

VOLTHA 2.3 Release Notes

Highlights

With the release of VOLTHA 2.3 and ONOS 2.2.2, the SEBA Surge effort from Oct1, 2019 to March 31st 2020 comes to an end. Highlights of this release include performance and scale improvements, substantially expanded automated-tests, improved stability and robustness, and better support for the Deutsche Telekom (DT) FTTH and Turk Telekom (TT) workflows.

Features & Improvements

- VOLTHA support moves from ONOS 1.13.9 to ONOS 2.2 (LTS branch); all ONOS apps migrated to ONOS 2.2.2 which was also released.
- EdgeCore OLT (and openolt-agent) moves from BAL 3.1 to BAL 3.2.3.2 with many bug fixes and improved scale; in particular we now support multiple-GEM ports reliably, for example 1 TCONT, 4 GEMs in AT&T workflow and 1 TCONT, 8 GEMs in DT FTTH workflow.
- ONOS olt, sadis and other apps upgraded to simultaneously support AT&T, DT and TT workflows (together with related changes in VOLTHA)
- Log levels are changeable on many VOLTHA components at runtime
- OMCI MIB templating implemented to reduce the number of OMCI messages for known ONU types in order to improve openonu-adaptor scale.
- Several scale improvements in voltha-rw-core including flow-decomposer route calculations and core-to-adaptor transaction lifecycles.
- OMCI MIB external (etcd) storage support implemented in the ONU adapter to enable restart/reconcile and improve performance
- Container readiness and health checks implemented
- Openflow agent (ofagent) rewritten in Golang
- Support for ANY_VLAN (4096) for DT workflow.
- Several features added to support hardware-reboot and software-restarts
- ONOS-FCAPS support added for igmp and multicast (and related BBSim changes)
- VOLTHA-pod management preliminary support for Redfish apis added
- VOLTHA -FCAPS: Added additional alarm types, dynamic log configuration, and On-Demand API for ONU Self-Test

Development process

- voltha-lib-go turned into a shared library, separated from voltha-go
- Golang tooling has been containerized for easier development and version maintenance

- Kafka events can be viewed from voltctl
- Updated to Python 3 within components and supporting tools

Test

- Unit tests coverage greatly improved
 - <https://jenkins.opencord.org/view/VOLTHA%202.x%20verify/>
- Integration Tests
 - Automated tests run on both hardware and BBSim platforms
<https://jenkins.opencord.org/view/VOLTHA-2.3/>
 - Functional Tests (ATT)
 - All Container Restart/Failure scenarios (ATT)
 - Validation checks for Error Scenarios
 - Few functional tests for DT WorkFlow
 - Community pods at DT (Berlin) with GPON and XGSPON OLTs, and Infosys with XGSPON OLT, were set up
 - <https://jenkins.opencord.org/view/Community-PODs/>
- Scale Tests
 - Automated scale tests implemented with BBSim; scale test procedure standardized and documented
 - <https://jenkins.opencord.org/view/voltha-scale-measurements/>

Documentation

- Versioned documentation now published on <https://docs.voltha.org>
- Robot resource documentation is automatically generated

Known Issues

- This release does not support multiple-OLTs, which is targeted for the next release. In the meantime, please use 'master' for multiple-OLT support.
- This release does not support multicast and multi-TCONT based workflows, although substantial additions were made.
- This release does not support multiple-ONU-adaptors, although several features like multiple onu-adaptor registration and kafka topics per onu-adaptor have been added to master.
- This release does not officially support GPON. Although the feature exists, it has not been tested completely.

- This release does not officially support ONOS clustering for HA. Although several features were added to make ONOS apps work in clustered mode, as well as ofagent-go to work with an ONOS cluster, it has not been tested completely.
- This release does not distinguish between an OLT reboot and a temporary disconnection between voltha and the OLT hardware - both cases are treated as OLT reboot.
- This release does not support disable of an OLT followed by a re-enable. The only operation supported after OLT-disable is OLT-delete.
- All of the above are expected to be supported in VOLTHA 2.4 release.

Component Versions

Current versions with any post-release fixes are shown on the docs site, which links to the specific versions: https://docs.voltha.org/master/release_notes/voltha_2.3.html

Helm Charts

Git repo: [voltha-helm-charts](#)

voltha 2.3.1 with container images:

- voltha-rw-core: 2.3.6
- voltha-ofagent-go: 1.1.6

voltha-adapter-openolt: 2.3.1 with container image voltha-openolt-adapter: 2.3.22

voltha-adapter-openonu 2.3.0 with container image voltha-openonu-adapter: 2.3.6

voltha-onos: 3.0.1 using container image 4.0.2

bbsim: 3.0.18 using container image: 0.1.0

ONOS

Version: 2.2.2

App versions:

- aaa: 2.0.2
- dhcp12relay: 2.0.2
- igmpproxy: 2.0.0
- kafka: 2.2.0
- mcast: 2.0.0
- olt: 4.0.2
- sadis: 5.0.1

