



PanFS Metrics Reference Guide

A catalog of the metrics, logs, and alerts behind VDURA observability

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Document version 12.0.0-2026-10-15-18:25:35

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1. The observability stack

The VDURA observability feature pairs a metrics pipeline with a logs pipeline. Every node runs a set of `vdura-*` services that collect data and forward it to storage on the observability VM, where it is kept in VictoriaMetrics (metrics) and VictoriaLogs (logs).

VDURA does not ship Grafana, and no Grafana instance is part of a VDURA system. Grafana appears in this reference for two reasons only: it is a common way to read the stored data, and VDURA provides sample dashboards (Chapter 4) that you can import into a Grafana instance that you run yourself. The Grafana instance used while compiling this reference was a test setup (version 13.0.1) with a VictoriaMetrics data source pointed at the test realm.

This reference catalogs the time series stored in the VictoriaMetrics database behind that stack: what each metric family measures, which labels it carries, how it is collected, and how the sample Grafana dashboards use it. It was compiled from a snapshot of a test realm (3 directors and 12 storage nodes on cloud virtual machines, PanFS release 2026.35.0) that held 1,501 metric names and about 102,000 active series. Rows marked “I” in the confidence column are inferred from names and observed values and should be confirmed with engineering.

Component	Where	Role
VictoriaMetrics cluster (vmselect)	<code>http://<director-ip>:8481/select/0/prometheus</code>	Metrics query endpoint. Cluster edition, tenant 0. Prometheus compatible API plus MetricsQL.
VictoriaLogs	<code>http://<director-ip>:9471</code>	Log storage and LogsQL query endpoint for file and journald logs from every node.
vmalert	on the observability VM (not reachable from a Grafana data source)	Evaluates rule groups <code>panfs.alerts</code> and <code>panfs.processes</code> and writes <code>ALERTS/ALERTS_FOR_STATE</code> series.
vdura-metrics-agent	every realm node	Telegraf style host collection (cpu, mem, disk, net, procstat...) plus the PanFS management agent statistics tree (<code>magent_*</code>).
Realm collector	director nodes (host <code><director-ip></code> , the master)	Reads realm state from the management database and emits the <code>panfs_*</code> inventory, alert catalog and event metrics.

In this guide, `<director-ip>` stands for the management IP address of a director node, and `<realm-name>` for the name of your realm. Replace each with the value for your own realm.

1.1 Realm topology in the data

Every series carries a common set of labels that identify the emitting node. These make it possible to slice any metric by node or by node role without joins.

Label	Example	Meaning
host	<realm-name>-director-0, <realm-name>-osd-7	Linux hostname of the node (the cloud instance name in the test realm).
host_id	fdbe4872-bf8a-a74a-...	Stable node UUID assigned by the VDURA node identity service.
ip_address	<director-ip> (directors), the storage network range (storage)	Management IP of the node.
node_name	VCH-1,1 ... VCH-15,1	PanFS realm name of the node in enclosure,slot form. In this realm VCH-1, VCH-8 and VCH-15 are the directors and the other twelve are storage nodes. Realm level panfs_* inventory metrics carry only this label.
node_type	director_l or vpod	Node role: director_l = director (Linux), vpod = virtual storage node hosting one OSD.

Node counts by role: count by (node_type) (system_uptime) returns director_l = 3, vpod = 12. The magent_* families split cleanly on role: 3 series per metric means director only (File Manager, caches, keys), 12 means storage only (iopath), 15 means every node.

1.2 Collection cadence and retention

Measured from the data: Management agent (magent_*) and realm (panfs_*) metrics arrive every 20 seconds (30 samples per 10 minutes). Host metrics are denser; system_uptime shows 180 samples per 10 minutes, which suggests the host collector runs at 10 seconds or less with duplicate delivery. The realm was built about 22 hours before this snapshot, so the retention period could not be measured; check the VictoriaMetrics -retentionPeriod flag on the observability VM.

2. Naming conventions

Four naming families coexist in the database. Recognizing them tells you the source of a metric and how to read it.

Prefix	Count	Source and reading rules
magent_local_*, magent_shelf_*	1,101	The PanFS management agent statistics tree, flattened: <code>magent_local_<hw sw sys>_<subsystem>_<stat></code> . Array statistics are flattened with a numeric suffix (<code>_0.._37</code>), and per slot items with an embedded index (<code>nic1_, fs0_, hd12_</code>). String stats become a series with value 1 and the text in a "value" label.
panfs_*	27	Realm level inventory and events from the management database. Info metric style: The sample is a state code, the content is in labels. Each family has a <code><family>_scrape_success</code> gauge.
cpu_, mem_, disk_, diskio_, net_, netstat_, nstat_, ethtool_, processes_, procstat_, system_	370	Telegraf input plugins, named <code><measurement>_<field></code> . Standard Linux semantics; counters need <code>rate()</code> or <code>increase()</code> .
ALERTS, ALERTS_FOR_STATE, observability_node_type	3	vmalert output and the agent role declaration.

2.1 Metric types

VictoriaMetrics does not store type metadata, so types below were determined by observing behaviour over six hours. Counters (Telegraf `diskio`, `net`, `nstat`; `magent fm op_count`) increase monotonically and should be rated. Gauges are read directly. Info metrics have a constant sample value and carry content in labels; read them with `last_over_time()` or `group by (...)` and never with `rate()`. Interval gauges (the `iopath measure_*` group) already represent activity in the last collection interval; summing them across nodes gives a realm number, but `rate()` on them is wrong.

2.2 Confidence key

Each row in the reference tables carries a confidence mark. C means confirmed: The meaning is established by the collector semantics (Telegraf, Prometheus), by the sample dashboards that use the metric, or by matching label values against the realm. I means inferred: The reading follows from the metric name, PanFS terminology and observed values, and should be confirmed against the agent source or with engineering.

3. Metric reference by subsystem

Tables list families rather than every flattened name; Appendix B has the complete index. "Extra labels" are those beyond the five common node labels.

3.1 Realm inventory and state (panfs_*)

These metrics are produced by a collector that reads the PanFS realm database on the director nodes (the same source the GUI and PanCLI use). The inventory families (panfs_node, panfs_volume, panfs_storageset, panfs_nic, panfs_alerts_info, panfs_sysstat_error_event and the scrape_success gauges) carry only node_name, not the five host labels, because they describe realm objects rather than the emitting host; join them to host level metrics on node_name. They follow the Prometheus "info metric" pattern: The sample value is a state code or a constant, and the interesting content is in the labels. Every panfs_* family has a companion <family>_scrape_success gauge (1 = the last collection of that family succeeded, 0 = it failed), emitted once per realm rather than per node. Dashboards read these with last_over_time(...[5m]) and group by the labels they need.

Metric/family	Type	Extra labels	Meaning	Example query	Conf
panfs_node	gauge (state code)	name, node_name, node_role (Director, Storage), node_state_ name (online), node_ state_description, node_data_serial, node_ hardware_serial, node_ ip_address, enclosure_ name, enclosure_ hardware_serial, model_ number, display_model_ number, software_ revision, cpu_model, cpu_hw_cores, cpu_hw_ threads, cpu_active_ cores, memory_bytes, bios_date, bios_revision, platform_id (cloudvm), platform_variant, system_model, system_ vendor, slot_id, activated, upgrading, reinit_eligible, remove_ eligible, leds_blinking, primary_nic_mode, primary_link_count, secondary_nic_mode, secondary_link_count, nic_physical_port_ mode, cpu_ temperature_celsius,	One series per realm node. Value observed = 6 on every node, which lines up with node_ state_name=online, so the value is the numeric node state code. The labels are a full hardware and software inventory of the node. The Realm Overview "Cluster Nodes" and "Versions" tables are built from this metric.	group by (node_name, node_role, software_ revision) (last_over_ time(panfs_ node[5m]))	C

Metric/family	Type	Extra labels	Meaning	Example query	Conf
		internal_temperature_celsius, incoming_air_temperature_celsius			
panfs_node_repset	gauge (0/1)	node_name, node_data_serial, node_ip_address, model_number, activated	Whether a node is a member of the realm manager replica set. 1 = member, 0 = not. Storage nodes are always 0, so join with panfs_node{node_role="Director"} before alerting. The vmalert rule PanFSDirectorNotInReplicaSet fires from this.	panfs_node_repset == 0 and on(node_name) panfs_node{node_role="Director"}	C
panfs_president	gauge (0/1)	datasn, slot, president_slot	Which node currently holds the realm "president" role (the elected realm manager among directors). 1 on the president, 0 elsewhere. datasn is the node data serial.	panfs_president == 1	C
panfs_master_mserver_up	gauge (0/1)	master_ip	Whether the master mserver (the realm management server) at master_ip is reachable from this node. 1 = up.	min(panfs_master_mserver_up)	C
panfs_storageset	gauge (state code)	name, bladeset_id, state ("6/6 OSDs online"), capacity_balancing_enabled, balancing_rate_bytes_per_second, imbalance_bytes, blade_imbalance_bytes, spare_osd_count, desired_spare_osd_count, brickset_flags, mlec, osd_filesystem_version, sed_key_generation_number, correctable_error_count, uncorrectable_error_count	One series per StorageSet (formerly BladeSet). Value is a state code: Observed 1 and 2 for healthy sets and -1 for the "Mixed" pseudo set; the dashboard filters with > 0 to drop the placeholder. Labels carry the capacity balancing status, spare OSD counts and error counters.	count(group by (name) (panfs_storageset > 0))	C

Metric/family	Type	Extra labels	Meaning	Example query	Conf
panfs_volume	gauge (state code)	name, volume_id, bladeset_id, volume_ state_display (Online), volume_state_ description, volume_raid (Object RAID6+), raid_ layout, raid_group_osd_ width, raid_group_ stripe_depth, stripe_ unit_bytes, stripe_osd_ count_max, max_ failures_files, directory_ replicas, aggregate_ layout, compression, compression_type (lz4), efsa_mode, recovery_ priority, soft_quota_ bytes, hard_quota_ bytes, quota_ consumed_bytes, space_used, space_ available, user_and_ group_quotas_policy, down_storage_node_ count, corrupt_object_ count, corrupt_parity_ object_count, corrupt_ log_count, object_id, vsm_id, volume_flags, volume_dynamic_flags, volume_mgmt_flags, online_since, offline_ since	One series per volume. Value observed = 3 for all online volumes (state code). Labels carry the volume configuration, RAID layout, quota settings and integrity counters. Note quota_ consumed_bytes and space_ used are labels (strings) not sample values, so they cannot be graphed without label_ value(); treat them as snapshot inventory. Tenant volumes appear under /.tenants/<id>/...	topk(1, last_over_ time(panfs_ volume[5m])) by (volume_id)	C
panfs_nic	gauge (index)	interface (eth0, bond0..2), nic_type, node_name, node_data_ serial, node_ip_address, active, in_use, mode_of_ operation, uplink_down, warnings_disabled, firmware	One series per NIC per director (12 series = 4 NICs x 3 directors). Value is the NIC index (1..4). active/in_ use/uplink_down labels give link status.	panfs_nic{uplink_ down="true"}	C
panfs_events_ dropped_total	counter	(common only)	Number of realm events the metrics collector dropped (queue overflow or parse failure) since it started.	increase(panfs_ events_dropped_ total[1h])	I

Metric/family	Type	Extra labels	Meaning	Example query	Conf
panfs.*_scrape_success	gauge (0/1)	none	One per collected family: alert_occurrences, alerts_active, alerts_info, drive, drive_bytes_read, drive_bytes_written, fan, ipmi, nic, node, node_repset, power_supply, storageset, switch, sysstat_error_event, volume. Value 1 = the last collection succeeded. Note drive, drive_bytes_read/written, fan, ipmi, power_supply and switch report success but emit no data series in this realm, because the nodes are cloud VMs with no physical enclosure; on hardware realms expect panfs_drive*, panfs_fan, panfs_ipmi, panfs_power_supply and panfs_switch families to appear.	min by (__name__) ({__name__=~"panfs.*_scrape_success"}) == 0	C
observability_node_type	gauge (1)	role (director_l, vpod), dev_type (10, 11)	Emitted by the VDURA metrics agent on every node to declare its role. role and dev_type match the node_type label stamped on all other series (director_l = director, vpod = virtual storage node/OSD). dev_type 10/11 is the internal device type code.	count by (role) (observability_node_type)	C

3.2 Alerts and events

Two alerting layers are visible. The PanFS realm has its own alert and event system (alert codes, the same ones shown in the PanFS GUI), exported as info metrics. On top of that, vmalert evaluates rule groups (panfs.alerts, panfs.processes) and writes the standard ALERTS and ALERTS_FOR_STATE series, which are what the PanFS Alerts dashboard reads. The vmalert rule definitions cannot be read from Grafana (the vmselect /api/v1/rules endpoint returns no groups, and the test Grafana instance defined no managed alert rules), so the rule expressions live in the vmalert configuration on the observability VM.

Metric/family	Type	Extra labels	Meaning	Example query	Conf
ALERTS	gauge (1)	alertname, alertstate (firing/pending), alertgroup, severity, category, source, message, node_name, activated	One series per active vmalert alert. Observed alertnames: PanFSDirectorNotInReplicaSet (group panfs.alerts) and ProcessDown (group panfs.processes). The message label is the human readable text (for example "Software Process Stopped: The process mserver..."). severity values: Critical, Warning, Informational, None.	count by (severity) (ALERTS{alertstate="firing"})	C

Metric/family	Type	Extra labels	Meaning	Example query	Conf
ALERTS_FOR_STATE	gauge (unix time)	same as ALERTS minus alertstate	Standard vmalert companion series: Value is the unix timestamp at which the alert condition first became true. Used to restore "for" durations after a restart. time() - ALERTS_FOR_STATE gives the age of an alert.	time() - ALERTS_FOR_STATE	C
panfs_alerts_info	info (1)	alert_code, alert_name (PAN_MGMT_EV_*), severity, error_level_name (info/warn/crit/none), category (hardware/volume/blade/set), is_manually_clearable, action_message, node_name	The realm alert catalog: One series per alert definition known to the realm (703 in this release). It is static reference data, not active alerts. It is the best source for decoding an alert_code seen elsewhere; Appendix A lists it.	panfs_alerts_info{alert_code="8455"}	C
panfs_alert_occurrences	gauge (count)	alert_code, alert_name, category, severity, message, node_name	Number of times a given realm alert is currently raised (active occurrences). Only alerts with at least one occurrence appear. In the test realm: One Warning, "ntpd monitor: No synchronization with external NTP server".	sum by (severity) (panfs_alert_occurrences)	C
panfs_alerts_active (family)	info	see scrape_success	Only the panfs_alerts_active_scrape_success series exists; no active alert series were present at collection time. Expect a panfs_alerts_active info metric to appear when realm alerts are active. Needs confirmation.		I
panfs_sysstat_error_event	info (1)	alert_code, alert_name, category, severity, error_level_name, is_manually_clearable, message, action_message, alert_details (JSON, e.g. {"volume_id": 1}), last_updated (timestamp), node_name	Realm system status events (the "sysstat" event log). Each event is re emitted every collection with a fresh last_updated label, so a single logical event produces a new series every minute (382 series were live for 30 events over one hour).	count by (alert_name) (last_over_time(panfs_sysstat_error_event[5m]))	C

3.3 Host operating system metrics (Telegraf style)

The vdura-metrics-agent service on every node ships host level metrics using Telegraf input plugin naming (measurement_field). All of them carry the five common labels. Sample rate is high: About 30 samples per 10 minutes for most agent metrics and up to 180 per 10 minutes for system_uptime. These are the metrics behind the Realm Node dashboard.

Metric/family	Type	Extra labels	Meaning	Example query	Conf
cpu_usage_ {user,system,idle,io wait,irq,softirq,steal, nice,guest,guest_ nice}	gauge (percent)	cpu (cpu-total, cpu0..cpuN)	Per CPU and aggregate CPU time breakdown in percent over the collection interval. Utilization is 100 - cpu_usage_ idle. steal is meaningful here because the nodes in the test realm are cloud VMs.	100 - avg by (host) (cpu_usage_ idle{cpu="cpu-total"})	C
system_load1, system_load5, system_load15	gauge	none	Standard load averages.	system_load5/system_ n_cpus	C
system_n_cpus, system_n_physical_ cpus	gauge	none	Logical and physical CPU count (4/2 on directors, 2/1 on storage VMs).		C
system_uptime	gauge (seconds)	none	Seconds since boot. Used by the dashboards as the "node is reporting" heartbeat and as the source of the \$Node variable.	count by (node_type) (system_uptime)	C
system_n_users, system_n_unique_ users	gauge	none	Logged in user sessions.		C

Metric/family	Type	Extra labels	Meaning	Example query	Conf
mem_total, mem_used, mem_free, mem_available, mem_used_percent, mem_available_percent, mem_active, mem_inactive, mem_buffered, mem_cached, mem_shared, mem_slab, mem_sreclaimable, mem_sunreclaim, mem_mapped, mem_dirty, mem_write_back, mem_write_back_tmp, mem_page_tables, mem_commit_limit, mem_committed_as, mem_swap_total, mem_swap_free, mem_swap_cached, mem_huge_page_size, mem_huge_pages_total, mem_huge_pages_free, mem_vmalloc_total, mem_vmalloc_used, mem_vmalloc_chunk, mem_high_*, mem_low_*	gauge (bytes, percent)	none	/proc/meminfo fields in bytes. Directors have 16 GiB, storage VMs are mixed (memory_bytes label on panfs_node shows 16 GiB and 2.7 GiB models). Note the Realm Node dashboard also queries mem_wired and mem_laundry, which are FreeBSD fields and do not exist on these Linux nodes; those panels render empty.	mem_used_percent	C
disk_total, disk_used, disk_free, disk_used_percent, disk_inodes_total, disk_inodes_used, disk_inodes_free, disk_inodes_used_percent	gauge (bytes, count, percent)	device, fstype (ext4, btrfs, zfs, vfat, efivarfs, panfs), path, mode, label	Filesystem usage per mount. This includes the PanFS mount itself (device="panfs://<director-ip>/", fstype="panfs") on nodes that mount the realm, which is a convenient realm wide capacity number, and the ZFS datapool datasets on storage nodes (datapool-0/pandata-0/...).	disk_used_percent{fstype="panfs"}	C
diskio_reads, diskio_writes, diskio_read_bytes, diskio_write_bytes, diskio_read_time, diskio_write_time, diskio_io_time, diskio_weighted_io_time, diskio_merged_reads, diskio_merged_writes, diskio_iops_in_progress	counter (except iops_in_progress: Gauge)	name (sda, sda1..., sdb..)	Block device counters from /proc/diskstats, per whole disk and per partition. Times are milliseconds. Rate them for throughput and IOPS. The dashboards exclude name="pass0" (a FreeBSD device name) which is harmless here.	sum by (host) (rate(diskio_read_bytes[\$_rate_interval]) + rate(diskio_write_bytes[\$_rate_interval]))	C

Metric/family	Type	Extra labels	Meaning	Example query	Conf
diskio_io_util, diskio_io_await, diskio_io_svctm	gauge (percent, ms)	name	Derived iostat style values (utilization percent, average wait, average service time). Present only for whole disks (84 series vs 213 for the counters).	max by (host) (diskio_ io_util)	C
net_bytes_sent, net_bytes_rcv, net_packets_sent, net_packets_rcv, net_err_in, net_err_ out, net_drop_in, net_drop_out	counter	interface (eth0)	Interface counters. In the cloud test realm only eth0 is reported (the gve virtual NIC); bond0..2 exist in the PanFS NIC inventory but carry no host counters.	sum by (node_type) (rate(net_bytes_ rcv[\$__rate_interval]) * 8)	C
net_speed	gauge (Mbit/s)	interface	Link speed reported by the driver (example from the cloud test realm: 8000 on directors, 4000 on storage VMs, which reflect the cloud provider's per vCPU bandwidth caps).		C
netstat_tcp_ {established,listen,ti me_wait,close_ wait,syn_sent,syn_ rcv,fin_wait1,fin_ wait2,closing,last_ ack,close,none}, netstat_udp_socket	gauge (count)	none	Socket counts by TCP state.	netstat_tcp_ established	C
nstat_* (149 metrics)	counter	none	Kernel SNMP/netstat counters from /proc/net/snmp and /proc/net/netstat with their kernel names (nstat_ TcpRetransSegs, nstat_ TcpExtTCPTimeouts, nstat_ IpInReceives, nstat_UdpInErrors, nstat_Icmp*...). Useful ones for a storage network: TcpRetransSegs, TcpExtTCPLostRetransmit, TcpExtTCPTimeouts, TcpExtListenDrops, TcpExtTCPOFQueue, UdpRcvbufErrors, IpReasmFails.	rate(nstat_ TcpRetransSegs[5m]) /rate(nstat_ TcpOutSegs[5m])	C
ethtool_* (108 metrics)	counter/ gauge	interface, driver (gve)	NIC driver statistics from ethtool -S for the Google gve driver: Per queue rx/tx bytes, descriptors, drops (ethtool_rx_ dropped_pkt_N, rx_queue_ drop_cnt_N, rx_no_buffers_ posted_N), XDP counters, admin queue command counts, plus link state (ethtool_link, ethtool_speed, ethtool_duplex, ethtool_autoneg, ethtool_ interface_up). Suffix _0/_1 is the queue index. On physical hardware the set will differ with the driver.	rate(ethtool_rx_ dropped[5m])	C

Metric/family	Type	Extra labels	Meaning	Example query	Conf
processes_ {total,running,sleeping,idle,blocked,stopped,zombies,dead,paging,unknown}, processes_total_threads	gauge (count)	none	Process table summary by state.	processes_blocked	C
procstat_cpu_usage, procstat_memory_rss, procstat_memory_vms, procstat_num_fds, procstat_num_threads, procstat_created_at	gauge	process_name, pid, pattern	Per process resource usage for processes matched by the agent's configured patterns (pattern label shows the regex: (vduralpan)-api-venv, /pan/bin/(startsrv mserver/mserver), /pan/bin/pan_mgr_hw_agent, /pan/bin/pan_sqlite_server, /pan/bin/iopathv4, /pan/bin/dhclient, and a catch all ".*"). Because pid is a label and one pattern is ".*", short lived processes (sleep, kworker) create a new series each time: 15,487 series for procstat_created_at, which is 15 percent of the whole database.	topk(10, procstat_cpu_usage{host=~"\$Node"})	C

3.4 Management agent: Hardware inventory (magent_local_hw_*)

The magent_* namespace is the PanFS management agent statistics tree (the same counters PanCLI and the realm manager read from each node), flattened into metric names:

magent_local_<subsystem>_<stat>. String valued stats are encoded as a series with sample value 1 and the text in a value label. All hw metrics are emitted by every node (15 series).

