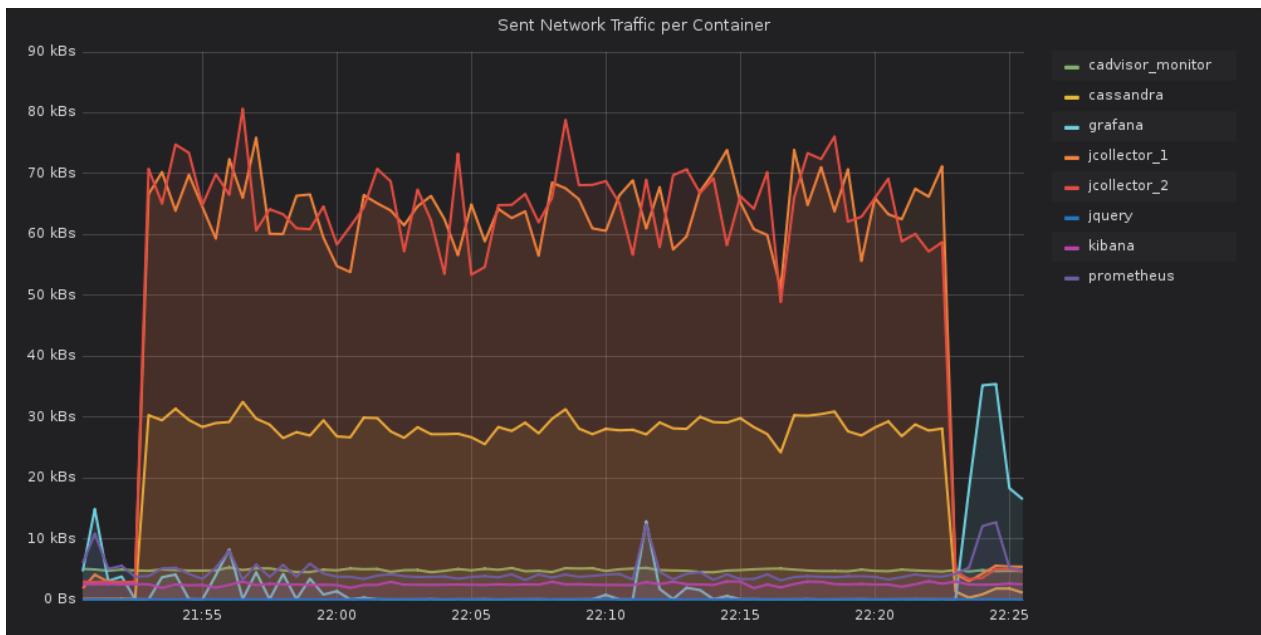
Service: cAdvisor_monitor

- name: cadvisor_monitor
- type: cadvisor

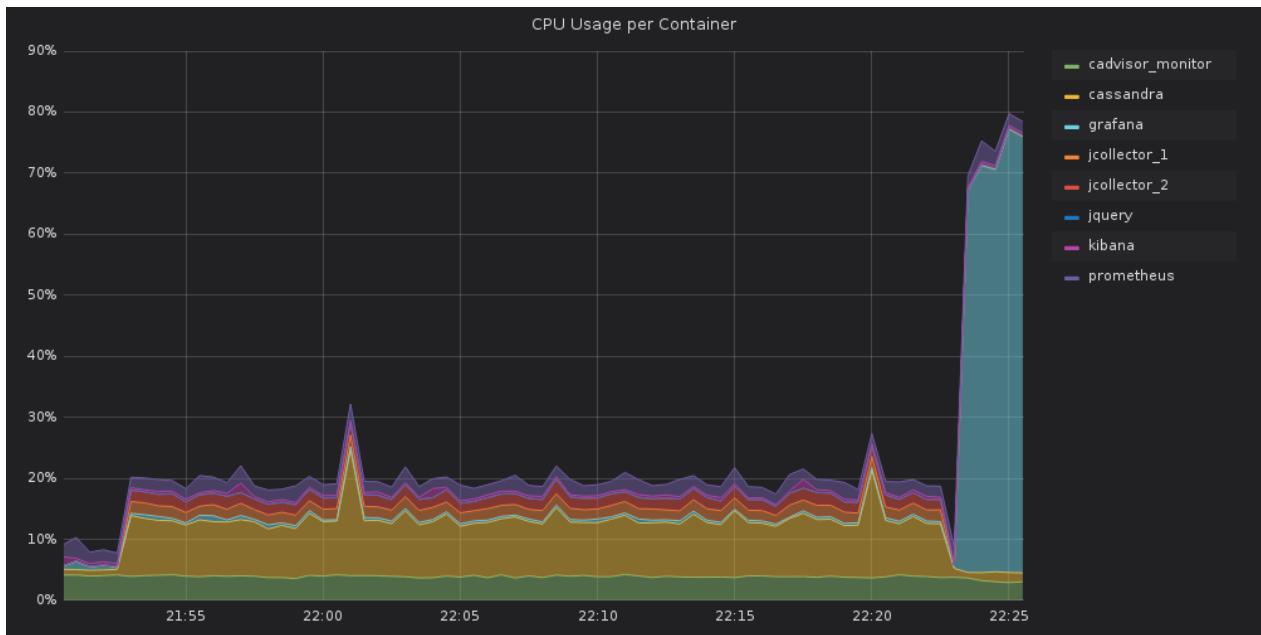
Received Network Traffic per Container



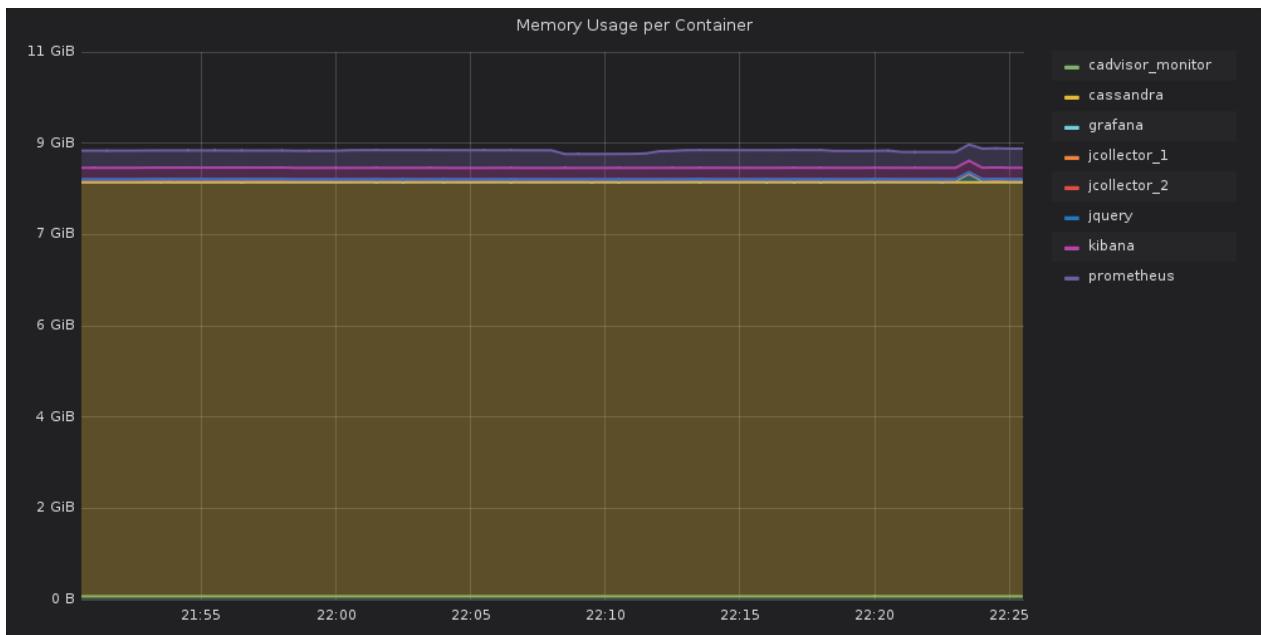
Sent Network Traffic per Container



CPU Usage per Container



Memory Usage per Container



Memory Swap per Container



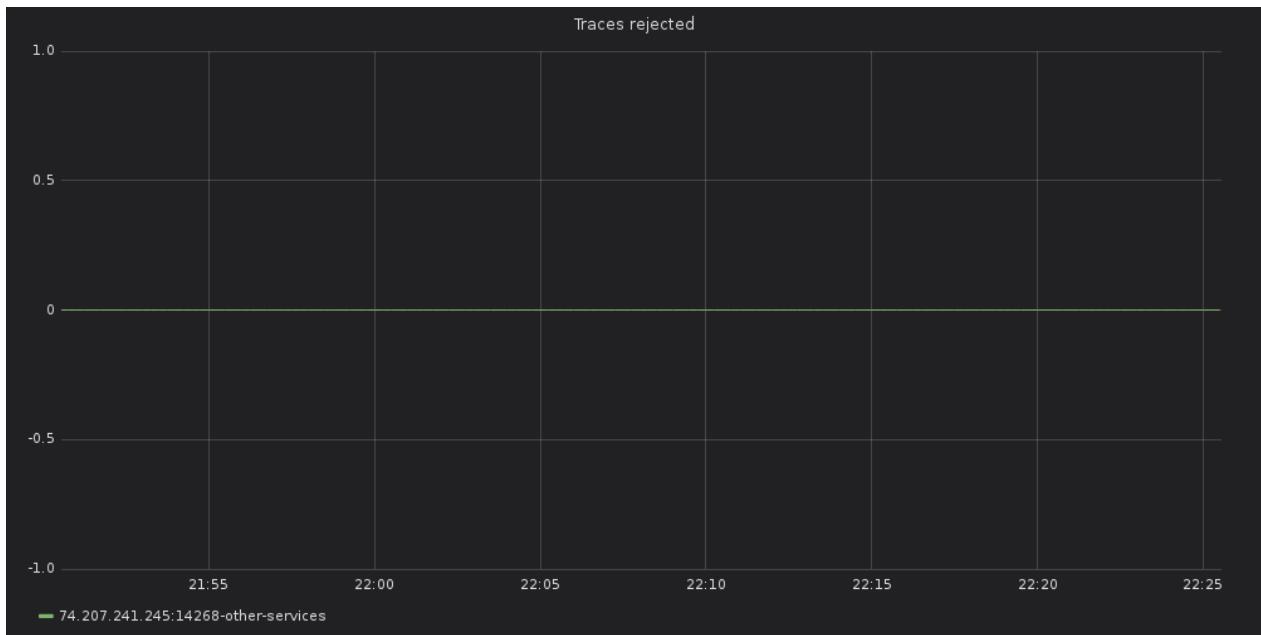
Service: `jcollector_1`

- name: `jcollector_1`
- type: jaeger_collector

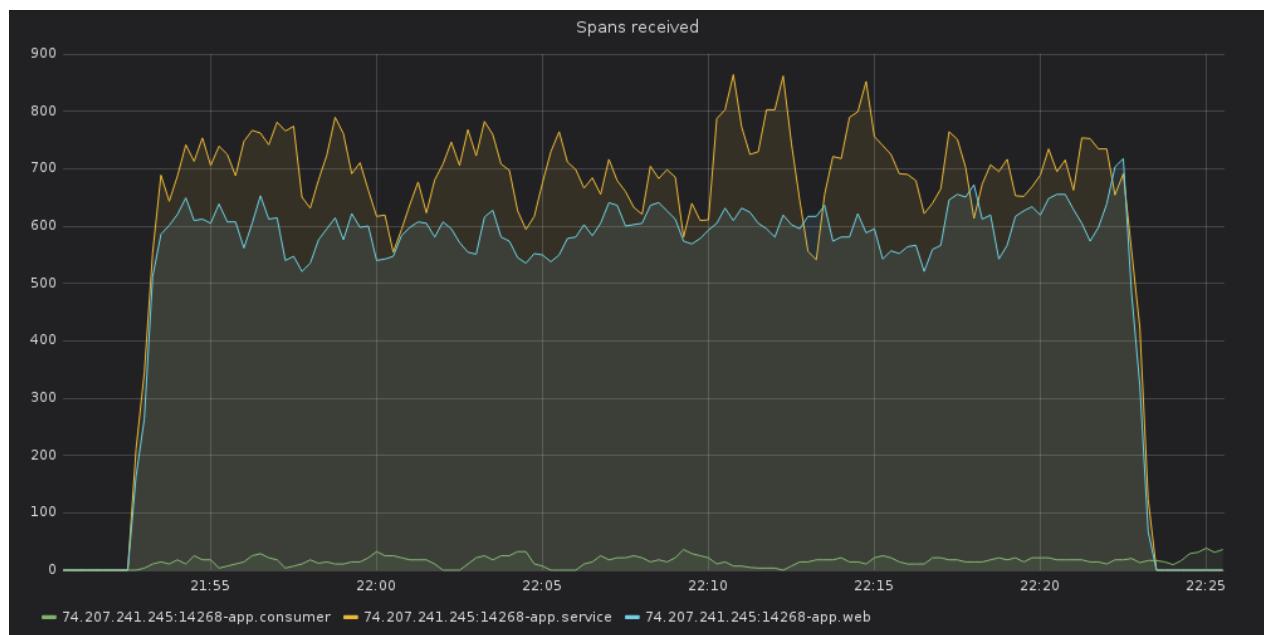
Traces received



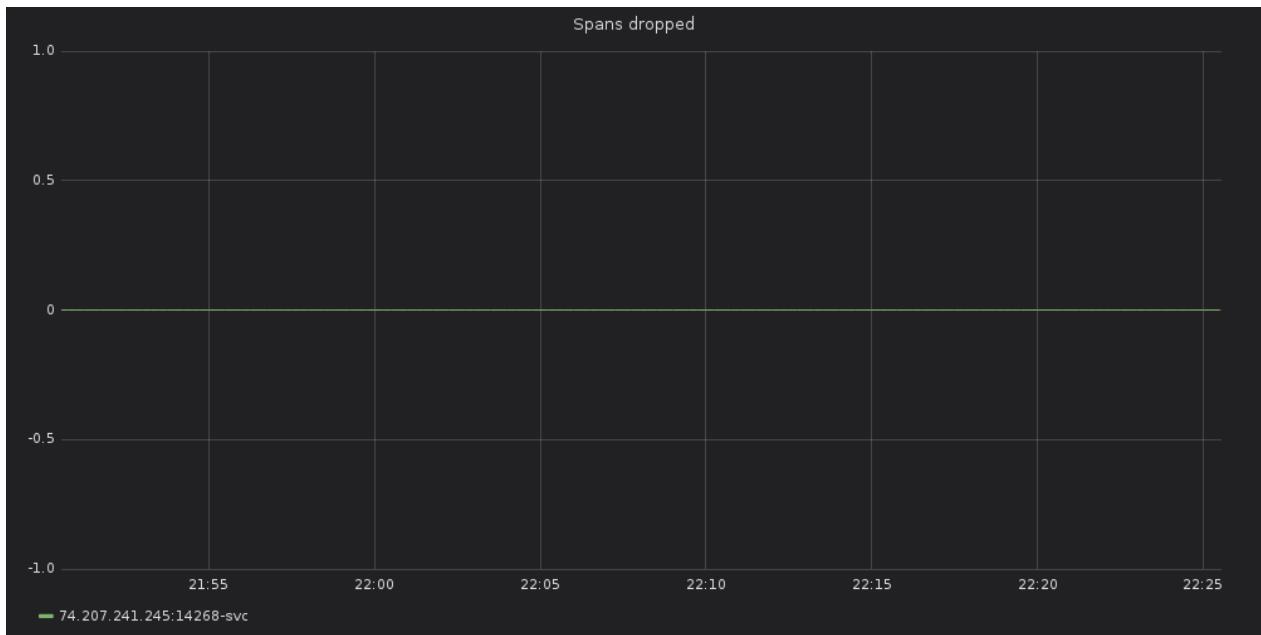
Traces rejected



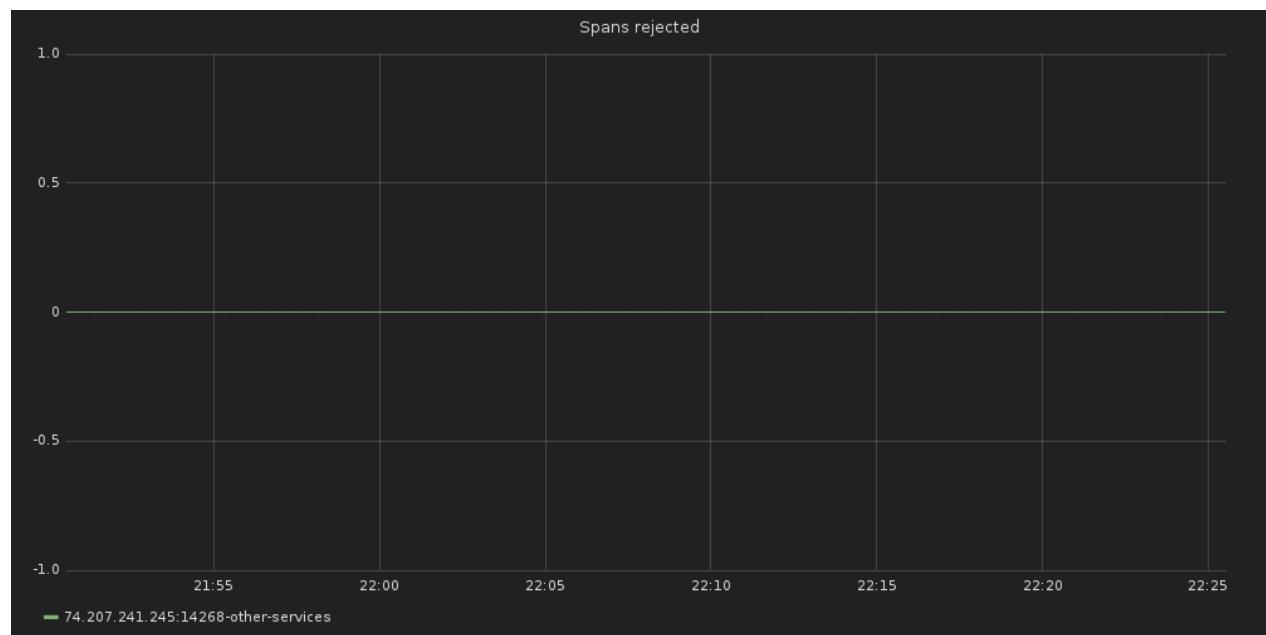
Spans received



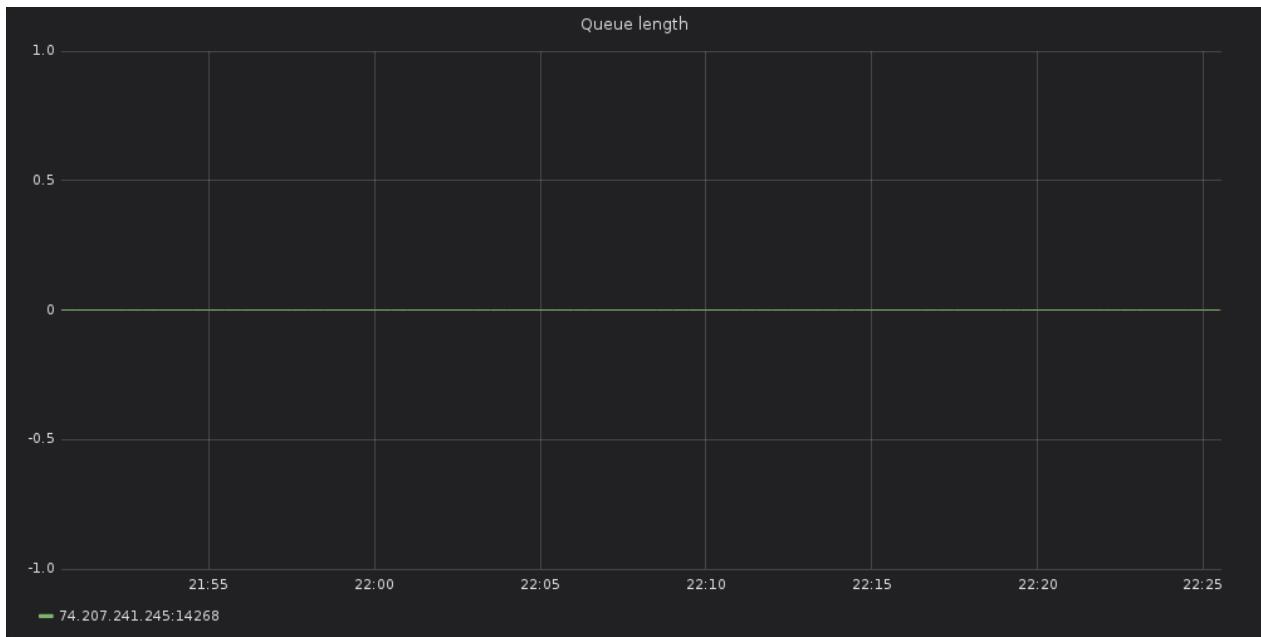
Spans dropped



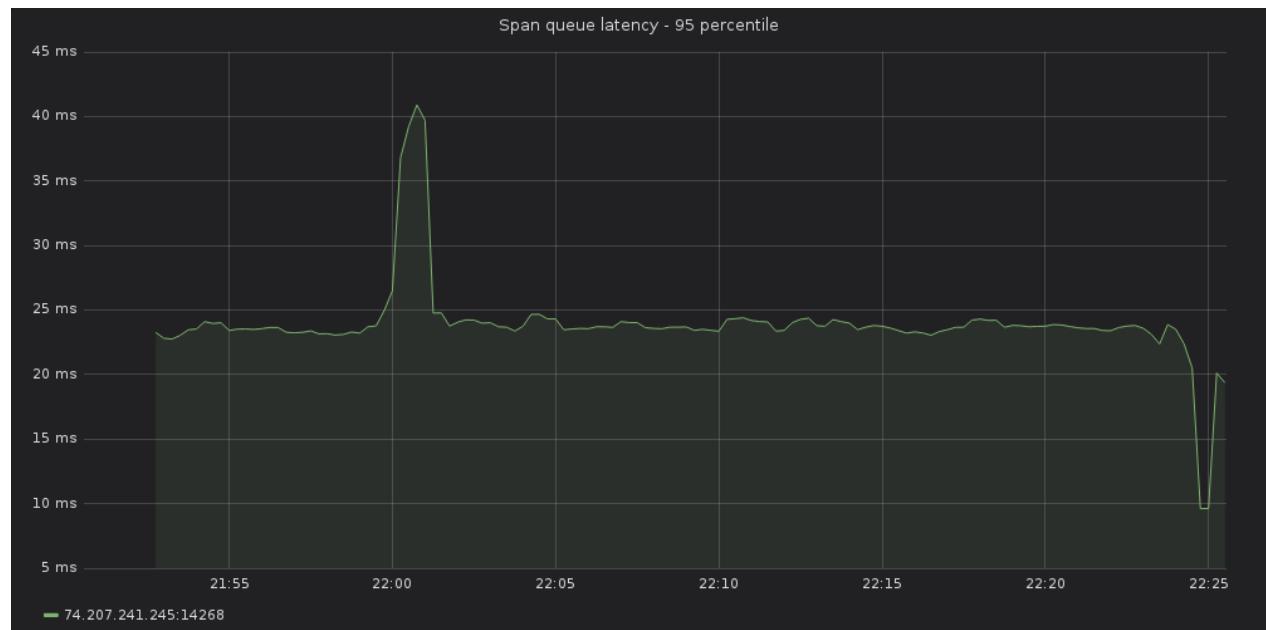
Spans rejected



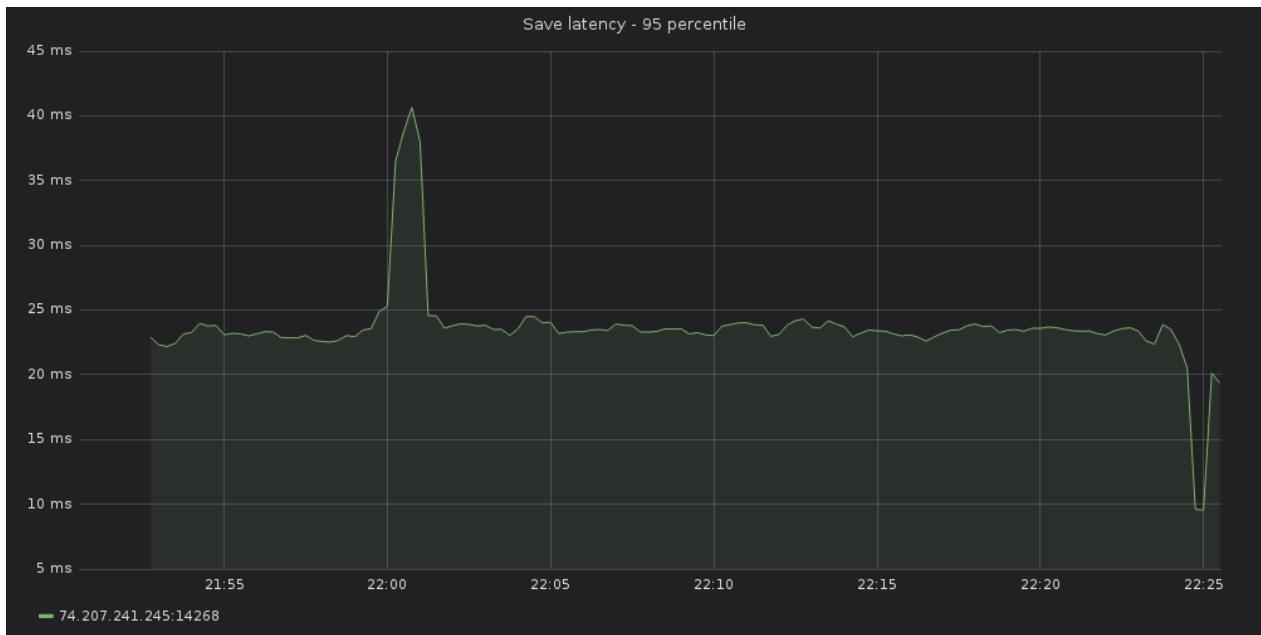
Queue length



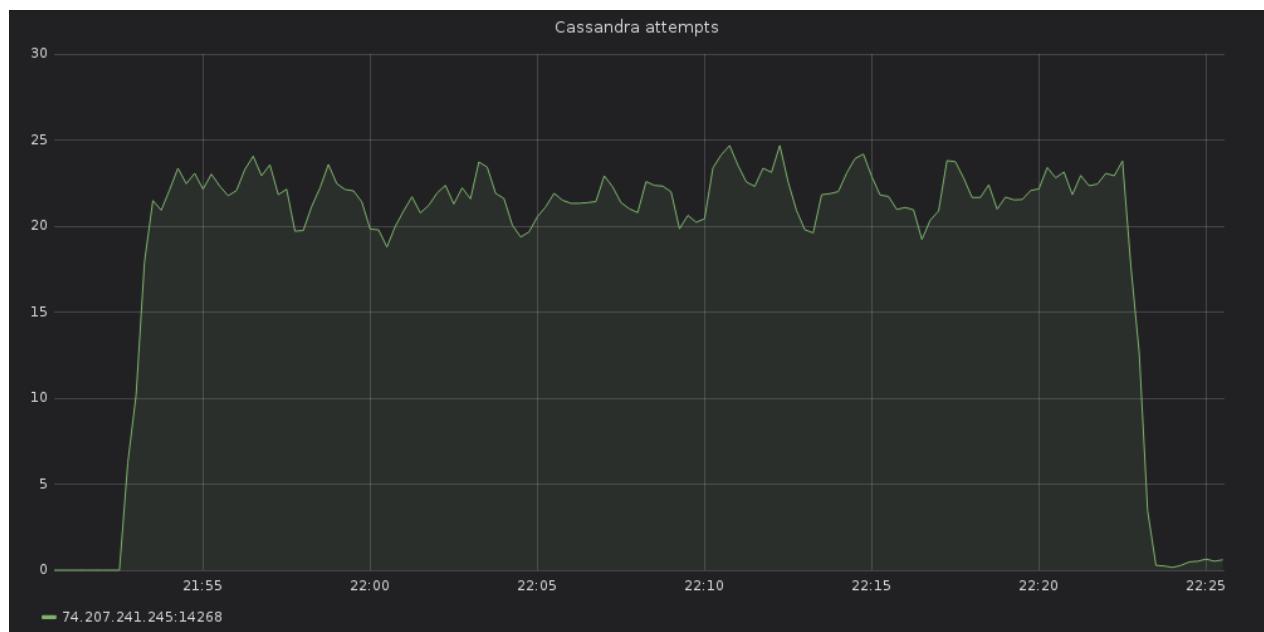
Span queue latency



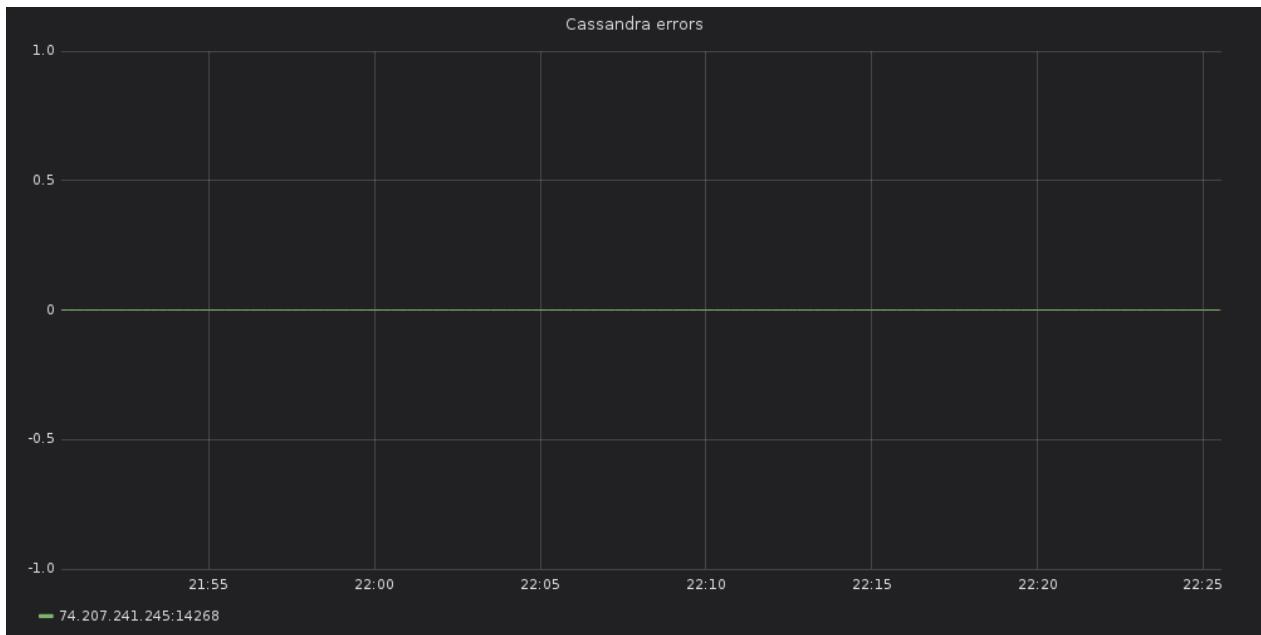
Save latency



Cassandra attempts



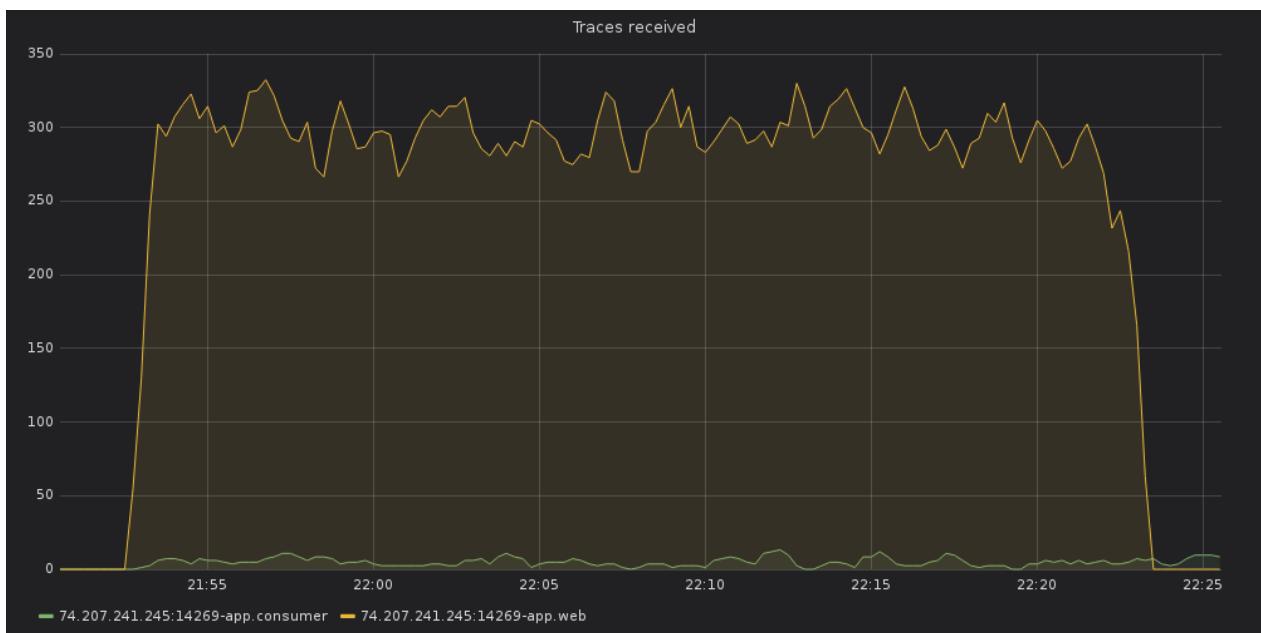
