# **Blueprint validation framework meetings**

Weekly on Wednesdays at 8:00 AM PST / 11:00 AM EST.

Akraino Edge Stack 1 is inviting you to a scheduled Zoom meeting.

Topic: Blueprint Validation

Time: Sep 23, 2020 03:00 PM Universal Time UTC Every week on Wed, until Sep 1, 2021, 50 occurrence(s)

Please download and import the following iCalendar (.ics) files to your calendar system. Weekly: https://zoom.us/meeting/uZEkde6qrjwv3tbXTirGL\_mMDLePAUznKw/ics? icsToken=98tyKu2tpzktGNSStVztd60tE9r8bPH2lCJaqJtplQ3CLx9eTyfaM9JjB6hxO8-B

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# Introductory webcast recording

## **Notes**

# July 7, 2021

#### MOM:

- Discussed for EALT-EDGE Blueprint, ELIOT IOTGateway and ELIOT uCPE Blueprint sonobuoy conformance test / results
- Discussion Sonobuoy will execute properly with K8s minimum 3 Node cluster (1 master + 2 worker nodes)
- Discussion Sonobuoy support for 1.17.2 Need to be confirmed by validation team

# June 16, 2021

- Agenda:
  - o Making progress for BluVal to support K8s version v1.18, the patch set is under test
  - Need to identify which R5 blueprints support K8s versions v1.19, v1.20
  - Further discussed possibility for using multiple BluVal releases to support K8s v1.18, v1.19, v1.20
  - O Discussed testing compatibility of container run times such as Docker, Containerd, LXC, CRI-O
  - Discussed supporting popular combinations first, so majority of BPs can be supported
  - Need support for Debian Linux, in R4 we have 3 BPs which support Debian

- Discussed high level approach for integrating Anuket RC2 tests into BluVal using Robot layer
- Tina recommended we should provide an update to TSC meeting on June 17th
- Participants: Tina Tsou Deepak Kataria Thor Chin Sirisha Gopigiri

## June 9, 2021

- Agenda:
  - Discussed uplift of BluVal to support K8s version v1.18, Sirisha has submitted patch set for review
  - Discussed possibility to support multiple BluVal versions to support v1.18, v1.19, v1.20
  - Discussed support for Debian Linux
  - Discussed Integrating Anuket RC2 tests into BluVal
- Participants: Tina Tsou Deepak Kataria Thor Chin Sirisha Gopigiri, Jason Wen
- Deepak Kataria presented BluVal at LFN Developer & Testing Forum on June 8th
  - Presentation Slides, Recording and Meeting Notes are available at the link below
  - https://wiki.lfnetworking.org/display/LN/2021-06-08+-+Anuket%3A+Cloud-Native+Full+Stack+Conformance+Validation+Framework

## June 2, 2021

- · Agenda:
  - O Discuss uplift of BluVal to support K8s versions higher than v1.16
  - Integrate Anuket RC2 tests into BluVal
  - Integrate Chaos Tests in BluVal
  - Leverage BluVal UI for improved user experience
  - Integrate enhancements from security sub-committee
- Participants: Tina Tsou Deepak Kataria Arif Jason
- Deepak Kataria presenting BluVal at LFN Developer & Testing Forum, taking place June 7-10, 2021. Presentation scheduled on June 8th
  - What: 2021-06-08 Anuket: Cloud-Native Full Stack Conformance Validation Framework

When: Tue Jun 8 2021 from 8:00 to 9:00 (Time zone: Eastern Time US & Ca)

Calendar: LFN Events > Virtual Events > Anuket

Who: Deepak Kataria

Meeting Link: https://zoom.us/j/94043909680

Link: https://teamup.com/event/show/id/1TDWxFAH2Xrhr6B7seUCCEW6i9Q5uY

## November 11, 2020

- Agenda:
  - o Discuss how BluVal can help O-RAN and Akraino Alliance Paul Carver Thor Chin Tina Tsou
- Akraino BluVal Exception Request Srinivasan Selvam
- Participants: Paul Carver Thor Chin Tina TsouSrinivasan Selvam
- ELIOT lotGateway Blueprint, ELIOT uCPE Blueprint, EALT-EDGE Blueprint due to the K8s conformance testing cannot support v1.17, these
  exceptions are accepted.
- ORAN cooperation about BluVal will start from REC BP first and if we have any other BP want to integrate with ORAN we can also support them
  even if ORAN want to use this. (Because BluVal is also an open source for use)

# October 28, 2020

- Agenda:
  - o Discuss how BluVal can help O-RAN and Akraino Alliance Paul Carver Thor Chin Suzy Gu Jim Xu Hao Xu
  - Akraino BluVal Exception Request Hao Xu Yin Ding
- · Participants:
- Akraino BluVal Exception Request is added.

# October 21, 2020

- Participants: Thor Chin Tina Tsou Hao Xu
- Akraino BluVal Exception Request is added.

# July 29, 2020

- Reviews, Jiras etc. same as on July 15th;
- Debugging a bluval issue with the IEC Type 4 Team turns out there was some YAML formatting issue;
- Proposal: Add a yamllint sanity check for blueval-<br/>
   blueval-<br/>
   blueval-<br/>
   blueval-<br/>
   blueval-<br/>
   blueval-<br/>
   blueval-<br/>
   blueval traceback (right now bluval throws a pretty cryptic error message with a yaml.safe\_load traceback when bluval configuration files have formatting issues, e.g. wrong identation);

# July 22, 2020

- · Reviews, Jiras etc. same as on July 15th;
- · No participants, the usual participants being all on vacation currently;

## July 15, 2020

- Reviews:
  - o 3601 pending peer review
  - 3604 pending peer review
- Jiras:
  - VAL-119 Add to documentation which distros Vuls supports TO DO is ongoing
- Tina Tsou mentioned that the Bluval User Guide is not very friendly towards new users who haven't previously worked with LF infrastructure particularly the LF specific terms could use a little more background (e.g. jumpserver, SUT etc.);
- we agreed to open a new JIRA ticket for improving the Bluval User Guide with the used terminology / abbreviations;

## July 8, 2020

- Reviews:
  - 3601 pending peer review
  - 3604 pending peer review
- Jiras:
  - VAL-119 Add to documentation which distros Vuls supports To Do is ongoing
- Cynthia Billovits is working with upstream developers they said they fixed the issue we reported, but it turns out it still needs more work we're
  waiting on them to get back to us hopefully later today.

