

DPDK Community CI Testing Meeting Minutes for 2022

Old Minutes

- [DPDK Community CI Minutes 2021](#)

December 22, 2022

Attendees

1. Patrick Robb
2. [Juraj Linkeš](#)
3. [Lincoln Lavoie](#)
4. [Owen Hilyard](#)

Agenda

1. General Announcements
2. CI Status
3. DTS Improvements & Test Development
4. Any other business

Minutes

General Announcements

- Tech board voting on [Community Lab 2023 work](#) is completed and the final 2023 SOW document for the lab is finished
- The UNH lab is working with the Linux Foundation to provide some materials to help publicize the lab's work. Lincoln has provided some updated slides for the Golden Deck, and Patrick will write a blog post in January about recent developments in the lab and where we want to push to expand what we can provide in the future.

CI Status

UNH-IOL Community Lab

- We have reviewed our updates to our internal community lab scripts and are rebuilding our container images/testing abi internally. We have hit a couple snags due to changes we've made since we last had abi testing online, but are working through them.
 - We added the IPsec library to some containers recently for ZUC/Snow3G testing - this is causing failures when building some old LTS releases on Debian. We are troubleshooting this but may bring ABI testing online without abi testing on debian with the 20.11 and 21.11 LTS releases while we continue to troubleshoot this problem.
- Crypto vdev PMD testing pipelines working properly internally - will be in production pending approval of a current merge request
- The Ampere Altra's raid controller did arrive and is now installed. The system is stable and we are adding testing and monitoring results internally - to be brought to production in January.
 - Juraj requested that this test bed run an aarch32 cross compilation and provided a set of requested unit tests to be performed. Owen is going to touch base with Juraj about how best to provide this.
 - One option would be to do this testing with the new aarm64 container test runners, which could also do the aarch32 cross compile. The incentive here is to allow the Ampere server to primarily do NIC performance testing, and move other testing to VMs test runners.
 - It's important to run this testing on a system with an industry "standard" processor for DPDK applications - Altra system is most preferred, though a Thunderx2 might also work
- The lab had a temporary infrastructure failure on unit tests this week due to hugepages misconfiguration on one of our test running agents. This is now resolved and will be avoided in the future by setting this setting with our automated provisioning system. Failed patches that were tested on December 19 - 20 are being retested on Friday afternoon so as to avoid delays today and tomorrow for new patch series.

Intel Lab

- N/A

Loongarch Lab

- N/A

Github Actions

- N/A

DTS Improvements & Test Development

- N/A

Any other business

- Next meeting is January 4 - we are mostly shutdown for the holidays in the interim

December 8, 2022

Attendees

1. Patrick Robb
2. Min Zhao
3. Lincoln Lavoie
4. Juraj Linkeš
5. Ali Alnubani
6. Aaron Conole
7. Jeremy Spewock
8. Lijuan Tu

Agenda

1. General Announcements
2. CI Status
3. DTS Improvements & Test Development
4. Any other business

Minutes

General Announcements

- 2022 Retrospective:
<https://docs.google.com/document/d/1DMf-Lkl6QIJbe7wtX1aJz6mdHiITZjuUbufyCZBg-WY/edit>
- 2023 Lab priorities:
<https://docs.google.com/spreadsheets/d/1GW0hTbEXjA0ZmDLrQRhXwPFu8X-o8qH1sMBTd92bDyE/edit#gid=0>
- LTS 22.11.1 released
 - Should the 22.11 tag be updated to point to 22.11.1, right now, it effectively points to 22.11.0? This would involve changing git history, which the maintainers never do. Thomas followed up via email stating that this was off the table.

