

# How not to Fail at Data Visualization



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CPO at Icinga

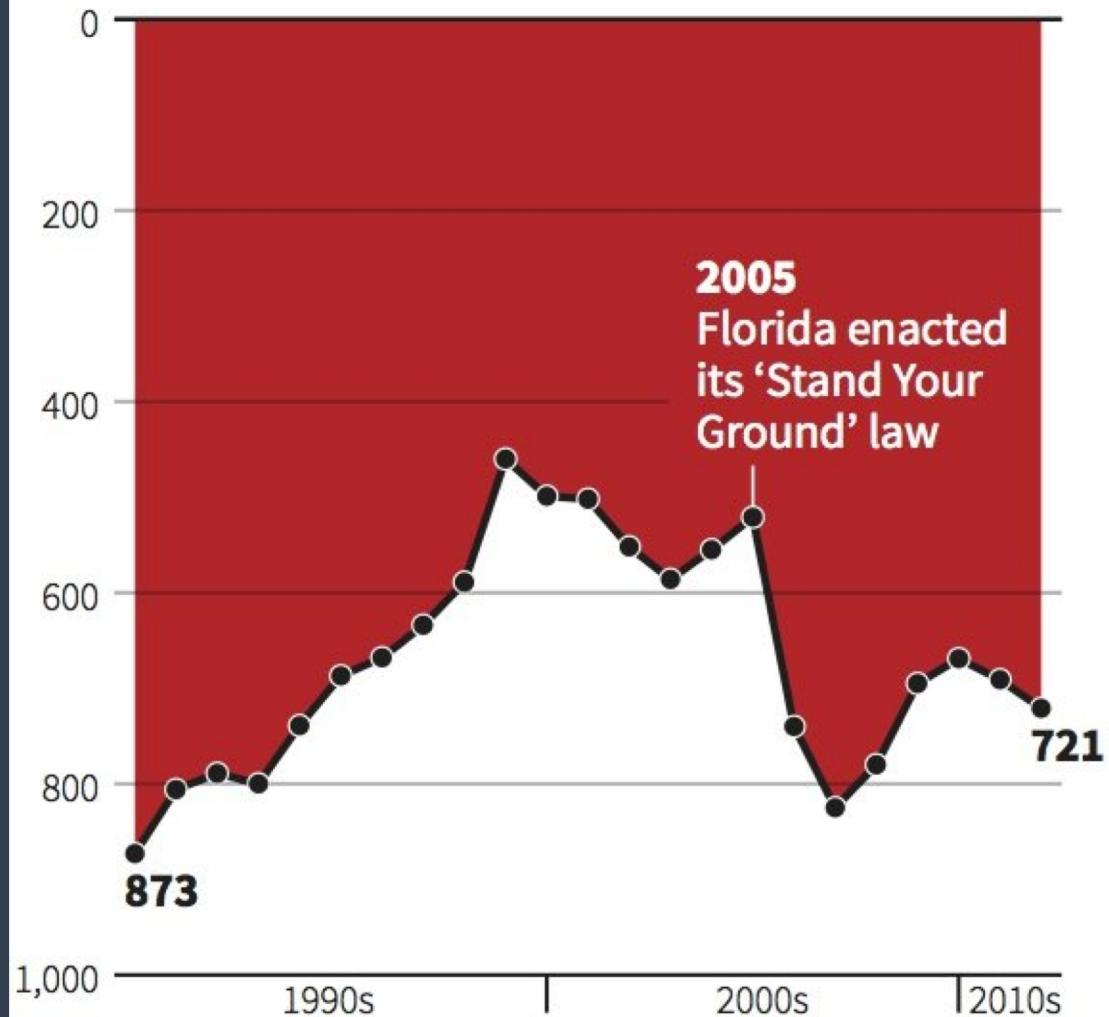
Former  
Systems Engineer

@bobapple

# Misinterpretation

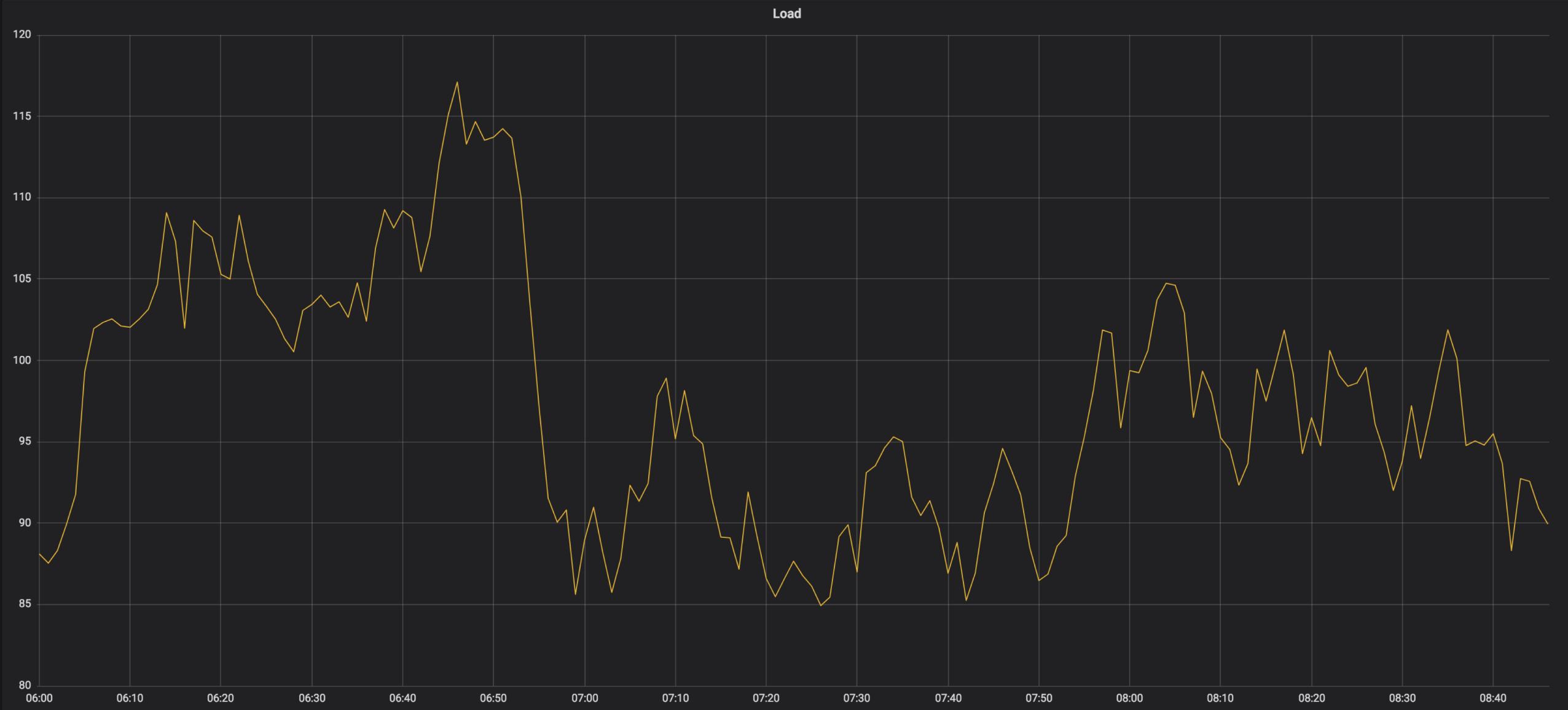