Metric/family	Type	Extra labels	Meaning	Example query	Conf
magent_local_hw_ {bios_date, bios_version, cpu_model, platform_id, variant_id, system_model, system_vendor, sysname_str, sn, version, nic_phys_ports}	info (value label)	value	Hardware identity strings: BIOS date/vendor, CPU model, platform (cloudvm), system model (Google Compute Engine), node serial (sn), model/version code (1d4034001 = storage VM model, 3f4018001 = director VM model), physical port list (eth0:10).	magent_local_hw_cpu_model	C
magent_local_hw_cpu_active_cores, cpu_hw_cores, cpu_hw_threads	gauge	none	Core and thread counts (same as the panfs_node labels).		C
magent_local_hw_mem	gauge (MiB)	none	Physical memory in MiB (15690 on 16 GiB nodes, 2741 on the small storage VMs).	magent_local_hw_mem * 1048576	C
magent_local_hw_status	gauge	none	Overall hardware status code (1 observed = OK).	magent_local_hw_status != 1	I

Metric/family	Type	Extra labels	Meaning	Example query	Conf
magent_local_hw_{internal_temp, external_temp, incoming_air_temp}	gauge (Celsius)	none	Enclosure temperatures. All 0 on cloud VMs (no sensors); meaningful on physical enclosures.		C
magent_local_hw_{high_temp_alert, trip_temp_alert, ff_trip_temp_alert, temperature_shutdown, drives_over_temp}	gauge (0/1 or count)	none	Thermal alarm flags: High temperature warning, trip point reached, fan failure trip, thermal shutdown state, number of drives over temperature.	max(magent_local_hw_trip_temp_alert)	I
magent_local_hw_nic{1..4}_{desc, name, type, status, firmware, nic_warnings}	info/gauge	value (for desc, name, firmware)	Per NIC slot inventory: The desc label is a descriptor string such as "10 GE Network Interface 1<physical,active,...>", name is the Linux device (eth0, bond0..2), type is a code (6 = physical 10 GE observed, 0 = none), status 0 = OK, nic_warnings = count of link warnings.	magent_local_hw_nic1_status != 0	I

3.5 Management agent: Node services (hagent, monitor, mcproxy, pm, sys, shelf)

Agent level counters describing the node's management daemons. Emitted by all nodes unless noted.

Metric/family	Type	Extra labels	Meaning	Example query	Conf
magent_local_sw_hagent_{version, hwserial, slot_id, shelf_master, thermal_state, check_realm_status, reload_config, local_asset_string, shelf_asset_string}	info/gauge	value (version, hwserial)	Hardware agent (pan_mgr_hw_agent): Software version string (2026.35.0-pioneer-robot.1898425), hardware serial, slot in shelf, whether this node is the shelf master (0/1), thermal state code, and counters of check_realm_status and reload_config invocations.	count by (value) (magent_local_sw_hagent_version)	I
magent_local_sw_monitor_{runlevel, runevent, checkmodule, startmodule, stopmodule, restartmodule, corefile, ledstate, property, setproperty, clearproperty, brick_property, brick_property_set, brick_property_clr}	info/gauge	value	Process monitor (pan_monitor2) state: Runlevel string (normal), last run event (fsck-complete, panfs-mounted), last module checked/started/stopped/restarted (module names such as iopathv4, pan_config, init-pan-api), last core file recorded ("0 <epoch> <size> <process>"), LED state, and brick property bit fields. The last-* values are strings so they only tell you the most recent action, not counts.	magent_local_sw_monitor_corefile	I

Metric/family	Type	Extra labels	Meaning	Example query	Conf
magent_local_sw_mcproxy_{primary,secondary}_lagg_config_{mode, link_count, flags}, magent_local_sw_mcproxy_nic_warning_disabled	gauge	none	Multicast/management proxy view of link aggregation: LAGG mode code (3 = LACP observed on primary), number of links in the aggregate (2 primary, 0 secondary), flags, and whether NIC warnings are suppressed.		I
magent_local_sw_pm_{cpty_size, cpty_used, cpty_util, disk_util, proc_util, pm_status, text_info}	gauge	none	Performance monitor summary: Local disk capacity size/used in bytes (the OS/system disk, about 37 GB here), capacity and disk utilization percent, processor utilization percent, overall status code, and a text info string.	magent_local_sw_pm_cpty_used/magent_local_sw_pm_cpty_size	I
magent_local_sys_devinfo_{boot_epoch, version}, magent_local_sys_keys_{mkey, wkey}, magent_local_sys_scripts_do_script, magent_shelf_sn, magent_shelf_version	info	none	Miscellaneous device info (boot time, version), encryption key status (directors only: Master key and wrapping key present = 1), script runner, and shelf serial/version. Values are all 1 in this realm.		I

3.6 Directors: File Manager operations (magent_local_sw_fm_*)

The File Manager (FM) is the PanFS metadata service running on directors; these counters are director only (3 series each). Every operation name appears three times with the suffixes `op_count`, `op_lifetime` and `op_occurred`. Observed behaviour: `op_count` grows slowly and never resets over 6 hours (values such as 66 for `obj_get_r_capability`), so it is a cumulative count since the FM started; `op_lifetime` is the accumulated time spent in that operation (microseconds, inferred); `op_occurred` is 0/1, apparently whether the operation happened during the last collection interval. The `fm_mgr_*` set is the management facing operations (volume and directory lifecycle) and the plain `fm_*` set is the client facing metadata protocol.

Metric/family	Type	Extra labels	Meaning	Example query	Conf
magent_local_sw_fm_op_count_<op>	counter	none	Client metadata operations: lookup, readdir, rename, dir_create, dir_delete, dir_check, dir_compact, file_create, file_create_special, file_delete, obj_setattr, obj_link, obj_start_write, obj_end_write, obj_get_r_capability (read capability grant), obj_report_io_error, obj_report_parity, ogroup_info_get, renew_callback, cancel_callback,	sum by (host) (rate(magent_local_sw_fm_op_count_lookup[5m]))	I

Metric/family	Type	Extra labels	Meaning	Example query	Conf
			cancel_callback_multi, cancel_all_callbacks (client cache callbacks/leases), userquota_get, id_identity_translate, id_identity_get_name.		
magent_local_sw_fm_op_lifetime_<op>	counter (usec)	none	Accumulated service time for the operation. lifetime/count gives mean latency.	rate(magent_local_sw_fm_op_lifetime_lookup[5m])/rate(magent_local_sw_fm_op_count_lookup[5m])	I
magent_local_sw_fm_op_occurred_<op>	gauge (0/1)	none	Whether the operation occurred in the last interval.		I
magent_local_sw_fm_mgr_op_{count,lifetime,occurred}_<op>	counter/gauge	none	Management operations on the FM: config_get, debug, dir_create_realm_root, dir_create_volume_root, dir_delete_volume_root, dir_batch_sync_all, dir_flush_for_fsrc, dir_update_ent_map_hint, volume_flush_dirs, notify_new_volume_info, notify_ogroup_deleted, obj_attrs_updated, obj_recall_caps, obj_update_map_hint, obj_update_parent_info, set_defer_delete_enable, set_defer_dir_write_enable.	magent_local_sw_fm_mgr_op_count_dir_create_volume_root	I
magent_local_sw_fm_global_op_{count,lifetime,occurred}	counter/gauge	none	Totals across all FM operations (442 on the busiest director).	rate(magent_local_sw_fm_global_op_count[5m])	I

3.7 Directors: Metadata caches (magent_local_sw_gen_cache_*)

The generic cache subsystem on directors. Two views: Per cache statistics (cache_<name>_*) and per memory partition statistics (partition_<name>_*). Caches observed: FM_dir_cache (directory entries), FM_object_attribute_cache, FM_ogroup_cache (object groups), SM_object_cache (Storage Manager objects) and pan_id_user_info_cache (identity mapping). Partitions: fm_dir, fm_attr, fm_ogroup, sm_obj and default. Director only except the default partition, which every node reports.

Metric/family	Type	Extra labels	Meaning	Example query	Conf
magent_local_sw_gen_cache_cache_<cache>_{lookup, get, miss}_{count, occurred}	counter/gauge	none	Lookups, successful gets and misses per cache. Hit ratio = 1 - miss/lookup.	1 - rate(magent_local_sw_gen_cache_cache_FM_dir_cache_miss_count[5m])/rate(magent_local_sw_gen_cache_cache_FM_dir_cache_lookup_count[5m])	I

Metric/family	Type	Extra labels	Meaning	Example query	Conf
magent_local_sw_gen_cache_cache_<cache>_{load_io, reload_io, insert_io, store_io}_{count, lifetime, occurred}	counter/gauge	none	Backing store I/O performed on behalf of the cache: Load (fill on miss), reload (refresh), insert (new entry written), store (dirty entry written back). lifetime is accumulated microseconds.	rate(magent_local_sw_gen_cache_cache_FM_object_attribute_cache_load_io_lifetime[5m])	I
magent_local_sw_gen_cache_partition_<part>_{bytes_cur, bytes_hiwat, bytes_limit, ents_cur, ents_hiwat, evicted_ent_count, eviction_event_count, eviction_event_occurred}	gauge/counter	none	Memory partition sizing: Current bytes, high water mark, configured limit (fm_attr about 1.67 GB and sm_obj about 1.38 GB on 16 GiB directors), current and peak entry counts, and eviction counters. bytes_cur/bytes_limit is cache pressure.	magent_local_sw_gen_cache_partition_fm_attr_bytes_cur/magent_local_sw_gen_cache_partition_fm_attr_bytes_limit	I

3.8 Storage nodes: OSD I/O path (magent_local_sw_iopath_*)

iopathv4 is the OSD (object storage device) service on storage nodes; these metrics are storage node only (12 series each). This is the largest family (about 900 names) because several statistics are arrays flattened with a numeric suffix. Two index spaces exist: _0.._37 (38 slots) on counts/durations/timings, which is indexed by OSD command type, and _0.._34 (35 slots) on measure_client_times_*, which is a per client table whose IP is given by measure_client_times_ip_addr_N. The command index to name mapping is not exposed in the data; the heat_* names (append, clear, clone_object, clone_object_group, close, create_object, create_object_group, get_attribute, list, list_marked_objects, move, open, read, remove_object, set_attribute, write, write_ret_xor, xor_write) are the likely command set. Values in the “measure” group are per interval (they go back to zero and stay small), while counts_N and timings_N look like per interval too (max 0 on an idle realm). Treat all of these as interval gauges rather than counters until confirmed.

Metric/family	Type	Extra labels	Meaning	Example query	Conf
magent_local_sw_iopath_counts_N, success_counts_N	gauge (count per interval)	none	Number of commands of type N received/completed successfully in the interval.	sum(magent_local_sw_iopath_counts_0)	I

Metric/family	Type	Extra labels	Meaning	Example query	Conf
magent_local_sw_iopath_duration{all, active, queue, wire, osdfs}_N	gauge (usec)	none	Latency breakdown per command type: Total (all), time actively processing (active), time queued before processing (queue), network transfer time (wire), and time in the OSD filesystem (osdfs). Values observed are microseconds (for example all=1044, osdfs=616, queue=106, wire=24). The metric names have no underscore between "duration" and the suffix (for example magent_local_sw_iopath_durationall_0).	magent_local_sw_iopath_durationall_0 - magent_local_sw_iopath_durationqueue_0	I
magent_local_sw_iopath_timings_{lifetime, active_time, inactive_time, wire_time, diskreads}_N	gauge (usec/count)	none	Second timing table with the same command index: Lifetime of the command, active vs inactive time, wire time, and number of disk reads it caused.		I
magent_local_sw_iopath_measure_{bytes_in, bytes_out, cur_bytes_transferred, io_occured, io_duration_usec, rd_duration_usec, wr_duration_usec, rw_duration_usec, ra_duration_usec, read_size, write_size, op_count_write, op_count_non_write, sol_data_write, sol_data_non_write, task_queue_depth, lowpri_count}	gauge (per interval)	none	Whole OSD throughput and latency measurements per interval: Bytes in/out, number of I/Os, total and per class (read, write, read+write, readahead) durations in microseconds, last read/write sizes, write vs non write op counts, solicited data counts, current task queue depth and low priority I/O count. Realm Overview sums these with last_over_time() for the DirectFlow panels. To convert to rates divide by the collection interval (about 20 s) rather than using rate().	sum(magent_local_sw_iopath_measure_bytes_in)/20	I
magent_local_sw_iopath_measure_df_{bytes_in, bytes_out, io_occured, io_duration_usec}	gauge (per interval)	none	Same measurements restricted to DirectFlow client traffic (df). In the test realm they equal the totals, because all traffic is DirectFlow.	sum(last_over_time(magent_local_sw_iopath_measure_df_bytes_out[\$__rate_interval]))	C
magent_local_sw_iopath_measure_client_times_{ip_addr, read_active_times, read_wire_times, write_active_times, write_wire_times}_N	info/gauge (usec)	value (ip_addr)	Per client latency table (35 slots). ip_addr_N gives the client IP in the value label; the four timing metrics give read/write active and wire time for that client. Join on the suffix to attribute latency to a client.	magent_local_sw_iopath_measure_client_times_ip_addr_0	I

Metric/family	Type	Extra labels	Meaning	Example query	Conf
magent_local_sw_iopath_measure_{capacity_bytes, remaining_capacity_bytes, bucket0_capacity_bytes, bucket0_remaining_capacity_bytes, bucket1_capacity_bytes, bucket1_remaining_capacity_bytes}	gauge (bytes)	none	OSD raw capacity and free space (224.7 GB per storage VM here) and the same split across two capacity buckets (bucket0/bucket1, presumably tiers or SSD/HDD pools). These are the right metrics for realm free space: sum(remaining_capacity_bytes).	1 - sum(magent_local_sw_iopath_measure_remaining_capacity_bytes)/sum(magent_local_sw_iopath_measure_capacity_bytes)	I
magent_local_sw_iopath_measure_{num_failed_allocations, num_timeout_cmds, num_timeout_sessions}	counter	none	Error counters: Failed space allocations, commands that timed out, and client sessions that timed out (about 50 per node in the test realm).	increase(magent_local_sw_iopath_measure_num_timeout_cmds[1h])	I
magent_local_sw_iopath_measure_{group_heat, top_n_heat_density, lowest_n_heat_density}, magent_local_sw_iopath_heat_*	gauge	none	Heat (access frequency) tracking used for data placement and tiering: heat_<command>_a/_b are the per command heat weights (constant 10, set_attribute_heat 0), heat_bucket_constant (100000) is the bucket scale, and the measure_* values are the current group heat and the density of the hottest and coldest object groups.		I
magent_local_sw_iopath_measure_writev_{from_tm, from_non_tm, size, from_tm_size}	gauge	none	Vectored write statistics split by whether the write came through the transaction manager (tm).		I
magent_local_sw_iopath_osdfs_{op_count, op_cache_hit, onode_cache_count, onode_cache_hit, bytes_per_sync, access_count_*, hit_count_*, repeat_hit_count_*}	counter	none	OSD filesystem (OSDFS) internal cache statistics by object component: Attr, cg_hdr (capacity group header), data, oid, onode. access/hit/repeat_hit per component, onode cache size and hits, and bytes written per sync. All zero on the idle test realm.		I

Metric/family	Type	Extra labels	Meaning	Example query	Conf
magent_local_sw_iopath_fs{0,1,2}_{purpose, data_capacity, metadata_capacity, free_capacity, total_inodes}, magent_local_sw_iopath_hd{0..14}_fs	info/gauge	value (purpose)	The OSD's local filesystems (up to 3) and the drive to filesystem map (15 drive slots). purpose carries a UUID identifying the filesystem, capacities are bytes, hdN_fs is the index of the filesystem the drive belongs to (4294967295 = slot empty). Realm Overview sums fsN_metadata_capacity as "Metadata Used" and fs0_free_capacity as "Total Capacity (Free)".	sum(magent_local_sw_iopath_fs0_free_capacity)	C
magent_local_sw_iopath_iscsi_{num_cur_conns, config_rcv_buf_size, config_snd_buf_size}	gauge	none	iSCSI transport for the OSD protocol: Current connections and socket buffer sizes (128 KiB receive, 512 KiB send).	sum(magent_local_sw_iopath_iscsi_num_cur_conns)	C
magent_local_sw_iopath_{info_iopath_state, info_df_client_array, bad_object_info, dump_object_list}	info/gauge	none	State of the iopath service, the DirectFlow client array, bad object records and the object list dump trigger. Values 1/0 in this realm.		I

4. Sample dashboards and the metrics they use

VDURA provides five sample dashboards. They are examples for you to import into your own Grafana instance, not part of the VDURA system, and they were exercised against the test realm described in Chapter 1. Their queries are the best evidence of which metrics the VDURA team treats as primary signals, and they double as worked examples for the tables above.

4.1 PanFS Alerts (panfs-alerts)

vmalet view: Firing counts by severity, category and node, a firing over time chart, and a table of the ALERTS series.

Panel	Type	Query
Firing (total)	stat	count(ALERTS{alertstate="firing"}) or vector(0)
Critical	stat	count(ALERTS{alertstate="firing",severity="Critical"}) or vector(0)
Warning	stat	count(ALERTS{alertstate="firing",severity="Warning"}) or vector(0)
Informational	stat	count(ALERTS{alertstate="firing",severity="Informational"}) or vector(0)
Firing alerts by severity over time	timeseries	count by (severity) (ALERTS{alertstate="firing"})
Currently firing	table	ALERTS{alertstate="firing"}
Firing by category	bargauge	count by (category) (ALERTS{alertstate="firing"})
Firing by node	bargauge	count by (node_name) (ALERTS{alertstate="firing"})

4.2 PanFS API - Audit (panfs-api-audit)

VictoriaLogs only. Reads /var/log/panapi-audit.log with tenant_id and user_id filters: Events over time by result, failed operations, top action x resource pairs, failures by status_code.

Panel	Type	Query
Audit events over time (by result)	timeseries	filename="/var/log/panapi-audit.log" tenant_id:\$tenant_id user_id:\$user_id stats by (_time:\$__interval, result) count() events
Failed operations (selected range)	stat	filename="/var/log/panapi-audit.log" result:=failed tenant_id:\$tenant_id user_id:\$user_id stats count() failures
Top operations (action x resource)	table	filename="/var/log/panapi-audit.log" tenant_id:\$tenant_id user_id:\$user_id stats by (action, resource) count() requests sort by (requests desc) limit 20
Failures by status_code	table	filename="/var/log/panapi-audit.log" result:=failed tenant_id:\$tenant_id user_id:\$user_id stats by (status_code, action, resource) count() failures sort by (failures desc) limit 50
Audit log stream	logs	filename="/var/log/panapi-audit.log" tenant_id:\$tenant_id user_id:\$user_id

4.3 PanFS Logs - Browser (panfs-logs-browser)

VictoriaLogs only. Generic browser over any log file (filename variable) or systemd unit (unit variable) with error/warning/info counts and top collapsed message patterns.

Panel	Type	Query
Total lines	stat	filename:\$filepath stats count() total
Errors	stat	filename:\$filepath (level:~"(?i)error fatal" OR (NOT level:* AND _msg:~"(?i)error fail")) stats count() errors
Warnings	stat	filename:\$filepath (level:~"(?i)warn" OR (NOT level:* AND _msg:~"(?i)warn")) stats count() warnings
Info	stat	filename:\$filepath (level:~"(?i)info" OR (NOT level:* AND _msg:~"(?i)info")) stats count() info
Top 10 patterns (numbers collapsed)	table	filename:\$filepath collapse_nums stats by (_msg) count() hits sort by (hits desc) limit 10
Errors by file	table	filename:\$filepath (level:~"(?i)error fatal" OR (NOT level:* AND _msg:~"(?i)error fail")) stats by (filename) count() errors sort by (errors desc) limit 50
File logs (filename=~\$filepath)	logs	filename:\$filepath
Total lines	stat	unit:\$unit stats count() total
Errors	stat	unit:\$unit (level:~"(?i)error fatal" OR (NOT level:* AND _msg:~"(?i)error fail")) stats count() errors
Warnings	stat	unit:\$unit (level:~"(?i)warn" OR (NOT level:* AND _msg:~"(?i)warn")) stats count() warnings
Info	stat	unit:\$unit (level:~"(?i)info" OR (NOT level:* AND _msg:~"(?i)info")) stats count() info
Top 10 patterns (numbers collapsed)	table	unit:\$unit collapse_nums stats by (_msg) count() hits sort by (hits desc) limit 10
Errors by unit	table	unit:\$unit (level:~"(?i)error fatal" OR (NOT level:* AND _msg:~"(?i)error fail")) stats by (unit) count() errors sort by (errors desc) limit 50
Journal/unit logs (unit=~\$unit)	logs	unit:\$unit

4.4 PanFS Realm Node (panfs-realm-node)

Per node drill down driven by a \$Node variable built from label_values(system_uptime, host): CPU per core, top processes by CPU and RSS, memory breakdown, disk I/O and IOPS per device.

Panel	Type	Query
Per-host CPU utilization (Total)	gauge	100 - avg by (host) (cpu_usage_idle{cpu="cpu-total", host=~"\$Node"})
Per-host CPU utilization (Total)	timeseries	100 - avg by (host) (cpu_usage_idle{cpu="cpu-total", host=~"\$Node"})
CPU utilization (Cores)	bargauge	100 - cpu_usage_idle{cpu="cpu-total", host="\$Node"}
Top 10 Processes (CPU Usage)	bargauge	topk(10, procstat_cpu_usage{host=~"\$Node"})

Panel	Type	Query
Memory Used	gauge	mem_used_percent{host=~"\$Node"}
Memory Usage	timeseries	mem_total{host=~"\$Node"} mem_used{host=~"\$Node"}
Memory Usage	timeseries	mem_wired{host=~"\$Node"} mem_active{host=~"\$Node"} mem_inactive{host=~"\$Node"} mem_laundry{host=~"\$Node"} mem_free{host=~"\$Node"}
Top 10 Processes (Memory Usage)	bargauge	topk(10, procstat_memory_rss{host=~"\$Node"})
Disk IO (Read/Write)	timeseries	diskio_read_bytes{host=~"\$Node", name!="pass0"} diskio_write_bytes{host=~"\$Node", name!="pass0"}
Disk IO (Rate[\$__rate_interval])	timeseries	rate(diskio_read_bytes{host=~"\$Node", name!="pass0"}[\$__rate_interval]) rate(diskio_write_bytes{host=~"\$Node", name!="pass0"}[\$__rate_interval])
Disk Throughput	timeseries	sum by (host, node_type) (rate(diskio_read_bytes{host=~"\$Node"}[\$__rate_interval]) + rate(diskio_write_bytes{host=~"\$Node"}[\$__rate_interval]))
Total IOPS (read + write) per host	timeseries	sum by (node_type) (rate(diskio_reads{host=~"\$Node"}[\$__rate_interval]) + rate(diskio_writes{host=~"\$Node"}[\$__rate_interval]))

4.5 PanFS Realm Overview (panfs-overall-cluster)

Realm wide view: Node inventory (panfs_node), StorageSet and volume tables, firing alerts by severity, CPU and memory utilization, disk and network throughput by node_type, metadata and free capacity from the iopath fs0..2 gauges, DirectFlow bytes in/out, and log volume from VictoriaLogs.