BBSim

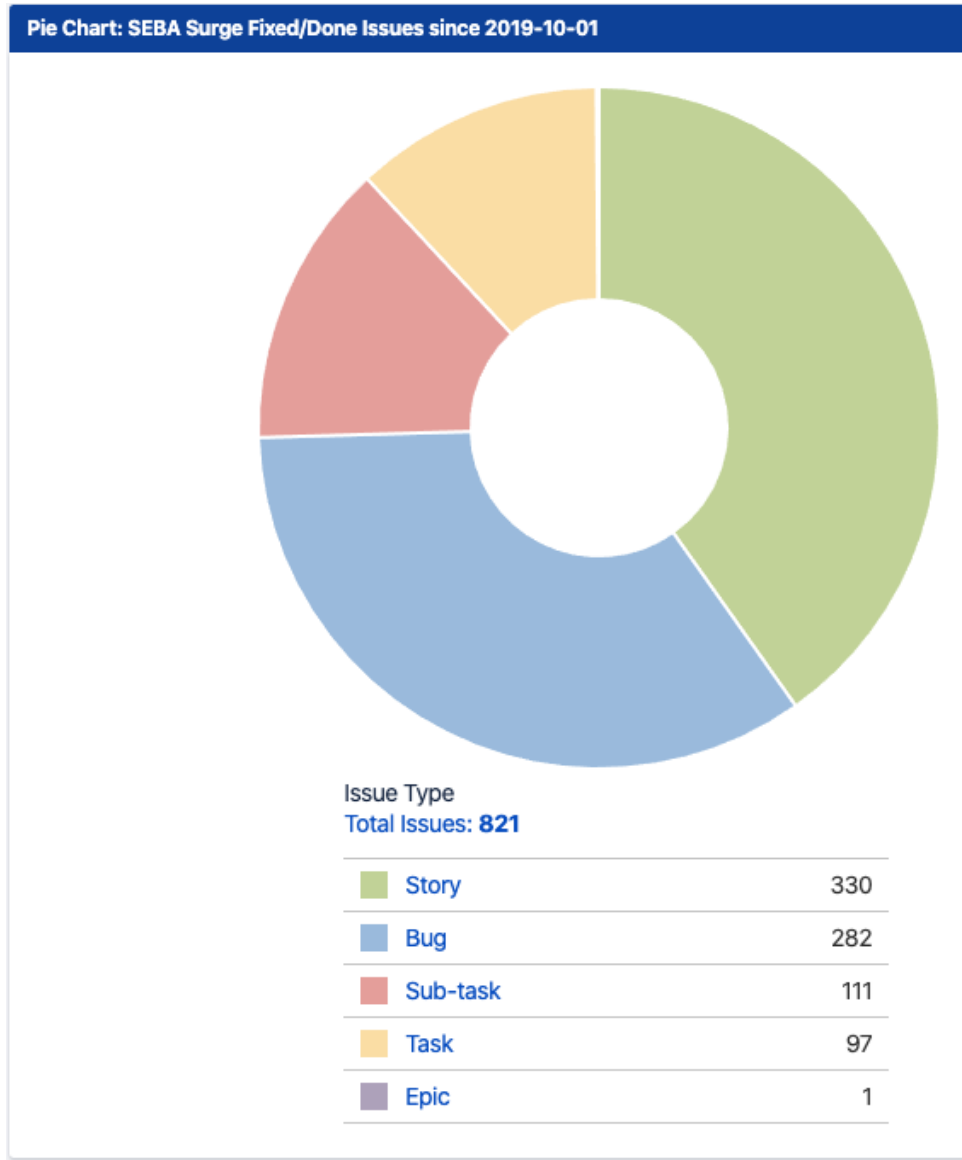
- container: 0.1.0

OpenOLT Agent 2.3.0 using BAL 3.2.3.2 SDK

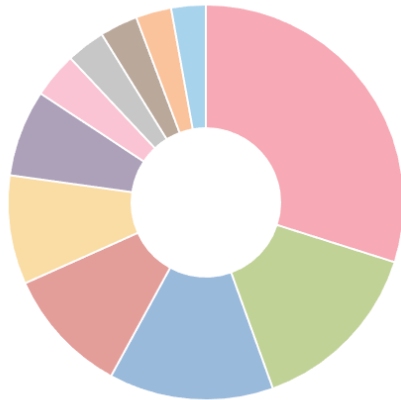
- openolt_2_3_0_asfvolt16.deb (available from EdgeCore site)

- Get access credentials for <https://edgecore.quickconnect.to> and then login and navigate to File_Station -> EdgecoreNAS, and then the folder /ASXvOLT16/OpenOLT_Agent/From_ONF_Distribution/ and pick the version above

Statistics from JIRA [SEBA Surge]



Pie Chart: SEBA Surge Fixed/Done Issues since 2019-10-01

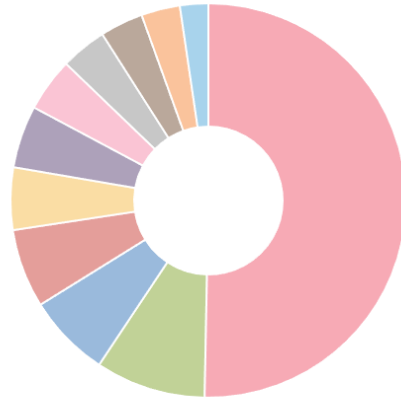


Components

Total Issues: 821

Testing	161
openolt-adapter	148
rw-core	114
openolt-agent	98
openonu-adapter	78
api-server	41
bbsim	35
ONOS & Apps	34
ro-core	32
bbsim	31
Other...	329

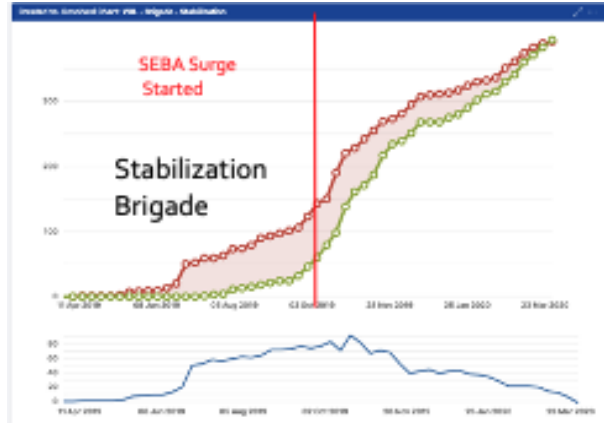
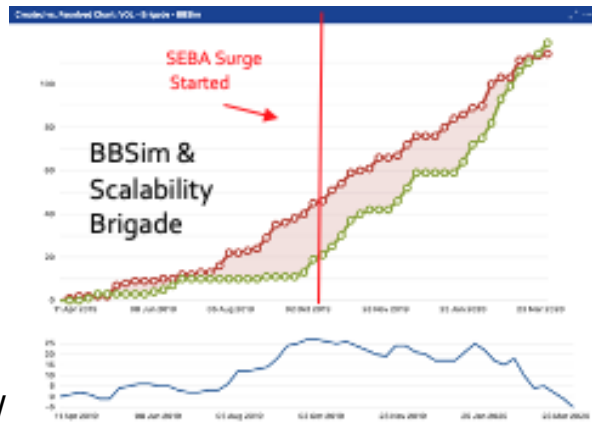
Pie Chart: SEBA Surge Fixed/Done Issues since 2019-10-01

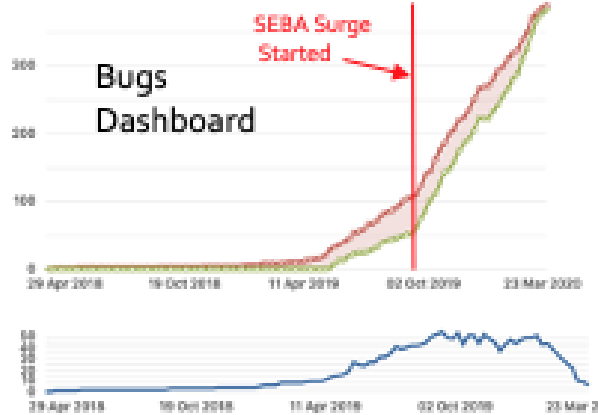


Assignee

Total Issues: 821

Scott Baker	74
Girish Gowdra	56
David Bainbridge	53
Andy Bavler	42
Suchitra Vemuri	42
Matteo Scandolo	36
Matt Jeanneret	31
khenaidoo Nursimulu	29
Hardik Windlass	26
Girish Kumar	19
Other...	413



