Appendix A: Netdata Complete Metrics Set

The complete set of metrics collected by Netdata in every experiment:

netdata_apps_cpu_percentage_average
    chart=apps.cpu, family=cpu, dimension=apps.plugin
    chart=apps.cpu, family=cpu, dimension=cron
    chart=apps.cpu, family=cpu, dimension=dhcp
    chart=apps.cpu, family=cpu, dimension=email
    chart=apps.cpu, family=cpu, dimension=go.d.plugin
    chart=apps.cpu, family=cpu, dimension=kernel
    chart=apps.cpu, family=cpu, dimension=ksmd
    chart=apps.cpu, family=cpu, dimension=logs
    chart=apps.cpu, family=cpu, dimension=netdata
    chart=apps.cpu, family=cpu, dimension=other
    chart=apps.cpu, family=cpu, dimension=ssh
    chart=apps.cpu, family=cpu, dimension=system
    chart=apps.cpu, family=cpu, dimension=tc-qos-helper
netdata_apps_cpu_system_percentage_average
    chart=apps.cpu_system, family=cpu, dimension=apps.plugin
    chart=apps.cpu_system, family=cpu, dimension=cron
    chart=apps.cpu_system, family=cpu, dimension=dhcp
    chart=apps.cpu_system, family=cpu, dimension=email
    chart=apps.cpu_system, family=cpu, dimension=go.d.plugin
    chart=apps.cpu_system, family=cpu, dimension=kernel
    chart=apps.cpu_system, family=cpu, dimension=ksmd
    chart=apps.cpu_system, family=cpu, dimension=logs
    chart=apps.cpu_system, family=cpu, dimension=netdata
    chart=apps.cpu_system, family=cpu, dimension=other
    chart=apps.cpu_system, family=cpu, dimension=ssh
    chart=apps.cpu_system, family=cpu, dimension=system
    chart=apps.cpu_system, family=cpu, dimension=tc-qos-helper
netdata_apps_cpu_user_percentage_average
    chart=apps.cpu_user, family=cpu, dimension=apps.plugin
    chart=apps.cpu_user, family=cpu, dimension=cron
    chart=apps.cpu_user, family=cpu, dimension=dhcp
    chart=apps.cpu_user, family=cpu, dimension=email
    chart=apps.cpu_user, family=cpu, dimension=go.d.plugin
    chart=apps.cpu_user, family=cpu, dimension=kernel
    chart=apps.cpu_user, family=cpu, dimension=ksmd
    chart=apps.cpu_user, family=cpu, dimension=logs
    chart=apps.cpu_user, family=cpu, dimension=netdata
    chart=apps.cpu_user, family=cpu, dimension=other
    chart=apps.cpu_user, family=cpu, dimension=ssh
    chart=apps.cpu_user, family=cpu, dimension=system
    chart=apps.cpu_user, family=cpu, dimension=tc-qos-helper
netdata_apps_files_open_files_average
    chart=apps.files, family=disk, dimension=apps.plugin
    chart=apps.files, family=disk, dimension=cron
    chart=apps.files, family=disk, dimension=dhcp
    chart=apps.files, family=disk, dimension=email
    chart=apps.files, family=disk, dimension=go.d.plugin
    chart=apps.files, family=disk, dimension=kernel
    chart=apps.files, family=disk, dimension=ksmd
    chart=apps.files, family=disk, dimension=logs
    chart=apps.files, family=disk, dimension=netdata
    chart=apps.files, family=disk, dimension=other
    chart=apps.files, family=disk, dimension=ssh
    chart=apps.files, family=disk, dimension=system
    chart=apps.files, family=disk, dimension=tc-qos-helper
netdata_apps_lreads_KiB_persec_average
    chart=apps.lreads, family=disk, dimension=apps.plugin
    chart=apps.lreads, family=disk, dimension=cron
    chart=apps.lreads, family=disk, dimension=dhcp
    chart=apps.lreads, family=disk, dimension=email
    chart=apps.lreads, family=disk, dimension=go.d.plugin
    chart=apps.lreads, family=disk, dimension=kernel
    chart=apps.lreads, family=disk, dimension=ksmd
    chart=apps.lreads, family=disk, dimension=logs
    chart=apps.lreads, family=disk, dimension=netdata
    chart=apps.lreads, family=disk, dimension=other
    chart=apps.lreads, family=disk, dimension=ssh
    chart=apps.lreads, family=disk, dimension=system
    chart=apps.lreads, family=disk, dimension=tc-qos-helper
netdata_apps_lwrites_KiB_persec_average
    chart=apps.lwrites, family=disk, dimension=apps.plugin
    chart=apps.lwrites, family=disk, dimension=cron
    chart=apps.lwrites, family=disk, dimension=dhcp
    chart=apps.lwrites, family=disk, dimension=email
    chart=apps.lwrites, family=disk, dimension=go.d.plugin
    chart=apps.lwrites, family=disk, dimension=kernel
    chart=apps.lwrites, family=disk, dimension=ksmd
    chart=apps.lwrites, family=disk, dimension=logs
    chart=apps.lwrites, family=disk, dimension=netdata
    chart=apps.lwrites, family=disk, dimension=other
    chart=apps.lwrites, family=disk, dimension=ssh
    chart=apps.lwrites, family=disk, dimension=system
    chart=apps.lwrites, family=disk, dimension=tc-qos-helper
netdata_apps_major_faults_page_faults_persec_average
    chart=apps.major_faults, family=swap, dimension=apps.plugin
    chart=apps.major_faults, family=swap, dimension=cron
    chart=apps.major_faults, family=swap, dimension=dhcp

chart=apps.major__faults, family=swap, dimension=email
chart=apps.major__faults, family=swap, dimension=go.d.plugin
chart=apps.major__faults, family=swap, dimension=kernel
chart=apps.major__faults, family=swap, dimension=ksmd
chart=apps.major__faults, family=swap, dimension=logs
chart=apps.major__faults, family=swap, dimension=netdata
chart=apps.major__faults, family=swap, dimension=other
chart=apps.major__faults, family=swap, dimension=ssh
chart=apps.major__faults, family=swap, dimension=system
chart=apps.major__faults, family=swap, dimension=tc-qos-helper
netdata__apps__mem__MiB__average
chart=apps.mem, family=mem, dimension=apps.plugin
chart=apps.mem, family=mem, dimension=cron
chart=apps.mem, family=mem, dimension=dhcp
chart=apps.mem, family=mem, dimension=email
chart=apps.mem, family=mem, dimension=go.d.plugin
chart=apps.mem, family=mem, dimension=kernel
chart=apps.mem, family=mem, dimension=ksmd
chart=apps.mem, family=mem, dimension=logs
chart=apps.mem, family=mem, dimension=netdata
chart=apps.mem, family=mem, dimension=other
chart=apps.mem, family=mem, dimension=ssh
chart=apps.mem, family=mem, dimension=system
chart=apps.mem, family=mem, dimension=tc-qos-helper
netdata_apps_minor_faults_page_faults_persec_average
chart=apps.minor__faults, family=mem, dimension=apps.plugin
chart=apps.minor__faults, family=mem, dimension=cron
chart=apps.minor__faults, family=mem, dimension=dhcp
chart=apps.minor__faults, family=mem, dimension=email
chart=apps.minor__faults, family=mem, dimension=go.d.plugin
chart=apps.minor__faults, family=mem, dimension=kernel
chart=apps.minor__faults, family=mem, dimension=ksmd
chart=apps.minor__faults, family=mem, dimension=logs
chart=apps.minor__faults, family=mem, dimension=netdata
chart=apps.minor__faults, family=mem, dimension=other
chart=apps.minor__faults, family=mem, dimension=ssh
chart=apps.minor__faults, family=mem, dimension=system
chart=apps.minor__faults, family=mem, dimension=tc-qos-helper
netdata_apps__pipes_open__pipes_average
chart=apps.pipes, family=processes, dimension=apps.plugin
chart=apps.pipes, family=processes, dimension=cron
chart=apps.pipes, family=processes, dimension=dhcp
chart=apps.pipes, family=processes, dimension=email
chart=apps.pipes, family=processes, dimension=go.d.plugin
chart=apps.pipes, family=processes, dimension=kernel
chart=apps.pipes, family=processes, dimension=ksmd
chart=apps.pipes, family=processes, dimension=logs
chart=apps.pipes, family=processes, dimension=netdata
chart=apps.pipes, family=processes, dimension=other
chart=apps.pipes, family=processes, dimension=ssh
chart=apps.pipes, family=processes, dimension=system
chart=apps.pipes, family=processes, dimension=tc-qos-helper
netdata_apps__preads__KiB_persec_average
chart=apps.preads, family=disk, dimension=apps.plugin
chart=apps.preads, family=disk, dimension=cron
chart=apps.preads, family=disk, dimension=dhcp
chart=apps.preads, family=disk, dimension=email
chart=apps.preads, family=disk, dimension=go.d.plugin
chart=apps.preads, family=disk, dimension=kernel
chart=apps.preads, family=disk, dimension=ksmd
chart=apps.preads, family=disk, dimension=logs
chart=apps.preads, family=disk, dimension=netdata
chart=apps.preads, family=disk, dimension=other
chart=apps.preads, family=disk, dimension=ssh
chart=apps.preads, family=disk, dimension=system
chart=apps.preads, family=disk, dimension=tc-qos-helper
netdata__apps__processes__processes_average
chart=apps.processes, family=processes, dimension=apps.plugin
chart=apps.processes, family=processes, dimension=cron
chart=apps.processes, family=processes, dimension=dhcp
chart=apps.processes, family=processes, dimension=email
chart=apps.processes, family=processes, dimension=go.d.plugin
chart=apps.processes, family=processes, dimension=kernel
chart=apps.processes, family=processes, dimension=ksmd
chart=apps.processes, family=processes, dimension=logs
chart=apps.processes, family=processes, dimension=netdata
chart=apps.processes, family=processes, dimension=other
chart=apps.processes, family=processes, dimension=ssh
chart=apps.processes, family=processes, dimension=system
chart=apps.processes, family=processes, dimension=tc-qos-helper
netdata__apps__pwrites__KiB_persec_average
chart=apps.pwrites, family=disk, dimension=apps.plugin
chart=apps.pwrites, family=disk, dimension=cron
chart=apps.pwrites, family=disk, dimension=dhcp
chart=apps.pwrites, family=disk, dimension=email
chart=apps.pwrites, family=disk, dimension=go.d.plugin
chart=apps.pwrites, family=disk, dimension=kernel
chart=apps.pwrites, family=disk, dimension=ksmd
chart=apps.pwrites, family=disk, dimension=logs
chart=apps.pwrites, family=disk, dimension=netdata
chart=apps.pwrites, family=disk, dimension=other
chart=apps.pwrites, family=disk, dimension=ssh
chart=apps.pwrites, family=disk, dimension=system
chart=apps.pwrites, family=disk, dimension=tc-qos-helper