Panel	Type	Query
Uptime Cluster Nodes	table	count by (node_type) (system_uptime)
Storage	table	count(group by (name) (panfs_storageset > 0)) count(group by (volume_id) (panfs_volume > 0))
Firing Alerts	bargauge	count by (severity) (ALERTS{alertstate="firing"})
Versions	table	group by (software_revision) (last_over_time(panfs_node[\$__rate_interval]))
CPU Utilization	stat	100 - avg by (host) (cpu_usage_idle{cpu="cpu-total"})
Memory Utilization	stat	mem_used_percent

Panel	Type	Query
Cluster Nodes	table	group by (name, ip_address, node_type, node_name, node_state, node_data_serial, node_hardware_serial, node_state_name, node_state_description, enclosure_name, software_revision, cpu_model, memory_bytes, cpu_active_cores, internal_temperature_celsius, cpu_temperature_celsius) (last_over_time(panfs_node[\$__rate_interval]))
Storage Sets	table	topk(1, last_over_time(panfs_storageset[5m]>0)) by (name)
Volumes	table	topk(1, last_over_time(panfs_volume[5m])) by (volume_id)
Active alert messages	state-timeline	max by (message) ((ALERTS{severity="Critical"}) * 3 or (ALERTS{severity="Warning"}) * 2 or (ALERTS{severity="Informational"}) * 1)
StorageSets Alerts	table	ALERTS{message=~".(BladeSet Storage[]?[Ss]et)."} }
Volume Alerts	table	ALERTS{message=~".(Volume)."} }
Software Alerts	table	ALERTS{message=~".(Software Process./The process .restarted)"} }
Disk Throughput	timeseries	sum by (host, node_type) (rate(diskio_read_bytes[\$__rate_interval]) + rate(diskio_write_bytes[\$__rate_interval]))
Total IOPS (read + write) per host	timeseries	sum by (host, node_type) (rate(diskio_reads[\$__rate_interval]) + rate(diskio_writes[\$__rate_interval]))
CPU Utilization	timeseries	avg by (host) (100 - cpu_usage_idle{cpu="cpu-total"})
Disk IO Usage	timeseries	(sum(rate(diskio_read_bytes{node_type="vpod"}[\$__rate_interval])) + sum(rate(diskio_write_bytes{node_type="vpod"}[\$__rate_interval])) sum(rate(diskio_reads{node_type="vpod"}[\$__rate_interval])) + sum(rate(diskio_writes{node_type="vpod"}[\$__rate_interval]))
Throughput Out	timeseries	sum(rate(net_bytes_sent{interface=~"eth0 bond0"}[\$__rate_interval]) * 8) by (node_type)
Throughput In	timeseries	sum(rate(net_bytes_recv[\$__rate_interval]) * 8) by (node_type)
Metadata Used	timeseries	sum(magent_local_sw_iopath_fs0_metadata_capacity+magent_local_sw_iopath_fs1_metadata_capacity+magent_local_sw_iopath_fs2_metadata_capacity)
Total Capacity (Free)	timeseries	sum(last_over_time(magent_local_sw_iopath_fs0_free_capacity[\$__rate_interval]))
IOPath Measure (DF Bytes In/Out)	timeseries	sum(last_over_time(magent_local_sw_iopath_measure_df_bytes_in[\$__rate_interval])) sum(last_over_time(magent_local_sw_iopath_measure_df_bytes_out[\$__rate_interval]))
Duration	timeseries	sum(last_over_time(magent_local_sw_iopath_measure_df_io_duration_usec[\$__rate_interval]))
Log volume (all logs)	timeseries	stats by (_time:\$__interval) count() logs

Panel	Type	Query
Log rate (total vs error), per second	timeseries	stats by (_time:\$__interval) rate() log_rate i(error) stats by (_time:\$__interval) rate() error_rate

Appendix A. Realm alert catalog (panfs_alerts_info)

All 703 alert definitions exported by the realm, sorted by code. Severity is the GUI severity; level is the error_level_name label; Clr is is_manually_clearable. Hardware alerts dominate (638) followed by volume (47) and bladeset/StorageSet (18). The terms “bladeset” and “BRICKSET” are legacy identifiers for StorageSets and appear unchanged in labels and alert names. Alerts are named PAN_MGMT_EV_<subject>_<condition>; drive alerts carry the slot in the name (BRICK_HD<n>_...). A blank Recommended action cell means no action is documented for that alert in the realm.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
0	PAN_MGMT_EV_INVALID	None	none	hardware	no	
9	PAN_MGMT_EV_BRICK_MAX_NICS	None	none	hardware	no	
20	PAN_MGMT_EV_BRICK_MAX_NIC_EVENTS	None	none	hardware	no	
4807	PAN_MGMT_EV_SHELF_PS1_INCOMPATIBLE	Critical	crit	hardware	no	Remove one of the Power Supplies.
7000	PAN_MGMT_EV_SEDAGENT_HD0_UNLOCK_OK	None	none	hardware	no	
7001	PAN_MGMT_EV_SEDAGENT_HD1_UNLOCK_OK	None	none	hardware	no	
7002	PAN_MGMT_EV_SEDAGENT_HD2_UNLOCK_OK	None	none	hardware	no	
7003	PAN_MGMT_EV_SEDAGENT_HD3_UNLOCK_OK	None	none	hardware	no	
7004	PAN_MGMT_EV_SEDAGENT_HD4_UNLOCK_OK	None	none	hardware	no	
7005	PAN_MGMT_EV_SEDAGENT_HD5_UNLOCK_OK	None	none	hardware	no	
7006	PAN_MGMT_EV_SEDAGENT_HD6_UNLOCK_OK	None	none	hardware	no	
7007	PAN_MGMT_EV_SEDAGENT_HD7_UNLOCK_OK	None	none	hardware	no	
7008	PAN_MGMT_EV_SEDAGENT_HD8_UNLOCK_OK	None	none	hardware	no	
7009	PAN_MGMT_EV_SEDAGENT_HD9_UNLOCK_OK	None	none	hardware	no	
7010	PAN_MGMT_EV_SEDAGENT_HD10_UNLOCK_OK	None	none	hardware	no	
7011	PAN_MGMT_EV_SEDAGENT_HD11_UNLOCK_OK	None	none	hardware	no	
7012	PAN_MGMT_EV_SEDAGENT_HD12_UNLOCK_OK	None	none	hardware	no	

Code	Alert name	Severity	Level	Category	Clr	Recommended action
7013	PAN_MGMT_EV_SEDAGENT_HD13_UNLOCK_OK	None	none	hardware	no	
7014	PAN_MGMT_EV_SEDAGENT_HD14_UNLOCK_OK	None	none	hardware	no	
7015	PAN_MGMT_EV_SEDAGENT_HD0_CONFIG_OK	None	none	hardware	no	
7016	PAN_MGMT_EV_SEDAGENT_HD1_CONFIG_OK	None	none	hardware	no	
7017	PAN_MGMT_EV_SEDAGENT_HD2_CONFIG_OK	None	none	hardware	no	
7018	PAN_MGMT_EV_SEDAGENT_HD3_CONFIG_OK	None	none	hardware	no	
7019	PAN_MGMT_EV_SEDAGENT_HD4_CONFIG_OK	None	none	hardware	no	
7020	PAN_MGMT_EV_SEDAGENT_HD5_CONFIG_OK	None	none	hardware	no	
7021	PAN_MGMT_EV_SEDAGENT_HD6_CONFIG_OK	None	none	hardware	no	
7022	PAN_MGMT_EV_SEDAGENT_HD7_CONFIG_OK	None	none	hardware	no	
7023	PAN_MGMT_EV_SEDAGENT_HD8_CONFIG_OK	None	none	hardware	no	
7024	PAN_MGMT_EV_SEDAGENT_HD9_CONFIG_OK	None	none	hardware	no	
7025	PAN_MGMT_EV_SEDAGENT_HD10_CONFIG_OK	None	none	hardware	no	
7026	PAN_MGMT_EV_SEDAGENT_HD11_CONFIG_OK	None	none	hardware	no	
7027	PAN_MGMT_EV_SEDAGENT_HD12_CONFIG_OK	None	none	hardware	no	
7028	PAN_MGMT_EV_SEDAGENT_HD13_CONFIG_OK	None	none	hardware	no	
7029	PAN_MGMT_EV_SEDAGENT_HD14_CONFIG_OK	None	none	hardware	no	
7400	PAN_MGMT_EV_SHELF_FAN1_ONLINE	None	none	hardware	no	
7401	PAN_MGMT_EV_SHELF_FAN2_ONLINE	None	none	hardware	no	
7402	PAN_MGMT_EV_SHELF_FAN3_ONLINE	None	none	hardware	no	
7403	PAN_MGMT_EV_PS1_NORMAL_TEMP	None	none	hardware	no	
7404	PAN_MGMT_EV_PS2_NORMAL_TEMP	None	none	hardware	no	
7405	PAN_MGMT_EV_BATTERY_NORMAL_TEMP	None	none	hardware	no	

Code	Alert name	Severity	Level	Category	Clr	Recommended action
7406	PAN_MGMT_EV_SHELF_NET1_NORMAL_TEMP	None	none	hardware	no	
7407	PAN_MGMT_EV_SHELF_NET2_NORMAL_TEMP	None	none	hardware	no	
8405	PAN_MGMT_EV_SHELF_PS1_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8406	PAN_MGMT_EV_SHELF_PS1_UNSUPPORTED_VERSION	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8408	PAN_MGMT_EV_SHELF_PS1_NOT_FOUND	Warning	warn	hardware	no	Check if Power Supply 1 is inserted properly.
8409	PAN_MGMT_EV_SHELF_PS1_TRIP_TEMP	Critical	crit	hardware	no	Ambient temperature is too high. Adjust room temperature.
8410	PAN_MGMT_EV_SHELF_PS1_HIGH_TEMP	Warning	warn	hardware	no	Ambient temperature is too high. Adjust room temperature.
8411	PAN_MGMT_EV_SHELF_PS1_UNDER_TEMP	Warning	warn	hardware	no	Ambient temperature is too low. Adjust room temperature.
8412	PAN_MGMT_EV_SHELF_PS1_NO_AC_INPUT	Warning	warn	hardware	no	Check that Power Supply is plugged in.
8413	PAN_MGMT_EV_SHELF_PS1_BAD_DC_DC_OUTPUT	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8414	PAN_MGMT_EV_SHELF_PS1_BAD_REPLACEMENT	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8415	PAN_MGMT_EV_SHELF_PS2_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8416	PAN_MGMT_EV_SHELF_PS2_UNSUPPORTED_VERSION	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8417	PAN_MGMT_EV_BRICK_HD9_FAILED	Critical	crit	hardware	yes	Please contact VDURA Technical Support.
8418	PAN_MGMT_EV_SHELF_PS2_NOT_FOUND	Warning	warn	hardware	no	Check if Power Supply 2 is inserted properly.
8419	PAN_MGMT_EV_SHELF_PS2_TRIP_TEMP	Critical	crit	hardware	no	Ambient temperature is too high. Adjust room temperature.
8420	PAN_MGMT_EV_SHELF_PS2_HIGH_TEMP	Warning	warn	hardware	no	Ambient temperature is too high. Adjust room temperature.
8421	PAN_MGMT_EV_SHELF_PS2_UNDER_TEMP	Informational	info	hardware	no	Ambient temperature is too low. Adjust room temperature.
8422	PAN_MGMT_EV_SHELF_PS2_NO_AC_INPUT	Informational	info	hardware	no	Check that Power Supply is plugged in.
8423	PAN_MGMT_EV_SHELF_PS2_BAD_DC_DC_OUTPUT	Informational	info	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8424	PAN_MGMT_EV_SHELF_PS2_BAD_REPLACEMENT	Informational	info	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8425	PAN_MGMT_EV_BATTERY_TRIP_TEMP	Critical	crit	hardware	no	
8426	PAN_MGMT_EV_SHELF_BATTERY_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8427	PAN_MGMT_EV_SHELF_BATTERY_UNSUPPORTED_VERSION	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8428	PAN_MGMT_EV_SHELF_BATTERY_PREDICTED_FAILURE	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8429	PAN_MGMT_EV_SHELF_BATTERY_NOT_FOUND	Critical	crit	hardware	no	Check if battery is inserted properly.
8430	PAN_MGMT_EV_BATTERY_HIGH_TEMP	Warning	warn	hardware	no	Ambient temperature is too high. Adjust room temperature.
8431	PAN_MGMT_EV_SHELF_BATTERY_LOW	Warning	warn	hardware	no	Wait until fully charged. It can take up to 6 hours to become fully charged. If the problem persists, please contact VDURA Technical Support for further assis
8432	PAN_MGMT_EV_BATTERY_UNDER_TEMP	Informational	info	hardware	no	Ambient temperature is too low. Adjust room temperature.
8433	PAN_MGMT_EV_BRICK_HD10_FAILED	Critical	crit	hardware	yes	Please contact VDURA Technical Support.
8434	PAN_MGMT_EV_SHELF_OVER_POWER_BUDGET	Warning	warn	hardware	no	Contact VDURA Technical Support for steps to bring the enclosure within power budget.
8435	PAN_MGMT_EV_SHELF_NET1_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8436	PAN_MGMT_EV_SHELF_NET1_UNSUPPORTED_VERSION	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8437	PAN_MGMT_EV_BRICK_HD11_FAILED	Critical	crit	hardware	yes	Please contact VDURA Technical Support.
8438	PAN_MGMT_EV_SHELF_NET1_NOT_FOUND	Critical	crit	hardware	no	Check if switch 1 is inserted properly.
8439	PAN_MGMT_EV_BRICK_HD12_FAILED	Critical	crit	hardware	yes	Please contact VDURA Technical Support.
8440	PAN_MGMT_EV_SHELF_NET1_U6_CHECKSUM_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8441	PAN_MGMT_EV_SHELF_NET1_U8_CHECKSUM_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8442	PAN_MGMT_EV_BRICK_HD13_FAILED	Critical	crit	hardware	yes	Please contact VDURA Technical Support.
8443	PAN_MGMT_EV_SHELF_NET1_TRIP_TEMP	Critical	crit	hardware	no	Ambient temperature is too high. Adjust room temperature.
8444	PAN_MGMT_EV_SHELF_NET1_HIGH_TEMP	Warning	warn	hardware	no	Ambient temperature is too high. Adjust room temperature.
8445	PAN_MGMT_EV_SHELF_NET1_UNDER_TEMP	Informational	info	hardware	no	Ambient temperature is too low. Adjust room temperature.
8446	PAN_MGMT_EV_SHELF_NET1_RESETTING	Warning	warn	hardware	no	Switch management interface did not respond. Please wait 90 seconds for reset to complete.
8447	PAN_MGMT_EV_SHELF_NET1_NO_RESP	Warning	warn	hardware	no	Switch management interface is not responding. Please reset the switch when system is not busy, and check that the switch firmware is up-to-date.
8448	PAN_MGMT_EV_SHELF_NET1_FW_OPTIONAL_UPGRADE	Warning	warn	hardware	yes	Switch firmware is out of date; upgrade is recommended. Please contact VDURA Technical Support for further assistance.
8449	PAN_MGMT_EV_SHELF_NET1_FW_NEW_UNSUPPORTED	Warning	warn	hardware	yes	Switch firmware is not supported. Downgrading firmware to a supported version is recommended. Please contact VDURA Technical Support for further assistance.
8450	PAN_MGMT_EV_BRICK_MIA_NOTIMER	Critical	crit	hardware	no	Please contact VDURA Technical Support to repair this node. If the node cannot be repaired, go to the Node Detail page, and use the 'Reconstruct' control to st
8451	PAN_MGMT_EV_BRICK_TRIP_TEMP	Critical	crit	hardware	no	Adjust room temperature and check fans.
8452	PAN_MGMT_EV_BRICK_TEMPERATURE_SHUTDOWN	Critical	crit	hardware	no	Adjust room temperature and check fans.
8453	PAN_MGMT_EV_BRICK_AC_POWER_INACTIVE	Critical	crit	hardware	no	Go to the Hardware page and press the System Shutdown button.
8454	PAN_MGMT_EV_BRICK_DISK_NEAR_FULL	Warning	warn	hardware	yes	Add more storage to the StorageSet.
8455	PAN_MGMT_EV_BRICK_DISK_FULL	Critical	crit	hardware	no	Add more storage to the StorageSet.
8456	PAN_MGMT_EV_BRICK_HIGH_TEMP	Warning	warn	hardware	no	Ambient temperature is too high. Adjust room temperature.
8457	PAN_MGMT_EV_BRICK_MEM_ERRORS	Warning	warn	hardware	no	Please contact VDURA Technical Support.
8458	PAN_MGMT_EV_BRICK_OFFLINE	Warning	warn	hardware	no	
8459	PAN_MGMT_EV_BRICK_NEEDS_REINIT	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8460	PAN_MGMT_EV_BRICK_MIA_TIMER	Warning	warn	hardware	no	Node may be rebooting. Check for any network problems, and be sure that the node is properly inserted in the slot.
8461	PAN_MGMT_EV_BRICK_DEAD	Warning	warn	hardware	no	Wait until reconstruction completes on all volumes in the StorageSet, and then replace the OSD.
8462	PAN_MGMT_EV_SHELF_NET1_FW_NEW_NO_DATA	Warning	warn	hardware	yes	There is no compatibility info for the switch firmware. Downgrading firmware to a supported version is recommended. Please contact VDURA Technical Support for f
8463	PAN_MGMT_EV_SHELF_NET1_FW_INCOMPATIBLE	Critical	crit	hardware	no	Please upgrade switch firmware to a supported version. Please contact VDURA Technical Support for further assistance.
8464	PAN_MGMT_EV_BRICK_HD14_FAILED	Critical	crit	hardware	yes	Please contact VDURA Technical Support.
8465	PAN_MGMT_EV_BRICK_REMOVED	Informational	info	hardware	yes	
8466	PAN_MGMT_EV_BRICK_UNDER_TEMP	Informational	info	hardware	no	Ambient temperature is too low. Adjust room temperature.
8467	PAN_MGMT_EV_BRICK_REG	Informational	info	hardware	yes	
8468	PAN_MGMT_EV_BRICK_ONLINE	Informational	info	hardware	yes	
8469	PAN_MGMT_EV_BRICK_MOVED	Informational	info	hardware	yes	
8470	PAN_MGMT_EV_BRICK_NEEDS_UPGRADE	Informational	info	hardware	no	The system will automatically attempt to apply its software to this node. No action is needed.
8471	PAN_MGMT_EV_BRICK_FSCK	Informational	info	hardware	no	Wait until fsck completes.
8472	PAN_MGMT_EV_BRICK_UNSUPPORTED_VERSION	Warning	warn	hardware	no	Check that the hardware serial on this node is valid.
8473	PAN_MGMT_EV_BRICK_FILESYSTEM_NEARLY_FULL	Warning	warn	hardware	yes	
8474	PAN_MGMT_EV_BRICK_FILESYSTEM_NO_LONGER_FULL	Informational	info	hardware	yes	
8475	PAN_MGMT_EV_BRICK_DISK_NO_LONGER_FULL	Informational	info	hardware	yes	
8476	PAN_MGMT_EV_BRICK_HD9_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8477	PAN_MGMT_EV_BRICK_HD10_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8478	PAN_MGMT_EV_BRICK_NORMAL_TEMP	None	none	hardware	no	
8479	PAN_MGMT_EV_BRICK_BAD_SERIAL	None	none	hardware	no	
8480	PAN_MGMT_EV_BRICK_HD0_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8481	PAN_MGMT_EV_BRICK_HDO_WILL_FAIL	Warning	warn	hardware	no	Please contact VDURA Technical Support.
8482	PAN_MGMT_EV_BRICK_HDO_UNSUPPORTED_VERSION	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8483	PAN_MGMT_EV_BRICK_HDO_NOT_FOUND	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8484	PAN_MGMT_EV_BRICK_HDO_REBUILDING	Informational	info	hardware	no	This is just an informational message. No action is needed.
8485	PAN_MGMT_EV_SHELF_NET1_FW_UPGRADE_NEEDS_FILE	Warning	warn	hardware	yes	Please contact VDURA Technical Support to obtain the firmware file and for further assistance.
8486	PAN_MGMT_EV_SHELF_NET1_FW_NEW_COMPATIBLE	Warning	warn	hardware	yes	Consider downgrading switch firmware to a supported version. Please contact VDURA Technical Support for further assistance.
8487	PAN_MGMT_EV_SHELF_NET1_INVALID_UPLINK	Warning	warn	hardware	no	Check that the enclosure switch is cabled correctly - uplink should be sfp6, cx4, or lagg of ge.
8488	PAN_MGMT_EV_BRICK_HD11_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8489	PAN_MGMT_EV_SHELF_NET1_FLOODING	Informational	info	hardware	no	If the warning persists, Please contact VDURA Technical Support.
8490	PAN_MGMT_EV_BRICK_HD1_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
8491	PAN_MGMT_EV_BRICK_HD1_WILL_FAIL	Warning	warn	hardware	no	Please contact VDURA Technical Support.
8492	PAN_MGMT_EV_BRICK_HD1_UNSUPPORTED_VERSION	Warning	warn	hardware	no	Please contact VDURA Technical Support.
8493	PAN_MGMT_EV_BRICK_HD1_NOT_FOUND	Warning	warn	hardware	no	Please contact VDURA Technical Support.
8494	PAN_MGMT_EV_BRICK_HD1_SSD_LIFETIME	Warning	warn	hardware	no	Please contact VDURA Technical Support.
8495	PAN_MGMT_EV_BRICK_HD1_SSD_RESERVE_SPACE	Warning	warn	hardware	no	Please contact VDURA Technical Support.
8496	PAN_MGMT_EV_BRICK_HD1_REBUILDING	Informational	info	hardware	no	This is just an informational message. No action is needed.
8497	PAN_MGMT_EV_BRICK_HDO_SSD_LIFETIME	Warning	warn	hardware	no	Please contact VDURA Technical Support.
8498	PAN_MGMT_EV_BRICK_HDO_SSD_RESERVE_SPACE	Warning	warn	hardware	no	Please contact VDURA Technical Support.
8499	PAN_MGMT_EV_BRICK_HD12_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8500	PAN_MGMT_EV_BRICK_HD13_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8501	PAN_MGMT_EV_BRICKSET_ADDED_STORAGE	Informational	info	bladeset	yes	

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8502	PAN_MGMT_EV_SHELF_BRICKSET_AFFINITY_CHANGED	Informational	info	bladeset	yes	
8503	PAN_MGMT_EV_BRICKSET_FULL	Critical	crit	bladeset	no	Add more storage to the StorageSet.
8504	PAN_MGMT_EV_BRICK_HD14_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8505	PAN_MGMT_EV_BRICK_HD9_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8506	PAN_MGMT_EV_BRICKSET_NOT_ALL_ONLINE	Warning	warn	bladeset	no	Check node and volume status.
8507	PAN_MGMT_EV_BRICK_HD10_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8508	PAN_MGMT_EV_BRICKSET_NEAR_FULL	Warning	warn	bladeset	yes	Add more storage to the StorageSet.
8509	PAN_MGMT_EV_BRICKSET_SPARE_SPACE_LOW	Critical	crit	bladeset	no	Add more storage to the StorageSet.
8510	PAN_MGMT_EV_BRICKSET_CREATED	Informational	info	bladeset	yes	
8511	PAN_MGMT_EV_BRICKSET_DELETED	Informational	info	bladeset	yes	
8512	PAN_MGMT_EV_BRICKSET_NO_LONGER_FULL	None	none	hardware	no	
8513	PAN_MGMT_EV_BRICKSET_IMBALANCE	Informational	info	bladeset	yes	Turn on capacity balancing for this StorageSet. If capacity balancing is already turned on, the system will automatically balance the distribution of used space
8514	PAN_MGMT_EV_BRICKSET_NOW_BALANCED	None	none	hardware	no	
8515	PAN_MGMT_EV_BRICKSET_BTRFS_INCONSISTENCY	Warning	warn	bladeset	no	
8516	PAN_MGMT_EV_BRICKSET_BTRFS_DEPRECATION	Warning	warn	bladeset	no	
8517	PAN_MGMT_EV_BRICK_HD11_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8518	PAN_MGMT_EV_BRICK_HD12_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8519	PAN_MGMT_EV_BRICK_HD13_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8520	PAN_MGMT_EV_BRICK_HD14_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8521	PAN_MGMT_EV_VOL_DEGRADED	Warning	warn	volume	no	Minimize accessing this volume for reads and writes. The performance of the system will be slower than expected. Reconstruction of data will start soon.
8522	PAN_MGMT_EV_VOL_OFFLINE	Warning	warn	volume	no	