Cassandra errors



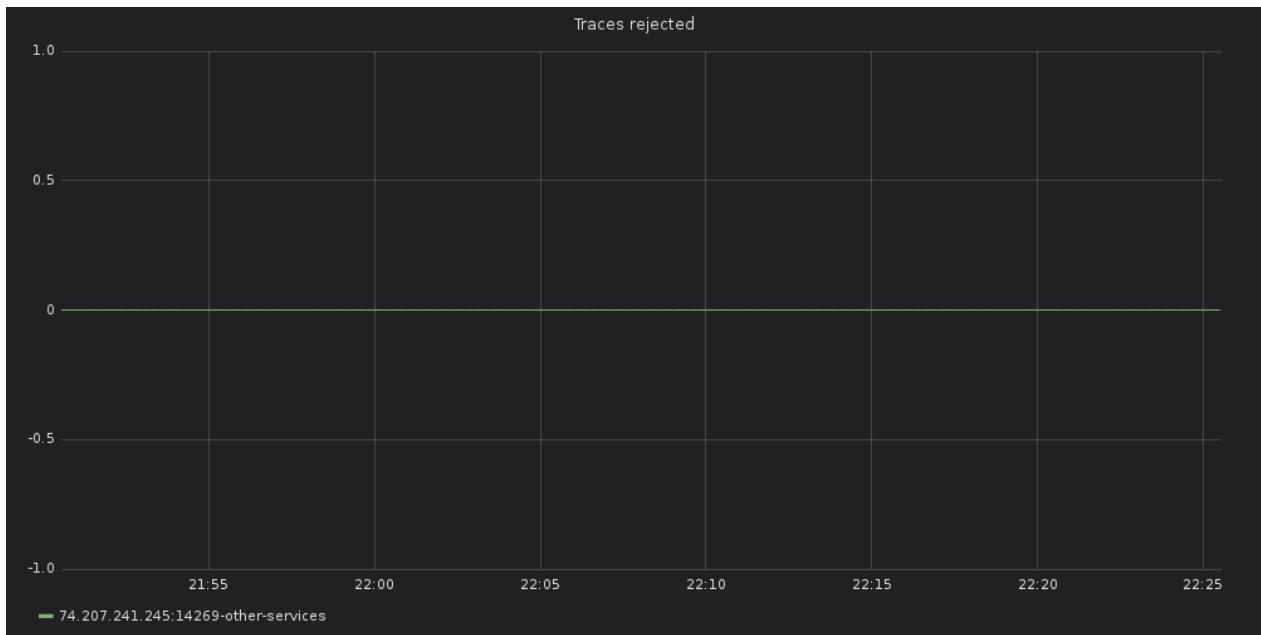
Service: jcollector_2

- name: jcollector_2
- type: jaeger_collector

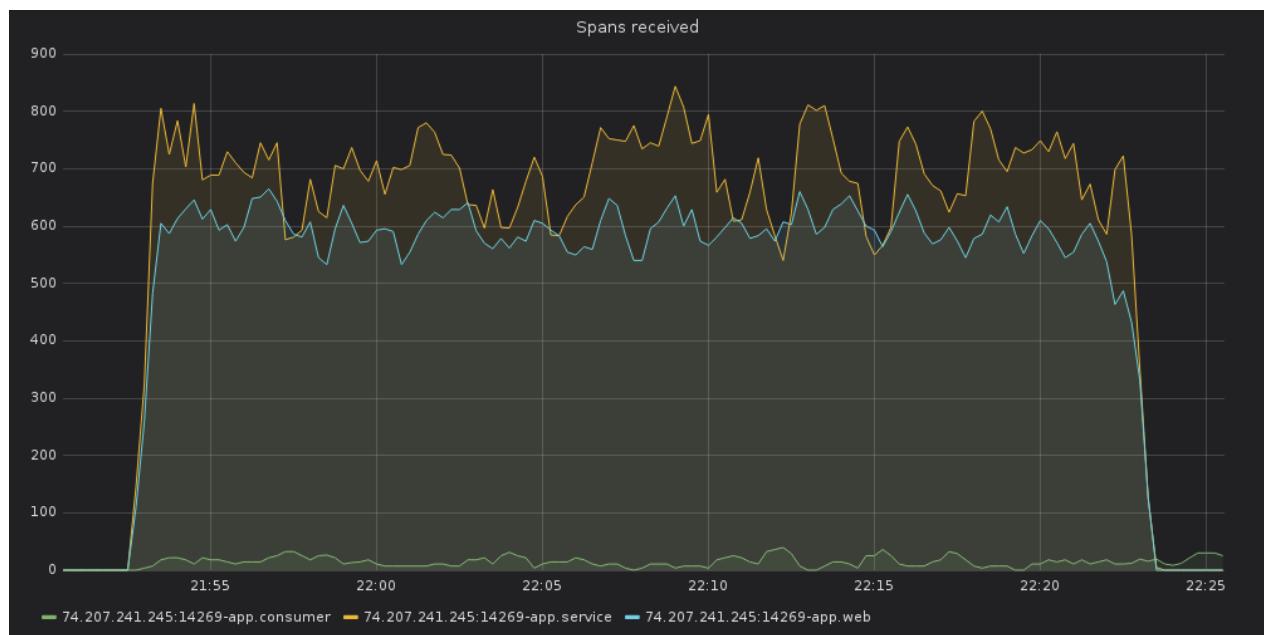
Traces received



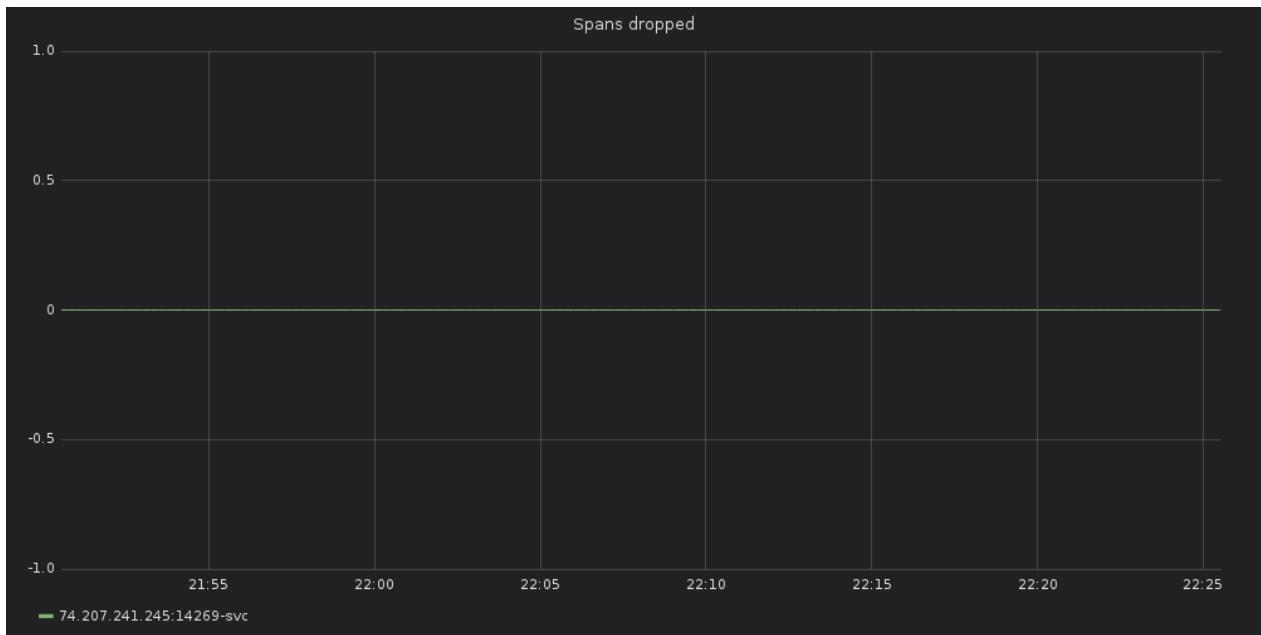
Traces rejected



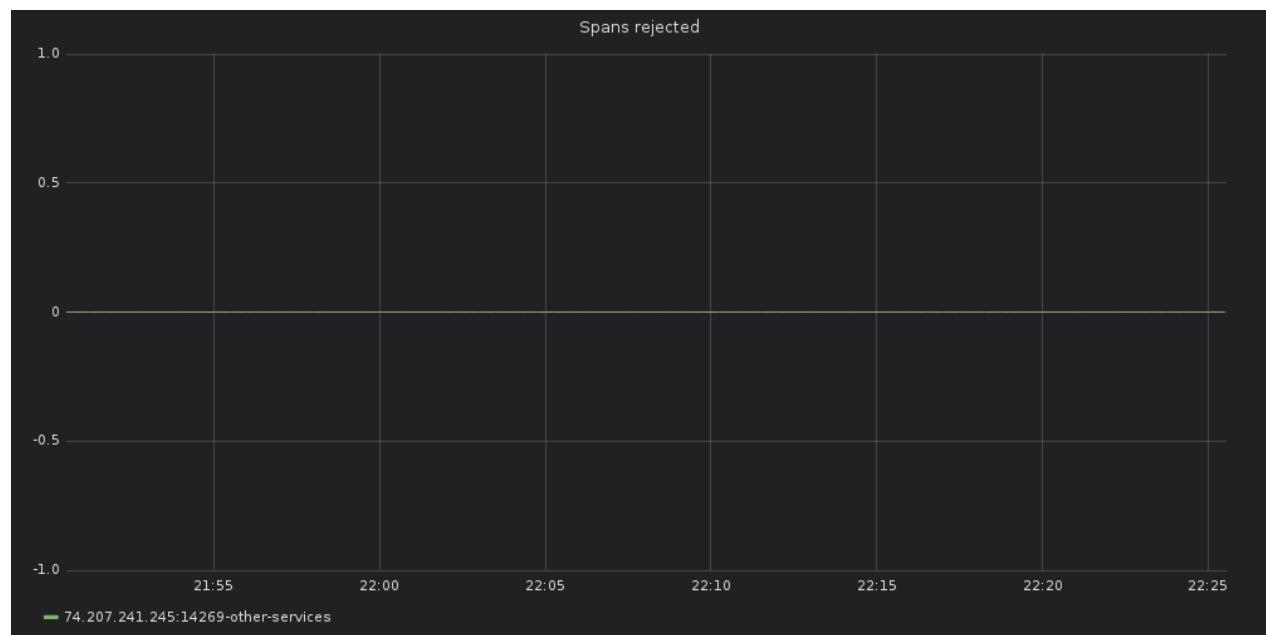
Spans received



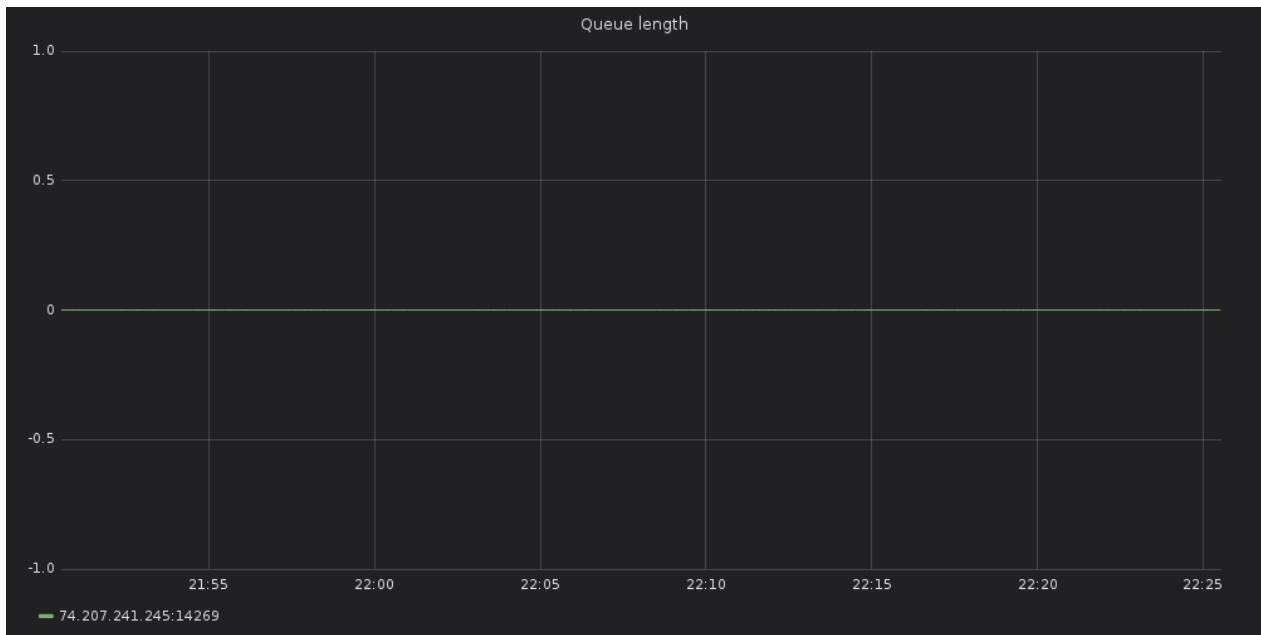
Spans dropped



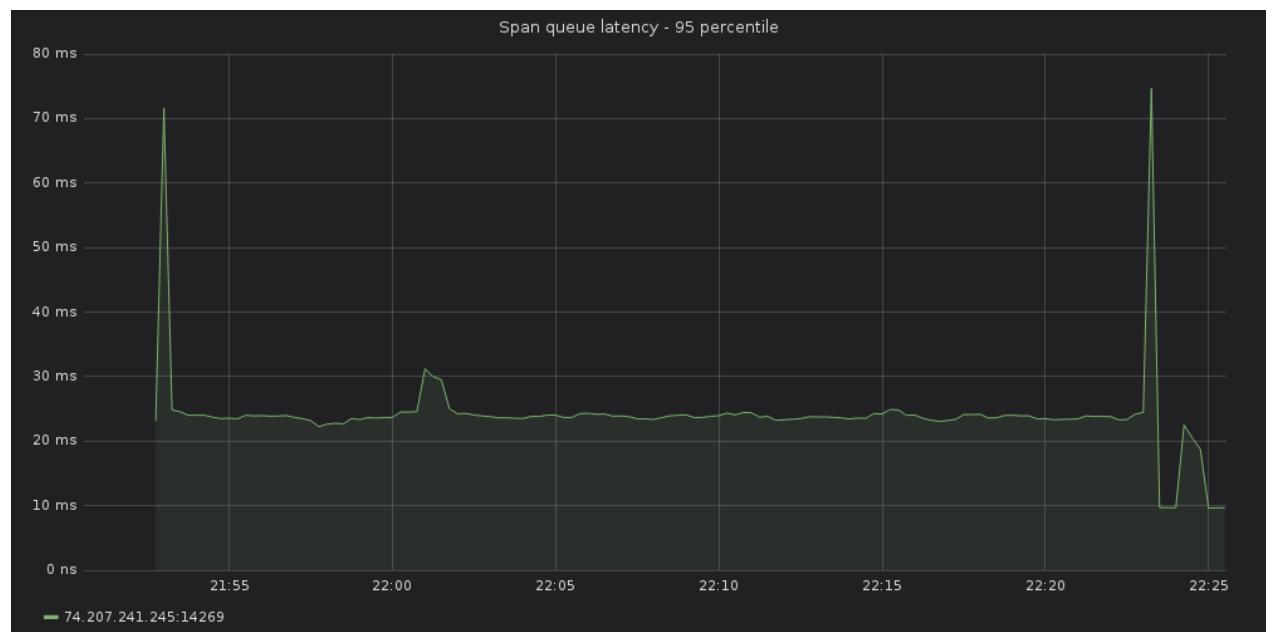
Spans rejected



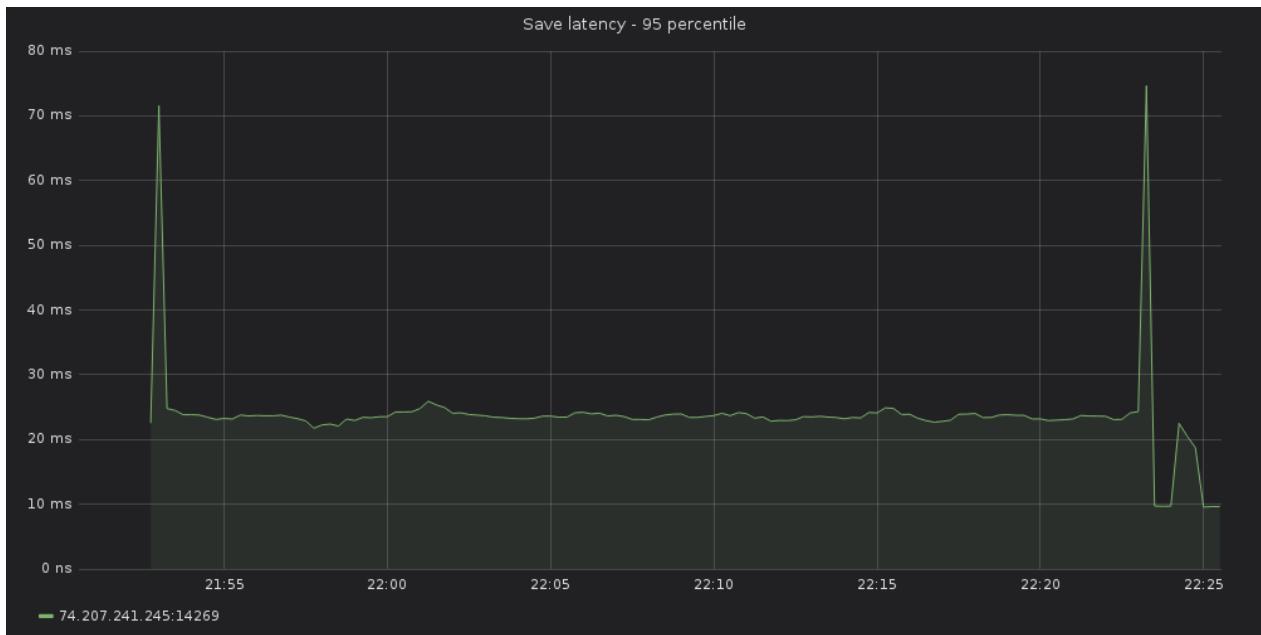
Queue length



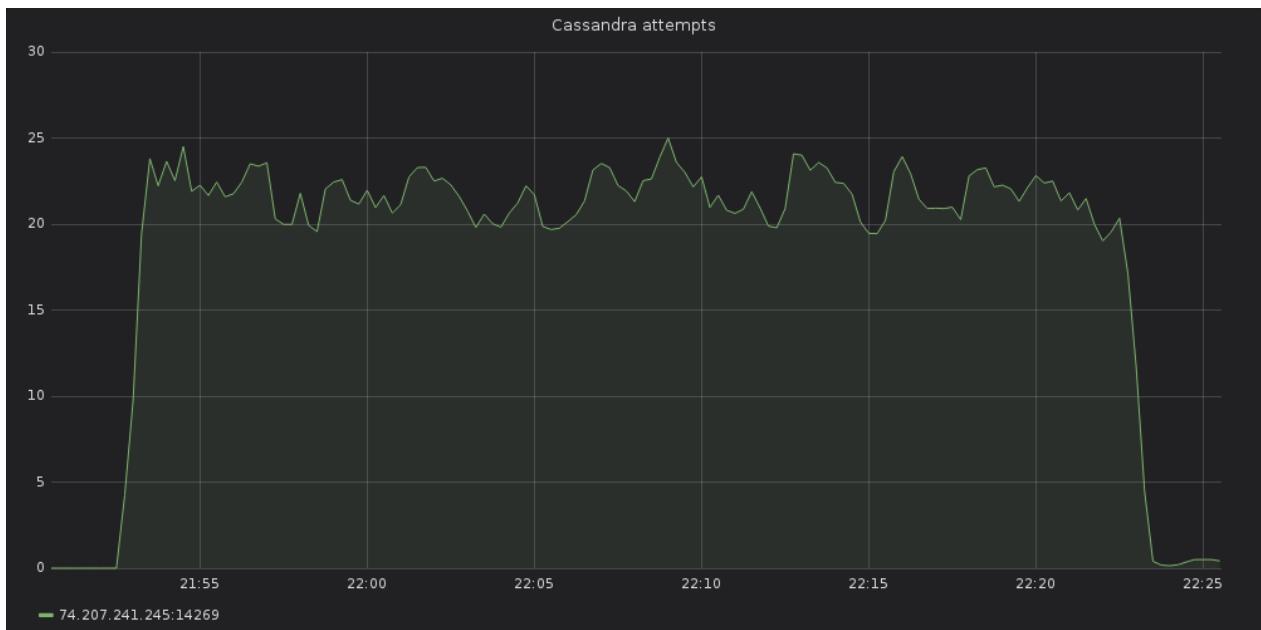
Span queue latency



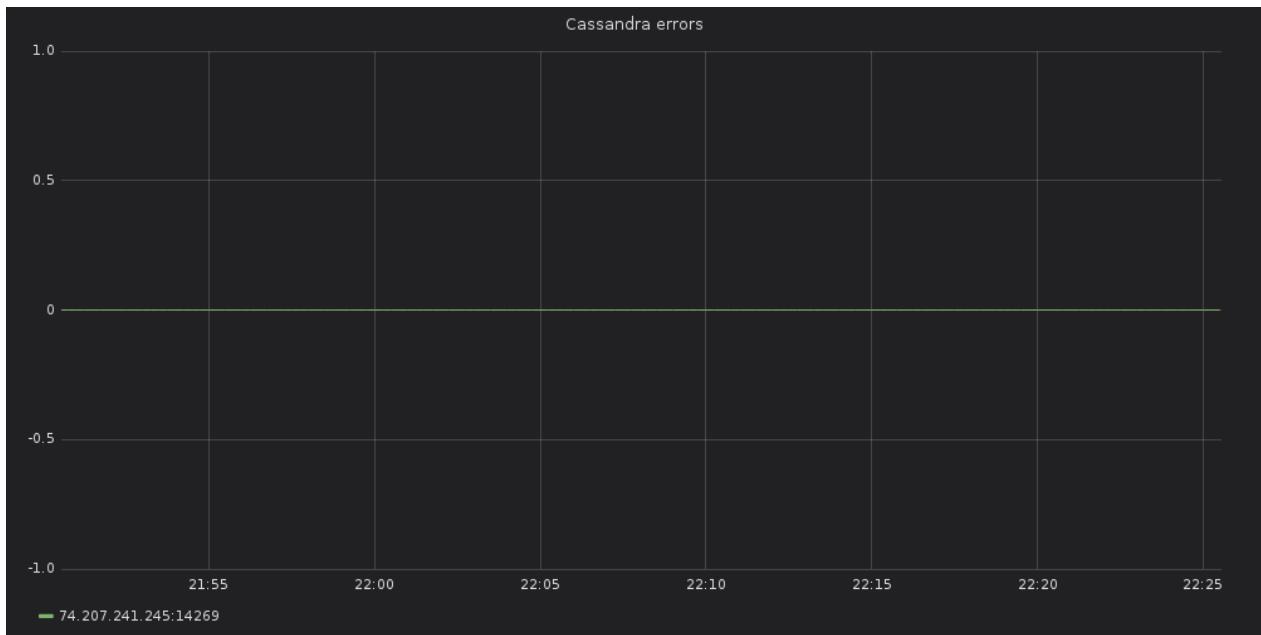
Save latency



Cassandra attempts



Cassandra errors



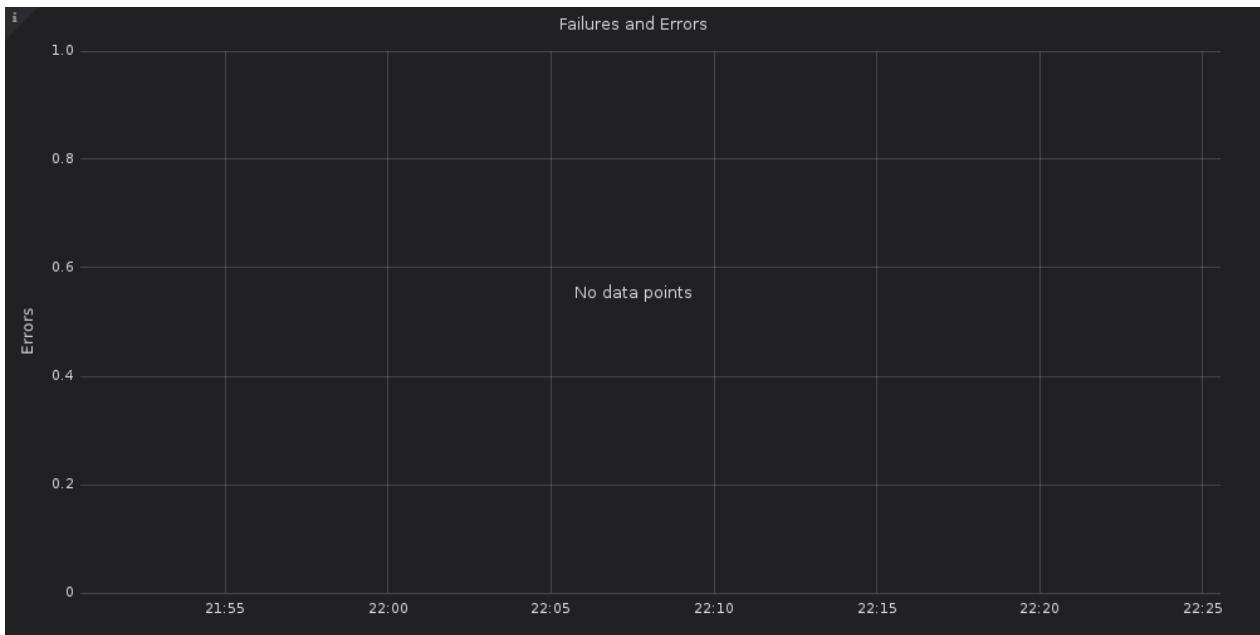
Service: prometheus

- name: prometheus
- type: prometheus

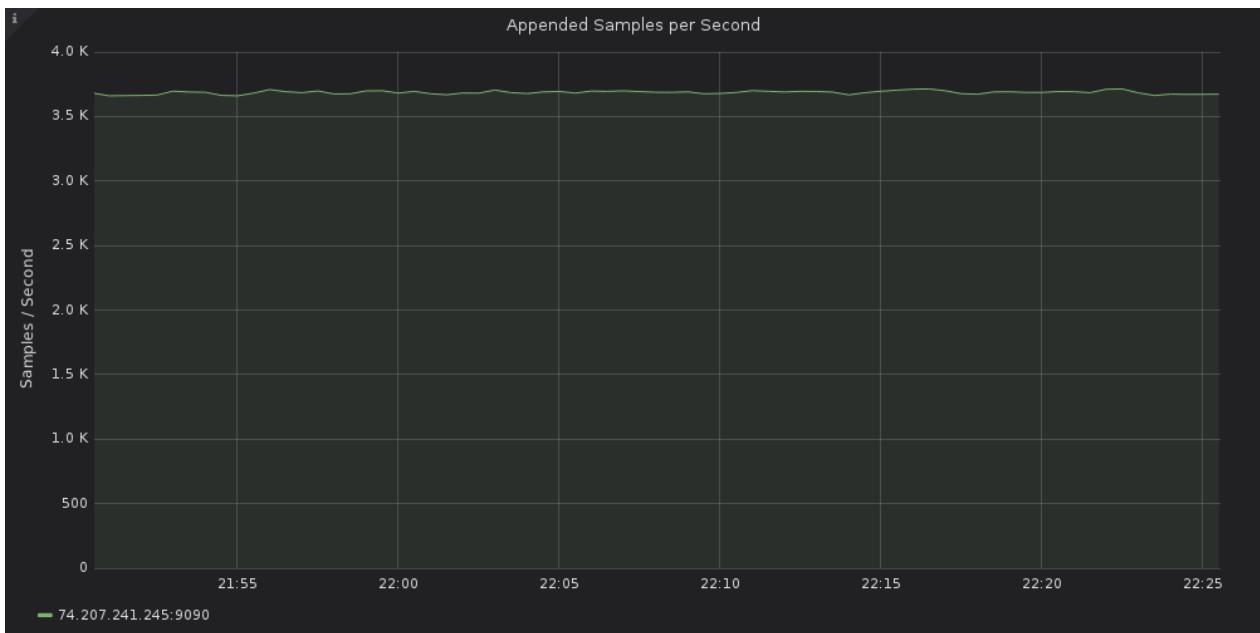
Series Count



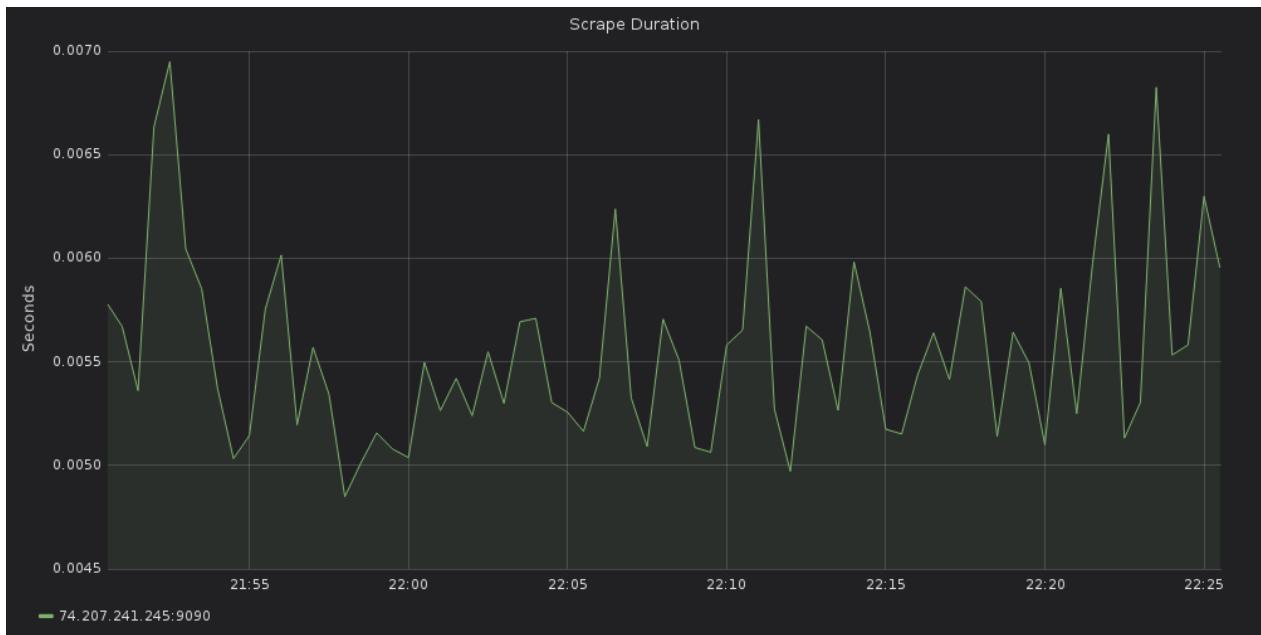
Failures and Errors



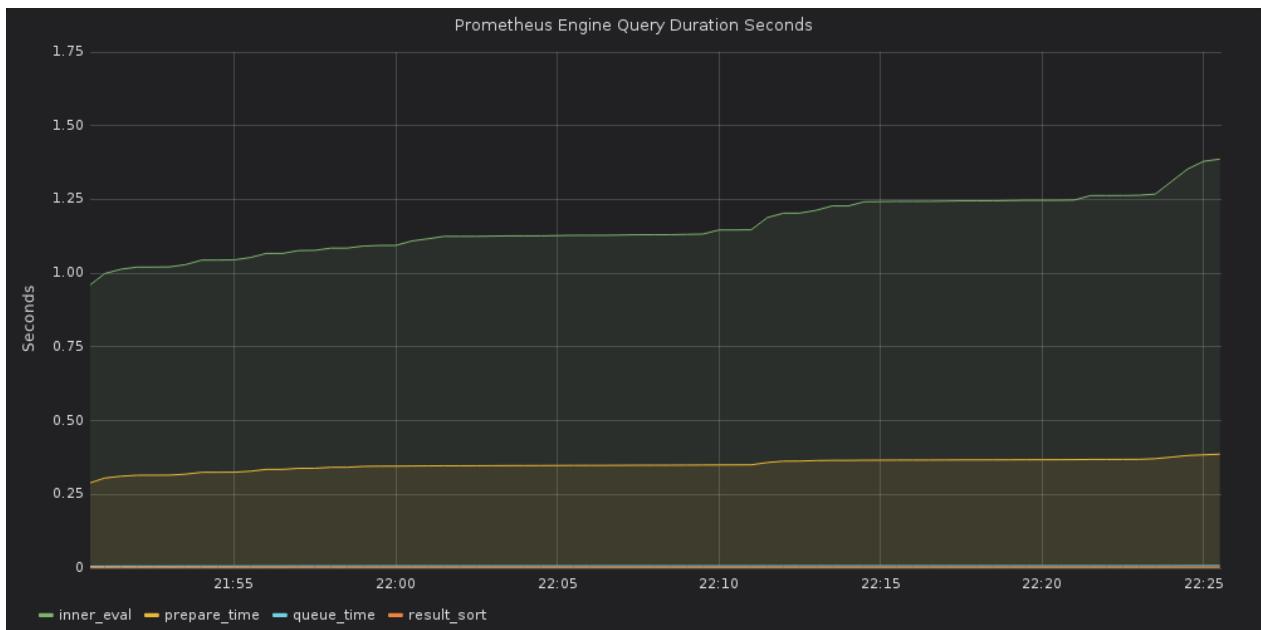
Appended Samples per Second



Scrape Duration



Prometheus Engine Query Duration Seconds