# July 1, 2020

- Tapio Tallgren will be on holiday for next four weeks; Alex will host the meeting for the first two weeks
  - Action: Get Zoom rights to Alexandru Avadanii
- Jiras:
- VAL-117 vuls: Add CentOS 8 vulnerability scanning support DONE is merged
- VAL-119 Add to documentation which distros Vuls supports TO DO is ongoing

# June 24, 2020

- CentOS 8 is not supported in Bluval. We had a discussion about this topic last time and agreed that this should be documented somewhere
  - VAL-117 vuls: Add CentOS 8 vulnerability scanning support DONE is for CentOS 8 support
  - VAL-119 Add to documentation which distros Vuls supports TO DO is for the documentation issue
- Bluval debugging capabilities can still be improved. Ideas from last time:
  - Enable debugging with a single flag in variables.yaml 

    N VAL-120 Enable a "debug" flag in Bluval 
    IN PROGRESS
  - Add "test" test cases which will validate that e.g the ssh connection works. This is often the first problem users have
    - ↑ VAL-121 Add an ssh connection test TO DO

# June 10, 2020

- Reviews:
  - 3556: Enable mandatory tests for REC
  - 3550: Use docker host network for containers
  - 3558: Support password ssh auth for all robot tests
  - 3561: Add a new variable Robot loglevel
  - 3562: Remove inactive committers
- Lynis/Vuls automation
- Debugging support: new very simple test cases like
  - Ping to host
  - Ssh access to SUT
  - Volume mount

## June 3, 2020

- Review:
  - https://gerrit.akraino.org/r/c/validation/+/3543/1/tests/os/vuls/vuls.robot#87 could add a global "debug" flag, that would be easier to use
- New wiki page for debugging
- Add comment about bluval.py vs. bluval.sh
- Tickets:
  - Followup on Vuls and Lynis automation: ongoing
  - Followup on Redfish testing: password issue is now fixed, waiting for release. Power cycle issue is being worked on

# May 13, 2020

- Reviews:
  - https://gerrit.akraino.org/r/c/validation/+/3398 is now merged
  - Daniel is working on https://gerrit.akraino.org/r/c/validation/+/3421 Fix ssh cleanup issue for vuls test and https://gerrit.akraino.org/r/c/validation/+/3422 Fix blucon.py argument issue
  - https://gerrit.akraino.org/r/c/validation/+/3370 Add ICN Bluval support needs to be reviewed and merged
- Jiras:
- VAL-113 Redfish-Usecase-Checkers uses a weak password IN PROGRESS has now an upstream ticket: https://github.com/DMTF/Redfish-Usecase-Checkers/issues/39
- VAL-115 Sonobuyo needs more than 4 CPU cores to run TO DO is a new one

# May 06, 2020

- Reviews:
  - o https://gerrit.akraino.org/r/c/validation/+/3398 bluval-eliot.yaml added for ELIOT BP
  - https://gerrit.akraino.org/r/c/validation/+/3395 Support password-based ssh auth
- · Jira tickets:
  - o Kuralamudhan Ramakrishnan / Igor Duarte Cardoso Issue related conformance testing via a Jenkins job
    - There could be an old Docker image
    - Need to make sure that there is bluval-icn.yaml
  - VAL-114 Sonobuyo fails in AWS with Network Cloud BP
  - VAL-113 Redfish-Usecase-Checkers uses a weak password
- Update from security committee:
  - Lynis and kube-hunter draft mandatory test lists are ready, will be uploaded to wiki

# April 29, 2020

- New code
  - https://gerrit.akraino.org/r/c/validation/+/3384 hardware: bios\_version rework without dmidecode
  - https://gerrit.akraino.org/r/c/validation/+/3395 Support password-based ssh auth
- Open issues
  - Redfish ongoing
  - Network cloud
- Update from security group
  - Lynis will have a list of mandatory tests, and this will be the pass/fail criteria
- Remind PTLs to register the labs

# April 22, 2020

- Update from security group
  - Lynis: Some of the tests have points attaches to them and some do not
  - The points can be used to create some kind of metric
  - O Will try to create a list of acceptable and non-acceptable failures
  - Kube-hunter is being studied
- Two Jira tickets to be created:
  - o k8s conformance is mysteriously failing (from Srinivasan Selvam)
  - KNI validation jobs are not running

# April 15, 2020 (recording)

- Security group update
  - For Vuls and other tests that use CVE tagging:
    - High and medium vulnerabilities are mandatory, so the test fails if any of those fails
    - If the vulnerabilities cannot be fixed, they must be handled as exceptions and documented

- The exceptions could have time limits
- For Lynis: gives a hardening index but it is difficult to use that
  - There could be low bar and any test score below it should just fail
  - Any test score above a high bar should pass
  - Test scores between the low and high would need to be analyzed
  - The high score could be the same as passing all high and medium priority tests
- Kube-hunter: work in progress
- https://gerrit.akraino.org/r/c/ci-management/+/3356
- https://gerrit.akraino.org/r/c/ci-management/+/3358
- Tagging 3.0