# Gun deaths in Florida

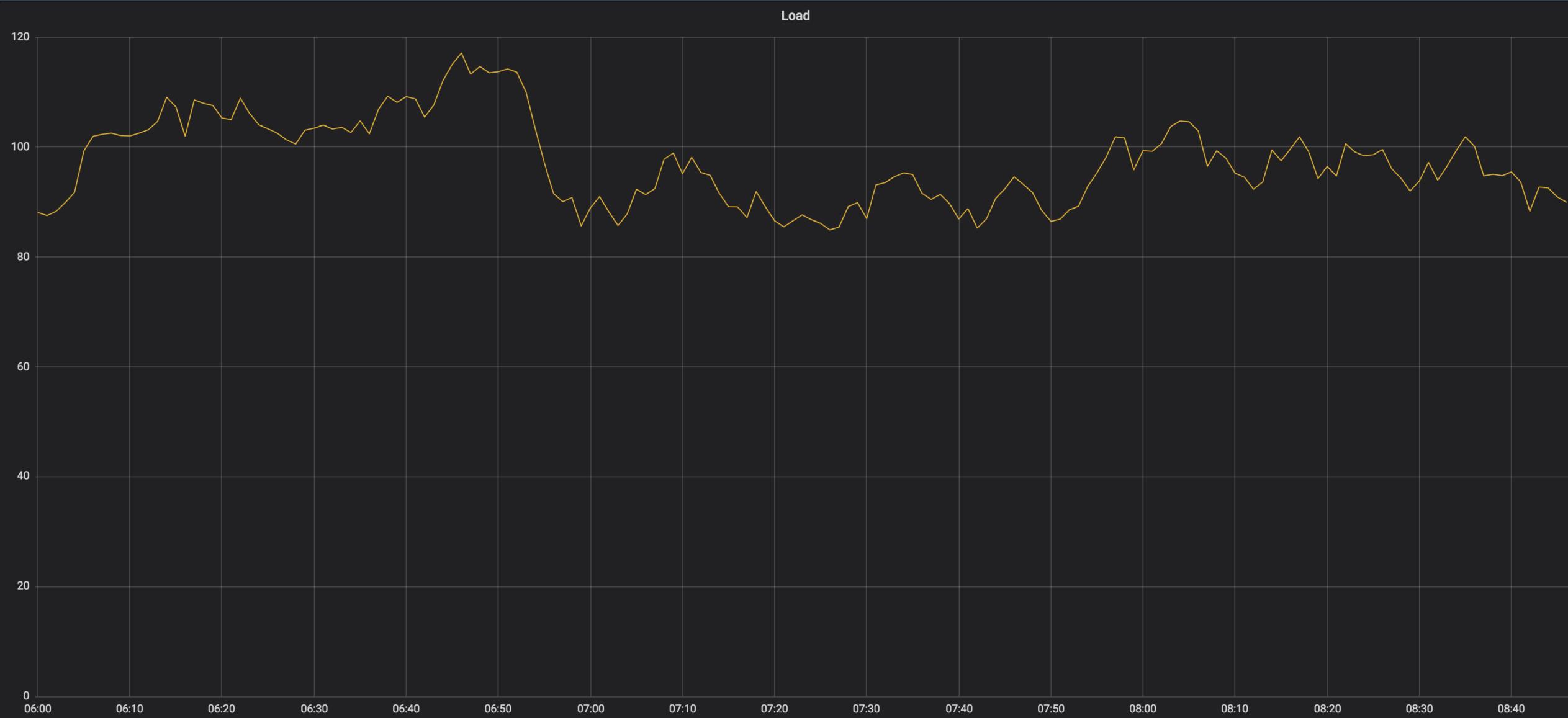
Number of murders committed using firearms