Host: service

- name: service
- type: service

Service: node_service

- name: node_service
- type: node_exporter

系统运行时间

System Up Time

8.3 hour

CPU 核数

CPU Core

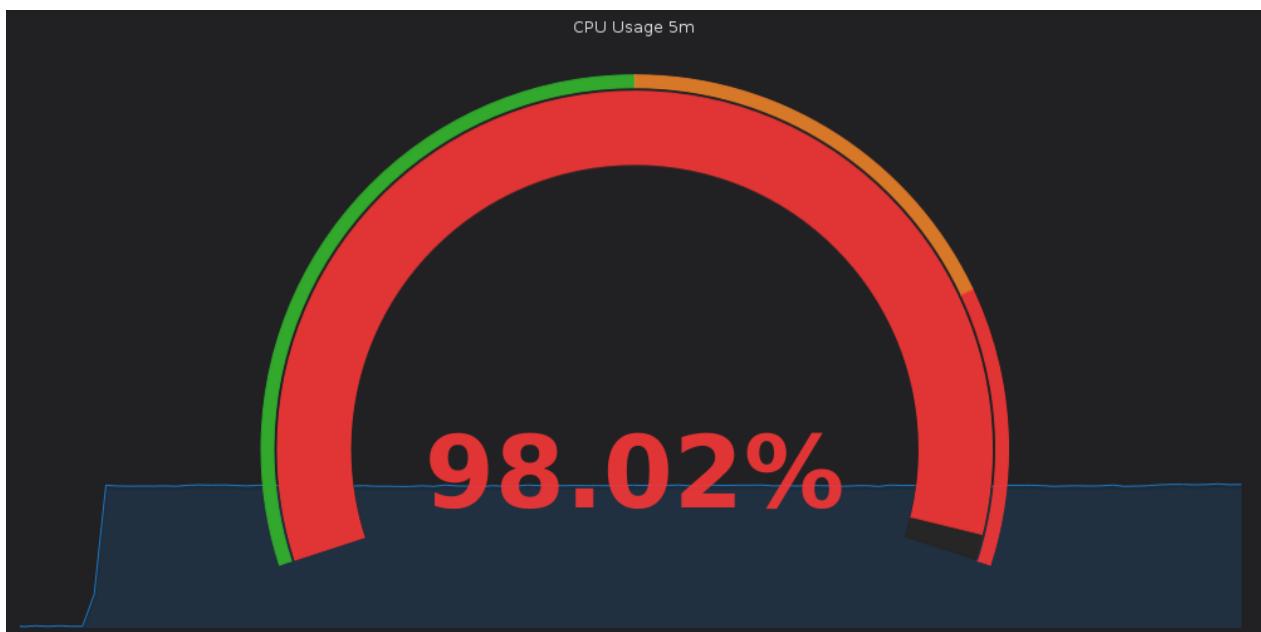
6

内存总量

Total Memory

15.7 GiB

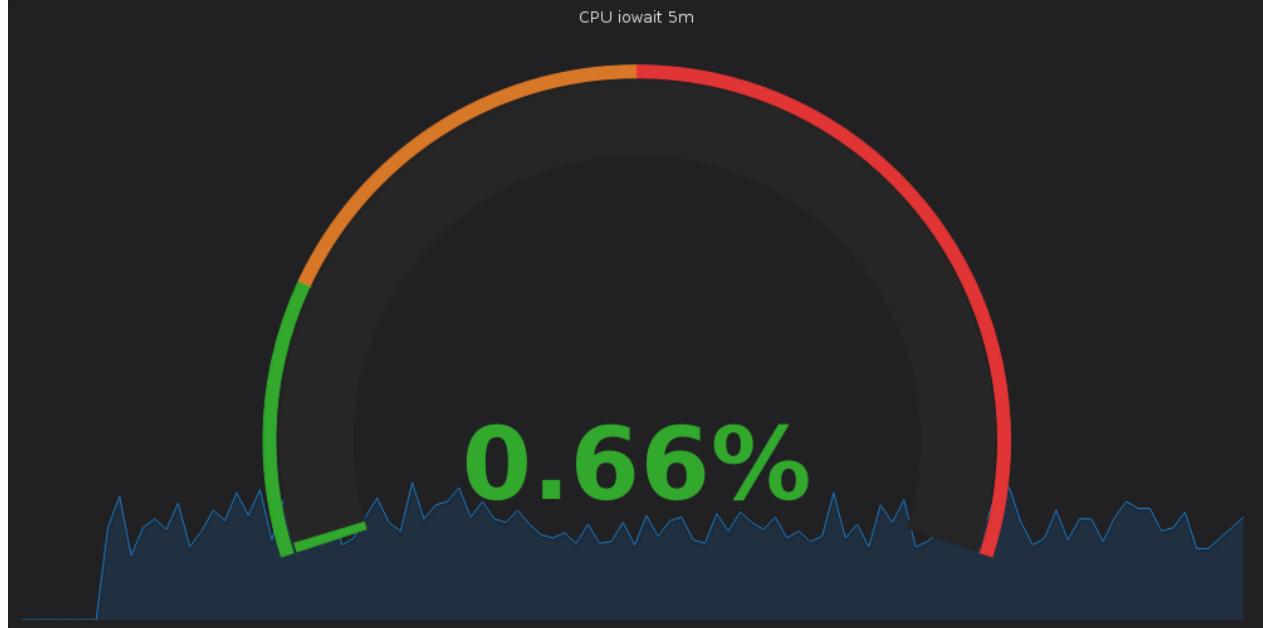
CPU使用率 (5m)



CPU iowait (5m)

CPU iowait 5m

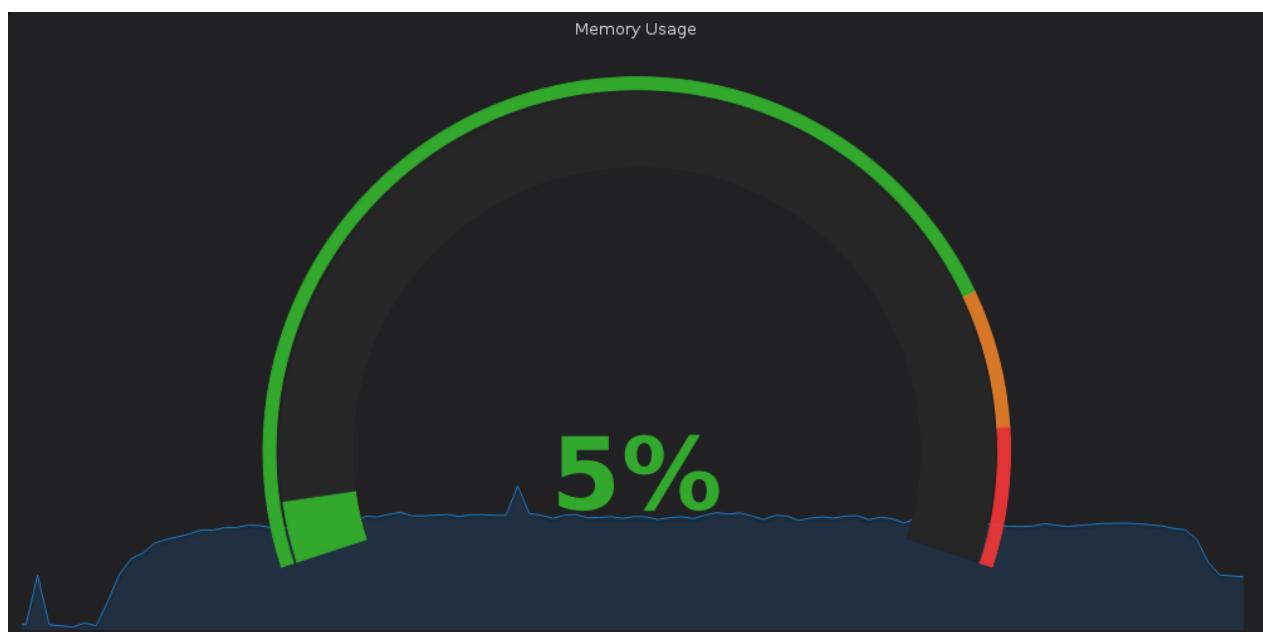
0.66%



内存使用率

Memory Usage

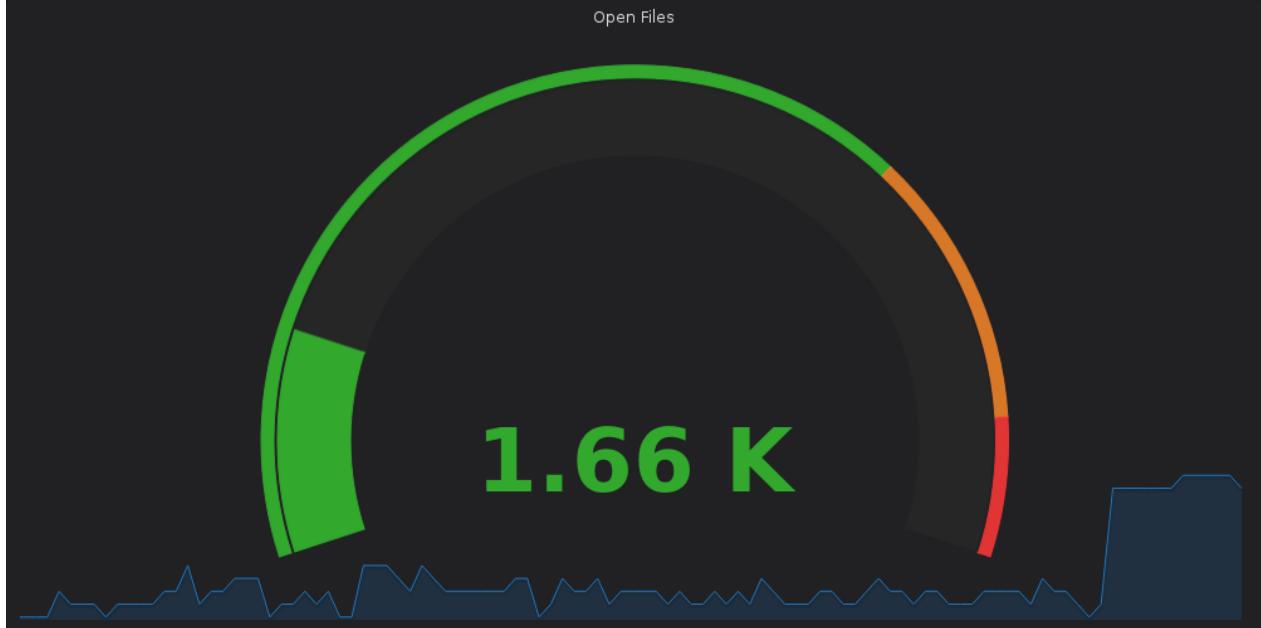
5%



当前打开的文件描述符

Open Files

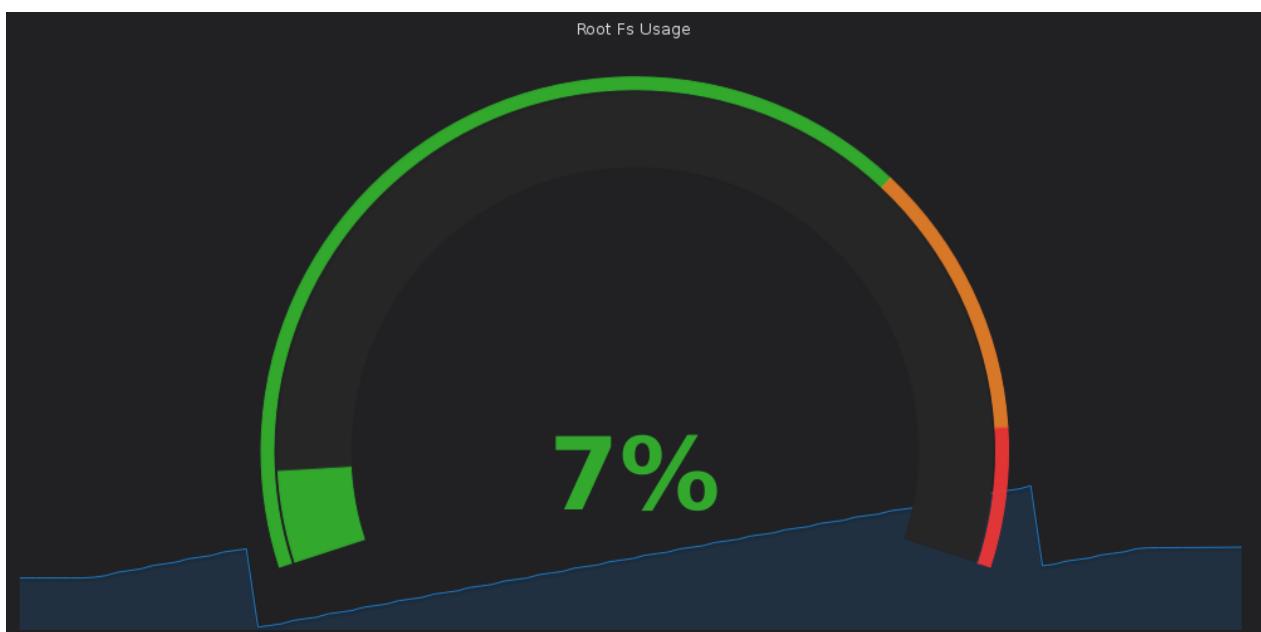
1.66 K



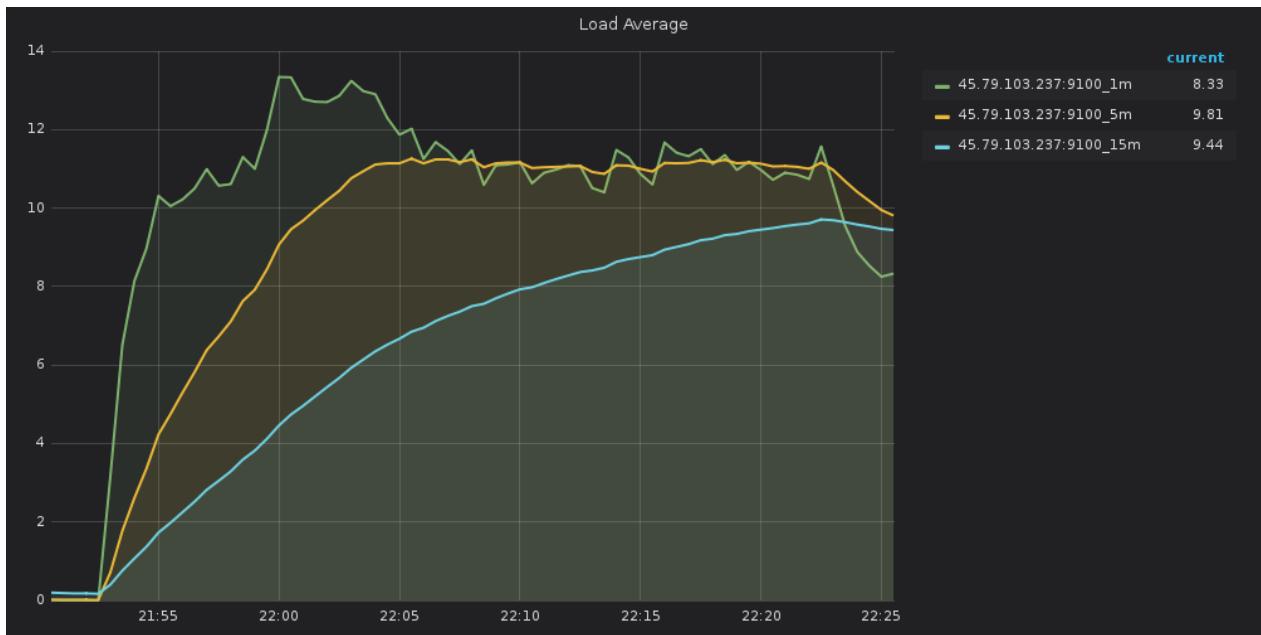
根分区使用率

Root Fs Usage

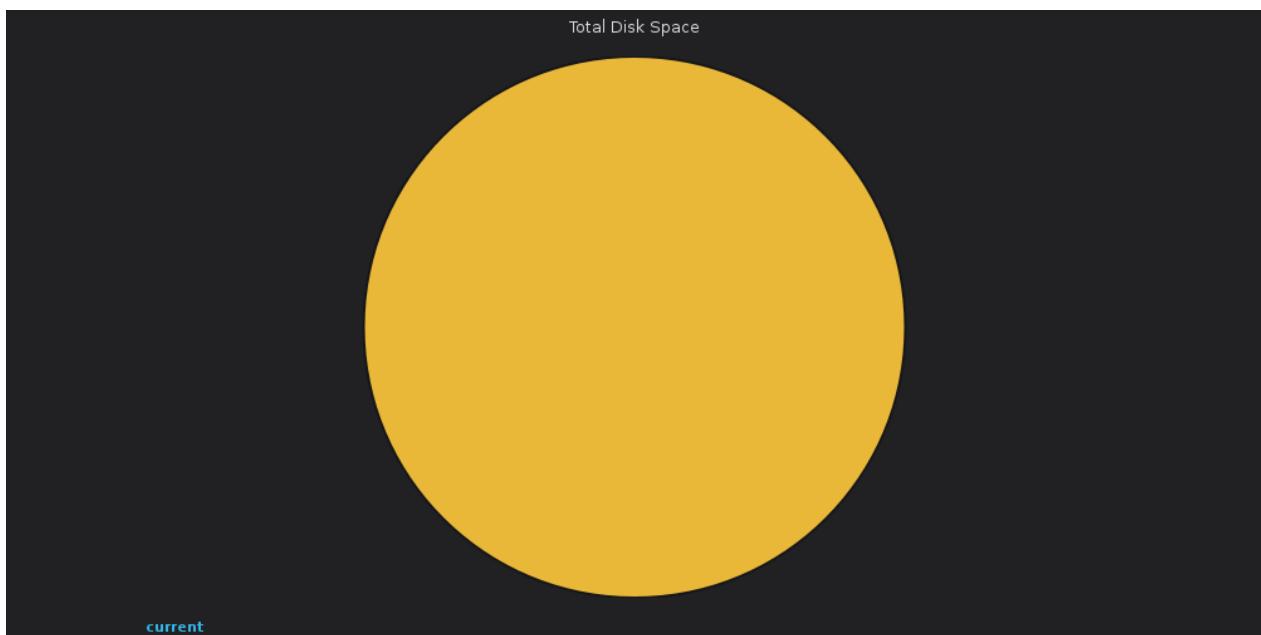
7%



系统平均负载



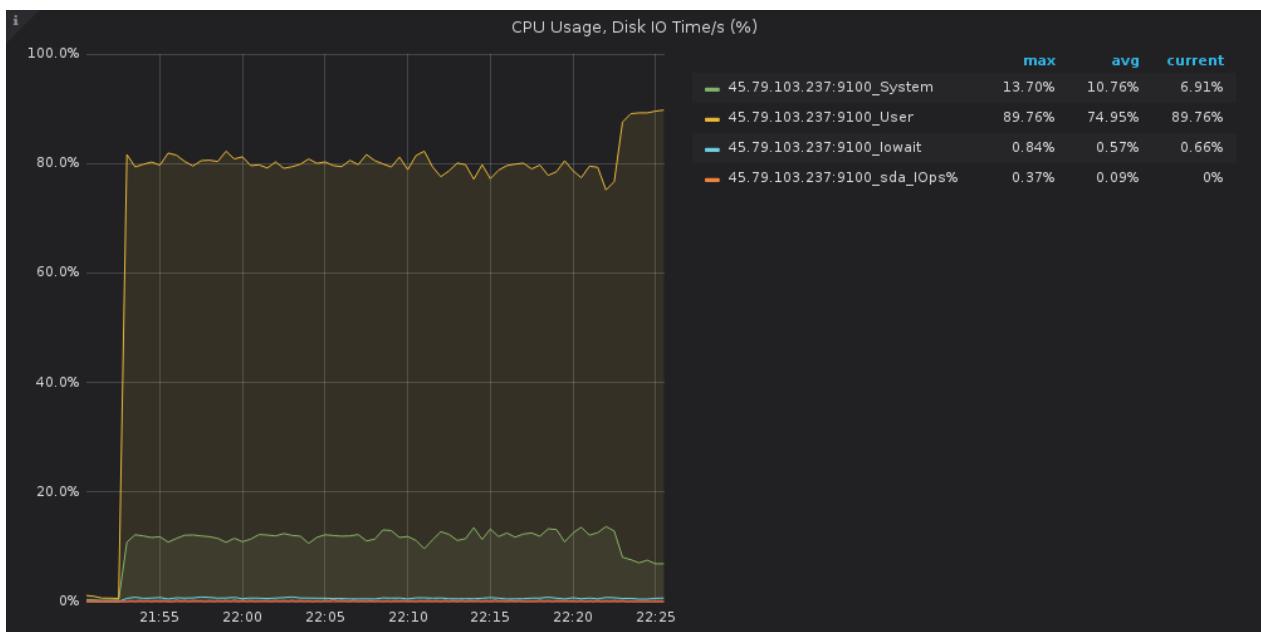
磁盘总空间



各分区可用空间

Volumes Available				
File System	IP	Mount ▲	Available	Usage
ext4	45.79.103.237:9100	/	293.04 GiB	1.75%

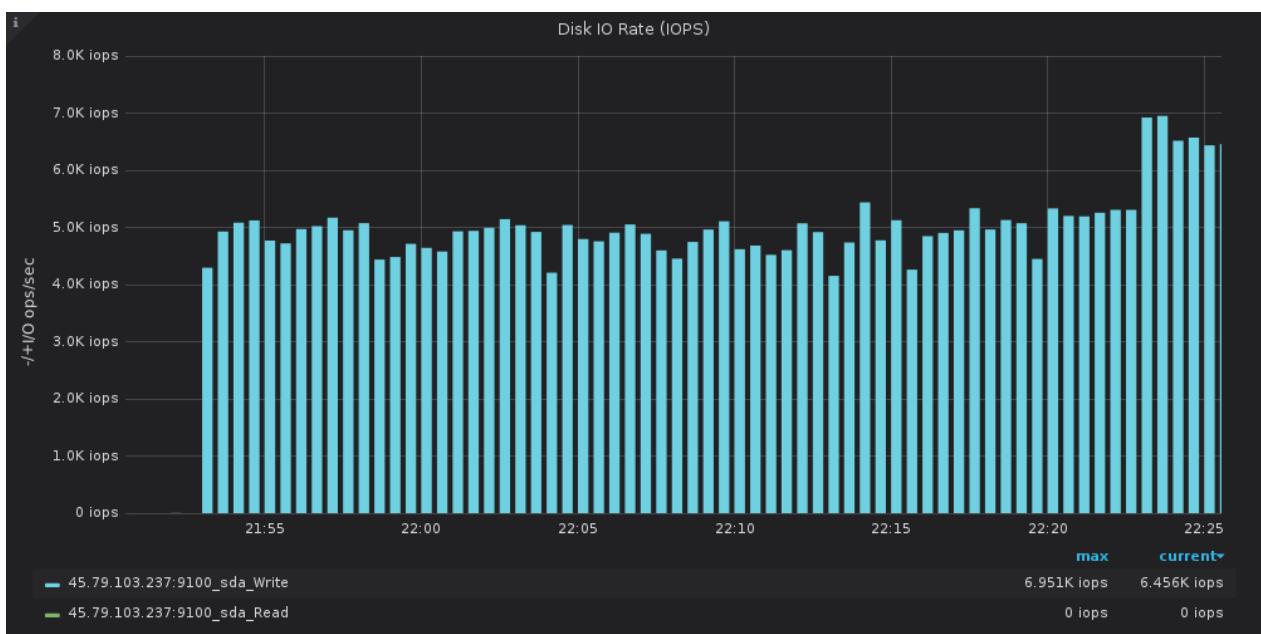
CPU使用率、磁盘每秒的I/O操作耗费时间 (%)



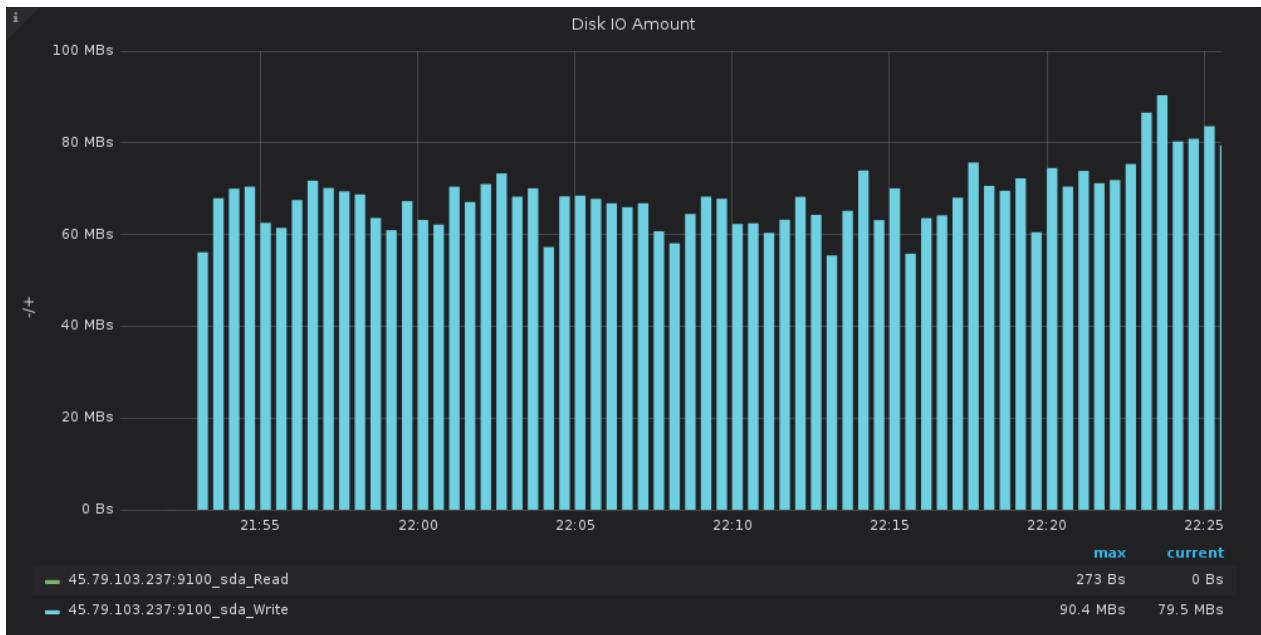
内存信息



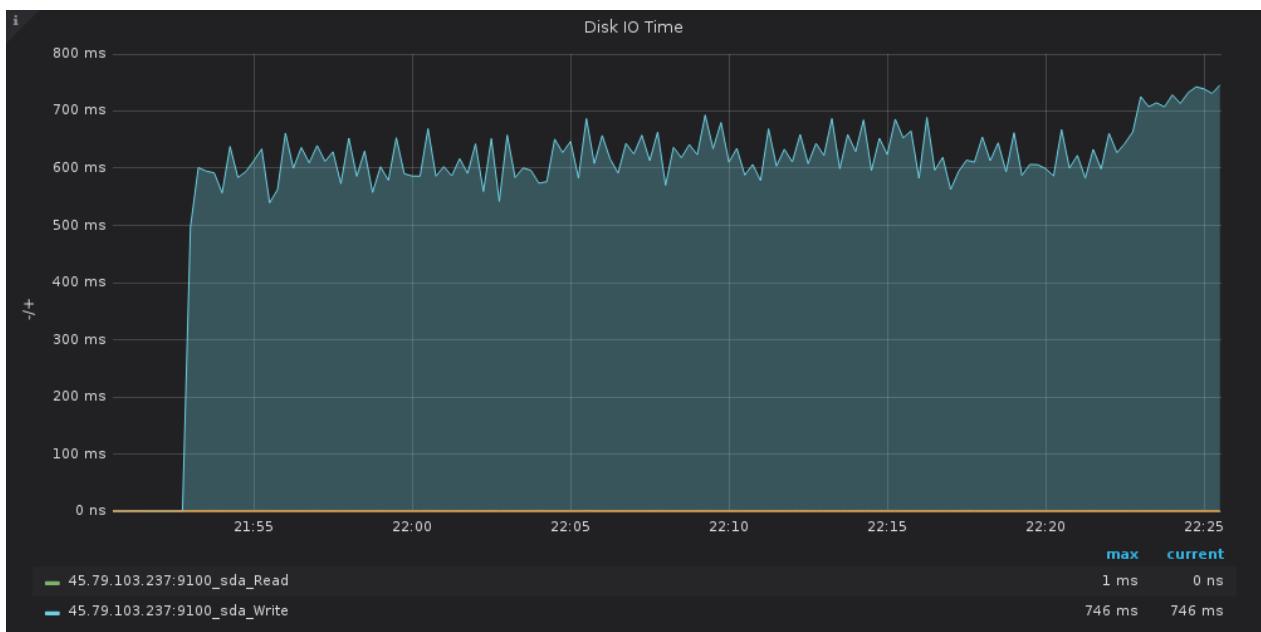
磁盘读写速率 (IOPS)



