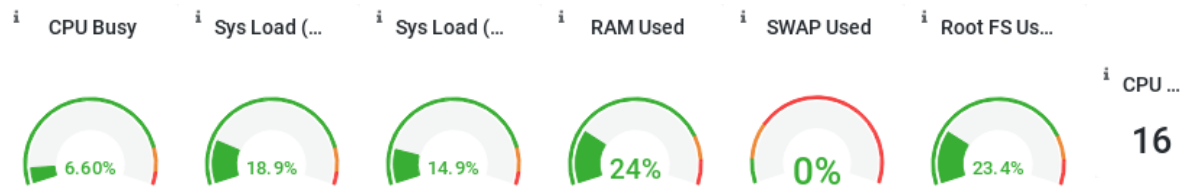
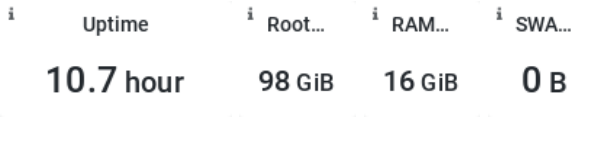
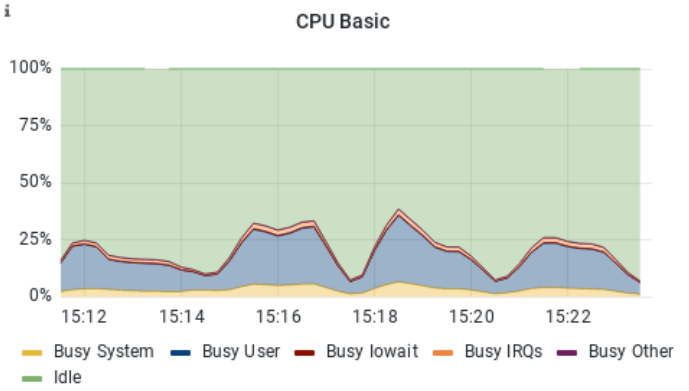
Host Metrics

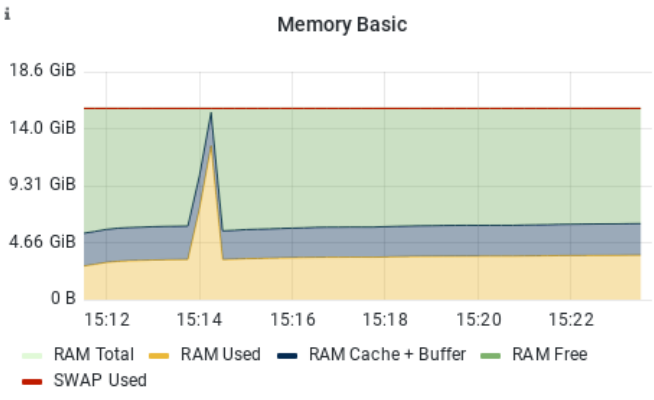
The dashboard visualizes host metrics collected by node_exporter. (based on: https://grafana.com/grafana/dashboards/1860)

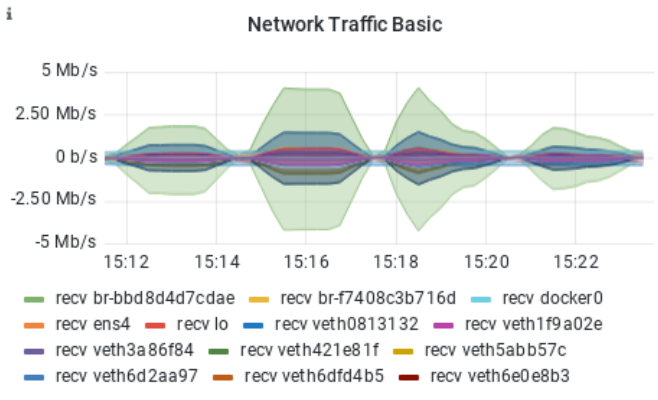
Wed Oct 19 15:11:30 UTC 2022
to
Wed Oct 19 15:23:44 UTC 2022



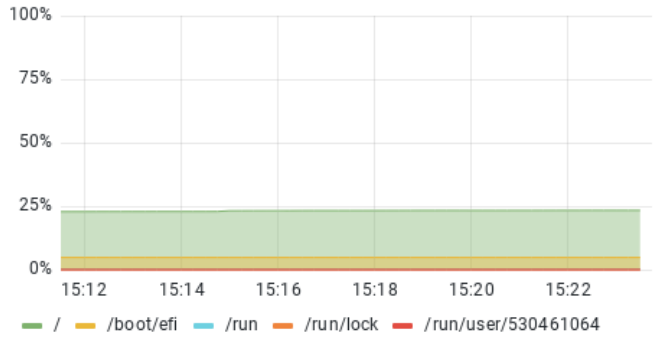




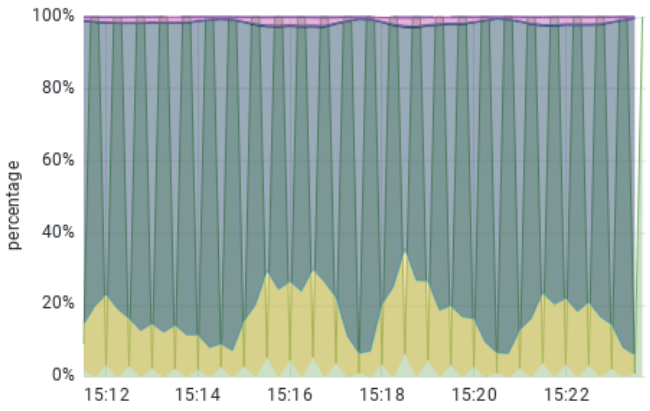




Disk Space Used Basic

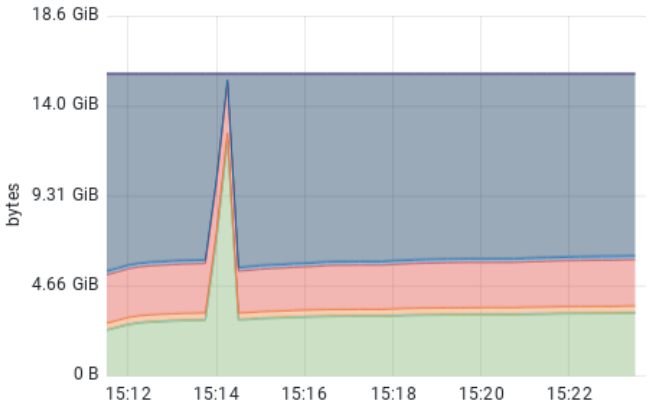


CPU



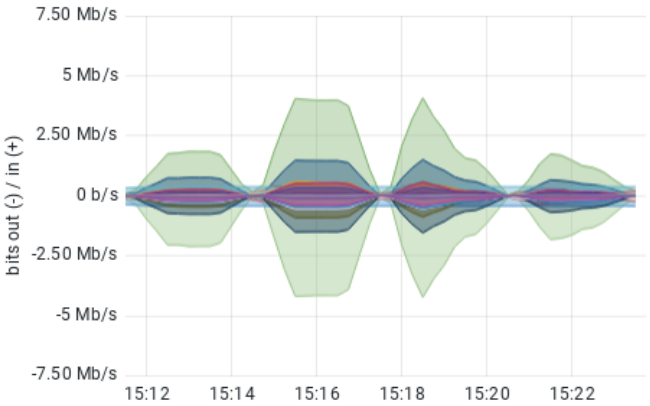
- System - Processes executing in kernel mode
- User - Normal processes executing in user mode
- Nice - Niced processes executing in user mode
- Idle - Waiting for something to happen
- Iowait - Waiting for I/O to complete

Memory Stack



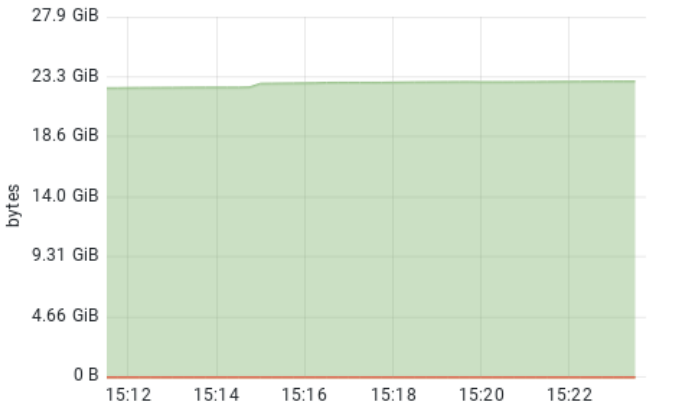
- Apps - Memory used by user-space applications
- PageTables - Memory used to map between virtual and physical memory addr
- SwapCache - Memory that keeps track of pages that have been fetched from s
- Slab - Memory used by the kernel to cache data structures for its own use (cacl
- Cache - Parked file data (file content) cache

Network Traffic



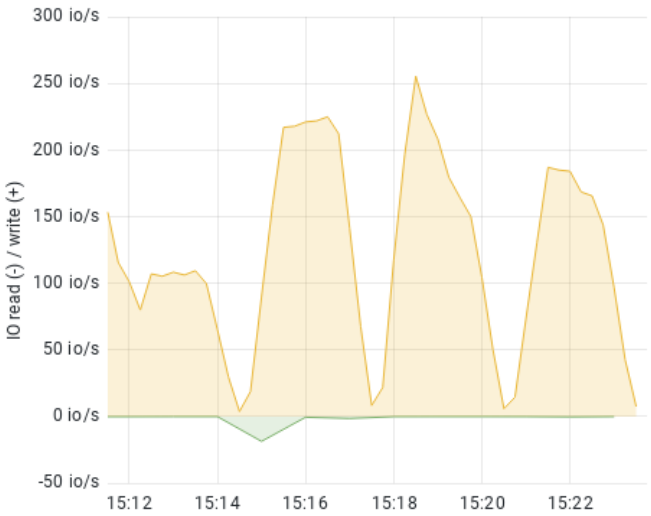
	min	max	avg	curren
br-bbd8d4d7cdae - Receive	47.4 kb/s	4.08 Mb/s	1.68 Mb/s	211 kb
br-f7408c3b716d - Receive	801 b/s	88.8 kb/s	15.0 kb/s	816 b
docker0 - Receive	0 b/s	0 b/s	0 b/s	0 b
ens4 - Receive	3.23 kb/s	67.0 kb/s	30.1 kb/s	48.8 kb
lo - Receive	0 b/s	494 kb/s	209 kb/s	235 kb

Disk Space Used



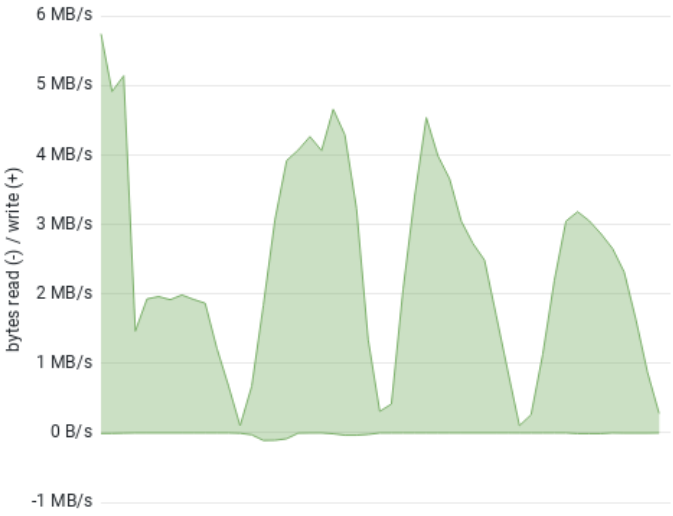
	min	max	avg	current
/run/lock	0.000 B	0.000 B	0.000 B	0.000 B
/run/user/530461064	0.000 B	0.000 B	0.000 B	0.000 B
/run	2.547 MiB	2.547 MiB	2.547 MiB	2.547 MiB
/boot/efi	5.898 MiB	5.898 MiB	5.898 MiB	5.898 MiB
/	22.409 GiB	22.932 GiB	22.748 GiB	22.932 GiB

Disk IOps



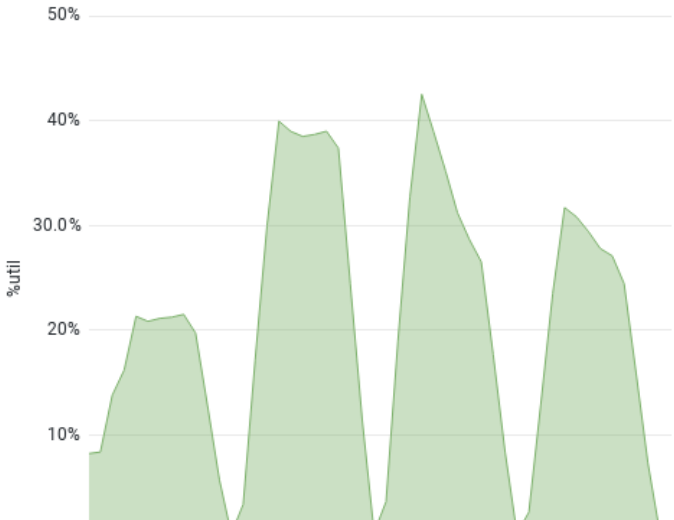
	min	max	avg	current
sda - Reads completed	0 io/s	18.6 io/s	1.60 io/s	0.0167 io/s
sda - Writes completed	3.84 io/s	255 io/s	124 io/s	7.53 io/s