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8523	PAN_MGMT_EV_VOL_DOWN	Critical	crit	volume	no	
8524	PAN_MGMT_EV_VOL_ONLINE	Informational	info	volume	yes	
8525	PAN_MGMT_EV_VOL_CREATED	Informational	info	volume	yes	
8526	PAN_MGMT_EV_VOL_DELETED	Informational	info	volume	yes	
8527	PAN_MGMT_EV_VOL_CORRUPT_OBJ_FOUND	Warning	warn	volume	yes	Please contact VDURA Technical Support for further assistance regarding this message.
8528	PAN_MGMT_EV_VOL_PAUSED	Warning	warn	volume	no	
8529	PAN_MGMT_EV_VOL_PARITY_ERROR	Warning	warn	volume	yes	Please contact VDURA Technical Support for assistance.
8530	PAN_MGMT_EV_VOL_STATE_UPDATE	None	none	hardware	no	
8531	PAN_MGMT_EV_VOL_READ_ONLY	Informational	info	volume	yes	
8532	PAN_MGMT_EV_BRICK_HD9_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8533	PAN_MGMT_EV_VOL_BC_START	Informational	info	volume	yes	
8534	PAN_MGMT_EV_VOL_BC_STOP	Informational	info	volume	yes	
8535	PAN_MGMT_EV_FSRC_START	Critical	crit	volume	yes	The system is checking and repairing the volume. During this process, the volume is offline.
8536	PAN_MGMT_EV_FSRC_NEEDED	Warning	warn	volume	no	The system has discovered an unexpected filesystem inconsistency. To repair inconsistencies, click the volume name, then start FSRC using the "Recover Volume"
8537	PAN_MGMT_EV_FSRC_END	Informational	info	volume	yes	The system has finished checking and repairing the volume. To examine any damaged files, click on the volume name and follow the link to "Damaged Files in Volu
8538	PAN_MGMT_EV_VOL_BC_END	Informational	info	volume	yes	
8539	PAN_MGMT_EV_VOL_EFSA	Critical	crit	volume	no	
8540	PAN_MGMT_EV_FSRC_ERROR	Critical	crit	volume	yes	An error occurred while checking and repairing the volume. The system is unable to bring the volume online. To start FSRC again, click the volume name, then c
8541	PAN_MGMT_EV_FSRC_REPAIR_FAILED	Critical	crit	volume	yes	Data fragment have been removed from filesystem but are still occupying space in the system. Please contact VDURA Technical Support for assistance to recover t
8542	PAN_MGMT_EV_RECON_DRAIN	Informational	info	volume	no	Wait until volume comes back online.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8543	PAN_MGMT_EV_RESCUE_END	Informational	info	volume	yes	The system has finished rescuing the volume. Please run pancli 'volume rescue report' in service mode to download a detailed report.
8544	PAN_MGMT_EV_BRICK_HD10_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8545	PAN_MGMT_EV_BRICK_HD11_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8546	PAN_MGMT_EV_BRICK_HD12_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8547	PAN_MGMT_EV_BRICK_HD13_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8548	PAN_MGMT_EV_BRICK_HD14_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8549	PAN_MGMT_EV_RECON_STOP	Informational	info	volume	yes	Check node and volume status for more details.
8550	PAN_MGMT_EV_RECON_RESERVE_NOT_ENOUGH OSDS	Warning	warn	volume	no	Add more storage to the StorageSet.
8551	PAN_MGMT_EV_RECON_RESERVE_NOT_ENOUGH_SPACE	Critical	crit	bladeset	no	
8552	PAN_MGMT_EV_RECON_START	Warning	warn	volume	no	Wait until reconstruction completes.
8553	PAN_MGMT_EV_RECON_ERROR	Critical	crit	volume	yes	Please contact VDURA Technical Support.
8554	PAN_MGMT_EV_RECON_END	Informational	info	volume	yes	
8555	PAN_MGMT_EV_RECON_RESERVE_SUCCESS	Informational	info	volume	yes	
8556	PAN_MGMT_EV_RECON_FAILED_SOME_OBJS_NOT_RECON	Critical	crit	volume	yes	Please contact VDURA Technical Support for assistance.
8557	PAN_MGMT_EV_RECON_ERROR_OUT_OF_SPACE	Critical	crit	volume	yes	Add more storage to the StorageSet.
8558	PAN_MGMT_EV_RECON_RESERVE_ENOUGH OSDS	Informational	info	bladeset	yes	
8559	PAN_MGMT_EV_RESCUE_RECON	Critical	crit	volume	yes	Wait until rescue reconstruction completes.
8560	PAN_MGMT_EV_QUOTA_VIOLATION_HARD	Critical	crit	volume	yes	Try one or more of the following: 1. Increase hard quota for the volume. You may need to add more storage to the StorageSet. 2. Delete unneeded files from th
8561	PAN_MGMT_EV_QUOTA_VIOLATION_SOFT	Warning	warn	volume	yes	Try one or more of the following: 1. Increase soft quota for the volume. You need to add more storage to the StorageSet. 2. Delete unneeded files from the vo
8562	PAN_MGMT_EV_QUOTA_BELOW_SOFT_LIMIT	Informational	info	hardware	no	

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8563	PAN_MGMT_EV_QUOTA_BELOW_HARD_LIMIT	Informational	info	hardware	no	
8564	PAN_MGMT_EV_BRICK_HD9_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8565	PAN_MGMT_EV_SNAPSHOT_VIOLATION	Warning	warn	volume	yes	Delete this snapshot. Also check whether any of the volumes covered by this snapshot need FSRC. Snapshots taken on a volume that needs FSRC will automatically
8566	PAN_MGMT_EV_BRICK_HD10_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8567	PAN_MGMT_EV_BRICK_HD11_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8568	PAN_MGMT_EV_BRICK_HD12_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8569	PAN_MGMT_EV_SNAPSHOT_CREATE_FAILED	Warning	warn	volume	yes	Retry the snapshot creation manually.
8570	PAN_MGMT_EV_SNAPSHOT_DELETE_FAILED	Warning	warn	volume	yes	Retry the snapshot deletion manually.
8571	PAN_MGMT_EV_SOFTWARE_FAILURE	Warning	warn	hardware	yes	
8572	PAN_MGMT_EV_CORE_FILE_DETECTED	Informational	info	hardware	yes	The system has restarted this application automatically, so no action is needed. If you see many such messages, please report a bug with VDURA Technical Support
8573	PAN_MGMT_EV_PROCESS_EXIT_ZERO	Informational	info	hardware	yes	The system has restarted this application automatically, so no action is needed. If you see many such messages, please report a bug with VDURA Technical Support
8574	PAN_MGMT_EV_LEASES_LOW	Informational	info	hardware	yes	Add more IP addresses to address range. Go to the Network page and select the IP Ranges page to make changes.
8575	PAN_MGMT_EV_REALM_ONLINE	Informational	info	hardware	yes	
8576	PAN_MGMT_EV_REALM_GOING_OFFLINE	Informational	info	hardware	yes	
8577	PAN_MGMT_EV_REALM_OFFLINE	Warning	warn	hardware	no	
8578	PAN_MGMT_EV_REALM_REBOOTING	Informational	info	hardware	yes	
8579	PAN_MGMT_EV_REALM_POWERING_DOWN	Informational	info	hardware	yes	
8580	PAN_MGMT_EV_REALM_LOCKED	Warning	warn	hardware	yes	To let the node join, go to the Hardware page and unlock the system. If the new node is intended for a different system on this subnet, no action is required.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8581	PAN_MGMT_EV_LEASE_STOLEN	Warning	warn	hardware	yes	To fix this problem, either edit the system IP ranges not to include any IPs that are taken by machines outside of your system, or change the outside machine to
8582	PAN_MGMT_EV_CLIENT_CLOCK_SKEW	Warning	warn	hardware	yes	
8583	PAN_MGMT_EV_REALM_REBOOT_FAILED	Warning	warn	hardware	yes	
8584	PAN_MGMT_EV_REALM_POWERDOWN_FAILED	Warning	warn	hardware	yes	
8585	PAN_MGMT_EV_BRICK_HD13_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8586	PAN_MGMT_EV_BRICK_HD14_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8587	PAN_MGMT_EV_BRICK_GENERIC_INFO	Informational	info	hardware	yes	This is just an informational message. No action is needed.
8588	PAN_MGMT_EV_BRICK_GENERIC_WARN	Warning	warn	hardware	yes	No specific user action is required. Please call VDURA Technical Support if the event reported causes any malfunction.
8589	PAN_MGMT_EV_BRICK_GENERIC_ERR	Critical	crit	hardware	yes	No specific user action is required. Please call VDURA Technical Support if the event reported causes any malfunction.
8590	PAN_MGMT_EV_BRICK_SLOW_SYNC_INFO	Informational	info	hardware	yes	No specific user action is required. Please call VDURA Technical Support if the event reported causes any malfunction.
8591	PAN_MGMT_EV_BRICK_NTP_SKEW_RM_INFO	Informational	info	hardware	yes	This is an informational message only. It does suggest, however, that the node generating the message is having problems contacting time servers or with its cl
8592	PAN_MGMT_EV_BRICK_NTP_SKEW_RM_WARN	Warning	warn	hardware	yes	Clock drift/skew like this can be caused by loss of contact with your external time sources.
8593	PAN_MGMT_EV_BRICK_NTP_SKEW_NON_RM_INFO	Informational	info	hardware	yes	Clock drift/skew like this can be caused by loss of contact with your external time sources.
8594	PAN_MGMT_EV_BRICK_NTP_SKEW_NON_RM_WARN	Warning	warn	hardware	yes	Clock drift/skew like this can be caused by loss of contact with your external time sources.
8595	PAN_MGMT_EV_BRICK_NTP_SKEW_IMPROV_INFO	Informational	info	hardware	yes	No action is needed. The time skew between the external time source and the node is improving.
8596	PAN_MGMT_EV_BRICK_NTP_LOCAL_SYNC_RM_WARN	Warning	warn	hardware	yes	Entering local clock sync can be caused by loss of contact with the time servers configured. You can use tools like ntptrace and ping to diagnose and rectify t

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8597	PAN_MGMT_EV_BRICK_NTP_LOCAL_SYNC_NON_RM_WARN	Warning	warn	hardware	yes	Nodes going into local time sync like this can be caused by loss of contact with the realm president or local hardware or software failures.
8598	PAN_MGMT_EV_BRICK_NTP_LOCAL_SYNC_BACK_INFO	Informational	info	hardware	yes	No action is needed. Whatever caused nodes to move to local sync has been rectified.
8599	PAN_MGMT_EV_BRICK_NOTIFY_LOGIN_FAILURE	Informational	info	hardware	yes	Collect the /var/log/security file from this host to check the origin of failed login attempts.
8600	PAN_MGMT_EV_FAN_AT_MAX_SPEED	None	none	hardware	no	
8601	PAN_MGMT_EV_REALM_READY	None	none	hardware	no	
8602	PAN_MGMT_EV_EMAIL_FAILURE	Warning	warn	hardware	yes	Check the connectivity to SMTP server as well as SMTP server security settings.
8603	PAN_MGMT_EV_BRICK_HD9_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8604	PAN_MGMT_EV_BRICK_HD10_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8605	PAN_MGMT_EV_BRICK_HD11_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8606	PAN_MGMT_EV_BRICK_HD12_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8607	PAN_MGMT_EV_BRICK_HD13_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8608	PAN_MGMT_EV_BRICK_HD14_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8609	PAN_MGMT_EV_BRICK_HD9_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
8610	PAN_MGMT_EV_BRICK_HD10_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
8611	PAN_MGMT_EV_PM_EXCEPT_COND_REPORT	None	none	hardware	no	
8612	PAN_MGMT_EV_BRICK_HD11_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
8613	PAN_MGMT_EV_BRICK_HD12_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
8614	PAN_MGMT_EV_BRICK_HD13_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
8615	PAN_MGMT_EV_BRICK_HD14_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
8620	PAN_MGMT_EV_UPGRADE_STARTED	Informational	info	hardware	yes	
8621	PAN_MGMT_EV_UPGRADE_ENLISTING	Informational	info	hardware	yes	

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8622	PAN_MGMT_EV_UPGRADE_DISTRIBUTING	Informational	info	hardware	yes	
8623	PAN_MGMT_EV_UPGRADE_PREPARING	Informational	info	hardware	yes	
8624	PAN_MGMT_EV_UPGRADE_COMMITTING	Informational	info	hardware	yes	
8625	PAN_MGMT_EV_UPGRADE_ROLLINGBACK	Critical	crit	hardware	yes	
8626	PAN_MGMT_EV_UPGRADE_REBOOTING	Informational	info	hardware	yes	
8627	PAN_MGMT_EV_UPGRADE_ENLIST_ERROR	Critical	crit	hardware	yes	
8628	PAN_MGMT_EV_UPGRADE_DISTRIBUTE_ERROR	Critical	crit	hardware	yes	
8629	PAN_MGMT_EV_UPGRADE_PREPARE_ERROR	Critical	crit	hardware	yes	
8630	PAN_MGMT_EV_UPGRADE_COMMIT_ERROR	Critical	crit	hardware	yes	
8631	PAN_MGMT_EV_UPGRADE_ROLLBACK_ERROR	Critical	crit	hardware	yes	
8632	PAN_MGMT_EV_UPGRADE_REBOOT_ERROR	Critical	crit	hardware	yes	
8633	PAN_MGMT_EV_UPGRADE_ABORTED	Informational	info	hardware	yes	
8634	PAN_MGMT_EV_UPGRADE_FAILED	Critical	crit	hardware	yes	
8635	PAN_MGMT_EV_UPGRADE_ENLIST_WARN	Warning	warn	hardware	yes	
8636	PAN_MGMT_EV_UPGRADE_DISTRIBUTE_CANCELLED	Informational	info	hardware	yes	
8637	PAN_MGMT_EV_UPGRADE_DISTRIBUTE_PENDING	Informational	info	hardware	yes	
8638	PAN_MGMT_EV_UPGRADE_DISTRIBUTE_SUCCESS	Informational	info	hardware	yes	
8639	PAN_MGMT_EV_UPGRADE_DISTRIBUTE_INFO	Informational	info	hardware	yes	
8640	PAN_MGMT_EV_UPGRADE_DISTRIBUTE_COMPLETE	Informational	info	hardware	yes	
8641	PAN_MGMT_EV_BRICK_DRIVE_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8642	PAN_MGMT_EV_BRICK_DRIVE_FAILED	Critical	crit	hardware	yes	Please contact VDURA Technical Support.
8643	PAN_MGMT_EV_BRICK_DRIVE_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8644	PAN_MGMT_EV_BRICK_DRIVE_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8645	PAN_MGMT_EV_BRICK_DRIVE_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
8646	PAN_MGMT_EV_BRICK_DRIVE_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
8647	PAN_MGMT_EV_BRICK_DRIVE_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	This is just an informational message. No action is needed.
8650	PAN_MGMT_EV_REALM_POLLING	Informational	info	hardware	yes	Wait a few minutes.
8651	PAN_MGMT_EV_REALM_POLLING_DONE	Informational	info	hardware	yes	Check the health of the system.
8652	PAN_MGMT_EV_VOLSERVICE_MOVED	Informational	info	volume	yes	
8653	PAN_MGMT_EV_VOLSERVICE_MOVED_BACKUP_DISABLED	Warning	warn	volume	yes	To ensure the volume service gets a backup location, make sure all director nodes are online.
8654	PAN_MGMT_EV_VOLSERVICE_BACKUP_ENABLED	Informational	info	volume	yes	
8655	PAN_MGMT_EV_VOLSERVICE_BACKUP_DISABLED	Warning	warn	volume	yes	To ensure the volume service gets a backup location, make sure all director nodes are online.
8656	PAN_MGMT_EV_REALM_PAUSING	Informational	info	hardware	yes	
8657	PAN_MGMT_EV_REALM_PAUSED	Warning	warn	hardware	no	
8658	PAN_MGMT_EV_REALM_UPGRADE QUIESCING	Warning	warn	hardware	yes	
8659	PAN_MGMT_EV_REALM_UPGRADE	Warning	warn	hardware	no	
8660	PAN_MGMT_EV_ALIAS_REASSIGNMENT	None	none	hardware	no	
8661	PAN_MGMT_EV_ALIAS_ASSIGNED	Informational	info	hardware	yes	
8662	PAN_MGMT_EV_ALIAS_FAILED	Warning	warn	hardware	yes	Check the status of all director nodes, and validate IP alias configuration.
8663	PAN_MGMT_EV_SERVICE_DELETED	Informational	info	volume	yes	
8664	PAN_MGMT_EV_REALM_NOTIFY_LOGIN_FAILURE	Warning	warn	hardware	yes	Collect the /var/log/security file from affected hosts to check the origin of failed login attempts.
8665	PAN_MGMT_EV_REALM_NOTIFY_CLIENT_AWOL	Warning	warn	hardware	yes	Check the health of the clients reported as AWOL.
8666	PAN_MGMT_EV_VOLSERVICE_CHANGED	None	none	hardware	no	
8667	PAN_MGMT_EV_REALM_POWERED_DOWN	None	none	hardware	no	

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8670	PAN_MGMT_EV_BATTERY_TOO_OLD	Warning	warn	hardware	no	The battery can continue to be used, but should be replaced as soon as reasonably possible. Please open a Service Request with a list of battery hardware serials
8671	PAN_MGMT_EV_BATTERY_NOT_TOO_OLD	None	none	hardware	no	
8684	PAN_MGMT_EV_SSD_FILESYSTEM_FULL	Critical	crit	hardware	no	Delete data or add additional storage.
8685	PAN_MGMT_EV_SSD_FILESYSTEM_NEAR_FULL	Warning	warn	hardware	yes	Delete data or add additional storage.
8686	PAN_MGMT_EV_SSD_FILESYSTEM_HALF_FULL	Informational	info	hardware	yes	
8687	PAN_MGMT_EV_SSD_FILESYSTEM_NO_LONGER_FULL	Informational	info	hardware	yes	
8688	PAN_MGMT_EV_HDD_FILESYSTEM_FULL	Critical	crit	hardware	no	Delete data or add additional storage.
8689	PAN_MGMT_EV_HDD_FILESYSTEM_NEAR_FULL	Warning	warn	hardware	yes	Delete data or add additional storage.
8690	PAN_MGMT_EV_HDD_FILESYSTEM_HALF_FULL	Informational	info	hardware	yes	
8691	PAN_MGMT_EV_HDD_FILESYSTEM_NO_LONGER_FULL	Informational	info	hardware	yes	
8697	PAN_MGMT_EV_METADATA_FILESYSTEM_FULL	Critical	crit	hardware	no	Contact service.
8698	PAN_MGMT_EV_METADATA_FILESYSTEM_NEAR_FULL	Warning	warn	hardware	no	Contact service.
8699	PAN_MGMT_EV_METADATA_FILESYSTEM_NO_LONGER_NEAR_FULL	Informational	info	hardware	yes	
8800	PAN_MGMT_EV_EXTERNAL_JBOD_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8801	PAN_MGMT_EV_EXTERNAL_JBOD_NOT_FOUND	Critical	crit	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8802	PAN_MGMT_EV_EXTERNAL_JBOD_WILL_FAIL	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8803	PAN_MGMT_EV_EXTERNAL_JBOD_IOM_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8804	PAN_MGMT_EV_EXTERNAL_JBOD_IOM_NOT_FOUND	Critical	crit	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8805	PAN_MGMT_EV_EXTERNAL_JBOD_IOM_WILL_FAIL	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8806	PAN_MGMT_EV_EXTERNAL_JBOD_FAN_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8807	PAN_MGMT_EV_EXTERNAL_JBOD_FAN_NOT_FOUND	Critical	crit	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8808	PAN_MGMT_EV_EXTERNAL_JBOD_FAN_WILL_FAIL	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8809	PAN_MGMT_EV_EXTERNAL_JBOD_PS_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8810	PAN_MGMT_EV_EXTERNAL_JBOD_PS_NOT_FOUND	Critical	crit	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8811	PAN_MGMT_EV_EXTERNAL_JBOD_PS_WILL_FAIL	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8812	PAN_MGMT_EV_EXTERNAL_JBOD_PS_BAD_DC_DC_OUTPUT	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8813	PAN_MGMT_EV_EXTERNAL_JBOD_PS_NO_AC_INPUT	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8814	PAN_MGMT_EV_JBOD_GENERIC_EVENT	None	none	hardware	no	
8815	PAN_MGMT_EV_EXTERNAL_JBOD_PS_OK	None	none	hardware	no	
8816	PAN_MGMT_EV_EXTERNAL_JBOD_IOM_OK	None	none	hardware	no	
8817	PAN_MGMT_EV_EXTERNAL_JBOD_FAN_OK	None	none	hardware	no	
8818	PAN_MGMT_EV_EXTERNAL_JBOD_OK	None	none	hardware	no	
8900	PAN_MGMT_EV_SHELF_FAN1_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8901	PAN_MGMT_EV_SHELF_FAN2_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8902	PAN_MGMT_EV_SHELF_FAN3_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8903	PAN_MGMT_EV_SHELF_TOO_MANY_FAN_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8915	PAN_MGMT_EV_BRICK_FF_TRIP_TEMP	None	none	hardware	no	