## April 8, 2020

- Security group update: they now want examples of "Lynis, Vuls, or Sonar Cloud"
  - O Daniel will provide
- https://gerrit.akraino.org/r/c/validation/+/3343
- https://gerrit.akraino.org/r/c/validation/+/3340
- Tagging 3.0 awaits this patch
- Documentation review
  - Test plan

# April 1, 2020

- · Presentation now done, another coming
  - Olarification: Redfish only has Use Case testing (which is what is packaged in Bluval)
- What should kubehunter return?
  - o Robot has some third alternative between "pass" and "fail", Juha will investigate
  - If a security tool finds vulnerabilities, it could be pass since the requirement is to run the tests but this could imply that there is nothing to investigate
  - The vulnerabilities could be harmless in the end, so fail would also be misleading
  - Later on, there can be a whitelist of "harmless" warnings
- Tagging Release 3.0
  - Can be done after the changes to security tests
  - Cristina will do the tagging
- Status
  - Patches for CI integration have been merged
  - Vuls fails when run after other tests; Daniel is investigating
  - Juha will send the kubehunter sample report to security@lists.akraino.org

# March 25, 2020

- Presentation to TSC
- Vuls and lynis on CI: https://gerrit.akraino.org/r/c/validation/+/3306
- Discussion with Security Committee:
  - o Interpreting the results from the vulnerability tests will require understanding how the project is used
  - Thus, the evaluation must be done together with the project PTL
  - The Security Committee requested a sample document from the tests
- Presentation to Akraino TSC+PTLs next week Tuesday:
  - o Start with the list of mandatory tests (Tapio)
  - O Show hands-on how to run the tests (Juha)
  - Show how to run the tests in CI and copy the results (Cristina?)
  - Show the results in UI (loakeim?)

# March 18, 2020

- Updates from Tapio:
  - The mandatory tests presentation was approved by TSC
  - o I asked the Security team for input but got nothing this far
  - I have not received any comments from Blueprints
  - O There is one Blueprint (Network Cloud) that is using OpenStack so we will keep Tempest in
- There can be some tests coming from the O-RAN community
- No progress on UI full control loop
- KPI project might bring in some performance testing
- Juha will update the tempest tests
- · Daniel is working on integrating the security tests in CI

# March 11, 2020

We discussed the proposal for mandatory tests for Release 3:



# March 4, 2020

- Vuls improvements
  - Ubuntu 18 is now running on ARM
  - CentOS also seems to work
  - The size is now 1.5 Gb, mainly due to (a) compressing the database and (b) doing a multi-stage build
- Jenkins documentation: Running bluval in CI
- Updates from TSC meeting:
  - Bluval will be mandatory for all projects
  - New project proposal: Kontour (KPI)
  - CNTT/CNF-conformance?

# February 26, 2020

- Vuls is integrated for Ubuntu 16
  - CentOS and Ubuntu 19 are WIP
  - The images are getting big, ~7 Gb
- Presentation for TSC planning meeting
  - Need a definition of "mandatory tests" for Release 3
  - Need to tag release 3.0 by end of April?
- kubehunter is now integrated
- Cristina is working on documenting how Bluval can integrated into a Jenkins
  - loamkeim will test the instructions after they are done

# February 19, 2020

- The issue with the verify jobs caused by tox dependencies has been fixed upstream
- The k8s layer container is failing to build, Juha is looking into it
- The robot test for kubehunter is ready but it's blocked by the k8s container issue
- A demo was presented to the TSC about the validation work, there were questions on how to integrate it in CI (Cristina needs to document this)
- The vuls patch has been updated, waiting for review
- A patch to reorganize the jobs and improve the relationship between them is in review https://gerrit.akraino.org/r/c/ci-management/+/2242

# February 12, 2020

- Demo to TSC+PTLs: let's try tomorrow in the TSC meeting
- Juha K. is looking in kubehunter and kubestorage
- Juha K. is evaluating the Vuls patch
- CI jobs are failing with tox
  - The workaround is manually marking patches as verified
  - See https://github.com/pypa/virtualenv/issues/1551
- Discussion about closed loop automation

- Proposal next week
- CHOMP project to be followed up

# January 29, 2020

- Presentation to TSC
  - Still some bugs remain
  - Goal is now February 4th TSC+PTL meeting
- Vuls currently only works on Ubuntu, Cristina Pauna and Daniel Stoica are working on supporting CentOS
- The CHOMP project is interested in using Bluval
  - Deepak Kataria will invite someone from the project to next meeting for a discussion
- The right way to edit the committer list is to change it after half of committers have approved the change. Let's follow that rule unless the Technical Governance document says something else
- We will make some proposals to ONES and then figure out later who will present them. At least Cristina Pauna will attend the event

# January 22, 2020

- Missing from Release 3:
  - Redfish tests (fixes exist but not part of a release)
  - Full control loop testing (UI can trigger tests in a lab, jjb in ci-integration is missing)
- TSC presentation is planned for next week

# January 15, 2020

- The "push logs to Nexus from Jenkins" patch is still under work
- The new bluval-fe repo is now ready

# January 8, 2020

- Presentation and demo to TSC
  - Want to have the "push logs to Nexus from Jenkins" patch working before presentation
  - Check again next week
- The new repo was approved on December 19th by the TSC
  - Need a record of the TSC meeting where this was approved
  - Easiest is to have the topic on the agenda again tomorrow
- Naga is leaving the project by the end of this week
  - Will remain as a contributor with a new email address (INFO.yaml needs to be updated)
- Security tests (Lynis and Vuls) may not work on ARM, will check this next
- Discussion about installation logs and UI
  - The Regional Controller is the only "official" (at least for TA) installer, so it only can tell if installation worked
  - Could also enhance deployment logs so that they inform some UI when an installation has worked
- Community lab is free to use for all!