Appendixes

netdata_apps_sockets_open_sockets_average
    chart=apps.sockets, family=net, dimension=apps.plugin
    chart=apps.sockets, family=net, dimension=cron
    chart=apps.sockets, family=net, dimension=dhcp
    chart=apps.sockets, family=net, dimension=email
    chart=apps.sockets, family=net, dimension=go.d.plugin
    chart=apps.sockets, family=net, dimension=kernel
    chart=apps.sockets, family=net, dimension=ksmd
    chart=apps.sockets, family=net, dimension=logs
    chart=apps.sockets, family=net, dimension=netdata
    chart=apps.sockets, family=net, dimension=other
    chart=apps.sockets, family=net, dimension=ssh
    chart=apps.sockets, family=net, dimension=system
    chart=apps.sockets, family=net, dimension=tc-qos-helper
netdata_apps_swap_MiB_average
    chart=apps.swap, family=swap, dimension=apps.plugin
    chart=apps.swap, family=swap, dimension=cron
    chart=apps.swap, family=swap, dimension=dhcp
    chart=apps.swap, family=swap, dimension=email
    chart=apps.swap, family=swap, dimension=go.d.plugin
    chart=apps.swap, family=swap, dimension=kernel
    chart=apps.swap, family=swap, dimension=ksmd
    chart=apps.swap, family=swap, dimension=logs
    chart=apps.swap, family=swap, dimension=netdata
    chart=apps.swap, family=swap, dimension=other
    chart=apps.swap, family=swap, dimension=ssh
    chart=apps.swap, family=swap, dimension=system
    chart=apps.swap, family=swap, dimension=tc-qos-helper
netdata_apps_threads_threads_average
    chart=apps.threads, family=processes, dimension=apps.plugin
    chart=apps.threads, family=processes, dimension=cron
    chart=apps.threads, family=processes, dimension=dhcp
    chart=apps.threads, family=processes, dimension=email
    chart=apps.threads, family=processes, dimension=go.d.plugin
    chart=apps.threads, family=processes, dimension=kernel
    chart=apps.threads, family=processes, dimension=ksmd
    chart=apps.threads, family=processes, dimension=logs
    chart=apps.threads, family=processes, dimension=netdata
    chart=apps.threads, family=processes, dimension=other
    chart=apps.threads, family=processes, dimension=ssh
    chart=apps.threads, family=processes, dimension=system
    chart=apps.threads, family=processes, dimension=tc-qos-helper
netdata_apps_uptime_avg_seconds_average
    chart=apps.uptime_avg, family=processes, dimension=apps.plugin
    chart=apps.uptime_avg, family=processes, dimension=cron
    chart=apps.uptime_avg, family=processes, dimension=dhcp
    chart=apps.uptime_avg, family=processes, dimension=email
    chart=apps.uptime_avg, family=processes, dimension=go.d.plugin
    chart=apps.uptime_avg, family=processes, dimension=kernel
    chart=apps.uptime_avg, family=processes, dimension=ksmd
    chart=apps.uptime_avg, family=processes, dimension=logs
    chart=apps.uptime_avg, family=processes, dimension=netdata
    chart=apps.uptime_avg, family=processes, dimension=other
    chart=apps.uptime_avg, family=processes, dimension=ssh
    chart=apps.uptime_avg, family=processes, dimension=system
    chart=apps.uptime_avg, family=processes, dimension=tc-qos-helper
netdata_apps_uptime_max_seconds_average
    chart=apps.uptime_max, family=processes, dimension=apps.plugin
    chart=apps.uptime_max, family=processes, dimension=cron
    chart=apps.uptime_max, family=processes, dimension=dhcp
    chart=apps.uptime_max, family=processes, dimension=email
    chart=apps.uptime_max, family=processes, dimension=go.d.plugin
    chart=apps.uptime_max, family=processes, dimension=kernel
    chart=apps.uptime_max, family=processes, dimension=ksmd
    chart=apps.uptime_max, family=processes, dimension=logs
    chart=apps.uptime_max, family=processes, dimension=netdata
    chart=apps.uptime_max, family=processes, dimension=other
    chart=apps.uptime_max, family=processes, dimension=ssh
    chart=apps.uptime_max, family=processes, dimension=system
    chart=apps.uptime_max, family=processes, dimension=tc-qos-helper
netdata_apps_uptime_min_seconds_average
    chart=apps.uptime_min, family=processes, dimension=apps.plugin
    chart=apps.uptime_min, family=processes, dimension=cron
    chart=apps.uptime_min, family=processes, dimension=dhcp
    chart=apps.uptime_min, family=processes, dimension=email
    chart=apps.uptime_min, family=processes, dimension=go.d.plugin
    chart=apps.uptime_min, family=processes, dimension=kernel
    chart=apps.uptime_min, family=processes, dimension=ksmd
    chart=apps.uptime_min, family=processes, dimension=logs
    chart=apps.uptime_min, family=processes, dimension=netdata
    chart=apps.uptime_min, family=processes, dimension=other
    chart=apps.uptime_min, family=processes, dimension=ssh
    chart=apps.uptime_min, family=processes, dimension=system
    chart=apps.uptime_min, family=processes, dimension=tc-qos-helper
netdata_apps_uptime_seconds_average
    chart=apps.uptime, family=processes, dimension=apps.plugin
    chart=apps.uptime, family=processes, dimension=cron
    chart=apps.uptime, family=processes, dimension=dhcp
    chart=apps.uptime, family=processes, dimension=email
    chart=apps.uptime, family=processes, dimension=go.d.plugin
    chart=apps.uptime, family=processes, dimension=kernel
    chart=apps.uptime, family=processes, dimension=ksmd
    chart=apps.uptime, family=processes, dimension=logs
    chart=apps.uptime, family=processes, dimension=netdata

chart=apps.uptime, family=processes, dimension=other
chart=apps.uptime, family=processes, dimension=ssh
chart=apps.uptime, family=processes, dimension=system
chart=apps.uptime, family=processes, dimension=tc-qos-helper

netdata__apps__vmem__MiB__average
chart=apps.vmem, family=mem, dimension=apps.plugin
chart=apps.vmem, family=mem, dimension=cron
chart=apps.vmem, family=mem, dimension=dhcp
chart=apps.vmem, family=mem, dimension=email
chart=apps.vmem, family=mem, dimension=go.d.plugin
chart=apps.vmem, family=mem, dimension=kernel
chart=apps.vmem, family=mem, dimension=ksmd
chart=apps.vmem, family=mem, dimension=logs
chart=apps.vmem, family=mem, dimension=netdata
chart=apps.vmem, family=mem, dimension=other
chart=apps.vmem, family=mem, dimension=ssh
chart=apps.vmem, family=mem, dimension=system
chart=apps.vmem, family=mem, dimension=tc-qos-helper

netdata__cpu__cpu__percentage__average
chart=cpu.cpu0, family=utilization, dimension=guest
chart=cpu.cpu0, family=utilization, dimension=guest__nice
chart=cpu.cpu0, family=utilization, dimension=idle
chart=cpu.cpu0, family=utilization, dimension=iowait
chart=cpu.cpu0, family=utilization, dimension=irq
chart=cpu.cpu0, family=utilization, dimension=nice
chart=cpu.cpu0, family=utilization, dimension=softirq
chart=cpu.cpu0, family=utilization, dimension=steal
chart=cpu.cpu0, family=utilization, dimension=system
chart=cpu.cpu0, family=utilization, dimension=user

netdata__cpu__interrupts__interrupts__persec__average
chart=cpu.cpu0__interrupts, family=interrupts, dimension=LOC
chart=cpu.cpu0__interrupts, family=interrupts, dimension=MCP
chart=cpu.cpu0__interrupts, family=interrupts, dimension=ata__piix__14
chart=cpu.cpu0__interrupts, family=interrupts, dimension=ata__piix__15
chart=cpu.cpu0__interrupts, family=interrupts, dimension=eth0__11
chart=cpu.cpu0__interrupts, family=interrupts, dimension=floppy__6
chart=cpu.cpu0__interrupts, family=interrupts, dimension=i8042__1
chart=cpu.cpu0__interrupts, family=interrupts, dimension=i8042__12
chart=cpu.cpu0__interrupts, family=interrupts, dimension=rtc0__8
chart=cpu.cpu0__interrupts, family=interrupts, dimension=serial__4
chart=cpu.cpu0__interrupts, family=interrupts, dimension=timer__0

netdata__cpu__softirqs__softirqs__persec__average
chart=cpu.cpu0__softirqs, family=softirqs, dimension=BLOCK
chart=cpu.cpu0__softirqs, family=softirqs, dimension=HRTIMER
chart=cpu.cpu0__softirqs, family=softirqs, dimension=NET__RX
chart=cpu.cpu0__softirqs, family=softirqs, dimension=NET__TX
chart=cpu.cpu0__softirqs, family=softirqs, dimension=RCU
chart=cpu.cpu0__softirqs, family=softirqs, dimension=TASKLET
chart=cpu.cpu0__softirqs, family=softirqs, dimension=TIMER

netdata__cpu__softnet__stat__events__persec__average
chart=cpu.cpu0__softnet__stat, family=softnet__stat, dimension=dropped
chart=cpu.cpu0__softnet__stat, family=softnet__stat, dimension=flow_limit_count
chart=cpu.cpu0__softnet__stat, family=softnet__stat, dimension=processed
chart=cpu.cpu0__softnet__stat, family=softnet__stat, dimension=received__rps
chart=cpu.cpu0__softnet__stat, family=softnet__stat, dimension=squeezed

netdata__cpuidle__cpuidle__percentage__average
chart=cpu.cpu0__cpuidle, family=cpuidle, dimension=C0 (active)

netdata__disk__avgsz__KiB__operation__average
chart=disk__avgsz.sda, family=sda, dimension=reads
chart=disk__avgsz.sda, family=sda, dimension=writes

netdata__disk__await__milliseconds__operation__average
chart=disk__await.sda, family=sda, dimension=reads
chart=disk__await.sda, family=sda, dimension=writes

netdata__disk__backlog__milliseconds__average
chart=disk__backlog.sda, family=sda, dimension=backlog

netdata__disk__inodes__inodes__average
chart=disk__inodes.__, family=/, dimension=avail
chart=disk__inodes.__, family=/, dimension=reserved for root
chart=disk__inodes.__, family=/, dimension=used
chart=disk__inodes.__dev, family=/dev, dimension=avail
chart=disk__inodes.__dev, family=/dev, dimension=reserved for root
chart=disk__inodes.__dev, family=/dev, dimension=used
chart=disk__inodes.__run, family=/run, dimension=avail
chart=disk__inodes.__run, family=/run, dimension=reserved for root
chart=disk__inodes.__run, family=/run, dimension=used
chart=disk__inodes.__run__lock, family=/run/lock, dimension=avail
chart=disk__inodes.__run__lock, family=/run/lock, dimension=reserved for root
chart=disk__inodes.__run__lock, family=/run/lock, dimension=used
chart=disk__inodes.__run__shm, family=/run/shm, dimension=avail
chart=disk__inodes.__run__shm, family=/run/shm, dimension=reserved for root
chart=disk__inodes.__run__shm, family=/run/shm, dimension=used
chart=disk__inodes.__run__user, family=/run/user, dimension=avail
chart=disk__inodes.__run__user, family=/run/user, dimension=reserved for root
chart=disk__inodes.__run__user, family=/run/user, dimension=used

netdata__disk__io__KiB__persec__average
chart=disk.sda, family=sda, dimension=reads
chart=disk.sda, family=sda, dimension=writes

netdata__disk__iotime__milliseconds__persec__average
chart=disk__iotime.sda, family=sda, dimension=reads
chart=disk__iotime.sda, family=sda, dimension=writes

netdata__disk__mops__merged__operations__persec__average

```
      chart=disk_mops.sda, family=sda, dimension=reads
      chart=disk_mops.sda, family=sda, dimension=writes
netdata_disk_ops_operations_persec_average
      chart=disk_ops.sda, family=sda, dimension=reads
      chart=disk_ops.sda, family=sda, dimension=writes
netdata_disk_qops_operations_average
      chart=disk_qops.sda, family=sda, dimension=operations
netdata_disk_space_GiB_average
      chart=disk_space._, family=/, dimension=avail
      chart=disk_space._, family=/, dimension=reserved for root
      chart=disk_space._, family=/, dimension=used
      chart=disk_space._dev, family=/dev, dimension=avail
      chart=disk_space._dev, family=/dev, dimension=reserved for root
      chart=disk_space._dev, family=/dev, dimension=used
      chart=disk_space._home_fields_fi_local_shared, family=/home/fields/fi_local_shared, dimension=avail
      chart=disk_space._home_fields_fi_local_shared, family=/home/fields/fi_local_shared, dimension=reserved for root
      chart=disk_space._home_fields_fi_local_shared, family=/home/fields/fi_local_shared, dimension=used
      chart=disk_space._run, family=/run, dimension=avail
      chart=disk_space._run, family=/run, dimension=reserved for root
      chart=disk_space._run, family=/run, dimension=used
      chart=disk_space._run_lock, family=/run/lock, dimension=avail
      chart=disk_space._run_lock, family=/run/lock, dimension=reserved for root
      chart=disk_space._run_lock, family=/run/lock, dimension=used
      chart=disk_space._run_shm, family=/run/shm, dimension=avail
      chart=disk_space._run_shm, family=/run/shm, dimension=reserved for root
      chart=disk_space._run_shm, family=/run/shm, dimension=used
      chart=disk_space._run_user, family=/run/user, dimension=avail
      chart=disk_space._run_user, family=/run/user, dimension=reserved for root
      chart=disk_space._run_user, family=/run/user, dimension=used
netdata_disk_svctm_milliseconds_operation_average
      chart=disk_svctm.sda, family=sda, dimension=svctm
netdata_disk_util____of_time_working_average
      chart=disk_util.sda, family=sda, dimension=utilization
netdata_groups_cpu_percentage_average
      chart=groups.cpu, family=cpu, dimension=daemon
      chart=groups.cpu, family=cpu, dimension=fields
      chart=groups.cpu, family=cpu, dimension=messagebus
      chart=groups.cpu, family=cpu, dimension=netdata
      chart=groups.cpu, family=cpu, dimension=root
      chart=groups.cpu, family=cpu, dimension=smmsp
netdata_groups_cpu_system_percentage_average
      chart=groups.cpu_system, family=cpu, dimension=daemon
      chart=groups.cpu_system, family=cpu, dimension=fields
      chart=groups.cpu_system, family=cpu, dimension=messagebus
      chart=groups.cpu_system, family=cpu, dimension=netdata
      chart=groups.cpu_system, family=cpu, dimension=root
      chart=groups.cpu_system, family=cpu, dimension=smmsp
netdata_groups_cpu_user_percentage_average
      chart=groups.cpu_user, family=cpu, dimension=daemon
      chart=groups.cpu_user, family=cpu, dimension=fields
      chart=groups.cpu_user, family=cpu, dimension=messagebus
      chart=groups.cpu_user, family=cpu, dimension=netdata
      chart=groups.cpu_user, family=cpu, dimension=root
      chart=groups.cpu_user, family=cpu, dimension=smmsp
netdata_groups_files_open_files_average
      chart=groups.files, family=disk, dimension=daemon
      chart=groups.files, family=disk, dimension=fields
      chart=groups.files, family=disk, dimension=messagebus
      chart=groups.files, family=disk, dimension=netdata
      chart=groups.files, family=disk, dimension=root
      chart=groups.files, family=disk, dimension=smmsp
netdata_groups_lreads_KiB_persec_average
      chart=groups.lreads, family=disk, dimension=daemon
      chart=groups.lreads, family=disk, dimension=fields
      chart=groups.lreads, family=disk, dimension=messagebus
      chart=groups.lreads, family=disk, dimension=netdata
      chart=groups.lreads, family=disk, dimension=root
      chart=groups.lreads, family=disk, dimension=smmsp
netdata_groups_lwrites_KiB_persec_average
      chart=groups.lwrites, family=disk, dimension=daemon
      chart=groups.lwrites, family=disk, dimension=fields
      chart=groups.lwrites, family=disk, dimension=messagebus
      chart=groups.lwrites, family=disk, dimension=netdata
      chart=groups.lwrites, family=disk, dimension=root
      chart=groups.lwrites, family=disk, dimension=smmsp
netdata_groups_major_faults_page_faults_persec_average
      chart=groups.major_faults, family=swap, dimension=daemon
      chart=groups.major_faults, family=swap, dimension=fields
      chart=groups.major_faults, family=swap, dimension=messagebus
      chart=groups.major_faults, family=swap, dimension=netdata
      chart=groups.major_faults, family=swap, dimension=root
      chart=groups.major_faults, family=swap, dimension=smmsp
netdata_groups_mem_MiB_average
      chart=groups.mem, family=mem, dimension=daemon
      chart=groups.mem, family=mem, dimension=fields
      chart=groups.mem, family=mem, dimension=messagebus
      chart=groups.mem, family=mem, dimension=netdata
      chart=groups.mem, family=mem, dimension=root
      chart=groups.mem, family=mem, dimension=smmsp
netdata_groups_minor_faults_page_faults_persec_average
```