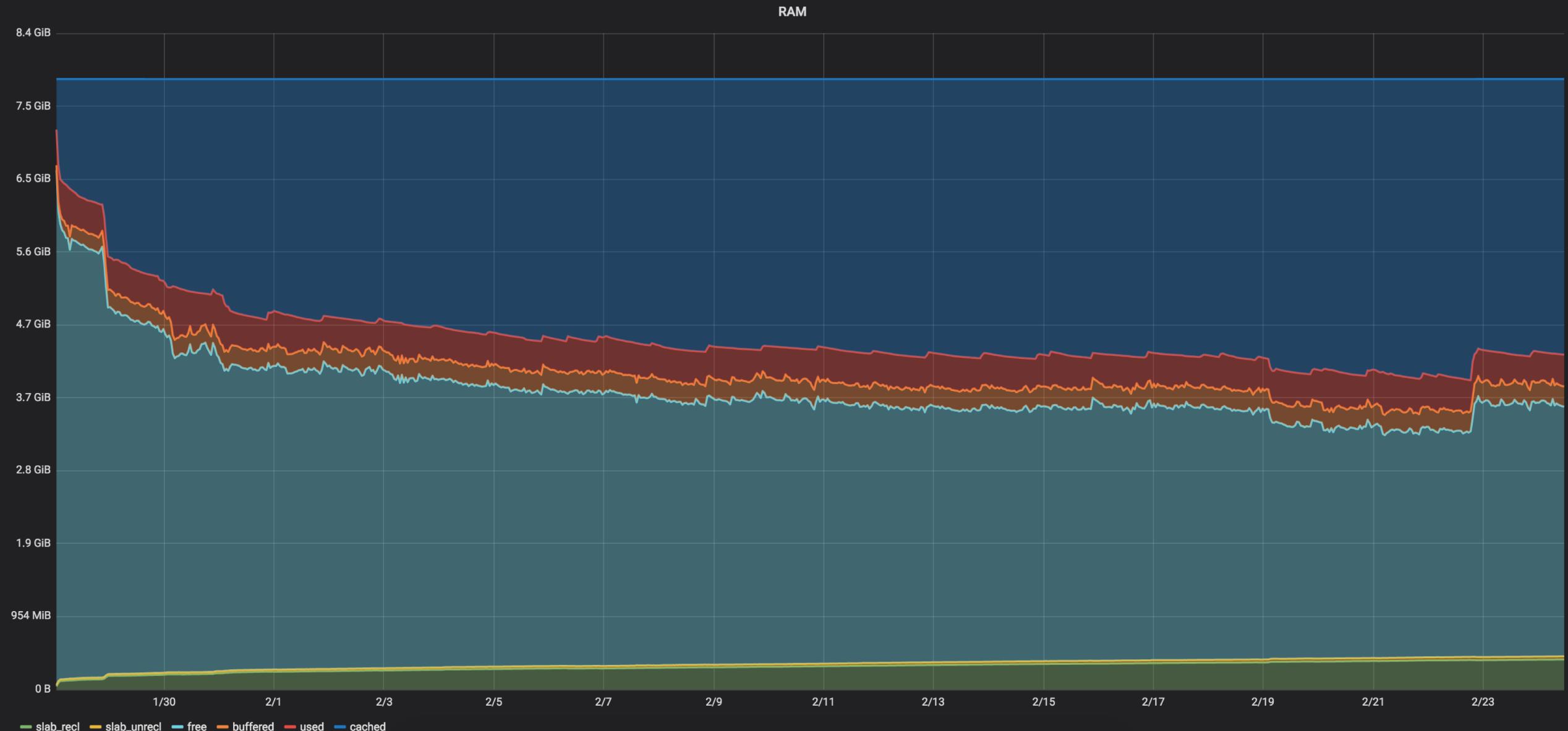
Source: Florida Department of Law Enforcement