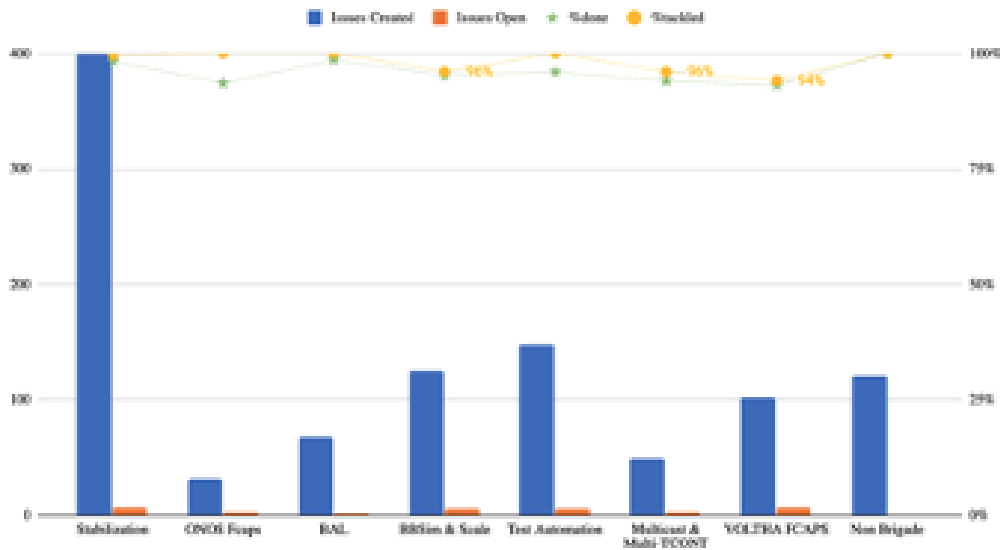


Issues in the last 700 days (grouped weekly) [View in Issue Navigator](#)

- Created Issues (389)
- Resolved Issues (383)



Brigade Progress



Jira Issues

(copied from:

<https://jira.opencord.org/secure/ReleaseNote.jspa?projectId=10106&version=10801>)

Task

- [VOL-1643] - Updating Voltha proto files for gRPC Java support
- [VOL-1863] - Testing impact of scaling onu count on voltha adapter components.
- [VOL-1870] - Activate advanced static analysis on all go projects
- [VOL-1915] - Implement suppress and unsuppress events in openolt adapter
- [VOL-1916] - Migrate golang projects from using dep to go modules for dependency management
- [VOL-2091] - OpenOLT adapter should continue to re-try connections to kv store and kafka on startup
- [VOL-2104] - Voltha2.x changes to support 1TCONT 4GEM model
- [VOL-2114] - Remove incorrect in-band implementation (vlan 4000) from flow-decomposer
- [VOL-2150] - [BAL3.0 Bridade] OpenOLT driver registers ONU Loss of frame alarm
- [VOL-2151] - [BAL3.0 Bridade] OpenOLT driver registers ONU Loss of Key Sync (LOKi) alarm
- [VOL-2200] - [BAL3.0 Bridade] OpenOLT driver registers ONU Dying-Gasp alarm
- [VOL-2234] - Test voltha-system-tests running under Python 3, and update as needed
- [VOL-2283] - Refactor python ofagent for Python 3 compatibility
- [VOL-2295] - Remove the RO Core
- [VOL-2297] - Update Go version to 1.13.x
- [VOL-2298] - Document how upstream tools/components updates are done in relation to VOLTHA releases
- [VOL-2326] - Update voltha-onos to use ONOS 2.2 and apps
- [VOL-2336] - Build InfoSys pod from Jenkins
- [VOL-2352] - Unit test cases for UplinkPacketOut, FlowAdd and FlowRemove
- [VOL-2398] - Make Infosys POD up in ONF Jenkins
- [VOL-2408] - Use Logging from Voltha Library
- [VOL-2426] - Write dev_mgmt_daemon logs into its own file instead of syslog
- [VOL-2428] - Determine if Tool Versioning via Docker is Practical
- [VOL-2443] - Infosys POD: Install k8s, KUBECTL and Helm then test the kind voltha installation.
- [VOL-2456] - Error handling for openolt flow manager
- [VOL-2472] - Integrate the Web Power Switch with Robot Framework
- [VOL-2477] - OLT Lifecycle
- [VOL-2480] - Voltha test files realignment
- [VOL-2486] - Change voltha-go version to 2.3.0-dev
- [VOL-2493] - Support the ofagent-go via helm charts

- [VOL-2502] - Update README.md for openolt agent after BAL3.2.3.2 migration
- [VOL-2503] - Provide test target for openolt-agent for Jenkins CI Integration
- [VOL-2509] - Upgrade ofagent-go to use v3 version of protobufs
- [VOL-2534] - Adding a check in disable/enable OLT TC for tests with BBSIM
- [VOL-2564] - Enable per-patchset manual regression tests on hardware
- [VOL-2566] - Update periodic BBSim jobs to use ofagent-go
- [VOL-2568] - Run sanity test on changes to "voltha-lib-go", "voltha-protos" and "pyvoltha"
- [VOL-2582] - Support the web power switch setting in Flex Pod
- [VOL-2584] - Update the voltctl command in build job.
- [VOL-2592] - Update the files for Infosys POD
- [VOL-2613] - Remove Duplicate Linting Passes
- [VOL-2618] - add new extractors to utils.py
- [VOL-2623] - adding update_flows_incrementally support to onu-adapter
- [VOL-2629] - Use containerized tools for checking BBSim
- [VOL-2637] - Address error logging as per new methods
- [VOL-2639] - make errors a common package in openolt adapter
- [VOL-2642] - Refactor cord-tester repo to be a versioned library usable by voltha-system-tests
- [VOL-2646] - Check if related tech-profile configuration is done, before executing vlan-filter task
- [VOL-2647] - Update Containerized Tools
- [VOL-2648] - Change default behavior to incremental flow insertion.
- [VOL-2653] - Create gems and tconts that are related to the technology profile
- [VOL-2654] - Add S/N of OLT in the onu events written to kafka
- [VOL-2664] - Avoid overwriting vlan-filter-tasks in queue.
- [VOL-2676] - Update voltha-system-tests README for using cord-robot library
- [VOL-2677] - Fix `make gendocs` in cord-tester repo
- [VOL-2678] - Publish docs for cord-robot resources
- [VOL-2679] - cord-tester: 'make gendocs' not working for testCaseUtils.py
- [VOL-2681] - update the voltctl default to remove vlan and add reason
- [VOL-2689] - Enable profiling on openolt adapter
- [VOL-2694] - Use package specific logger instance in all log statements
- [VOL-2698] - Support EPC power switch
- [VOL-2711] - Infosys POD : Update config files after migration activity
- [VOL-2718] - add 'hardware-test' to rw-core patches on +2
- [VOL-2728] - Do not inform logical_device_manager for PON port state updates
- [VOL-2762] - Processing onuIndication must wait until device adoption is finished
- [VOL-2780] - Rename docker image for ofagent-go to voltha-ofagent-go
- [VOL-2781] - Rename docker image for py ofagent to voltha-ofagent-py
- [VOL-2791] - Enable Voltha_ErrorScenarios.robot to run with BBSim
- [VOL-2797] - Add ofagent-go sanity test
- [VOL-2825] - Release VOLTHA 2.3.0