# December 18, 2019

- New repo request went to wrong place, have tried again
- Security tests:
  - Lynis merged
  - Vuls aim to have it for review this week. It is not support
- The Jenkins job in CI-Integration is now pushing results from Enea lab to Nexus daily from the LF Jenkins master
- Release 2.0.1 has been tagged
  - o Plan is to automate this in the future so after new tags, the Docker images are created automatically

# December 4, 2019

- Bluval containerization https://gerrit.akraino.org/r/c/validation/+/2089
  - Goal is to make running the tests easier by running Bluval inside a container
  - Cristina will test the patch and make comments
  - The Jenkins job needs to be updated
- New repo for UI (but only that, needs a new name)
- Presentation to TSC
  - Currently, pushing the results to LF Nexus does not work with the Jenkins job
  - Should wait until everything is up and running
  - Will check next week whether the presentation can be done on Dec 17 or Dec 19
- UI launch
  - Lab owners and TSC members can request access to the UI from loakim
- LTP patch https://gerrit.akraino.org/r/c/validation/+/2075

- Some LTP tests stall which makes the test run very slowly
- This patch removes some of those tests
- Can be merged
- If someone tells that these tests should work, Juha will take another look at the removed tests

## November 27, 2019

- Release 2 update:
  - Images are now in Docker hub
- There were some changes to LTP, and we discussed whether to add a new tag. The conclusion was to create release 2.0.1, so blueprint projects can run the latest tagged version which has LTP working
- We discussed the release 3 priorities. The current draft is here.
- Action items:
  - Cristina to tag release 2.0.1
  - Deepak will think about more tests
  - loakim will write a request for a new repo
  - Naga will work on a proposal to refactor the tests

## November 13, 2019

#### Topics:

- Sonobuyo k8s version and Juha's patch https://gerrit.akraino.org/r/c/validation/+/1933
  - Ok to go forward with this
- Release tagging?
  - Ok after merging a couple of patches
  - Aiming for Friday
  - **"**2.0
- LTP
- The test works now but it has not been merged or run in CI
- Will be included in "2.0" release but did not make it in time for mandatory
- User Interface
  - AWS instance

# November 6, 2019

We had a short meeting today, due to small number of participants. News:

- LTP patch is now done
- Discussion about https://gerrit.akraino.org/r/c/validation/+/1919
- Status from Cristina:
  - We fixed VAL-69, VAL-72, VAL-73, VAL-86
  - The CI jobs that build our containers were failing on arm due to the build server and that issue has been solved. There was another failure in the latest build and I am currently investigating it
  - The CI jobs that run the validation k8s conformance test have not been able to run yet, we're investigating the issue (VAL-81)
  - A documentation draft for running validation in CI has been put on wiki, but I need to update it so that it's more generic

# October 30, 2019

- Ken Yi wants to discuss the mandatory security testing requirements
- Jenkins update https://gerrit.akraino.org/r/c/ci-management/+/1657
  - Initial patch made but had some issues
  - O Needs some more testing and documentation
- We need to check where we are rst. Release 2. Seems like Sonobuyo and Tempest are working fine, LTP and Redfish have issues
  - o Redfish tests have upstream bugs propose to drop
  - LTP testing requires sudo is this acceptable?
  - o LTP is also somewhat broken at the moment
  - Sonobuyo is failing to run on some blueprintsWIII prioritize the Rel.2 bugs
- UI update
- Bug reports

## October 23, 2019

- Release 2: Redfish update https://gerrit.akraino.org/r/c/validation/+/1781
  - Testing with OpenEdge is ongoing
  - OpenStack integration: copy bluval-rec.yaml to bluval-unicycle.yaml and leave OpenStack tests out from bluval-rec.yaml
- Add remote session to etcd HA testcases https://gerrit.akraino.org/r/c/validation/+/1793
  - Will be modified to follow the The Principle: Whenever possible, use testing tools on the container to connect to the SUT. When this is not possible, ssh connection to the SUT can be used
  - Indu will fix this so that the kubectl in the container will connect to the SUT using a modified kubeconfig file (replace localhost with real IP address)
- Fix for LTP: https://gerrit.akraino.org/r/c/validation/+/1752
  - VAL-66 Update LTP tests for OS layer to include running from remote server as a sudo user and to include setup and tear down of LTP packages DONE
    - o Will build binaries out of the source files and using those for testing
    - The binaries will be copied to the SUT, run, and deleted afterwards
    - The full LTP requires sudo rights which is a security risk. Need to investigate if there is a subset of LTP that can work without special rights
- · Versioning of Bluval code and Docker hub
  - Use tags to mark releases
  - Need separate Jenkins jobs for released/stable version and master
  - The UI project needs separate versioning
  - Could request a new repo for UI?
- Cl jobs: https://gerrit.akraino.org/r/c/ci-management/+/1657
  - Still has a "-1" but getting there
  - Need to create instructions once the patch is merged (AP: Vali)
  - O Does not cover uploading the results
- Logging container: https://gerrit.akraino.org/r/c/validation/+/1767
  - Will be part of service layer
- NTP and DNS tests
- UI status update
  - Almost there, but some problems remain