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8916	PAN_MGMT_EV_PS1_FF_TRIP_TEMP	None	none	hardware	no	
8917	PAN_MGMT_EV_PS2_FF_TRIP_TEMP	None	none	hardware	no	
8918	PAN_MGMT_EV_BATTERY_FF_TRIP_TEMP	None	none	hardware	no	
8919	PAN_MGMT_EV_SHELF_NET1_FF_TRIP_TEMP	None	none	hardware	no	
8920	PAN_MGMT_EV_SHELF_NET2_FF_TRIP_TEMP	None	none	hardware	no	
8950	PAN_MGMT_EV_SHELF_NET2_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8951	PAN_MGMT_EV_SHELF_NET2_UNSUPPORTED_VERSION	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
8952	PAN_MGMT_EV_SHELF_NET2_NOT_FOUND	Critical	crit	hardware	no	Check if switch 2 is inserted properly.
8953	PAN_MGMT_EV_SHELF_NET2_TRIP_TEMP	Critical	crit	hardware	no	Ambient temperature is too high. Adjust room temperature.
8954	PAN_MGMT_EV_SHELF_NET2_HIGH_TEMP	Warning	warn	hardware	no	Ambient temperature is too high. Adjust room temperature.
8955	PAN_MGMT_EV_SHELF_NET2_UNDER_TEMP	Informational	info	hardware	no	Ambient temperature is too low. Adjust room temperature.
8956	PAN_MGMT_EV_SHELF_NET2_U6_CHECKSUM_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for assistance.
8957	PAN_MGMT_EV_SHELF_NET2_U8_CHECKSUM_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for assistance.
8958	PAN_MGMT_EV_SHELF_NET2_RESETTING	Warning	warn	hardware	no	Switch management interface did not respond. Please wait 90 seconds for reset to complete.
8959	PAN_MGMT_EV_SHELF_NET2_NO_RESP	Warning	warn	hardware	no	Switch management interface is not responding. Please reset the switch when system is not busy, and check that the switch firmware is up-to-date.
8960	PAN_MGMT_EV_SHELF_NET2_FW_OPTIONAL_UPGRADE	Warning	warn	hardware	yes	Switch firmware is out of date; upgrade is recommended. Please contact VDURA Technical Support for further assistance.
8961	PAN_MGMT_EV_SHELF_NET2_FW_NEW_UNSUPPORTED	Warning	warn	hardware	yes	Switch firmware is not supported. Downgrading firmware to a supported version is recommended. Please contact VDURA Technical Support for further assistance.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
8962	PAN_MGMT_EV_SHELF_NET2_FW_NEW_NO_DATA	Warning	warn	hardware	yes	There is no compatibility info for the switch firmware. Downgrading firmware to a supported version is recommended. Please contact VDURA Technical Support for f
8963	PAN_MGMT_EV_SHELF_NET2_FW_INCOMPATIBLE	Critical	crit	hardware	no	Please upgrade switch firmware to a supported version. Please contact VDURA Technical Support for further assistance.
8964	PAN_MGMT_EV_SHELF_NET2_FW_UPGRADE_NEEDS_FILE	Warning	warn	hardware	yes	Please contact VDURA Technical Support to obtain the firmware file and for further assistance.
8965	PAN_MGMT_EV_SHELF_NET2_FW_NEW_COMPATIBLE	Warning	warn	hardware	yes	Consider downgrading switch firmware to a supported version. Please contact VDURA Technical Support for further assistance.
8966	PAN_MGMT_EV_SHELF_NET2_INVALID_UPLINK	Warning	warn	hardware	no	Check that the enclosure switch is cabled correctly - uplink should be sfp6, cx4, or lagg of ge.
8968	PAN_MGMT_EV_SHELF_NET2_FLOODING	Informational	info	hardware	no	If the warning persists, Please contact VDURA Technical Support.
8969	PAN_MGMT_EV_SHELF_NET1_NO_FLOODING	None	none	hardware	no	
8970	PAN_MGMT_EV_SHELF_NET2_NO_FLOODING	None	none	hardware	no	
8975	PAN_MGMT_EV_BATTERY_TEST_START	Informational	info	hardware	yes	
8976	PAN_MGMT_EV_BATTERY_TEST_SUCCESS	Informational	info	hardware	yes	
8977	PAN_MGMT_EV_BATTERY_TEST_FAILED	Critical	crit	hardware	yes	
8978	PAN_MGMT_EV_BATTERY_TEST_TRANSIENT_ERROR	Informational	info	hardware	yes	Battery test will automatically run again later.
9050	PAN_MGMT_EV_BRICK_LOW_BATTERY	Warning	warn	hardware	no	Node power failure protection is not ready.
9051	PAN_MGMT_EV_BRICK_BACKGROUND_FSCK_ACTIVE	Informational	info	hardware	no	
9052	PAN_MGMT_EV_BRICK_BACKGROUND_FSCK_INACTIVE	Informational	info	hardware	no	
9053	PAN_MGMT_EV_BRICK_GOT_ADDRS	Informational	info	hardware	yes	
9062	PAN_MGMT_EV_BRICK_CLOCK_SYNC	Informational	info	hardware	no	Wait up to 2 minutes for clock synchronization to complete. If clock synchronization lasts longer than 2 minutes, make sure at least one of the NTP servers is
9063	PAN_MGMT_EV_BRICK_DRIVE_TEST_FAILED	Warning	warn	hardware	yes	Please contact VDURA Technical Support.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9064	PAN_MGMT_EV_BRICK_DRIVE_TEST_INCONCLUSIVE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
9065	PAN_MGMT_EV_BRICK_DRIVE_TEST_RETRY	Informational	info	hardware	yes	No action is needed.
9066	PAN_MGMT_EV_BRICK_DRIVE_TEST_PASSED	Informational	info	hardware	yes	
9067	PAN_MGMT_EV_BRICK_NOT_READY	Informational	info	hardware	no	
9068	PAN_MGMT_EV_BRICK_ACTIVATED	Informational	info	hardware	yes	
9069	PAN_MGMT_EV_BRICK_SECURE_ERASE	Informational	info	hardware	no	
9070	PAN_MGMT_EV_BRICK_BOOTING	Informational	info	hardware	no	
9071	PAN_MGMT_EV_BRICK_SHUTDOWN	Informational	info	hardware	no	
9072	PAN_MGMT_EV_BRICK_NOTIFY_CLIENT_AWOL	Informational	info	hardware	yes	Check the health of this client.
9073	PAN_MGMT_EV_BRICK_ECC_ERROR_FILTER	Warning	warn	hardware	yes	Node may need to be drained depending on severity of ECC correctable error rate.
9074	PAN_MGMT_EV_BRICK_ATA_ERROR_FILTER	Warning	warn	hardware	yes	Node may need to be drained depending on severity of ATA sector error rate.
9075	PAN_MGMT_EV_BRICK_IMPAIRED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9079	PAN_MGMT_EV_BRICK_IPS_COMM_TIMEOUT_FILTER	Warning	warn	hardware	yes	Please collect logs for the director and OSD, then contact VDURA Technical Support.
9080	PAN_MGMT_EV_BRICK_DEACTIVATED	Informational	info	hardware	yes	
9081	PAN_MGMT_EV_BRICK_NETWORK_ERR	Informational	info	hardware	no	
9082	PAN_MGMT_EV_BRICK_NOT_RECONCILED	Informational	info	hardware	no	
9083	PAN_MGMT_EV_BRICK_CONFIG_ERR	Informational	info	hardware	no	
9100	PAN_MGMT_EV_PM_DRAIN_BLADE_SUCCESS	Informational	info	hardware	yes	
9101	PAN_MGMT_EV_PM_DRAIN_BLADE_FAILURE	Informational	info	hardware	yes	Check the drain status on the Node Detail page to see whether drain is blocked.
9102	PAN_MGMT_EV_NIS_AUTHSVC_CONFIG_FAILED	Warning	warn	hardware	yes	Please correct NIS configuration.
9103	PAN_MGMT_EV_NIS_AUTHSVC_CONFIGURED	Informational	info	hardware	yes	

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9104	PAN_MGMT_EV_NIS_BIND_CONFIG_FAILED	Warning	warn	hardware	yes	Please make sure the NIS servers is responding.
9105	PAN_MGMT_EV_NIS_BIND_CONFIGURED	Informational	info	hardware	yes	
9120	PAN_MGMT_EV_LDAP_CONN_LOST	Warning	warn	hardware	yes	Check the LDAP server connectivity. To retry, disable and re-enable LDAP. Also make sure that LDAP is in the Name Resolution Order list.
9122	PAN_MGMT_EV_LDAP_CONN_RE_ESTABLISHED	Warning	warn	hardware	yes	
9124	PAN_MGMT_EV_AD_CONN_LOST	Warning	warn	hardware	yes	
9125	PAN_MGMT_EV_AD_CONN_RE_ESTABLISHED	Warning	warn	hardware	yes	
9126	PAN_MGMT_EV_NIS_CONN_LOST	Warning	warn	hardware	yes	Check the NIS server connectivity. To retry, disable and re-enable NIS User/Group Name Resolution. Also make sure that NIS is in the Name Resolution Order list.
9127	PAN_MGMT_EV_NIS_CONN_RE_ESTABLISHED	Warning	warn	hardware	yes	
9150	PAN_MGMT_EV_USERQUOTA_BYTES_VIOLATION_HARD	Informational	info	volume	yes	1. Increase hard quota bytes limit. 2. Delete unneeded files from volume to keep usage below limit.
9151	PAN_MGMT_EV_USERQUOTA_BYTES_VIOLATION_SOFT	Informational	info	volume	yes	1. Increase soft quota bytes limit. 2. Delete unneeded files from volume to keep usage below limit.
9152	PAN_MGMT_EV_USERQUOTA_FILES_VIOLATION_HARD	Informational	info	volume	yes	1. Increase hard quota file limit. 2. Delete unneeded files from volume to keep usage below limit.
9153	PAN_MGMT_EV_USERQUOTA_FILES_VIOLATION_SOFT	Informational	info	volume	yes	1. Increase soft quota file limit. 2. Delete unneeded files from volume to keep usage below limit.
9154	PAN_MGMT_EV_USERQUOTA_BYTES_BELOW_HARD_LIMIT	None	none	hardware	no	
9155	PAN_MGMT_EV_USERQUOTA_BYTES_BELOW_SOFT_LIMIT	None	none	hardware	no	
9156	PAN_MGMT_EV_USERQUOTA_FILES_BELOW_HARD_LIMIT	None	none	hardware	no	
9157	PAN_MGMT_EV_USERQUOTA_FILES_BELOW_SOFT_LIMIT	None	none	hardware	no	
9170	PAN_MGMT_EV_QUOTA_CALC_IN_PROGRESS	Informational	info	volume	yes	
9171	PAN_MGMT_EV_QUOTA_CALC_PENDING	Informational	info	volume	yes	
9172	PAN_MGMT_EV_QUOTA_CALC_COMPLETE	Informational	info	volume	yes	
9180	PAN_MGMT_EV_BRICK_NIC_START	None	none	hardware	no	

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9181	PAN_MGMT_EV_BRICK_NIC_FAILED	None	none	hardware	no	
9182	PAN_MGMT_EV_BRICK_NIC1_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9183	PAN_MGMT_EV_BRICK_NIC2_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9184	PAN_MGMT_EV_BRICK_NIC3_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9185	PAN_MGMT_EV_BRICK_NIC4_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9186	PAN_MGMT_EV_BRICK_NIC5_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9187	PAN_MGMT_EV_BRICK_NIC6_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9188	PAN_MGMT_EV_BRICK_NIC7_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9189	PAN_MGMT_EV_BRICK_NIC8_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9190	PAN_MGMT_EV_BRICK_NIC9_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9200	PAN_MGMT_EV_BRICK_NIC_TRANSMISSION_ERRORS	None	none	hardware	no	
9201	PAN_MGMT_EV_BRICK_NIC_TRANSMISSION_ERRORS			hardware	no	
9202	PAN_MGMT_EV_BRICK_NIC1_TRANSMISSION_ERRORS	Warning	warn	hardware	no	Check cabling.
9203	PAN_MGMT_EV_BRICK_NIC2_TRANSMISSION_ERRORS	Warning	warn	hardware	no	Check cabling.
9204	PAN_MGMT_EV_BRICK_NIC3_TRANSMISSION_ERRORS	Warning	warn	hardware	no	Check cabling.
9205	PAN_MGMT_EV_BRICK_NIC4_TRANSMISSION_ERRORS	Warning	warn	hardware	no	Check cabling.
9206	PAN_MGMT_EV_BRICK_NIC5_TRANSMISSION_ERRORS	Warning	warn	hardware	no	Check cabling.
9207	PAN_MGMT_EV_BRICK_NIC6_TRANSMISSION_ERRORS	Warning	warn	hardware	no	Check cabling.
9208	PAN_MGMT_EV_BRICK_NIC7_TRANSMISSION_ERRORS	Warning	warn	hardware	no	Check cabling.
9209	PAN_MGMT_EV_BRICK_NIC8_TRANSMISSION_ERRORS	Warning	warn	hardware	no	Check cabling.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9210	PAN_MGMT_EV_BRICK_NIC9_TRANSMISSION_ERRORS	Warning	warn	hardware	no	Check cabling.
9220	PAN_MGMT_EV_BRICK_NIC_SLOW_SPEED	None	none	hardware	no	
9221	PAN_MGMT_EV_BRICK_NIC_SLOW_SPEED			hardware	no	
9222	PAN_MGMT_EV_BRICK_NIC1_SLOW_SPEED	Warning	warn	hardware	no	Check 10GE switch configuration.
9223	PAN_MGMT_EV_BRICK_NIC2_SLOW_SPEED	Warning	warn	hardware	no	Check 10GE switch configuration.
9224	PAN_MGMT_EV_BRICK_NIC3_SLOW_SPEED	Warning	warn	hardware	no	Check 10GE switch configuration.
9225	PAN_MGMT_EV_BRICK_NIC4_SLOW_SPEED	Warning	warn	hardware	no	Check 10GE switch configuration.
9226	PAN_MGMT_EV_BRICK_NIC5_SLOW_SPEED	Warning	warn	hardware	no	Check 10GE switch configuration.
9227	PAN_MGMT_EV_BRICK_NIC6_SLOW_SPEED	Warning	warn	hardware	no	Check 10GE switch configuration.
9228	PAN_MGMT_EV_BRICK_NIC7_SLOW_SPEED	Warning	warn	hardware	no	Check 10GE switch configuration.
9229	PAN_MGMT_EV_BRICK_NIC8_SLOW_SPEED	Warning	warn	hardware	no	Check 10GE switch configuration.
9230	PAN_MGMT_EV_BRICK_NIC9_SLOW_SPEED	Warning	warn	hardware	no	Check 10GE switch configuration.
9240	PAN_MGMT_EV_BRICK_NIC_NOT_FULL_DUPLEX	None	none	hardware	no	
9241	PAN_MGMT_EV_BRICK_NIC_NOT_FULL_DUPLEX			hardware	no	
9242	PAN_MGMT_EV_BRICK_NIC1_NOT_FULL_DUPLEX	Warning	warn	hardware	no	Check switch configuration.
9243	PAN_MGMT_EV_BRICK_NIC2_NOT_FULL_DUPLEX	Warning	warn	hardware	no	Check switch configuration.
9244	PAN_MGMT_EV_BRICK_NIC3_NOT_FULL_DUPLEX	Warning	warn	hardware	no	Check switch configuration.
9245	PAN_MGMT_EV_BRICK_NIC4_NOT_FULL_DUPLEX	Warning	warn	hardware	no	Check switch configuration.
9246	PAN_MGMT_EV_BRICK_NIC5_NOT_FULL_DUPLEX	Warning	warn	hardware	no	Check switch configuration.
9247	PAN_MGMT_EV_BRICK_NIC6_NOT_FULL_DUPLEX	Warning	warn	hardware	no	Check switch configuration.
9248	PAN_MGMT_EV_BRICK_NIC7_NOT_FULL_DUPLEX	Warning	warn	hardware	no	Check switch configuration.
9249	PAN_MGMT_EV_BRICK_NIC8_NOT_FULL_DUPLEX	Warning	warn	hardware	no	Check switch configuration.
9250	PAN_MGMT_EV_BRICK_NIC9_NOT_FULL_DUPLEX	Warning	warn	hardware	no	Check switch configuration.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9260	PAN_MGMT_EV_BRICK_NIC_NOT_ACTIVE	None	none	hardware	no	
9261	PAN_MGMT_EV_BRICK_NIC_NOT_ACTIVE			hardware	no	
9262	PAN_MGMT_EV_BRICK_NIC1_NOT_ACTIVE	Warning	warn	hardware	no	Check cabling.
9263	PAN_MGMT_EV_BRICK_NIC2_NOT_ACTIVE	Warning	warn	hardware	no	Check cabling.
9264	PAN_MGMT_EV_BRICK_NIC3_NOT_ACTIVE	Warning	warn	hardware	no	Check cabling.
9265	PAN_MGMT_EV_BRICK_NIC4_NOT_ACTIVE	Warning	warn	hardware	no	Check cabling.
9266	PAN_MGMT_EV_BRICK_NIC5_NOT_ACTIVE	Warning	warn	hardware	no	Check cabling.
9267	PAN_MGMT_EV_BRICK_NIC6_NOT_ACTIVE	Warning	warn	hardware	no	Check cabling.
9268	PAN_MGMT_EV_BRICK_NIC7_NOT_ACTIVE	Warning	warn	hardware	no	Check cabling.
9269	PAN_MGMT_EV_BRICK_NIC8_NOT_ACTIVE	Warning	warn	hardware	no	Check cabling.
9270	PAN_MGMT_EV_BRICK_NIC9_NOT_ACTIVE	Warning	warn	hardware	no	Check cabling.
9280	PAN_MGMT_EV_BRICK_NIC_BRDCST_ADDR_ERR	None	none	hardware	no	
9281	PAN_MGMT_EV_BRICK_NIC_BRDCST_ADDR_ERR			hardware	no	
9282	PAN_MGMT_EV_BRICK_NIC1_BRDCST_ADDR_ERR	Critical	crit	hardware	no	Configure the broadcast address correctly.
9283	PAN_MGMT_EV_BRICK_NIC2_BRDCST_ADDR_ERR	Critical	crit	hardware	no	Configure the broadcast address correctly.
9284	PAN_MGMT_EV_BRICK_NIC3_BRDCST_ADDR_ERR	Critical	crit	hardware	no	Configure the broadcast address correctly.
9285	PAN_MGMT_EV_BRICK_NIC4_BRDCST_ADDR_ERR	Critical	crit	hardware	no	Configure the broadcast address correctly.
9286	PAN_MGMT_EV_BRICK_NIC5_BRDCST_ADDR_ERR	Critical	crit	hardware	no	Configure the broadcast address correctly.
9287	PAN_MGMT_EV_BRICK_NIC6_BRDCST_ADDR_ERR	Critical	crit	hardware	no	Configure the broadcast address correctly.
9288	PAN_MGMT_EV_BRICK_NIC7_BRDCST_ADDR_ERR	Critical	crit	hardware	no	Configure the broadcast address correctly.
9289	PAN_MGMT_EV_BRICK_NIC8_BRDCST_ADDR_ERR	Critical	crit	hardware	no	Configure the broadcast address correctly.
9290	PAN_MGMT_EV_BRICK_NIC9_BRDCST_ADDR_ERR	Critical	crit	hardware	no	Configure the broadcast address correctly.
9300	PAN_MGMT_EV_BRICK_NIC_NOT_CONFIGURED	None	none	hardware	no	

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9301	PAN_MGMT_EV_BRICK_NIC_NOT_CONFIGURED			hardware	no	
9302	PAN_MGMT_EV_BRICK_NIC1_NOT_CONFIGURED	Warning	warn	hardware	no	Try rebooting the node.
9303	PAN_MGMT_EV_BRICK_NIC2_NOT_CONFIGURED	Warning	warn	hardware	no	Try rebooting the node.
9304	PAN_MGMT_EV_BRICK_NIC3_NOT_CONFIGURED	Warning	warn	hardware	no	Try rebooting the node.
9305	PAN_MGMT_EV_BRICK_NIC4_NOT_CONFIGURED	Warning	warn	hardware	no	Try rebooting the node.
9306	PAN_MGMT_EV_BRICK_NIC5_NOT_CONFIGURED	Warning	warn	hardware	no	Try rebooting the node.
9307	PAN_MGMT_EV_BRICK_NIC6_NOT_CONFIGURED	Warning	warn	hardware	no	Try rebooting the node.
9308	PAN_MGMT_EV_BRICK_NIC7_NOT_CONFIGURED	Warning	warn	hardware	no	Try rebooting the node.
9309	PAN_MGMT_EV_BRICK_NIC8_NOT_CONFIGURED	Warning	warn	hardware	no	Try rebooting the node.
9310	PAN_MGMT_EV_BRICK_NIC9_NOT_CONFIGURED	Warning	warn	hardware	no	Try rebooting the node.
9320	PAN_MGMT_EV_BRICK_NIC_EXT_LINK_DOWN	None	none	hardware	no	
9321	PAN_MGMT_EV_BRICK_NIC_EXT_LINK_DOWN			hardware	no	
9322	PAN_MGMT_EV_BRICK_NIC1_EXT_LINK_DOWN	Warning	warn	hardware	no	Check cable and switch configuration.
9323	PAN_MGMT_EV_BRICK_NIC2_EXT_LINK_DOWN	Warning	warn	hardware	no	Check cable and switch configuration.
9324	PAN_MGMT_EV_BRICK_NIC3_EXT_LINK_DOWN	Warning	warn	hardware	no	Check cable and switch configuration.
9325	PAN_MGMT_EV_BRICK_NIC4_EXT_LINK_DOWN	Warning	warn	hardware	no	Check cable and switch configuration.
9326	PAN_MGMT_EV_BRICK_NIC5_EXT_LINK_DOWN	Warning	warn	hardware	no	Check cable and switch configuration.
9327	PAN_MGMT_EV_BRICK_NIC6_EXT_LINK_DOWN	Warning	warn	hardware	no	Check cable and switch configuration.
9328	PAN_MGMT_EV_BRICK_NIC7_EXT_LINK_DOWN	Warning	warn	hardware	no	Check cable and switch configuration.
9329	PAN_MGMT_EV_BRICK_NIC8_EXT_LINK_DOWN	Warning	warn	hardware	no	Check cable and switch configuration.
9330	PAN_MGMT_EV_BRICK_NIC9_EXT_LINK_DOWN	Warning	warn	hardware	no	Check cable and switch configuration.
9340	PAN_MGMT_EV_BRICK_NIC_IMPAIRED	None	none	hardware	no	
9341	PAN_MGMT_EV_BRICK_NIC_IMPAIRED			hardware	no	