Bug

- [VOL-812] - If fiber is pulled at ONU side, ONU LOS alarm will not get clear from kafka bus. ONU state is changed to active. (Refer to VOL-483)
- [VOL-1370] - health command doesn't work on voltha 2.0 core
- [VOL-1774] - If etcd crashed/stops read api calls return empty values not error. Write operations return error
- [VOL-1802] - disabling openolt (bbsim) doesn't disable onus
- [VOL-1858] - openonu adapter does not update or reflect uni oper state properly
- [VOL-1894] - Long Device data retrieval and update durations
- [VOL-1977] - Running robot e2e sanity test twice in a row does not succeed
- [VOL-1988] - openolt agent generates los repeatedly after disabling enabling OLT
- [VOL-2031] - If VOLTHA fails to connect to an OLT it's impossible to delete it
- [VOL-2102] - The OpenONU adapter should update its K8s Ready state to false when it loses connectivity to its required services
- [VOL-2105] - Configured Tech Profiles loaded into etcd do not work
- [VOL-2118] - OLT adapter and ONU adapter read p-bit map differently
- [VOL-2120] - OLT and ONU oper_status shows "Active" even when management interface is down in OLT
- [VOL-2121] - MAC address is lost during PreProvisioning when provided along with Host and Port
- [VOL-2144] - Adapter Registration is not working for brcm_openomci_onu adapter
- [VOL-2180] - Context Timeout addition to EtcdClient APIs
- [VOL-2194] - ONOS SSH port hardcoded to 30115
- [VOL-2204] - The rw_core operations after a kafka disable/enable cycle time out and/or fail
- [VOL-2207] - Device status shows active and reachable in VCLI even when openolt-adapter goes down
- [VOL-2237] - Meter timeout in ONOS
- [VOL-2281] - no-route error on rw-core after OLT delete/reprovision/enable
- [VOL-2293] - Voltha-openolt-adapter crashes if nni port number is 65536
- [VOL-2316] - Openolt-adapter accepts technology profile with any reference number
- [VOL-2317] - If a device enable or disable fails, subsequent attempts to disable the device return without error
- [VOL-2319] - `voltctl device enable` while bbsim was offline caused a core crash
- [VOL-2320] - dev_mgmt_daemon as a service not behaving properly for start, stop and status get operations
- [VOL-2321] - Bal2.6 - NNI port shows as 65536 in openolt agent logs even when nni port number changed to 1048576
- [VOL-2322] - Voltha-openolt-adapter segfault if incorrect sadis configuration used
- [VOL-2331] - Rates in Default schedulers hardcoded to 1Gbps
- [VOL-2332] - Same ONU added twice
- [VOL-2338] - Bal3.1 - ONU dying gasp alarm is not raised in openolt adapter logs when onu is powered off
- [VOL-2342] - State cleanup in BBSim after OLT delete
- [VOL-2343] - dhcp2relay-allocations not removed
- [VOL-2344] - OLT left in device list after delete, but not found when attempting to delete

- [VOL-2347] - VOLTHA delete device fails
- [VOL-2348] - Kafka readiness check ignores some valid errors
- [VOL-2349] - subscribers still shown in ONOS after OLT is deleted
- [VOL-2363] - After deleting device aaa-users throws null pointer exception
- [VOL-2370] - HSIA flow added first and then deleted and added again on openolt adapter
- [VOL-2374] - Check return code from voltctl
- [VOL-2376] - Sometimes debian package installation fails due to space issue on the OLT
- [VOL-2389] - ONU is stuck in ACTIVATING state after rebooting
- [VOL-2390] - panic in rw-core when re-running BBSim sanity test
- [VOL-2391] - Invalid flows are added in onos when NNI port is misconfigured in SADIS
- [VOL-2392] - Dhcp entries are not getting deleted in dhcp12-relayallocations when ONU is deleted
- [VOL-2394] - DHCP state is not getting changed in dhcp12relay-allocations when IP is released from the client
- [VOL-2395] - Authentication happens on a wrong UNI port after deleting subscribers
- [VOL-2396] - Check the "pass and fail" status for commands executed on ONOS in tests
- [VOL-2399] - Error: metadata-is-not-present-in-flow-which-is-mandatory
- [VOL-2400] - KeyError in openonu-adapter
- [VOL-2401] - rw-core errors when deleting OLT
- [VOL-2402] - Errors in openolt-adapter logs when OLT deleted
- [VOL-2404] - Issues with OLT hard Reboot (Physical reboot)
- [VOL-2407] - Delete_tech_profile error in openonu-adapter logs when olt is deleted
- [VOL-2415] - Enable different device id which is not there in the device list should throw the error message
- [VOL-2420] - Errors in openonu adapter logs, if OLT is re-enabled when ONU is in disabled state
- [VOL-2421] - Error in openolt agent logs when OLT is disabled
"Error-removing-traffic-scheduler, err = Internal error"
- [VOL-2424] - Tucson pod OLT out of disk space
- [VOL-2425] - Add sanity and hardware test on the voltha-onos repository
- [VOL-2427] - openolt-adapter should not ignore indication when OLT is transitioning from admin down to admin up
- [VOL-2430] - OFAgent Makefile for PyVoltha
- [VOL-2433] - Change system tests to use BBSim's built-in SADIS server
- [VOL-2437] - Leftover state in etcd after OLT device deleted
- [VOL-2439] - Unprovisioning the subscriber too quickly after ONU disable breaks subscriber workflow
- [VOL-2440] - oper_status of PON port is not getting updated on PON disable
- [VOL-2441] - Not all functional tests in voltha-system-tests work with BBSim
- [VOL-2442] - ONUs stuck in "PREPROVISIONED" state after deletion and re-addition of the OLT
- [VOL-2444] - Do not wait for Itu Pon Alloc Cfg Complete Ind on OLT disable
- [VOL-2447] - Have a defined order for OMCI Managed Entity Reconciliation
- [VOL-2448] - Nokia ONU must have GEM removed before being created again
- [VOL-2449] - rw_core crashes when OLT is re-activated after olt deletion