## October 16, 2019

- . LTP no updates, will try install the tests through binaries built at the time when we build the container
  - We need to keep in mind that there might be different OS installed on the cluster
- Cl jobs: https://gerrit.akraino.org/r/c/ci-management/+/1657
  - We had a couple of sync sessions; work is still in progress
- OpenStack Bluval integration https://gerrit.akraino.org/r/c/validation/+/1602 no updates, patch needs to be tested on REC
- Sonobuyo ARM64 patch has been merged: https://github.com/heptio/sonobuoy-plugin-systemd-logs/pull/5 no updates, low priority
- Logging container: patch was merged, test was moved to the validation project
  - O Discussion if this should be a separate layer, or include them in the existing layers (k8s, docker)
  - The logging is an integrated system so it seems hard to separate it (elastic search logging)
- NTP and DNS tests were developed for TA, but they seem generic tests. We decided to create a services layer to include those and we will move
  the logging inside this layer instead of having its own layer
  - https://gerrit.akraino.org/r/c/ta/cloudtaf/+/1489
  - https://gerrit.akraino.org/r/c/ta/cloudtaf/+/1728
- · UI status update: LF team informed us that the UI will be deployed in AWS by the end of this week

# October 9, 2019

- Release 2 table updates
- LTP
  - The test does not seem to work without having Itp installed on the target. Also needs to be updated to use ssh
  - In order to do the installation, the test must be run as a user who can install the software
  - Running as a non-root user: seems to work with sudo
  - NB: CoreOS will not be able to run ltp. They need an exception
- Cl jobs: https://gerrit.akraino.org/r/c/ci-management/+/1657 and https://gerrit.akraino.org/r/c/validation/+/1647
  - Separate discussion about how this will be finalized
- OpenStack Bluval integration https://gerrit.akraino.org/r/c/validation/+/1602
- Sonobuyo ARM64 patch has been merged: https://github.com/heptio/sonobuoy-plugin-systemd-logs/pull/5
  - This means that one of the ARM specific patches can be removed
- Logging container: https://gerrit.akraino.org/r/c/validation/+/1725
  - This is currently used by a test in Telco Appliance blueprint family
  - This will be a layer in Bluval and moved to validation

- Updated "Release 2" table
- The documentation on how to use Bluval is incomplete but it is now no longer "Work in Progress"
- Cristina has written a blog post about how to do Kubernetes testing with Bluval; this should be linked to from somewhere (link is <a href="https://www.lfedge.org/2019/09/26/running-k8s-conformance-tests-in-akraino-edge-stack/">https://www.lfedge.org/2019/09/26/running-k8s-conformance-tests-in-akraino-edge-stack/</a>)
- Jenkins job for running Bluval is being reviewed in the ci-management project (see https://gerrit.akraino.org/r/c/ci-management/+/1657)
- The OpenStack + Bluval integration patch still needs end-to-end testing (https://gerrit.akraino.org/r/c/validation/+/1602)
- VAI-53
  - This will be a separate layer instead of part of Kubernetes
  - Deepak will update the ticket

### September 25, 2019

- Plan is to use MySQL and AWS ECS for the Validation UI, loakeim will update the LF ticket IT-16700
- Blueprint Validation pre-requisites were presented in the Akraino Technical Community Call held on 9/19; meeting was recorded
- Naga is validating ETCD testing which was completed by Indu and will integrate with BluVal
- Tempest robot test verified on Airship by Indu, Naga is testing integration with BluVal
- Discussion on OpenStack layer: Tempest and Refstack are complementary. If projects don't support certain features the tests should detect the
  missing components and skip those tests (we need to test this functionality). As a backup we can also blacklist tests. Indu is working on VAL-51
  which was created to test this functionality.
- LTP tests need root access to run; options are either sudo or create a group with privileges as opposed to using root password. Question if they
  can be ran without root access; loakeim has been assigned VAL-50, and is investigating. One consideration is to create a special group with the
  right capabilities. This group must be created on every lab.
- Discussion on security: we need a development guide documentation
- Discussion on how to handle the situation where the nodes don't have access to internet and we need the test images to be in a local repository
  inside the cluster
- A ticket was created for Cristina VAL-53, to create a Container for the Logging and Monitoring Layer

### September 18, 2019

- The UI VM discussion (MariaDB vs MySQL DB): waiting for LF to provide the quotation for MariaDB
- Discussion on blueprint validation prerequisites (what we request from users with regards to infra and logs)
- Update from Indu: completed the etcd testing, validated in Airship and REC (ready to merge). Tempest robot test verified on Airship and integrated with bluval
- Discussion on OpenStack layer: Tempest and Refstack are complementary. If projects don't support certain features the tests should detect the
  missing components and skip those tests (we need to test this functionality). As a backup we can also blacklist tests.
- LTP tests need root access to run; options are either sudo or create a group with privileges as opposed to using root password. Question if they
  can be ran without root access.
- Discussion on security: we need a development guide documentation
- Discussion on how to handle the situation where the nodes don't have access to internet and we need the test images to be in a local repository inside the cluster

## September 11, 2019

- "Release readiness" updated
- Discussion about Blueprint family names and Blueprint names it is best to use the same names that are used in repos
- The UI VM discussion (MariaDB vs MySQL DB) will continue in https://jira.linuxfoundation.org/servicedesk/customer/portal/2/IT-16700
- All Blueprints that want to have Maturity review before Akraino Release 2 must complete mandatory tests before Oct 31st

### September 4, 2019

- Need to have a discussion with LF about AWS database solution (ONAP SDK uses MariaDB, AWS provides an MySQL) AP: Tapio
- Blueprint families: discussion about whether the UI and Nexus URL should use blueprint family names. Decision was Yes
- Showing logs: there was a request to show the CI/CD logs with the UI. This is difficult to do and hence low priority
- Plan is to show a demo to TSC next Tuesday September 10. Tapio will request a slot