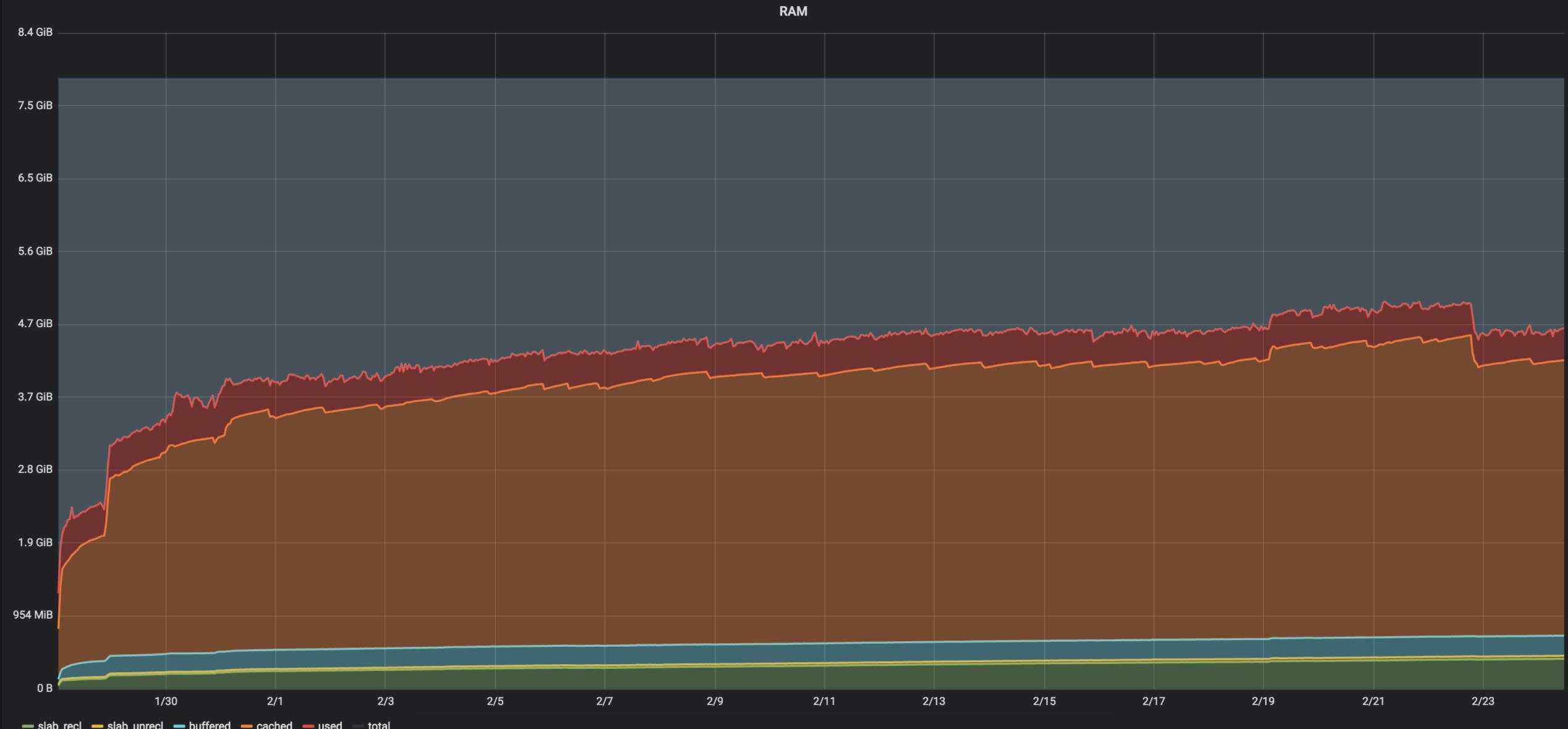
# Follow Conventions



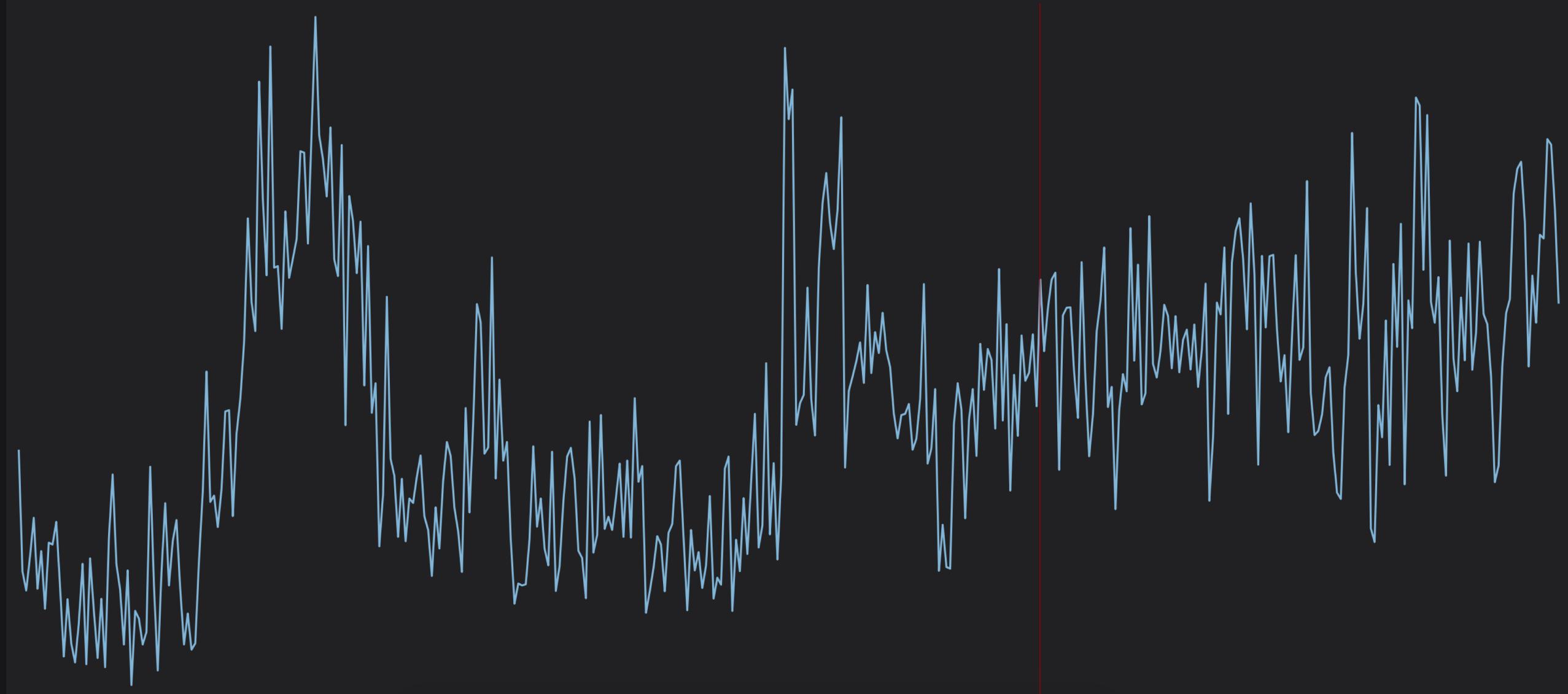


# Comparability



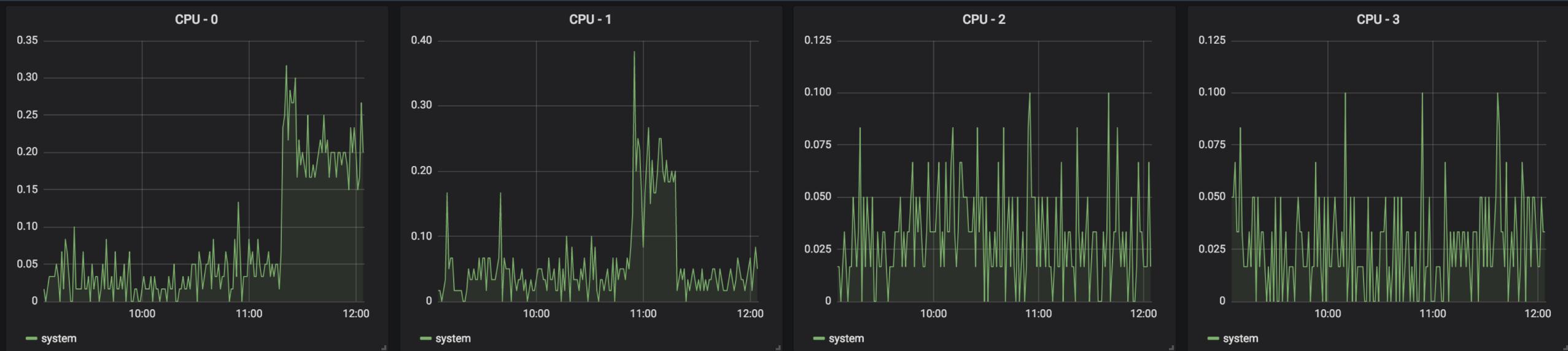


Requests ▾

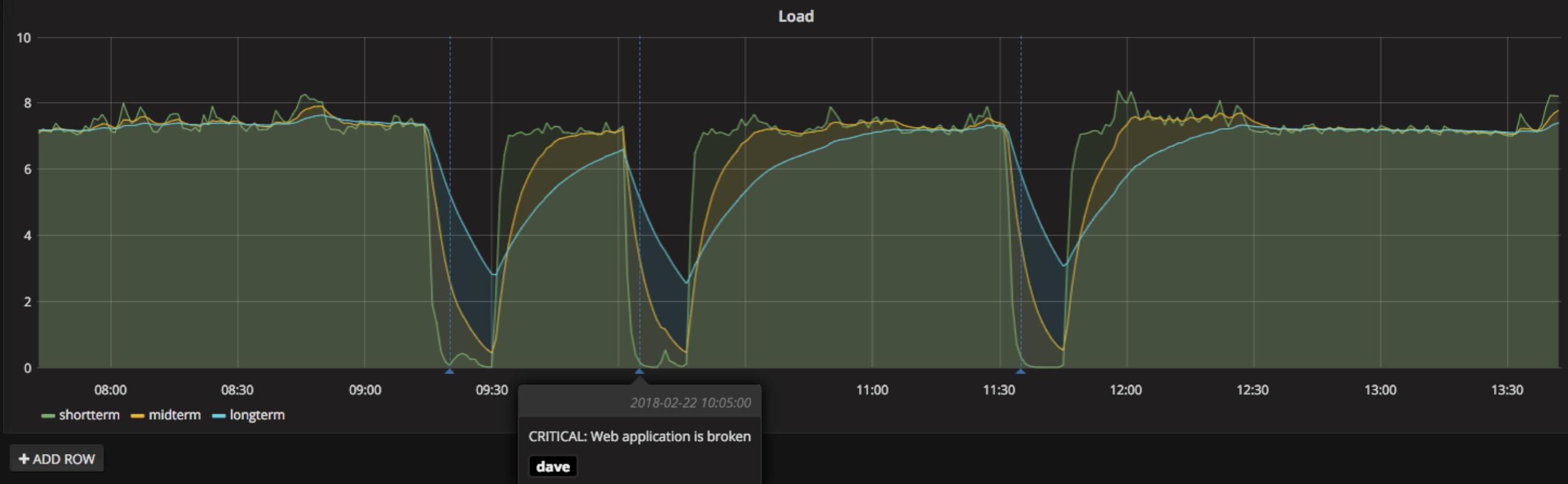








# Readability





```
# HELP node_network_transmit_errs_total Network device statistic
transmit_errs.
# TYPE node_network_transmit_errs_total counter
node_network_transmit_errs_total{device="br-50a36aad40b4"} 0
node_network_transmit_errs_total{device="docker0"} 0
node_network_transmit_errs_total{device="ens3"} 0
node_network_transmit_errs_total{device="lo"} 0
node_network_transmit_errs_total{device="veth2559f58"} 0
node_network_transmit_errs_total{device="veth687035d"} 0
node_network_transmit_errs_total{device="vethdd06cad"} 0
node_network_transmit_errs_total{device="vethdd1f3d5"} 0
# HELP node_network_transmit_fifo_total Network device statistic
transmit_fifo.