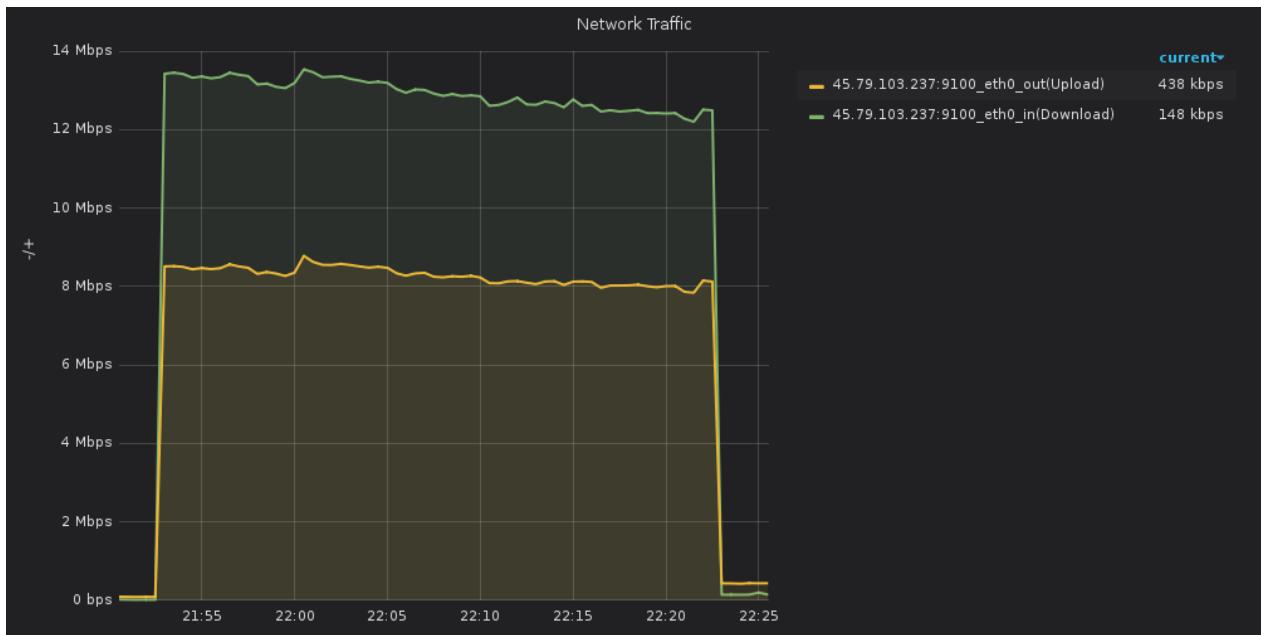
磁盘读写容量大小



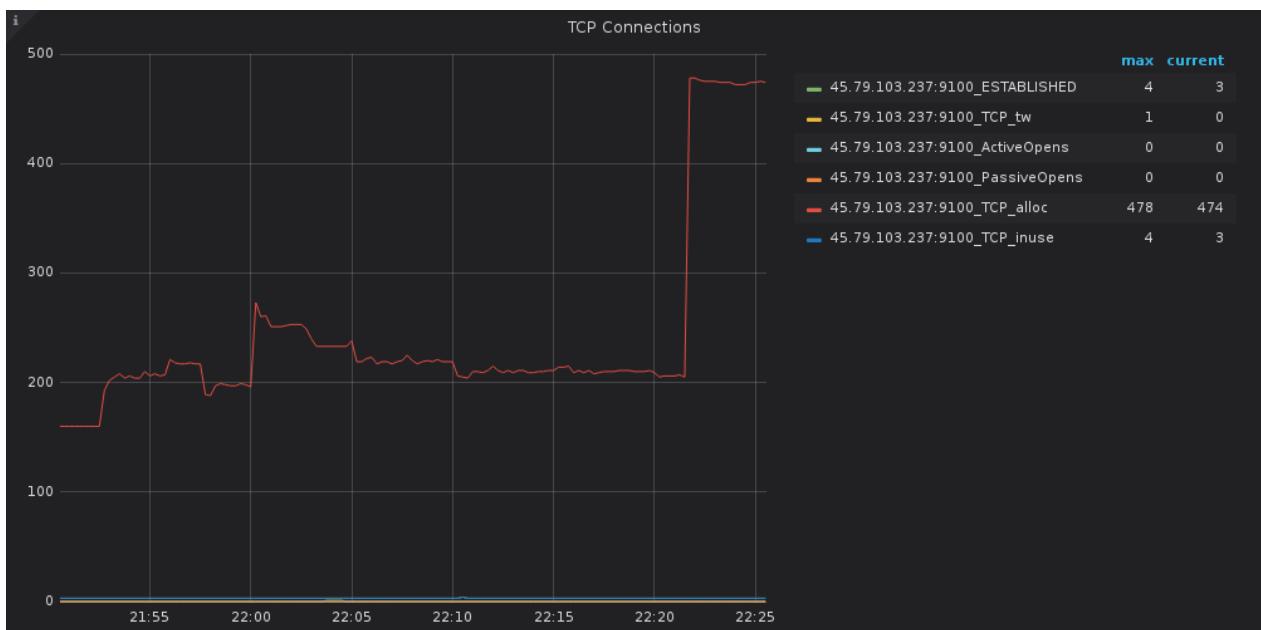
磁盘IO读写时间



网络流量



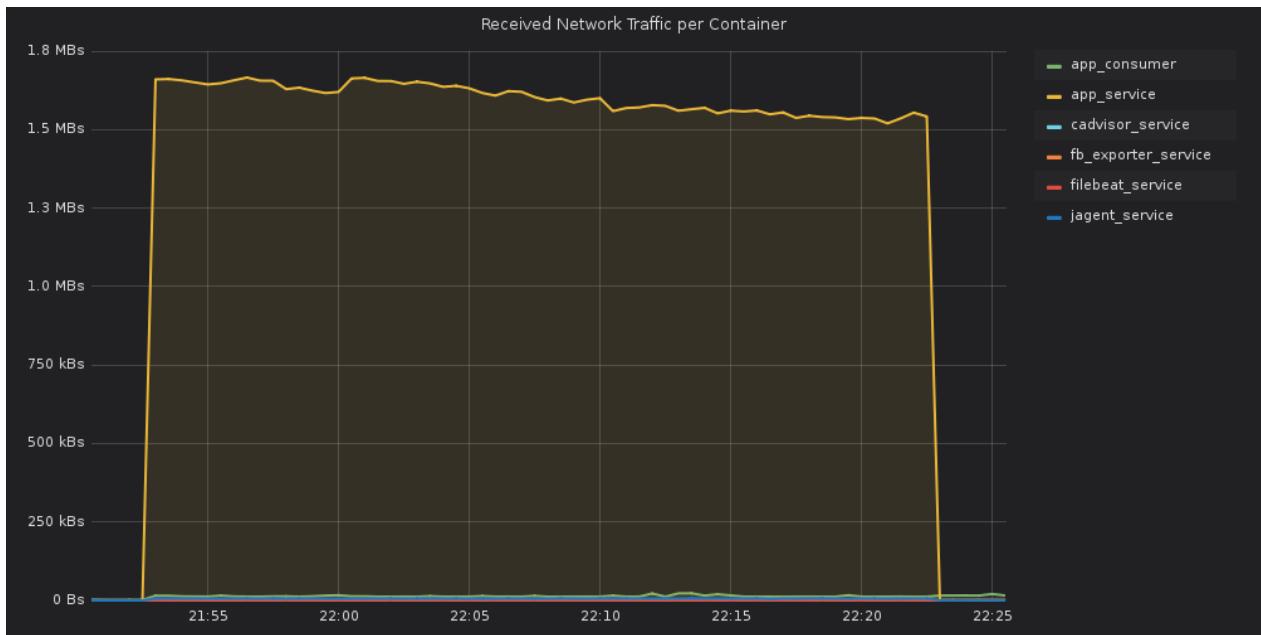
TCP 连接情况



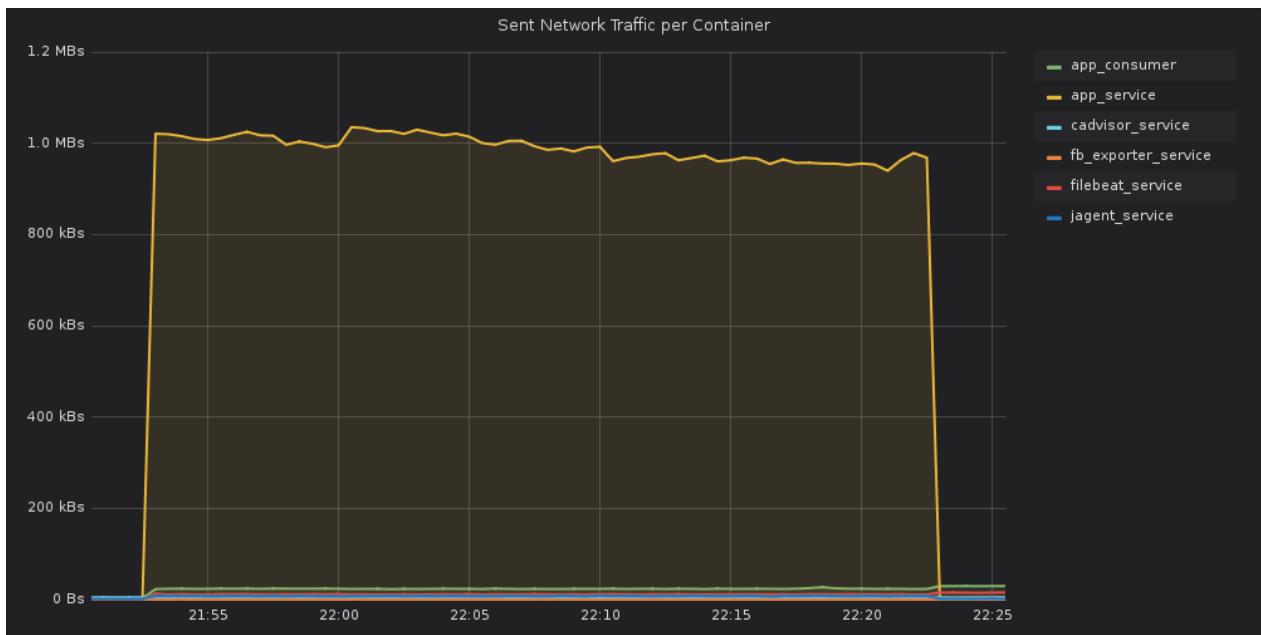
Service: cAdvisor_service

- name: cadvisor_service
- type: cadvisor

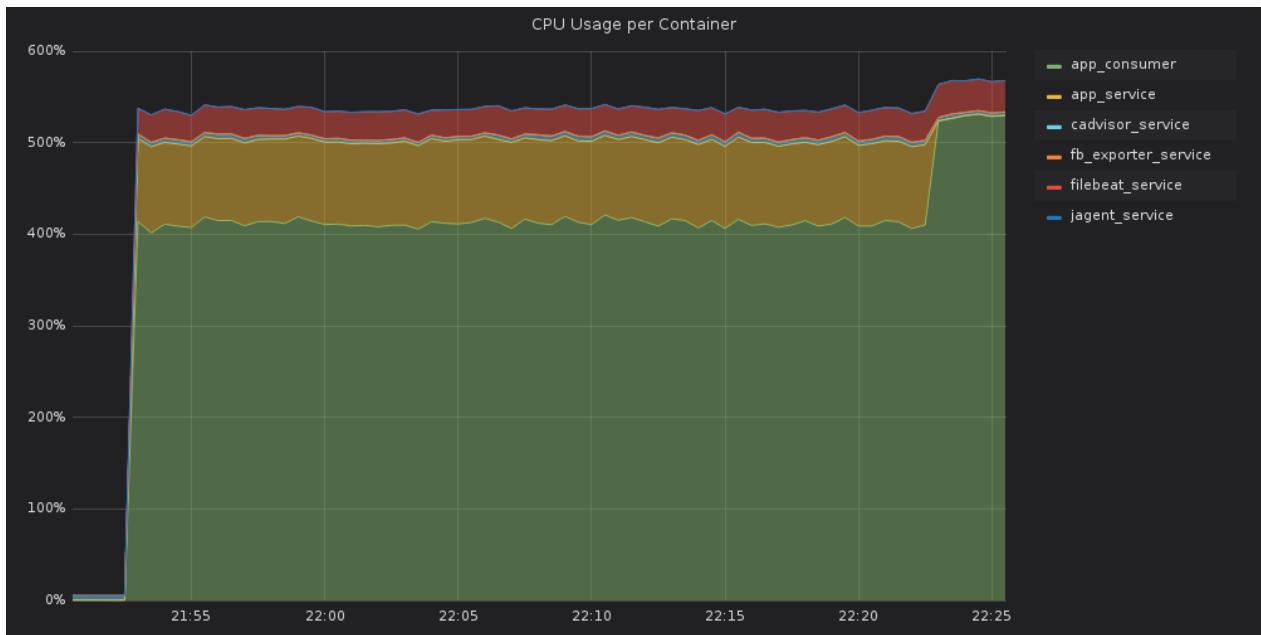
Received Network Traffic per Container



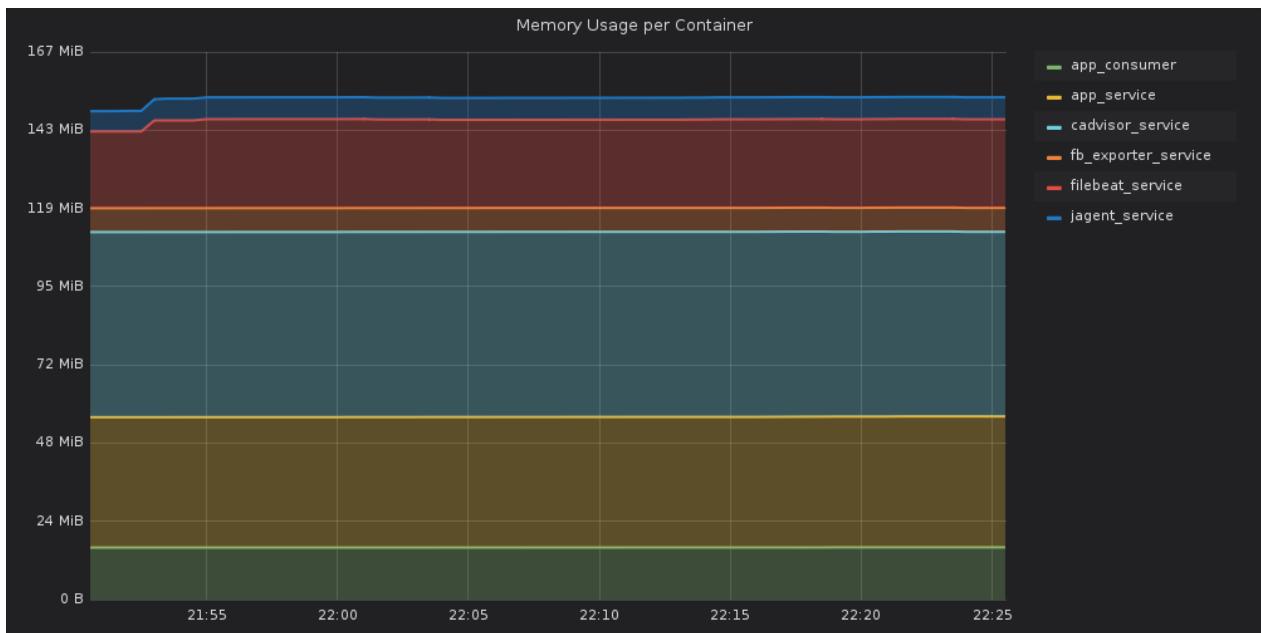
Sent Network Traffic per Container



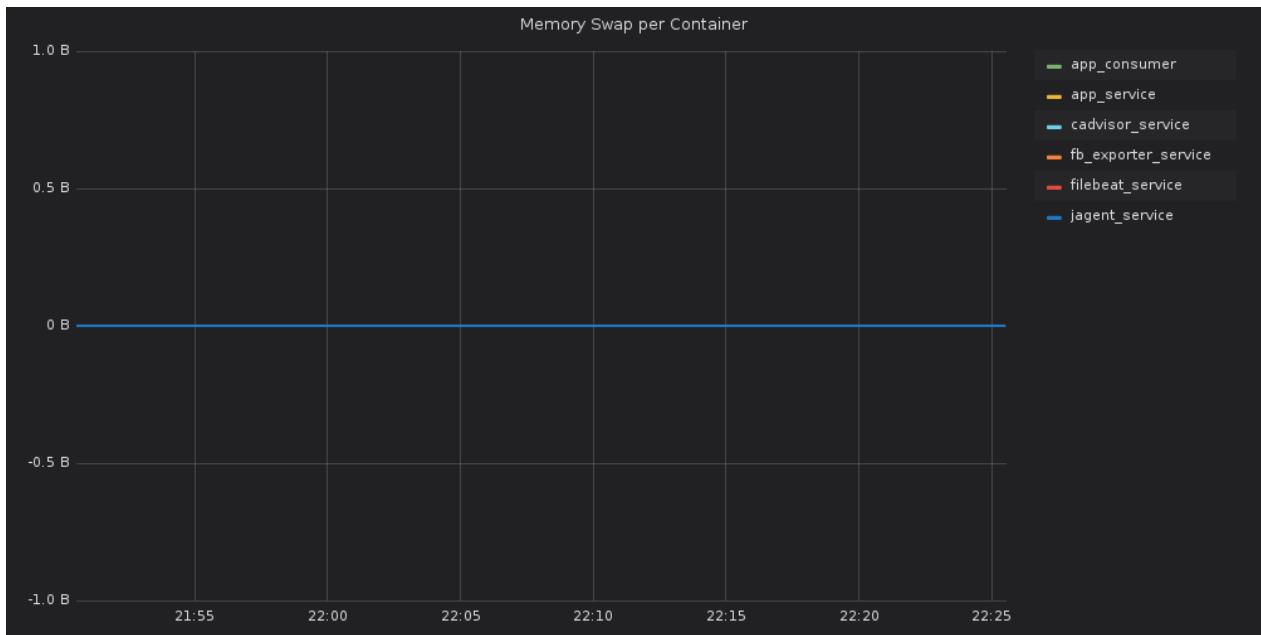
CPU Usage per Container



Memory Usage per Container



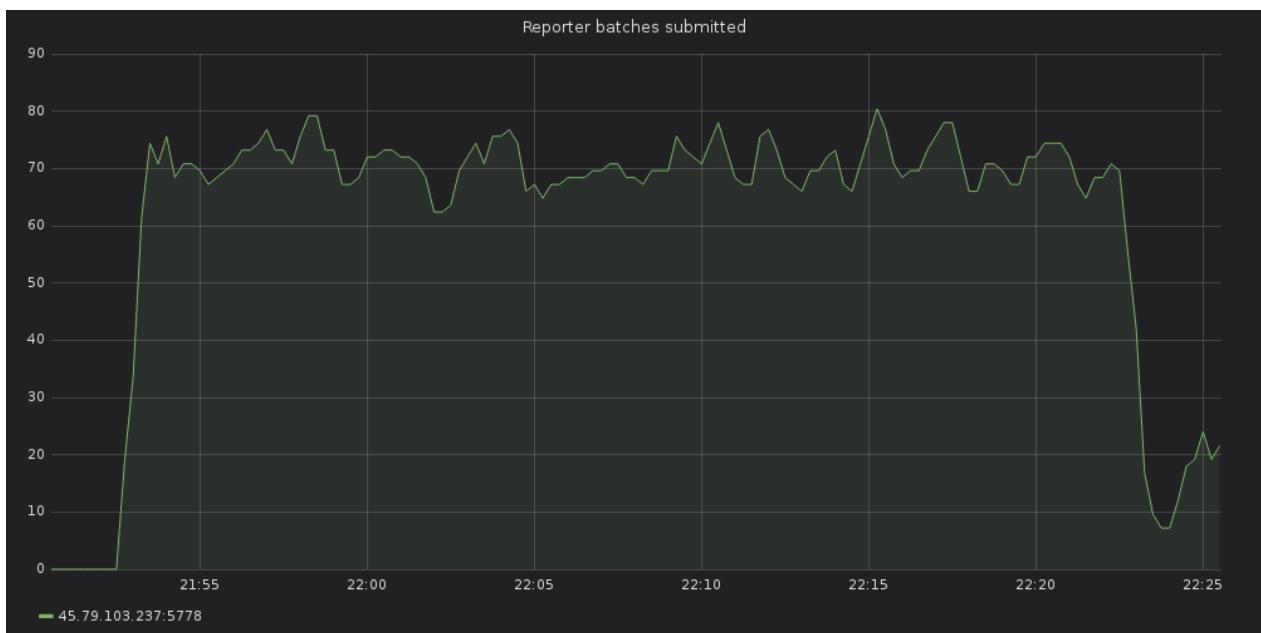
Memory Swap per Container



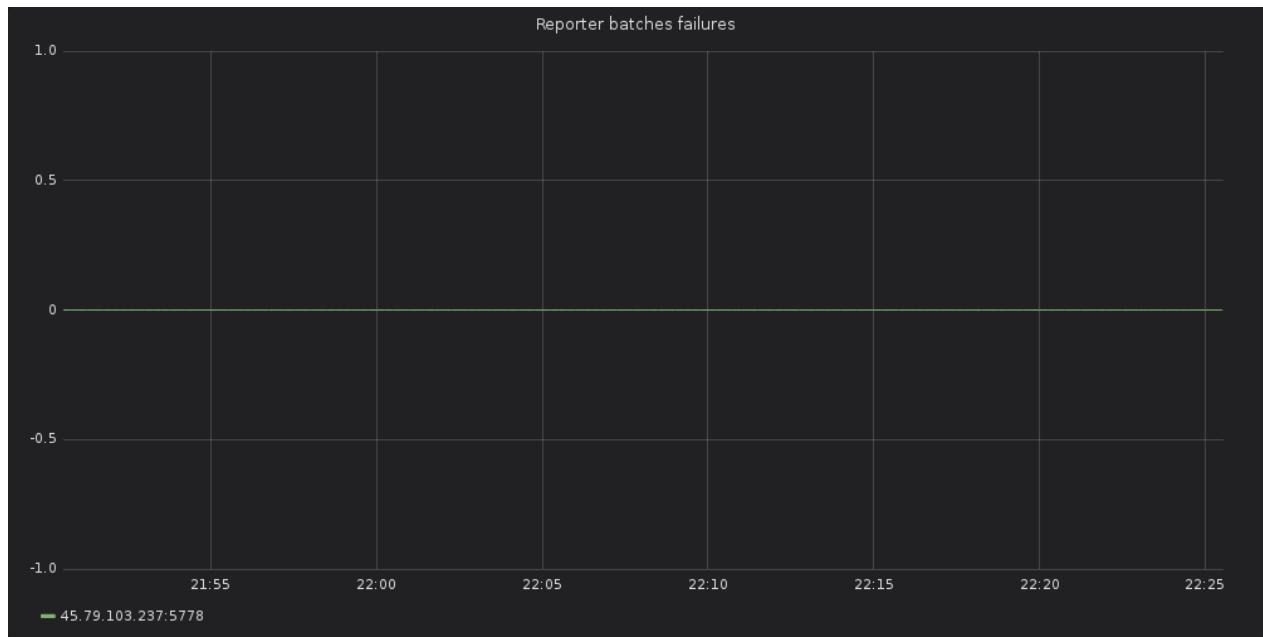
Service: jagent_service

- name: jagent_service
- type: jaeger_agent

Reporter batches submitted



Reporter batches failures



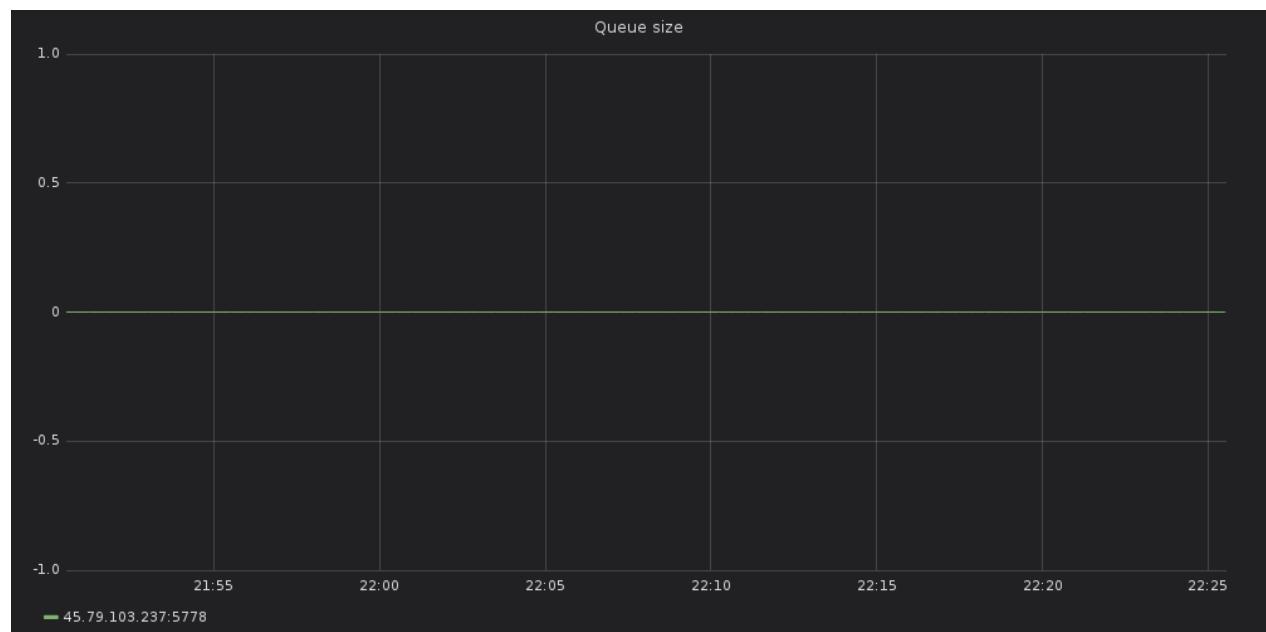
Reporter spans submitted



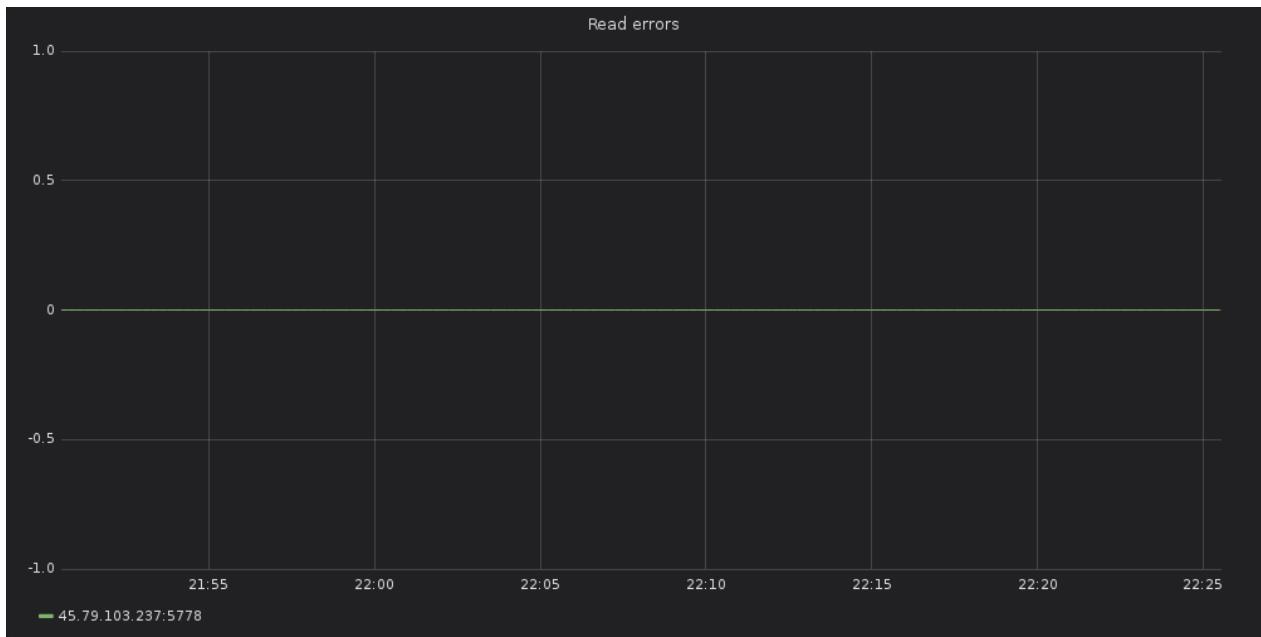
Reporter spans failures



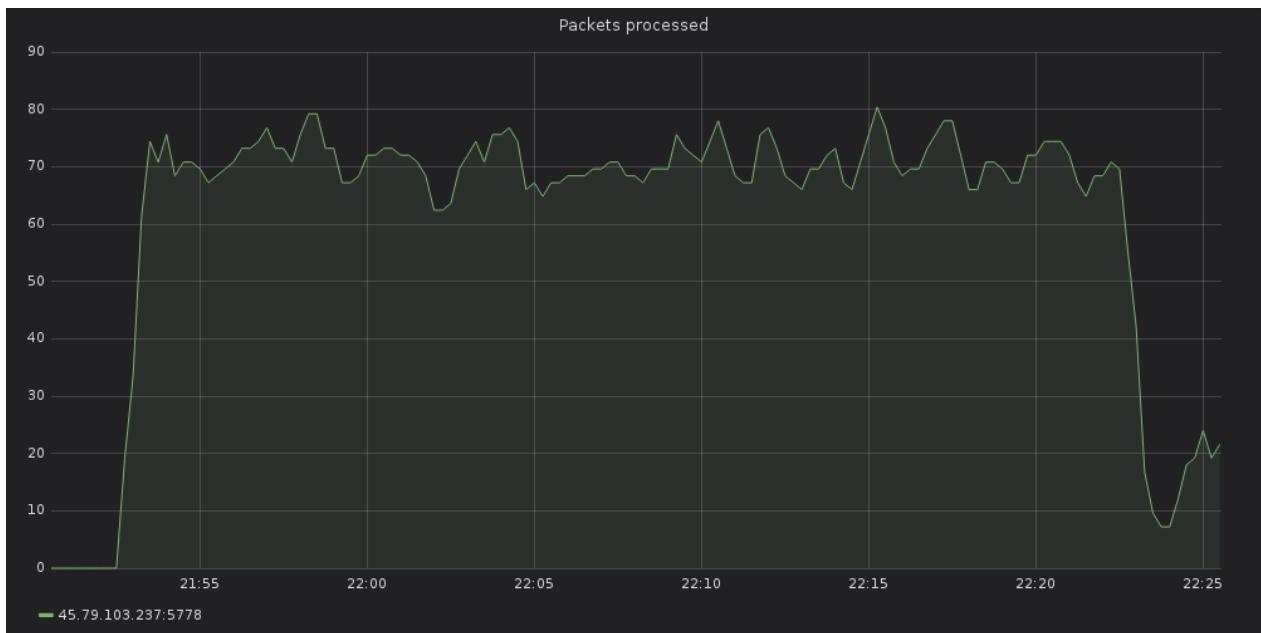
Queue size



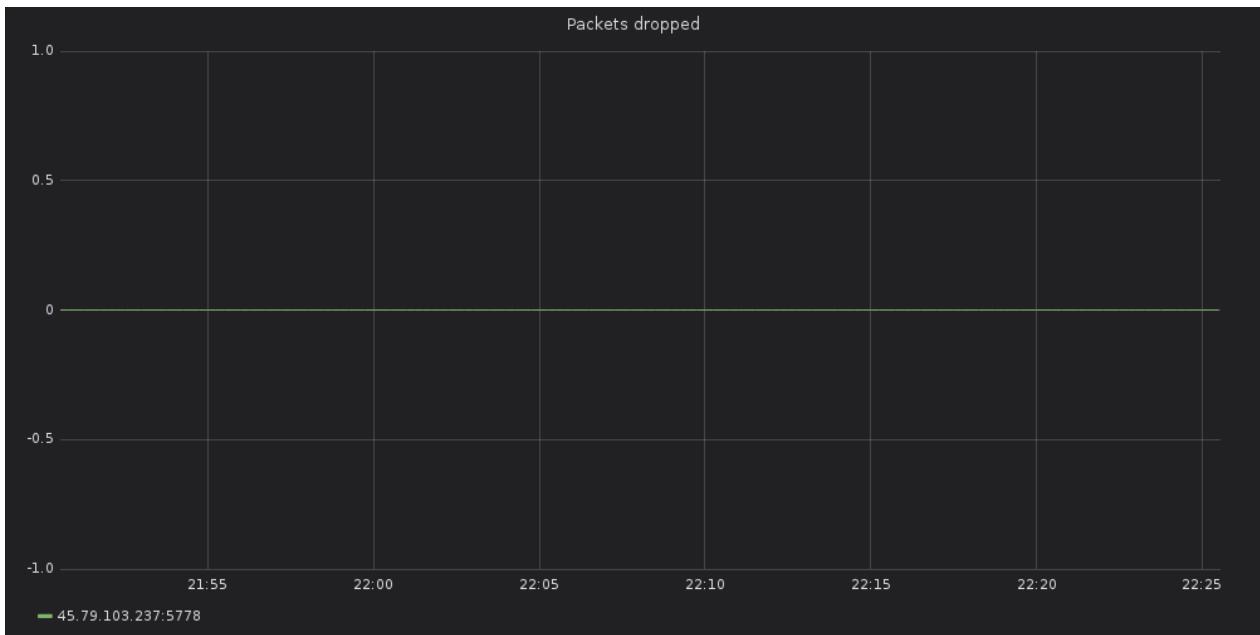
Read errors



Packets processed



Packets dropped