### August 28, 2019

Security tools discussion

### August 21, 2019

#### Agenda:

- Testing with µMEC
- Mandatory tests:
  - ĹTP
  - Redfish
  - Security
- UI issues with Nexus, getting fixes to ONAP SDK
- https://gerrit.akraino.org/r/c/validation/+/1341

### August 14, 2019

- Update about the UI web page: biggest issue at the moment is that the SDK used has some bugs. These are being fixed upstream
- ELIOT/Kumar has reported success in running Blueprint validation
- Indu is planning to test REC with Bluval
- The Security Sub-Committee/Ken Yi needs to be invited to meetings

### July 31, 2019

#### News:

· Mandatory tests and UI have been approved

#### Other items (in random order)

- Security subcommittee is interested in using the Validation framework for two of their mandatory test sets. To be followed up
- · Next week Tapio will be on holiday, will ask Deepak to start the meeting
- Naga has committed the patch to separate Docker and Robot parts (see <a href="https://gerrit.akraino.org/r/c/validation/+/1132">https://gerrit.akraino.org/r/c/validation/+/1132</a>). He will update the user documentation on wiki to match the latest
- Fixing ARM64 support for Sonobuoy required moving to Kubernetes 1.15. The problem is that one test case (Aggregation) that comes with Kubernetes 1.15 works only with the Kubernetes 1.15 version, while almost all blueprints use an earlier Kubernetes version. So the plan is to blacklist that testcase in Blueval so that the same tests can be run everywhere
- Indu is working to push etcd HA tests to Gerrit

### July 24, 2019

#### News

- Mandatory tests were discussed in PTL/TSC meeting on July 23 (but not approved for lack of quorum). Will be on the agenda again on July 25
- Sonobuoy works also on ARM64 except for one test case
  - Requires some patches to run
  - Target is to check by end of week if that issue can be fixed

#### Public UI VM

- LF has sent out a quote for two xlarge VMs on AWS, load balancer and 10G extra storage space
- The extra storage will be used for database for UI
- The two VMs are running the UI code
- It is possible to scale down the proposal but let us go with this

### Validation maintenance

- We had a discussion about what code should be included in this projects repo
- There is already blueprint related code: bluval-<blueprint name>.yaml
- But we agreed that we do not need to allow blueprint specific code to the repo, at least for the time being

#### Demo next Tuesday

· Will show UI in action with REC lab

#### Open gerrits

- [UI] Support UI partial control this is work in progress
- Add resources for building cord-tester image has a "-1"
- sonobuoy testing waiting for DANM4.0
- Juha K will be back from holiday on August 5

### Old APs - not discussed

- · Using k8s on our deployments
- · Using versioning for our releases
- Moving the UI to a new git repo

- Update about Sonobuoy testing on ARM64: with the latest Sonobuoy version, almost all test cases (except for one) seem to pass
- Bluval UI:
  - First item was about the Bluval UI implementation hosted at LF. LF has already a MySQL instance running in AWS as an elastic DB, and if it can be used, then the UI will only need to have the web server and the code to update the data in the database. This means that the UI can be stateless and all state will be in the DB. To be followed up
  - Second issue was about how to check whether bluval has ran all the mandatory tests. The test log will have results of all tests that it has run, but the UI cannot know what tests it was supposed to run (since it is possible to disable tests). The tentative solution is to create a file from bluval.yaml that has all tests that were supposed to be run, and store it in the logs. Bluval.py needs to do that
- We discussed the Redfish testing. Redfish testing is currently mainly checking that the implementations confirm to the schemas that have been defined. The DMTF has also defined a few interoperability profiles, such as for OCP. It would be useful to define inside Akraino a profile that the different hardwares could be tested against, to make sure that all implementations have common functionality implemented in the same way
- Recording is here. Unfortunately, it only covers a part of the Redfish discussion

### July 10, 2019

- AP updates:
  - AP: Kubernetes conformance tests failed on 12 test cases, moving to a newer version may fix this (https://gerrit.akraino.org/r/c/validation/+/1152)
  - O AP: loakeim to copy the developer info for the UI into the wiki: work in progress
  - AP: Indu to take over Miguel's work on the etcd test: airship access is now ok, will check now if it works
- · Last week items we did not cover these this time either
  - Using k8s on our deployments
  - Using versioning for our releases
  - Moving the UI to a new git repo
- Code badge feature (presentation)
  - Code badge will show for a given combination of "blueprint + version + lab" whether the mandatory tests have passed
  - We had a discussion about how this could be implemented in practice

## July 3, 2019

- · Follow-ups on the APs from last meeting
  - AP: Next week we can present in this meeting a demo of the UI: done
  - O AP: loakeim to copy the developer info for the UI into the wiki: work in progress
  - o AP: Cristina to start the user guide and then the team members complete it with the layers that they worked on: done
  - AP: Indu to check the overlap between e2e test and conformance test that we now run with sonobuoy: done; conclusion is we will drop
    the e2e for the first validation release as there are too many tests and they take too long to execute
  - AP: Indu to take over Miguel's work on the etcd test: need to get access to an airship deployment
  - AP: Deepak to look into the options that the LTP test has: ran it internally and automated it in robot; conclusion is that it could be used by any distro
  - AP: Andrew to upload the presentation to this wiki page: done Test Set Proposal to TSC
- Status on the build jobs: the issue from last week with the UI was fixed; had one more issue with mariadb that was fixed today; overall state is
  good
- Status on Sonobuoy testing on ARM: the patches for it have been merged;
  - AP: Cristina to identify the conformance tests that don't have support for aarch64
- · Status on permanent lab resources for hosting the UI: loakeim sent email sent to LF; will open a formal ticket
- Status on pending patches: discussion on patch #949; will make a new patch to incorporate the changes discussed
- Demo of the UI; discussion on what it takes to consider a project mature
  - $^{\circ}\;$  AP: loakeim define the requirements better for the next week's meeting