# TYPE node_network_transmit_fifo_total counter
node_network_transmit_fifo_total{device="br-50a36aad40b4"} 0
node_network_transmit_fifo_total{device="docker0"} 0
node_network_transmit_fifo_total{device="ens3"} 0
node_network_transmit_fifo_total{device="lo"} 0
node_network_transmit_fifo_total{device="veth2559f58"} 0
node_network_transmit_fifo_total{device="veth687035d"} 0
node_network_transmit_fifo_total{device="vethdd06cad"} 0
node_network_transmit_fifo_total{device="vethdd1f3d5"} 0
# HELP node_network_transmit_packets_total Network device
statistic transmit_packets.
# TYPE node_network_transmit_packets_total counter
node_network_transmit_packets_total{device="br-50a36aad40b4"} 3.6101405e+07
node_network_transmit_packets_total{device="docker0"} 286789
node_network_transmit_packets_total{device="ens3"} 675325
node_network_transmit_packets_total{device="lo"} 2.158685e+06
node_network_transmit_packets_total{device="veth2559f58"} 791664
node_network_transmit_packets_total{device="veth687035d"} 0
```

# Know your Data

```
node_cpu_guest_seconds_total{cpu="3",mode="user"} 360
node_cpu_guest_seconds_total{cpu="4",mode="nice"} 360
node_cpu_guest_seconds_total{cpu="4",mode="user"} 360
node_cpu_guest_seconds_total{cpu="5",mode="nice"} 360
node_cpu_guest_seconds_total{cpu="5",mode="user"} 360
node_cpu_guest_seconds_total{cpu="6",mode="nice"} 360
node_cpu_guest_seconds_total{cpu="6",mode="user"} 360
node_cpu_guest_seconds_total{cpu="7",mode="nice"} 360
node_cpu_guest_seconds_total{cpu="7",mode="user"} 360
node_cpu_guest_seconds_total{cpu="8",mode="nice"} 360
node_cpu_guest_seconds_total{cpu="8",mode="user"} 360
node_cpu_guest_seconds_total{cpu="9",mode="nice"} 360
node_cpu_guest_seconds_total{cpu="9",mode="user"} 360