- [VOL-2453] - Jenkins jobs may not collect full container logs
- [VOL-2454] - Device deletion errors out in the rw_core
- [VOL-2455] - BBSim should tag DHCP packet coming from the UNI
- [VOL-2458] - Event protos lack precision in timestamp fields
- [VOL-2461] - Multicast groups need to be removed in the same order they were created
- [VOL-2462] - Investigate PON_Optical messages being emitted at 1/minute rate
- [VOL-2470] - PON_Optical, OMCI_CC, and UNI_STATUS PMs do not skew collection
- [VOL-2471] - Improve logger performance
- [VOL-2484] - UNI operstatus shows "Activating" for the ports which are not connected in voltctl device list output
- [VOL-2485] - Clear gemport from local cache when gemport is deleted
- [VOL-2487] - sanity-kind test fails with ofagent-go, but passes with ofagent-py
- [VOL-2490] - jenkins unit test failure with mock onu adapter
- [VOL-2500] - rw-core crashes on core restart after device authenticated
- [VOL-2501] - Setting log_level not working for voltha-adapter-openonu chart
- [VOL-2508] - Test Disable and Enable ONU scenario for ATT workflow failing
- [VOL-2510] - Jenkins pipeline hardcoded for 40G NNI port
- [VOL-2511] - Reuse of buffer for OF message read causing corruption
- [VOL-2512] - onu_dgi doesnot shows values for onu_id and pon id fields
- [VOL-2514] - ONU Adapter reports initial-mib-download-failed-retrying under high load
- [VOL-2518] - ofagent-go doesn't reconnect to voltha after disconnect (core failure)
- [VOL-2524] - Mib_state is stuck in ""initial-mib-downloaded"
- [VOL-2525] - OLT app can't properly remove meters upon failures
- [VOL-2528] - rw-core crash when running with MIB templates and 256 ONUs
- [VOL-2529] - Openonu adapter reports ONU_LOS for UNI port state change
- [VOL-2530] - TestConcurrentDevices Hangs Intermittently
- [VOL-2535] - OLT disable enable throws error and ETHERNET_NNI port is in DISABLED state only
- [VOL-2541] - openolt adapter crashes due to failure in concurrent map write
- [VOL-2552] - of agent crashes with ANY flows
- [VOL-2555] - Wait for ONU Deactivation Completed Indication before clearing the ONU
- [VOL-2563] - Some kafka alarms have incorrect fields
- [VOL-2565] - OpenOLT adapter ignores the log-level
- [VOL-2569] - protoc path was not specified during gRPC compilation
- [VOL-2572] - Robot timestamps don't match container logs
- [VOL-2576] - Routes calculation is resource consuming
- [VOL-2587] - NPE while handling PORT_REMOVED event on ONU Deletion
- [VOL-2594] - when running tools in a container the container should be started with -ti so ctrl-c will stop it
- [VOL-2609] - remove sleep that is used in an attempt to prevent race condition
- [VOL-2612] - remove logging of errors when a method returns a non-nill error
- [VOL-2616] - Traffic with other than 0 pbit, not getting parsed
- [VOL-2619] - levelToLogLevel should return an error in the case of an invalid param
- [VOL-2622] - TestConcurrentDevices "Still" Failing Intermittently
- [VOL-2624] - voltha-lib-go does not pass SCA

- [VOL-2625] - ofagent-go does not pass SCA
- [VOL-2626] - voltctl does not pass SCA
- [VOL-2627] - Issues with soft reboot of OLT
- [VOL-2628] - Issues in flow-decomposition and openolt-adaptor seen with regression test
- [VOL-2631] - Need to clean up topics on inter-container-proxy topics on proxy stop
- [VOL-2632] - HashFlowStats should propagate errors
- [VOL-2633] - ofagent-go not starting
- [VOL-2640] - restructure openolt adapter repo to comply with best practides
- [VOL-2641] - Flow add (or remove) errors from openolt adapter are not propagated back to rw_core
- [VOL-2644] - adaptercore/device_handler.go:ChildDeviceLost logs errors but continues processing
- [VOL-2650] - Deleting gem ports from local cache not working as expected
- [VOL-2651] - show aaa-users throws exception after ONU delete
- [VOL-2657] - Deleting OLT causes ONU to be marked for deletion, but shows up in device list still
- [VOL-2658] - voltctl commands fail with "DeadLine Exceeded" error
- [VOL-2662] - Latest "repo" version breaks patchset test pipelines
- [VOL-2667] - aaa-app "aaa-users" command throws Kyro Exception
- [VOL-2668] - wpa_suppllicant writing to same log file in the tests
- [VOL-2669] - The sharing type for alloc id and gempport id pools is wrong
- [VOL-2671] - Openolt container restarts after re-connection to a failed kafka broker
- [VOL-2673] - Verify that ONU devices are actually deleted in test case testEnableAndDeleteAllDevice
- [VOL-2674] - Package logger instances are not logging instance id and caller info
- [VOL-2680] - Issue with ONU reboot: ONU stuck in `tech-profile-config-downloaded-failure-retrying` state
- [VOL-2682] - On onu los and onu dgi, upstream schedulers removal, deactivate and delete onu should work
- [VOL-2685] - DHCP succeeds even after removal of the subscriber from ONOS
- [VOL-2687] - BBSim - Can't powercycle an ONU
- [VOL-2691] - openolt adapter should raise the ONU Discovery Event when an ONU is discovered
- [VOL-2692] - VOLTHA ofagent-go does not return an error of flows, flows stay in PENDING_ADD
- [VOL-2696] - KVStore monitor not cleaned up on core shutdown
- [VOL-2697] - Broken flow-stats reply leaves flows in pending-add
- [VOL-2699] - Plot for 1000ms job show 200ms
- [VOL-2701] - Fix tests to include assertions checks for pending flows when subscribers are provisioned
- [VOL-2702] - ONU reboot is no more generating ONU Down Indication
- [VOL-2705] - Adjust unit test timeouts in rw-core
- [VOL-2708] - Deadlock in kafka_interadapter_proxy when timeout happens at the same time as dispatchResponse