### June 26, 2019

- Status on the build jobs: builds have been failing for the last week and a half; patch to fix it has been merged, we expect the jobs to pass on the
  tonight's run
- Status on Sonobuoy testing on ARM: work is still in progress; we need to integrate the build and usage of these images in our own repo as upstreaming them is not feasible
- Status on permanent lab resources for hosting the UI: [loakeim] request made at the TSC level; we need to check with LF first (Eric Ball)
  - Successfully migrated to the ONAP portal SDK (Casablanca version); patch is work in progress
  - AP: Next week we can present in this meeting a demo of the UI
- Status on user documentation
  - O Discussion on what (user guide, developer guide) to store where (git, wiki)
  - AP: loakeim to copy the developer info for the UI into the wiki
  - o AP: Cristina to start the user guide and then the team members complete it with the layers that they worked on
  - Andrew promised to give us feedback on the user guide practicality
- Status on Jenkins job that consumes the validation containers:
  - o This task will take a couple of weeks more until we are able to implement it; Cristina will integrate the k8s test with the IEC blueprint
- Status on pending patches
  - AP: Indu to check the overlap between e2e test and conformance test that we now run with sonobuoy
  - AP: Indu to take over Miguel's work on the etcd test
- Multiarch discussion: quick presentation on how to use the containers
- Mandatory tests: presentation from Andrew on what tests should be mandatory for the respective layers
  - AP: Deepak to look into the options that the LTP test has
  - $^{\circ}\;$  AP: Andrew to upload the presentation to this wiki page
- · AoB: None

### June 19, 2019

- Sonobuoy testing on ARM
  - Alexuandru Avadanii is working on this
- Release 2 requirements
  - O What do we need for the first release?
    - Kubernetes conformance testing works
    - Docker containers are being built automatically every day
    - Need user documentation, starting from ready made containers
    - Need a Jenkins job to install
  - When can we have it?
- · Meetings for next two weeks: Andrew Wilkinson can start the meetings in Zoom, Cristina Pauna will host
- Need lab resources permanently for hosting the UI topic for TSC meeting

### June 12, 2019

- New rules enforced: you need a "+2" in a review for merging, but it cannot be your own
  - o If you are a committer, you can give a "+2" to your own patch
  - One "+2" from someone else than submitter is needed
  - o After this, anyone can merge the patch
- · Sonobuoy doesn't work for arm, so we have 2 options postponed to next meeting
  - o call the tests directly without sonobuoy on arm hr
  - adapt sonobuoy to work on arm (I incline more to this option but seems difficult to do it upstream so we'll have to figure out a clever solution)
- Documentation strategy
  - We have projects lined up to test the Blueprint validation project
  - O We need to separate user documentation and developer documentation
  - Follow Documentation Sub-Committee requirements (Architecture, User Guide and Release Notes)
- Proposal to TSC about mandatory tests: https://docs.google.com/presentation/d/1ONU7jmeGVrhbJe2gKRtode1aHKH8teRgfN91LYAPBmo/edit?usp=sharing
- We had a discussion about when a blueprint project can be "mature": is the maturation review before Release 2 or after it? Do we want to have "Mature" projects in Release 2? Assumption is yes
- We need to define what a Blueprint Validation release is, since the different blueprints need to be able to test against a stable set of tests. It would make sense to call the first release "2", so that BluVal Rel.2 would be used to test blueprints for Release 2. Most likely will also need a BlueVal Rel. 2.1 to fix bugs, and then the blueprints could choose any version 2.x (the latest is probably the best choice but there is no pressure to upgrade if an earlier release works)

### June 5, 2019

- etcd ha test cases
  - o Issue is that there are two implementations, depending on how the k8s cluster has been deployed
  - o It would be better to have a single implementation that would work with both
  - Juha and Cristina do not have access to an Airship deployment
- Docker makefile bug
  - Fixed now
- UI implementation
  - o Discussion was about how to push jobs to validate different blueprints in different labs, since there are three kinds:
    - The public community lab that runs in UNH-IOL
    - 'Private' company labs which can operate in a 'master/agent' Jenkins model
    - Company labs that run in a peer model whereby the Edge lab jenkins only pulls and pushes but is not a slave to the LF jenkins.
  - All of these will push the results in the LF Nexus, but only the two first ones can take jobs from LF Jenkins (and hence the UI)
  - O The UI will soon run in a VM with a public IP

## May 29, 2019

- Pass variables to robot testcases (838)
  - As discussed earlier, we want to make a single file with all variables
  - Decision: go with the YAML version
- Organize file structure for tests (887)
  - Proposal is to create a structure for storing the different tests
  - Additional idea is to add "layer" to the structure
  - Decision: Go ahead
- New idea: there should be a single container per layer, use bluval to select what tests to run
- Add container script for k8s ha (839): looks ok
- UI discussion: the web UI can run in Docker containers, loakeim will make the instructions available on how to build them



### May 8, 2019

- Automatic signed-off-by and linting work now: when you check in code, you need to sign off the commit and you will get a result from automatic code syntax check
- Building containers and uploading to hub.docker.com does not yet work, LF staff is investigating
- There will be a presentation about this project in the Akraino TSC/PTL meeting next week. Tapio Tallgren will make some slides and Cristina Pauna will check if the Sonobuyo on Robot Framework in a container will work (dl: Monday)
- We also had a discussion about the UI framework. The key part is reading the log files, parsing them, and rendering the result on a web page
- We agreed on a new committer: loakeim Samaras