# HELP node_cpu_seconds_total Seconds the cpus s
mode.
# TYPE node_cpu_seconds_total counter
node_cpu_seconds_total{cpu="0",mode="idle"} 3583
node_cpu_seconds_total{cpu="0",mode="iowait"} 360
node_cpu_seconds_total{cpu="0",mode="irq"} 0
node_cpu_seconds_total{cpu="0",mode="nice"} 2100
node_cpu_seconds_total{cpu="0",mode="softirq"} 2100
node_cpu_seconds_total{cpu="0",mode="steal"} 87
node_cpu_seconds_total{cpu="0",mode="system"} 360
node_cpu_seconds_total{cpu="0",mode="user"} 1908
node_cpu_seconds_total{cpu="1",mode="idle"} 3584
node_cpu_seconds_total{cpu="1",mode="iowait"} 57
node_cpu_seconds_total{cpu="1",mode="irq"} 0
node_cpu_seconds_total{cpu="1",mode="nice"} 2097
node_cpu_seconds_total{cpu="1",mode="softirq"} 2097
node_cpu_seconds_total{cpu="1",mode="steal"} 85
node_cpu_seconds_total{cpu="1",mode="system"} 360
node_cpu_seconds_total{cpu="1",mode="user"} 1908
```



# Thank you!