CI Status

UNH-IOL Community Lab

- Periodic testing is now added for 22.11 LTS release, and for the 22.11-staging branch of dpdk-stable.
 - David notified us on Slack about an issue with the incorrect commit urls being assigned to our tarballs acquired for dpdk-stable testing. This does not affect testing accuracy, but it is annoying, and I will apply the fix for that later today.
- Environment created for ZUC & Snow3G PMD unit tests, which have been manually run successfully. The team is currently building a Jenkins pipeline to get this online.
- After touching base with Dell support again about the RAID controller on the Ampere test bed, they determined a replacement was in order and are shipping on to the lab.
- Owen has brought Kmod testing against linux-next to production
- ABI testing rollout pending updates to lab code / scripts or resolution of the conversation about 22.11 tag.

Intel Lab

- The maintainer for next-broadcom may be inactive - a bugfix applied to main two months ago was not pulled to next-broadcom, and Lijuan is unable to get a response from the maintainer on this.
- What does the timeline look like for 19.11 EOL? There will be one more (final) release next week.
- Intel CI Lab has some ideas for long term support testing - in the old days only the latest revision of a branch would be tested - Intel is considering also permanently testing the very first version of a release (like 22.11.0). Some customers may always stick to using the initial version of a release.

Loongarch Lab

- There may be some problems with the test-report mail server. Some emails from Loongson with test results have been blocked.
 - Ali: "It seems that the emails have been getting rejected by the mailing list's server since Tuesday because loongson's mail server was detected in a data set for addresses associated with spam. I just double checked and it seems the address was removed from the spam list. Can you please try to resend?"

Github Actions

- Aaron has merged a change from David which adds some series dependencies support to GHA-Robot
- Aaron having a meeting with Rashid Khan regarding how the tech board can get responses back to UNH regarding the SOW

DTS Improvements & Test Development

- Work continues on the hello world test case
- Further discussion needed regarding how DTS handles failures - currently whenever a failure occurs anywhere in the process it is caught and recorded, then DTS moves on. It is a problem when it's unclear whether a failure is caused by DTS or DPDK - DTS team wants to make the feedback from failures more clear, and obviously just make DTS more stable in general.
 - Owen is interested in adding exit code to DTS for additional feedback on failures. Juraj will follow up with Owen to figure out how exactly this can be best implemented for CI testing purposes.
 - How can we deal with multiple failures at the same time? Can there be a hierarchy of exit codes?
 - One idea is to place a higher priority on failures from DPDK as opposed to a DTS failure

Any other business

- Next meetings: December 22, January 5, sticking to the normal schedule.
- December 28th DTS meeting will be canceled as Honappa is on sabbatical until January 3rd.
- Tech board meeting is on January 14th for UNH feedback

November 10, 2022

Attendees

1. Patrick Robb
2. Honnappa Nagarahalli
3. Lincoln Lavoie
4. Lijuan Tu
5. Juraj Linkes
6. Ali Alnubani
7. Adam Hassick
8. Jeremy Spewock

Agenda

1. General Announcements
2. CI Status
3. DTS Improvements & Test Development
4. Any other business

Minutes

General Announcements

- None

CI Status

General

- Loongson is intending to publish their own CI testing results by running a dashboard website based on the [UNH dashboard](#). UNH-IOL is in the process of making major revisions to the dashboard currently, but one idea for a “next step” after completing our current goals could be to build an interface for external labs to submit their results to our dashboard. This could help alleviate the overhead for future organizations wanting to stand up CI testing. Is there any interest in this from the community? Lijuan repeated her interest in this API access - the UNH team will figure out whether this is feasible once the current dashboard development tasks are complete

UNH-IOL Community Lab

- Testing for LTS stable staging branches is set up. It will run once per push to *-staging branches at <https://github.com/DPDK/dpdk-stable> and publishes results on the dpdkdashboard periodic testing page.
- Arch Linux badge is live and integrated into the [Patchwork website](#).
- Community Lab team members are currently working on bringing the Ampere Altra (aarch64) test bed online.
- Ccache has been causing some bugs as it is not differentiating between distros. In the short term we will disable it, which will increase compile testing duration. The long term fix is to move to a centralized cache which differentiates by image hash.
- Would it be acceptable for the Community Lab to use a faster linker than GNU ld during compile jobs, such as GNU Gold or LLVM lld? Do any community members have any concerns with this kind of change? Should we stick to a DPDK “norm?” - No objections raised.