- [VOL-2712] - In logical_device_agent updateMeterTable need not call generateDeviceRoutesIfNeeded
- [VOL-2713] - BBSim sends multiple DHCPDiscovery messages
- [VOL-2715] - Failure to delete devices
- [VOL-2720] - ONU fails to authenticate intermittently after ONU disable and enable
- [VOL-2721] - Voltha-openonu-adapter to use latest voltha-protos
- [VOL-2724] - pip failing in virtualenv due to long pathname
- [VOL-2726] - "fatal error: concurrent map read and map write" in db/models.go
- [VOL-2727] - Same alloc id attempted to be added to different tcont after onu reboot
- [VOL-2729] - OLT App does not remove flows when a UNI port is disabled
- [VOL-2730] - Fix issues in nightly jenkins jobs
- [VOL-2733] - Broken logging in ONOS console
- [VOL-2740] - `loglevel clear` does not cause components to revert to previous settings`
- [VOL-2742] - voltctl loglevel -o json displays "null"
- [VOL-2749] - Processing inter adapter messages must wait until device adoption is finished
- [VOL-2750] - bbsim sadis server returns malformed entry
- [VOL-2753] - Verify loop logic, improve error messages in tests
- [VOL-2769] - Verify Omci Test Action Results
- [VOL-2775] - NNI port validation error during multicast flow creation
- [VOL-2779] - Loglevel Config storage path is not in sync with other Voltha components
- [VOL-2783] - Cleanup not working on periodic- jobs
- [VOL-2784] - Ping failures seen when ONUs get stuck in an invalid state
- [VOL-2785] - Fix release job to load compatible versions
- [VOL-2790] - Deleting OLT device leaves ONU in DELETED state
- [VOL-2798] - remove or make generic pprof lineage
- [VOL-2800] - DHCP fails as downstream packets are not trapped to ONOS
- [VOL-2801] - Pings are failing in few scenarios after a successful Auth/DHCP
- [VOL-2815] - voltctl exits with non-zero exit status when attempting to disable a device that is in preprovisioned state
- [VOL-2830] - Scale test fails because it expects all UNI ports to be ACTIVE
- [VOL-2840] - device ID and logical device ID should be UUIDs
- [VOL-2845] - Openolt Adapter crashes after running for an extended period of time
- [VOL-2848] - Pings failed, as flows failed to get added in some scenarios
- [VOL-2866] - NNI port is not removed from ONOS on OLT delete
- [VOL-2894] - rw-core restart test not completing
- [VOL-2895] - Pings fail intermittently after OLT reboot and ONU disable
- [VOL-2910] - back-to-back sanity test fails with multiple ONUs

Sub-task

- [VOL-1550] - Hard Reboot Edgecore asfvolt16 OLT with 2 ONUs connected to the OLT
- [VOL-2016] - Document how an operator would use event filtering
- [VOL-2212] - Unit test for event_bus.go

- [VOL-2221] - Implement unit test for utils.go module.
- [VOL-2323] - Fix porting bug from Python to Go
- [VOL-2351] - BBSim should send the same indications that a real OLT is sending
- [VOL-2365] - Document all the module that need changes
- [VOL-2419] - Add DHCP and HSIA flow add support for ATT workflow
- [VOL-2422] - Integrate DT workflow with HSIA flow add support
- [VOL-2423] - create a base framework for openolt-scale-tester that could be extended
- [VOL-2464] - Functionality and API on vCore to Enable/Disable a PON/NNI port
- [VOL-2465] - Functionality on openolt adapter to Enable/Disable a PON port
- [VOL-2466] - Functionality in voltctl to Enable/Disable a PON/NNI port
- [VOL-2479] - Propagate NNI port statistics from Openolt agent to ONOS
- [VOL-2491] - Implement alarm simulation in bbsim and bbsimctl
- [VOL-2492] - Add bash completion to alarm command in bbsimctl
- [VOL-2497] - Add voltctl support for monitoring and querying Kafka events
- [VOL-2498] - Make Kafka in kind-voltha reachable external to containers
- [VOL-2499] - Implement Robot Test Framework for Alarm verification
- [VOL-2532] - Add --since filter to voltctl
- [VOL-2561] - Implement tests for remaining alarms
- [VOL-2562] - Investigate optional parameters not showing up in Alarm Kafka
- [VOL-2583] - Create Multicast ME
- [VOL-2686] - Configure multicast MEs when flows are pushed and tp is configured.
- [VOL-2758] - write implicit global log level setting to KV store on component startup if it does not exist in the KV store
- [VOL-2759] - on component start write current component log level to KV store if not set
- [VOL-2760] - Disable the clearing of the global log level setting
- [VOL-2782] - Update go.mod of voltha-go,open-olt-adapter,ofagent-go and voltctl to be compatible with latest version of voltha-lig-go
- [VOL-2786] - Fixes in openolt adapter to handler flow removes before flow adds
- [VOL-2787] - fixes in openonu adapter to handler flow removes before flow adds for a subscriber
- [VOL-2872] - Modify existing CI jobs to use the gerrit repo to obtain kind-voltha

Story

- [VOL-366] - Process flow rules and provision BAL for IGMP and Multicast flows
- [VOL-699] - External MIB Database enhancements
- [VOL-724] - Improve MIB DB performance
- [VOL-883] - Alarm - ONU Loss of Acknowledgement
- [VOL-884] - Alarm - ONU Loss of GEM channel delineation
- [VOL-885] - Alarm - ONU Physical Equipment Error
- [VOL-888] - Alarm - ONU Disabled
- [VOL-892] - Alarm - ONU Deactivation Failure