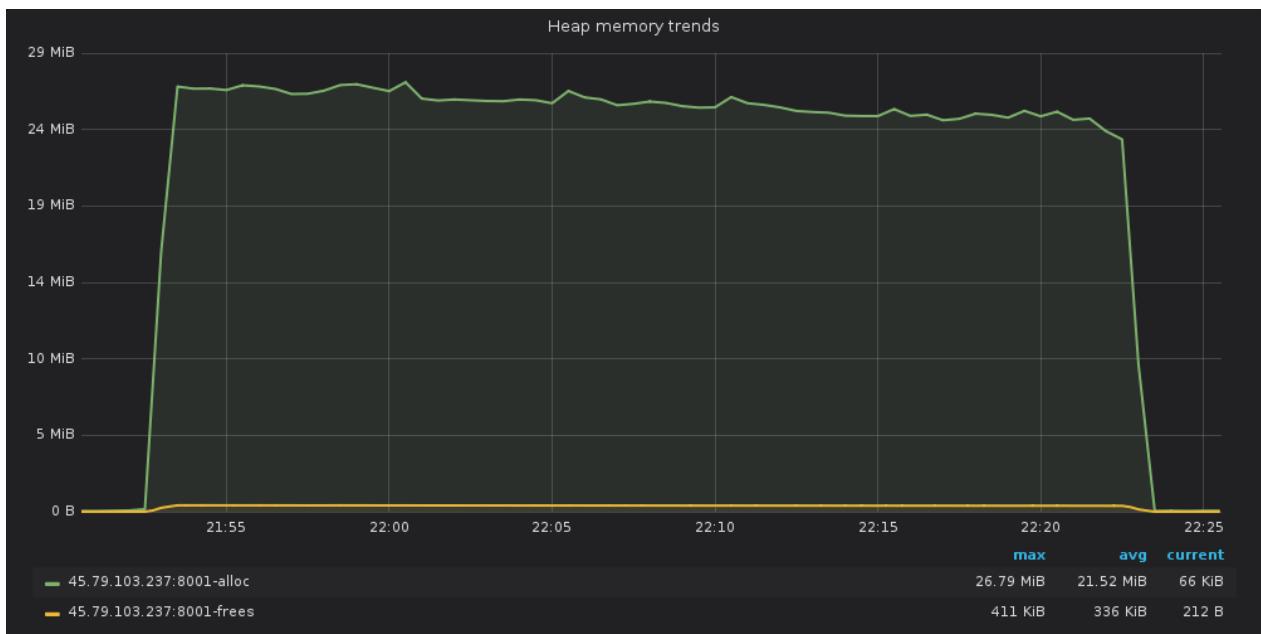
Service: app_service

- name: app_service
- type: app_service

Heap memory



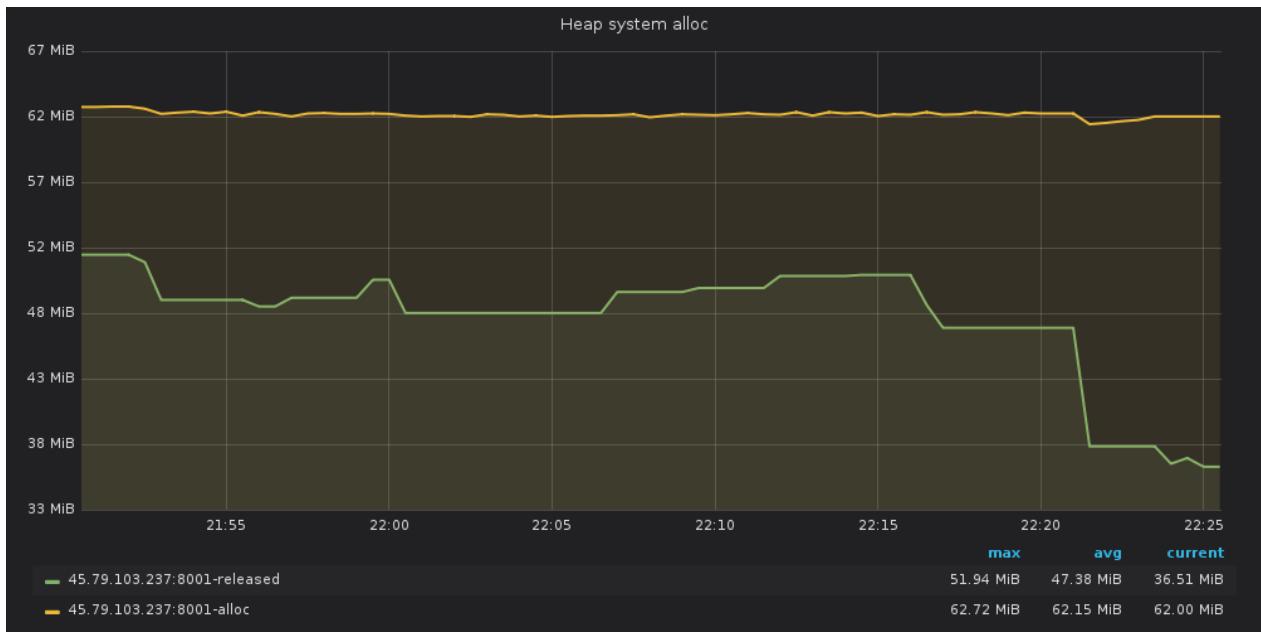
Heap memory trends



Heap objects



Heap system alloc



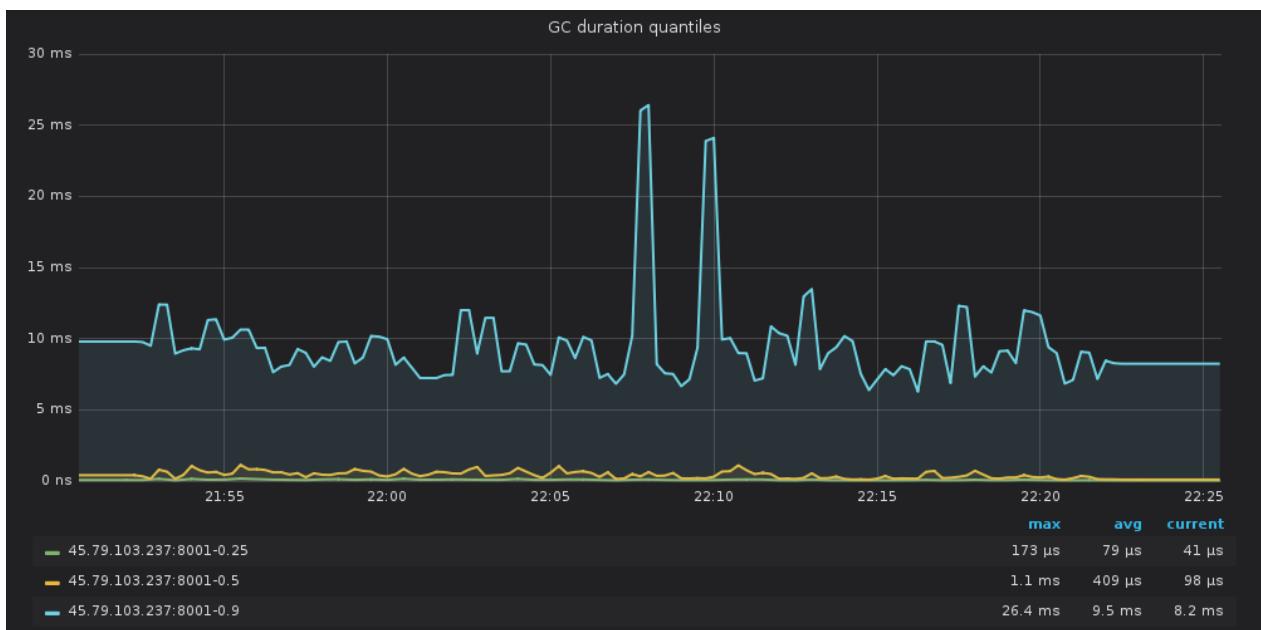
GC rate



Next gc target



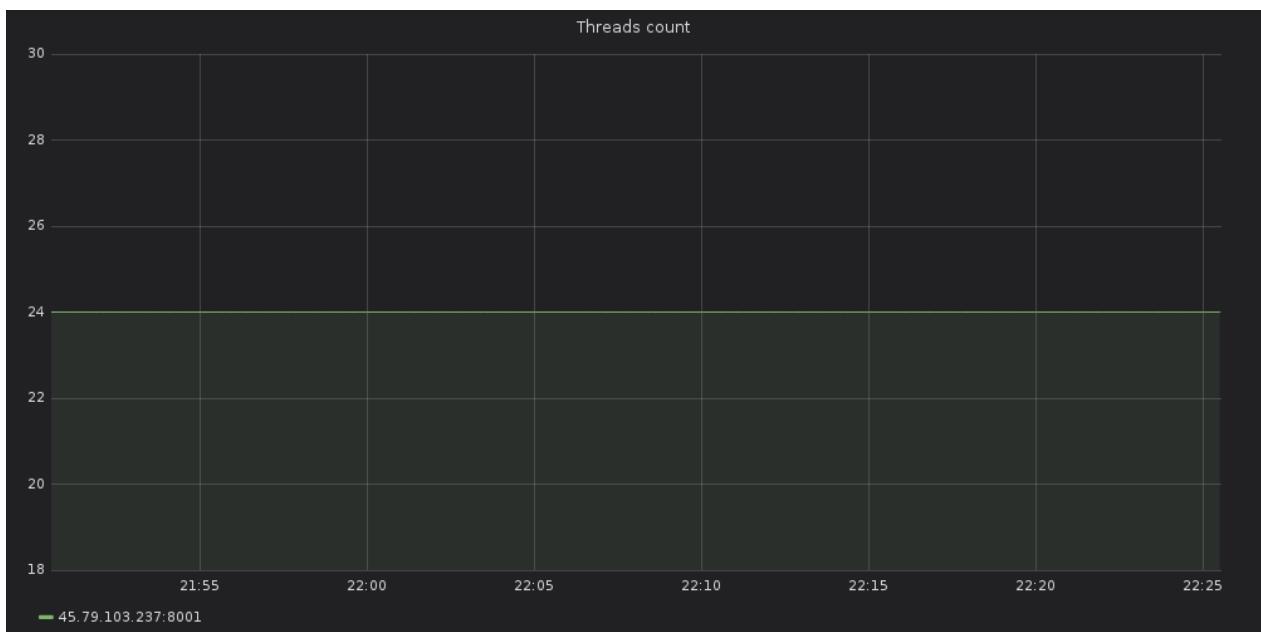
GC duration quantiles



Goroutines count



Threads count



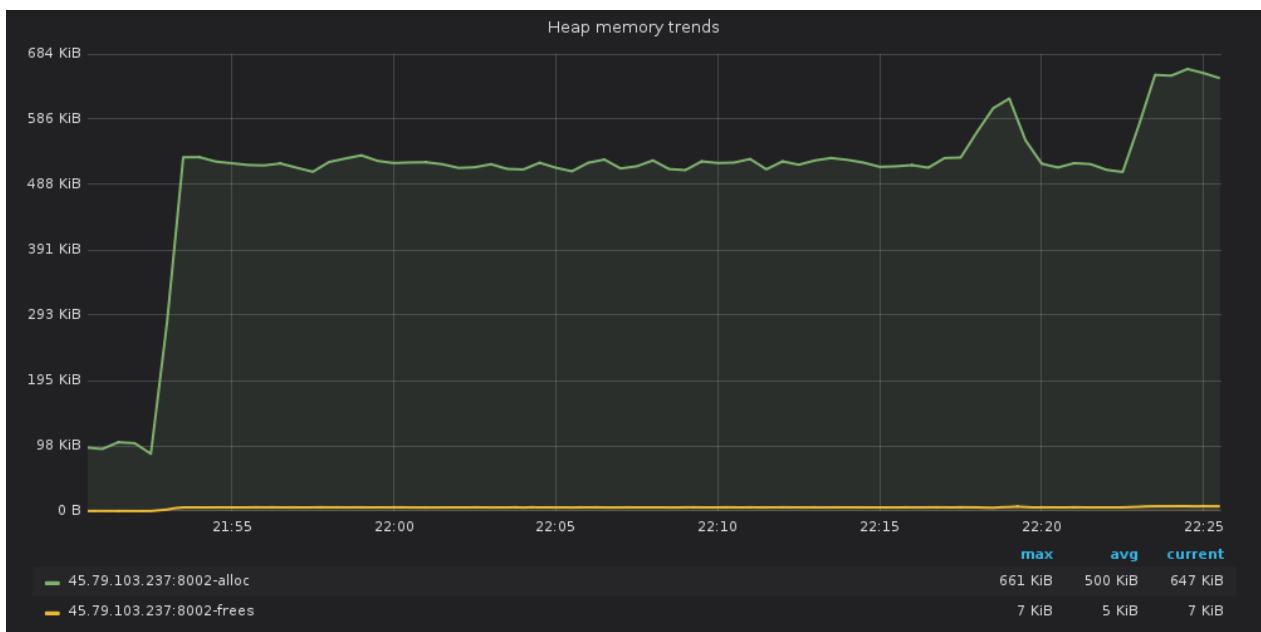
Service: app_consumer

- name: app_consumer
- type: app_consumer

Heap memory



Heap memory trends



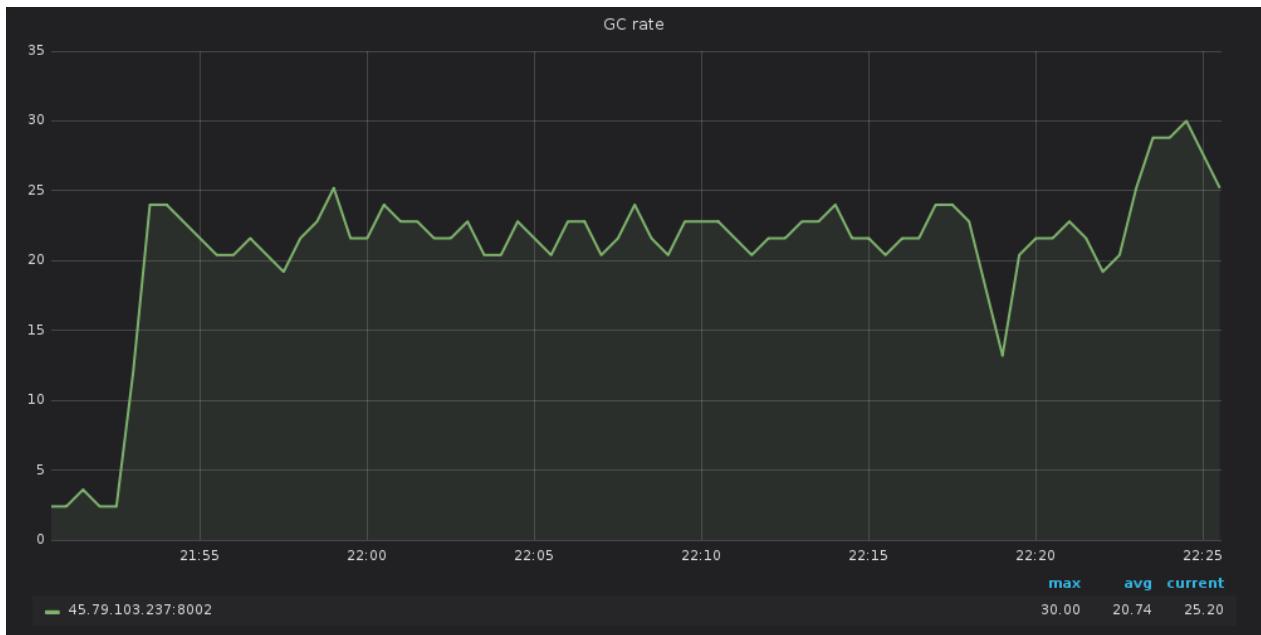
Heap objects



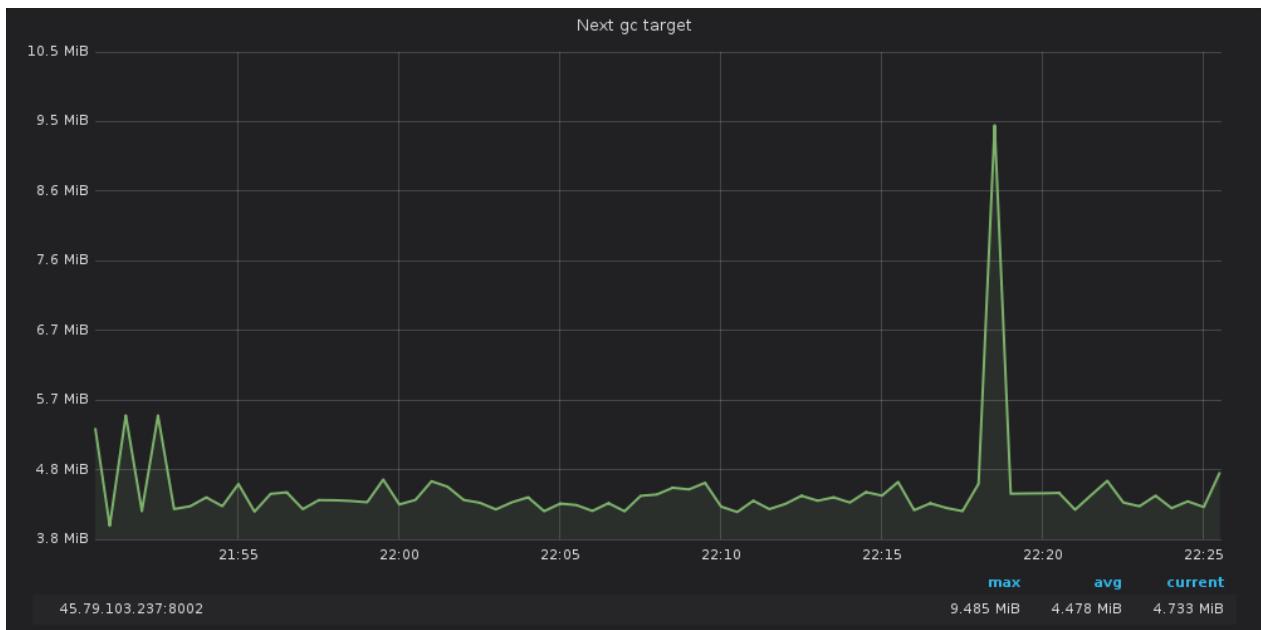
Heap system alloc



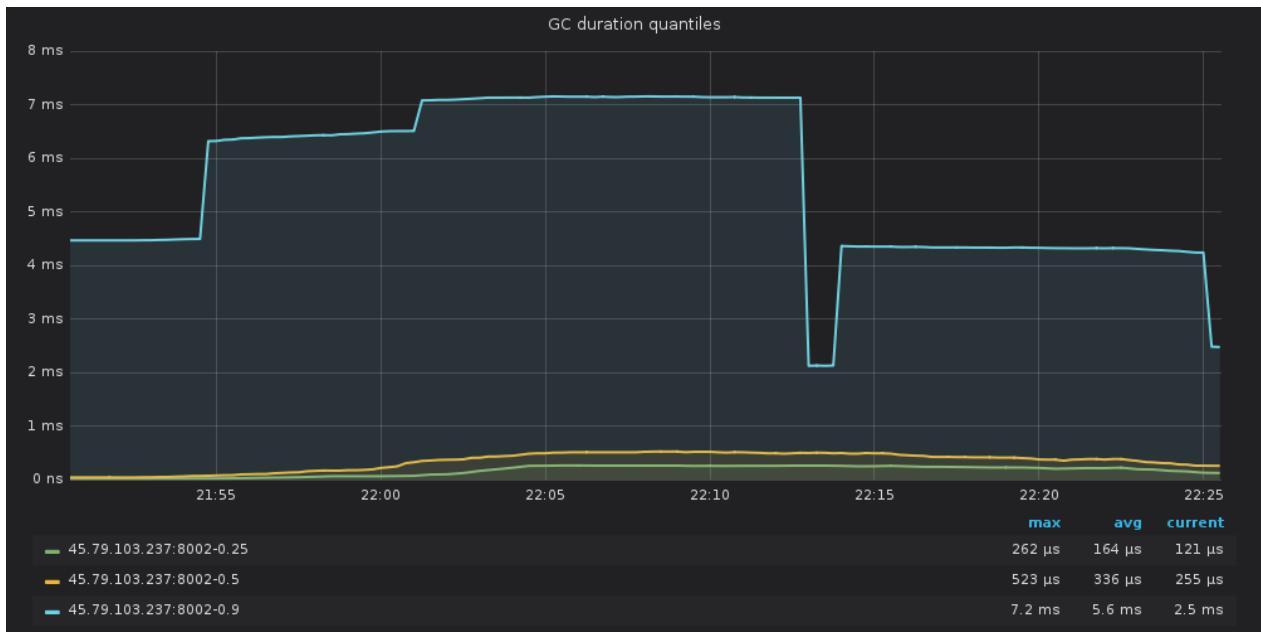
GC rate



Next gc target



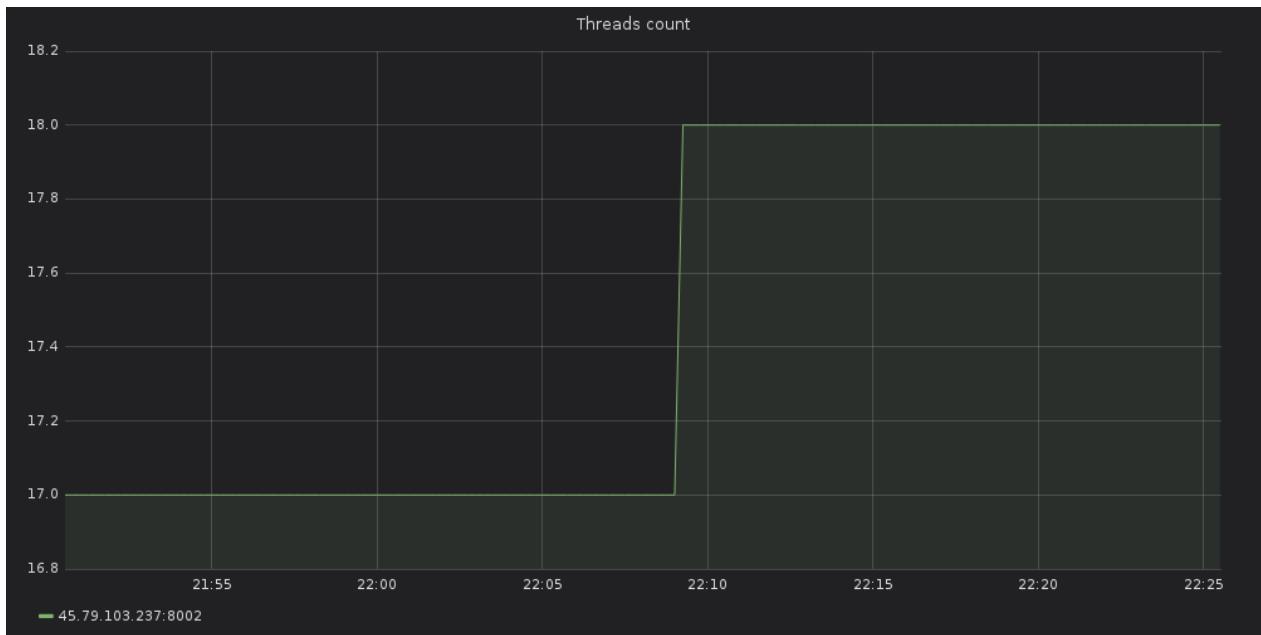
GC duration quantiles



Goroutines count



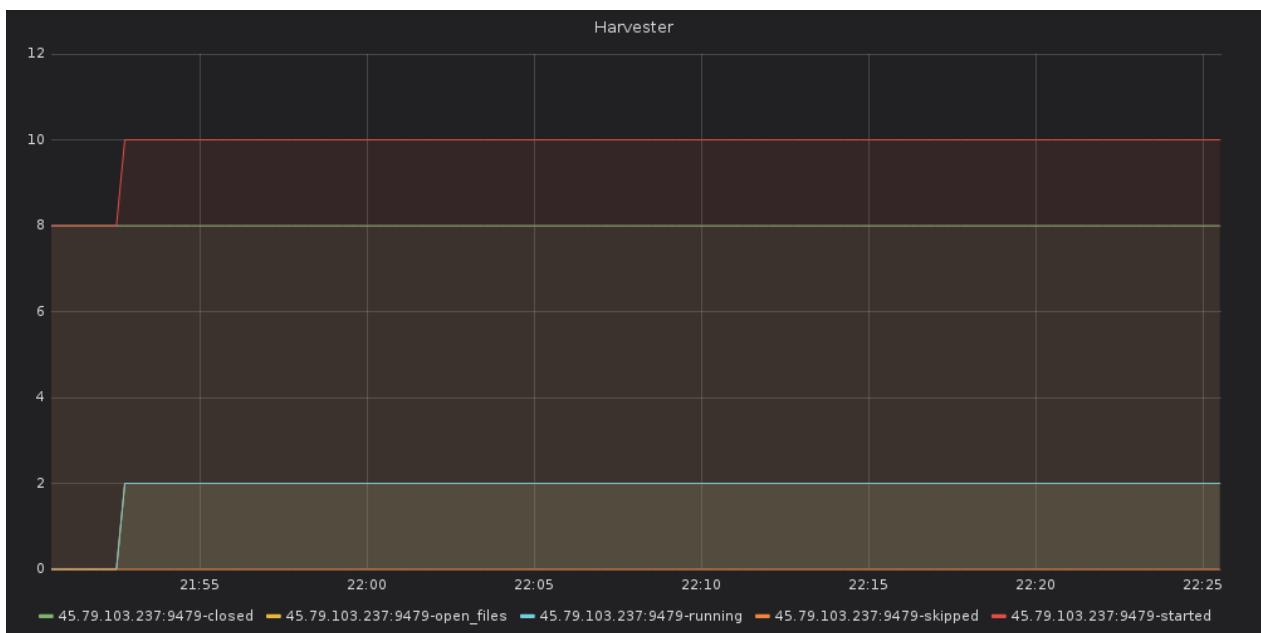
Threads count



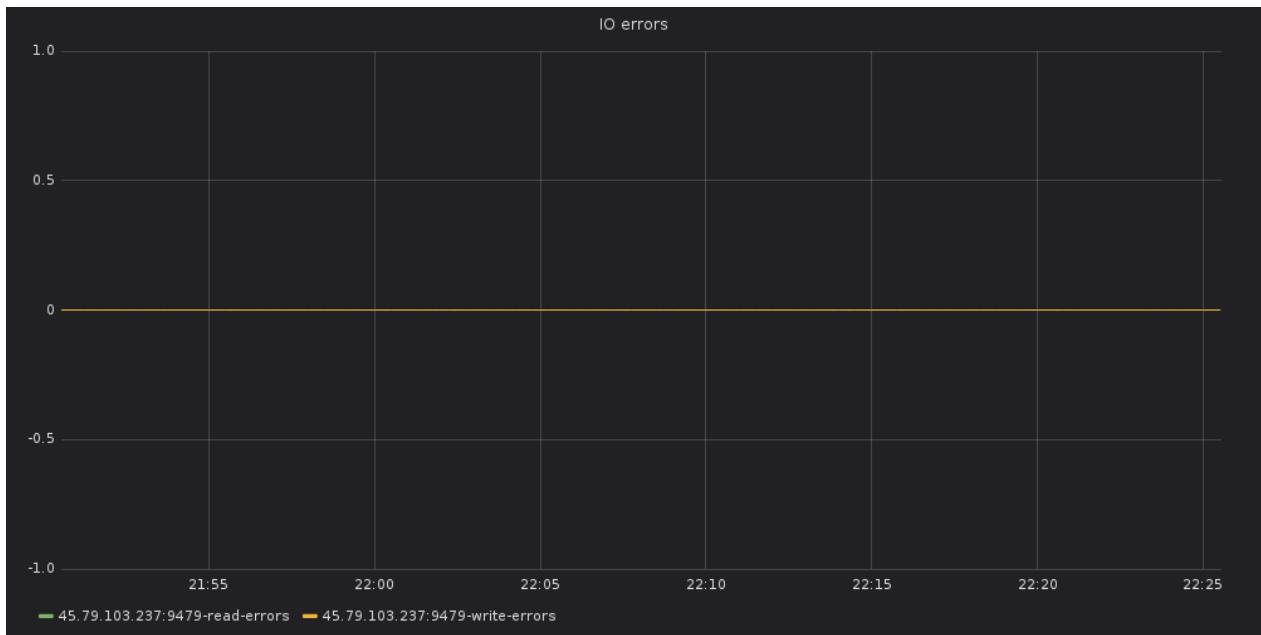
Service: filebeat_service

- name: filebeat_service
- type: filebeat

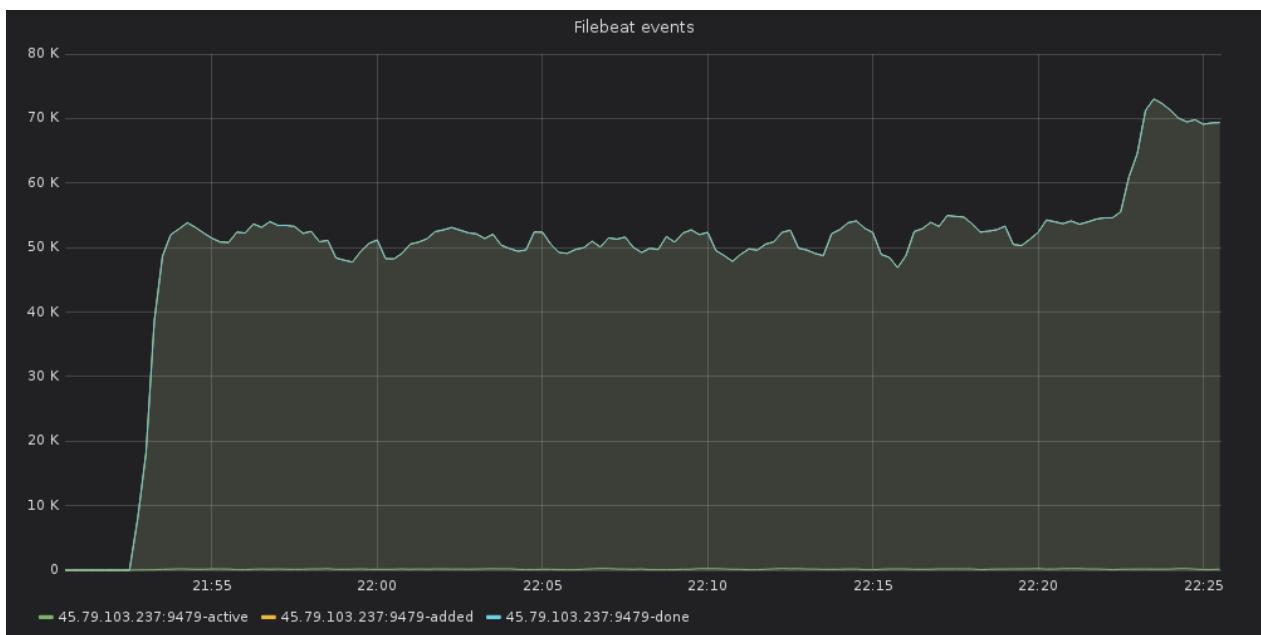
Harvester



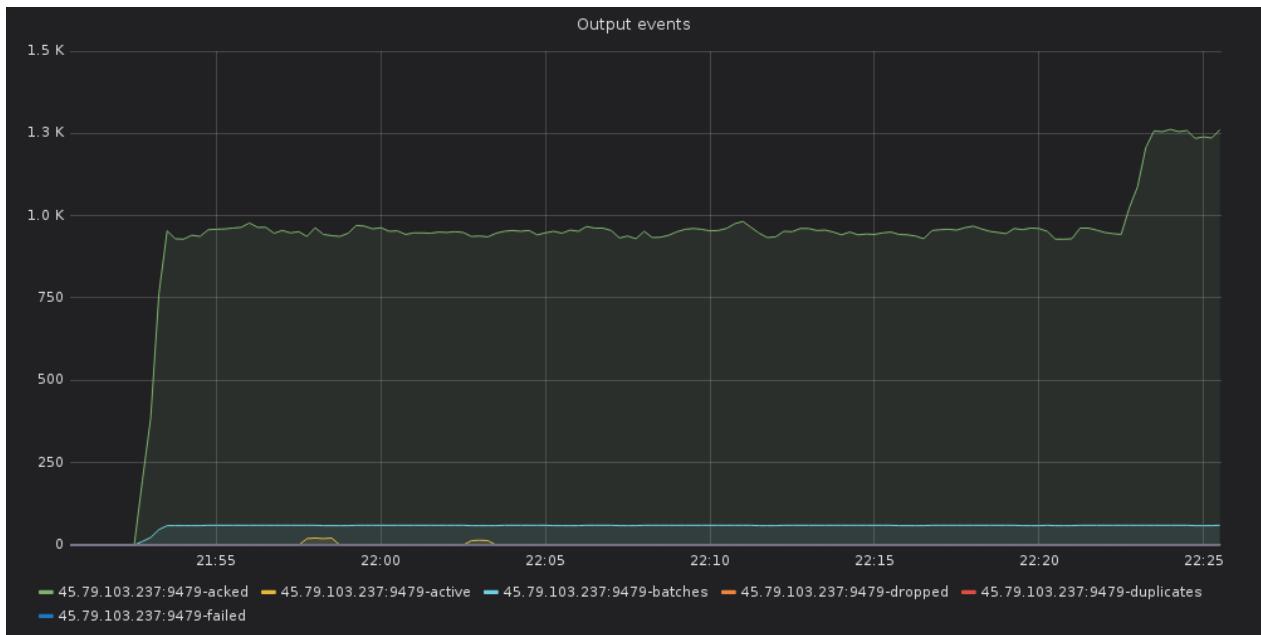