Intel Lab

- Intel has finished baseline functional testing for branches - sending out a report per update on branches

Github Actions

- None

DTS Improvements & Test Development

- Owen wants to poll the community for any preference for the distro of the container which runs DTS. It should be free, support new python versions, and must support every cpu that DPDK does. No feedback given during the meeting, but Ubuntu and Alpine both sound like viable options and DTS WG will make a decision.

Any other business

- Next CI meeting: December 8th, 2022

October 27, 2022

Attendees

1. Patrick Robb
2. Nathan Southern
3. Ali Alnubani
4. Juraj Linkes
5. Lijuan Tu
6. Bruce Richardson
7. Kevin Traynor
8. Jeremy Spewock
9. Aaron Conole
10. Adam Hassick

Agenda

1. General Announcements
2. CI Status
3. DTS Improvements & Test Development
4. Any other business

Minutes

General Announcements

- Nathan going to touch base with Aaron to close the loop on budget 2023 - looking to collect more detail from labs about cost

CI Status

General

- Loongson/LoongArch is beginning to do some CI testing and review - Ali and David are helping with this process

UNH-IOL Community Lab

- Owen has submitted a v3 of his dpdk-ci container builder patchset to the mailing list, and continues to refine the patch per Ali's feedback.
- Begun work setting up a Jenkins pipeline for the stable / staging LTS branch testing, which will be added to run / trigger from the Github mirror. Ping Kevin with any questions.
- Finishing up dashboard proxy configuration for the Arch Linux build status badge - should be available for patchworks site integration early next week.
- Community Lab team members are currently working on bringing the Ampere Altra (aarch64) test bed online
- Lab received a suggestion that we incorporate [ZUC](#) and [SNOW3G](#) autotests to the Community lab. We'll determine how we can best support this and move forward.
- Lab had a brief outage for OS unit and compile testing yesterday due to our private container image registry - full CI testing back online now

Intel Lab

- Intel is freezing distro OS versions at time of LTS release to prevent any failures associated with OS updates as opposed to DPDK updates.
- Intel setting up functional baseline testing on the DPDK main tree and other branches (next-net... etc). Intel previously had a gap not testing the baseline.
- Intel is now working on DPDK 22.11

Github Actions

- Holding pattern regarding schedule for security updates - Michael Santana and Aaron Conole are working on this, but are busy with OvS conference for the time being - should speed up after November.
- Patches to review for GHA yaml

DTS Improvements & Test Development

- DTS WG meetings switched from Thursdays to Wednesdays - happening on the off weeks in between community CI meetings. DTS WG members will still participate with the CI community meetings, but, going forward, DTS discussion will be headed by Honnappa immediately following CI discussion, with a separate DTS WG meeting minutes doc. This meeting is the first with this approach.

Any other business

- Next CI meeting: November 10, 2022

October 13, 2022

Attendees

1. Lincoln Lavoie
2. Patrick Robb
3. Aaron Conole
4. Juraj Linkeš
5. David Marchand
6. Lijuan Tu
7. Ali Alnubani
8. Adam Hassick
9. Jeremy Spewock

Agenda

1. General Announcements
2. CI Status
3. DTS Improvements & Test Development
4. Any other business

Minutes

General Announcements

- none

CI Status

General

- The Meson upgrade (0.49 to 0.53) rolled out successfully. Thank you Thomas for waiting for the 3 labs to verify compatibility before merging the patch.
- LoongSon team is working to stand up CI infrastructure, and may join these sessions once their systems come online.