I/O Usage Read / Write



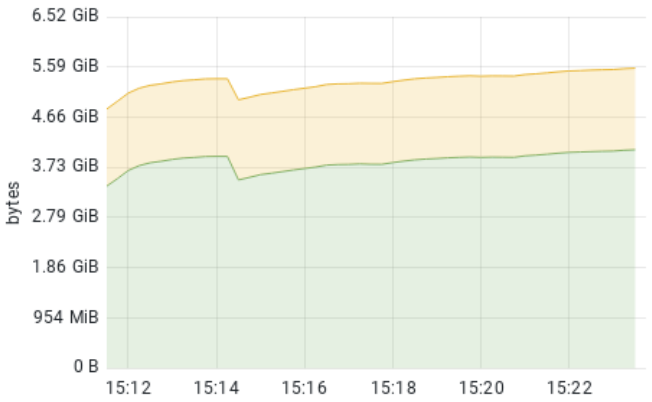
	min	max	avg
sda - Successfully read bytes	0.000 B/s	107.588 kB/s	9.855 kB/s
sda - Successfully written bytes	103.310 kB/s	5.781 MB/s	2.430 MB/s

I/O Utilization



	min	max	avg	current
sda	0.587%	42.507%	21.035%	0.729%

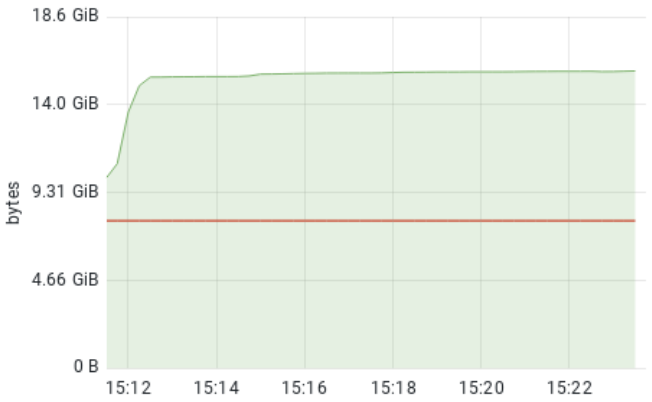
Memory Active / Inactive



Inactive - Memory which has been less recently used. It is more eligible to be re

Active - Memory that has been used more recently and usually not reclaimed u

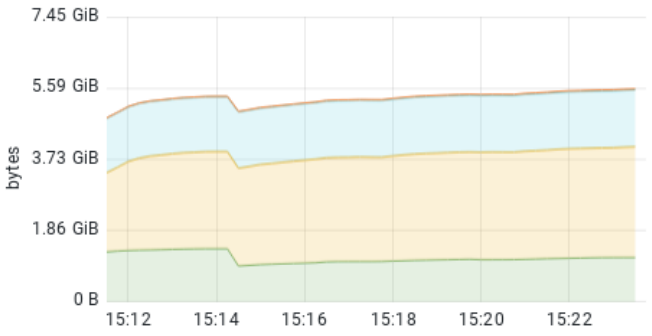
Memory Commited



Committed_AS - Amount of memory presently allocated on the system

CommitLimit - Amount of memory currently available to be allocated on the sy

Memory Active / Inactive Detail



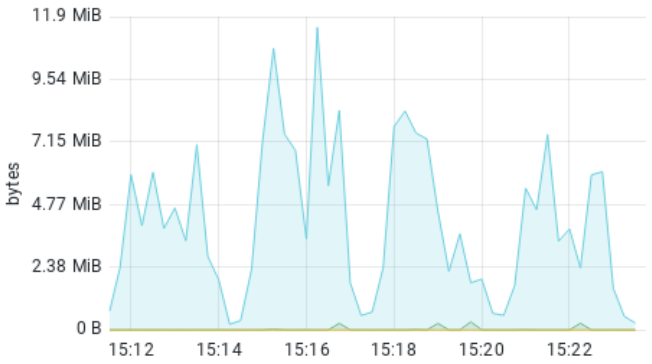
Inactive_file - File-backed memory on inactive LRU list

Inactive_anon - Anonymous and swap cache on inactive LRU list, including tmp

Active_file - File-backed memory on active LRU list

Active_anon - Anonymous and swap cache on active least-recently-used (LRU)

Memory Writeback and Dirty

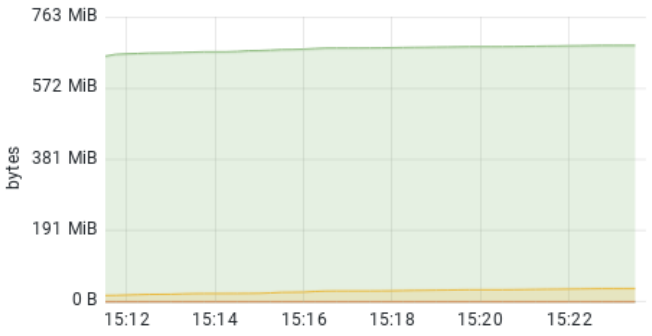


Writeback - Memory which is actively being written back to disk

WritebackTmp - Memory used by FUSE for temporary writeback buffers

Dirty - Memory which is waiting to get written back to the disk 220.

Memory Shared and Mapped



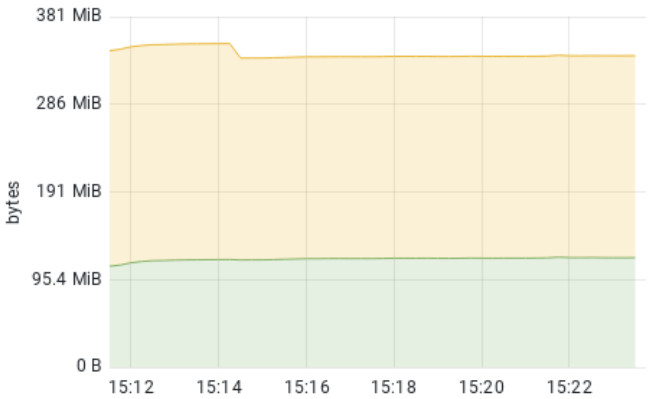
Mapped - Used memory in mapped pages files which have been mmaped, such

Shmem - Used shared memory (shared between several processes, thus includ

ShmemHugePages - Memory used by shared memory (shmem) and tmpfs allc

ShmemPmdMapped - Ammount of shared (shmem/tmpfs) memory backed by

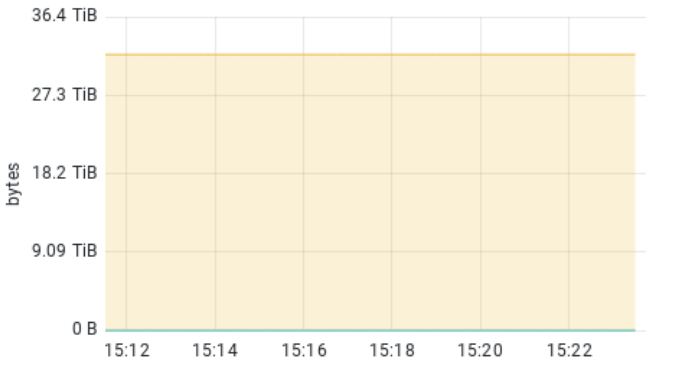
Memory Slab



SUnreclaim - Part of Slab, that cannot be reclaimed on memory pressure 10

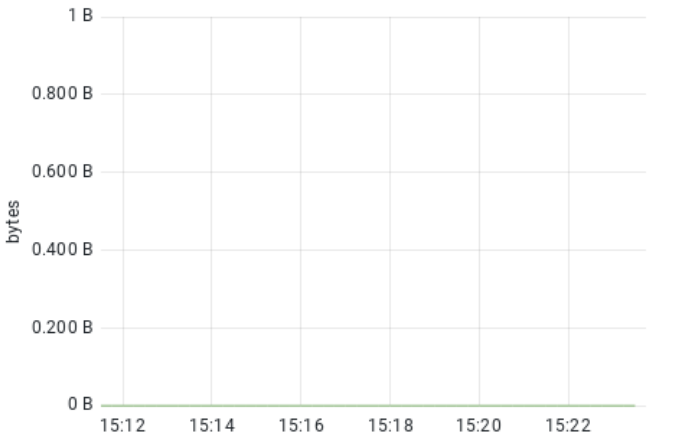
SReclaimable - Part of Slab, that might be reclaimed, such as caches 21

Memory Vmalloc



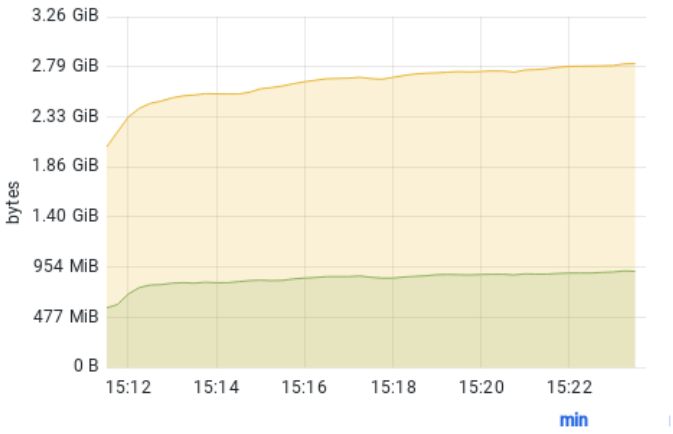
VmallocChunk - Largest contigious block of vmalloc area which is free		0
VmallocTotal - Total size of vmalloc memory area		32.0
VmallocUsed - Amount of vmalloc area which is used		31.3

Memory Bounce



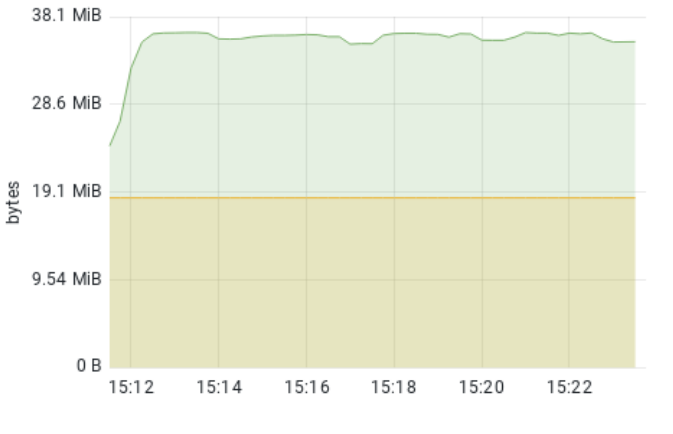
	min	max	a
Bounce - Memory used for block device bounce buffers	0.00 B	0.00 B	0.

Memory Anonymous



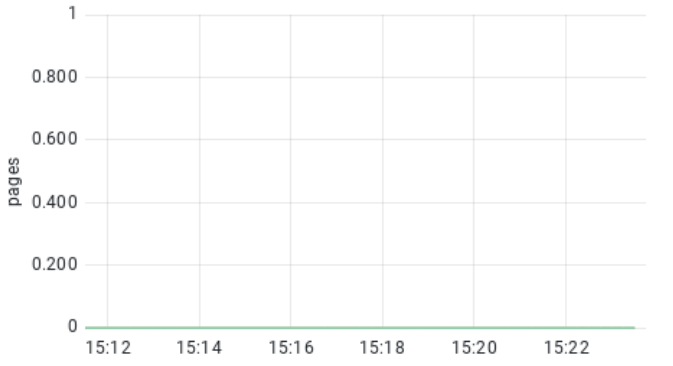
	min	
AnonHugePages - Memory in anonymous huge pages	566.00 MiB	918.0
AnonPages - Memory in user pages not backed by files	2.04 GiB	2.8

Memory Kernel / CPU



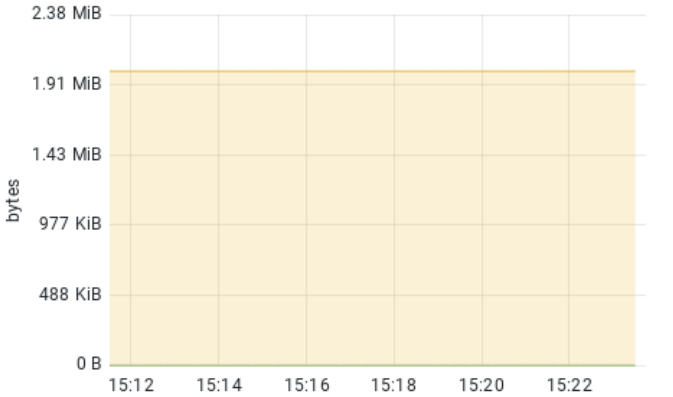
KernelStack - Kernel memory stack. This is not reclaimable		23.9
PerCPU - Per CPU memory allocated dynamically by loadable modules		18.4

Memory HugePages Counter



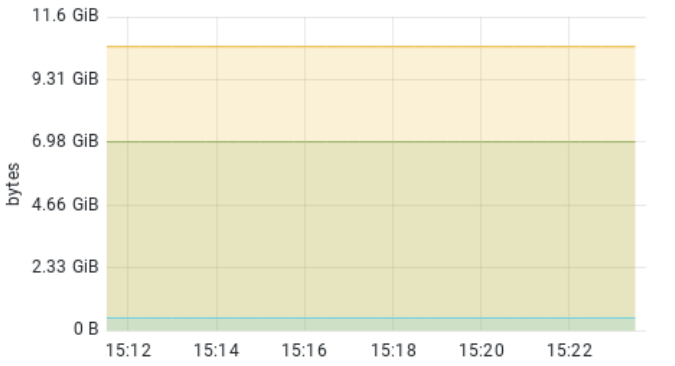
HugePages_Free - Huge pages in the pool that are not yet allocated		
HugePages_Rsvd - Huge pages for which a commitment to allocate from the p		
HugePages_Surp - Huge pages in the pool above the value in /proc/sys/vm/nr		