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9360	PAN_MGMT_EV_BRICK_NIC_LACP_NOT_ACTIVE	None	none	hardware	no	
9361	PAN_MGMT_EV_BRICK_NIC_LACP_NOT_ACTIVE			hardware	no	
9362	PAN_MGMT_EV_BRICK_NIC1_LACP_NOT_ACTIVE	Warning	warn	hardware	no	Check switch configuration.
9363	PAN_MGMT_EV_BRICK_NIC2_LACP_NOT_ACTIVE	Warning	warn	hardware	no	Check switch configuration.
9364	PAN_MGMT_EV_BRICK_NIC3_LACP_NOT_ACTIVE	Warning	warn	hardware	no	Check switch configuration.
9365	PAN_MGMT_EV_BRICK_NIC4_LACP_NOT_ACTIVE	Warning	warn	hardware	no	Check switch configuration.
9366	PAN_MGMT_EV_BRICK_NIC5_LACP_NOT_ACTIVE	Warning	warn	hardware	no	Check switch configuration.
9367	PAN_MGMT_EV_BRICK_NIC6_LACP_NOT_ACTIVE	Warning	warn	hardware	no	Check switch configuration.
9368	PAN_MGMT_EV_BRICK_NIC7_LACP_NOT_ACTIVE	Warning	warn	hardware	no	Check switch configuration.
9369	PAN_MGMT_EV_BRICK_NIC8_LACP_NOT_ACTIVE	Warning	warn	hardware	no	Check switch configuration.
9370	PAN_MGMT_EV_BRICK_NIC9_LACP_NOT_ACTIVE	Warning	warn	hardware	no	Check switch configuration.
9380	PAN_MGMT_EV_BRICK_NIC_END	None	none	hardware	no	
9381	PAN_MGMT_EV_BRICK_NIC_END			hardware	no	
9400	PAN_MGMT_EV_BOX_PS1_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9401	PAN_MGMT_EV_BOX_PS1_UNSUPPORTED_VERSION	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9402	PAN_MGMT_EV_BOX_PS1_NOT_FOUND	Warning	warn	hardware	no	Check whether Power Supply 1 is inserted properly.
9403	PAN_MGMT_EV_BOX_PS1_PREDICTED_FAILURE	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9404	PAN_MGMT_EV_BOX_PS1_NO_AC_INPUT	Warning	warn	hardware	no	Check that Power Supply 1 is plugged in.
9410	PAN_MGMT_EV_BOX_PS2_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9411	PAN_MGMT_EV_BOX_PS2_UNSUPPORTED_VERSION	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9412	PAN_MGMT_EV_BOX_PS2_NOT_FOUND	Warning	warn	hardware	no	Check whether Power Supply 2 is inserted properly.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9413	PAN_MGMT_EV_BOX_PS2_PREDICTED_FAILURE	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9414	PAN_MGMT_EV_BOX_PS2_NO_AC_INPUT	Warning	warn	hardware	no	Check that Power Supply 2 is plugged in.
9420	PAN_MGMT_EV_BOX_IPMI_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9421	PAN_MGMT_EV_BOX_IPMI_PREDICTED_FAILURE	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9422	PAN_MGMT_EV_BOX_IPMI_NOT_FOUND	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9423	PAN_MGMT_EV_BOX_NVM_PREDICTED_FAILURE	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9424	PAN_MGMT_EV_BOX_NVM_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9430	PAN_MGMT_EV_BOX_FAN1_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9431	PAN_MGMT_EV_BOX_FAN1_SLOW_SPEED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9435	PAN_MGMT_EV_BOX_FAN2_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9436	PAN_MGMT_EV_BOX_FAN2_SLOW_SPEED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9440	PAN_MGMT_EV_BOX_FAN3_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9441	PAN_MGMT_EV_BOX_FAN3_SLOW_SPEED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9445	PAN_MGMT_EV_BOX_FAN4_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9446	PAN_MGMT_EV_BOX_FAN4_SLOW_SPEED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9450	PAN_MGMT_EV_BOX_FAN5_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9451	PAN_MGMT_EV_BOX_FAN5_SLOW_SPEED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9455	PAN_MGMT_EV_BOX_FAN6_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9456	PAN_MGMT_EV_BOX_FAN6_SLOW_SPEED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9460	PAN_MGMT_EV_BOX_FAN7_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9461	PAN_MGMT_EV_BOX_FAN7_SLOW_SPEED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9470	PAN_MGMT_EV_BOX_HBA0_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9471	PAN_MGMT_EV_BOX_HBA0_SLOW_SPEED	Warning	warn	hardware	no	Check cabling and SFP+ modules.
9472	PAN_MGMT_EV_BOX_HBA0_NOT_CONNECTED	Warning	warn	hardware	no	Check cabling and SFP+ modules.
9473	PAN_MGMT_EV_BOX_HBA1_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9474	PAN_MGMT_EV_BOX_HBA1_SLOW_SPEED	Warning	warn	hardware	no	Check cabling and SFP+ modules.
9475	PAN_MGMT_EV_BOX_HBA1_NOT_CONNECTED	Warning	warn	hardware	no	Check cabling and SFP+ modules.
9500	PAN_MGMT_EV_BRICK_HD2_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9501	PAN_MGMT_EV_BRICK_HD2_WILL_FAIL	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9502	PAN_MGMT_EV_BRICK_HD2_UNSUPPORTED_VERSION	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9503	PAN_MGMT_EV_BRICK_HD2_NOT_FOUND	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9504	PAN_MGMT_EV_BRICK_HD2_SSD_LIFETIME	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9505	PAN_MGMT_EV_BRICK_HD2_SSD_RESERVE_SPACE	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9506	PAN_MGMT_EV_BRICK_HWSN_CHANGED	Informational	info	hardware	yes	
9600	PAN_MGMT_EV_SHELF_BATTERY_FAN_MOD1_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9601	PAN_MGMT_EV_SHELF_BATTERY_FAN_MOD2_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.
9602	PAN_MGMT_EV_SHELF_BATTERY_FAN_MOD3_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support for further assistance regarding this message.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9603	PAN_MGMT_EV_SHELF_BATTERY_FAN_MOD1_NOT_FOUND	Warning	warn	hardware	no	Pease contact VDURA Technical Support for further assistance regarding this message.
9604	PAN_MGMT_EV_SHELF_BATTERY_FAN_MOD2_NOT_FOUND	Warning	warn	hardware	no	Pease contact VDURA Technical Support for further assistance regarding this message.
9605	PAN_MGMT_EV_SHELF_BATTERY_FAN_MOD3_NOT_FOUND	Warning	warn	hardware	no	Pease contact VDURA Technical Support for further assistance regarding this message.
9606	PAN_MGMT_EV_SHELF_BATTERY_FAN_MOD1_ONLINE	None	none	hardware	no	
9607	PAN_MGMT_EV_SHELF_BATTERY_FAN_MOD2_ONLINE	None	none	hardware	no	
9608	PAN_MGMT_EV_SHELF_BATTERY_FAN_MOD3_ONLINE	None	none	hardware	no	
9609	PAN_MGMT_EV_NODE_FAN_MOD1_FAILED	Warning	warn	hardware	no	Pease contact VDURA Technical Support for further assistance regarding this message.
9610	PAN_MGMT_EV_NODE_FAN_MOD2_FAILED	Warning	warn	hardware	no	Pease contact VDURA Technical Support for further assistance regarding this message.
9611	PAN_MGMT_EV_NODE_FAN_MOD3_FAILED	Warning	warn	hardware	no	Pease contact VDURA Technical Support for further assistance regarding this message.
9612	PAN_MGMT_EV_NODE_FAN_MOD1_NOT_FOUND	Warning	warn	hardware	no	Pease contact VDURA Technical Support for further assistance regarding this message.
9613	PAN_MGMT_EV_NODE_FAN_MOD2_NOT_FOUND	Warning	warn	hardware	no	Pease contact VDURA Technical Support for further assistance regarding this message.
9614	PAN_MGMT_EV_NODE_FAN_MOD3_NOT_FOUND	Warning	warn	hardware	no	Pease contact VDURA Technical Support for further assistance regarding this message.
9615	PAN_MGMT_EV_NODE_FAN_MOD1_ONLINE	None	none	hardware	no	
9616	PAN_MGMT_EV_NODE_FAN_MOD2_ONLINE	None	none	hardware	no	
9617	PAN_MGMT_EV_NODE_FAN_MOD3_ONLINE	None	none	hardware	no	
9618	PAN_MGMT_EV OSDV2_BRICK_SSD_NEAR_FULL	Warning	warn	hardware	no	Please contact VDURA Technical Support to rebalance the OSD.
9619	PAN_MGMT_EV OSDV2_BRICK_SSD_FULL	Critical	crit	hardware	no	Please contact VDURA Technical Support to rebalance the OSD.
9620	PAN_MGMT_EV OSDV2_BRICK_SSD_NO_LONGER_FULL	Informational	info	hardware	yes	
9621	PAN_MGMT_EV OSDV2_BRICKSET_SSD_FULL	Critical	crit	bladeset	no	Please contact VDURA Technical Support to rebalance the BRICKSET.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9622	PAN_MGMT_EV OSDV2_ BRICKSET_SSD_NEAR_FULL	Warning	warn	bladeset	no	Please contact VDURA Technical Support to rebalance the BRICKSET.
9623	PAN_MGMT_EV OSDV2_ BRICKSET_SSD_NO_LONGER_FULL	None	none	hardware	no	
9624	PAN_MGMT_EV_BRICK_ METADATA_FILESYSTEM_NEAR_FULL	Warning	warn	hardware	yes	Delete data or add additional storage.
9625	PAN_MGMT_EV_BRICK_ METADATA_FILESYSTEM_FULL	Critical	crit	hardware	yes	Delete data or add additional storage.
9626	PAN_MGMT_EV_BRICK_ METADATA_FILESYSTEM_NO_LONGER_FULL	Informational	info	hardware	yes	
9627	PAN_MGMT_EV_BRICKSET_ METADATA_FILESYSTEM_NEAR_FULL	Warning	warn	bladeset	yes	Please contact VDURA Technical Support.
9628	PAN_MGMT_EV_BRICKSET_ METADATA_FILESYSTEM_FULL	Critical	crit	bladeset	yes	Please contact VDURA Technical Support.
9629	PAN_MGMT_EV_BRICKSET_ METADATA_FILESYSTEM_NO_LONGER_FULL	Informational	info	bladeset	yes	
9630	PAN_MGMT_EV_SEDAGENT_ KMIP1_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9631	PAN_MGMT_EV_SEDAGENT_ KMIP2_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9632	PAN_MGMT_EV_SEDAGENT_ KMIP1_OK	None	none	hardware	no	
9633	PAN_MGMT_EV_SEDAGENT_ KMIP2_OK	None	none	hardware	no	
9640	PAN_MGMT_EV_SEDAGENT_ HD0_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9641	PAN_MGMT_EV_SEDAGENT_ HD1_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9642	PAN_MGMT_EV_SEDAGENT_ HD2_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9643	PAN_MGMT_EV_SEDAGENT_ HD3_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9644	PAN_MGMT_EV_SEDAGENT_ HD4_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9645	PAN_MGMT_EV_SEDAGENT_ HD5_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9646	PAN_MGMT_EV_SEDAGENT_ HD6_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9647	PAN_MGMT_EV_SEDAGENT_ HD7_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9648	PAN_MGMT_EV_SEDAGENT_ HD8_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9649	PAN_MGMT_EV_SEDAGENT_HD9_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9650	PAN_MGMT_EV_SEDAGENT_HD10_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9651	PAN_MGMT_EV_SEDAGENT_HD11_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9652	PAN_MGMT_EV_SEDAGENT_HD12_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9653	PAN_MGMT_EV_SEDAGENT_HD13_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9654	PAN_MGMT_EV_SEDAGENT_HD14_UNLOCK_FAILED	Critical	crit	hardware	no	Please contact VDURA Technical Support.
9655	PAN_MGMT_EV_SEDAGENT_HD0_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9656	PAN_MGMT_EV_SEDAGENT_HD1_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9657	PAN_MGMT_EV_SEDAGENT_HD2_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9658	PAN_MGMT_EV_SEDAGENT_HD3_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9659	PAN_MGMT_EV_SEDAGENT_HD4_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9660	PAN_MGMT_EV_SEDAGENT_HD5_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9661	PAN_MGMT_EV_SEDAGENT_HD6_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9662	PAN_MGMT_EV_SEDAGENT_HD7_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9663	PAN_MGMT_EV_SEDAGENT_HD8_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9664	PAN_MGMT_EV_SEDAGENT_HD9_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9665	PAN_MGMT_EV_SEDAGENT_HD10_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9666	PAN_MGMT_EV_SEDAGENT_HD11_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9667	PAN_MGMT_EV_SEDAGENT_HD12_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9668	PAN_MGMT_EV_SEDAGENT_HD13_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9669	PAN_MGMT_EV_SEDAGENT_HD14_CONFIG_FAILED	Warning	warn	hardware	no	Please contact VDURA Technical Support.
9870	PAN_MGMT_EV_KMIP1_CC_CERTIFICATE_EXPIRATION	Warning	warn	hardware	no	Please update the client certificate for KMIP 1 until the expiration date.
9871	PAN_MGMT_EV_KMIP1_CA_CERTIFICATE_EXPIRATION	Warning	warn	hardware	no	Please update the root certificate for KMIP 1 until the expiration date.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
9872	PAN_MGMT_EV_KMIP2_CC_CERTIFICATE_EXPIRATION	Warning	warn	hardware	no	Please update the client certificate for KMIP 2 until the expiration date.
9873	PAN_MGMT_EV_KMIP2_CA_CERTIFICATE_EXPIRATION	Warning	warn	hardware	no	Please update the root certificate for KMIP 2 until the expiration date.
9874	PAN_MGMT_EV_KMIP1_CC_CERTIFICATE_EXPIRED	Critical	crit	hardware	no	Please update the client certificate.
9875	PAN_MGMT_EV_KMIP1_CA_CERTIFICATE_EXPIRED	Critical	crit	hardware	no	Please update the root certificate.
9876	PAN_MGMT_EV_KMIP2_CC_CERTIFICATE_EXPIRED	Critical	crit	hardware	no	Please update the client certificate.
9877	PAN_MGMT_EV_KMIP2_CA_CERTIFICATE_EXPIRED	Critical	crit	hardware	no	Please update the root certificate.
9878	PAN_MGMT_EV_KMIP1_CA_CERTIFICATE_OK	None	none	hardware	no	
9879	PAN_MGMT_EV_KMIP2_CA_CERTIFICATE_OK	None	none	hardware	no	
9880	PAN_MGMT_EV_KMIP1_CC_CERTIFICATE_OK	None	none	hardware	no	
9881	PAN_MGMT_EV_KMIP2_CC_CERTIFICATE_OK	None	none	hardware	no	
9902	PAN_MGMT_EV_NODE_DRIVES_MISMATCH	Critical	crit	hardware	yes	Place drives into proper location.
9903	PAN_MGMT_EV_NODE_DRIVES_UNEXPECTED	Warning	warn	hardware	yes	Place drives into proper location.
9904	PAN_MGMT_EV_NODE_DRIVES_MATCH	None	none	hardware	no	
10000	PAN_MGMT_EV_SHELF_PS3_FAILED	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
10001	PAN_MGMT_EV_SHELF_PS3_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
10002	PAN_MGMT_EV_SHELF_PS3_NOT_FOUND	Warning	warn	hardware	yes	Check if power supply module 3 is inserted properly.
10003	PAN_MGMT_EV_PS3_TRIP_TEMP	Critical	crit	hardware	yes	Ambient temperature is too high. Adjust room temperature.
10004	PAN_MGMT_EV_PS3_HIGH_TEMP	Warning	warn	hardware	yes	Ambient temperature is too high. Adjust room temperature.
10005	PAN_MGMT_EV_PS3_UNDER_TEMP	Informational	info	hardware	yes	Ambient temperature is too low. Adjust room temperature.
10006	PAN_MGMT_EV_SHELF_PS3_NO_AC_INPUT	Warning	warn	hardware	yes	Check that power supply module is plugged in.
10007	PAN_MGMT_EV_SHELF_PS3_BAD_DC_DC_OUTPUT	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
10008	PAN_MGMT_EV_SHELF_PS3_BAD_REPLACEMENT	Warning	warn	hardware	yes	Insert a 950W power supply module into this location.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
10009	PAN_MGMT_EV_PS3_FF_TRIP_TEMP			hardware	no	
10010	PAN_MGMT_EV_PS3_NORMAL_TEMP			hardware	no	
10100	PAN_MGMT_EV_SHELF_PS4_FAILED	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
10101	PAN_MGMT_EV_SHELF_PS4_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
10102	PAN_MGMT_EV_SHELF_PS4_NOT_FOUND	Warning	warn	hardware	yes	Check if power supply module 4 is inserted properly.
10103	PAN_MGMT_EV_PS4_TRIP_TEMP	Critical	crit	hardware	yes	Ambient temperature is too high. Adjust room temperature.
10104	PAN_MGMT_EV_PS4_HIGH_TEMP	Warning	warn	hardware	yes	Ambient temperature is too high. Adjust room temperature.
10105	PAN_MGMT_EV_PS4_UNDER_TEMP	Informational	info	hardware	yes	Ambient temperature is too low. Adjust room temperature.
10106	PAN_MGMT_EV_SHELF_PS4_NO_AC_INPUT	Warning	warn	hardware	yes	Check that power supply module is plugged in.
10107	PAN_MGMT_EV_SHELF_PS4_BAD_DC_DC_OUTPUT	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
10108	PAN_MGMT_EV_SHELF_PS4_BAD_REPLACEMENT	Warning	warn	hardware	yes	Insert a 950W power supply module into this location.
10109	PAN_MGMT_EV_PS4_FF_TRIP_TEMP			hardware	no	
10110	PAN_MGMT_EV_PS4_NORMAL_TEMP			hardware	no	
10902	PAN_MGMT_EV_SHELF_FAN4_FAILED	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
10903	PAN_MGMT_EV_SHELF_FAN5_FAILED	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
10904	PAN_MGMT_EV_SHELF_FAN4_ONLINE			hardware	no	
10905	PAN_MGMT_EV_SHELF_FAN5_ONLINE			hardware	no	
12000	PAN_MGMT_EV_BRICK_HD3_FAILED	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12001	PAN_MGMT_EV_BRICK_HD3_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12002	PAN_MGMT_EV_BRICK_HD3_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
12003	PAN_MGMT_EV_BRICK_HD3_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
12004	PAN_MGMT_EV_BRICK_HD3_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12005	PAN_MGMT_EV_BRICK_HD3_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12006	PAN_MGMT_EV_BRICK_HD3_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
12020	PAN_MGMT_EV_BRICK_HD4_FAILED	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12021	PAN_MGMT_EV_BRICK_HD4_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12022	PAN_MGMT_EV_BRICK_HD4_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
12023	PAN_MGMT_EV_BRICK_HD4_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
12024	PAN_MGMT_EV_BRICK_HD4_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12025	PAN_MGMT_EV_BRICK_HD4_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12026	PAN_MGMT_EV_BRICK_HD4_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
12040	PAN_MGMT_EV_BRICK_HD5_FAILED	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12041	PAN_MGMT_EV_BRICK_HD5_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12042	PAN_MGMT_EV_BRICK_HD5_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
12043	PAN_MGMT_EV_BRICK_HD5_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
12044	PAN_MGMT_EV_BRICK_HD5_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12045	PAN_MGMT_EV_BRICK_HD5_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12046	PAN_MGMT_EV_BRICK_HD5_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
12060	PAN_MGMT_EV_BRICK_HD6_FAILED	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12061	PAN_MGMT_EV_BRICK_HD6_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12062	PAN_MGMT_EV_BRICK_HD6_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.

Code	Alert name	Severity	Level	Category	Clr	Recommended action
12063	PAN_MGMT_EV_BRICK_HD6_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
12064	PAN_MGMT_EV_BRICK_HD6_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12065	PAN_MGMT_EV_BRICK_HD6_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12066	PAN_MGMT_EV_BRICK_HD6_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
12080	PAN_MGMT_EV_BRICK_HD7_FAILED	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12081	PAN_MGMT_EV_BRICK_HD7_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12082	PAN_MGMT_EV_BRICK_HD7_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
12083	PAN_MGMT_EV_BRICK_HD7_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
12084	PAN_MGMT_EV_BRICK_HD7_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12085	PAN_MGMT_EV_BRICK_HD7_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12086	PAN_MGMT_EV_BRICK_HD7_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
12100	PAN_MGMT_EV_BRICK_HD8_FAILED	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12101	PAN_MGMT_EV_BRICK_HD8_WILL_FAIL	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12102	PAN_MGMT_EV_BRICK_HD8_UNSUPPORTED_VERSION	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
12103	PAN_MGMT_EV_BRICK_HD8_NOT_FOUND	Warning	warn	hardware	yes	Please contact VDURA Technical Support for further assistance regarding this message.
12104	PAN_MGMT_EV_BRICK_HD8_SSD_LIFETIME	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12105	PAN_MGMT_EV_BRICK_HD8_SSD_RESERVE_SPACE	Warning	warn	hardware	yes	Please contact VDURA Technical Support.
12106	PAN_MGMT_EV_BRICK_HD8_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.
12200	PAN_MGMT_EV_BRICK_HD2_REBUILDING	Informational	info	hardware	yes	This is just an informational message. No action is needed.

Appendix B. Complete metric index

Every metric name in the database (1501 names collapsed to 809 families; _N stands for a numeric suffix and nicN_/fsN_/hdN_ for an embedded slot index). Names = number of flattened names in the family, Series = active series, Scope = which nodes emit it (Directors = 3 series per name, Storage = 12, All nodes = 15, Realm = one series from the realm collector). A blank Extra labels cell means the family carries no labels beyond the common node labels.

Family	Names	Series	Scope	Extra labels
ALERTS	1	12	Storage	activated, alertgroup, alertname, alertstate, category, message, model_number, n
ALERTS_FOR_STATE	1	12	Storage	activated, alertgroup, alertname, category, message, model_number, node_data_ser
cpu_usage_guest	1	51	51 series	cpu
cpu_usage_guest_nice	1	51	51 series	cpu
cpu_usage_idle	1	51	51 series	cpu
cpu_usage_iowait	1	51	51 series	cpu
cpu_usage_irq	1	51	51 series	cpu
cpu_usage_nice	1	51	51 series	cpu
cpu_usage_softirq	1	51	51 series	cpu
cpu_usage_steal	1	51	51 series	cpu
cpu_usage_system	1	51	51 series	cpu
cpu_usage_user	1	51	51 series	cpu
disk_free	1	228	228 series	device, fstype, label, mode, path
disk_inodes_free	1	228	228 series	device, fstype, label, mode, path
disk_inodes_total	1	228	228 series	device, fstype, label, mode, path
disk_inodes_used	1	228	228 series	device, fstype, label, mode, path
disk_inodes_used_percent	1	228	228 series	device, fstype, label, mode, path
disk_total	1	228	228 series	device, fstype, label, mode, path
disk_used	1	228	228 series	device, fstype, label, mode, path
disk_used_percent	1	228	228 series	device, fstype, label, mode, path
diskio_io_await	1	84	84 series	name
diskio_io_svctm	1	84	84 series	name
diskio_io_time	1	213	213 series	name
diskio_io_util	1	213	213 series	name
diskio_iops_in_progress	1	213	213 series	name
diskio_merged_reads	1	213	213 series	name
diskio_merged_writes	1	213	213 series	name
diskio_read_bytes	1	213	213 series	name

Family	Names	Series	Scope	Extra labels
diskio_read_time	1	213	213 series	name
diskio_reads	1	213	213 series	name
diskio_weighted_io_time	1	213	213 series	name
diskio_write_bytes	1	213	213 series	name
diskio_write_time	1	213	213 series	name
diskio_writes	1	213	213 series	name
ethtool_adminq_cfg_device_resources_cnt	1	15	All nodes	driver, interface
ethtool_adminq_cmd_fail	1	15	All nodes	driver, interface
ethtool_adminq_create_rx_queue_cnt	1	15	All nodes	driver, interface
ethtool_adminq_create_tx_queue_cnt	1	15	All nodes	driver, interface
ethtool_adminq_dcfg_device_resources_cnt	1	15	All nodes	driver, interface
ethtool_adminq_describe_device_cnt	1	15	All nodes	driver, interface
ethtool_adminq_destroy_rx_queue_cnt	1	15	All nodes	driver, interface
ethtool_adminq_destroy_tx_queue_cnt	1	15	All nodes	driver, interface
ethtool_adminq_prod_cnt	1	15	All nodes	driver, interface
ethtool_adminq_register_page_list_cnt	1	15	All nodes	driver, interface
ethtool_adminq_report_link_speed_cnt	1	15	All nodes	driver, interface
ethtool_adminq_report_stats_cnt	1	15	All nodes	driver, interface
ethtool_adminq_set_driver_parameter_cnt	1	15	All nodes	driver, interface
ethtool_adminq_timeouts	1	15	All nodes	driver, interface
ethtool_adminq_unregister_page_list_cnt	1	15	All nodes	driver, interface
ethtool_autoneg	1	15	All nodes	driver, interface
ethtool_dma_mapping_error	1	15	All nodes	driver, interface
ethtool_duplex	1	15	All nodes	driver, interface
ethtool_interface_down_cnt	1	15	All nodes	driver, interface
ethtool_interface_up	1	15	All nodes	driver, interface
ethtool_interface_up_cnt	1	15	All nodes	driver, interface
ethtool_link	1	15	All nodes	driver, interface
ethtool_page_alloc_fail	1	15	All nodes	driver, interface
ethtool_reset_cnt	1	15	All nodes	driver, interface
ethtool_rx_buf_alloc_fail	1	15	All nodes	driver, interface
ethtool_rx_bytes	1	15	All nodes	driver, interface

Family	Names	Series	Scope	Extra labels
ethtool_rx_bytes_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_completed_desc_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_consumed_desc_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_cont_packet_cnt_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_copied_pkt_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_copybreak_pkt_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_desc_err_dropped_pkt	1	15	All nodes	driver, interface
ethtool_rx_dropped	1	15	All nodes	driver, interface
ethtool_rx_dropped_pkt_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_drops_invalid_checksum_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_drops_packet_over_mru_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_frag_alloc_cnt_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_frag_copy_cnt_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_frag_flip_cnt_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_no_buffers_posted_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_packets	1	15	All nodes	driver, interface
ethtool_rx_posted_desc_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_queue_drop_cnt_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_skb_alloc_fail	1	15	All nodes	driver, interface