    chart=groups.minor_faults, family=mem, dimension=daemon
    chart=groups.minor_faults, family=mem, dimension=fields
    chart=groups.minor_faults, family=mem, dimension=messagebus
    chart=groups.minor_faults, family=mem, dimension=netdata
    chart=groups.minor_faults, family=mem, dimension=root
    chart=groups.minor_faults, family=mem, dimension=smmsp
netdata_groups_pipes_open_pipes_average
    chart=groups.pipes, family=processes, dimension=daemon
    chart=groups.pipes, family=processes, dimension=fields
    chart=groups.pipes, family=processes, dimension=messagebus
    chart=groups.pipes, family=processes, dimension=netdata
    chart=groups.pipes, family=processes, dimension=root
    chart=groups.pipes, family=processes, dimension=smmsp
netdata_groups_preads_KiB_persec_average
    chart=groups.preads, family=disk, dimension=daemon
    chart=groups.preads, family=disk, dimension=fields
    chart=groups.preads, family=disk, dimension=messagebus
    chart=groups.preads, family=disk, dimension=netdata
    chart=groups.preads, family=disk, dimension=root
    chart=groups.preads, family=disk, dimension=smmsp
netdata_groups_processes_processes_average
    chart=groups.processes, family=processes, dimension=daemon
    chart=groups.processes, family=processes, dimension=fields
    chart=groups.processes, family=processes, dimension=messagebus
    chart=groups.processes, family=processes, dimension=netdata
    chart=groups.processes, family=processes, dimension=root
    chart=groups.processes, family=processes, dimension=smmsp
netdata_groups_pwrites_KiB_persec_average
    chart=groups.pwrites, family=disk, dimension=daemon
    chart=groups.pwrites, family=disk, dimension=fields
    chart=groups.pwrites, family=disk, dimension=messagebus
    chart=groups.pwrites, family=disk, dimension=netdata
    chart=groups.pwrites, family=disk, dimension=root
    chart=groups.pwrites, family=disk, dimension=smmsp
netdata_groups_sockets_open_sockets_average
    chart=groups.sockets, family=net, dimension=daemon
    chart=groups.sockets, family=net, dimension=fields
    chart=groups.sockets, family=net, dimension=messagebus
    chart=groups.sockets, family=net, dimension=netdata
    chart=groups.sockets, family=net, dimension=root
    chart=groups.sockets, family=net, dimension=smmsp
netdata_groups_swap_MiB_average
    chart=groups.swap, family=swap, dimension=daemon
    chart=groups.swap, family=swap, dimension=fields
    chart=groups.swap, family=swap, dimension=messagebus
    chart=groups.swap, family=swap, dimension=netdata
    chart=groups.swap, family=swap, dimension=root
    chart=groups.swap, family=swap, dimension=smmsp
netdata_groups_threads_threads_average
    chart=groups.threads, family=processes, dimension=daemon
    chart=groups.threads, family=processes, dimension=fields
    chart=groups.threads, family=processes, dimension=messagebus
    chart=groups.threads, family=processes, dimension=netdata
    chart=groups.threads, family=processes, dimension=root
    chart=groups.threads, family=processes, dimension=smmsp
netdata_groups_uptime_avg_seconds_average
    chart=groups.uptime_avg, family=processes, dimension=daemon
    chart=groups.uptime_avg, family=processes, dimension=fields
    chart=groups.uptime_avg, family=processes, dimension=messagebus
    chart=groups.uptime_avg, family=processes, dimension=netdata
    chart=groups.uptime_avg, family=processes, dimension=root
    chart=groups.uptime_avg, family=processes, dimension=smmsp
netdata_groups_uptime_max_seconds_average
    chart=groups.uptime_max, family=processes, dimension=daemon
    chart=groups.uptime_max, family=processes, dimension=fields
    chart=groups.uptime_max, family=processes, dimension=messagebus
    chart=groups.uptime_max, family=processes, dimension=netdata
    chart=groups.uptime_max, family=processes, dimension=root
    chart=groups.uptime_max, family=processes, dimension=smmsp
netdata_groups_uptime_min_seconds_average
    chart=groups.uptime_min, family=processes, dimension=daemon
    chart=groups.uptime_min, family=processes, dimension=fields
    chart=groups.uptime_min, family=processes, dimension=messagebus
    chart=groups.uptime_min, family=processes, dimension=netdata
    chart=groups.uptime_min, family=processes, dimension=root
    chart=groups.uptime_min, family=processes, dimension=smmsp
netdata_groups_uptime_seconds_average
    chart=groups.uptime, family=processes, dimension=daemon
    chart=groups.uptime, family=processes, dimension=fields
    chart=groups.uptime, family=processes, dimension=messagebus
    chart=groups.uptime, family=processes, dimension=netdata
    chart=groups.uptime, family=processes, dimension=root
    chart=groups.uptime, family=processes, dimension=smmsp
netdata_groups_vmem_MiB_average
    chart=groups.vmem, family=mem, dimension=daemon
    chart=groups.vmem, family=mem, dimension=fields
    chart=groups.vmem, family=mem, dimension=messagebus
    chart=groups.vmem, family=mem, dimension=netdata
    chart=groups.vmem, family=mem, dimension=root
    chart=groups.vmem, family=mem, dimension=smmsp
netdata_info

Appendixes

instance=ubuntu, application=netdata, version=v1.20.0-167-nightly

netdata__ip__ecnpkts__packets__persec__average
    chart=ip.ecnpkts, family=ecn, dimension=CEP
    chart=ip.ecnpkts, family=ecn, dimension=ECTP0
    chart=ip.ecnpkts, family=ecn, dimension=ECTP1
    chart=ip.ecnpkts, family=ecn, dimension=NoECTP

netdata__ip__tcpofo__packets__persec__average
    chart=ip.tcpofo, family=tcp, dimension=dropped
    chart=ip.tcpofo, family=tcp, dimension=inqueue
    chart=ip.tcpofo, family=tcp, dimension=merged
    chart=ip.tcpofo, family=tcp, dimension=pruned

netdata__ipv4__icmp__errors__packets__persec__average
    chart=ipv4.icmp__errors, family=icmp, dimension=InCsumErrors
    chart=ipv4.icmp__errors, family=icmp, dimension=InErrors
    chart=ipv4.icmp__errors, family=icmp, dimension=OutErrors

netdata__ipv4__icmp__packets__persec__average
    chart=ipv4.icmp, family=icmp, dimension=received
    chart=ipv4.icmp, family=icmp, dimension=sent

netdata__ipv4__icmpmsg__packets__persec__average
    chart=ipv4.icmpmsg, family=icmp, dimension=InDestUnreachs
    chart=ipv4.icmpmsg, family=icmp, dimension=InEchoReps
    chart=ipv4.icmpmsg, family=icmp, dimension=InEchos
    chart=ipv4.icmpmsg, family=icmp, dimension=InParmProbs
    chart=ipv4.icmpmsg, family=icmp, dimension=InRedirects
    chart=ipv4.icmpmsg, family=icmp, dimension=InRouterAdvert
    chart=ipv4.icmpmsg, family=icmp, dimension=InRouterSelect
    chart=ipv4.icmpmsg, family=icmp, dimension=InTimeExcds
    chart=ipv4.icmpmsg, family=icmp, dimension=InTimestampReps
    chart=ipv4.icmpmsg, family=icmp, dimension=InTimestamps
    chart=ipv4.icmpmsg, family=icmp, dimension=OutDestUnreachs
    chart=ipv4.icmpmsg, family=icmp, dimension=OutEchoReps
    chart=ipv4.icmpmsg, family=icmp, dimension=OutEchos
    chart=ipv4.icmpmsg, family=icmp, dimension=OutParmProbs
    chart=ipv4.icmpmsg, family=icmp, dimension=OutRedirects
    chart=ipv4.icmpmsg, family=icmp, dimension=OutRouterAdvert
    chart=ipv4.icmpmsg, family=icmp, dimension=OutRouterSelect
    chart=ipv4.icmpmsg, family=icmp, dimension=OutTimeExcds
    chart=ipv4.icmpmsg, family=icmp, dimension=OutTimestampReps
    chart=ipv4.icmpmsg, family=icmp, dimension=OutTimestamps

netdata__ipv4__packets__packets__persec__average
    chart=ipv4.packets, family=packets, dimension=delivered
    chart=ipv4.packets, family=packets, dimension=forwarded
    chart=ipv4.packets, family=packets, dimension=received
    chart=ipv4.packets, family=packets, dimension=sent

netdata__ipv4__sockstat__sockets__sockets__average
    chart=ipv4.sockstat__sockets, family=sockets, dimension=used

netdata__ipv4__sockstat__tcp__mem__KiB__average
    chart=ipv4.sockstat__tcp__mem, family=tcp, dimension=mem

netdata__ipv4__sockstat__tcp__sockets__sockets__average
    chart=ipv4.sockstat__tcp__sockets, family=tcp, dimension=alloc
    chart=ipv4.sockstat__tcp__sockets, family=tcp, dimension=inuse
    chart=ipv4.sockstat__tcp__sockets, family=tcp, dimension=orphan
    chart=ipv4.sockstat__tcp__sockets, family=tcp, dimension=timewait

netdata__ipv4__sockstat__udp__sockets__sockets__average
    chart=ipv4.sockstat__udp__sockets, family=udp, dimension=inuse

netdata__ipv4__tcphandshake__events__persec__average
    chart=ipv4.tcphandshake, family=tcp, dimension=AttemptFails
    chart=ipv4.tcphandshake, family=tcp, dimension=EstabResets
    chart=ipv4.tcphandshake, family=tcp, dimension=OutRsts
    chart=ipv4.tcphandshake, family=tcp, dimension=SynRetrans

netdata__ipv4__tcpopens__connections__persec__average
    chart=ipv4.tcpopens, family=tcp, dimension=active
    chart=ipv4.tcpopens, family=tcp, dimension=passive

netdata__ipv4__tcppackets__packets__persec__average
    chart=ipv4.tcppackets, family=tcp, dimension=received
    chart=ipv4.tcppackets, family=tcp, dimension=sent

netdata__ipv4__tcpsock__active__connections__average
    chart=ipv4.tcpsock, family=tcp, dimension=connections

netdata__ipv4__udperrors__events__persec__average
    chart=ipv4.udperrors, family=udp, dimension=IgnoredMulti
    chart=ipv4.udperrors, family=udp, dimension=InCsumErrors
    chart=ipv4.udperrors, family=udp, dimension=InErrors
    chart=ipv4.udperrors, family=udp, dimension=NoPorts
    chart=ipv4.udperrors, family=udp, dimension=RcvbufErrors
    chart=ipv4.udperrors, family=udp, dimension=SndbufErrors

netdata__ipv4__udppackets__packets__persec__average
    chart=ipv4.udppackets, family=udp, dimension=received
    chart=ipv4.udppackets, family=udp, dimension=sent