Memory HugePages Size



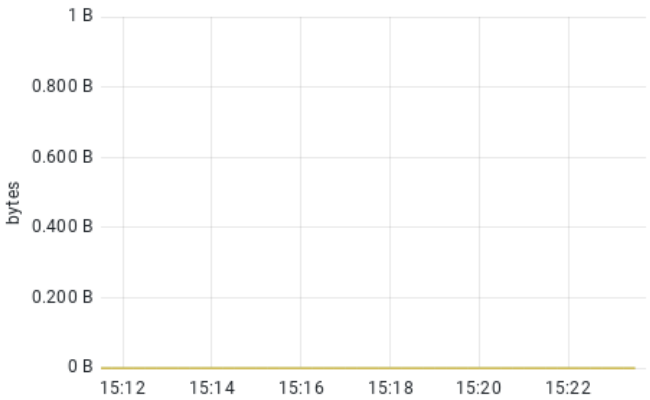
	min	max	cu
HugePages - Total size of the pool of huge pages	0.00 B	0.00 B	
Hugepagesize - Huge Page size	2.00 MiB	2.00 MiB	2.0

Memory DirectMap



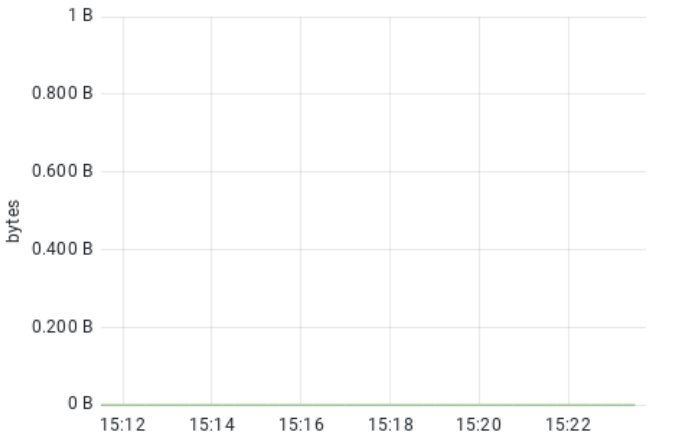
	min	m
DirectMap1G - Amount of pages mapped as this size	7.00 GiB	7.00
DirectMap2M - Amount of pages mapped as this size	10.53 GiB	10.53
DirectMap4K - Amount of pages mapped as this size	476.81 MiB	478.81

Memory Unevictable and MLocked



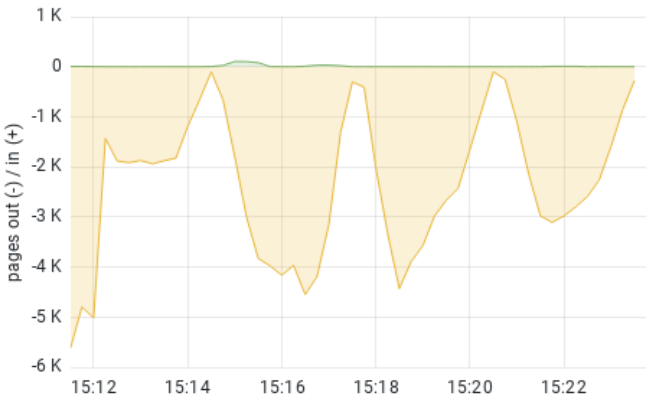
- Unevictable - Amount of unevictable memory that can't be swapped out for a v
- MLocked - Size of pages locked to memory using the mlock() system call

Memory NFS



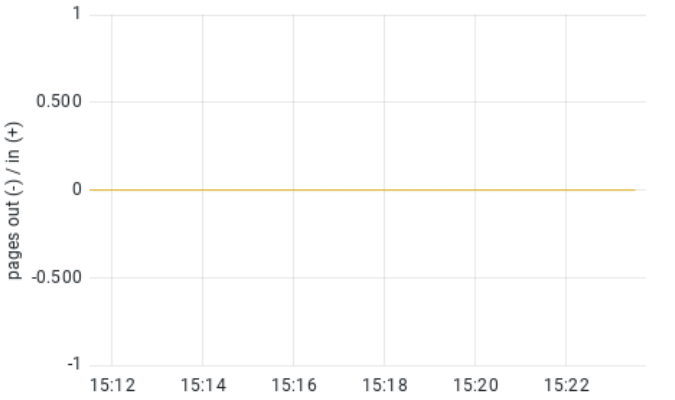
- NFS Unstable - Memory in NFS pages sent to the server, but not yet commited t

Memory Pages In / Out



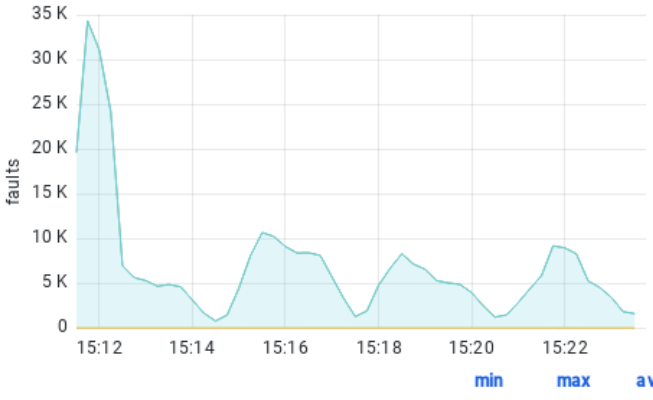
	min	max	avg	current
Pagesin - Page in operations	0	105	9.62	0
Pagesout - Page out operations	101	5.65 K	2.37 K	274

Memory Pages Swap In / Out



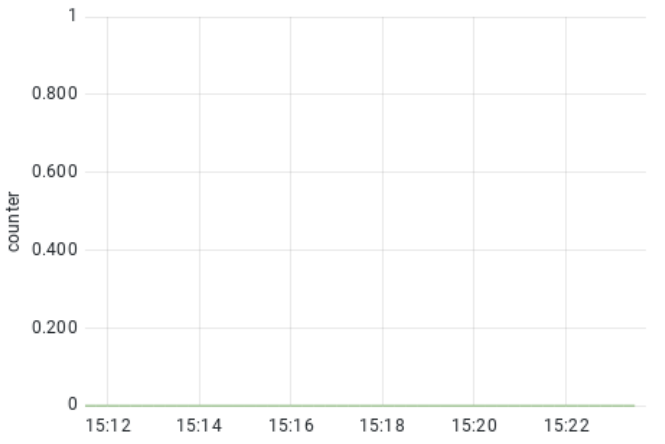
	min	max	avg	current
Pswpin - Pages swapped in	0	0	0	0
Pswpout - Pages swapped out	0	0	0	0

Memory Page Faults



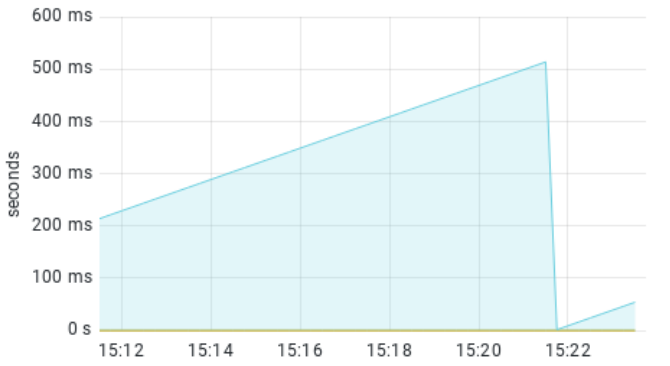
	min	max	avg
Pgfault - Page major and minor fault operations	770.47	34.30 K	6.95 K
Pgmajfault - Major page fault operations	0.00	1.31	0.1
Pgminfault - Minor page fault operations	770.29	34.30 K	6.95 K

OOM Killer



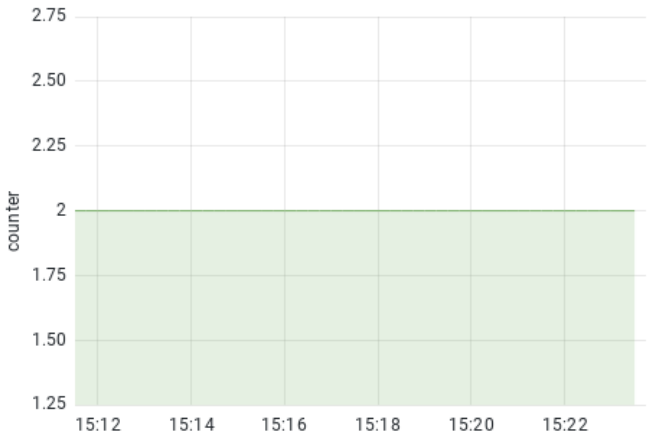
	min	max	avg	current
oom killer invocations	0.00	0.00	0.00	0.00

Time Syncronized Drift



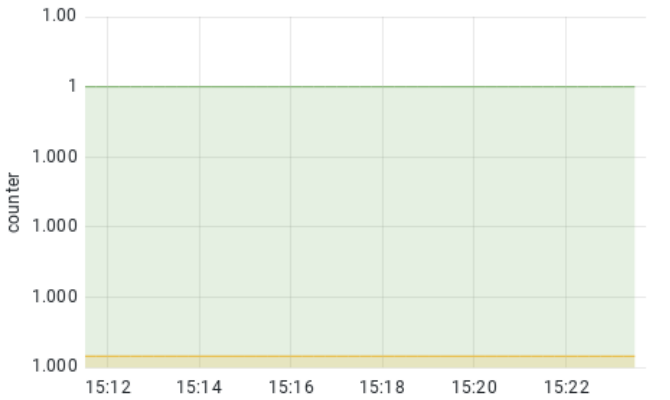
	min	max
Estimated error in seconds	6 µs	7 µs
Time offset in between local system and reference clock	0 s	0 s
Maximum error in seconds	1.66 ms	514 ms

Time PLL Adjust



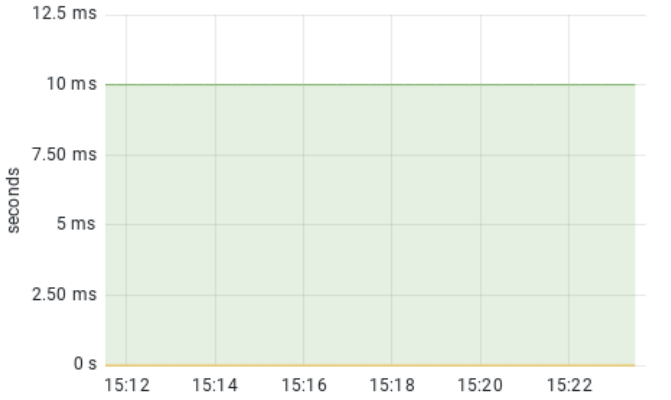
	min	max	avg	current
Phase-locked loop time adjust	2	2	2	2

Time Syncronized Status



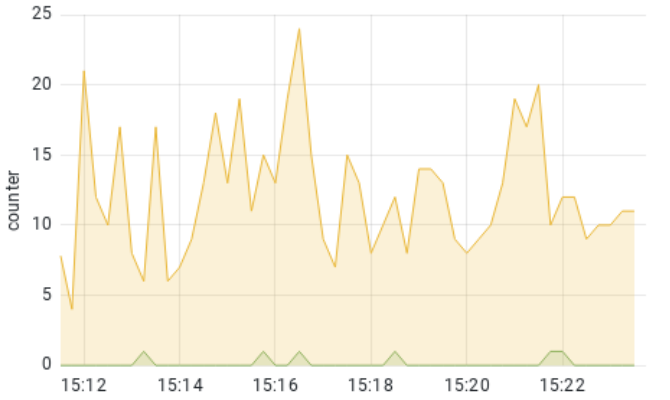
	min	max
Is clock synchronized to a reliable server (1 = yes, 0 = no)	1	1
Local clock frequency adjustment	1.000	1.000

Time Misc



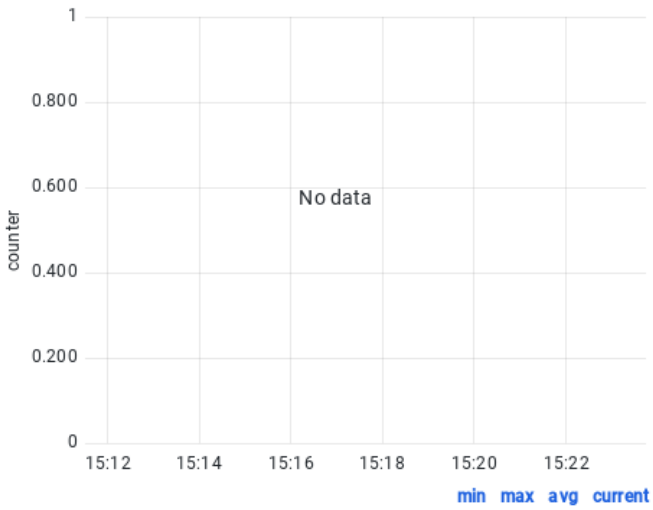
	min	max	avg	cur
Seconds between clock ticks	10.0 ms	10.0 ms	10.0 ms	10.
International Atomic Time (TAI) offset	0 s	0 s	0 s	

Processes Status

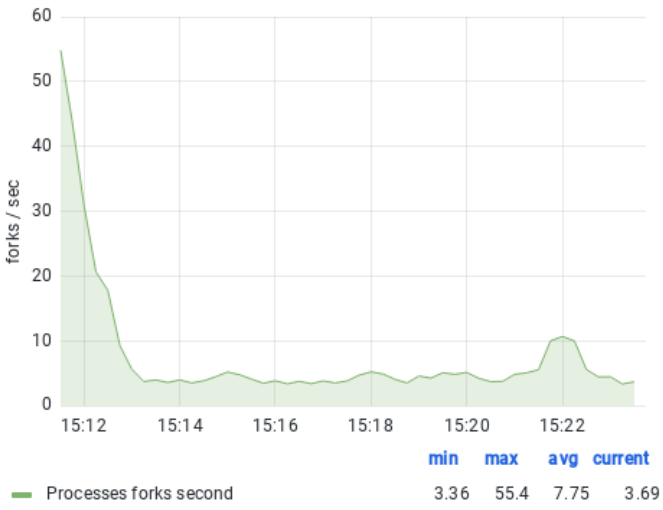


	min	max	avg	current
Processes blocked waiting for I/O to complete	0	1	0.122	0
Processes in runnable state	4	24	12.2	11