IO errors



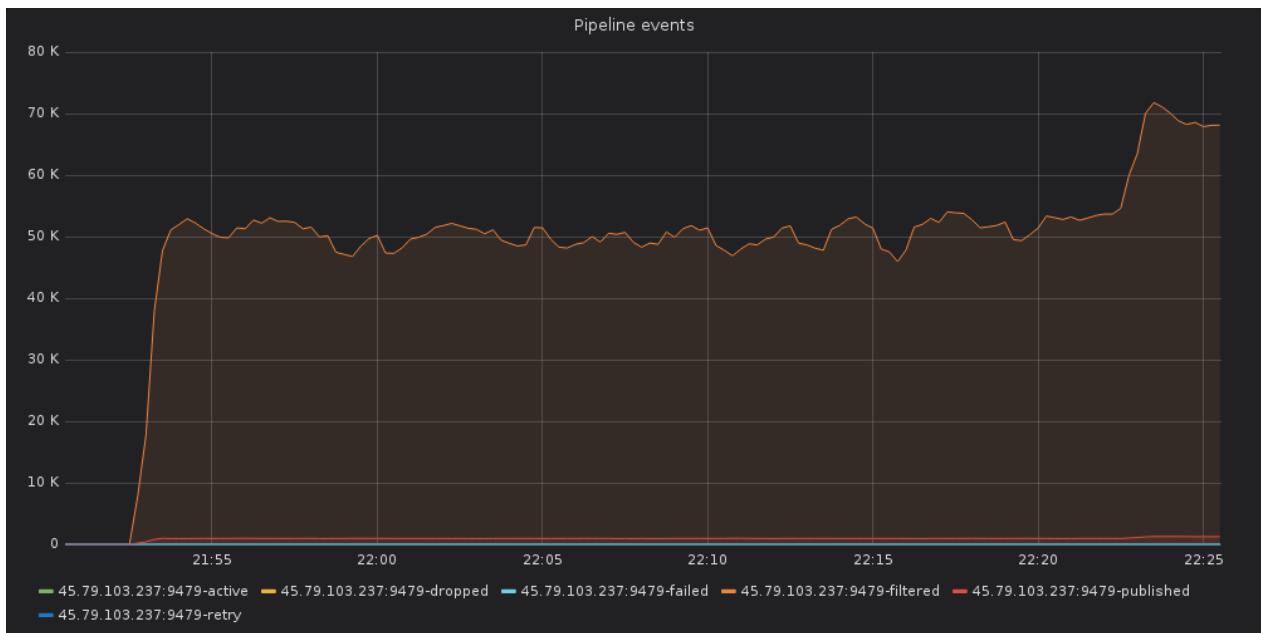
Filebeat events



Output events



Pipeline events



Pipeline queue



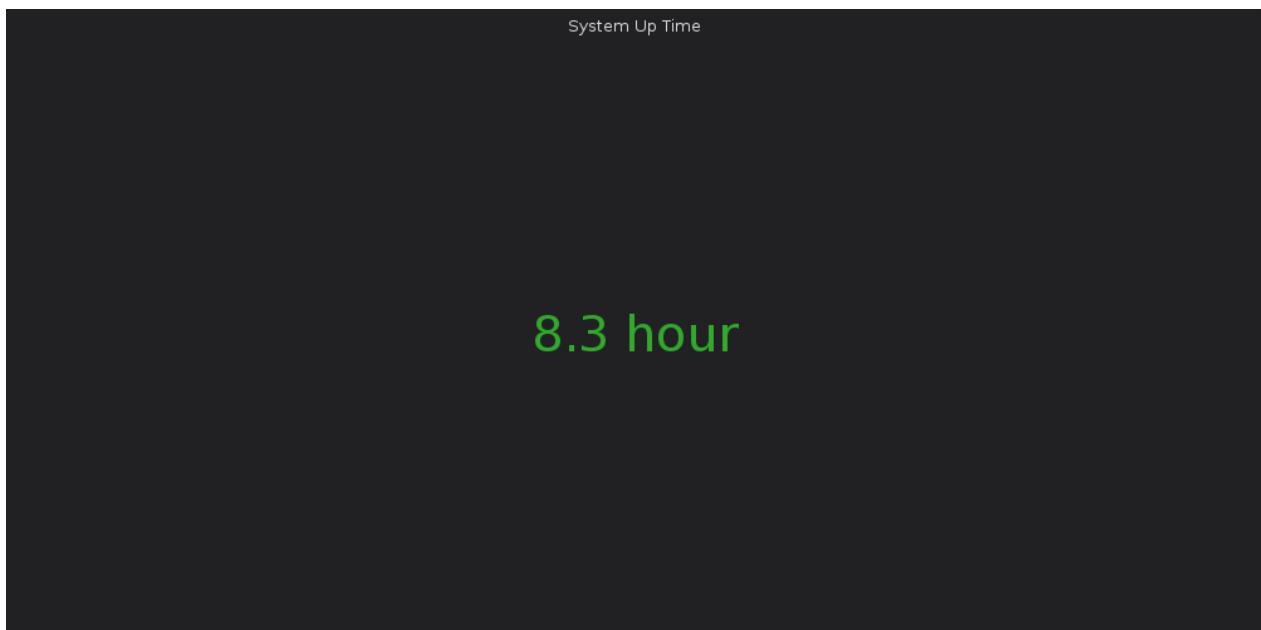
Host: web

- name: web
- type: web

Service: node_web

- name: node_web
- type: node_exporter

系统运行时间



CPU 核数

CPU Core

6

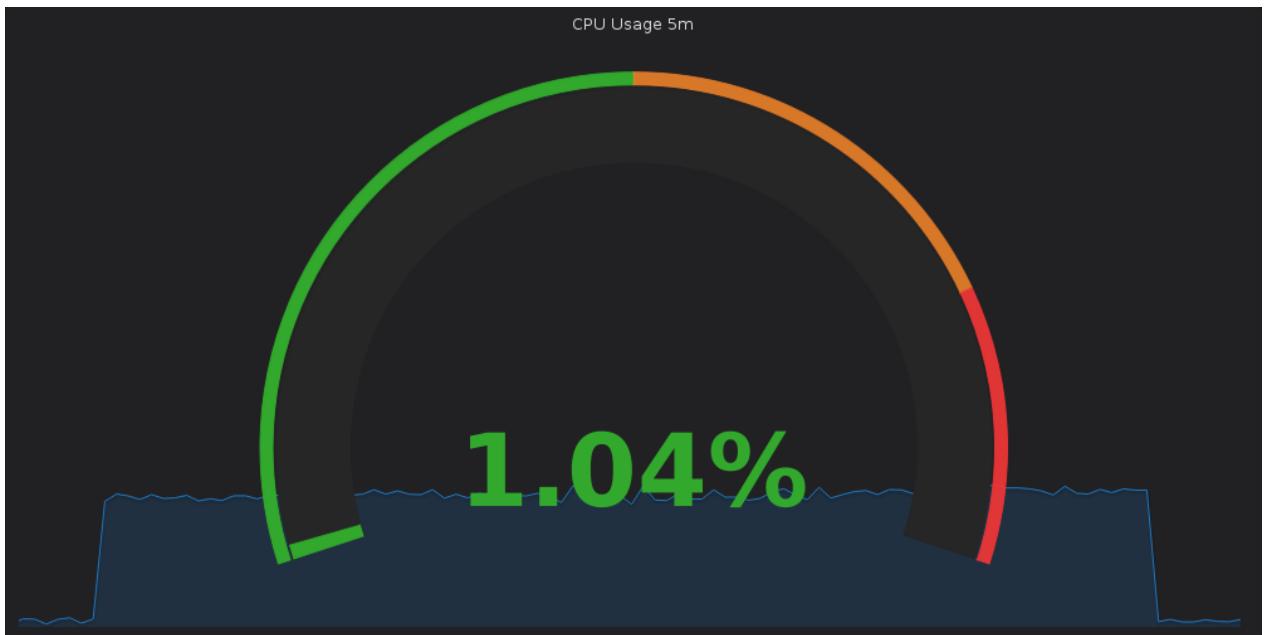
内存总量

Total Memory

15.7 GiB

CPU使用率 (5m)

CPU Usage 5m



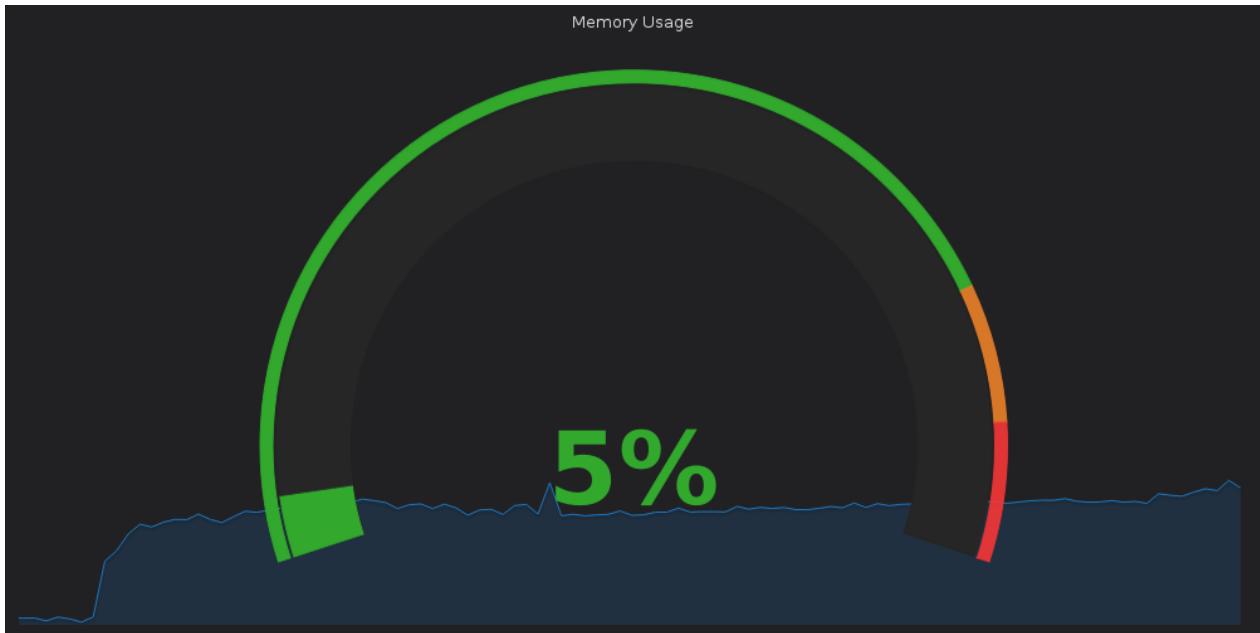
CPU iowait (5m)

CPU iowait 5m



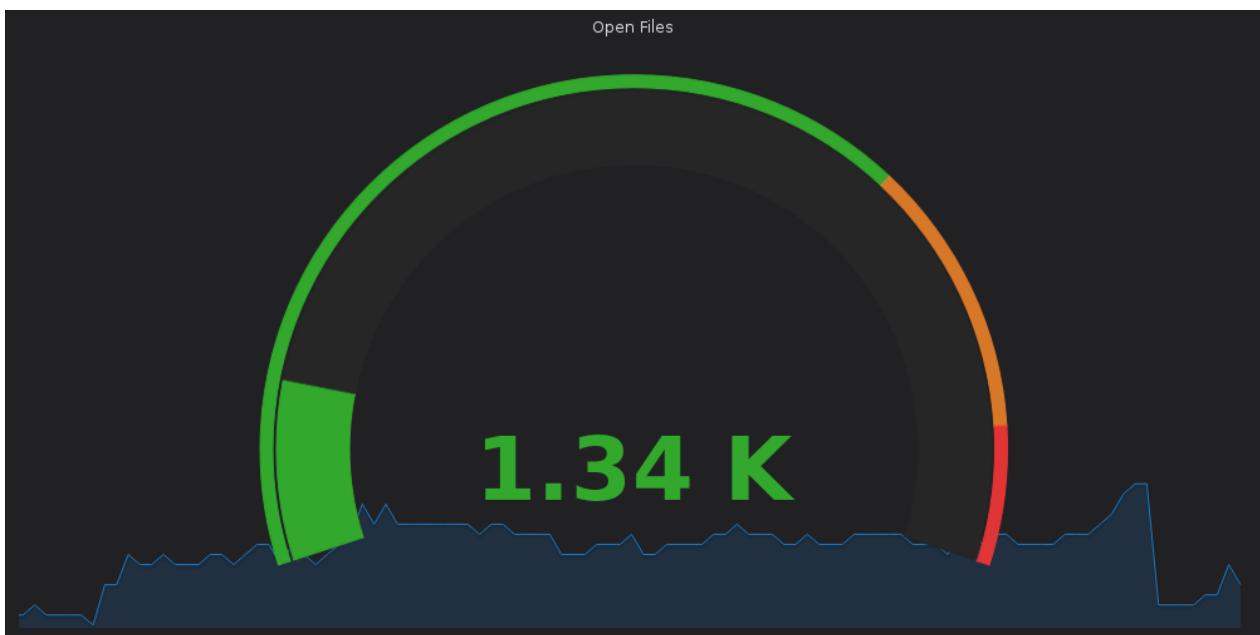
内存使用率

Memory Usage

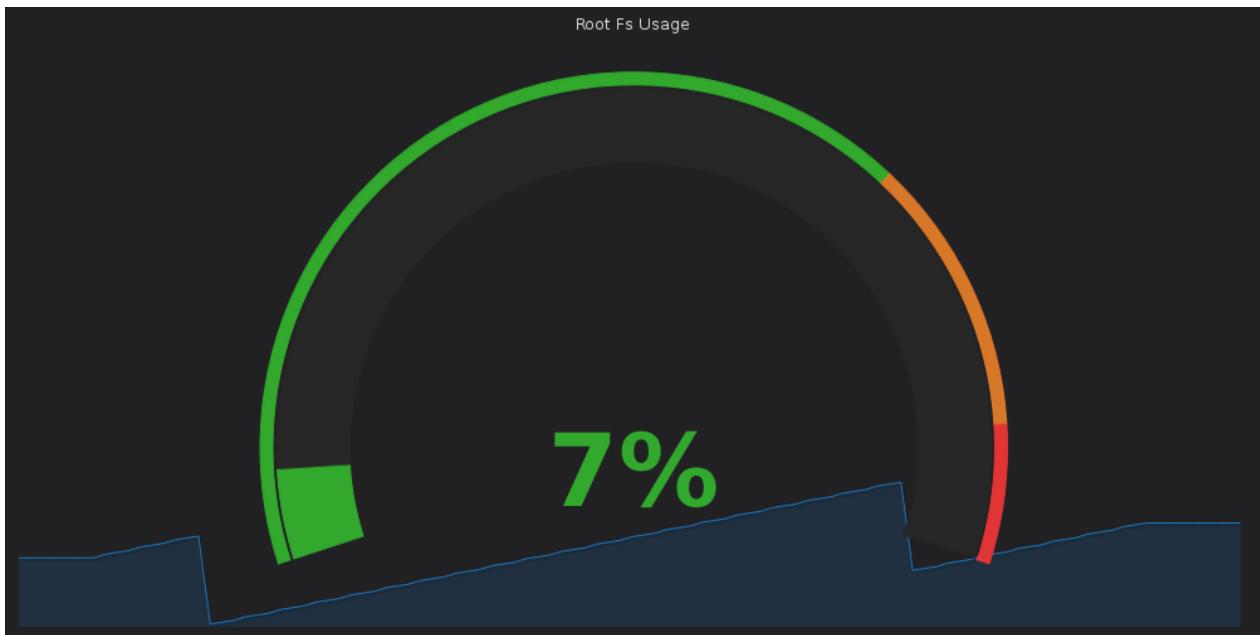


当前打开的文件描述符

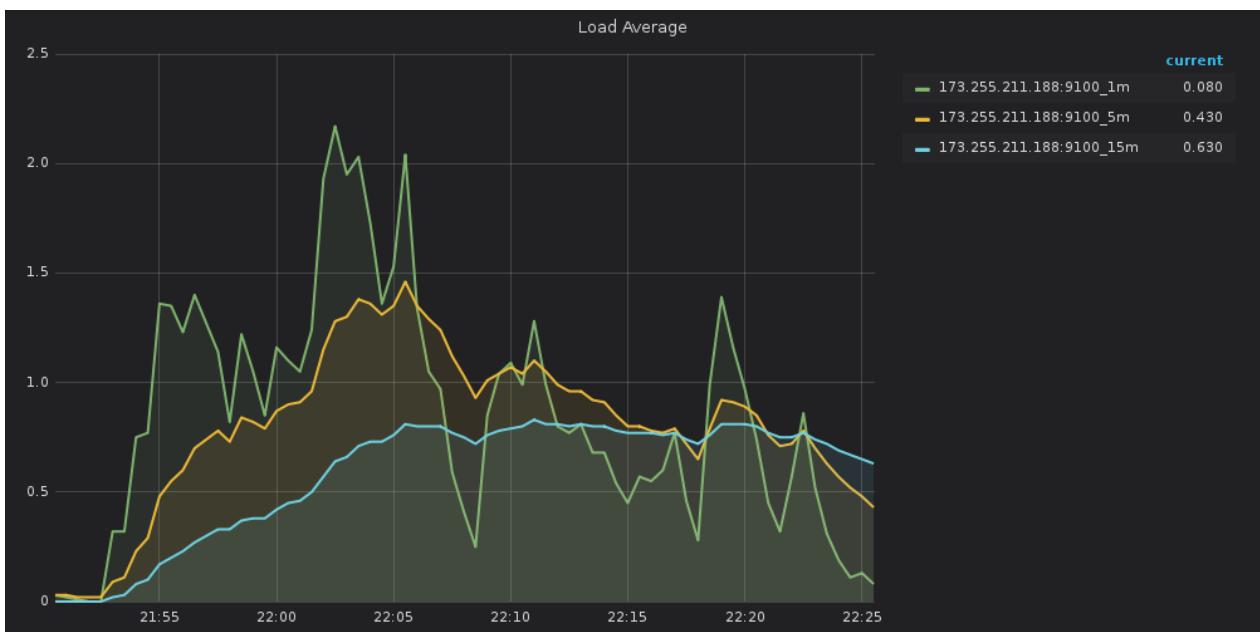
Open Files



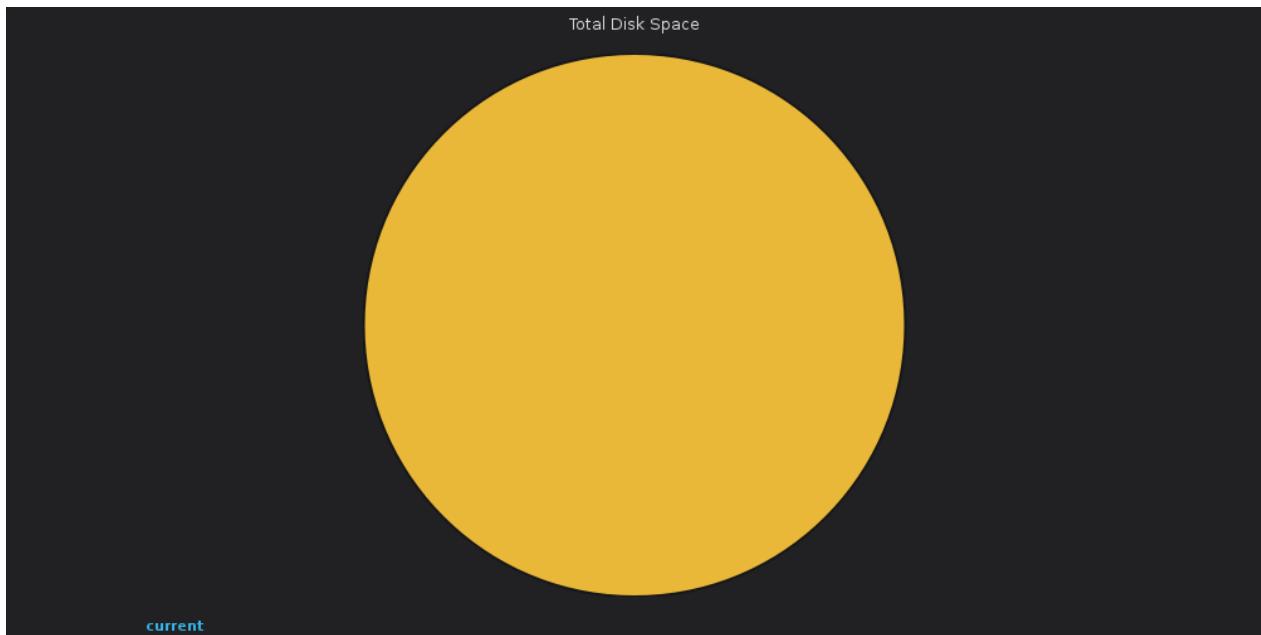
根分区使用率



系统平均负载



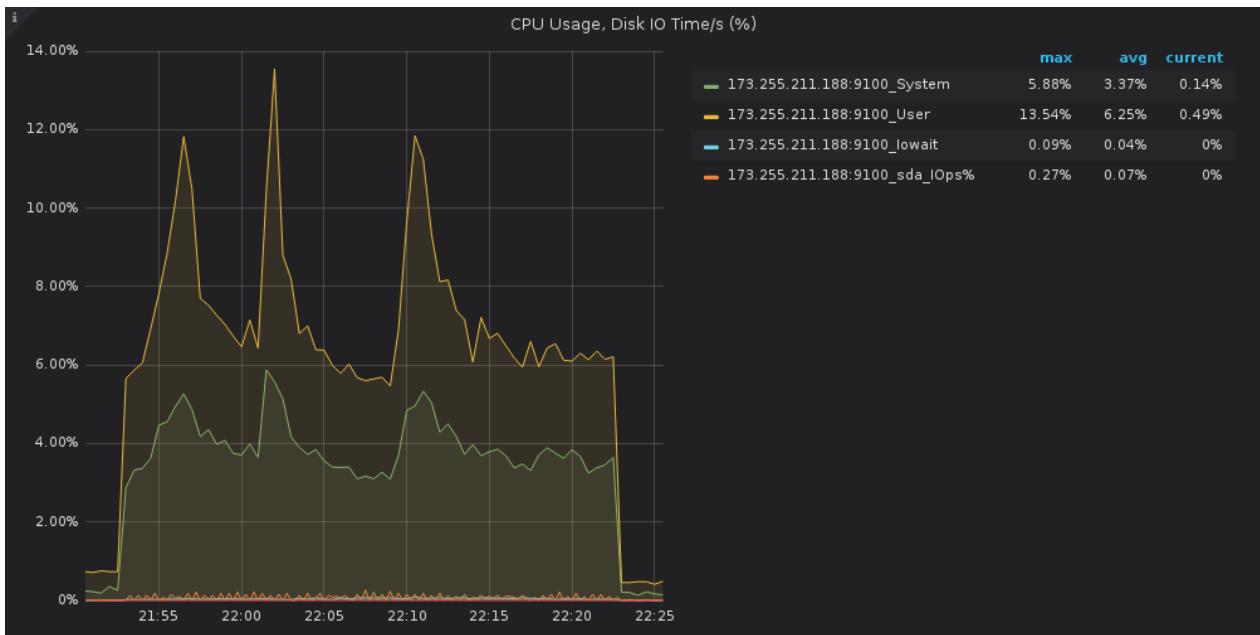
磁盘总空间



各分区可用空间

Volumes Available				
File System	IP	Mount ▲	Available	Usage
ext4	173.255.211.188:9100	/	293.51 GiB	1.60%

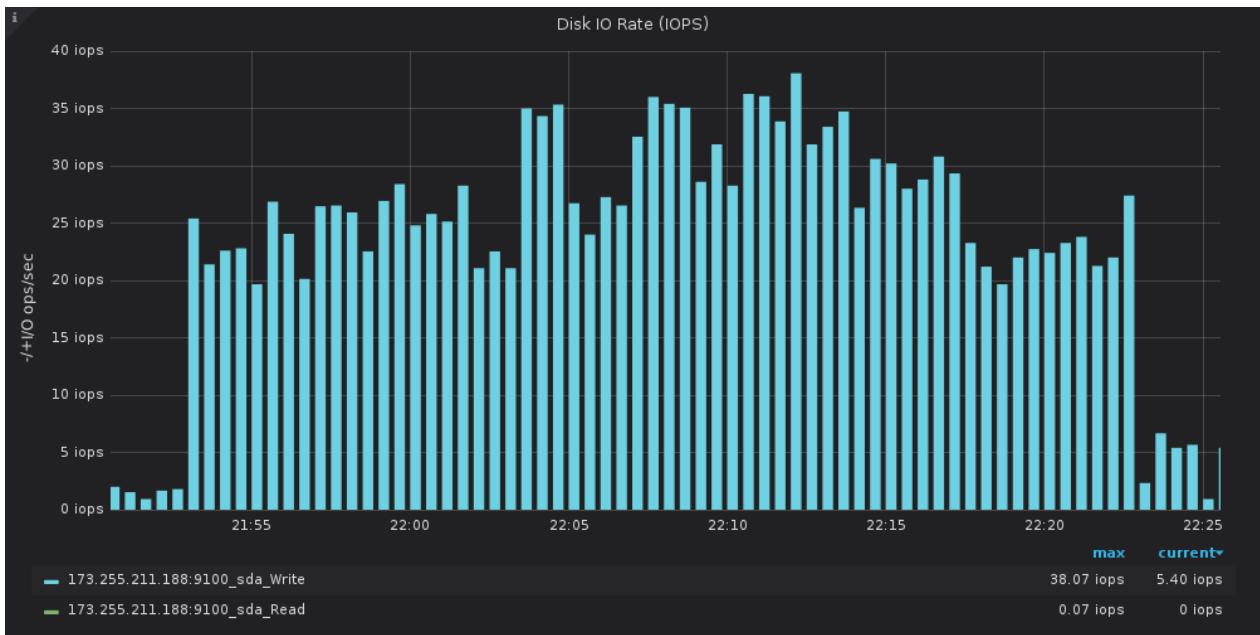
CPU使用率、磁盘每秒的I/O操作耗费时间 (%)



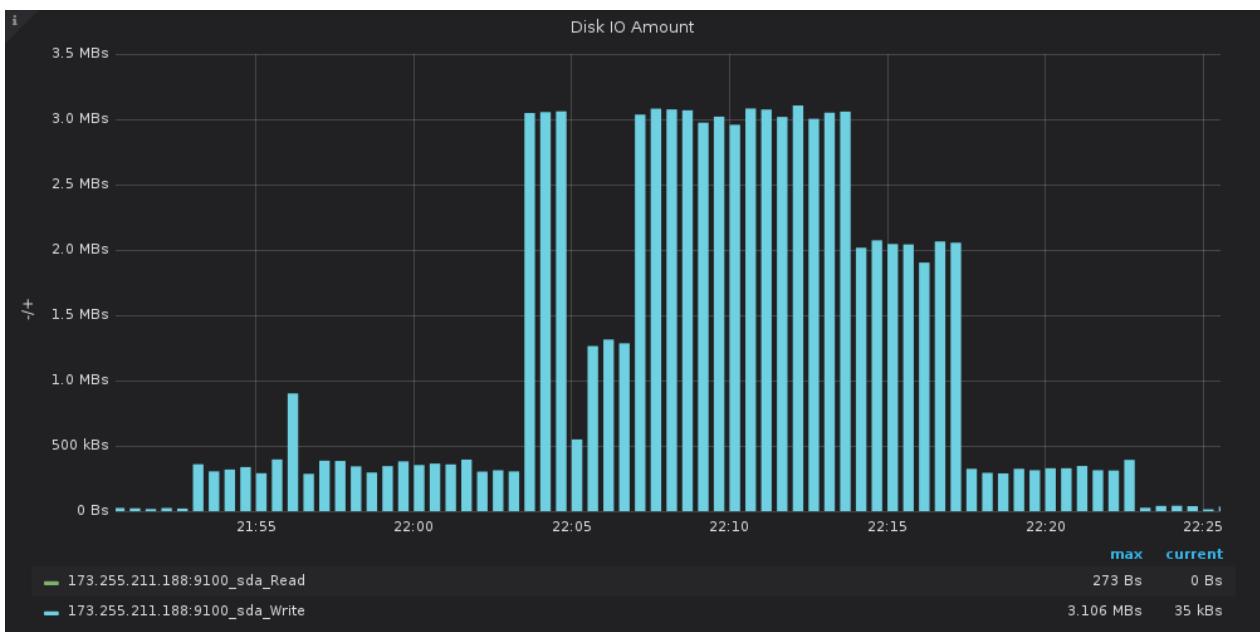
内存信息



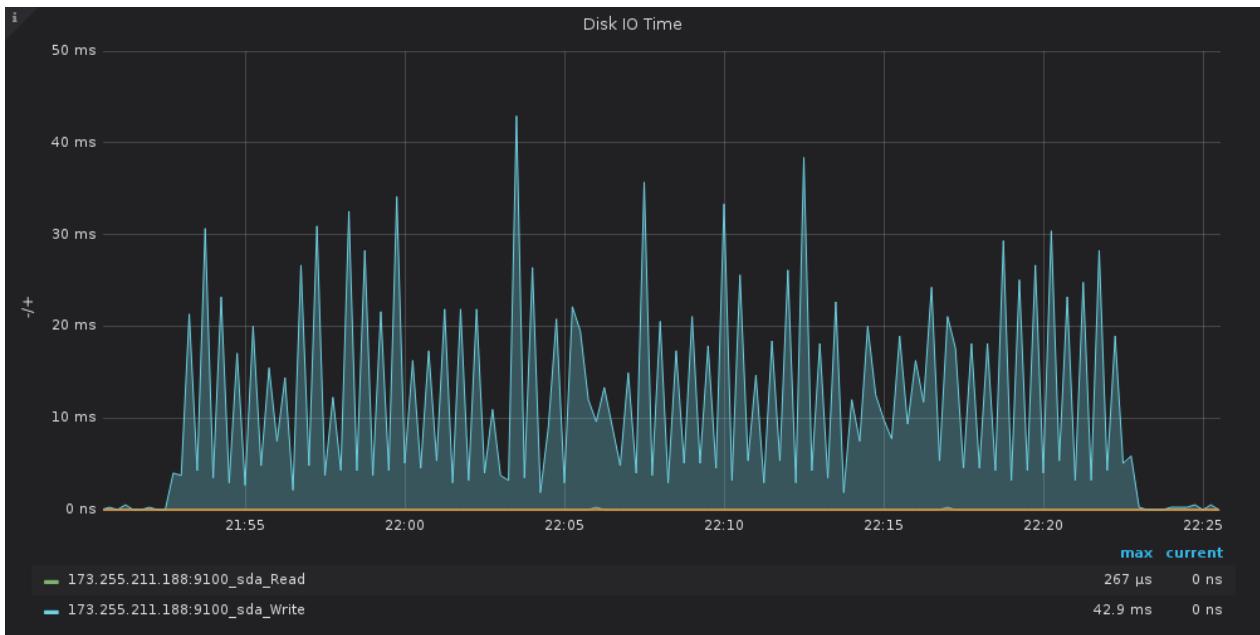
磁盘读写速率 (IOPS)