UNH-IOL Community Lab

- The Community Lab aims to bring our Ampere Altra (aarch64) test system online in days/weeks. Issues with the Dell Server (traffic generator) have now been solved.
- Owen's patch which adds the containers builder to dpdk-ci has been submitted to the mailing list, with some initial comments by Ali. Will work on a V2 patch, other comments are welcome.
- The UNH team explored using a cloud provider for badge generation/serving, but ultimately decided that an acceptable response time could be provided with a badge hosted on the community lab dashboard, and that this approach would reduce complexity. This solution is largely implemented and should be available for Patchwork in a matter of days. We just need to add the proxy route to the external http server. Testing is already running in the lab on Arch Linux.
- Planning to work on the stable / staging branches for LTS next, which will be added to run / trigger from the Github mirror, with Jenkins configured to watch that repo for per-comment changes.
- 2023 SOW has been submitted to the Linux Foundation, and reviewed by the Governing Board.

Intel Lab

- Intel CI had some errors during a national holiday, these are being looked into. There was a question around integrating the Intel lab results into the dashboard, for log storage. This would require an external API where Intel lab could push logs and test results. Intel is also looking into how some log file tails could be included in the email reports up to patchwork as well.
- David Marchand also asked if the dpdk main branch was running in the lab, there may be a gap in coverage. Intel team will look at running the main branch through smoke testing as well.

Github Actions

- Unplanned outage on Monday, there was an issue with an electrical service to the lab that took longer than expected. Everything was recovered / caught up with patches.
- Hardware upgrade was completed a couple of weeks ago, that work went as planned.
- Next up are some security related changes, Aaron and team will confirm the schedule soon.

DTS Improvements & Test Development

- DTS Meeting will be hosted on the CI "off-week" meetings, starting October 20. Nathan was working on getting a calendar invite out to the meetings with the Zoom info.
- The V6 (hopefully final) version of the DTS patch was sent to the list, waiting to see if this now merged into DPDK soon. The "hello world" test suite patch is being worked on next.

- A new Test Development System and DPDK PMD test suite has been created which could provide similar functionality to DTS: <https://ts-factory.io/>
 - Team is asked to review and provide some feedback in the next weeks on this system and if there is potential interest in using this system / tool.

Any other business

- Next CI meeting: October 27, 2022

September 29, 2022

Attendees

1. Lincoln Lavoie
2. Patrick Robb
3. Nathan Southern
4. David Marchand
5. Bruce Richardson
6. Adam Hassick
7. Kevin Traynor
8. Juraj Linkeš
9. Thomas Monjalon

Agenda

1. General Announcements
2. CI Status
3. DTS Improvements & Test Development
4. Any other business

Minutes

General Announcements

- Call for nominations for the next DPDK governing board chair. Process is on-going.

CI Status

General

- Meson upgrade planning, aiming to roll this out in the beginning of October. New version would be 0.53. This will require all labs to ensure they are able to update. Patch is:

<https://patchwork.dpdk.org/project/dpdk/patch/20220912170747.3128065-2-bruce.richardson@intel.com/> Lincoln will send an email to the Intel team, CC Thomas, Aaron and Michael, waiting on confirmation from all to merge.

UNH-IOL Community Lab

- Patrick Robb has joined the UNH-IOL team, and will be helping with the management of the DPDK community lab.
- Owen completed the initial patch that will submit the containers builder to the dpdk-ci. Currently with Aaron for an initial review, before submitting up to the email list.
- Debian (last two LTS releases) have been added to the compile / unit testing / (ABI is still disabled for main).
- Dell has now been actively working with the lab to resolve issues with the traffic generator server for the Ampere Altra (aarch64) test system. Stability testing of the server / solution is aiming to complete on Monday, as soon as that work is completed, we'll work on bringing those systems online.
- Team is looking into the solution to provide the "status badge" to patchworks for the Arch Linux OS build status. Current badges are "embedded" images in the status bar, loaded from the provider. In this model, the image would be loaded from the UNH CI site, and we need to make sure this adds a minimal amount of response latency. We could explore hosting the badge graphics at a common location, if other labs are interested in listing a similar testing outcome. That system / host will need to provide the lab(s) an API to toggle the badge status as needed. There may also be existing cloud systems that could assist with badge generation / hosting.
- Devs agreed on the LTS approach / naming for the stable/staging branches. This is next up in the work queue, assuming no major changes are requested to the container patch (see above). Other labs might also be able to track those branches. Need to ensure the staging branches only run tests on new pushes, while the LTS branches can continue with nightly testing.
- Linux Foundation needs the 2023 SOW, to begin the internal LF budget processes.