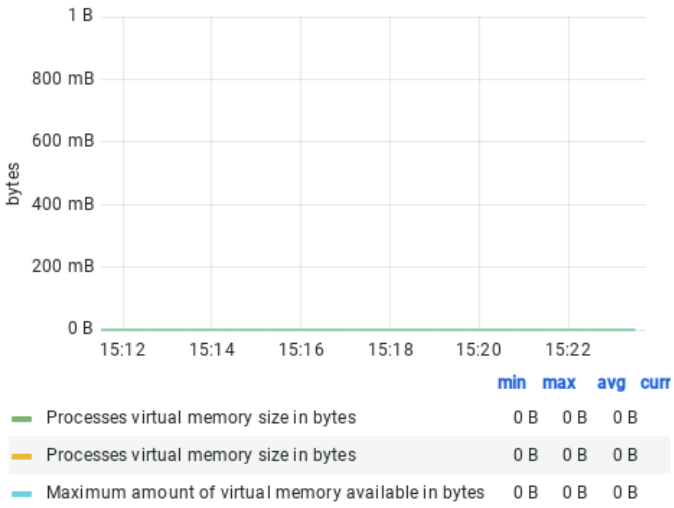
Processes State



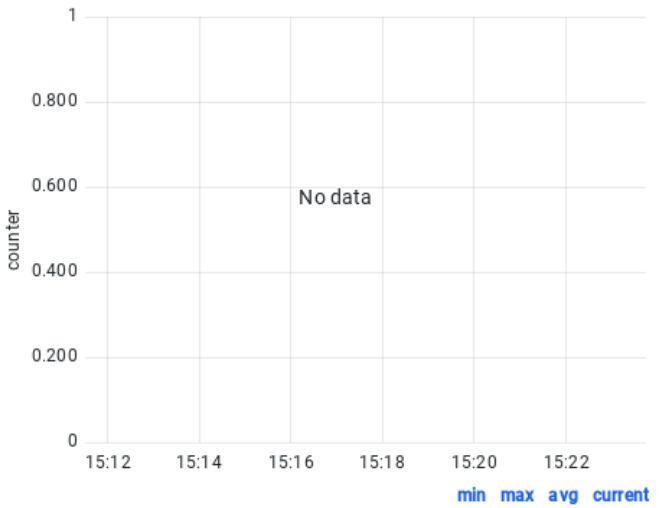
Processes Forks



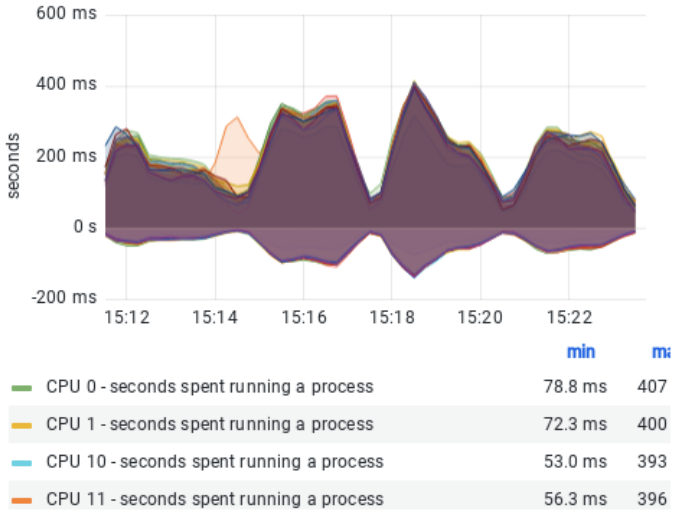
Processes Memory



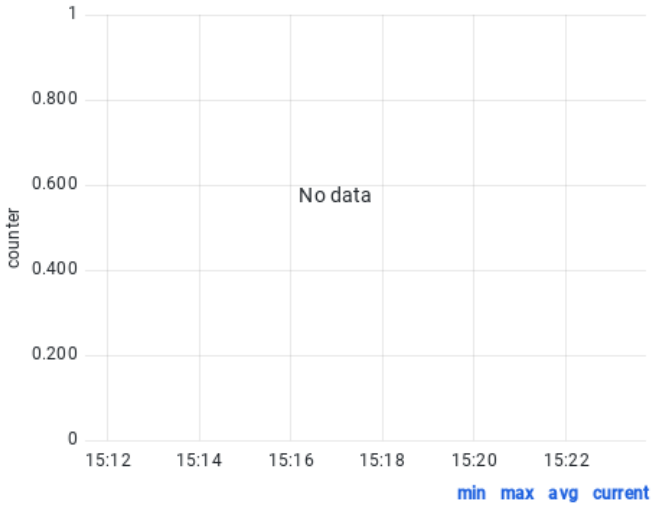
PIDs Number and Limit



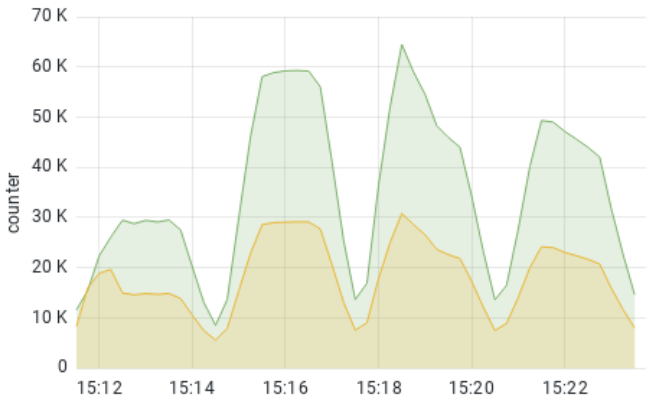
Process schedule stats Running / Waiting



Threads Number and Limit

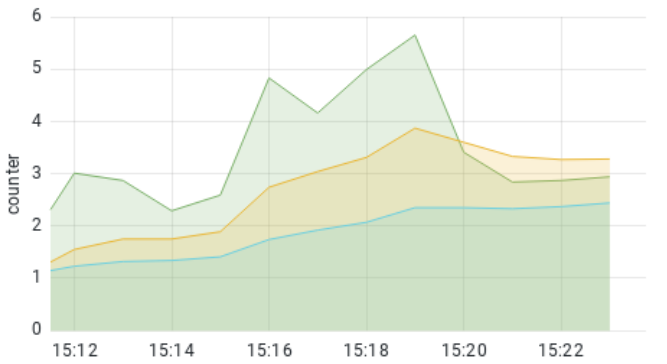


Context Switches / Interrupts



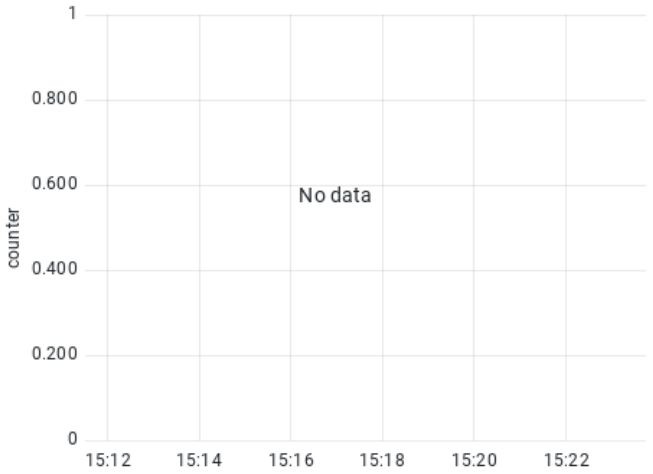
	min	max	avg	current
Context switches	8.53 K	64.5 K	35.4 K	14.6 K
Interrupts	5.60 K	30.8 K	18.2 K	8.03 K

System Load



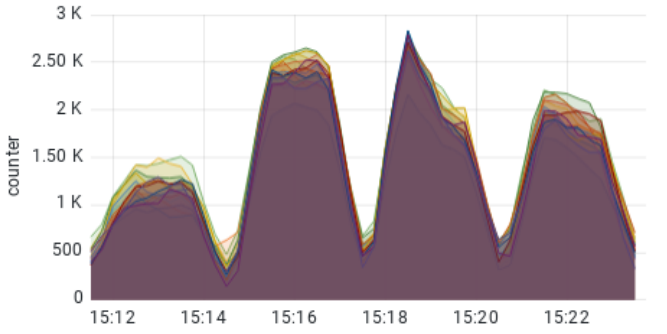
	min	max	avg	current
Load 1m	1.58	5.65	3.39	2.94
Load 5m	1.06	3.87	2.65	3.28
Load 15m	1.06	2.44	1.84	2.44

Interrupts Detail



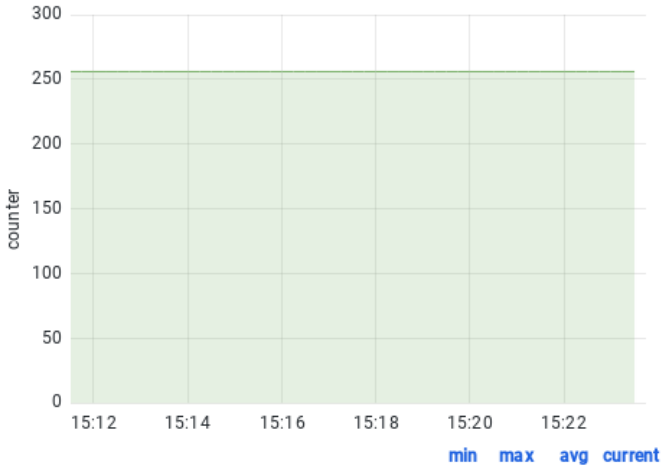
min max avg current

Schedule timeslices executed by each cpu



	min	max	avg	current
CPU 0	480	2.68 K	1.58 K	642
CPU 1	400	2.73 K	1.52 K	661
CPU 10	235	2.83 K	1.40 K	585
CPU 11	372	2.68 K	1.38 K	516

Entropy

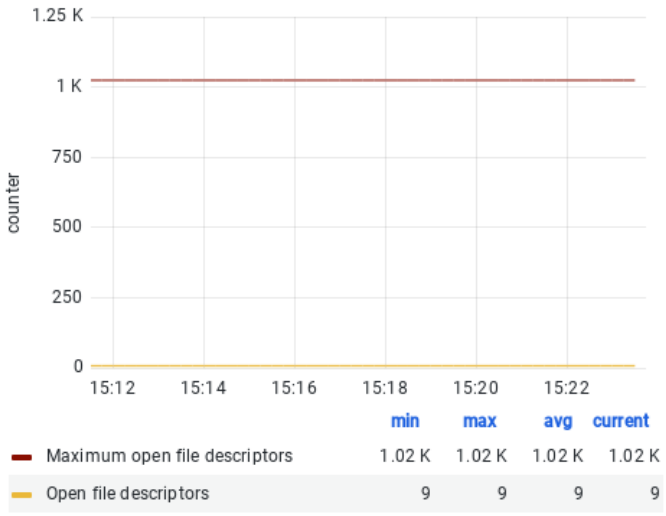


	min	max	avg	current
Entropy available to random number generators	256	256	256	256

CPU time spent in user and system contexts

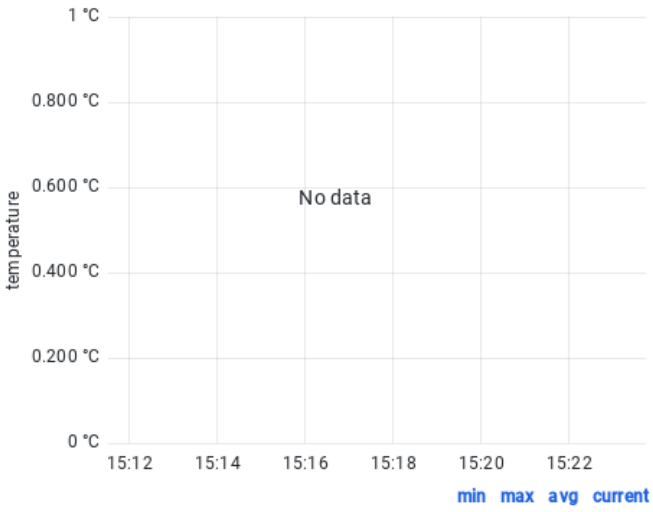
	min	max	avg	current
Time spent	5.33 ms	15.3 ms	8.24 ms	8.44 ms

File Descriptors

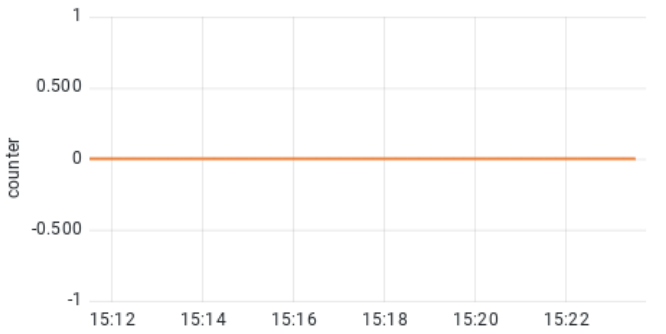


	min	max	avg	current
Maximum open file descriptors	1.02 K	1.02 K	1.02 K	1.02 K
Open file descriptors	9	9	9	9