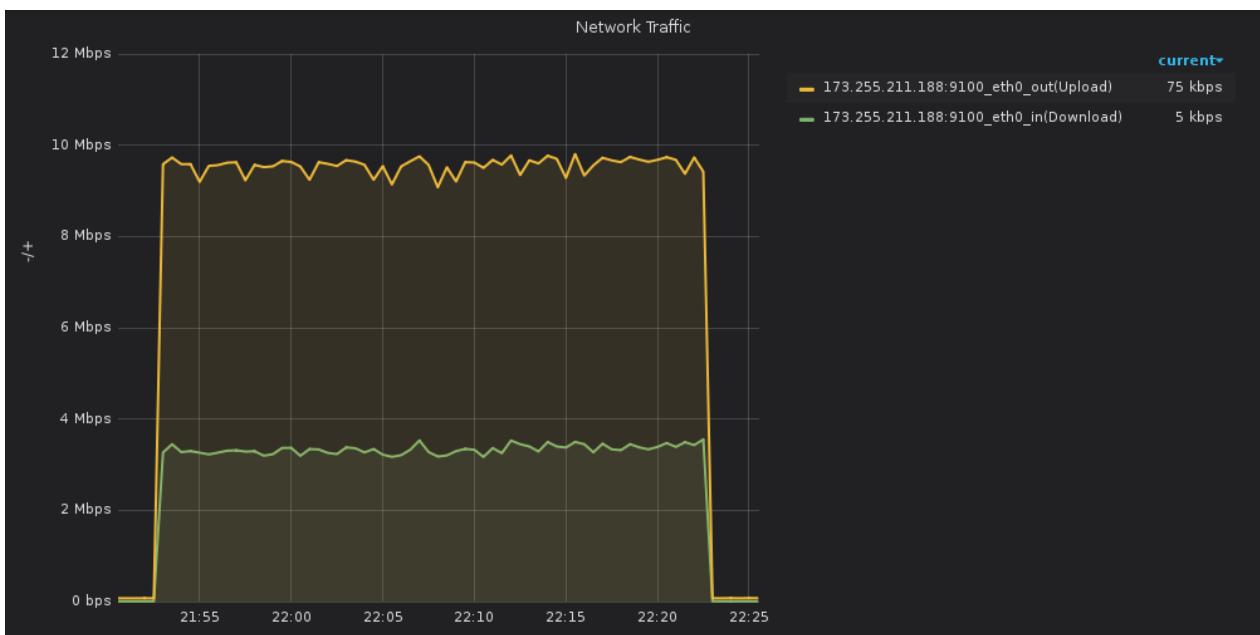
磁盘读写容量大小



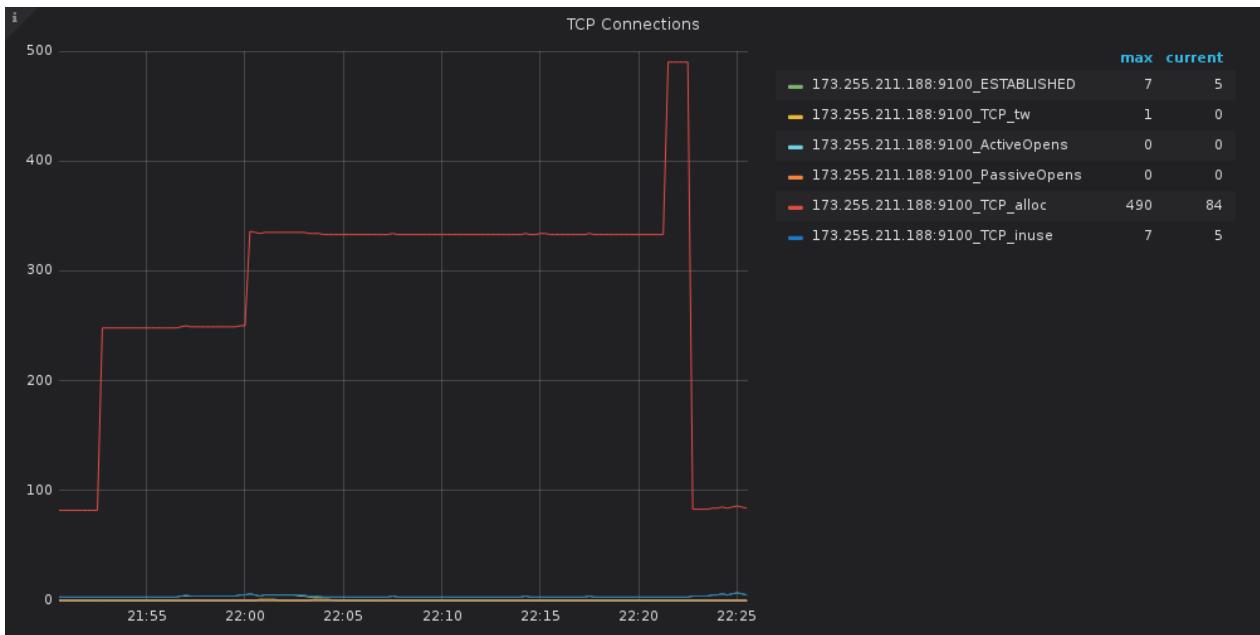
磁盘IO读写时间



网络流量



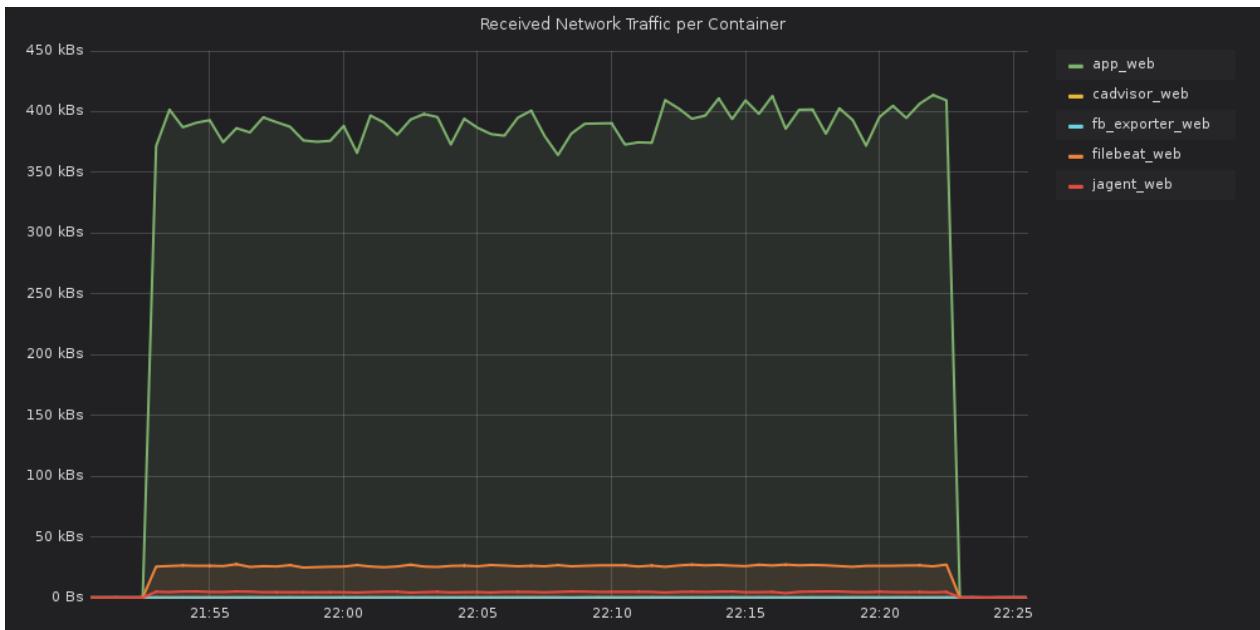
TCP 连接情况



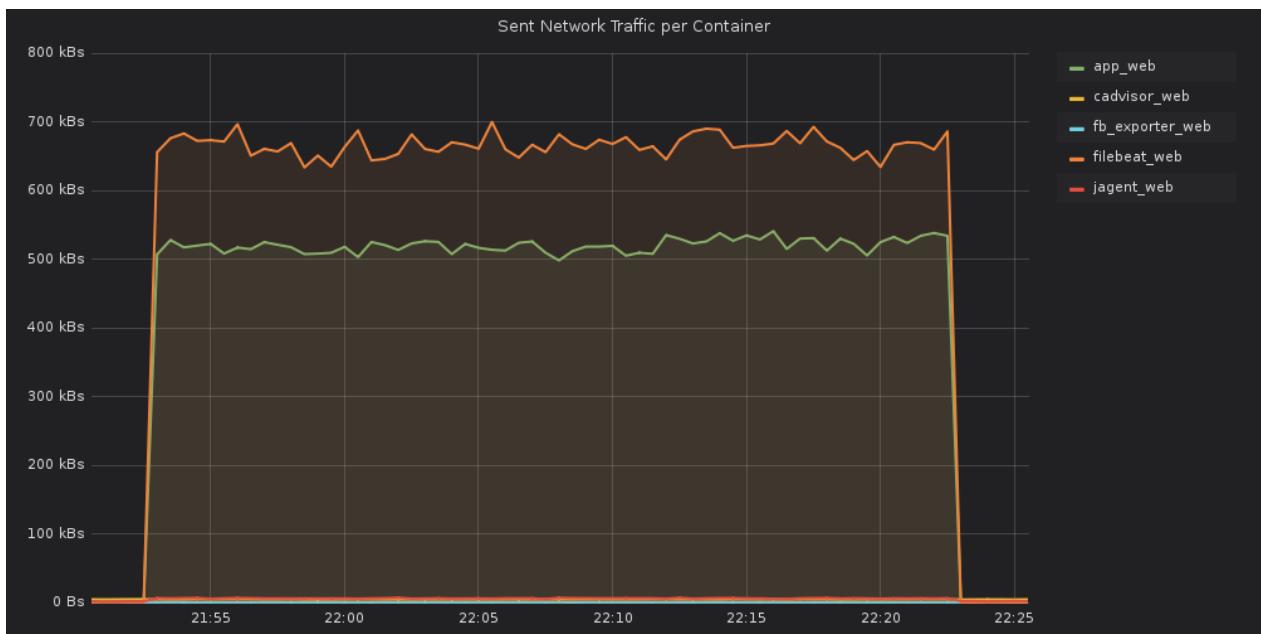
Service: cAdvisor_web

- name: cadvisor_web
- type: cadvisor

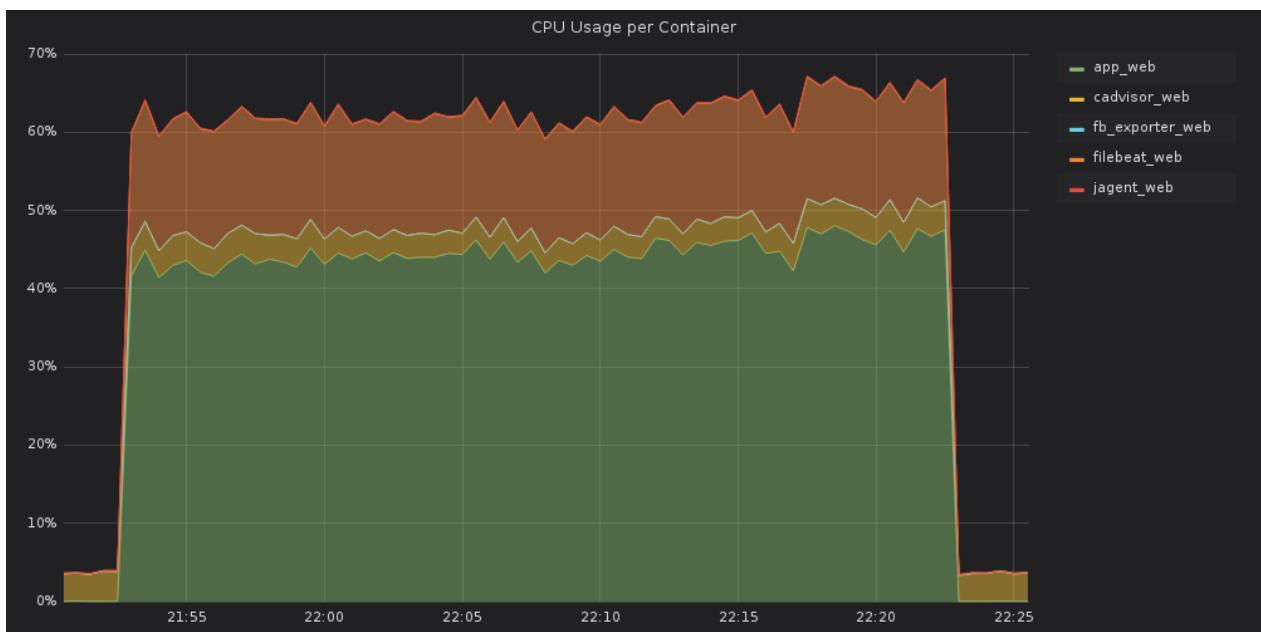
Received Network Traffic per Container



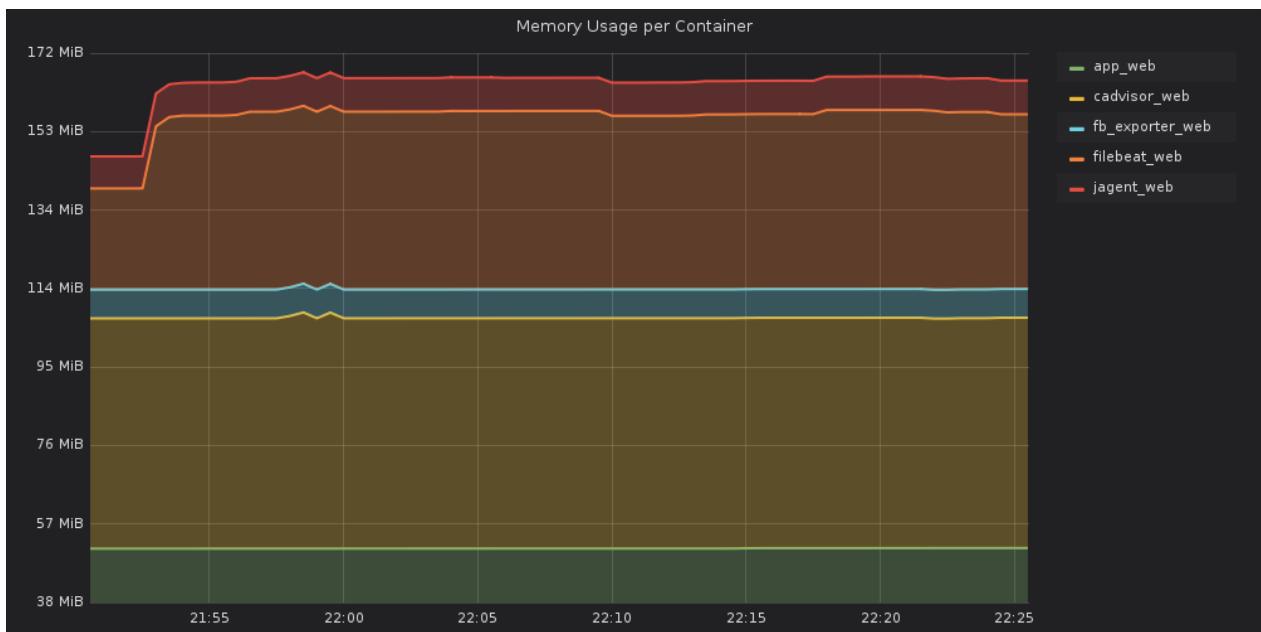
Sent Network Traffic per Container



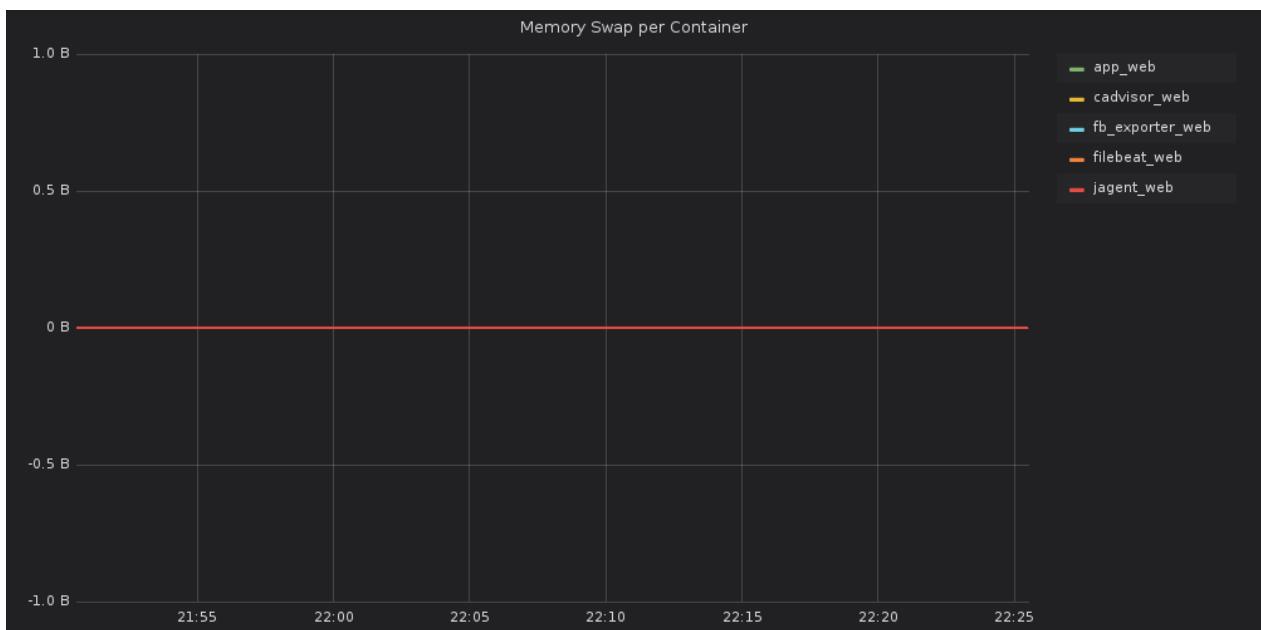
CPU Usage per Container



Memory Usage per Container



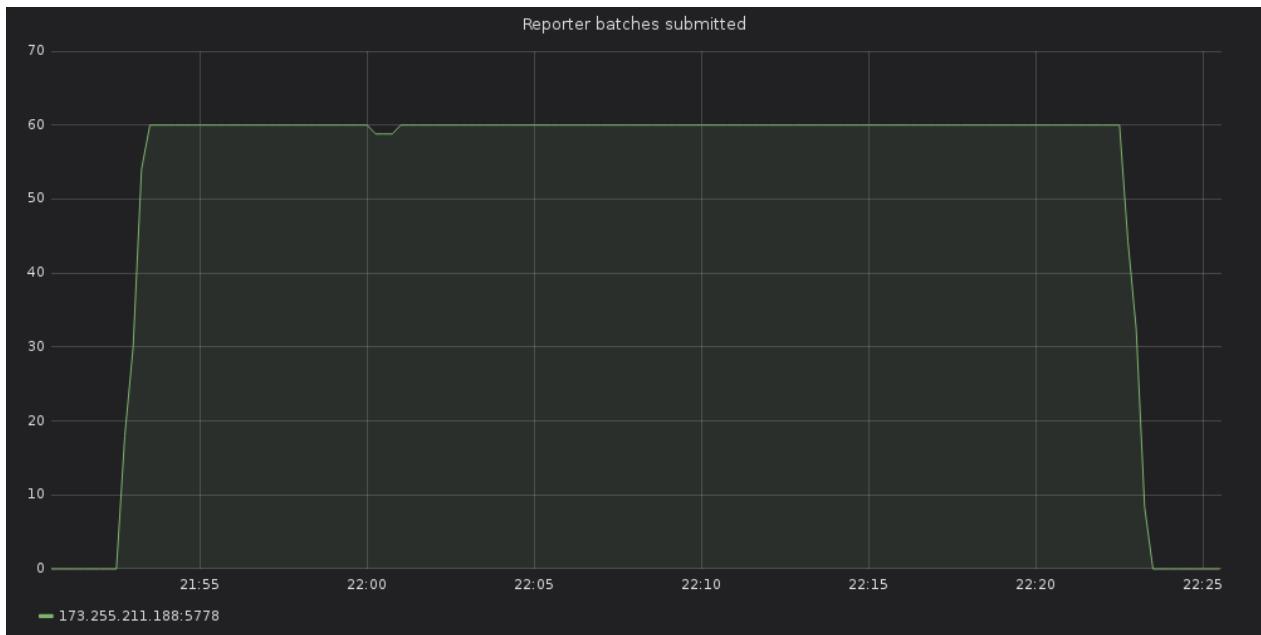
Memory Swap per Container



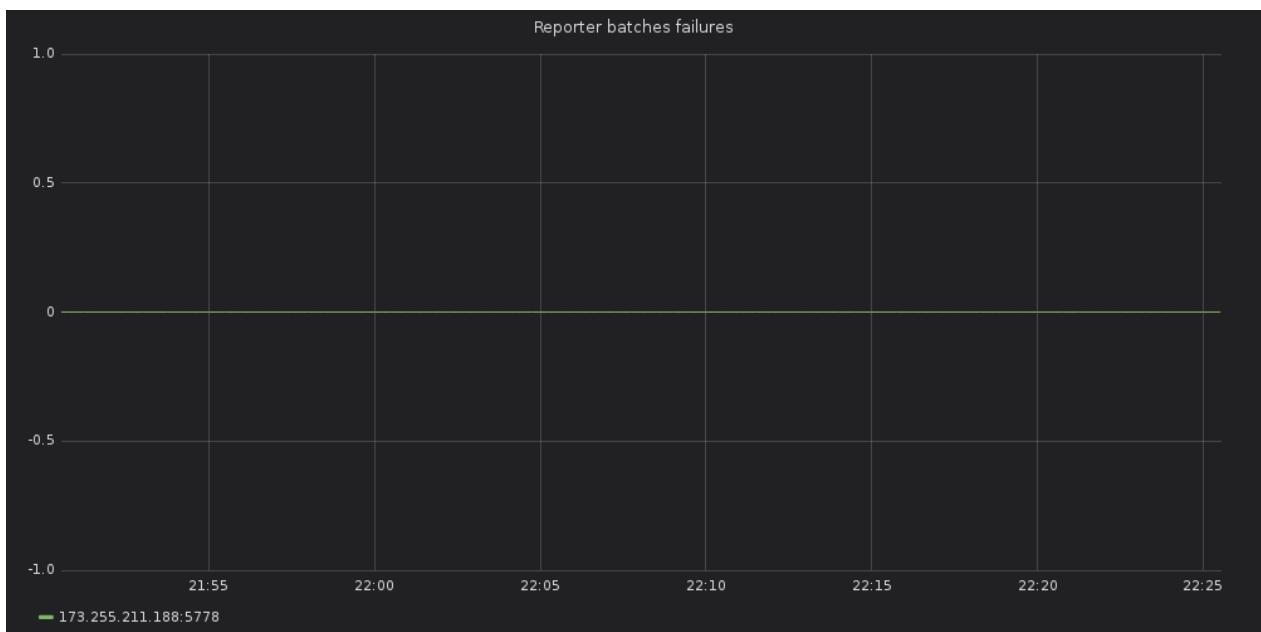
Service: jagent_web

- name: jagent_web
- type: jaeger_agent

Reporter batches submitted



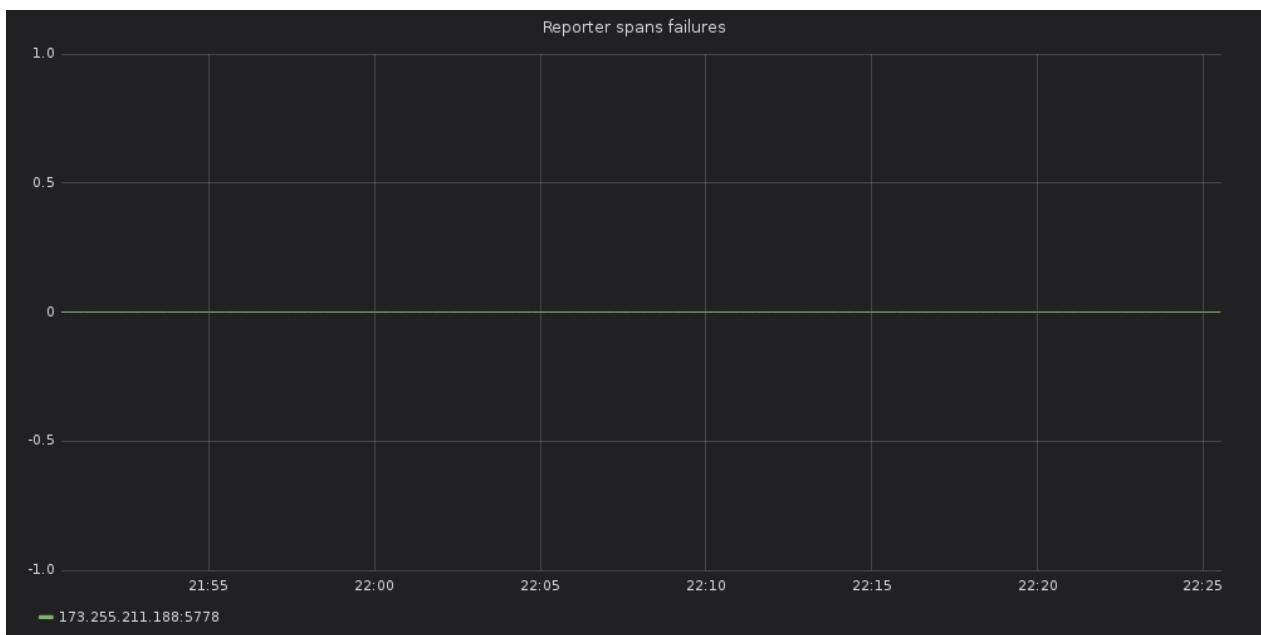
Reporter batches failures



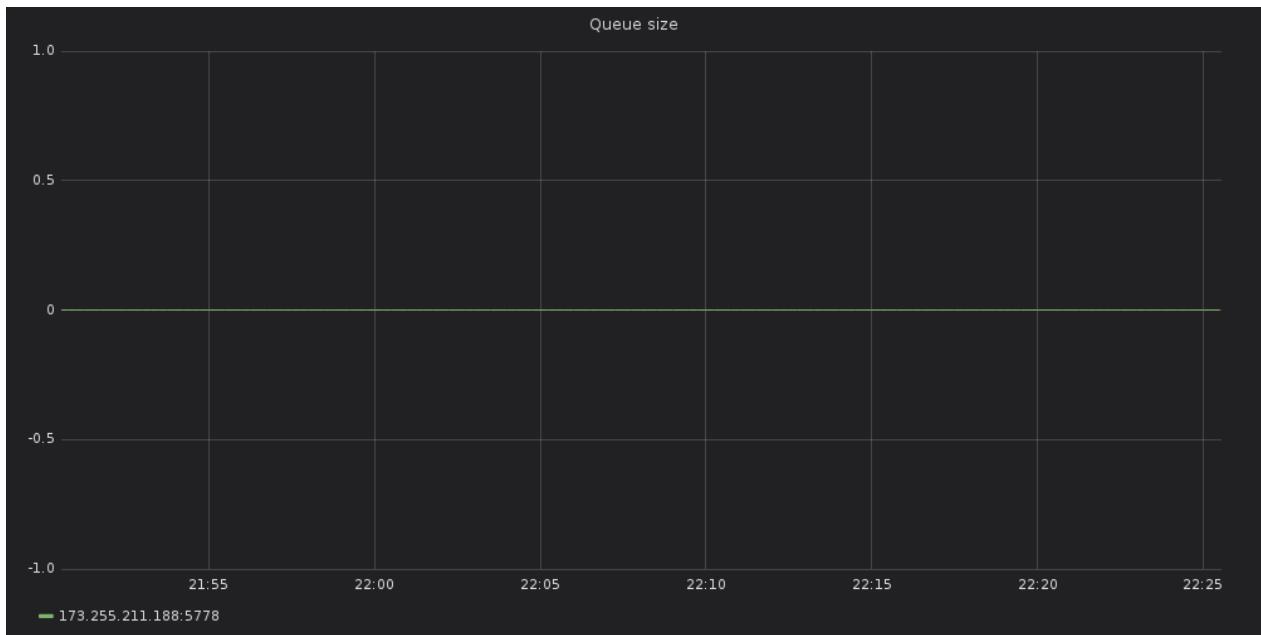
Reporter spans submitted



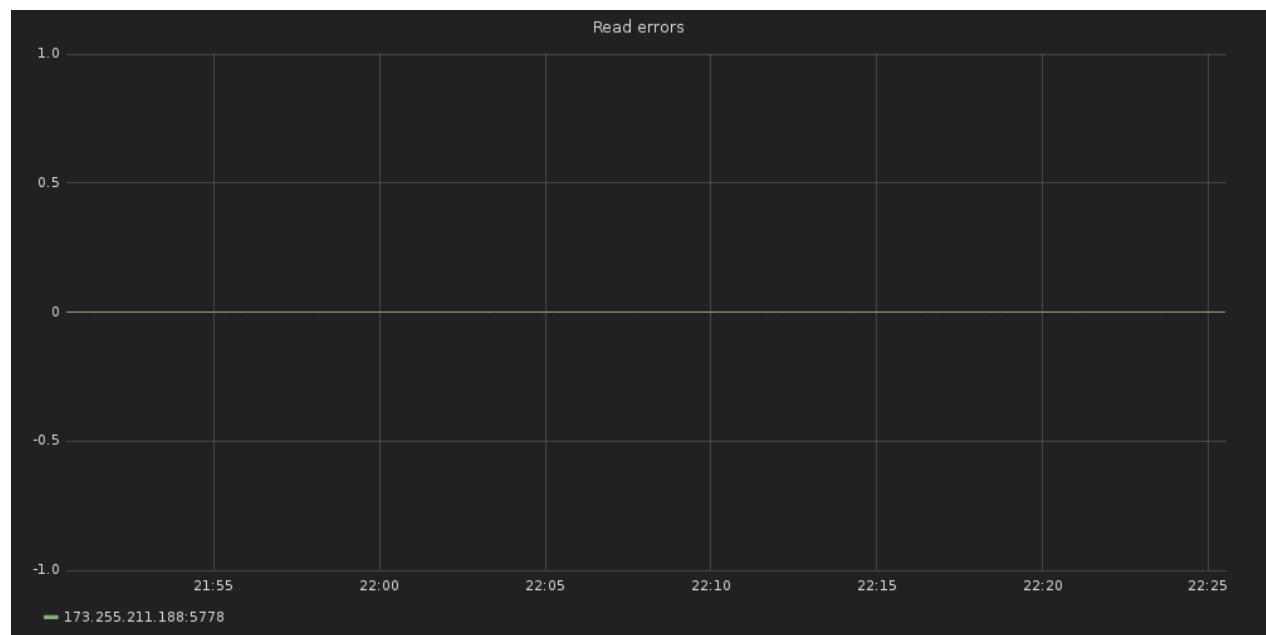
Reporter spans failures



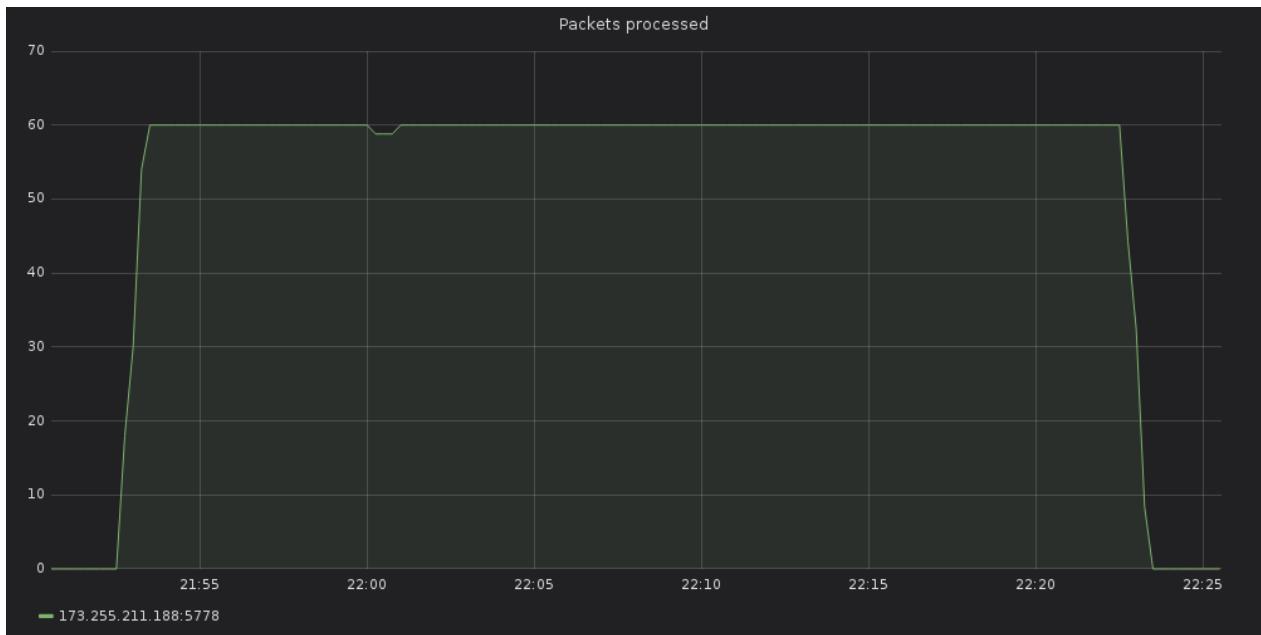