Intel Lab

- No Updates

Github Actions

- DPDK stable repo mirror was set up for Github, for testing the staging branches.

DTS Improvements & Test Development

- The DTS WG team has received good feedback on the SSH connection patch. New patch version has been submitted to helpfully address all the comments thus far. Review requested for this new version.

- The DTS WG team is considering setting up an alternating call schedule, using the same time slot as the DTS call, that gives a pseudo-weekly call (between both meetings). We'll work with the LF folks to get the call invite / schedule out to the participants.

Any other business

- Next CI meeting: October 13, 2022

September 15, 2022,

Attendees

1. Lincoln Lavoie
2. Aaron Conole
3. David Marchand
4. Kevin Traynor
5. Michael Santana

Agenda

1. General Announcements
2. CI Status
3. DTS Improvements & Test Development
4. Any other business

Minutes

General Announcements

- DPKD User Space Summit held September 7-8, recordings of the sessions are available here: <https://www.youtube.com/channel/UCNdmaRMwOBu0H8a7DdXAT9A>

CI Status

UNH-IOL Community Lab

- Techboard discussions during the DPKD User Space Summit provided some clear guidance on the next steps for OSES used for DPKD testing in the lab. Working towards implementing those changes (older Fedora systems have already been dropped, working to add Arch testing on DPKD main feeding to a badge on patchworks banner).
- Lab dashboard updated to provide a testing coverage summary / matrix of current testing: <https://dpkdashboard.iol.unh.edu/results/dashboard/test-matrix/> We will also

work on a request to add a summary and pointer to this page on the Testing page of dpdk.org.

- Active discussion about testing of staged patches (by the LTS maintainers) to the LTS branches, i.e. testing a bugfix worked, before the patch actually gets merged to the “real” LTS branch. Testing coverage would be the same as current LTS branches.
- Dell is finally actively working with the lab to resolve the issues we’ve seen with the raid card in the tester (traffic generator) for the aarch64 Altra DUT.
- Open for input on testing goals for 2023, to start the development of the lab statement of work before the end of the calendar year. Aaron will send out an email call on this topic as well. Should also plan for a year end retrospective to review the past year’s program, aiming for November / December time-frame.

Intel Lab

- David sent an email about failures from the lab,
http://inbox.dpdk.org/ci/CAJFAV8zyOMqh_b1mxv=jqZgcUFummbD0NoxB=jVW4OMUMydVyg@mail.gmail.com/ Needs some feedback from the Intel Lab team.

Github Actions

- Upgrade was completed last Friday, September 9, 2022. Everything appears to be working ok and is being monitored, no issues detected. Please let the team know if you notice anything.
- Next steps, looking to change the builds to make things more containerized and limited in scope. This work would begin as the system is determined stable, following the recent upgrade.

DTS Improvements & Test Development

- A traffic generator library proposal and demonstration during the DPDK User Space Summit that might be useful to the DTS development, or as a replacement for some of the TRex requirements within DTS: <https://sched.co/17v8c>
- A RTE Flow tester was also shown during the DPDK User Space Summit. There was a desire from the community to see that tool aligned with the RTE Flow testing already developed and included in DTS, keeping the tools used to validate DPDK and devices “contained” in DTS, so users have a clear reference for that type of testing, <https://sched.co/17v9U>

Any other business

- Next Meeting: September 29, 2022

September 1, 2022

Attendees

1. Lincoln Lavoie
2. Nathan Southern
3. Michael Santana
4. Ali Alnubani
5. Aaron Conole
6. Honnappa Nagarahalli
7. Thomas Monjalon
8. Jeremy Spewock

Agenda

1. General Announcements
2. CI Status
3. DTS Improvements & Test Development
4. Any other business

Minutes

General Announcements

- DPDK User Space Summit is next week, September 6-8. Virtual registration is free.