netdata__ipv6__ect__packets__persec__average
    chart=ipv6.ect, family=packets, dimension=InCEPkts
    chart=ipv6.ect, family=packets, dimension=InECT0Pkts
    chart=ipv6.ect, family=packets, dimension=InECT1Pkts
    chart=ipv6.ect, family=packets, dimension=InNoECTPkts

netdata__ipv6__icmp__messages__persec__average
    chart=ipv6.icmp, family=icmp6, dimension=received
    chart=ipv6.icmp, family=icmp6, dimension=sent

netdata__ipv6__icmperrors__errors__persec__average
    chart=ipv6.icmperrors, family=icmp6, dimension=InCsumErrors

chart=ipv6.icmperrors, family=icmp6, dimension=InDestUnreachs
chart=ipv6.icmperrors, family=icmp6, dimension=InErrors
chart=ipv6.icmperrors, family=icmp6, dimension=InParmProblems
chart=ipv6.icmperrors, family=icmp6, dimension=InPktTooBigs
chart=ipv6.icmperrors, family=icmp6, dimension=InTimeExcds
chart=ipv6.icmperrors, family=icmp6, dimension=OutDestUnreachs
chart=ipv6.icmperrors, family=icmp6, dimension=OutErrors
chart=ipv6.icmperrors, family=icmp6, dimension=OutParmProblems
chart=ipv6.icmperrors, family=icmp6, dimension=OutPktTooBigs
chart=ipv6.icmperrors, family=icmp6, dimension=OutTimeExcds

netdata_ipv6_icmpmldv2_reports_persec_average
chart=ipv6.icmpmldv2, family=icmp6, dimension=received
chart=ipv6.icmpmldv2, family=icmp6, dimension=sent

netdata_ipv6_icmpneighbor_messages_persec_average
chart=ipv6.icmpneighbor, family=icmp6, dimension=InAdvertisements
chart=ipv6.icmpneighbor, family=icmp6, dimension=InSolicits
chart=ipv6.icmpneighbor, family=icmp6, dimension=OutAdvertisements
chart=ipv6.icmpneighbor, family=icmp6, dimension=OutSolicits

netdata_ipv6_icmprouter_messages_persec_average
chart=ipv6.icmprouter, family=icmp6, dimension=InAdvertisements
chart=ipv6.icmprouter, family=icmp6, dimension=InSolicits
chart=ipv6.icmprouter, family=icmp6, dimension=OutAdvertisements
chart=ipv6.icmprouter, family=icmp6, dimension=OutSolicits

netdata_ipv6_icmptypes_messages_persec_average
chart=ipv6.icmptypes, family=icmp6, dimension=InType1
chart=ipv6.icmptypes, family=icmp6, dimension=InType128
chart=ipv6.icmptypes, family=icmp6, dimension=InType129
chart=ipv6.icmptypes, family=icmp6, dimension=InType136
chart=ipv6.icmptypes, family=icmp6, dimension=OutType1
chart=ipv6.icmptypes, family=icmp6, dimension=OutType128
chart=ipv6.icmptypes, family=icmp6, dimension=OutType129
chart=ipv6.icmptypes, family=icmp6, dimension=OutType133
chart=ipv6.icmptypes, family=icmp6, dimension=OutType135
chart=ipv6.icmptypes, family=icmp6, dimension=OutType143

netdata_ipv6_mcast_kilobits_persec_average
chart=ipv6.mcast, family=multicast6, dimension=received
chart=ipv6.mcast, family=multicast6, dimension=sent

netdata_ipv6_mcastpkts_packets_persec_average
chart=ipv6.mcastpkts, family=multicast6, dimension=received
chart=ipv6.mcastpkts, family=multicast6, dimension=sent

netdata_ipv6_packets_packets_persec_average
chart=ipv6.packets, family=packets, dimension=delivers
chart=ipv6.packets, family=packets, dimension=forwarded
chart=ipv6.packets, family=packets, dimension=received
chart=ipv6.packets, family=packets, dimension=sent

netdata_ipv6_sockstat6_tcp_sockets_sockets_average
chart=ipv6.sockstat6_tcp_sockets, family=tcp6, dimension=inuse

netdata_ipv6_sockstat6_udp_sockets_sockets_average
chart=ipv6.sockstat6_udp_sockets, family=udp6, dimension=inuse

netdata_ipv6_udperrors_events_persec_average
chart=ipv6.udperrors, family=udp6, dimension=IgnoredMulti
chart=ipv6.udperrors, family=udp6, dimension=InCsumErrors
chart=ipv6.udperrors, family=udp6, dimension=InErrors
chart=ipv6.udperrors, family=udp6, dimension=NoPorts
chart=ipv6.udperrors, family=udp6, dimension=RcvbufErrors
chart=ipv6.udperrors, family=udp6, dimension=SndbufErrors

netdata_ipv6_udppackets_packets_persec_average
chart=ipv6.udppackets, family=udp6, dimension=received
chart=ipv6.udppackets, family=udp6, dimension=sent

netdata_mem_available_MiB_average
chart=mem.available, family=system, dimension=avail

netdata_mem_committed_MiB_average
chart=mem.committed, family=system, dimension=Committed_AS

netdata_mem_kernel_MiB_average
chart=mem.kernel, family=kernel, dimension=KernelStack
chart=mem.kernel, family=kernel, dimension=PageTables
chart=mem.kernel, family=kernel, dimension=Slab
chart=mem.kernel, family=kernel, dimension=VmallocUsed

netdata_mem_pgfaults_faults_persec_average
chart=mem.pgfaults, family=system, dimension=major
chart=mem.pgfaults, family=system, dimension=minor

netdata_mem_slab_MiB_average
chart=mem.slab, family=slab, dimension=reclaimable
chart=mem.slab, family=slab, dimension=unreclaimable

netdata_mem_writeback_MiB_average
chart=mem.writeback, family=kernel, dimension=Bounce
chart=mem.writeback, family=kernel, dimension=Dirty
chart=mem.writeback, family=kernel, dimension=FuseWriteback
chart=mem.writeback, family=kernel, dimension=NfsWriteback
chart=mem.writeback, family=kernel, dimension=Writeback

netdata_net_errors_errors_persec_average
chart=net_errors.eth0, family=eth0, dimension=inbound
chart=net_errors.eth0, family=eth0, dimension=outbound

netdata_net_events_events_persec_average
chart=net_events.eth0, family=eth0, dimension=carrier
chart=net_events.eth0, family=eth0, dimension=collisions
chart=net_events.eth0, family=eth0, dimension=frames

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netdata__net__net__kilobits__persec__average
    chart=net.eth0, family=eth0, dimension=received
    chart=net.eth0, family=eth0, dimension=sent

netdata__net__packets__packets__persec__average
    chart=net__packets.eth0, family=eth0, dimension=multicast
    chart=net__packets.eth0, family=eth0, dimension=received
    chart=net__packets.eth0, family=eth0, dimension=sent

netdata__netdata__apps__children__fix__percentage__average
    chart=netdata.apps__children__fix, family=apps.plugin, dimension=cgtime
    chart=netdata.apps__children__fix, family=apps.plugin, dimension=cmajflt
    chart=netdata.apps__children__fix, family=apps.plugin, dimension=cminflt
    chart=netdata.apps__children__fix, family=apps.plugin, dimension=cstime
    chart=netdata.apps__children__fix, family=apps.plugin, dimension=cutime

netdata__netdata__apps__cpu__milliseconds__persec__average
    chart=netdata.apps__cpu, family=apps.plugin, dimension=system
    chart=netdata.apps__cpu, family=apps.plugin, dimension=user

netdata__netdata__apps__fix__percentage__average
    chart=netdata.apps__fix, family=apps.plugin, dimension=gtime
    chart=netdata.apps__fix, family=apps.plugin, dimension=majflt
    chart=netdata.apps__fix, family=apps.plugin, dimension=minflt
    chart=netdata.apps__fix, family=apps.plugin, dimension=stime
    chart=netdata.apps__fix, family=apps.plugin, dimension=utime

netdata__netdata__apps__sizes__files__persec__average
    chart=netdata.apps__sizes, family=apps.plugin, dimension=calls
    chart=netdata.apps__sizes, family=apps.plugin, dimension=fds
    chart=netdata.apps__sizes, family=apps.plugin, dimension=filenames
    chart=netdata.apps__sizes, family=apps.plugin, dimension=files
    chart=netdata.apps__sizes, family=apps.plugin, dimension=inode__changes
    chart=netdata.apps__sizes, family=apps.plugin, dimension=link__changes
    chart=netdata.apps__sizes, family=apps.plugin, dimension=new pids
    chart=netdata.apps__sizes, family=apps.plugin, dimension=pids
    chart=netdata.apps__sizes, family=apps.plugin, dimension=targets

netdata__netdata__clients__connected__clients__average
    chart=netdata.clients, family=netdata, dimension=clients

netdata__netdata__compression__ratio__percentage__average
    chart=netdata.compression__ratio, family=netdata, dimension=savings

netdata__netdata__db__points__points__persec__average
    chart=netdata.db__points, family=queries, dimension=generated
    chart=netdata.db__points, family=queries, dimension=read

netdata__netdata__net__kilobits__persec__average
    chart=netdata.net, family=netdata, dimension=in
    chart=netdata.net, family=netdata, dimension=out

netdata__netdata__plugin__cgroups__cpu__milliseconds__persec__average
    chart=netdata.plugin__cgroups__cpu, family=cgroups, dimension=system
    chart=netdata.plugin__cgroups__cpu, family=cgroups, dimension=user

netdata__netdata__plugin__diskspace__dt__milliseconds__run__average
    chart=netdata.plugin__diskspace__dt, family=diskspace, dimension=duration

netdata__netdata__plugin__diskspace__milliseconds__persec__average
    chart=netdata.plugin__diskspace, family=diskspace, dimension=system
    chart=netdata.plugin__diskspace, family=diskspace, dimension=user

netdata__netdata__plugin__proc__cpu__milliseconds__persec__average
    chart=netdata.plugin__proc__cpu, family=proc, dimension=system
    chart=netdata.plugin__proc__cpu, family=proc, dimension=user

netdata__netdata__plugin__proc__modules__milliseconds__run__average
    chart=netdata.plugin__proc__modules, family=proc, dimension=btrfs
    chart=netdata.plugin__proc__modules, family=proc, dimension=diskstats
    chart=netdata.plugin__proc__modules, family=proc, dimension=entropy
    chart=netdata.plugin__proc__modules, family=proc, dimension=interrupts
    chart=netdata.plugin__proc__modules, family=proc, dimension=ipc
    chart=netdata.plugin__proc__modules, family=proc, dimension=ksm
    chart=netdata.plugin__proc__modules, family=proc, dimension=loadavg
    chart=netdata.plugin__proc__modules, family=proc, dimension=mdstat
    chart=netdata.plugin__proc__modules, family=proc, dimension=meminfo
    chart=netdata.plugin__proc__modules, family=proc, dimension=netdev
    chart=netdata.plugin__proc__modules, family=proc, dimension=netstat
    chart=netdata.plugin__proc__modules, family=proc, dimension=power__supply
    chart=netdata.plugin__proc__modules, family=proc, dimension=snmp
    chart=netdata.plugin__proc__modules, family=proc, dimension=snmp6
    chart=netdata.plugin__proc__modules, family=proc, dimension=sockstat
    chart=netdata.plugin__proc__modules, family=proc, dimension=sockstat6
    chart=netdata.plugin__proc__modules, family=proc, dimension=softirqs
    chart=netdata.plugin__proc__modules, family=proc, dimension=softnet
    chart=netdata.plugin__proc__modules, family=proc, dimension=stat
    chart=netdata.plugin__proc__modules, family=proc, dimension=uptime
    chart=netdata.plugin__proc__modules, family=proc, dimension=vmstat

netdata__netdata__plugin__tc__cpu__milliseconds__persec__average
    chart=netdata.plugin__tc__cpu, family=tc.helper, dimension=system
    chart=netdata.plugin__tc__cpu, family=tc.helper, dimension=user

netdata__netdata__plugin__tc__time__milliseconds__run__average
    chart=netdata.plugin__tc__time, family=tc.helper, dimension=run time

netdata__netdata__private__charts__charts__average
    chart=netdata.private__charts, family=statsd, dimension=charts

netdata__netdata__queries__queries__persec__average
    chart=netdata.queries, family=queries, dimension=queries

netdata__netdata__requests__requests__persec__average
    chart=netdata.requests, family=netdata, dimension=requests

netdata__netdata__response__time__milliseconds__request__average

chart=netdata.response_time, family=netdata, dimension=average
chart=netdata.response_time, family=netdata, dimension=max

netdata_netdata_server_cpu_milliseconds_persec_average
chart=netdata.server_cpu, family=netdata, dimension=system
chart=netdata.server_cpu, family=netdata, dimension=user

netdata_netdata_statsd_bytes_kilobits_persec_average
chart=netdata.statsd_bytes, family=statsd, dimension=tcp
chart=netdata.statsd_bytes, family=statsd, dimension=udp