- [VOL-900] - Design logging configuration mechanism for the entire VOLTHA component suite
- [VOL-905] - Logging - Modify the verbosity of logging while the system is running
- [VOL-932] - Skew timers for ONT stats collection
- [VOL-941] - PM - Ethernet Layer 2 PM - Investigate Current Behavior
- [VOL-1091] - PM - Current Optical Data OLT & ONT
- [VOL-1092] - PM - PON including BER and Ranging
- [VOL-1383] - OLT Reboot using Edgecore asfvolt16
- [VOL-1594] - Add Support for handling IGMP flows in openolt Adapter
- [VOL-1595] - Add Support for handling multicast flows in openolt Adapter
- [VOL-1596] - Add Support for handling multicast groups in openolt Adapter
- [VOL-1597] - Add grpc data model for group handling on the OLT in proto file
- [VOL-1598] - Add new group API's in OpenOLT Driver
- [VOL-1599] - Create and configure Multicast ME's to support multicast service in ONU
- [VOL-1600] - Changes in flow-decomposer (if any) for VoD flows to be pushed to ONU adapter
- [VOL-1607] - Golang Implementation of ofagent
- [VOL-1627] - Support for transparent flows in openolt goolang adapter
- [VOL-1669] - Enable/Disable of Ethernet UNI port for each ONU.
- [VOL-1713] - OLT reboot breaks with tech-profile and meter support changes
- [VOL-1776] - python upgrade
- [VOL-1786] - Verify OLT reboot with BAL 3.x
- [VOL-1823] - Voltha 2.0 Functional Test Case: Radius Authentication (BBSIM) with 16 ONUs
- [VOL-1824] - Voltha 2.0 Functional Test Case: DHCP (BBSIM) with 16 ONUs
- [VOL-1841] - Implement transaction lifecycle in the Voltha Core
- [VOL-1860] - Explore other storage solutions for ONU MIB entries
- [VOL-1900] - address lint (SCA) issues in voltha-go repo
- [VOL-1956] - Automate Failure scenarios: OLT reboot
- [VOL-1957] - Test Failure Scenarios: ONU reboot
- [VOL-1958] - Automate Failure scenario: Restart any container after VOLTHA is operational
- [VOL-1959] - Failure scenario: test "ONU adapter" crash
- [VOL-1961] - Failure scenario: Test 'etcd' crash
- [VOL-2033] - Move kind-voltha to Gerrit
- [VOL-2050] - Remove/Re-add subscriber and validate functionality accordingly
- [VOL-2051] - Validate Disable/Delete OLT operations
- [VOL-2106] - OpenONU - openonu adapter reconcile
- [VOL-2129] - Report port counters over grpc to openolt adaptor
- [VOL-2163] - Support async request in the voltha kafka libraries
- [VOL-2164] - Update the Core as per the transaction model
- [VOL-2224] - Implement event filtering mechanism
- [VOL-2225] - Migration to BAL3.2
- [VOL-2251] - Changes to tm_sched id assignment logic for supporting multiple TP on the same UNI
- [VOL-2266] - Alarm- ONU Startup Failure
- [VOL-2267] - Alarm - ONU Signal Degrade

- [VOL-2268] - Alarm - Message Error Message
- [VOL-2269] - Alarm - Signal Fail
- [VOL-2270] - Alarm - ONU Dying Gasp
- [VOL-2277] - Create design doc for kafka partition strategy for multiple ONU adaptors
- [VOL-2278] - Profiling BAL/OpenOLT agent with BBSim
- [VOL-2291] - Add unit test cases for RPC's in core.cc
- [VOL-2292] - Create application for scale testing of BAL
- [VOL-2294] - Flow-decomposer should not decompose multicast flows
- [VOL-2308] - Implement Event Filtering Interface in voltctl
- [VOL-2310] - Logging - Implement dynamic log levels in OpenOLT adapter
- [VOL-2312] - Logging - Integrate voltctl with new etcd-based dynamic loglevel mechanism
- [VOL-2325] - SEBA hardware POD setup
- [VOL-2330] - Add Support for handling multicast groups in VOLTHA Core
- [VOL-2337] - ResourceManager should be aware of predefined multicast GEM port id
- [VOL-2341] - Collect Events during hardware-test
- [VOL-2354] - IT/FT: Test disable ONUs + OLTs then delete ONUs + OLTs
- [VOL-2355] - T/FT: Test disable ONUs + OLTs then delete only OLTs
- [VOL-2356] - core log_level command line argument should take log level names not int value
- [VOL-2357] - openolt adapter log_level command line argument should take log level names not int value
- [VOL-2358] - open onu adapter log_level command line argument should take log level names not int value
- [VOL-2364] - InvokeRPC in InterContainerProxy should propagate errors
- [VOL-2403] - Tests jobs with ONOS 2.2 version
- [VOL-2405] - Failure Scenario: Adding the same OLT before enabling the OLT
- [VOL-2406] - Failure Scenario: Adding the same OLT after enabling the device
- [VOL-2409] - Restart of agent after VOLTHA is operational
- [VOL-2410] - Disable/Enable tests on OLT
- [VOL-2411] - Error Scenario: Delete OLT / ONU directly before disabling them
- [VOL-2412] - Error Scenario: Disable different device id which is not in the device list
- [VOL-2413] - Error Scenario: Enable different device id which is not pre-provisioned
- [VOL-2414] - Error Scenario: Disable the pre-provisioned OLT before enabling it
- [VOL-2416] - Test Logical device creation
- [VOL-2417] - Test Logical device deletion
- [VOL-2418] - Error Scenario: Disable and Delete the logical device directly
- [VOL-2431] - Test Failure Scenario: Multiple ONUs: Reboot any ONU and check the functionality for all the ONUs
- [VOL-2432] - Add step to perform sanity again after ONU adapter restart
- [VOL-2435] - Add a mechanism to extend hardware-test duration for event collection
- [VOL-2438] - Distinguish tests appropriately to run on released and master jobs
- [VOL-2446] - PM - Investigate whether ONU stat collection does not all occur at the same time
- [VOL-2451] - Add UNI LinkState support in BBSim
- [VOL-2452] - Implement MIB Templating

