

Barometer Development Updates

Collectd plugin development status

Plugin	Status	Description	Comments	OPNFV Release	Openstack Release
Hugepages	upstreamed	Plugin provides the free and used hugepage numbers/bytes /percentage	Useful for intelligent workload placement for VMs backed by hugepages	D	P
Cache	upstreamed	Plugin provides the last level cache utilization and memory bw utilization	Based on Resource Directory Technology	E	P
DPDK stats	upstreamed	Plugin provides the extended NIC stats for DPDK interfaces		D	P
DPDK events	upstreamed	Plugin provides the packet processing core status and the link status for DPDK interfaces		E	P
RAS Memory	upstreamed	Plugin uses mcelog client protocol to check for memory Machine Check Exceptions and sends the stats for reported exceptions.		D	P
BIOS	Reworked as a utility, waiting on snmp write plugin to be upstreamed			E	Q
Open vSwitch Stats	upstreamed	Plugin provides the OVS stats for interfaces. Plugin is DPDK agnostic and uses the OVS DB.		E	P
Open vSwitch Events	upstreamed	Plugin provides the OVS link status for interfaces. Plugin will also report vswitch liveliness.		D	P
SNMP write	upstreamed	Plugin will act as a SNMP subagent and will map collectd metrics to relevant OIDs. Will only support SNMP: get, getnext and walk.		E	Q
Legacy /IPMI	upstreamed	Plugin will report platform thermals, voltages, fanspeed....		E	Q
RAS other errors	Implementation Parsing and filtering utility for logfile implemented https://github.com/collectd/collectd/pull/2154 - reviewed, reworked and pending further review	Plugin will parse the mcelog/syslog for exceptions that are not memory exceptions.		E	Q
Libvirt extensions	Upstreamed	Extend the libvirt plugin to include all relevant stats and events that are available for a libvirt Domain		E	Q
Python Notification	upstreamed	Extend the python language binding to pass the collectd metadata to write/notification plugins.		E	Q
PMU	upstreamed	Plugin will retrieve performance monitoring units (PMUs) that allow to count and sample a wide variety of events.		E	Q
PCIe AER	https://github.com/maryamtahhan/collectd/tree/feat_pcie_errors	Plugin will poll PCI config space for baseline and AER errors. It will also parse syslog for AER events. Any errors to be reported via notifications.		E	Q
VES Collectd Agent update schema 5.1	Merged to Barometer Repo			E	
OVS events Make the polling option configurable	upstreamed			E	

mcelog updates	add a persist option for events - implemented - Pending Manual Test send corrected and uncorrected errors in separate notifications with different severity Merged to master			E	
dpdkstat bugfixing	Enable all ports - default config - Done			E	
Collectd extension	Internal protocol Extension - PUT to send commands to teh daemon New plugin registration function Dynamic Plugin - Load/unload Internal code review completed, manual testing to be scheduled prior to upstreaming			E	
QAT	Looking to leverage existing PCIe AER plugin to report QAT errors	Error reporting from Accelerator		E	
Collectd RPM build	Merged	Will provide a base for the Apex installer work		E	
OpenStack Boston Demo	Complete	Noisy Neighbour detection a collaboration with Intel RDT and Vitrage			
Libvirt Plugin bugfixes	In progress	Domain restart causing incorrect CPU utilization Values to be reported inconsistency in memory metrics reported by libvirt and virsh			
DPDK events bugfixes	Merged to collectd master	Reconnect to DPDK primary wrong plugin config issues respawn secondary after primary restart			
Container /Cadvisor Support	Looking at integrating with Prometheus. Investigating events support.				
Process Monitoring	Design Ready	Add a method which will accept a userspace process name as a parameter and return its pid			
OVS with DPDK PMD stats	Merged to barometer repo	Creating a script that will pull OVS-with-dpdk PMD stats and publish them to collectd. these stats are not retrievable through the OVSDDB - but should be in the future - which is why this integration is stand alone for now		F	Q
OVS Multi Instance Support	Pull request created: https://github.com/maryamtahhan/collectd/tree/feat_ovs_multi_instance	OvS DB multi-instance support for ovs_event/ovs_stats plugins			
CI build	automated, RPMs generated nightly and pushed to http://artifacts.opnfv.org/barometer.html			E	
Add PMU build to src/	Under Review				
Create a docker image for barometer	Complete			F	Q
Integrate with Apex	Integrated with 2 scenarios apex-os-nosdn-bar-ha-baremetal-master apex-os-nosdn-bar-noha-baremetal-master			F	Q

VES Kafka integration	Separate out VES collectd application from collectd so that it can be apache licensed, and use a kafka bus to send info from collectd to this VES collector...			F	Q
VES configuration through a schema	Under internal review				
Connectivity. Event-based, interface monitor	Pull Request created: https://github.com/collectd/collectd/pull/2407	This plugin monitors an Ethernet interface or group of ethernet interfaces and reports link status changes. The plugin does not poll for link status but rather receives status events eliminating the polling overhead. Detection times vary by device driver, but typical detection times are below 10ms.		F	Q
Procevent. Event-based process monitor.	https://github.com/collectd/collectd/pull/2623	This plugin monitors netlink process events and looks for status changes.		F	Q
Sysevent. Event-based syslog monitor	https://github.com/collectd/collectd/pull/2624	This plugin monitors syslog and uses regex's to determine when to sent an event		F	Q

Open Pull Requests