netdata_netdata_statsd_cpu_milliseconds_persec_average
chart=netdata.plugin_statsd_charting_cpu, family=statsd, dimension=system
chart=netdata.plugin_statsd_charting_cpu, family=statsd, dimension=user
chart=netdata.plugin_statsd_collector1_cpu, family=statsd, dimension=system
chart=netdata.plugin_statsd_collector1_cpu, family=statsd, dimension=user

netdata_netdata_statsd_events_events_persec_average
chart=netdata.statsd_events, family=statsd, dimension=counters
chart=netdata.statsd_events, family=statsd, dimension=errors
chart=netdata.statsd_events, family=statsd, dimension=gauges
chart=netdata.statsd_events, family=statsd, dimension=histograms
chart=netdata.statsd_events, family=statsd, dimension=meters
chart=netdata.statsd_events, family=statsd, dimension=sets
chart=netdata.statsd_events, family=statsd, dimension=timers
chart=netdata.statsd_events, family=statsd, dimension=unknown

netdata_netdata_statsd_metrics_metrics_average
chart=netdata.statsd_metrics, family=statsd, dimension=counters
chart=netdata.statsd_metrics, family=statsd, dimension=gauges
chart=netdata.statsd_metrics, family=statsd, dimension=histograms
chart=netdata.statsd_metrics, family=statsd, dimension=meters
chart=netdata.statsd_metrics, family=statsd, dimension=sets
chart=netdata.statsd_metrics, family=statsd, dimension=timers

netdata_netdata_statsd_packets_packets_persec_average
chart=netdata.statsd_packets, family=statsd, dimension=tcp
chart=netdata.statsd_packets, family=statsd, dimension=udp

netdata_netdata_statsd_reads_reads_persec_average
chart=netdata.statsd_reads, family=statsd, dimension=tcp
chart=netdata.statsd_reads, family=statsd, dimension=udp

netdata_netdata_statsd_useful_metrics_metrics_average
chart=netdata.statsd_useful_metrics, family=statsd, dimension=counters
chart=netdata.statsd_useful_metrics, family=statsd, dimension=gauges
chart=netdata.statsd_useful_metrics, family=statsd, dimension=histograms
chart=netdata.statsd_useful_metrics, family=statsd, dimension=meters
chart=netdata.statsd_useful_metrics, family=statsd, dimension=sets
chart=netdata.statsd_useful_metrics, family=statsd, dimension=timers

netdata_netdata_tcp_connected_sockets_average
chart=netdata.tcp_connected, family=statsd, dimension=connected

netdata_netdata_tcp_connects_events_average
chart=netdata.tcp_connects, family=statsd, dimension=connects
chart=netdata.tcp_connects, family=statsd, dimension=disconnects

netdata_netdata_web_cpu_milliseconds_persec_average
chart=netdata.web_thread1_cpu, family=web, dimension=system
chart=netdata.web_thread1_cpu, family=web, dimension=user

netdata_system_active_processes_processes_average
chart=system.active_processes, family=processes, dimension=active

netdata_system_cpu_percentage_average
chart=system.cpu, family=cpu, dimension=guest
chart=system.cpu, family=cpu, dimension=guest_nice
chart=system.cpu, family=cpu, dimension=idle
chart=system.cpu, family=cpu, dimension=iowait
chart=system.cpu, family=cpu, dimension=irq
chart=system.cpu, family=cpu, dimension=nice
chart=system.cpu, family=cpu, dimension=softirq
chart=system.cpu, family=cpu, dimension=steal
chart=system.cpu, family=cpu, dimension=system
chart=system.cpu, family=cpu, dimension=user

netdata_system_ctxt_context_switches_persec_average
chart=system.ctxt, family=processes, dimension=switches

netdata_system_entropy_entropy_average
chart=system.entropy, family=entropy, dimension=entropy

netdata_system_forks_processes_persec_average
chart=system.forks, family=processes, dimension=started

netdata_system_idlejitter_microseconds_lost_persec_average
chart=system.idlejitter, family=idlejitter, dimension=average
chart=system.idlejitter, family=idlejitter, dimension=max
chart=system.idlejitter, family=idlejitter, dimension=min

netdata_system_interrupts_interrupts_persec_average
chart=system.interrupts, family=interrupts, dimension=LOC
chart=system.interrupts, family=interrupts, dimension=MCP
chart=system.interrupts, family=interrupts, dimension=ata_piix_14
chart=system.interrupts, family=interrupts, dimension=ata_piix_15
chart=system.interrupts, family=interrupts, dimension=eth0_11
chart=system.interrupts, family=interrupts, dimension=floppy_6
chart=system.interrupts, family=interrupts, dimension=i8042_1
chart=system.interrupts, family=interrupts, dimension=i8042_12
chart=system.interrupts, family=interrupts, dimension=rtc0_8
chart=system.interrupts, family=interrupts, dimension=serial_4
chart=system.interrupts, family=interrupts, dimension=timer_0

netdata_system_intr_interrupts_persec_average
chart=system.intr, family=interrupts, dimension=interrupts

Appendixes

netdata__system__io__KiB__persec__average
    chart=system.io, family=disk, dimension=in
    chart=system.io, family=disk, dimension=out
netdata__system__ip__kilobits__persec__average
    chart=system.ip, family=network, dimension=received
    chart=system.ip, family=network, dimension=sent
netdata__system__ipc__semaphore__arrays__arrays__average
    chart=system.ipc__semaphore__arrays, family=ipc semaphores, dimension=arrays
netdata__system__ipc__semaphores__semaphores__average
    chart=system.ipc__semaphores, family=ipc semaphores, dimension=semaphores
netdata__system__ipv6__kilobits__persec__average
    chart=system.ipv6, family=network, dimension=received
    chart=system.ipv6, family=network, dimension=sent
netdata__system__load__load__average
    chart=system.load, family=load, dimension=load1
    chart=system.load, family=load, dimension=load15
    chart=system.load, family=load, dimension=load5
netdata__system__net__kilobits__persec__average
    chart=system.net, family=network, dimension=received
    chart=system.net, family=network, dimension=sent
netdata__system__pgpgio__KiB__persec__average
    chart=system.pgpgio, family=disk, dimension=in
    chart=system.pgpgio, family=disk, dimension=out
netdata__system__processes__processes__average
    chart=system.processes, family=processes, dimension=blocked
    chart=system.processes, family=processes, dimension=running
netdata__system__ram__MiB__average
    chart=system.ram, family=ram, dimension=buffers
    chart=system.ram, family=ram, dimension=cached
    chart=system.ram, family=ram, dimension=free
    chart=system.ram, family=ram, dimension=used
netdata__system__shared__memory__bytes__bytes__average
    chart=system.shared__memory__bytes, family=ipc shared memory, dimension=bytes
netdata__system__shared__memory__segments__segments__average
    chart=system.shared__memory__segments, family=ipc shared memory, dimension=segments
netdata__system__softirqs__softirqs__persec__average
    chart=system.softirqs, family=softirqs, dimension=BLOCK
    chart=system.softirqs, family=softirqs, dimension=HRTIMER
    chart=system.softirqs, family=softirqs, dimension=NET__RX
    chart=system.softirqs, family=softirqs, dimension=NET__TX
    chart=system.softirqs, family=softirqs, dimension=RCU
    chart=system.softirqs, family=softirqs, dimension=TASKLET
    chart=system.softirqs, family=softirqs, dimension=TIMER
netdata__system__softnet__stat__events__persec__average
    chart=system.softnet__stat, family=softnet__stat, dimension=dropped
    chart=system.softnet__stat, family=softnet__stat, dimension=flow__limit__count
    chart=system.softnet__stat, family=softnet__stat, dimension=processed
    chart=system.softnet__stat, family=softnet__stat, dimension=received__rps
    chart=system.softnet__stat, family=softnet__stat, dimension=squeezed
netdata__system__swap__MiB__average
    chart=system.swap, family=swap, dimension=free
    chart=system.swap, family=swap, dimension=used
netdata__system__uptime__seconds__average
    chart=system.uptime, family=uptime, dimension=uptime
netdata__users__cpu__percentage__average
    chart=users.cpu, family=cpu, dimension=daemon
    chart=users.cpu, family=cpu, dimension=fields
    chart=users.cpu, family=cpu, dimension=messagebus
    chart=users.cpu, family=cpu, dimension=netdata
    chart=users.cpu, family=cpu, dimension=root
    chart=users.cpu, family=cpu, dimension=smmsp
netdata__users__cpu__system__percentage__average
    chart=users.cpu__system, family=cpu, dimension=daemon
    chart=users.cpu__system, family=cpu, dimension=fields
    chart=users.cpu__system, family=cpu, dimension=messagebus
    chart=users.cpu__system, family=cpu, dimension=netdata
    chart=users.cpu__system, family=cpu, dimension=root
    chart=users.cpu__system, family=cpu, dimension=smmsp
netdata__users__cpu__user__percentage__average
    chart=users.cpu__user, family=cpu, dimension=daemon
    chart=users.cpu__user, family=cpu, dimension=fields
    chart=users.cpu__user, family=cpu, dimension=messagebus
    chart=users.cpu__user, family=cpu, dimension=netdata
    chart=users.cpu__user, family=cpu, dimension=root
    chart=users.cpu__user, family=cpu, dimension=smmsp
netdata__users__files__open__files__average
    chart=users.files, family=disk, dimension=daemon
    chart=users.files, family=disk, dimension=fields
    chart=users.files, family=disk, dimension=messagebus
    chart=users.files, family=disk, dimension=netdata
    chart=users.files, family=disk, dimension=root
    chart=users.files, family=disk, dimension=smmsp
netdata__users__lreads__KiB__persec__average
    chart=users.lreads, family=disk, dimension=daemon
    chart=users.lreads, family=disk, dimension=fields
    chart=users.lreads, family=disk, dimension=messagebus
    chart=users.lreads, family=disk, dimension=netdata

    chart=users.lreads, family=disk, dimension=root
    chart=users.lreads, family=disk, dimension=smmsp
netdata__users__lwrites__KiB__persec__average
    chart=users.lwrites, family=disk, dimension=daemon
    chart=users.lwrites, family=disk, dimension=fields
    chart=users.lwrites, family=disk, dimension=messagebus
    chart=users.lwrites, family=disk, dimension=netdata
    chart=users.lwrites, family=disk, dimension=root
    chart=users.lwrites, family=disk, dimension=smmsp
netdata__users__major__faults__page__faults__persec__average
    chart=users.major__faults, family=swap, dimension=daemon
    chart=users.major__faults, family=swap, dimension=fields
    chart=users.major__faults, family=swap, dimension=messagebus
    chart=users.major__faults, family=swap, dimension=netdata
    chart=users.major__faults, family=swap, dimension=root
    chart=users.major__faults, family=swap, dimension=smmsp
netdata__users__mem__MiB__average
    chart=users.mem, family=mem, dimension=daemon
    chart=users.mem, family=mem, dimension=fields
    chart=users.mem, family=mem, dimension=messagebus
    chart=users.mem, family=mem, dimension=netdata
    chart=users.mem, family=mem, dimension=root
    chart=users.mem, family=mem, dimension=smmsp
netdata__users__minor__faults__page__faults__persec__average
    chart=users.minor__faults, family=mem, dimension=daemon
    chart=users.minor__faults, family=mem, dimension=fields
    chart=users.minor__faults, family=mem, dimension=messagebus
    chart=users.minor__faults, family=mem, dimension=netdata
    chart=users.minor__faults, family=mem, dimension=root
    chart=users.minor__faults, family=mem, dimension=smmsp
netdata__users__pipes__open__pipes__average
    chart=users.pipes, family=processes, dimension=daemon
    chart=users.pipes, family=processes, dimension=fields
    chart=users.pipes, family=processes, dimension=messagebus
    chart=users.pipes, family=processes, dimension=netdata
    chart=users.pipes, family=processes, dimension=root
    chart=users.pipes, family=processes, dimension=smmsp
netdata__users__preads__KiB__persec__average
    chart=users.preads, family=disk, dimension=daemon
    chart=users.preads, family=disk, dimension=fields
    chart=users.preads, family=disk, dimension=messagebus
    chart=users.preads, family=disk, dimension=netdata
    chart=users.preads, family=disk, dimension=root
    chart=users.preads, family=disk, dimension=smmsp
netdata__users__processes__processes__average
    chart=users.processes, family=processes, dimension=daemon
    chart=users.processes, family=processes, dimension=fields
    chart=users.processes, family=processes, dimension=messagebus
    chart=users.processes, family=processes, dimension=netdata
    chart=users.processes, family=processes, dimension=root
    chart=users.processes, family=processes, dimension=smmsp
netdata__users__pwrites__KiB__persec__average
    chart=users.pwrites, family=disk, dimension=daemon
    chart=users.pwrites, family=disk, dimension=fields
    chart=users.pwrites, family=disk, dimension=messagebus
    chart=users.pwrites, family=disk, dimension=netdata
    chart=users.pwrites, family=disk, dimension=root
    chart=users.pwrites, family=disk, dimension=smmsp
netdata__users__sockets__open__sockets__average
    chart=users.sockets, family=net, dimension=daemon
    chart=users.sockets, family=net, dimension=fields
    chart=users.sockets, family=net, dimension=messagebus
    chart=users.sockets, family=net, dimension=netdata
    chart=users.sockets, family=net, dimension=root
    chart=users.sockets, family=net, dimension=smmsp
netdata__users__swap__MiB__average
    chart=users.swap, family=swap, dimension=daemon
    chart=users.swap, family=swap, dimension=fields
    chart=users.swap, family=swap, dimension=messagebus
    chart=users.swap, family=swap, dimension=netdata
    chart=users.swap, family=swap, dimension=root
    chart=users.swap, family=swap, dimension=smmsp
netdata__users__threads__threads__average
    chart=users.threads, family=processes, dimension=daemon
    chart=users.threads, family=processes, dimension=fields
    chart=users.threads, family=processes, dimension=messagebus
    chart=users.threads, family=processes, dimension=netdata
    chart=users.threads, family=processes, dimension=root
    chart=users.threads, family=processes, dimension=smmsp
netdata__users__uptime__avg__seconds__average
    chart=users.uptime__avg, family=processes, dimension=daemon
    chart=users.uptime__avg, family=processes, dimension=fields
    chart=users.uptime__avg, family=processes, dimension=messagebus
    chart=users.uptime__avg, family=processes, dimension=netdata
    chart=users.uptime__avg, family=processes, dimension=root
    chart=users.uptime__avg, family=processes, dimension=smmsp
netdata__users__uptime__max__seconds__average
    chart=users.uptime__max, family=processes, dimension=daemon
    chart=users.uptime__max, family=processes, dimension=fields
    chart=users.uptime__max, family=processes, dimension=messagebus
    chart=users.uptime__max, family=processes, dimension=netdata