Family	Names	Series	Scope	Extra labels
ethtool_rx_xdp_aborted_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_xdp_alloc_fails_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_xdp_drop_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_xdp_pass_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_xdp_redirect_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_xdp_redirect_errors_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_xdp_tx_N	2	18	All nodes/Directors	driver, interface
ethtool_rx_xdp_tx_errors_N	2	18	All nodes/Directors	driver, interface
ethtool_speed	1	15	All nodes	driver, interface
ethtool_stats_report_trigger_cnt	1	15	All nodes	driver, interface
ethtool_tx_bytes	1	15	All nodes	driver, interface
ethtool_tx_bytes_N	2	18	All nodes/Directors	driver, interface
ethtool_tx_completed_desc_N	2	18	All nodes/Directors	driver, interface
ethtool_tx_consumed_desc_N	2	18	All nodes/Directors	driver, interface
ethtool_tx_dma_mapping_error_N	2	18	All nodes/Directors	driver, interface
ethtool_tx_dropped	1	15	All nodes	driver, interface
ethtool_tx_event_counter_N	2	18	All nodes/Directors	driver, interface
ethtool_tx_packets	1	15	All nodes	driver, interface
ethtool_tx_posted_desc_N	2	18	All nodes/Directors	driver, interface

Family	Names	Series	Scope	Extra labels
ethtool_tx_stop_N	2	18	All nodes/Directors	driver, interface
ethtool_tx_timeouts	1	15	All nodes	driver, interface
ethtool_tx_wake_N	2	18	All nodes/Directors	driver, interface
ethtool_tx_xdp_xmit_N	2	18	All nodes/Directors	driver, interface
ethtool_tx_xdp_xmit_errors_N	2	18	All nodes/Directors	driver, interface
ethtool_tx_xsk_done_N	2	18	All nodes/Directors	driver, interface
ethtool_tx_xsk_sent_N	2	18	All nodes/Directors	driver, interface
ethtool_tx_xsk_wakeup_N	2	18	All nodes/Directors	driver, interface
magent_local_hw_bios_date	1	15	All nodes	value
magent_local_hw_bios_version	1	15	All nodes	value
magent_local_hw_cpu_active_cores	1	15	All nodes	
magent_local_hw_cpu_hw_cores	1	15	All nodes	
magent_local_hw_cpu_hw_threads	1	15	All nodes	
magent_local_hw_cpu_model	1	15	All nodes	value
magent_local_hw_drives_over_temp	1	15	All nodes	
magent_local_hw_external_temp	1	15	All nodes	
magent_local_hw_ff_trip_temp_alert	1	15	All nodes	
magent_local_hw_high_temp_alert	1	15	All nodes	
magent_local_hw_incoming_air_temp	1	15	All nodes	
magent_local_hw_internal_temp	1	15	All nodes	
magent_local_hw_mem	1	15	All nodes	
magent_local_hw_nicN_desc	4	60	All nodes	value
magent_local_hw_nicN_firmware	4	60	All nodes	value
magent_local_hw_nicN_name	4	60	All nodes	value
magent_local_hw_nicN_nic_warnings	4	60	All nodes	
magent_local_hw_nicN_status	4	60	All nodes	
magent_local_hw_nicN_type	4	60	All nodes	
magent_local_hw_nic_phys_ports	1	15	All nodes	value
magent_local_hw_platform_id	1	15	All nodes	value

Family	Names	Series	Scope	Extra labels
magent_local_hw_sn	1	15	All nodes	value
magent_local_hw_status	1	15	All nodes	
magent_local_hw_sysname_str	1	15	All nodes	value
magent_local_hw_system_model	1	15	All nodes	value
magent_local_hw_system_vendor	1	15	All nodes	value
magent_local_hw_temperature_shutdown	1	15	All nodes	
magent_local_hw_trip_temp_alert	1	15	All nodes	
magent_local_hw_variant_id	1	15	All nodes	value
magent_local_hw_version	1	15	All nodes	value
magent_local_sw_fm_global_op_count	1	3	Directors	
magent_local_sw_fm_global_op_lifetime	1	3	Directors	
magent_local_sw_fm_global_op_occurred	1	3	Directors	
magent_local_sw_fm_mgr_op_count_config_get	1	3	Directors	
magent_local_sw_fm_mgr_op_count_debug	1	3	Directors	
magent_local_sw_fm_mgr_op_count_dir_batch_sync_all	1	3	Directors	
magent_local_sw_fm_mgr_op_count_dir_create_realm_root	1	3	Directors	
magent_local_sw_fm_mgr_op_count_dir_create_volume_root	1	3	Directors	
magent_local_sw_fm_mgr_op_count_dir_delete_volume_root	1	3	Directors	
magent_local_sw_fm_mgr_op_count_dir_flush_for_fsfc	1	3	Directors	
magent_local_sw_fm_mgr_op_count_dir_update_ent_map_hint	1	3	Directors	
magent_local_sw_fm_mgr_op_count_notify_new_volume_info	1	3	Directors	
magent_local_sw_fm_mgr_op_count_notify_ogroup_deleted	1	3	Directors	
magent_local_sw_fm_mgr_op_count_obj_attrs_updated	1	3	Directors	
magent_local_sw_fm_mgr_op_count_obj_recall_caps	1	3	Directors	
magent_local_sw_fm_mgr_op_count_obj_update_map_hint	1	3	Directors	
magent_local_sw_fm_mgr_op_count_obj_update_parent_info	1	3	Directors	

Family	Names	Series	Scope	Extra labels
magent_local_sw_fm_mgr_op_count_set_defer_delete_enable	1	3	Directors	
magent_local_sw_fm_mgr_op_count_set_defer_dir_write_enable	1	3	Directors	
magent_local_sw_fm_mgr_op_count_volume_flush_dirs	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_config_get	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_debug	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_dir_batch_sync_all	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_dir_create_realm_root	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_dir_create_volume_root	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_dir_delete_volume_root	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_dir_flush_for_fsrc	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_dir_update_ent_map_hint	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_notify_new_volume_info	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_notify_ogroup_deleted	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_obj_attrs_updated	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_obj_recall_caps	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_obj_update_map_hint	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_obj_update_parent_info	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_set_defer_delete_enable	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_set_defer_dir_write_enable	1	3	Directors	
magent_local_sw_fm_mgr_op_lifetime_volume_flush_dirs	1	3	Directors	
magent_local_sw_fm_mgr_op_occurred_config_get	1	3	Directors	
magent_local_sw_fm_mgr_op_occurred_debug	1	3	Directors	
magent_local_sw_fm_mgr_op_occurred_dir_batch_sync_all	1	3	Directors	

Family	Names	Series	Scope	Extra labels
magent_local_sw_fm_mgr_op_ occurred_dir_create_realm_root	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_dir_create_volume_root	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_dir_delete_volume_root	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_dir_flush_for_fsdc	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_dir_update_ent_map_hint	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_notify_new_volume_info	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_notify_ogroup_deleted	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_obj_attr_updated	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_obj_recall_caps	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_obj_update_map_hint	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_obj_update_parent_info	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_set_defer_delete_enable	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_set_defer_dir_write_enable	1	3	Directors	
magent_local_sw_fm_mgr_op_ occurred_volume_flush_dirs	1	3	Directors	
magent_local_sw_fm_op_count_ cancel_all_callbacks	1	3	Directors	
magent_local_sw_fm_op_count_ cancel_callback	1	3	Directors	
magent_local_sw_fm_op_count_ cancel_callback_multi	1	3	Directors	
magent_local_sw_fm_op_count_dir_ check	1	3	Directors	
magent_local_sw_fm_op_count_dir_ compact	1	3	Directors	
magent_local_sw_fm_op_count_dir_ create	1	3	Directors	
magent_local_sw_fm_op_count_dir_ delete	1	3	Directors	
magent_local_sw_fm_op_count_file_ create	1	3	Directors	
magent_local_sw_fm_op_count_file_ create_special	1	3	Directors	

Family	Names	Series	Scope	Extra labels
magent_local_sw_fm_op_count_file_delete	1	3	Directors	
magent_local_sw_fm_op_count_id_identity_get_name	1	3	Directors	
magent_local_sw_fm_op_count_id_identity_translate	1	3	Directors	
magent_local_sw_fm_op_count_lookup	1	3	Directors	
magent_local_sw_fm_op_count_obj_end_write	1	3	Directors	
magent_local_sw_fm_op_count_obj_get_r_capability	1	3	Directors	
magent_local_sw_fm_op_count_obj_link	1	3	Directors	
magent_local_sw_fm_op_count_obj_report_io_error	1	3	Directors	
magent_local_sw_fm_op_count_obj_report_parity	1	3	Directors	
magent_local_sw_fm_op_count_obj_setattr	1	3	Directors	
magent_local_sw_fm_op_count_obj_start_write	1	3	Directors	
magent_local_sw_fm_op_count_ogroup_info_get	1	3	Directors	
magent_local_sw_fm_op_count_readdir	1	3	Directors	
magent_local_sw_fm_op_count_rename	1	3	Directors	
magent_local_sw_fm_op_count_renew_callback	1	3	Directors	
magent_local_sw_fm_op_count_userquota_get	1	3	Directors	
magent_local_sw_fm_op_lifetime_cancel_all_callbacks	1	3	Directors	
magent_local_sw_fm_op_lifetime_cancel_callback	1	3	Directors	
magent_local_sw_fm_op_lifetime_cancel_callback_multi	1	3	Directors	
magent_local_sw_fm_op_lifetime_dir_check	1	3	Directors	
magent_local_sw_fm_op_lifetime_dir_compact	1	3	Directors	
magent_local_sw_fm_op_lifetime_dir_create	1	3	Directors	
magent_local_sw_fm_op_lifetime_dir_delete	1	3	Directors	

Family	Names	Series	Scope	Extra labels
magent_local_sw_fm_op_lifetime_file_create	1	3	Directors	
magent_local_sw_fm_op_lifetime_file_create_special	1	3	Directors	
magent_local_sw_fm_op_lifetime_file_delete	1	3	Directors	
magent_local_sw_fm_op_lifetime_id_identity_get_name	1	3	Directors	
magent_local_sw_fm_op_lifetime_id_identity_translate	1	3	Directors	
magent_local_sw_fm_op_lifetime_lookup	1	3	Directors	
magent_local_sw_fm_op_lifetime_obj_end_write	1	3	Directors	
magent_local_sw_fm_op_lifetime_obj_get_r_capability	1	3	Directors	
magent_local_sw_fm_op_lifetime_obj_link	1	3	Directors	
magent_local_sw_fm_op_lifetime_obj_report_io_error	1	3	Directors	
magent_local_sw_fm_op_lifetime_obj_report_parity	1	3	Directors	
magent_local_sw_fm_op_lifetime_obj_setattr	1	3	Directors	
magent_local_sw_fm_op_lifetime_obj_start_write	1	3	Directors	
magent_local_sw_fm_op_lifetime_ogroup_info_get	1	3	Directors	
magent_local_sw_fm_op_lifetime_readdir	1	3	Directors	
magent_local_sw_fm_op_lifetime_rename	1	3	Directors	
magent_local_sw_fm_op_lifetime_renew_callback	1	3	Directors	
magent_local_sw_fm_op_lifetime_userquota_get	1	3	Directors	
magent_local_sw_fm_op_occurred_cancel_all_callbacks	1	3	Directors	
magent_local_sw_fm_op_occurred_cancel_callback	1	3	Directors	
magent_local_sw_fm_op_occurred_cancel_callback_multi	1	3	Directors	
magent_local_sw_fm_op_occurred_dir_check	1	3	Directors	
magent_local_sw_fm_op_occurred_dir_compact	1	3	Directors	

Family	Names	Series	Scope	Extra labels
magent_local_sw_fm_op_occurred_dir_create	1	3	Directors	
magent_local_sw_fm_op_occurred_dir_delete	1	3	Directors	
magent_local_sw_fm_op_occurred_file_create	1	3	Directors	
magent_local_sw_fm_op_occurred_file_create_special	1	3	Directors	
magent_local_sw_fm_op_occurred_file_delete	1	3	Directors	
magent_local_sw_fm_op_occurred_id_identity_get_name	1	3	Directors	
magent_local_sw_fm_op_occurred_id_identity_translate	1	3	Directors	
magent_local_sw_fm_op_occurred_lookup	1	3	Directors	
magent_local_sw_fm_op_occurred_obj_end_write	1	3	Directors	
magent_local_sw_fm_op_occurred_obj_get_r_capability	1	3	Directors	
magent_local_sw_fm_op_occurred_obj_link	1	3	Directors	
magent_local_sw_fm_op_occurred_obj_report_io_error	1	3	Directors	
magent_local_sw_fm_op_occurred_obj_report_parity	1	3	Directors	
magent_local_sw_fm_op_occurred_obj_setattr	1	3	Directors	
magent_local_sw_fm_op_occurred_obj_start_write	1	3	Directors	
magent_local_sw_fm_op_occurred_ogroup_info_get	1	3	Directors	
magent_local_sw_fm_op_occurred_readdir	1	3	Directors	
magent_local_sw_fm_op_occurred_rename	1	3	Directors	
magent_local_sw_fm_op_occurred_renew_callback	1	3	Directors	
magent_local_sw_fm_op_occurred_userquota_get	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_get_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_get_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_insert_io_count	1	3	Directors	

Family	Names	Series	Scope	Extra labels
magent_local_sw_gen_cache_cache_FM_dir_cache_insert_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_insert_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_load_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_load_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_load_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_lookup_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_lookup_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_miss_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_miss_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_reload_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_reload_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_reload_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_store_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_store_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_dir_cache_store_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_get_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_get_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_insert_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_insert_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_insert_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_load_io_count	1	3	Directors	

Family	Names	Series	Scope	Extra labels
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_load_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_load_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_lookup_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_lookup_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_miss_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_miss_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_reload_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_reload_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_reload_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_store_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_store_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_object_attribute_cache_store_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_get_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_get_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_insert_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_insert_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_insert_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_load_io_count	1	3	Directors	

Family	Names	Series	Scope	Extra labels
magent_local_sw_gen_cache_cache_FM_ogroup_cache_load_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_load_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_lookup_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_lookup_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_miss_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_miss_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_reload_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_reload_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_reload_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_store_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_store_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_FM_ogroup_cache_store_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_get_count	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_get_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_insert_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_insert_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_insert_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_load_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_load_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_load_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_lookup_count	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_lookup_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_miss_count	1	3	Directors	

Family	Names	Series	Scope	Extra labels
magent_local_sw_gen_cache_cache_SM_object_cache_miss_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_reload_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_reload_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_reload_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_store_io_count	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_store_io_lifetime	1	3	Directors	
magent_local_sw_gen_cache_cache_SM_object_cache_store_io_occurred	1	3	Directors	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_get_count	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_get_occurred	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_insert_io_count	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_insert_io_lifetime	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_insert_io_occurred	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_load_io_count	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_load_io_lifetime	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_load_io_occurred	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_lookup_count	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_lookup_occurred	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_miss_count	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_miss_occurred	1	15	All nodes	

Family	Names	Series	Scope	Extra labels
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_reload_io_count	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_reload_io_lifetime	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_reload_io_occurred	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_store_io_count	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_store_io_lifetime	1	15	All nodes	
magent_local_sw_gen_cache_cache_pan_id_user_info_cache_store_io_occurred	1	15	All nodes	
magent_local_sw_gen_cache_partition_default_bytes_cur	1	15	All nodes	
magent_local_sw_gen_cache_partition_default_bytes_hiwat	1	15	All nodes	
magent_local_sw_gen_cache_partition_default_bytes_limit	1	15	All nodes	
magent_local_sw_gen_cache_partition_default_ents_cur	1	15	All nodes	
magent_local_sw_gen_cache_partition_default_ents_hiwat	1	15	All nodes	
magent_local_sw_gen_cache_partition_default_evicted_ent_count	1	15	All nodes	
magent_local_sw_gen_cache_partition_default_eviction_event_count	1	15	All nodes	
magent_local_sw_gen_cache_partition_default_eviction_event_occurred	1	15	All nodes	
magent_local_sw_gen_cache_partition_fm_attr_bytes_cur	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_attr_bytes_hiwat	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_attr_bytes_limit	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_attr_ents_cur	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_attr_ents_hiwat	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_attr_evicted_ent_count	1	3	Directors	

Family	Names	Series	Scope	Extra labels
magent_local_sw_gen_cache_partition_fm_attr_eviction_event_count	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_attr_eviction_event_occurred	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_dir_bytes_cur	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_dir_bytes_hiwat	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_dir_bytes_limit	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_dir_ents_cur	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_dir_ents_hiwat	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_dir_evicted_ent_count	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_dir_eviction_event_count	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_dir_eviction_event_occurred	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_ogroup_bytes_cur	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_ogroup_bytes_hiwat	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_ogroup_bytes_limit	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_ogroup_ents_cur	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_ogroup_ents_hiwat	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_ogroup_evicted_ent_count	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_ogroup_eviction_event_count	1	3	Directors	
magent_local_sw_gen_cache_partition_fm_ogroup_eviction_event_occurred	1	3	Directors	
magent_local_sw_gen_cache_partition_sm_obj_bytes_cur	1	3	Directors	
magent_local_sw_gen_cache_partition_sm_obj_bytes_hiwat	1	3	Directors	

Family	Names	Series	Scope	Extra labels
magent_local_sw_gen_cache_partition_sm_obj_bytes_limit	1	3	Directors	
magent_local_sw_gen_cache_partition_sm_obj_ents_cur	1	3	Directors	
magent_local_sw_gen_cache_partition_sm_obj_ents_hiwat	1	3	Directors	
magent_local_sw_gen_cache_partition_sm_obj_evicted_ent_count	1	3	Directors	
magent_local_sw_gen_cache_partition_sm_obj_eviction_event_count	1	3	Directors	
magent_local_sw_gen_cache_partition_sm_obj_eviction_event_occurred	1	3	Directors	
magent_local_sw_hagent_check_realm_status	1	15	All nodes	
magent_local_sw_hagent_hwserial	1	15	All nodes	value
magent_local_sw_hagent_local_asset_string	1	15	All nodes	
magent_local_sw_hagent_reload_config	1	15	All nodes	
magent_local_sw_hagent_shelf_asset_string	1	15	All nodes	
magent_local_sw_hagent_shelf_master	1	15	All nodes	
magent_local_sw_hagent_slot_id	1	15	All nodes	
magent_local_sw_hagent_thermal_state	1	15	All nodes	
magent_local_sw_hagent_version	1	15	All nodes	value
magent_local_sw_iopath_bad_object_info	1	12	Storage	
magent_local_sw_iopath_counts_N	38	456	Storage	
magent_local_sw_iopath_dump_object_list	1	12	Storage	
magent_local_sw_iopath_durationactive_N	38	456	Storage	
magent_local_sw_iopath_durationall_N	38	456	Storage	
magent_local_sw_iopath_durationosdfs_N	38	456	Storage	
magent_local_sw_iopath_durationqueue_N	38	456	Storage	
magent_local_sw_iopath_durationwire_N	38	456	Storage	
magent_local_sw_iopath_fsN_data_capacity	3	36	Storage	

Family	Names	Series	Scope	Extra labels
magent_local_sw_iopath_fsN_free_capacity	3	36	Storage	
magent_local_sw_iopath_fsN_metadata_capacity	3	36	Storage	
magent_local_sw_iopath_fsN_purpose	3	36	Storage	value
magent_local_sw_iopath_fsN_total_inodes	3	36	Storage	
magent_local_sw_iopath_hdN_fs	15	180	Storage	
magent_local_sw_iopath_heat_append_a	1	12	Storage	
magent_local_sw_iopath_heat_append_b	1	12	Storage	
magent_local_sw_iopath_heat_bucket_constant	1	12	Storage	
magent_local_sw_iopath_heat_clear_a	1	12	Storage	
magent_local_sw_iopath_heat_clear_b	1	12	Storage	
magent_local_sw_iopath_heat_clone_object_a	1	12	Storage	
magent_local_sw_iopath_heat_clone_object_group_a	1	12	Storage	
magent_local_sw_iopath_heat_close_a	1	12	Storage	
magent_local_sw_iopath_heat_create_object_a	1	12	Storage	
magent_local_sw_iopath_heat_create_object_group_a	1	12	Storage	
magent_local_sw_iopath_heat_get_attribute_a	1	12	Storage	
magent_local_sw_iopath_heat_list_a	1	12	Storage	
magent_local_sw_iopath_heat_list_marked_objects_a	1	12	Storage	
magent_local_sw_iopath_heat_move_a	1	12	Storage	
magent_local_sw_iopath_heat_open_a	1	12	Storage	
magent_local_sw_iopath_heat_read_a	1	12	Storage	
magent_local_sw_iopath_heat_read_b	1	12	Storage	
magent_local_sw_iopath_heat_remove_object_a	1	12	Storage	
magent_local_sw_iopath_heat_set_attribute_heat_a	1	12	Storage	

Family	Names	Series	Scope	Extra labels
magent_local_sw_iopath_heat_write_a	1	12	Storage	
magent_local_sw_iopath_heat_write_b	1	12	Storage	
magent_local_sw_iopath_heat_write_ret_xor_a	1	12	Storage	
magent_local_sw_iopath_heat_write_ret_xor_b	1	12	Storage	
magent_local_sw_iopath_heat_xor_write_a	1	12	Storage	
magent_local_sw_iopath_heat_xor_write_b	1	12	Storage	
magent_local_sw_iopath_info_df_client_array	1	12	Storage	
magent_local_sw_iopath_info_iopath_state	1	12	Storage	
magent_local_sw_iopath_iscsi_config_rcv_buf_size	1	12	Storage	
magent_local_sw_iopath_iscsi_config_snd_buf_size	1	12	Storage	
magent_local_sw_iopath_iscsi_num_cur_conns	1	12	Storage	
magent_local_sw_iopath_measure_bucket0_capacity_bytes	1	12	Storage	
magent_local_sw_iopath_measure_bucket0_remaining_capacity_bytes	1	12	Storage	
magent_local_sw_iopath_measure_bucket1_capacity_bytes	1	12	Storage	
magent_local_sw_iopath_measure_bucket1_remaining_capacity_bytes	1	12	Storage	
magent_local_sw_iopath_measure_bytes_in	1	12	Storage	
magent_local_sw_iopath_measure_bytes_out	1	12	Storage	
magent_local_sw_iopath_measure_capacity_bytes	1	12	Storage	
magent_local_sw_iopath_measure_client_times_ip_addr_N	35	420	Storage	value
magent_local_sw_iopath_measure_client_times_read_active_times_N	35	420	Storage	
magent_local_sw_iopath_measure_client_times_read_wire_times_N	35	420	Storage	
magent_local_sw_iopath_measure_client_times_write_active_times_N	35	420	Storage	
magent_local_sw_iopath_measure_client_times_write_wire_times_N	35	420	Storage	

Family	Names	Series	Scope	Extra labels
magent_local_sw_iopath_measure_cur_bytes_transferred	1	12	Storage	
magent_local_sw_iopath_measure_df_bytes_in	1	12	Storage	
magent_local_sw_iopath_measure_df_bytes_out	1	12	Storage	
magent_local_sw_iopath_measure_df_io_duration_usec	1	12	Storage	
magent_local_sw_iopath_measure_df_io_occured	1	12	Storage	
magent_local_sw_iopath_measure_group_heat	1	12	Storage	
magent_local_sw_iopath_measure_io_duration_usec	1	12	Storage	
magent_local_sw_iopath_measure_io_occured	1	12	Storage	
magent_local_sw_iopath_measure_lowest_n_heat_density	1	12	Storage	
magent_local_sw_iopath_measure_lowpri_count	1	12	Storage	
magent_local_sw_iopath_measure_num_failed_allocations	1	12	Storage	
magent_local_sw_iopath_measure_num_timeout_cmds	1	12	Storage	
magent_local_sw_iopath_measure_num_timeout_sessions	1	12	Storage	
magent_local_sw_iopath_measure_op_count_non_write	1	12	Storage	
magent_local_sw_iopath_measure_op_count_write	1	12	Storage	
magent_local_sw_iopath_measure_ra_duration_usec	1	12	Storage	
magent_local_sw_iopath_measure_rd_duration_usec	1	12	Storage	
magent_local_sw_iopath_measure_read_size	1	12	Storage	
magent_local_sw_iopath_measure_remaining_capacity_bytes	1	12	Storage	
magent_local_sw_iopath_measure_rw_duration_usec	1	12	Storage	
magent_local_sw_iopath_measure_sol_data_non_write	1	12	Storage	
magent_local_sw_iopath_measure_sol_data_write	1	12	Storage	
magent_local_sw_iopath_measure_task_queue_depth	1	12	Storage	