Hardware temperature monitor

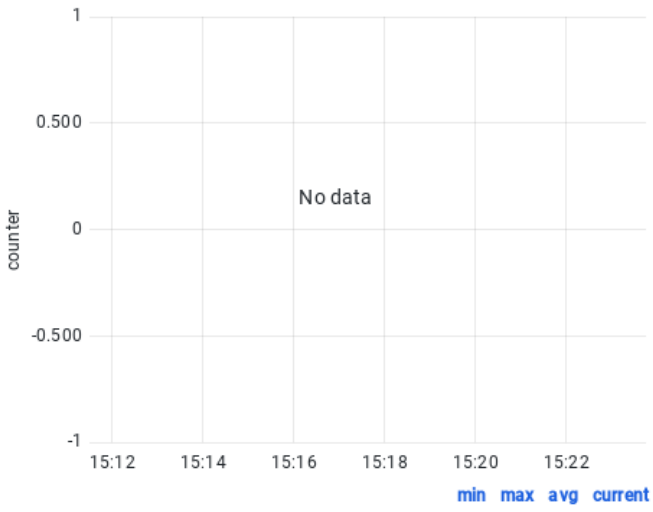


Throttle cooling device

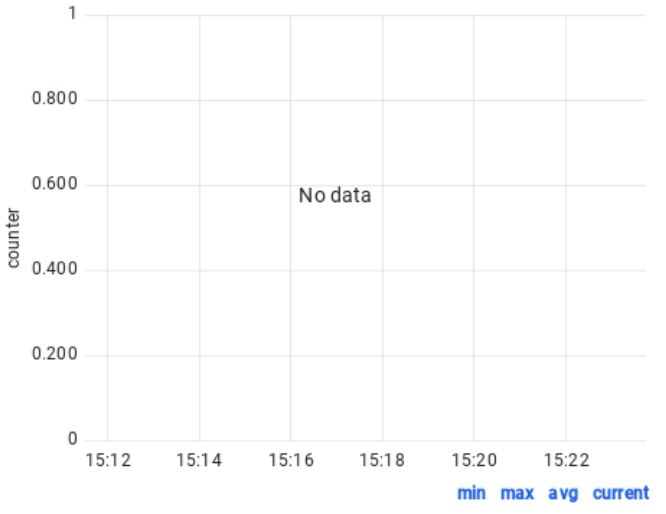


	min	max	avg	current
Current 0 in Processor	0	0	0	0
Current 1 in Processor	0	0	0	0
Current 10 in Processor	0	0	0	0
Current 11 in Processor	0	0	0	0

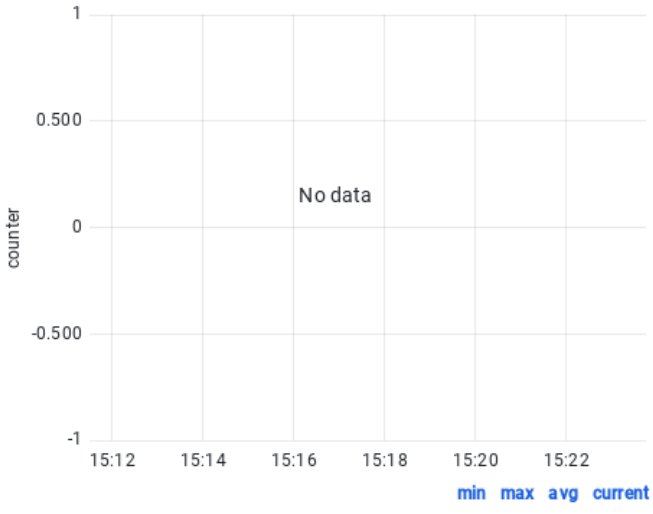
Power supply



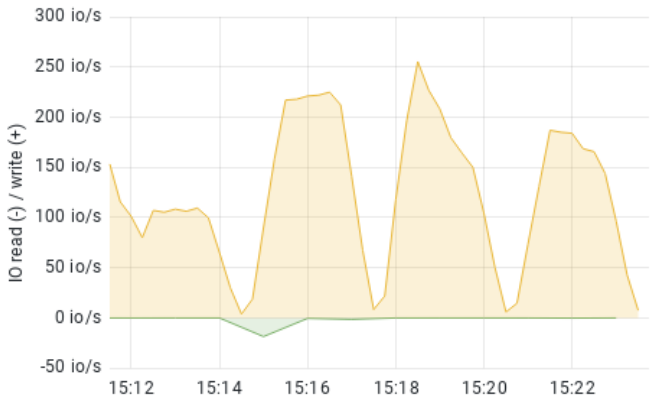
Systemd Sockets



Systemd Units State

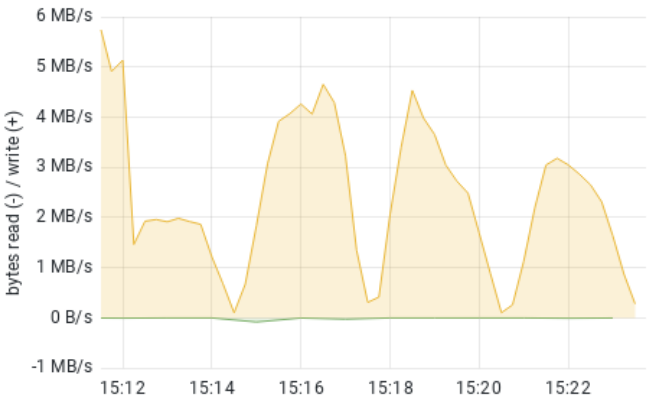


Disk IOps Completed



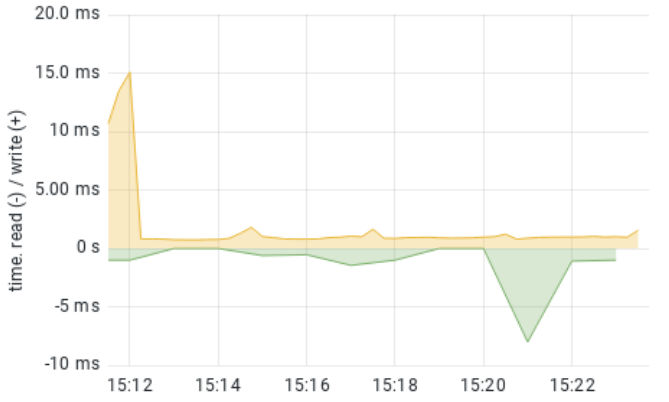
	min	max	avg	current
sda - Reads completed	0 io/s	18.6 io/s	1.60 io/s	0.0167 io/s
sda - Writes completed	3.84 io/s	255 io/s	124 io/s	7.53 io/s

Disk R/W Data



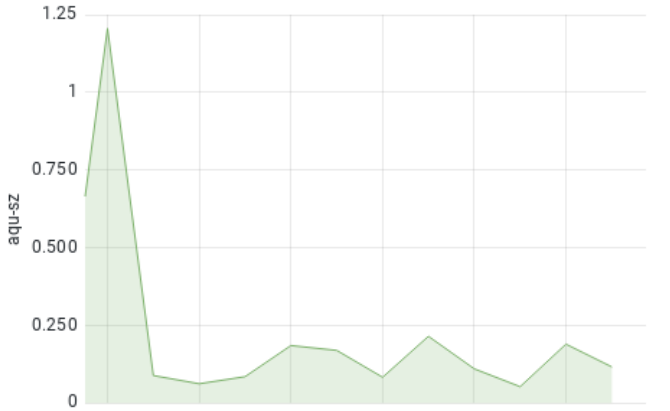
	min	max	avg	current
sda - Read bytes	0 B/s	80.7 kB/s	9.40 kB/s	1.57 kB/s
sda - Written bytes	103 kB/s	5.78 MB/s	2.43 MB/s	281 kB/s

Disk Average Wait Time



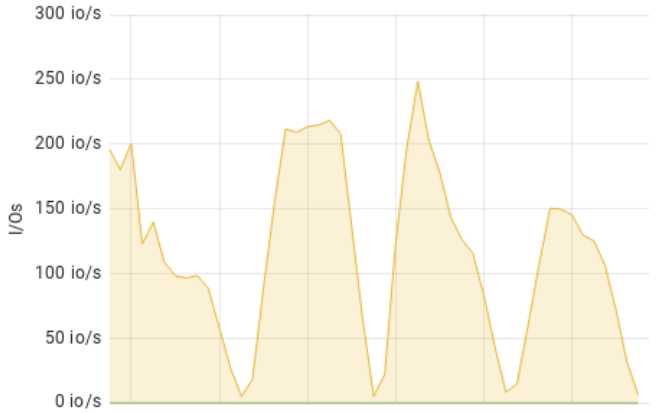
	min	max	avg	current
sda - Write wait time avg	736 µs	15.1 ms	1.70 ms	1.55 ms
sda - Read wait time avg	0 s	8.00 ms	1.21 ms	1000 µs

Average Queue Size



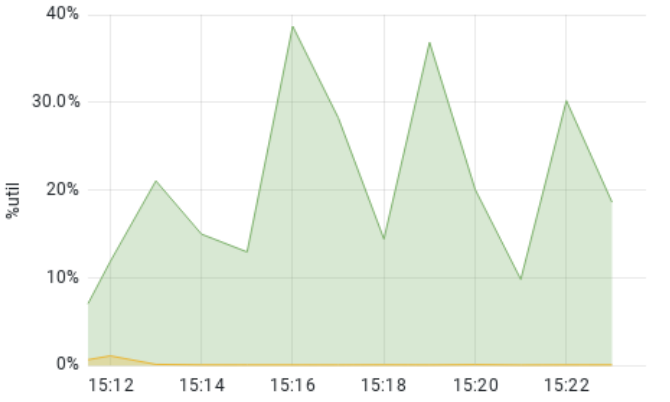
	min	max	avg	current
sda	0.0523	1.21	0.204	0.116

Disk R/W Merged



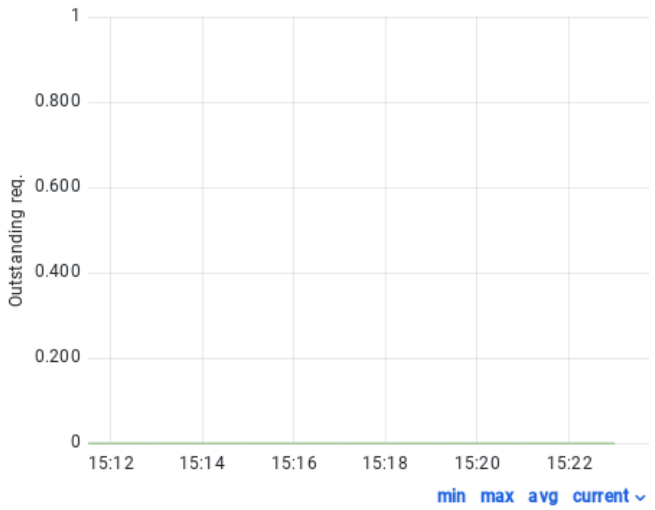
	min	max	avg	current
sda - Write merged	5.04 io/s	249 io/s	117 io/s	6.09 io/s

Time Spent Doing I/Os

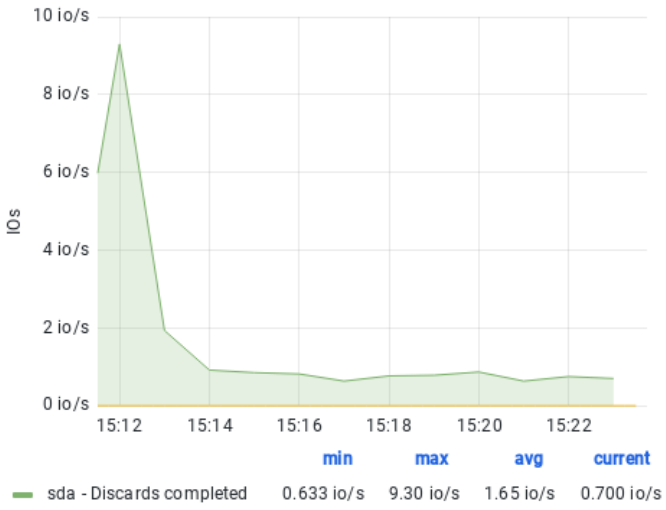


	min	max	avg	current
sda - IO	1.99%	38.7%	20.0%	18.6%
sda - discard	0.0433%	1.08%	0.149%	0.0550%

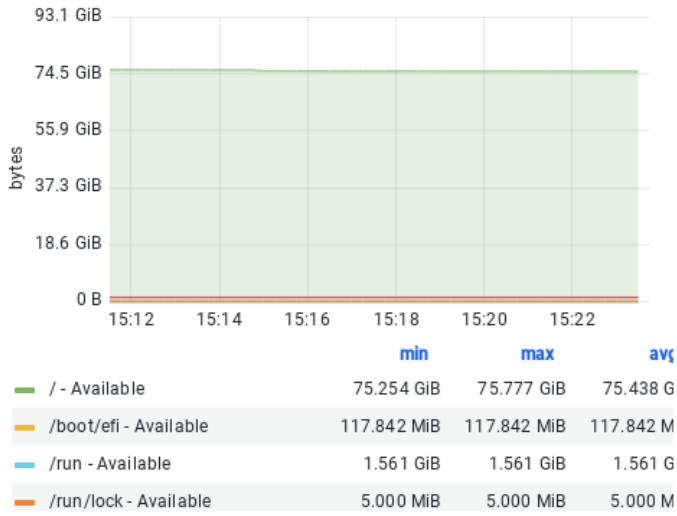
Instantaneous Queue Size



Disk IOps Discards completed / merged

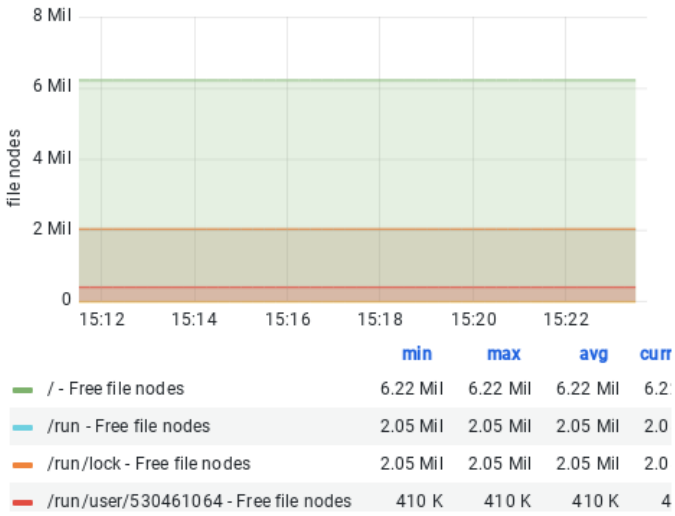


Filesystem space available



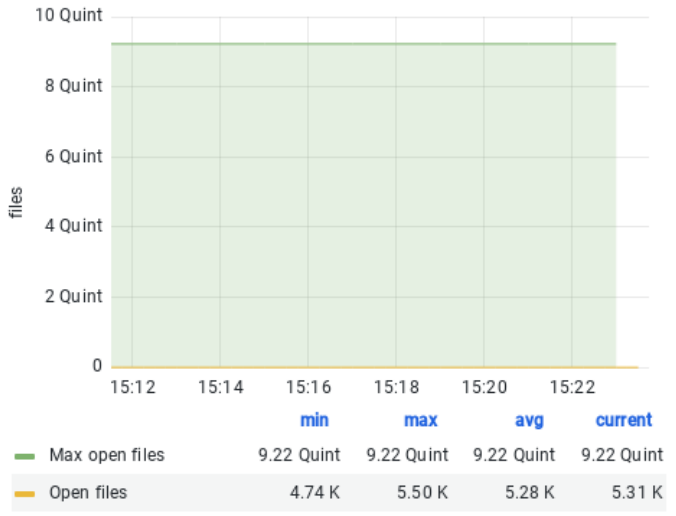
	min	max	avg
/ - Available	75.254 GiB	75.777 GiB	75.438 G
/boot/efi - Available	117.842 MiB	117.842 MiB	117.842 M
/run - Available	1.561 GiB	1.561 GiB	1.561 G
/run/lock - Available	5.000 MiB	5.000 MiB	5.000 M