chart=users.uptime__max, family=processes, dimension=root
chart=users.uptime__max, family=processes, dimension=smmsp

netdata_users_uptime_min_seconds_average

chart=users.uptime__min, family=processes, dimension=daemon
chart=users.uptime__min, family=processes, dimension=fields
chart=users.uptime__min, family=processes, dimension=messagebus
chart=users.uptime__min, family=processes, dimension=netdata
chart=users.uptime__min, family=processes, dimension=root
chart=users.uptime__min, family=processes, dimension=smmsp

netdata_users_uptime_seconds_average

chart=users.uptime, family=processes, dimension=daemon
chart=users.uptime, family=processes, dimension=fields
chart=users.uptime, family=processes, dimension=messagebus
chart=users.uptime, family=processes, dimension=netdata
chart=users.uptime, family=processes, dimension=root
chart=users.uptime, family=processes, dimension=smmsp

netdata_users_vmem_MiB_average

chart=users.vmem, family=mem, dimension=daemon
chart=users.vmem, family=mem, dimension=fields
chart=users.vmem, family=mem, dimension=messagebus
chart=users.vmem, family=mem, dimension=netdata
chart=users.vmem, family=mem, dimension=root
chart=users.vmem, family=mem, dimension=smmsp

Appendix B: Netdata Selected Metrics Set

The subset of metrics collected by Netdata that were used to train the models for the Linux OS:

netdata_apps_cpu_percentage_average
    chart=apps.cpu, family=cpu, dimension=apps.plugin
    chart=apps.cpu, family=cpu, dimension=cron
    chart=apps.cpu, family=cpu, dimension=go.d.plugin
    chart=apps.cpu, family=cpu, dimension=kernel
    chart=apps.cpu, family=cpu, dimension=logs
    chart=apps.cpu, family=cpu, dimension=netdata
    chart=apps.cpu, family=cpu, dimension=other
    chart=apps.cpu, family=cpu, dimension=ssh
    chart=apps.cpu, family=cpu, dimension=system
    chart=apps.cpu, family=cpu, dimension=tc-qos-helper

netdata_apps_cpu_system_percentage_average
    chart=apps.cpu_system, family=cpu, dimension=apps.plugin
    chart=apps.cpu_system, family=cpu, dimension=cron
    chart=apps.cpu_system, family=cpu, dimension=go.d.plugin
    chart=apps.cpu_system, family=cpu, dimension=kernel
    chart=apps.cpu_system, family=cpu, dimension=logs
    chart=apps.cpu_system, family=cpu, dimension=netdata
    chart=apps.cpu_system, family=cpu, dimension=other
    chart=apps.cpu_system, family=cpu, dimension=ssh
    chart=apps.cpu_system, family=cpu, dimension=system
    chart=apps.cpu_system, family=cpu, dimension=tc-qos-helper

netdata_apps_cpu_user_percentage_average
    chart=apps.cpu_user, family=cpu, dimension=apps.plugin
    chart=apps.cpu_user, family=cpu, dimension=cron
    chart=apps.cpu_user, family=cpu, dimension=go.d.plugin
    chart=apps.cpu_user, family=cpu, dimension=logs
    chart=apps.cpu_user, family=cpu, dimension=netdata
    chart=apps.cpu_user, family=cpu, dimension=other
    chart=apps.cpu_user, family=cpu, dimension=ssh
    chart=apps.cpu_user, family=cpu, dimension=system
    chart=apps.cpu_user, family=cpu, dimension=tc-qos-helper

netdata_apps_files_open_files_average
    chart=apps.files, family=disk, dimension=apps.plugin
    chart=apps.files, family=disk, dimension=cron
    chart=apps.files, family=disk, dimension=go.d.plugin
    chart=apps.files, family=disk, dimension=logs
    chart=apps.files, family=disk, dimension=netdata
    chart=apps.files, family=disk, dimension=other
    chart=apps.files, family=disk, dimension=ssh
    chart=apps.files, family=disk, dimension=system
    chart=apps.files, family=disk, dimension=tc-qos-helper

netdata_apps_lreads_KiB_persec_average
    chart=apps.lreads, family=disk, dimension=apps.plugin
    chart=apps.lreads, family=disk, dimension=cron
    chart=apps.lreads, family=disk, dimension=logs
    chart=apps.lreads, family=disk, dimension=netdata
    chart=apps.lreads, family=disk, dimension=other
    chart=apps.lreads, family=disk, dimension=ssh
    chart=apps.lreads, family=disk, dimension=system
    chart=apps.lreads, family=disk, dimension=tc-qos-helper

netdata_apps_lwrites_KiB_persec_average
    chart=apps.lwrites, family=disk, dimension=apps.plugin
    chart=apps.lwrites, family=disk, dimension=cron
    chart=apps.lwrites, family=disk, dimension=go.d.plugin
    chart=apps.lwrites, family=disk, dimension=logs
    chart=apps.lwrites, family=disk, dimension=netdata
    chart=apps.lwrites, family=disk, dimension=other
    chart=apps.lwrites, family=disk, dimension=ssh
    chart=apps.lwrites, family=disk, dimension=system
    chart=apps.lwrites, family=disk, dimension=tc-qos-helper

netdata_apps_major_faults_page_faults_persec_average
    chart=apps.major_faults, family=swap, dimension=netdata
    chart=apps.major_faults, family=swap, dimension=other
    chart=apps.major_faults, family=swap, dimension=ssh

netdata_apps_mem_MiB_average
    chart=apps.mem, family=mem, dimension=apps.plugin
    chart=apps.mem, family=mem, dimension=cron
    chart=apps.mem, family=mem, dimension=dhcp
    chart=apps.mem, family=mem, dimension=go.d.plugin
    chart=apps.mem, family=mem, dimension=logs
    chart=apps.mem, family=mem, dimension=netdata
    chart=apps.mem, family=mem, dimension=other
    chart=apps.mem, family=mem, dimension=ssh
    chart=apps.mem, family=mem, dimension=system
    chart=apps.mem, family=mem, dimension=tc-qos-helper

netdata_apps_minor_faults_page_faults_persec_average
    chart=apps.minor_faults, family=mem, dimension=apps.plugin
    chart=apps.minor_faults, family=mem, dimension=cron
    chart=apps.minor_faults, family=mem, dimension=go.d.plugin
    chart=apps.minor_faults, family=mem, dimension=logs
    chart=apps.minor_faults, family=mem, dimension=netdata
    chart=apps.minor_faults, family=mem, dimension=other
    chart=apps.minor_faults, family=mem, dimension=ssh
    chart=apps.minor_faults, family=mem, dimension=system

    chart=apps.minor__faults, family=mem, dimension=tc-qos-helper

netdata__apps__pipes__open__pipes__average
    chart=apps.pipes, family=processes, dimension=apps.plugin
    chart=apps.pipes, family=processes, dimension=cron
    chart=apps.pipes, family=processes, dimension=go.d.plugin
    chart=apps.pipes, family=processes, dimension=netdata
    chart=apps.pipes, family=processes, dimension=other
    chart=apps.pipes, family=processes, dimension=ssh
    chart=apps.pipes, family=processes, dimension=tc-qos-helper

netdata__apps__preads__KiB__persec__average
    chart=apps.preads, family=disk, dimension=cron
    chart=apps.preads, family=disk, dimension=netdata
    chart=apps.preads, family=disk, dimension=other
    chart=apps.preads, family=disk, dimension=ssh

netdata__apps__processes__processes__average
    chart=apps.processes, family=processes, dimension=cron
    chart=apps.processes, family=processes, dimension=kernel
    chart=apps.processes, family=processes, dimension=netdata
    chart=apps.processes, family=processes, dimension=other
    chart=apps.processes, family=processes, dimension=ssh
    chart=apps.processes, family=processes, dimension=tc-qos-helper

netdata__apps__pwrites__KiB__persec__average
    chart=apps.pwrites, family=disk, dimension=apps.plugin
    chart=apps.pwrites, family=disk, dimension=cron
    chart=apps.pwrites, family=disk, dimension=go.d.plugin
    chart=apps.pwrites, family=disk, dimension=kernel
    chart=apps.pwrites, family=disk, dimension=logs
    chart=apps.pwrites, family=disk, dimension=netdata
    chart=apps.pwrites, family=disk, dimension=other

netdata__apps__sockets__open__sockets__average
    chart=apps.sockets, family=net, dimension=apps.plugin
    chart=apps.sockets, family=net, dimension=cron
    chart=apps.sockets, family=net, dimension=go.d.plugin
    chart=apps.sockets, family=net, dimension=netdata
    chart=apps.sockets, family=net, dimension=other
    chart=apps.sockets, family=net, dimension=ssh
    chart=apps.sockets, family=net, dimension=system
    chart=apps.sockets, family=net, dimension=tc-qos-helper

netdata__apps__threads__threads__average
    chart=apps.threads, family=processes, dimension=cron
    chart=apps.threads, family=processes, dimension=go.d.plugin
    chart=apps.threads, family=processes, dimension=kernel
    chart=apps.threads, family=processes, dimension=netdata
    chart=apps.threads, family=processes, dimension=other
    chart=apps.threads, family=processes, dimension=ssh
    chart=apps.threads, family=processes, dimension=tc-qos-helper

netdata__apps__vmem__MiB__average
    chart=apps.vmem, family=mem, dimension=apps.plugin
    chart=apps.vmem, family=mem, dimension=cron
    chart=apps.vmem, family=mem, dimension=logs
    chart=apps.vmem, family=mem, dimension=netdata
    chart=apps.vmem, family=mem, dimension=other
    chart=apps.vmem, family=mem, dimension=ssh
    chart=apps.vmem, family=mem, dimension=system
    chart=apps.vmem, family=mem, dimension=tc-qos-helper

netdata__cpu__cpu__percentage__average
    chart=cpu.cpu0, family=utilization, dimension=idle
    chart=cpu.cpu0, family=utilization, dimension=iowait
    chart=cpu.cpu0, family=utilization, dimension=irq
    chart=cpu.cpu0, family=utilization, dimension=softirq
    chart=cpu.cpu0, family=utilization, dimension=system
    chart=cpu.cpu0, family=utilization, dimension=user

netdata__cpu__interrupts__interrupts__persec__average
    chart=cpu.cpu0__interrupts, family=interrupts, dimension=LOC
    chart=cpu.cpu0__interrupts, family=interrupts, dimension=MCP
    chart=cpu.cpu0__interrupts, family=interrupts, dimension=ata__piix__14
    chart=cpu.cpu0__interrupts, family=interrupts, dimension=ata__piix__15
    chart=cpu.cpu0__interrupts, family=interrupts, dimension=eth0__11
    chart=cpu.cpu0__interrupts, family=interrupts, dimension=serial__4

netdata__cpu__softnet__stat__events__persec__average
    chart=cpu.cpu0__softnet__stat, family=softnet__stat, dimension=processed

netdata__disk__avgsz__KiB__operation__average
    chart=disk__avgsz.sda, family=sda, dimension=reads
    chart=disk__avgsz.sda, family=sda, dimension=writes