- [VOL-2457] - Support for Sercomm ONU using the OpenONU Adapter
- [VOL-2459] - Move to matching on multicast-IP address after move to BAL 3.2.3.2
- [VOL-2463] - Support for Enable/Disable of individual PON/NNI ports
- [VOL-2473] - Sanity test keyword realignment
- [VOL-2474] - Add alarm simulation to bbsim
- [VOL-2478] - Test system test patch sets and integrate to nightly jobs
- [VOL-2483] - DT workflow sanity test
- [VOL-2488] - Failure Recovery Scenario: ONU reboot (physical)
- [VOL-2494] - Fix UT on BAL3.2.3.2 integrated agent
- [VOL-2495] - Realign failure scenario test cases
- [VOL-2496] - Automated testing of alarms
- [VOL-2504] - Reorganize openolt-agent core.cc file
- [VOL-2506] - Check EAP authentication failure when ONU is in disabled state
- [VOL-2516] - Update flows in ONOS for DT workflow
- [VOL-2517] - Modify VOLTHA OfAgent, OpenOlt, OpenONU Adaptor to use vlan ANY
- [VOL-2519] - Test BAL3.2 on PODs. change nightly jobs accordingly
- [VOL-2522] - Enhance log collection, add kubernetes log collection for each test
- [VOL-2523] - Enhance scale tester app with LLDP flow for DT workflow and test provisioning 512 subscribers
- [VOL-2526] - Refactor the Jenkins pipeline of system test
- [VOL-2536] - Refactor the ETCD cluster size-changed testing
- [VOL-2537] - Logging - Implement dynamic log levels in voltha-core
- [VOL-2538] - Logging - Implement dynamic log levels in ofagent
- [VOL-2539] - PM / On-demand: Api to fetch information from OLT (via Redfish)
- [VOL-2540] - New keyword for checking ONU state in "ports" command
- [VOL-2545] - DT workflow sanity test - ANY VLAN
- [VOL-2546] - DT workflow Functional test - Enable/Disable ONU
- [VOL-2547] - DT workflow Functional Test - Add/remove Subscriber
- [VOL-2550] - DT workflow Functional Test - Admin Disable/Delete the OLT
- [VOL-2553] - Changes to Framework due to split of test cases
- [VOL-2554] - Internally convert traffic shaping rates for itupon_alloc object from kbps to bytes/sec
- [VOL-2556] - Test ONOS 1.13.10 release with master on onf-demo-pod
- [VOL-2573] - On OLT delete, ensure all logical ports deleted and reported to ONOS before disconnect
- [VOL-2574] - Create ChildDeviceLost api
- [VOL-2575] - Add/RemoveMembers commands should be used to update buckets of a group instead of SetMembers command
- [VOL-2578] - AAA app should delete state on DEVICE_AVAILABILITY_CHANGE
- [VOL-2579] - Include ONOS ports in voltha-scale-measurements
- [VOL-2580] - add an option to push the MIB template in the VOLTHA scale measurement pipeline
- [VOL-2581] - add an option to deactivate the ONOS apps in the VOLTHA scale measurement pipeline
- [VOL-2585] - Improve the scale measurement pipeline

- [VOL-2586] - Test ONOS 2.2 with latest Apps: Migrate Flex POD jenkins jobs
- [VOL-2588] - Add TT workflow to openolt-scale-tester
- [VOL-2589] - Check for the ETHERNET_NNI port status for OLT disable and enable
- [VOL-2591] - Check Mib State "omci-flows-pushed" on OLT recreation
- [VOL-2595] - Enhance validation using wpa reassociate
- [VOL-2597] - Use docker containers with prereq software to run the openolt agent UT
- [VOL-2598] - Jenkins job enhancements for collecting container logs
- [VOL-2600] - Jenkins Job Timeout
- [VOL-2601] - Integrate new Scale tests into jenkins jobs
- [VOL-2602] - Move voltha-onos to the new Apps and ONOS-2.2
- [VOL-2603] - Add options to change BBSIM behaviour
- [VOL-2604] - Collect container sha after voltha-scale-measurements job
- [VOL-2605] - use custom images in the voltha-scale-measurements job
- [VOL-2606] - CPU Usage for VOLTHA/ONOS
- [VOL-2608] - Report results of voltha-scale-measurement job on Jenkins
- [VOL-2610] - Implement RFC3339 date checking of alarms in alarm tests
- [VOL-2611] - Update SADIS config on Tucson pod for ONOS 2.2
- [VOL-2614] - Update BBSim SADIS config used in tests to work with multiple ONUs
- [VOL-2617] - Remove cordconfig app from IGMProxy
- [VOL-2620] - Optimize igmpProxy app by directly using Sadis
- [VOL-2630] - Release Voltha 2.3.0-rc1
- [VOL-2634] - Update CI jobs for reboot tests, add log checks to tests, integrate tests
- [VOL-2635] - Update release jobs to pick released helm charts and onos 2.2.1
- [VOL-2636] - Update SADIS config on Infosys pod for ONOS 2.2
- [VOL-2649] - Remove cordconfig dependency in mcast app by directly using Sadis
- [VOL-2663] - ONOS aaa-app Device Disable/Delete Event Handling
- [VOL-2670] - Rearrange failure/restart scenarios into the correct suites
- [VOL-2672] - dhcpl2relay should relay DHCPNAK and DHCPDECLINE messages
- [VOL-2688] - Improve Core model performance
- [VOL-2695] - Capture device list and ports at the end of the scale test
- [VOL-2704] - Adding kvstore connection attributes in voltctl config.
- [VOL-2709] - Create jobs to support `ofagent` go version installations on hardware pods
- [VOL-2717] - Plot for Number of ONUs and Ports
- [VOL-2732] - Disable/Enable ONU functional verification with scale tests (16 ONUs)
- [VOL-2737] - Change openolt-scale-tester to replicate flows per pbit
- [VOL-2741] - openolt-Adapter changes to support OLT Reboot
- [VOL-2743] - voltha core changes to support OLT Reboot
- [VOL-2744] - onos apps changes to support OLT Reboot
- [VOL-2747] - Alarms in openolt_eventmgr.go should all log at debug level
- [VOL-2748] - Update "voltha-system-tests" repo to use "Delete Device" keyword wherever applicable
- [VOL-2751] - Create new jenkins jobs to deploy and run DT tests
- [VOL-2752] - Update alarm tests to match bbsim syntax change
- [VOL-2755] - Jenkins test Job is not publishing the robot results.
- [VOL-2756] - Extend automated Test for ofagent restart

- [\[VOL-2757\]](#) - loglevel configuration precedence and visibility
- [\[VOL-2764\]](#) - default log level for components should be WARN, not DEBUG
- [\[VOL-2765\]](#) - Add TestResult support to bbsim
- [\[VOL-2789\]](#) - Removal of GO jobs from the nightly runs
- [\[VOL-2802\]](#) - Alarm test needs to be updated to latest bbsimctl changes
- [\[VOL-2822\]](#) - Add more restart tests to nightly jobs and fix setup/teardown issues
- [\[VOL-2824\]](#) - Verify Subscriber Access Flows Added For ONUs for DT workflow
- [\[VOL-2842\]](#) - Update release jobs (that run on h/w POD) to move to `voltha-2.3` branch
- [\[VOL-2843\]](#) - Fix issues in tests
- [\[VOL-2846\]](#) - Create release jobs on Berlin and InfoSys POD
- [\[VOL-2847\]](#) - Create nightly job to run DT tests using BBSim
- [\[VOL-2869\]](#) - Verify Flows are Removed from ONOS on OLT Device Delete
- [\[VOL-2885\]](#) - Test changes/olt debian changes
- [\[VOL-2917\]](#) - Change build pipeline for hardware jobs to use kind-voltha master version