File Nodes Free



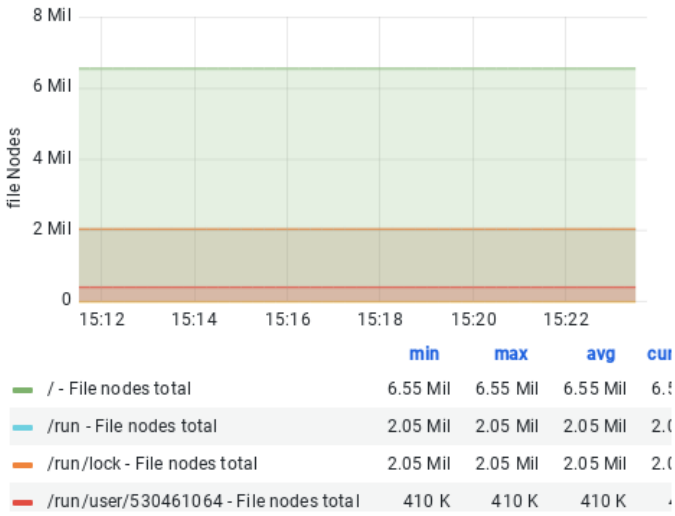
	min	max	avg	curr
/ - Free file nodes	6.22 Mil	6.22 Mil	6.22 Mil	6.2
/run - Free file nodes	2.05 Mil	2.05 Mil	2.05 Mil	2.0
/run/lock - Free file nodes	2.05 Mil	2.05 Mil	2.05 Mil	2.0
/run/user/530461064 - Free file nodes	410 K	410 K	410 K	4

File Descriptor



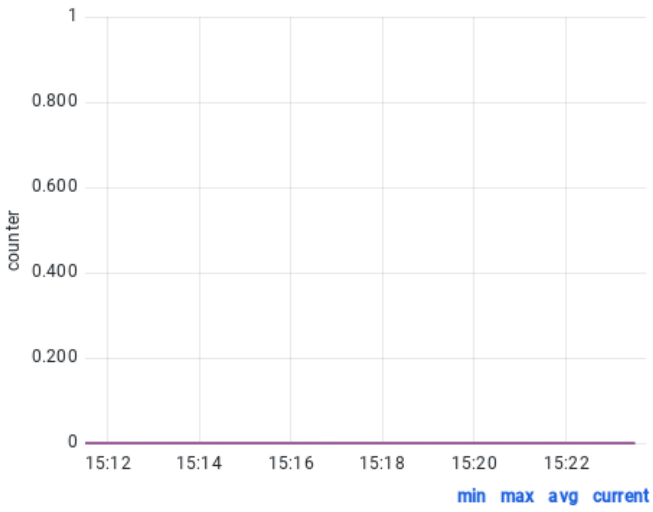
	min	max	avg	current
Max open files	9.22 Quint	9.22 Quint	9.22 Quint	9.22 Quint
Open files	4.74 K	5.50 K	5.28 K	5.31 K

File Nodes Size

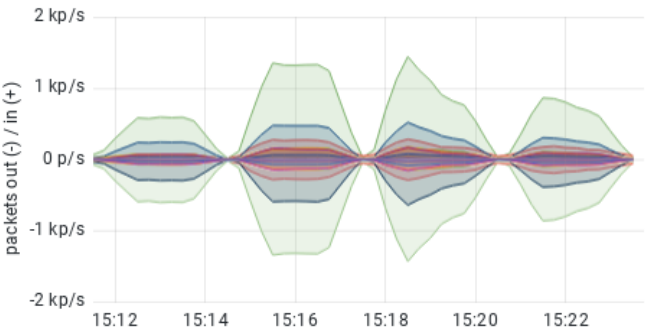


	min	max	avg	cur
/ - File nodes total	6.55 Mil	6.55 Mil	6.55 Mil	6.5
/run - File nodes total	2.05 Mil	2.05 Mil	2.05 Mil	2.0
/run/lock - File nodes total	2.05 Mil	2.05 Mil	2.05 Mil	2.0
/run/user/530461064 - File nodes total	410 K	410 K	410 K	4

Filesystem in ReadOnly / Error

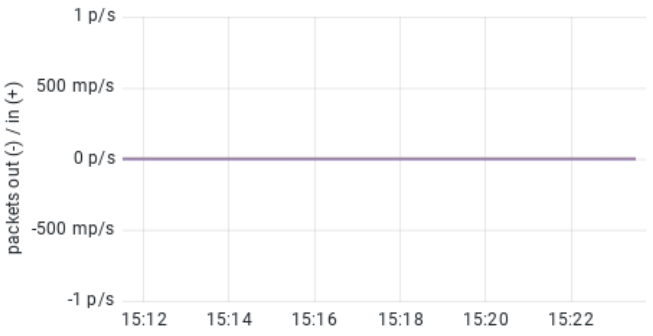


Network Traffic by Packets



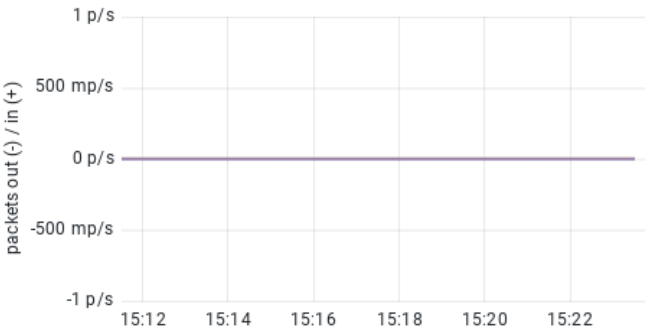
	min	max	avg	curre
br-bbd8d4d7cdae - Receive	16.2 p/s	1.44 kp/s	635 p/s	36.9
br-f7408c3b716d - Receive	1.98 p/s	26.9 p/s	9.49 p/s	2.04
docker0 - Receive	0 p/s	0 p/s	0 p/s	0
ens4 - Receive	4.02 p/s	103 p/s	38.3 p/s	24.7

Network Traffic Errors



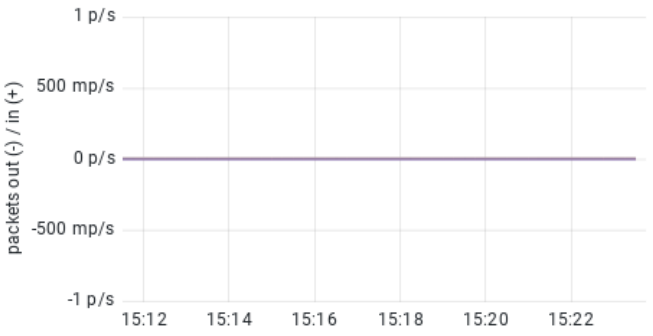
	min	max	avg	current
vethe48ee90 - Rransmit errors	0 p/s	0 p/s	0 p/s	0 p/s
vethd755d78 - Rransmit errors	0 p/s	0 p/s	0 p/s	0 p/s
vethd68b882 - Rransmit errors	0 p/s	0 p/s	0 p/s	0 p/s
vethc878394 - Rransmit errors	0 p/s	0 p/s	0 p/s	0 p/s

Network Traffic Drop



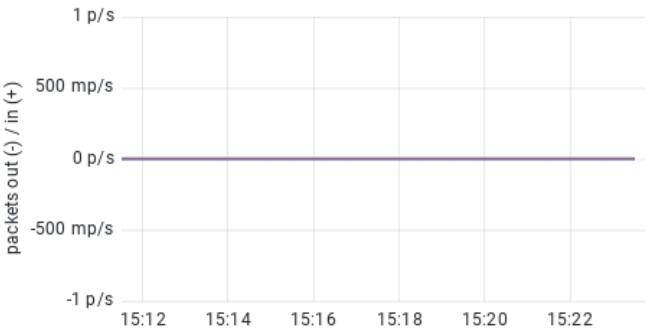
	min	max	avg	current
vethe48ee90 - Transmit drop	0 p/s	0 p/s	0 p/s	0 p/s
vethd755d78 - Transmit drop	0 p/s	0 p/s	0 p/s	0 p/s
vethd68b882 - Transmit drop	0 p/s	0 p/s	0 p/s	0 p/s
vethc878394 - Transmit drop	0 p/s	0 p/s	0 p/s	0 p/s

Network Traffic Compressed



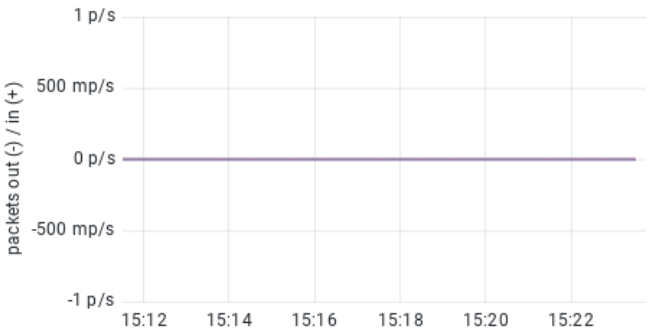
	min	max	avg	current
vethe48ee90 - Transmit compressed	0 p/s	0 p/s	0 p/s	0 p/s
vethd755d78 - Transmit compressed	0 p/s	0 p/s	0 p/s	0 p/s
vethd68b882 - Transmit compressed	0 p/s	0 p/s	0 p/s	0 p/s
vethc878394 - Transmit compressed	0 p/s	0 p/s	0 p/s	0 p/s

Network Traffic Multicast



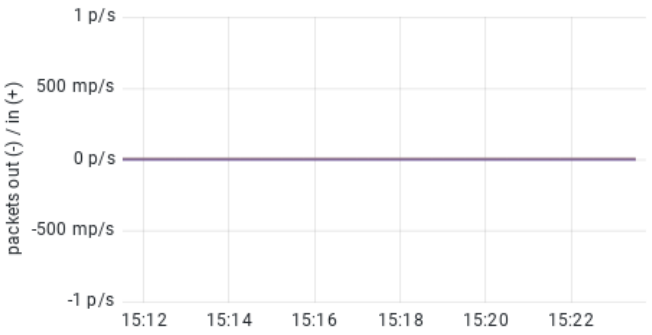
	min	max	avg	current
vethe48ee90 - Receive multicast	0 p/s	0 p/s	0 p/s	0 p/s
vethd755d78 - Receive multicast	0 p/s	0 p/s	0 p/s	0 p/s
vethd68b882 - Receive multicast	0 p/s	0 p/s	0 p/s	0 p/s
vethc878394 - Receive multicast	0 p/s	0 p/s	0 p/s	0 p/s

Network Traffic Fifo



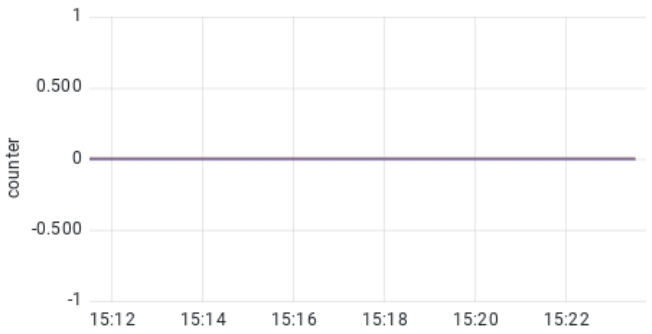
	min	max	avg	current
vethe48ee90 - Transmit fifo	0 p/s	0 p/s	0 p/s	0 p/s
vethd755d78 - Transmit fifo	0 p/s	0 p/s	0 p/s	0 p/s
vethd68b882 - Transmit fifo	0 p/s	0 p/s	0 p/s	0 p/s
vethc878394 - Transmit fifo	0 p/s	0 p/s	0 p/s	0 p/s

Network Traffic Frame



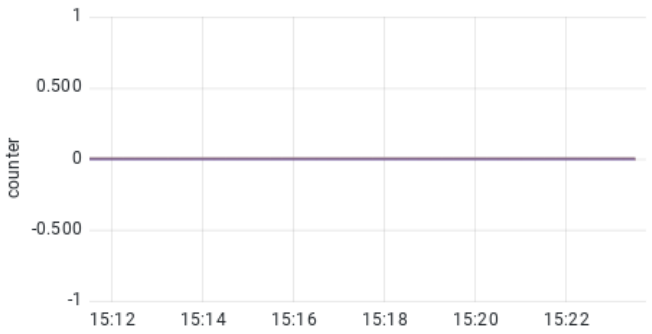
	min	max	avg	current
vethe48ee90 - Receive frame	0 p/s	0 p/s	0 p/s	0 p/s
vethd755d78 - Receive frame	0 p/s	0 p/s	0 p/s	0 p/s
vethd68b882 - Receive frame	0 p/s	0 p/s	0 p/s	0 p/s
vethc878394 - Receive frame	0 p/s	0 p/s	0 p/s	0 p/s