netdata__disk__await__milliseconds__operation__average
    chart=disk__await.sda, family=sda, dimension=reads
    chart=disk__await.sda, family=sda, dimension=writes

netdata__disk__backlog__milliseconds__average
    chart=disk__backlog.sda, family=sda, dimension=backlog

netdata__disk__inodes__inodes__average
    chart=disk__inodes.__, family=/, dimension=avail
    chart=disk__inodes.__, family=/, dimension=used
    chart=disk__inodes.__run, family=/run, dimension=avail
    chart=disk__inodes.__run, family=/run, dimension=used

netdata__disk__io__KiB__persec__average
    chart=disk.sda, family=sda, dimension=reads
    chart=disk.sda, family=sda, dimension=writes

netdata__disk__iotime__milliseconds__persec__average
    chart=disk__iotime.sda, family=sda, dimension=reads

chart=disk_iotime.sda, family=sda, dimension=writes

netdata_disk_mops_merged_operations_persec_average
    chart=disk_mops.sda, family=sda, dimension=reads
    chart=disk_mops.sda, family=sda, dimension=writes

netdata_disk_ops_operations_persec_average
    chart=disk_ops.sda, family=sda, dimension=reads
    chart=disk_ops.sda, family=sda, dimension=writes

netdata_disk_space_GiB_average
    chart=disk_space._, family=/, dimension=avail
    chart=disk_space._, family=/, dimension=used
    chart=disk_space._run, family=/run, dimension=avail
    chart=disk_space._run, family=/run, dimension=used

netdata_disk_svctm_milliseconds_operation_average
    chart=disk_svctm.sda, family=sda, dimension=svctm

netdata_disk_util____of_time_working_average
    chart=disk_util.sda, family=sda, dimension=utilization

netdata_groups_cpu_percentage_average
    chart=groups.cpu, family=cpu, dimension=fields
    chart=groups.cpu, family=cpu, dimension=messagebus
    chart=groups.cpu, family=cpu, dimension=netdata
    chart=groups.cpu, family=cpu, dimension=root
    chart=groups.cpu, family=cpu, dimension=smmsp

netdata_groups_cpu_system_percentage_average
    chart=groups.cpu_system, family=cpu, dimension=fields
    chart=groups.cpu_system, family=cpu, dimension=messagebus
    chart=groups.cpu_system, family=cpu, dimension=netdata
    chart=groups.cpu_system, family=cpu, dimension=root
    chart=groups.cpu_system, family=cpu, dimension=smmsp

netdata_groups_cpu_user_percentage_average
    chart=groups.cpu_user, family=cpu, dimension=fields
    chart=groups.cpu_user, family=cpu, dimension=messagebus
    chart=groups.cpu_user, family=cpu, dimension=netdata
    chart=groups.cpu_user, family=cpu, dimension=root
    chart=groups.cpu_user, family=cpu, dimension=smmsp

netdata_groups_files_open_files_average
    chart=groups.files, family=disk, dimension=fields
    chart=groups.files, family=disk, dimension=netdata
    chart=groups.files, family=disk, dimension=root
    chart=groups.files, family=disk, dimension=smmsp

netdata_groups_lreads_KiB_persec_average
    chart=groups.lreads, family=disk, dimension=fields
    chart=groups.lreads, family=disk, dimension=messagebus
    chart=groups.lreads, family=disk, dimension=netdata
    chart=groups.lreads, family=disk, dimension=root
    chart=groups.lreads, family=disk, dimension=smmsp

netdata_groups_lwrites_KiB_persec_average
    chart=groups.lwrites, family=disk, dimension=fields
    chart=groups.lwrites, family=disk, dimension=netdata
    chart=groups.lwrites, family=disk, dimension=root
    chart=groups.lwrites, family=disk, dimension=smmsp

netdata_groups_major_faults_page_faults_persec_average
    chart=groups.major_faults, family=swap, dimension=fields
    chart=groups.major_faults, family=swap, dimension=netdata
    chart=groups.major_faults, family=swap, dimension=root

netdata_groups_mem_MiB_average
    chart=groups.mem, family=mem, dimension=daemon
    chart=groups.mem, family=mem, dimension=fields
    chart=groups.mem, family=mem, dimension=messagebus
    chart=groups.mem, family=mem, dimension=netdata
    chart=groups.mem, family=mem, dimension=root
    chart=groups.mem, family=mem, dimension=smmsp

netdata_groups_minor_faults_page_faults_persec_average
    chart=groups.minor_faults, family=mem, dimension=fields
    chart=groups.minor_faults, family=mem, dimension=messagebus
    chart=groups.minor_faults, family=mem, dimension=netdata
    chart=groups.minor_faults, family=mem, dimension=root
    chart=groups.minor_faults, family=mem, dimension=smmsp

netdata_groups_pipes_open_pipes_average
    chart=groups.pipes, family=processes, dimension=fields
    chart=groups.pipes, family=processes, dimension=netdata
    chart=groups.pipes, family=processes, dimension=root
    chart=groups.pipes, family=processes, dimension=smmsp

netdata_groups_preads_KiB_persec_average
    chart=groups.preads, family=disk, dimension=fields
    chart=groups.preads, family=disk, dimension=netdata
    chart=groups.preads, family=disk, dimension=root
    chart=groups.preads, family=disk, dimension=smmsp

netdata_groups_processes_processes_average
    chart=groups.processes, family=processes, dimension=fields
    chart=groups.processes, family=processes, dimension=netdata
    chart=groups.processes, family=processes, dimension=root
    chart=groups.processes, family=processes, dimension=smmsp

netdata_groups_pwrites_KiB_persec_average
    chart=groups.pwrites, family=disk, dimension=fields
    chart=groups.pwrites, family=disk, dimension=netdata
    chart=groups.pwrites, family=disk, dimension=root
    chart=groups.pwrites, family=disk, dimension=smmsp

netdata_groups_sockets_open_sockets_average

    chart=groups.sockets, family=net, dimension=fields
    chart=groups.sockets, family=net, dimension=messagebus
    chart=groups.sockets, family=net, dimension=netdata
    chart=groups.sockets, family=net, dimension=root
    chart=groups.sockets, family=net, dimension=smmsp

netdata__groups__threads__threads__average
    chart=groups.threads, family=processes, dimension=fields
    chart=groups.threads, family=processes, dimension=netdata
    chart=groups.threads, family=processes, dimension=root
    chart=groups.threads, family=processes, dimension=smmsp

netdata__groups__vmem__MiB__average
    chart=groups.vmem, family=mem, dimension=fields
    chart=groups.vmem, family=mem, dimension=netdata
    chart=groups.vmem, family=mem, dimension=root
    chart=groups.vmem, family=mem, dimension=smmsp

netdata_ip_ecnpkts_packets_persec_average
    chart=ip.ecnpkts, family=ecn, dimension=NoECTP

netdata_ipv4__packets__packets__persec__average
    chart=ipv4.packets, family=packets, dimension=delivered
    chart=ipv4.packets, family=packets, dimension=received
    chart=ipv4.packets, family=packets, dimension=sent

netdata_ipv4__sockstat__sockets__sockets__average
    chart=ipv4.sockstat__sockets, family=sockets, dimension=used

netdata_ipv4__sockstat__tcp__mem__KiB__average
    chart=ipv4.sockstat__tcp__mem, family=tcp, dimension=mem

netdata_ipv4__sockstat__tcp__sockets__sockets__average
    chart=ipv4.sockstat__tcp__sockets, family=tcp, dimension=alloc
    chart=ipv4.sockstat__tcp__sockets, family=tcp, dimension=inuse
    chart=ipv4.sockstat__tcp__sockets, family=tcp, dimension=orphan
    chart=ipv4.sockstat__tcp__sockets, family=tcp, dimension=timewait

netdata_ipv4__sockstat__udp__sockets__sockets__average
    chart=ipv4.sockstat__udp__sockets, family=udp, dimension=inuse

netdata_ipv4__tcphandshake__events__persec__average
    chart=ipv4.tcphandshake, family=tcp, dimension=AttemptFails
    chart=ipv4.tcphandshake, family=tcp, dimension=EstabResets
    chart=ipv4.tcphandshake, family=tcp, dimension=OutRsts

netdata_ipv4__tcpopens__connections__persec__average
    chart=ipv4.tcpopens, family=tcp, dimension=active
    chart=ipv4.tcpopens, family=tcp, dimension=passive

netdata_ipv4__tcppackets__packets__persec__average
    chart=ipv4.tcppackets, family=tcp, dimension=received
    chart=ipv4.tcppackets, family=tcp, dimension=sent

netdata_ipv4__tcpsock__active__connections__average
    chart=ipv4.tcpsock, family=tcp, dimension=connections

netdata_ipv4__udppackets__packets__persec__average
    chart=ipv4.udppackets, family=udp, dimension=received
    chart=ipv4.udppackets, family=udp, dimension=sent

netdata_ipv6__ect__packets__persec__average
    chart=ipv6.ect, family=packets, dimension=InNoECTPkts

netdata_ipv6__icmp__messages__persec__average
    chart=ipv6.icmp, family=icmp6, dimension=received

netdata_ipv6__icmprouter__messages__persec__average
    chart=ipv6.icmprouter, family=icmp6, dimension=InAdvertisements

netdata_ipv6__mcast__kilobits__persec__average
    chart=ipv6.mcast, family=multicast6, dimension=received

netdata_ipv6__mcastpkts__packets__persec__average
    chart=ipv6.mcastpkts, family=multicast6, dimension=received

netdata_ipv6__packets__packets__persec__average
    chart=ipv6.packets, family=packets, dimension=delivers
    chart=ipv6.packets, family=packets, dimension=received

netdata_ipv6__sockstat6__tcp__sockets__sockets__average
    chart=ipv6.sockstat6__tcp__sockets, family=tcp6, dimension=inuse

netdata_ipv6__sockstat6__udp__sockets__sockets__average
    chart=ipv6.sockstat6__udp__sockets, family=udp6, dimension=inuse

netdata_mem__available__MiB__average
    chart=mem.available, family=system, dimension=avail

netdata_mem__committed__MiB__average
    chart=mem.committed, family=system, dimension=Committed__AS

netdata_mem__kernel__MiB__average
    chart=mem.kernel, family=kernel, dimension=KernelStack
    chart=mem.kernel, family=kernel, dimension=PageTables
    chart=mem.kernel, family=kernel, dimension=Slab
    chart=mem.kernel, family=kernel, dimension=VmallocUsed

netdata_mem__pgfaults__faults__persec__average
    chart=mem.pgfaults, family=system, dimension=major
    chart=mem.pgfaults, family=system, dimension=minor

netdata_mem__slab__MiB__average
    chart=mem.slab, family=slab, dimension=reclaimable
    chart=mem.slab, family=slab, dimension=unreclaimable

netdata_mem__writeback__MiB__average
    chart=mem.writeback, family=kernel, dimension=Dirty
    chart=mem.writeback, family=kernel, dimension=Writeback

netdata__net__errors__errors__persec__average

    chart=net__errors.eth0, family=eth0, dimension=inbound

netdata__net__events__events__persec__average
    chart=net__events.eth0, family=eth0, dimension=frames

netdata__net__net__kilobits__persec__average
    chart=net.eth0, family=eth0, dimension=received
    chart=net.eth0, family=eth0, dimension=sent

netdata__net__packets__packets__persec__average
    chart=net__packets.eth0, family=eth0, dimension=received
    chart=net__packets.eth0, family=eth0, dimension=sent

netdata__system__active__processes__processes__average
    chart=system.active__processes, family=processes, dimension=active

netdata__system__cpu__percentage__average
    chart=system.cpu, family=cpu, dimension=idle
    chart=system.cpu, family=cpu, dimension=iowait
    chart=system.cpu, family=cpu, dimension=irq
    chart=system.cpu, family=cpu, dimension=softirq
    chart=system.cpu, family=cpu, dimension=system
    chart=system.cpu, family=cpu, dimension=user

netdata__system__ctxt__context__switches__persec__average
    chart=system.ctxt, family=processes, dimension=switches

netdata__system__entropy__entropy__average
    chart=system.entropy, family=entropy, dimension=entropy

netdata__system__forks__processes__persec__average
    chart=system.forks, family=processes, dimension=started

netdata__system__idlejitter__microseconds__lost__persec__average
    chart=system.idlejitter, family=idlejitter, dimension=average
    chart=system.idlejitter, family=idlejitter, dimension=max
    chart=system.idlejitter, family=idlejitter, dimension=min

netdata__system__interrupts__interrupts__persec__average
    chart=system.interrupts, family=interrupts, dimension=LOC
    chart=system.interrupts, family=interrupts, dimension=MCP
    chart=system.interrupts, family=interrupts, dimension=ata__piix__14
    chart=system.interrupts, family=interrupts, dimension=ata__piix__15
    chart=system.interrupts, family=interrupts, dimension=eth0__11
    chart=system.interrupts, family=interrupts, dimension=serial__4

netdata__system__intr__interrupts__persec__average
    chart=system.intr, family=interrupts, dimension=interrupts