## April 24

- · General complaints:
  - Let's start having good commit messages to make it easier for outsiders to understand what is going on
  - Let's also have signed-off-by lines in git commits
- JJB for patch verification is now done (thanks Cristina!)
- · Container scripts are also working, will be automated soon
- Test containers will be put to hub.docker.com under Akraino/validation (https://hub.docker.com/r/akraino/validation)
- Dashboard discussion is postponed
- There is a new Kanban board for the project: https://jira.akraino.org/secure/RapidBoard.jspa?projectKey=VAL&rapidView=5
- We also had a discussion about a common "environment file" which would contain all the parameters that the different tests would need (examples: IP addresses, user names, Kubernetes admin file). Need to build from bottom up
- We also discussed bringing a proposal to the TSC about what the mandatory tests will be. Propose to start with Kubernetes conformance tests and Linux Testing Project
- Need to make sure that all mandatory tests work on different architectures

## April 17, 2019

- JJB for patch verification will be made by Cristina
- Patch for creating the k8s conformance test docker container was merged. Miguel will try it out with the robot test he's working on. JJB for building the docker images automatically will be done by Cristina; currently waiting for LF to make the dockerhub repo available from the jenkins slaves
- Robot tests for Cyclictest are developed by Naga
- Documentation and robot tests for LTP and baremetal are developed by Miguel
- Juha is looking into robot framework
- Deepak presented a proposal for a Dashboard to trigger and view tests results in an user-friendly way; gathered input from the team and will
  continue the discussion next time.

### April 10, 2019

- Meeting time check let's keep the current time, 11 AM Eastern/6 PM Eastern European/8 AM Pacific
- New member introduction
- New slack channels will be available for Akraino projects, we can use that instead of IRC
- We should follow the LF best practices https://lf-releng-docs.readthedocs.io/en/latest/best-practices.html for this project
  - We agreed that all patches need a +2 from someone else than the author, but the author can also commit her/himself
- All key people have committer rights now
- We also need to set up verification. Ideas are welcome, but the following come to mind:

- The best practices recommend Coala
- We also need to agree on unit tests for the code. Agreed to make that a part of the reviews
  - Later on, we should do more testing. TBD
- Status of active code reviews:
  - https://gerrit.akraino.org/r/#/c/518/ will be committed
- https://gerrit.akraino.org/r/#/c/537/ ongoing
  Jira ticket status: https://jira.akraino.org/browse/VAL-4?jql=project%20%3D%20VAL%20AND%20resolution%20%3D%20Unresolved% 20ORDER%20BY%20priority%20DESC%2C%20updated%20DESC

### March 27, 2019

#### Agenda:

- New committers to project
- New meeting time. Propose Wednesdays 10-11 (an hour earlier)
- Using IRC? Let's try the channel #akraino
- Let's try to clarify the project scope: passing the mandatory validation tests is a part of the Akraino process to mature a process, so it is very important to agree in the Akraino TSC what the mandatory tests are. There can be tests that are supported by the framework but which are not mandatory. The logic should be:
  - If the blueprint installs Kubernetes, Kubernetes e2e conformance tests are mandatory
  - If the blueprint installs OpenStack, OpenStack Tempest and Rally are mandatory

We also discussed making some HA tests mandatory.

- Then we need to agree on how to move forward. Let's say you run a test; what happens next? If you run the test from LF Jenkins, it would be great to sync the results to the LF Jenkins. This requires that you are running your lab in a DMZ or you are opening a lot of ports on the firewall to run a slave Jenkins. So the easier alternative is to copy the results of the tests to the LF Nexus. To make it easy (for scripts) to understand the logs, we need to agree on a common format. For this, we propose running all tests using the Robot Framework.
  - Will BVal yaml be an optional component to make it easy to chain together a number of tests?
  - To run the tests, I want to run something like "docker run --env-file abcd.txt --volume output.log akraino\_k8s\_tests". For this we need
    - The docker container
    - Definition of the env-file format: we need to figure out what information the test will require and write it to the environment file
    - The actual code to read the environment file, launch the Robot Framework, run the tests with Robots, and copy the output to the output.log
  - Once I have all this, I can make a Jenkins job in my lab which will launch the tests, and I can also configure it to copy the output somewhere.

### March 6, 2019

Discussion about scope of testing + continue discussion about role of xtesting

### Recording / chat

The plan is to use the Xtesting part of the OPNFV Functest project as the basis for the Akraino Blueprint Validation project. There will be separate containers for the different test sets, hosted at the Docker Hub. The "source code" (docker yaml etc) will be hosted in the Gerrit repository, a Jenkins job will build the images, and then they will be uploaded. We need to identify the mandatory tests that all Akraino Blueprint projects must pass. There will be a centralized database to store test results, to make it easy to follow the progress of different projects. A web interface to the database would be nice.

### Specific notes:

- The Nexus repository does not work well for storing Docker images that must support different architectures, as there is no support for manifest files. So it is best to use the Docker Hub for images
- Xtesting has two different modes, a "tutorial" one that installs a Jenkins instance, and one for the "Functest" type, where the xtesting framework only creates the Jenkins jobs.
- There is no need to have support for voting in the Jenkins jobs
- Trevor Bramwell has set up the OPNFV test database, should ask him
- Cedric is working on rewriting the web page code that shows the test results

### February 27, 2019

Discussion about Xtesting

Recording / chat

## February 13, 2019

### Agenda/notes

- Weekly meetings
  - Time is ok?
  - Need to make official somehow
  - o Recording or not?
  - O Next week?
- Will use Jira
- Clarification of workflow
  - Will BVF do testing or just provide the tools?
- Next tasks

- Collection of test tools
   Define "MVP"
   Get an introduction from OPNFV team
   What are we missing with this approach?
   ONAP VFN SDK project