Network Traffic Carrier



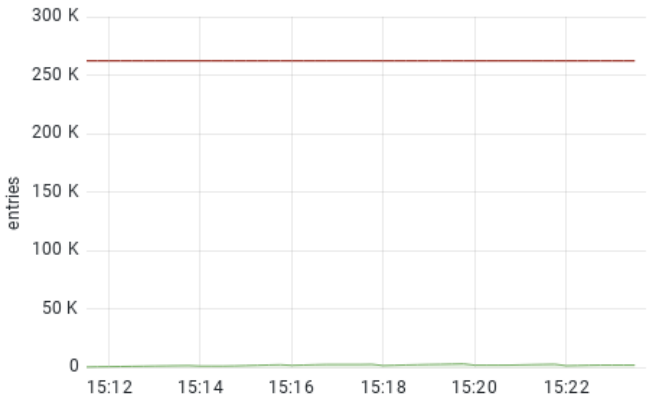
	min	max	avg	current
vethe48ee90 - Statistic transmit_carrier	0	0	0	0
vethd755d78 - Statistic transmit_carrier	0	0	0	0
vethd68b882 - Statistic transmit_carrier	0	0	0	0
vethc878394 - Statistic transmit_carrier	0	0	0	0

Network Traffic Colls



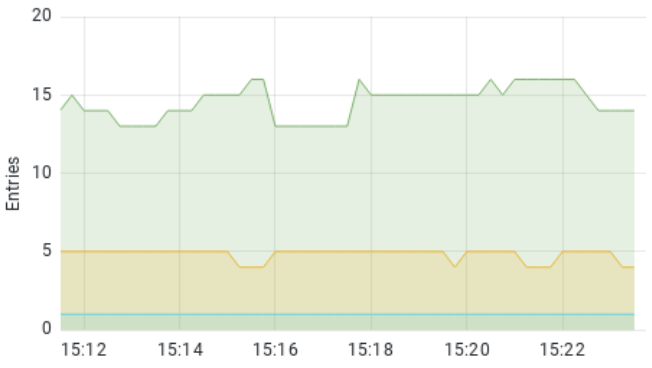
	min	max	avg	current
vethe48ee90 - Transmit colls	0	0	0	0
vethd755d78 - Transmit colls	0	0	0	0
vethd68b882 - Transmit colls	0	0	0	0
vethc878394 - Transmit colls	0	0	0	0

NF Contrack



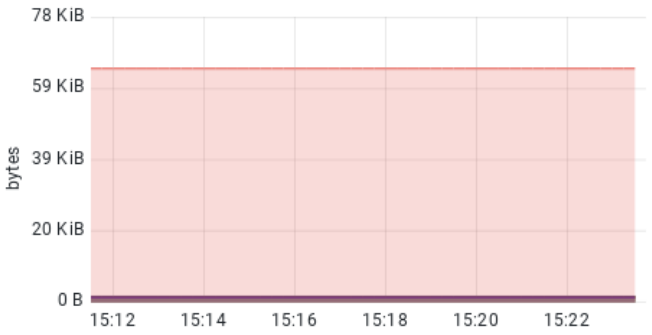
	min	max	avg	current
NF conntrack entries	329	3.07 K	1.85 K	2.02 K
NF conntrack limit	262 K	262 K	262 K	262 K

ARP Entries



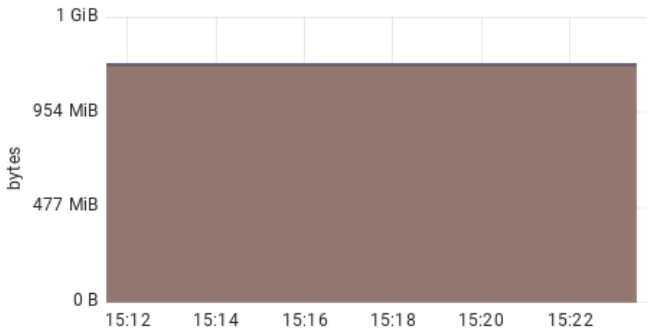
	min	max	avg	current
br-bbd8d4d7cdae - ARP entries	13	16	14.5	14
br-f7408c3b716d - ARP entries	4	5	4.82	4
ens4 - ARP entries	1	1	1	1

MTU



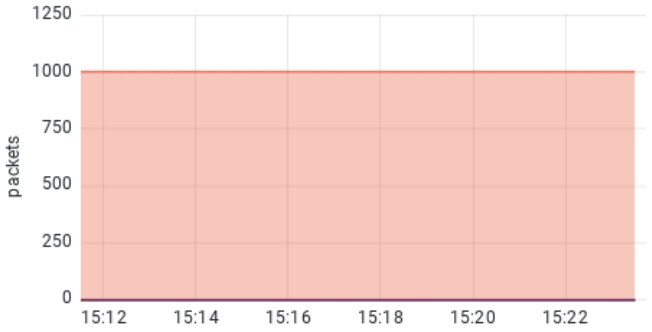
	min	max	avg	current
br-bbd8d4d7cdae - Bytes	1.5 KiB	1.5 KiB	1.5 KiB	1.5 KiB
br-f7408c3b716d - Bytes	1.5 KiB	1.5 KiB	1.5 KiB	1.5 KiB
docker0 - Bytes	1.5 KiB	1.5 KiB	1.5 KiB	1.5 KiB
ens4 - Bytes	1.4 KiB	1.4 KiB	1.4 KiB	1.4 KiB

Speed



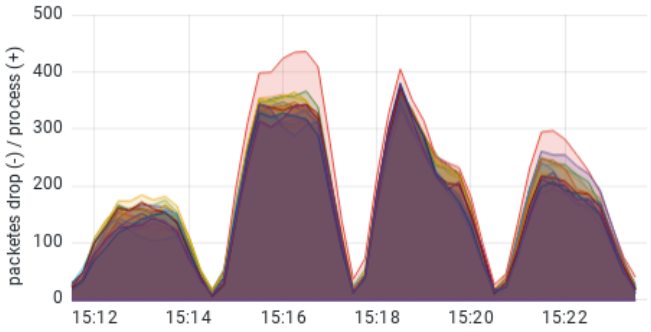
	min	max	avg	current
br-bbd8d4d7cdae - Speed	1.2 GiB	1.2 GiB	1.2 GiB	1.2 GiB
br-f7408c3b716d - Speed	1.2 GiB	1.2 GiB	1.2 GiB	1.2 GiB
docker0 - Speed	-122.1 KiB	-122.1 KiB	-122.1 KiB	-122.1 KiB
ens4 - Speed	-122.1 KiB	-122.1 KiB	-122.1 KiB	-122.1 KiB

Queue Length



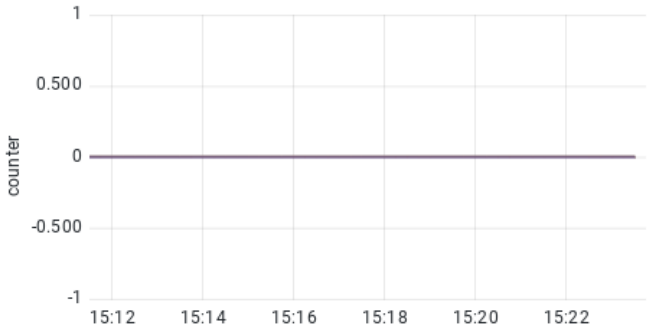
	min	max	av
br-bbd8d4d7cdae - Interface transmit queue length	0.0	0.0	
br-f7408c3b716d - Interface transmit queue length	0.0	0.0	
docker0 - Interface transmit queue length	0.0	0.0	
ens4 - Interface transmit queue length	1000.0	1000.0	100

Softnet Packets



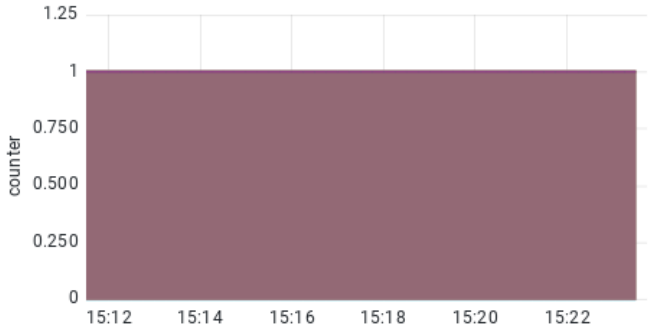
	min	max	avg	current
CPU 12 - Processed	15.8	435	197	40.1
CPU 2 - Processed	11.7	372	176	26.9
CPU 15 - Processed	2.58	347	171	25.0
CPU 0 - Processed	14.0	368	175	22.5

Softnet Out of Quota



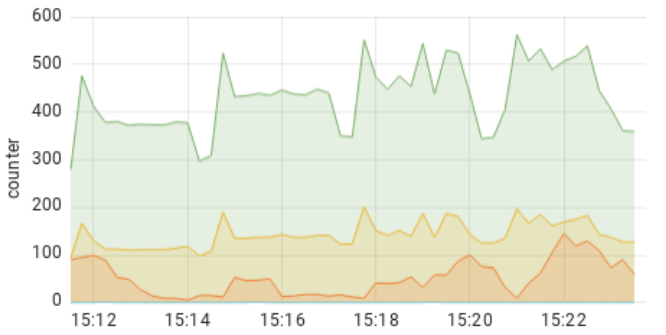
	min	max	avg	current
CPU 9 - Squeezed	0	0	0	0
CPU 8 - Squeezed	0	0	0	0
CPU 7 - Squeezed	0	0	0	0
CPU 6 - Squeezed	0	0	0	0

Network Operational Status



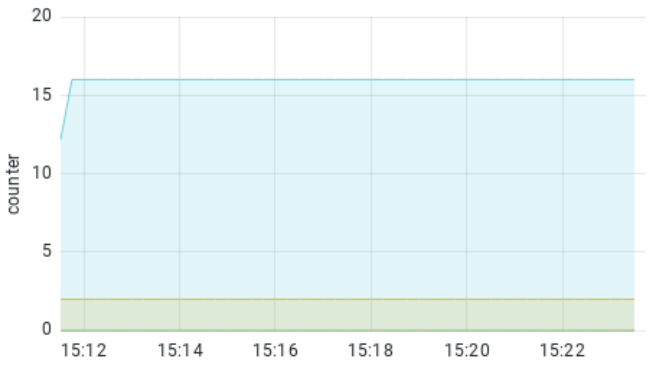
	min	max	avg	current
vethe48ee90 - Physical link state	1	1	1	1
vethd755d78 - Physical link state	1	1	1	1
vethd68b882 - Physical link state	1	1	1	1
vethc878394 - Physical link state	1	1	1	1

Sockstat TCP



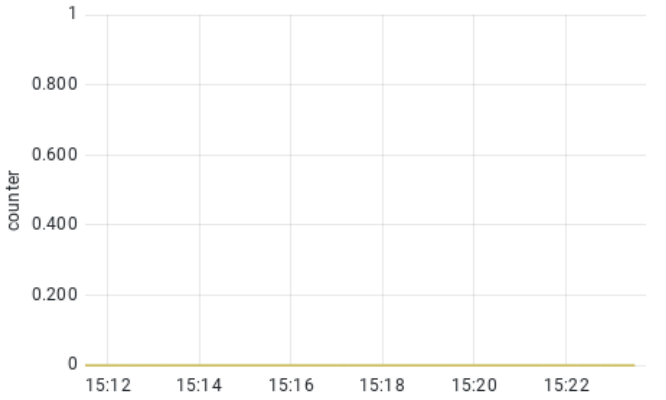
	min	max	avg	current
TCP_alloc - Allocated sockets	269	563	431	359
TCP_inuse - Tcp sockets currently in use	90	201	142	127
TCP_orphan - Orphan sockets	0	1	0.0612	0
TCP_tw - Sockets wating close	5	145	51.5	59

Sockstat UDP



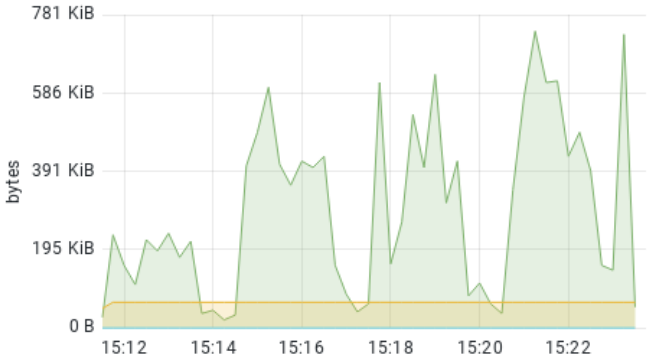
	min	max	avg	current
UDPLITE_inuse - Udplite sockets currently in use	0	0	0	0
UDP_inuse - Udp sockets currently in use	2	2	2	2
UDP_mem - Used memory for udp	12	16	15.9	16

Sockstat FRAG / RAW



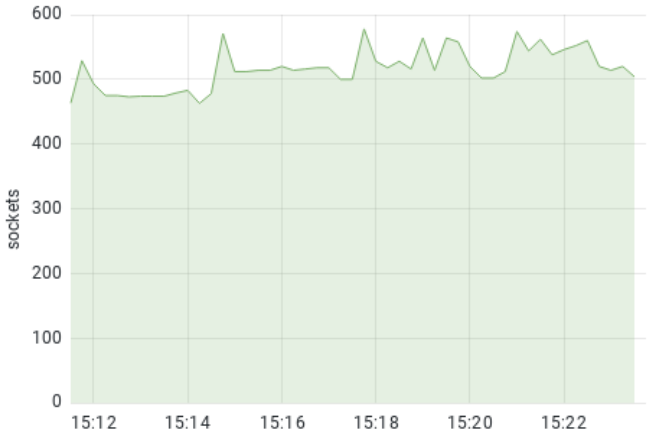
	min	max	avg	current
FRAG_inuse - Frag sockets currently in use	0	0	0	0
RAW_inuse - Raw sockets currently in use	0	0	0	0