netdata__system__io__KiB__persec__average
    chart=system.io, family=disk, dimension=in
    chart=system.io, family=disk, dimension=out

netdata__system__ip__kilobits__persec__average
    chart=system.ip, family=network, dimension=received
    chart=system.ip, family=network, dimension=sent

netdata__system__ipv6__kilobits__persec__average
    chart=system.ipv6, family=network, dimension=received

netdata__system__net__kilobits__persec__average
    chart=system.net, family=network, dimension=received
    chart=system.net, family=network, dimension=sent

netdata__system__pgpgio__KiB__persec__average
    chart=system.pgpgio, family=disk, dimension=in
    chart=system.pgpgio, family=disk, dimension=out

netdata__system__processes__processes__average
    chart=system.processes, family=processes, dimension=blocked
    chart=system.processes, family=processes, dimension=running

netdata__system__ram__MiB__average
    chart=system.ram, family=ram, dimension=buffers
    chart=system.ram, family=ram, dimension=cached
    chart=system.ram, family=ram, dimension=free
    chart=system.ram, family=ram, dimension=used

netdata__system__softnet__stat__events__persec__average
    chart=system.softnet__stat, family=softnet__stat, dimension=processed

netdata__users__cpu__percentage__average
    chart=users.cpu, family=cpu, dimension=fields
    chart=users.cpu, family=cpu, dimension=messagebus
    chart=users.cpu, family=cpu, dimension=netdata
    chart=users.cpu, family=cpu, dimension=root

netdata__users__cpu__system__percentage__average
    chart=users.cpu__system, family=cpu, dimension=fields
    chart=users.cpu__system, family=cpu, dimension=messagebus
    chart=users.cpu__system, family=cpu, dimension=netdata
    chart=users.cpu__system, family=cpu, dimension=root

netdata__users__cpu__user__percentage__average
    chart=users.cpu__user, family=cpu, dimension=fields
    chart=users.cpu__user, family=cpu, dimension=messagebus
    chart=users.cpu__user, family=cpu, dimension=netdata
    chart=users.cpu__user, family=cpu, dimension=root

netdata__users__files__open__files__average
    chart=users.files, family=disk, dimension=fields
    chart=users.files, family=disk, dimension=netdata
    chart=users.files, family=disk, dimension=root

netdata__users__lreads__KiB__persec__average
    chart=users.lreads, family=disk, dimension=fields
    chart=users.lreads, family=disk, dimension=messagebus
    chart=users.lreads, family=disk, dimension=netdata
    chart=users.lreads, family=disk, dimension=root

netdata__users__lwrites__KiB__persec__average
  chart=users.lwrites, family=disk, dimension=fields
  chart=users.lwrites, family=disk, dimension=netdata
  chart=users.lwrites, family=disk, dimension=root

netdata__users__major__faults__page__faults__persec__average
  chart=users.major__faults, family=swap, dimension=fields
  chart=users.major__faults, family=swap, dimension=netdata
  chart=users.major__faults, family=swap, dimension=root

netdata__users__mem__MiB__average
  chart=users.mem, family=mem, dimension=daemon
  chart=users.mem, family=mem, dimension=fields
  chart=users.mem, family=mem, dimension=messagebus
  chart=users.mem, family=mem, dimension=netdata
  chart=users.mem, family=mem, dimension=root

netdata__users__minor__faults__page__faults__persec__average
  chart=users.minor__faults, family=mem, dimension=fields
  chart=users.minor__faults, family=mem, dimension=messagebus
  chart=users.minor__faults, family=mem, dimension=netdata
  chart=users.minor__faults, family=mem, dimension=root

netdata__users__pipes__open__pipes__average
  chart=users.pipes, family=processes, dimension=fields
  chart=users.pipes, family=processes, dimension=netdata
  chart=users.pipes, family=processes, dimension=root

netdata__users__preads__KiB__persec__average
  chart=users.preads, family=disk, dimension=fields
  chart=users.preads, family=disk, dimension=netdata
  chart=users.preads, family=disk, dimension=root

netdata__users__processes__processes__average
  chart=users.processes, family=processes, dimension=fields
  chart=users.processes, family=processes, dimension=netdata
  chart=users.processes, family=processes, dimension=root

netdata__users__pwrites__KiB__persec__average
  chart=users.pwrites, family=disk, dimension=fields
  chart=users.pwrites, family=disk, dimension=netdata
  chart=users.pwrites, family=disk, dimension=root

netdata__users__sockets__open__sockets__average
  chart=users.sockets, family=net, dimension=fields
  chart=users.sockets, family=net, dimension=messagebus
  chart=users.sockets, family=net, dimension=netdata
  chart=users.sockets, family=net, dimension=root

netdata__users__threads__threads__average
  chart=users.threads, family=processes, dimension=fields
  chart=users.threads, family=processes, dimension=netdata
  chart=users.threads, family=processes, dimension=root

netdata__users__vmem__MiB__average
  chart=users.vmem, family=mem, dimension=fields
  chart=users.vmem, family=mem, dimension=netdata
  chart=users.vmem, family=mem, dimension=root

Appendix C: Failure Detectors

This section briefly details the failure detectors implemented for the fault injection campaigns. Several independent failure detectors were deployed, more precisely:

- 'failed_boot': control/address issues with boot, relaunch if necessary

- 'failed_fault_injection': fault injection was unsuccessful

- 'excessive_failures': too many failures (more than 30)

- 'crash': the OS has crashed or rebooted

- 'hang': the OS hangs; this is detected by not responding to ping, writing to disk, or accepting connections

- 'impaired_ssh': SSH not working as expected (e.g., no connection/transfer)

- 'unavailable_ssh': it was not possible to establish an SSH connection after 10 attempts

- 'impaired_io': the OS no longer writes to disk

- 'command_timeout': a given command is not executed or takes too long

- 'value': the performance of the workload is lower than the expected baseline

- 'fsck_data_corruption': the *fsck* tool detects a filesystem corruption

- 'infinite_execution': the workload execution takes 50% longer than expected

- 'incomplete_execution': the workload terminated earlier than expected

- 'empty_benchmark_results': the workload returned an empty result set

- 'no_benchmark_results': the workload did not return any results

- 'corrupt_netdata_encoding': netdata data encoding was corrupted

- 'corrupt_watchdog_encoding': watchdog data encoding was corrupted

- 'corrupt_pexpect_encoding': pexpect data encoding was corrupted

- 'corrupt_logs_encoding': logs data encoding was corrupted

The testbed also monitored the system logs (i.e., *dmesg.log, kern.log,* and the *tty* used to interact with the target machine) to detect non-fail-stop failures and/or complement the failure detectors previously described. As the goal was to catch as many potential failure messages as possible, some of the failures are specializations of a more generic version (e.g., *corrupt_kernel* is a specialization of the *bug_generic* failure). To avoid logging multiple failures for the same failure event, in such situations the parser would analyze the position of the failure in the logs and remove the generic failure. The following failures were monitored:

- 'kernel_offset'
  match: 'Kernel Offset'

- 'panic'

  match: 'kernel panic'

- 'panic_interrupt'

  match: 'Kernel panic - not syncing: Fatal exception in interrupt'
  overwrites: 'panic'

- 'resource_exhaustion'

  match: 'killed'

- 'shutdown_errors'

  match: 'killed by TERM signal'
  overwrites: 'resource_exhaustion'

- 'memory_exhaustion'

  match: 'Cannot allocate memory'

- 'memory_corruption'

  match: 'has RLIMIT_CORE set to 1'

- 'failed_tests'

  match: 'tests failed to properly run'

- 'bug_generic'

  match: 'BUG:'

- 'corrupt_kernel'

  match: 'BUG: unable to handle kernel'
  overwrites: 'bug_generic'

- 'corrupt_kernel_null_pointer'

  match: 'BUG: unable to handle kernel null'
  overwrites: 'corrupt_kernel, bug_generic'

- 'corrupt_kernel_paging'

  match: 'BUG: unable to handle kernel paging'
  overwrites: 'corrupt_kernel, bug_generic'

- 'error_generic'

  match: 'ERROR:'

- 'warning_generic'

  match: 'WARNING:'

- 'notice_generic'

  match: 'NOTICE:'

- 'kernel_bug'

  match: 'Kernel BUG'

- 'corrupt_filesystem_structure'

match: 'cd to /usr/share/phoronix-test-suite'
match: 'directory nonexistent'
match: 'command not found'
match: 'Invalid argument'

- 'kernel_stack_corruption'
  match: 'stack is corrupted'

- 'cpu_lock'
  match: 'BUG: soft lockup'
  overwrites: 'bug_generic'

- 'exploit_attempt'
  match: 'protected page'

- 'recursive_fault'
  match: 'recursive fault but reboot is needed'

- 'import_error'
  match: 'ImportError:'

- 'no_space_left'
  match: 'Cannot mmap to shared memory'

- 'segmentation_fault'
  match: 'Segmentation fault'
  match: 'segfault'

- 'nohz'
  match: 'NOHZ:'

- 'invalid_opcode'
  match: 'invalid opcode'

- 'divide_error'
  match: 'divide error'

- 'blocked_execution'
  match: 'blocked for more than'

- 'io_error'
  match: 'I/O error'

- 'long_argument_list'
  match: 'Argument list too long'

- 'too_many_open_files'
  match: 'Too many open files'

- 'out_of_memory'
  match: 'Out of memory'

- 'exception_emask'
    match: 'exception Emask'

- 'error_shared_libraries'
    match: 'error while loading shared libraries'

- 'bad_page_map'
    match: 'BUG: Bad page map'
    overwrites: 'bug_generic'

- 'bad_rss_counter'
    match: 'BUG: Bad rss-counter state'
    overwrites: 'bug_generic'

- 'corrupt_page_table'
    match: 'Corrupted page table'

- 'corrupt_journal'
    match: 'Detected aborted journal'

- 'ext4_fs'
    match: 'EXT4-fs error'

- 'input_output_error'
    match: 'Input/output error'

- 'corrupt_filesystem'
    match: 'delayed block allocation'

- 'corrupt_system'
    match: 'ERROR: In procedure'
    match: 'unable to load plugins'
    overwrites: 'error_generic'

- 'corrupt_fork'
    match: 'fork: retry: No child processes'
    match: 'Cannot fork'

- 'unavailable_resource'
    match: 'Resource temporarily unavailable'

- 'rcu_stall'
    match: 'rcu_sched detected stall'
    match: 'rcu_sched self-detected stall'

- 'aborting'
    match: 'aborting'

- 'general_fault'
    match: 'general protection fault'

- 'possible_corrupt_cifs'
     match: 'CIFS VFS'

- 'corrupt_cifs'
     match: 'CIFS VFS: Send error in write'
     match: 'CIFS VFS: tcp sent no data'
     match: 'CIFS VFS: Illegal'
     match: 'CIFS VFS: Error'
     match: 'CIFS VFS: Bad'
     match: 'CIFS VFS: No'
     match: 'CIFS VFS: RFC'
     match: 'Host is down'
     match: 'cifs_vfs_err'
     overwrites: 'possible_corrupt_cifs'

- 'warning_ext4_evict_inode'
     match: 'ext4_evict_inode'

- 'warning_mmap'
     match: 'WARNING: at mm/mmap'
     overwrites: 'warning_generic'

- 'warning_softirq'
     match: 'WARNING: at kernel/softirq'
     overwrites: 'warning_generic'

- 'no_irq_handler'
     match: 'No irq handler for vector'

- 'corrupt_ata'
     match: 'lost interrupt'
     match: 'qc timeout'

- 'page_allocation_failure'
     match: 'page allocation failure'

- 'cannot_read_realtime_clock'
     match: 'cannot read realtime clock'

- 'dma_map_failed'
     match: 'TX DMA map failed'

- 'nommu_map_single_overflow'
     match: 'nommu_map_single: overflow'

- 'stress_ng_unsuccessful_run'
     match: 'unsuccessful run'

- 'schedule_timeout'

match: 'schedule_timeout: wrong timeout'

- 'unstable_clocksource'
  match: 'Clocksource tsc unstable'

- 'invalid_irq'
  match: 'bogus return value'

- 'corrupt_permissions'
  match: 'Attempt to access syslog with CAP_SYS_ADMIN'

- 'failed_spawn'
  match: 'Failed to spawn'

- 'bad_file_descriptor'
  match: 'Bad file descriptor'

- 'network_reset_adapter'
  match: 'Reset adapter unexpectedly'

- 'tx_unit_hang'
  match: 'Detected Tx Unit Hang'

- 'runaway_loop_modprobe'
  match: 'runaway loop modprobe'

- 'exec_format_error'
  match: 'Exec format error'

- 'no_vm86_info'
  match: 'vm86_32: no vm86_info: BAD'

- 'no_sysfs_cache'
  match: 'cache allocate: using defaults, can't determine cache details from sysfs'

- 'invalid_softirq_preempt_count'
  match: 'softirq: huh, entered softirq'

- 'compromised_vm_tunneling'
  match: 'Operation too slow. Less than'