Queue size



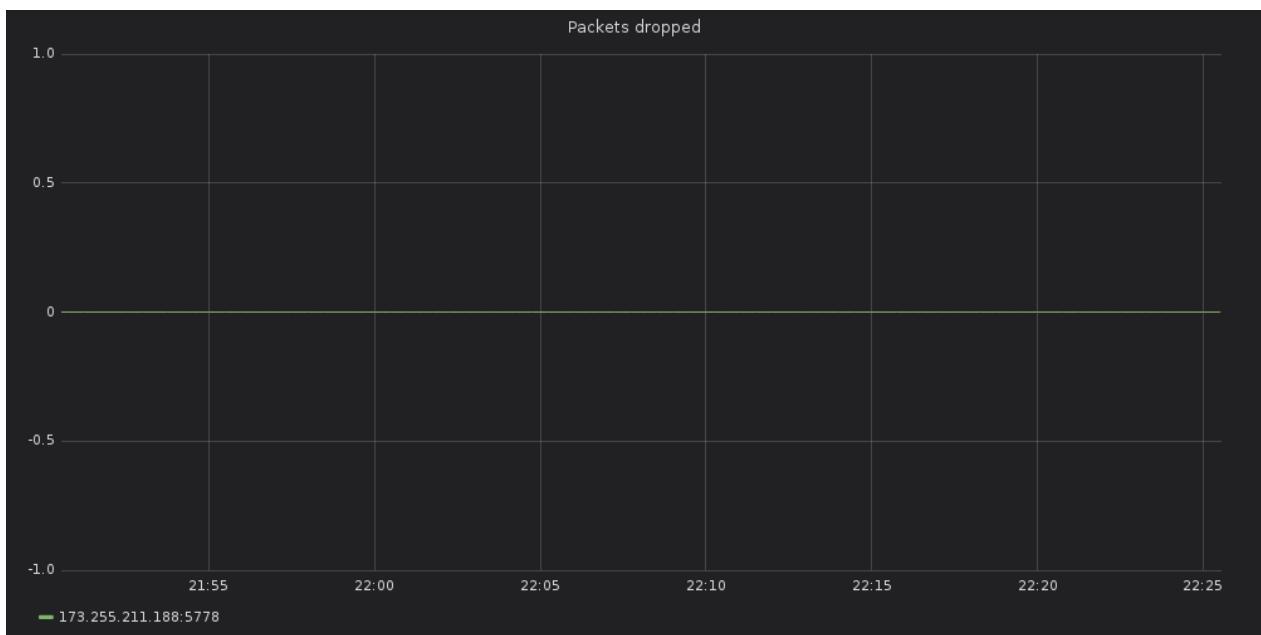
Read errors



Packets processed



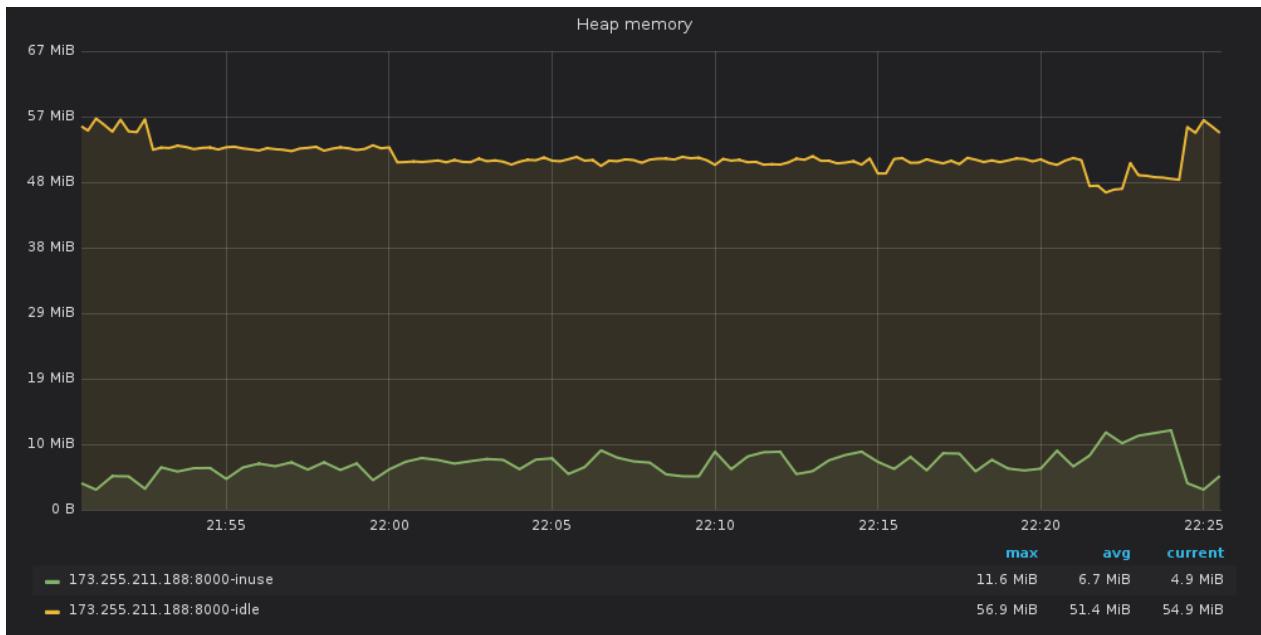
Packets dropped



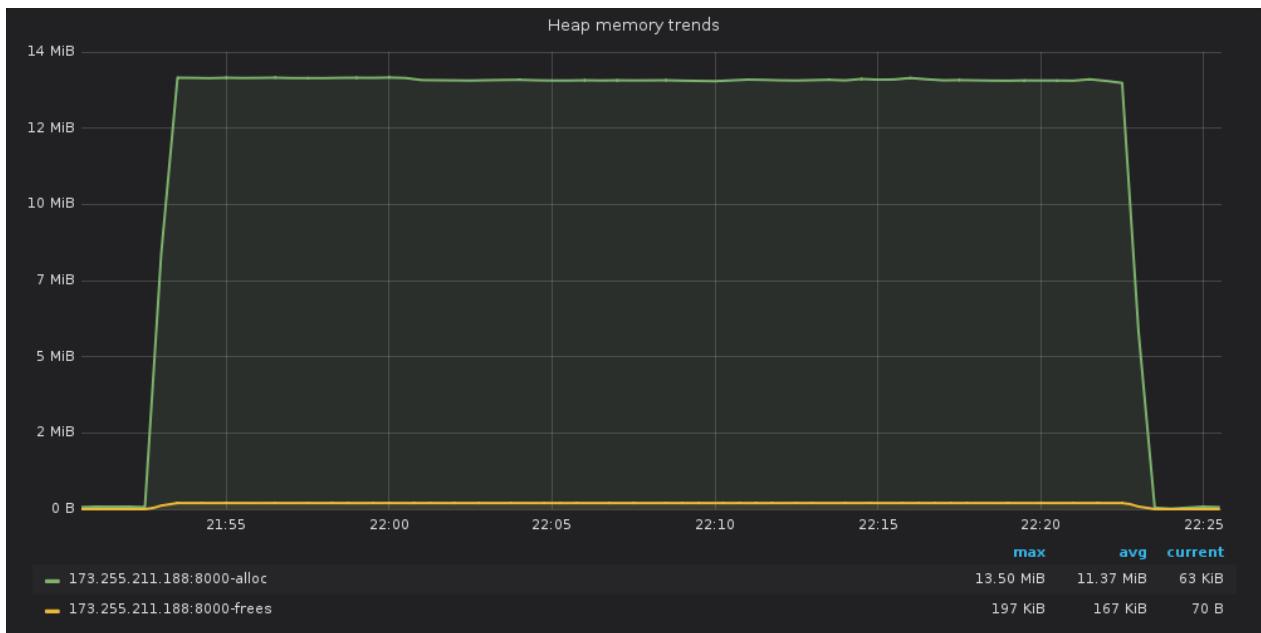
Service: app_web

- name: app_web
- type: app_web

Heap memory



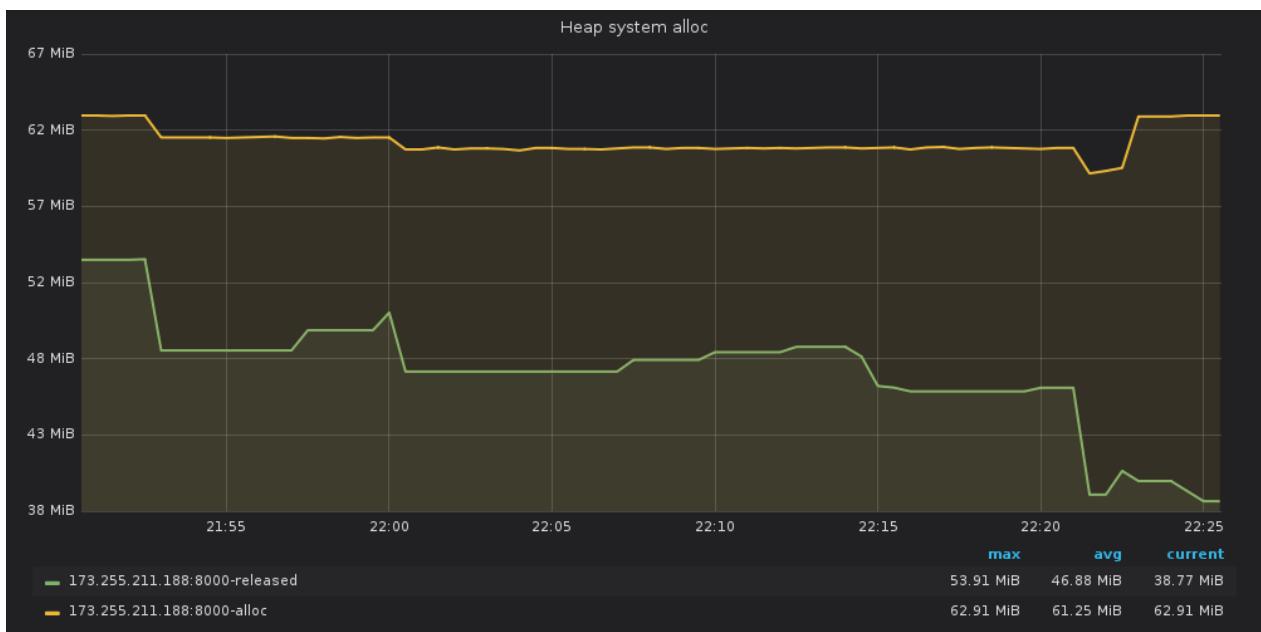
Heap memory trends



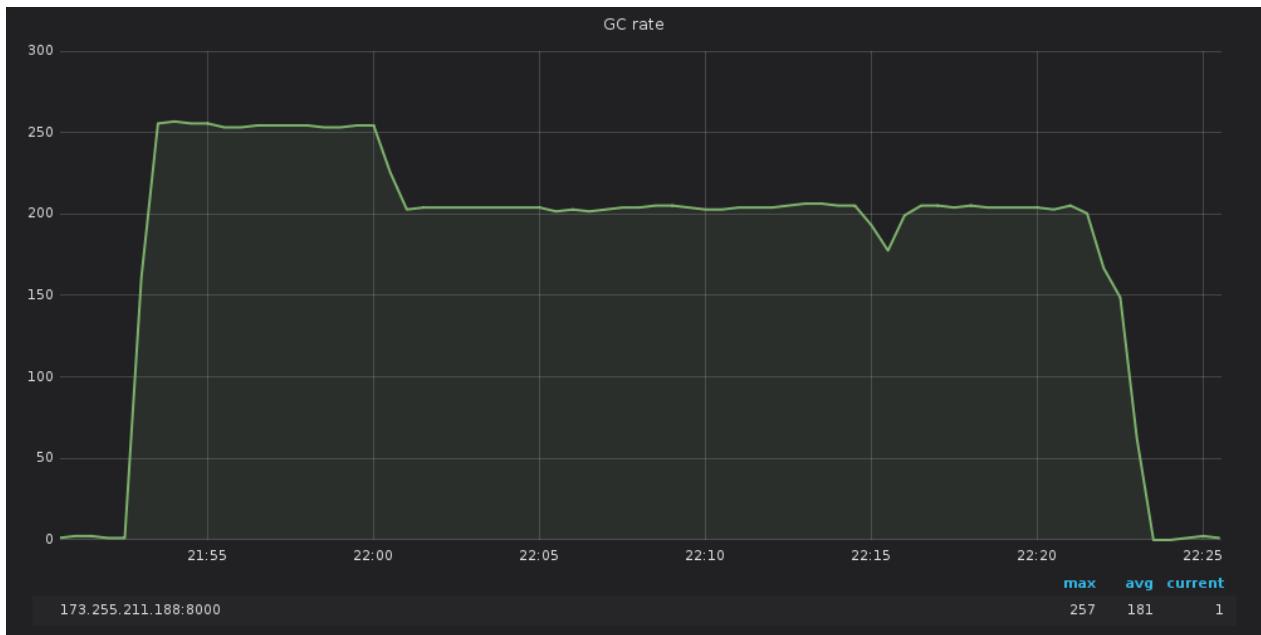
Heap objects



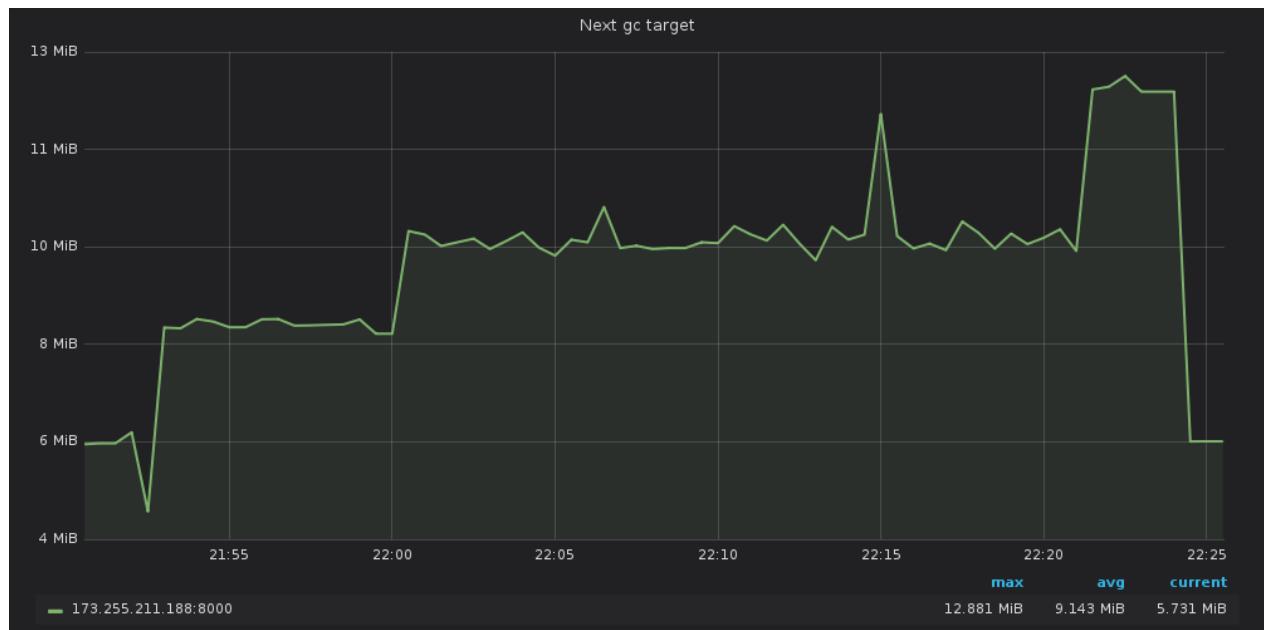
Heap system alloc



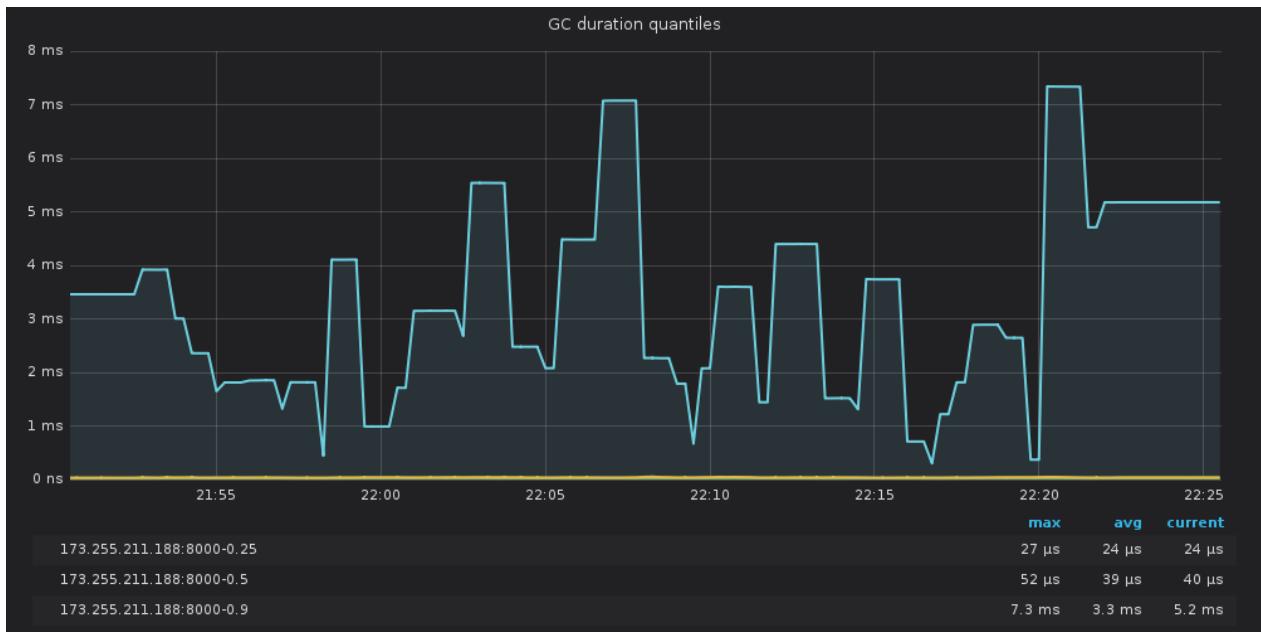
GC rate



Next gc target



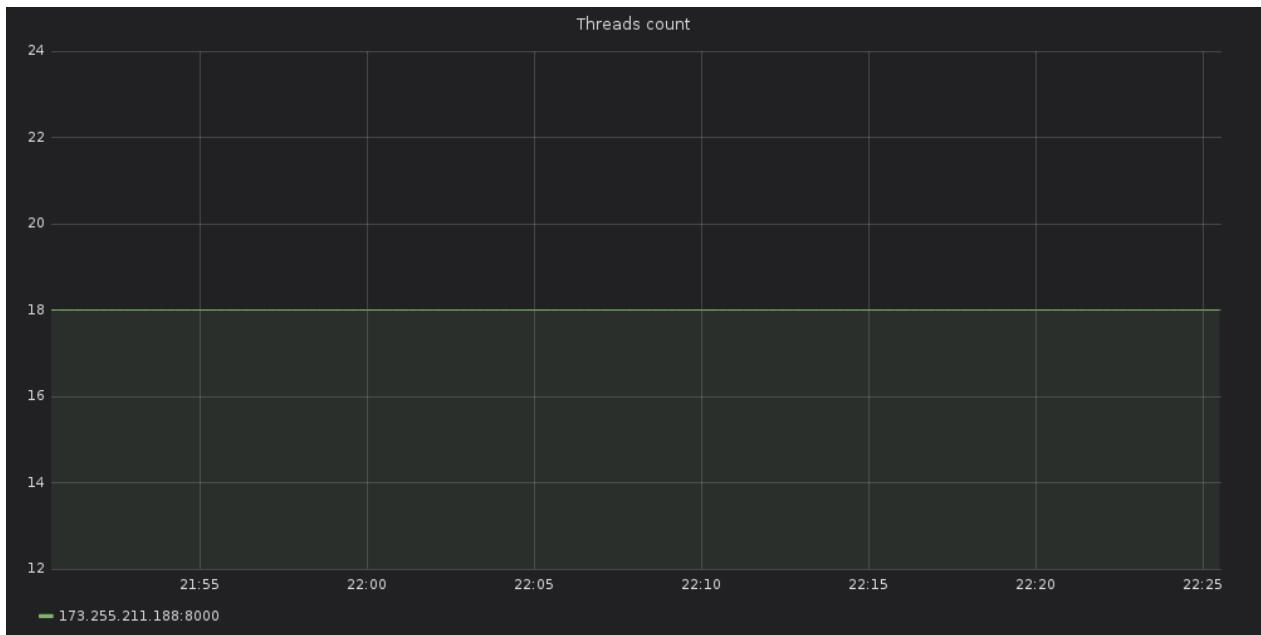
GC duration quantiles



Goroutines count



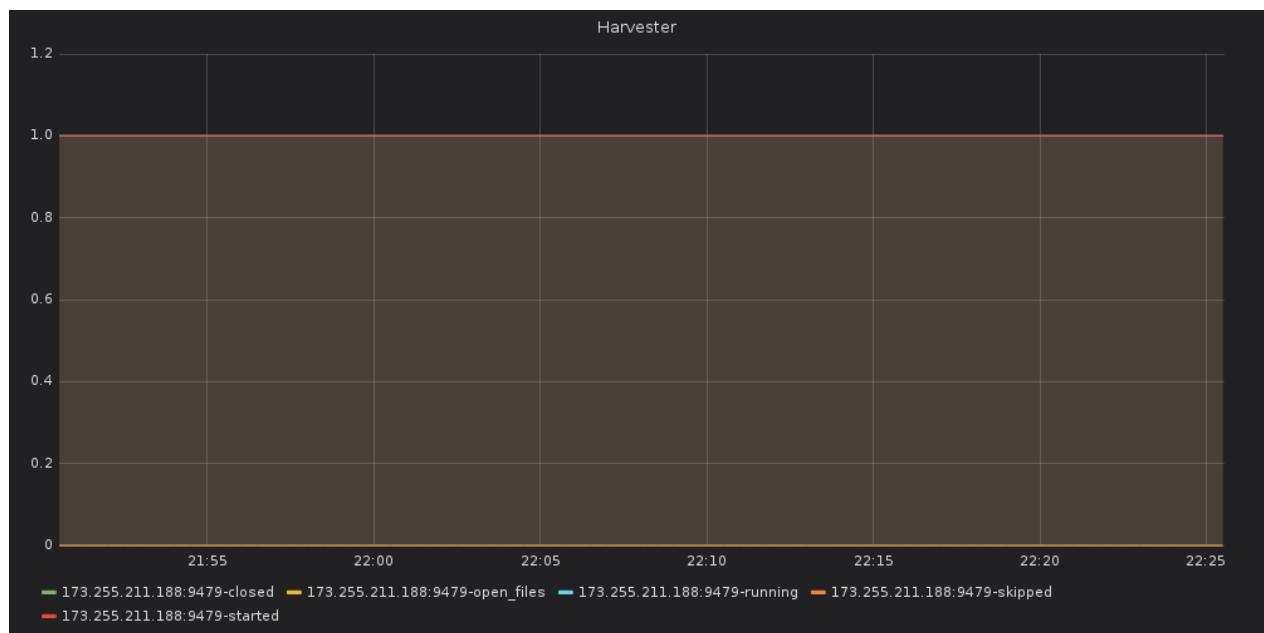
Threads count



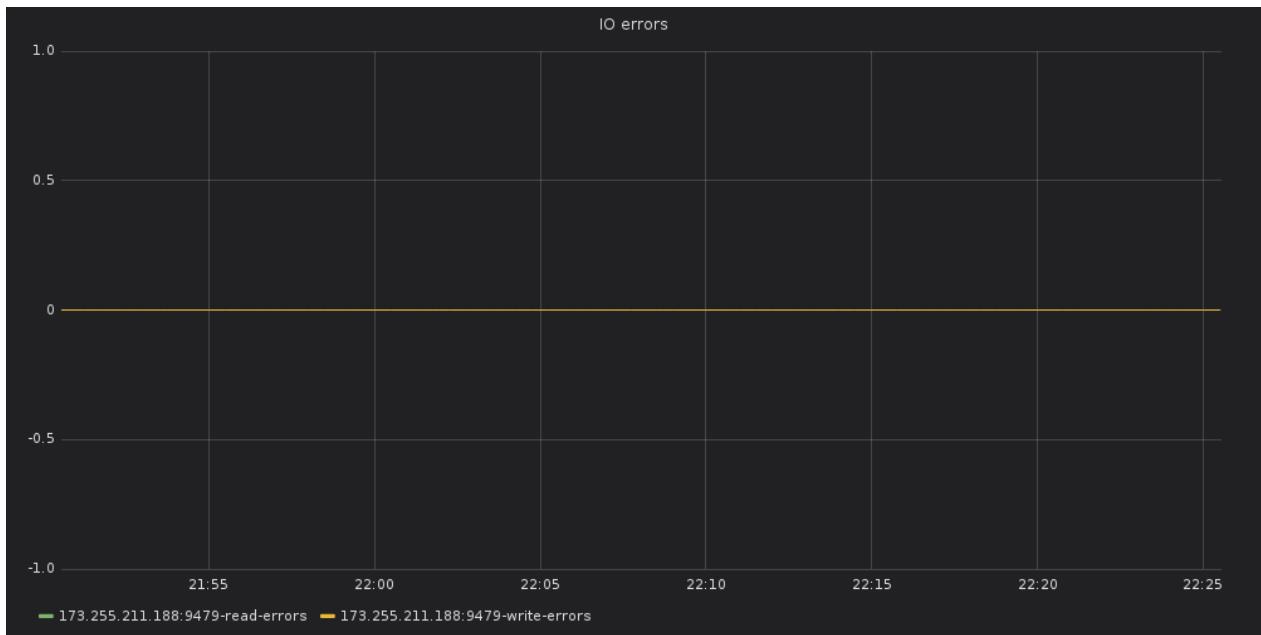
Service: filebeat_web

- name: filebeat_web
- type: filebeat

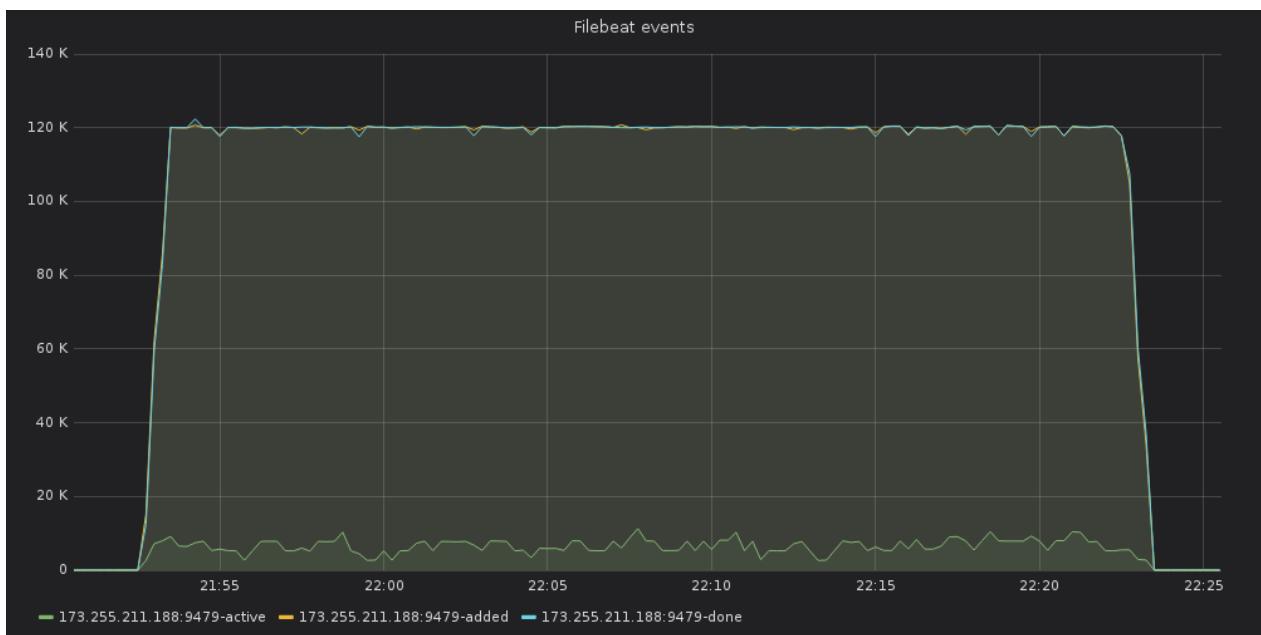
Harvester



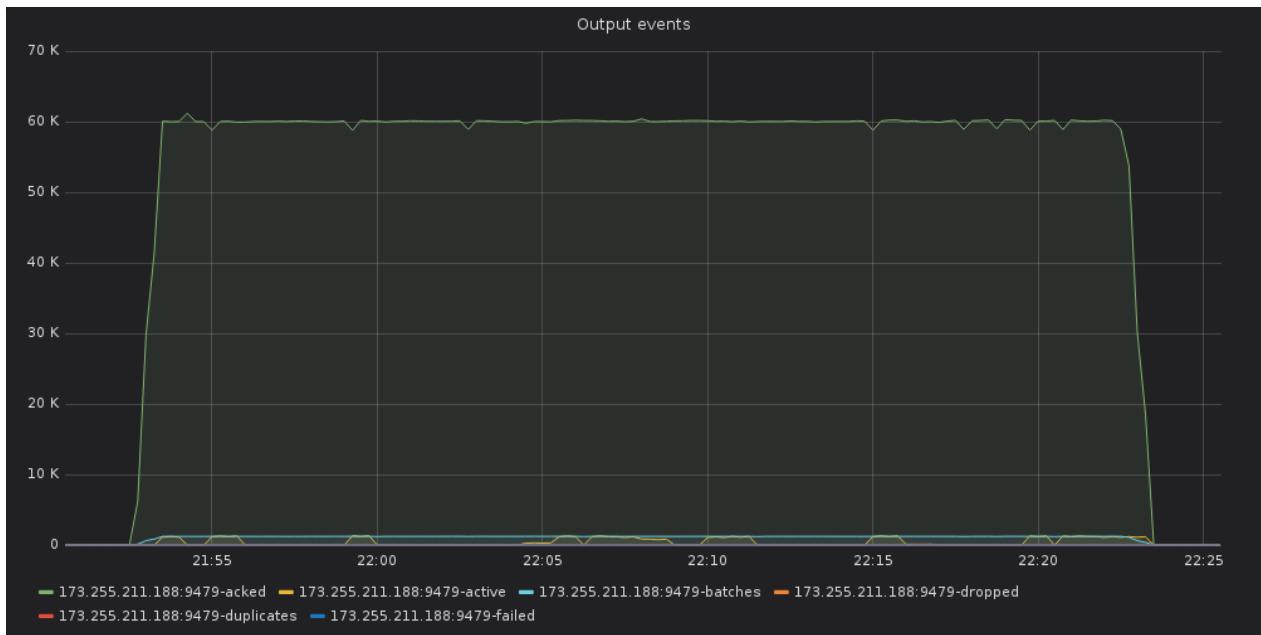
IO errors



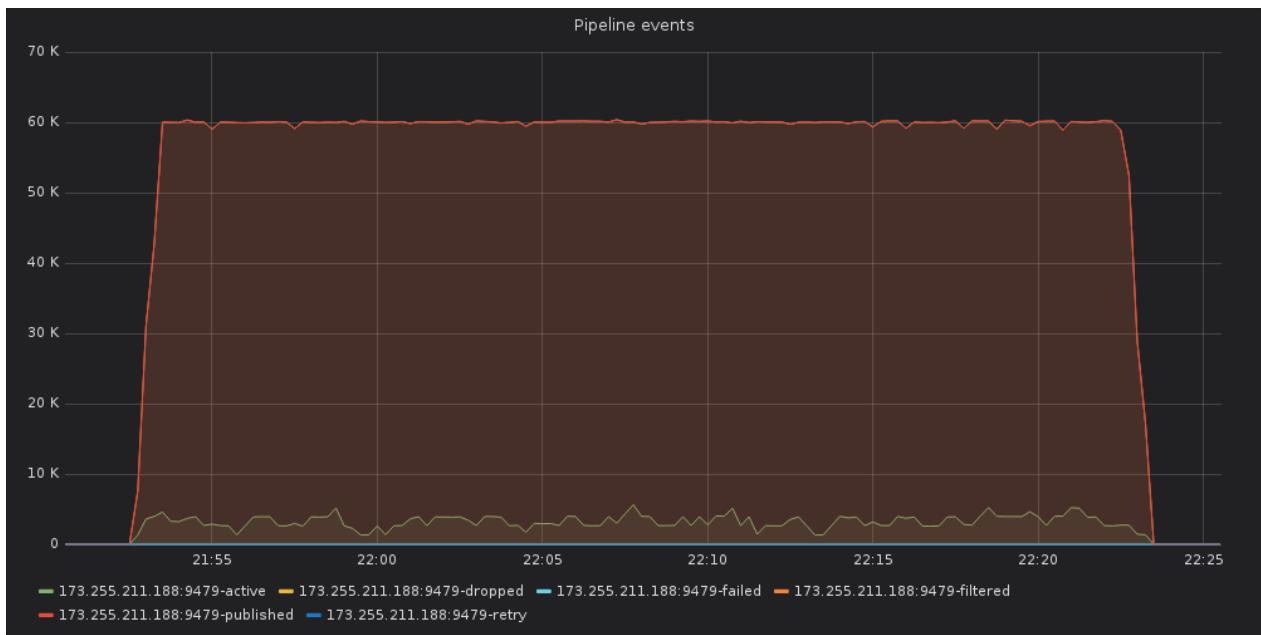
Filebeat events



Output events



Pipeline events



Pipeline queue