Sockstat Memory Size



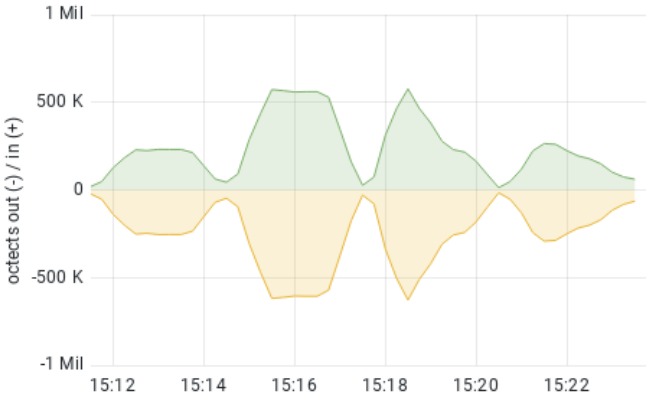
	min	max	avg	current
mem_bytes - TCP sockets in that state	16 KiB	740 KiB	294 KiB	52 K
mem_bytes - UDP sockets in that state	48 KiB	64 KiB	63.7 KiB	64 K
FRAG_memory - Used memory for frag	0 B	0 B	0 B	0

Sockstat Used



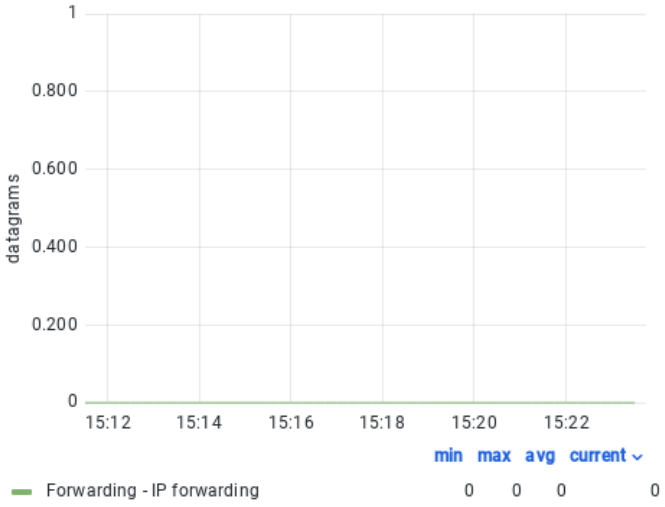
	min	max	avg	current
Sockets_used - Sockets currently in use	460	578	516	504

Netstat IP In / Out Octets

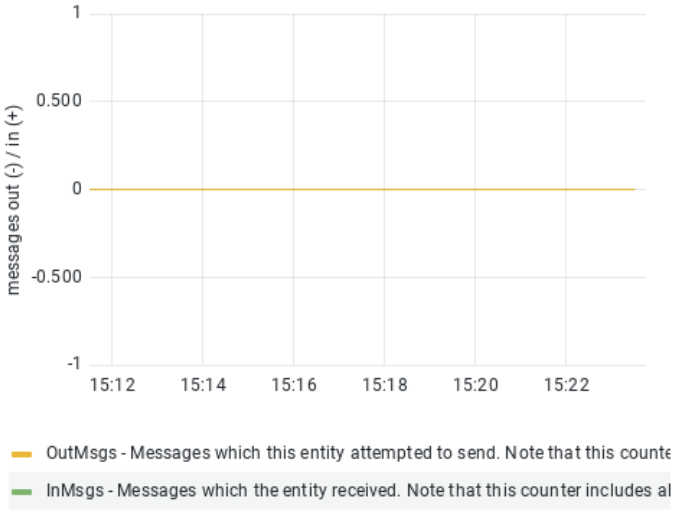


	min	max	avg	current
OutOctets - Sent octets	16.0 K	627 K	264 K	63.7 K
InOctets - Received octets	13.4 K	577 K	242 K	61.6 K

Netstat IP Forwarding

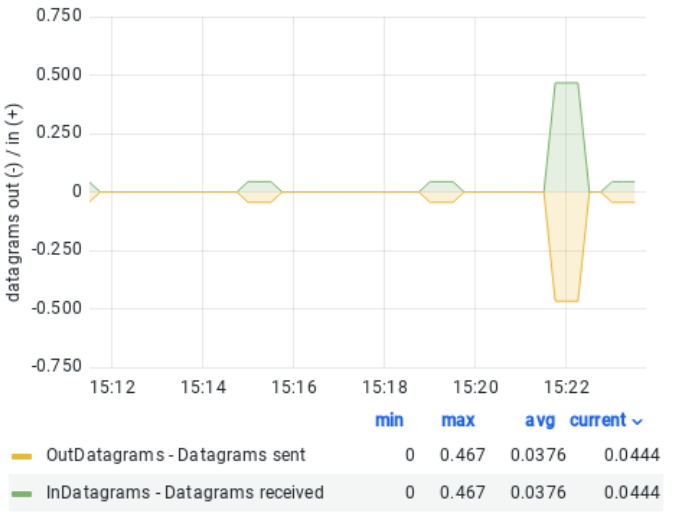


ICMP In / Out

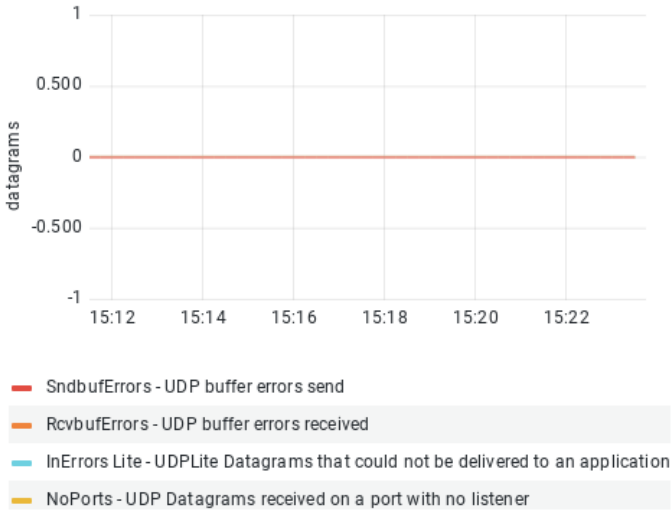


ICMP Errors

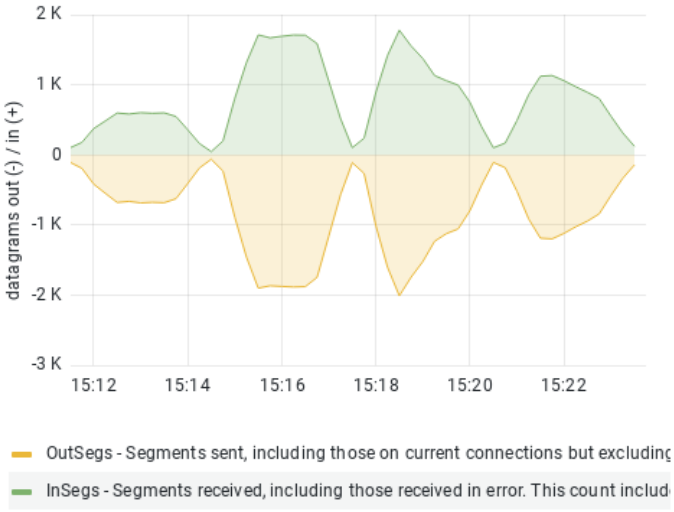
UDP In / Out



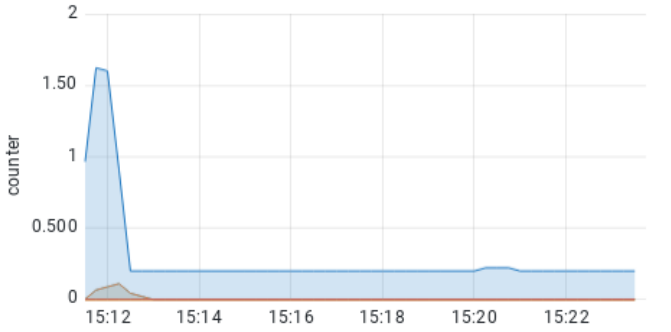
UDP Errors



TCP In / Out

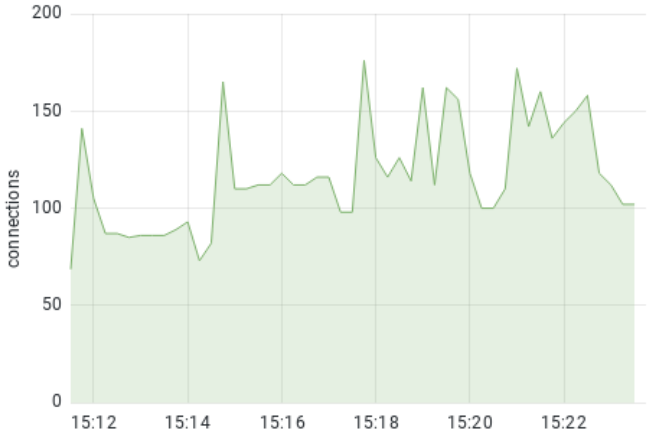


TCP Errors



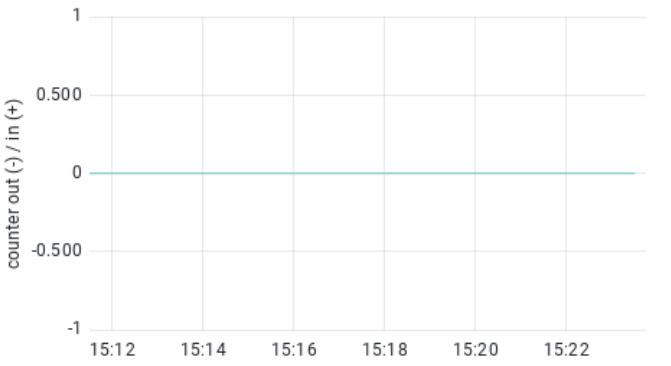
- OutRsts - Segments sent with RST flag
- InErrs - Segments received in error (e.g., bad TCP checksums)
- RetransSegs - Segments retransmitted - that is, the number of TCP segments tr
- TCPSynRetrans - SYN-SYN/ACK retransmits to break down retransmissions in

TCP Connections



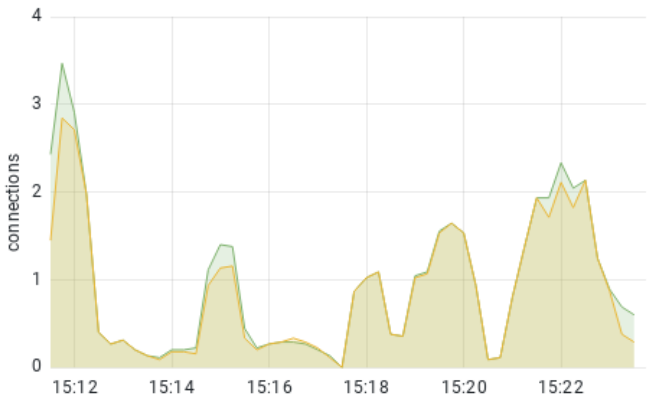
- CurrEstab - TCP connections for which the current state is either ESTABLISHED

TCP SynCookie



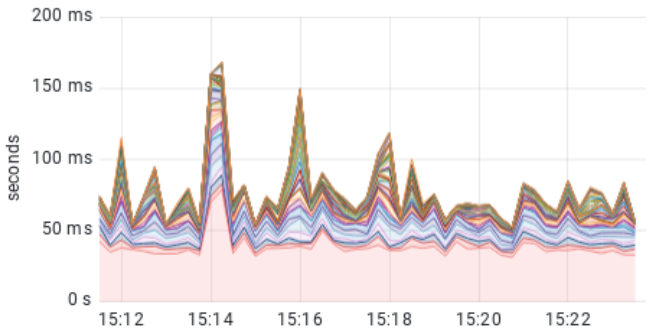
	min	max	avg	current
SyncookiesSent - SYN cookies sent	0	0	0	0
SyncookiesRecv - SYN cookies received	0	0	0	0
SyncookiesFailed - Invalid SYN cookies received	0	0	0	0

TCP Direct Transition



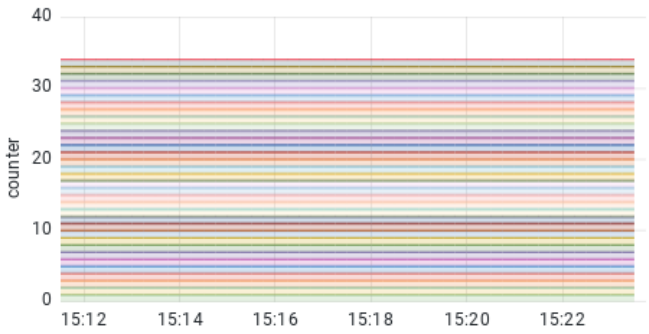
- ActiveOpens - TCP connections that have made a direct transition to the SYN-S
- PassiveOpens - TCP connections that have made a direct transition to the SYN

Node Exporter Scrape Time



	min	max	avg	current
netclass - Scrape duration	31.3 ms	78.7 ms	38.5 ms	33.1
thermal_zone - Scrape duration	1.17 ms	6.03 ms	3.04 ms	4.03
filesystem - Scrape duration	1.12 ms	6.39 ms	3.03 ms	2.93
netstat - Scrape duration	708 µs	6.62 ms	2.76 ms	2.84

Node Exporter Scrape



	min	max	avg	current
arp - Scrape success	1	1	1	1
bcache - Scrape success	1	1	1	1
bonding - Scrape success	0	0	0	0
btrfs - Scrape success	1	1	1	1