Family	Names	Series	Scope	Extra labels
magent_local_sw_iopath_measure_top_n_heat_density	1	12	Storage	
magent_local_sw_iopath_measure_wr_duration_usec	1	12	Storage	
magent_local_sw_iopath_measure_write_size	1	12	Storage	
magent_local_sw_iopath_measure_writev_from_non_tm	1	12	Storage	
magent_local_sw_iopath_measure_writev_from_tm	1	12	Storage	
magent_local_sw_iopath_measure_writev_from_tm_size	1	12	Storage	
magent_local_sw_iopath_measure_writev_size	1	12	Storage	
magent_local_sw_iopath_osdfs_access_count_attr	1	12	Storage	
magent_local_sw_iopath_osdfs_access_count_cg_hdr	1	12	Storage	
magent_local_sw_iopath_osdfs_access_count_data	1	12	Storage	
magent_local_sw_iopath_osdfs_access_count_oid	1	12	Storage	
magent_local_sw_iopath_osdfs_access_count_onode	1	12	Storage	
magent_local_sw_iopath_osdfs_bytes_per_sync	1	12	Storage	
magent_local_sw_iopath_osdfs_hit_count_attr	1	12	Storage	
magent_local_sw_iopath_osdfs_hit_count_cg_hdr	1	12	Storage	
magent_local_sw_iopath_osdfs_hit_count_data	1	12	Storage	
magent_local_sw_iopath_osdfs_hit_count_oid	1	12	Storage	
magent_local_sw_iopath_osdfs_hit_count_onode	1	12	Storage	
magent_local_sw_iopath_osdfs_onode_cache_count	1	12	Storage	
magent_local_sw_iopath_osdfs_onode_cache_hit	1	12	Storage	
magent_local_sw_iopath_osdfs_op_cache_hit	1	12	Storage	
magent_local_sw_iopath_osdfs_op_count	1	12	Storage	
magent_local_sw_iopath_osdfs_repeat_hit_count_attr	1	12	Storage	

Family	Names	Series	Scope	Extra labels
magent_local_sw_iopath_osdfs_repeat_hit_count_cg_hdr	1	12	Storage	
magent_local_sw_iopath_osdfs_repeat_hit_count_data	1	12	Storage	
magent_local_sw_iopath_osdfs_repeat_hit_count_oid	1	12	Storage	
magent_local_sw_iopath_osdfs_repeat_hit_count_onode	1	12	Storage	
magent_local_sw_iopath_success_counts_N	38	456	Storage	
magent_local_sw_iopath_timings_active_time_N	38	456	Storage	
magent_local_sw_iopath_timings_diskreads_N	38	456	Storage	
magent_local_sw_iopath_timings_inactive_time_N	38	456	Storage	
magent_local_sw_iopath_timings_lifetime_N	38	456	Storage	
magent_local_sw_iopath_timings_wire_time_N	38	456	Storage	
magent_local_sw_mcproxy_nic_warning_disabled	1	15	All nodes	
magent_local_sw_mcproxy_primary_lagg_config_flags	1	15	All nodes	
magent_local_sw_mcproxy_primary_lagg_config_link_count	1	15	All nodes	
magent_local_sw_mcproxy_primary_lagg_config_mode	1	15	All nodes	
magent_local_sw_mcproxy_secondary_lagg_config_flags	1	15	All nodes	
magent_local_sw_mcproxy_secondary_lagg_config_link_count	1	15	All nodes	
magent_local_sw_mcproxy_secondary_lagg_config_mode	1	15	All nodes	
magent_local_sw_monitor_brick_property	1	15	All nodes	
magent_local_sw_monitor_brick_property_clr	1	15	All nodes	
magent_local_sw_monitor_brick_property_set	1	15	All nodes	
magent_local_sw_monitor_checkmodule	1	15	All nodes	value
magent_local_sw_monitor_clearproperty	1	15	All nodes	
magent_local_sw_monitor_corefile	1	15	All nodes	value
magent_local_sw_monitor_ledstate	1	15	All nodes	

Family	Names	Series	Scope	Extra labels
magent_local_sw_monitor_property	1	15	All nodes	
magent_local_sw_monitor_restartmodule	1	15	All nodes	value
magent_local_sw_monitor_runevent	1	15	All nodes	value
magent_local_sw_monitor_runlevel	1	15	All nodes	value
magent_local_sw_monitor_setproperty	1	15	All nodes	
magent_local_sw_monitor_startmodule	1	15	All nodes	value
magent_local_sw_monitor_stopmodule	1	15	All nodes	value
magent_local_sw_pm_cpty_size	1	15	All nodes	
magent_local_sw_pm_cpty_used	1	15	All nodes	
magent_local_sw_pm_cpty_util	1	15	All nodes	
magent_local_sw_pm_disk_util	1	15	All nodes	
magent_local_sw_pm_pm_status	1	15	All nodes	
magent_local_sw_pm_proc_util	1	15	All nodes	
magent_local_sw_pm_text_info	1	15	All nodes	
magent_local_sys_devinfo_boot_epoch	1	15	All nodes	
magent_local_sys_devinfo_version	1	15	All nodes	
magent_local_sys_keys_mkey	1	3	Directors	
magent_local_sys_keys_wkey	1	3	Directors	
magent_local_sys_scripts_do_script	1	15	All nodes	
magent_shelf_sn	1	15	All nodes	
magent_shelf_version	1	15	All nodes	
mem_active	1	15	All nodes	
mem_available	1	15	All nodes	
mem_available_percent	1	15	All nodes	
mem_buffered	1	15	All nodes	
mem_cached	1	15	All nodes	
mem_commit_limit	1	15	All nodes	
mem_committed_as	1	15	All nodes	
mem_dirty	1	15	All nodes	
mem_free	1	15	All nodes	
mem_high_free	1	15	All nodes	
mem_high_total	1	15	All nodes	
mem_huge_page_size	1	15	All nodes	
mem_huge_pages_free	1	15	All nodes	
mem_huge_pages_total	1	15	All nodes	

Family	Names	Series	Scope	Extra labels
mem_inactive	1	15	All nodes	
mem_low_free	1	15	All nodes	
mem_low_total	1	15	All nodes	
mem_mapped	1	15	All nodes	
mem_page_tables	1	15	All nodes	
mem_shared	1	15	All nodes	
mem_slab	1	15	All nodes	
mem_sreclaimable	1	15	All nodes	
mem_sunreclaim	1	15	All nodes	
mem_swap_cached	1	15	All nodes	
mem_swap_free	1	15	All nodes	
mem_swap_total	1	15	All nodes	
mem_total	1	15	All nodes	
mem_used	1	15	All nodes	
mem_used_percent	1	15	All nodes	
mem_vmalloc_chunk	1	15	All nodes	
mem_vmalloc_total	1	15	All nodes	
mem_vmalloc_used	1	15	All nodes	
mem_write_back	1	15	All nodes	
mem_write_back_tmp	1	15	All nodes	
net_bytes_rcv	1	15	All nodes	interface
net_bytes_sent	1	15	All nodes	interface
net_drop_in	1	15	All nodes	interface
net_drop_out	1	15	All nodes	interface
net_err_in	1	15	All nodes	interface
net_err_out	1	15	All nodes	interface
net_packets_rcv	1	15	All nodes	interface
net_packets_sent	1	15	All nodes	interface
net_speed	1	15	All nodes	interface
netstat_tcp_close	1	15	All nodes	
netstat_tcp_close_wait	1	15	All nodes	
netstat_tcp_closing	1	15	All nodes	
netstat_tcp_established	1	15	All nodes	
netstat_tcp_fin_wait1	1	15	All nodes	
netstat_tcp_fin_wait2	1	15	All nodes	
netstat_tcp_last_ack	1	15	All nodes	
netstat_tcp_listen	1	15	All nodes	
netstat_tcp_none	1	15	All nodes	

Family	Names	Series	Scope	Extra labels
netstat_tcp_syn_rcv	1	15	All nodes	
netstat_tcp_syn_sent	1	15	All nodes	
netstat_tcp_time_wait	1	15	All nodes	
netstat_udp_socket	1	15	All nodes	
nstat_icmp6InDestUnreachs	1	15	All nodes	name
nstat_icmp6InMsgs	1	15	All nodes	name
nstat_icmp6InType1	1	15	All nodes	name
nstat_icmp6OutDestUnreachs	1	15	All nodes	name
nstat_icmp6OutMLDv2Reports	1	15	All nodes	name
nstat_icmp6OutMsgs	1	15	All nodes	name
nstat_icmp6OutNeighborSolicits	1	15	All nodes	name
nstat_icmp6OutRouterSolicits	1	15	All nodes	name
nstat_icmp6OutType1	1	15	All nodes	name
nstat_icmp6OutType133	1	15	All nodes	name
nstat_icmp6OutType135	1	15	All nodes	name
nstat_icmp6OutType143	1	15	All nodes	name
nstat_icmpInAddrMasks	1	1	Realm	name
nstat_icmpInCsumErrors	1	1	Realm	name
nstat_icmpInDestUnreachs	1	15	All nodes	name
nstat_icmpInEchoReps	1	3	Directors	name
nstat_icmpInEchos	1	15	All nodes	name
nstat_icmpInErrors	1	12	Storage	name
nstat_icmpInMsgs	1	15	All nodes	name
nstat_icmpInRedirects	1	2	2 series	name
nstat_icmpInTimeExcds	1	3	Directors	name
nstat_icmpInTimestamps	1	1	Realm	name
nstat_icmpMsgInType0	1	3	Directors	name
nstat_icmpMsgInType11	1	3	Directors	name
nstat_icmpMsgInType13	1	1	Realm	name
nstat_icmpMsgInType17	1	1	Realm	name
nstat_icmpMsgInType3	1	15	All nodes	name
nstat_icmpMsgInType5	1	2	2 series	name
nstat_icmpMsgInType8	1	15	All nodes	name
nstat_icmpMsgOutType0	1	15	All nodes	name
nstat_icmpMsgOutType3	1	15	All nodes	name
nstat_icmpMsgOutType8	1	3	Directors	name
nstat_icmpOutDestUnreachs	1	15	All nodes	name
nstat_icmpOutEchoReps	1	15	All nodes	name

Family	Names	Series	Scope	Extra labels
nstat_IcmpOutEchos	1	3	Directors	name
nstat_IcmpOutMsgs	1	15	All nodes	name
nstat_Ip6InDelivers	1	15	All nodes	name
nstat_Ip6InNoECTPkts	1	15	All nodes	name
nstat_Ip6InOctets	1	15	All nodes	name
nstat_Ip6InReceives	1	15	All nodes	name
nstat_Ip6OutMcastOctets	1	15	All nodes	name
nstat_Ip6OutMcastPkts	1	15	All nodes	name
nstat_Ip6OutNoRoutes	1	15	All nodes	name
nstat_Ip6OutOctets	1	15	All nodes	name
nstat_Ip6OutRequests	1	15	All nodes	name
nstat_IpDefaultTTL	1	15	All nodes	name
nstat_IpExtInNoECTPkts	1	15	All nodes	name
nstat_IpExtInOctets	1	15	All nodes	name
nstat_IpExtOutOctets	1	15	All nodes	name
nstat_IpForwarding	1	15	All nodes	name
nstat_IpFragCreates	1	6	6 series	name
nstat_IpFragOKs	1	6	6 series	name
nstat_IpInAddrErrors	1	15	All nodes	name
nstat_IpInDelivers	1	15	All nodes	name
nstat_IpInHdrErrors	1	1	Realm	name
nstat_IpInReceives	1	15	All nodes	name
nstat_IpOutNoRoutes	1	15	All nodes	name
nstat_IpOutRequests	1	15	All nodes	name
nstat_IpReasmFails	1	6	6 series	name
nstat_IpReasmReqds	1	6	6 series	name
nstat_IpReasmTimeout	1	6	6 series	name
nstat_MPTcpExtMPCapableFallbackACK	1	15	All nodes	name
nstat_TcpActiveOpens	1	15	All nodes	name
nstat_TcpAttemptFails	1	15	All nodes	name
nstat_TcpCurrEstab	1	15	All nodes	name
nstat_TcpEstabResets	1	15	All nodes	name
nstat_TcpExtDelayedACKLocked	1	9	9 series	name
nstat_TcpExtDelayedACKLost	1	15	All nodes	name
nstat_TcpExtDelayedACKs	1	15	All nodes	name
nstat_TcpExtEmbryonicRsts	1	15	All nodes	name
nstat_TcpExtListenDrops	1	2	2 series	name
nstat_TcpExtOutOfWindowIcmps	1	1	Realm	name

Family	Names	Series	Scope	Extra labels
nstat_TcpExtPAWSEstab	1	15	All nodes	name
nstat_TcpExtTCPACKSkippedChallenge	1	1	Realm	name
nstat_TcpExtTCPACKSkippedPAWS	1	13	13 series	name
nstat_TcpExtTCPACKSkippedSeq	1	10	10 series	name
nstat_TcpExtTCPACKSkippedSynRecv	1	1	Realm	name
nstat_TcpExtTCPAbortOnClose	1	15	All nodes	name
nstat_TcpExtTCPAbortOnData	1	15	All nodes	name
nstat_TcpExtTCPAbortOnTimeout	1	15	All nodes	name
nstat_TcpExtTCPAckCompressed	1	2	2 series	name
nstat_TcpExtTCPAutoCorking	1	15	All nodes	name
nstat_TcpExtTCPBacklogCoalesce	1	15	All nodes	name
nstat_TcpExtTCPChallengeACK	1	12	Storage	name
nstat_TcpExtTCPDSACKIgnoredNoUndo	1	15	All nodes	name
nstat_TcpExtTCPDSACKOfoSent	1	11	11 series	name
nstat_TcpExtTCPDSACKOldSent	1	15	All nodes	name
nstat_TcpExtTCPDSACKRecv	1	15	All nodes	name
nstat_TcpExtTCPDSACKRecvSegs	1	15	All nodes	name
nstat_TcpExtTCPDSACKUndo	1	15	All nodes	name
nstat_TcpExtTCPDelivered	1	15	All nodes	name
nstat_TcpExtTCPFastRetrans	1	15	All nodes	name
nstat_TcpExtTCPFromZeroWindowAdv	1	14	14 series	name
nstat_TcpExtTCPFullUndo	1	15	All nodes	name
nstat_TcpExtTCPHPacks	1	15	All nodes	name
nstat_TcpExtTCPHPHits	1	15	All nodes	name
nstat_TcpExtTCPHystartTrainCwnd	1	15	All nodes	name
nstat_TcpExtTCPHystartTrainDetect	1	15	All nodes	name
nstat_TcpExtTCPKeepAlive	1	15	All nodes	name
nstat_TcpExtTCPLossFailures	1	6	6 series	name
nstat_TcpExtTCPLossProbeRecovery	1	15	All nodes	name
nstat_TcpExtTCPLossProbes	1	15	All nodes	name
nstat_TcpExtTCPLossUndo	1	15	All nodes	name
nstat_TcpExtTCPLostRetransmit	1	15	All nodes	name
nstat_TcpExtTCPOFOMerge	1	11	11 series	name
nstat_TcpExtTCPOFOQueue	1	15	All nodes	name
nstat_TcpExtTCPOrigDataSent	1	15	All nodes	name
nstat_TcpExtTCPPartialUndo	1	13	13 series	name

Family	Names	Series	Scope	Extra labels
nstat_TcpExtTCPPureAcks	1	15	All nodes	name
nstat_TcpExtTCPRcvCoalesce	1	15	All nodes	name
nstat_TcpExtTCPRenoReorder	1	2	2 series	name
nstat_TcpExtTCPSACKReorder	1	14	14 series	name
nstat_TcpExtTCPSYNChallenge	1	10	10 series	name
nstat_TcpExtTCPSackFailures	1	1	Realm	name
nstat_TcpExtTCPSackMerged	1	13	13 series	name
nstat_TcpExtTCPSackRecovery	1	15	All nodes	name
nstat_TcpExtTCPSackRecoveryFail	1	13	13 series	name
nstat_TcpExtTCPSackShiftFallback	1	15	All nodes	name
nstat_TcpExtTCPSackShifted	1	11	11 series	name
nstat_TcpExtTCPSlowStartRetrans	1	9	9 series	name
nstat_TcpExtTCPSpuriousRTOs	1	2	2 series	name
nstat_TcpExtTCPSpuriousRtxHostQueues	1	3	Directors	name
nstat_TcpExtTCPSynRetrans	1	15	All nodes	name
nstat_TcpExtTCPTSReorder	1	13	13 series	name
nstat_TcpExtTCPTimeouts	1	15	All nodes	name
nstat_TcpExtTCPToZeroWindowAdv	1	14	14 series	name
nstat_TcpExtTCPWantZeroWindowAdv	1	3	Directors	name
nstat_TcpExtTW	1	15	All nodes	name
nstat_TcpExtTWRecycled	1	15	All nodes	name
nstat_TcpExtTcpDuplicateDataRehash	1	15	All nodes	name
nstat_TcpExtTcpTimeoutRehash	1	15	All nodes	name
nstat_TcpInErrs	1	10	10 series	name
nstat_TcpInSegs	1	15	All nodes	name
nstat_TcpMaxConn	1	15	All nodes	name
nstat_TcpOutRsts	1	15	All nodes	name
nstat_TcpOutSegs	1	15	All nodes	name
nstat_TcpPassiveOpens	1	15	All nodes	name
nstat_TcpRetransSegs	1	15	All nodes	name
nstat_TcpRtoAlgorithm	1	15	All nodes	name
nstat_TcpRtoMax	1	15	All nodes	name
nstat_TcpRtoMin	1	15	All nodes	name
nstat_Udp6InDatagrams	1	15	All nodes	name
nstat_Udp6NoPorts	1	15	All nodes	name
nstat_Udp6OutDatagrams	1	15	All nodes	name

Family	Names	Series	Scope	Extra labels
nstat_UdpInDatagrams	1	15	All nodes	name
nstat_UdpInErrors	1	15	All nodes	name
nstat_UdpNoPorts	1	15	All nodes	name
nstat_UdpOutDatagrams	1	15	All nodes	name
nstat_UdpRcvbufErrors	1	15	All nodes	name
observability_node_type	1	15	All nodes	dev_type, role
panfs_alert_occurrences	1	1	Realm	alert_code, category, message, severity
panfs_alert_occurrences_scrape_success	1	1	Realm	
panfs_alerts_active_scrape_success	1	1	Realm	
panfs_alerts_info	1	703	703 series	action_message, alert_code, alert_name, category, error_level_name, is_manually_
panfs_alerts_info_scrape_success	1	1	Realm	
panfs_drive_bytes_read_scrape_success	1	1	Realm	
panfs_drive_bytes_written_scrape_success	1	1	Realm	
panfs_drive_scrape_success	1	1	Realm	
panfs_events_dropped_total	1	15	All nodes	
panfs_fan_scrape_success	1	1	Realm	
panfs_ipmi_scrape_success	1	1	Realm	
panfs_master_mserver_up	1	15	All nodes	master_ip
panfs_nic	1	12	Storage	active, device, firmware, in_use, interface, mode_of_operation, nic_type, node_d
panfs_nic_scrape_success	1	1	Realm	
panfs_node	1	15	All nodes	activated, bios_date, bios_revision, bladeset_id, cpu_active_cores, cpu_hw_cores
panfs_node_repset	1	15	All nodes	activated, model_number, node_data_serial, node_ip_address
panfs_node_repset_scrape_success	1	1	Realm	
panfs_node_scrape_success	1	1	Realm	
panfs_power_supply_scrape_success	1	1	Realm	
panfs_president	1	15	All nodes	datasn, president_slot, slot
panfs_storageset	1	3	Directors	balancing_rate_bytes_per_second, blade_imbalance_bytes, brickset_flags, capacity
panfs_storageset_scrape_success	1	1	Realm	
panfs_switch_scrape_success	1	1	Realm	
panfs_sysstat_error_event	1	382	382 series	action_message, alert_code, alert_details, alert_name, category, error_level_nam
panfs_sysstat_error_event_scrape_success	1	1	Realm	

Family	Names	Series	Scope	Extra labels
panfs_volume	1	3	Directors	aggregate_layout, bladeset_id, compression, compression_type, corrupt_log_count,
panfs_volume_scrape_success	1	1	Realm	
processes_blocked	1	15	All nodes	
processes_dead	1	15	All nodes	
processes_idle	1	15	All nodes	
processes_paging	1	15	All nodes	
processes_running	1	15	All nodes	
processes_sleeping	1	15	All nodes	
processes_stopped	1	15	All nodes	
processes_total	1	15	All nodes	
processes_total_threads	1	15	All nodes	
processes_unknown	1	15	All nodes	
processes_zombies	1	15	All nodes	
procstat_cpu_usage	1	3088	3088 series	pattern, pid, process_name
procstat_created_at	1	15487	15487 series	pattern, pid, process_name
procstat_memory_rss	1	15485	15485 series	pattern, pid, process_name
procstat_memory_vms	1	15485	15485 series	pattern, pid, process_name
procstat_num_fds	1	15487	15487 series	pattern, pid, process_name
procstat_num_threads	1	15487	15487 series	pattern, pid, process_name
system_load1	1	15	All nodes	
system_load15	1	15	All nodes	
system_load5	1	15	All nodes	
system_n_cpus	1	15	All nodes	
system_n_physical_cpus	1	15	All nodes	
system_n_unique_users	1	15	All nodes	
system_n_users	1	15	All nodes	
system_uptime	1	15	All nodes	

Appendix C. VictoriaLogs fields and sources

The logs datasource holds file logs and journald entries from every node. Fields observed in the last six hours are listed below; the audit and event fields are structured (JSON) log lines from pan-api and the realm event system.

Field group	Fields
Stream identity	_time, _msg, _stream, _stream_id, job, host_id, node_name, dataserial, hwserial, shelfserial, version, platform, role
File logs	filename (for example /pan/var/log/modules/hagent.log, /pan/var/log/net_mon.log, /pan/var/log/cpu_mon.log, /pan/var/log/mem_mon.log, /pan/var/log/core_manager.log, /pan/var/log/sysstat.log, /var/log/pan_config.log, /var/log/panapi-audit.log), level, severity, logger
journald	unit (pan_monitor2.service, pan_network_setup.service, vdura-log-agent.service, vdura-metrics-agent.service, vdura-service-registry.service, zfs-zed.service, sshd.service ...), priority, syslog_id, transport
API audit (panapi-audit.log)	client_ip, method, request_id, result, status_code, action, resource, target_id, tenant_id, user_id
Realm events	event_id, event_code, event_name, event_category, event_delivered, component_type, blade_serial, hw_serial, node_data_serial, node_ip_address, shelf_serial, slot_id