CI Status

UNH-IOL Community Lab

- Starting to develop SOW and work plans for 2023.
- New container definitions have been created and are being used, but automated refresh jobs still need to be put in place. Similarly, we will need to merge these into the dpdk-ci repo, along with the scripts that run the jobs inside the container.
- Tech board answer about DPDK supported operating systems, only test in-support distros. Drop support for EOL distros or distros older than 5 years. Some more discussion in the community is underway. Focus needs to be on two key items, distro used in DPDK deployments (typically RHEL and Ubuntu), and second is support testing with latest tool sets (i.e. new GCC, etc.). The list below, is the starting point for the email discussion:
 - CentOS Stream
 - Arch
 - RHEL - RHEL 7 is an exception to the 5 year rule

- Ubuntu
- OpenSuse LEAP
- Debian
- Fedora - Last 2 + Rawhide
- Alpine
- FreeBSD, latest version, since there isn't direct user input
- Windows
- OpenSSL patch is accepted, but doesn't look to be merged into the git yet, once merged, we can enable the openssl tests. This is blocking enabling the OpenSSL unit testing request from the community:
<https://patchwork.dpdk.org/project/dpdk/list/?series=23985>
- Dell server, traffic generator for ampere Altra aarch64 test bed, is still down, pending a hardware replacement being handled through the Dell warranty (which arm holds).

Intel Lab

- No updates.

Github Actions

- System is running into timeouts on building OVS on DPDK latest, when all the drivers are enabled, because no caching is currently used for this process.
- There was a minor outage a couple of weeks ago, but everything should be recovered now and reporting up.
- Michael has been working on the upgrade path for the zero-day robot, scripts are ready and have been tested. Waiting for an upgrade opportunity and will notify the community when this is planned.

DTS Improvements & Test Development

- Planning to start merging the DTS WG discussions into this meeting slot, to help increase the visibility of the DTS efforts within the community. Honnappa will discuss this with the DTS group during their next meeting.

Any other business

- Next meeting: September 15, 2022

August 18, 2022

Attendees

1. Lincoln Lavoie
2. Owen Hilyard

3. Juraj Linkeš
4. Lijuan Tu

Agenda

General Announcements
CI Status
Test Development
Any other business

Minutes

General Announcements

- Next governing board meeting is August 23, rescheduled to avoid the User Space Summit. Aaron & Lincoln will pull together updates from the CI community for the meeting. Anything specific the community would like us to include?
 - Raise the issue about reviewing DTS patches.
- DPDK User Space Summit agenda posted:
<https://events.linuxfoundation.org/dpdk-userspace-summit/program/schedule/>

CI Status

UNH-IOL Community Lab

- Maintenance items were completed, and patchworks polling resumed on Monday. System was caught up by Tuesday with patches that came in during the maintenance window. The maintenance completed included a full update of Jenkins and removing test artifacts older than 8 months, as well as some migrations to updated pipelines and job definitions.
- Next working update and streamline the container builds used for the compile, unit, and abi tests. This will add latest OSes, such as RHEL 9 and Ubuntu 22.04, as well as enable building images for both x86_64 and aarch64. Once aarch64 images are available, we will begin using a dedicated aarch64 container runner.
- Open question, what are the “official” lists of OSes supported by DPDK. Both on the new (i.e. RHEL latest) and older (i.e. CentOS 8) ends? So, we can know what to add and remove from testing. Similarly, what is the commitment to support the newest versions of compilers that might be included in a latest release?
- For the kmods testing, some discussion is needed around strategy to track the dpdk-kmods repo.
- Open Items
 - Email list issue with too many recipients was fixed, with the test-reports list’s limit increased to 100.

- OpenSSL patch is still pending review and backport, blocking enabling the OpenSSL unit testing request from the community:
<https://patchwork.dpdk.org/project/dpdk/list/?series=23985>
- Dell server, traffic generator for ampere Altra aarch64 test bed, is still down, pending a hardware replacement being handled through the Dell warranty (which arm holds).

Intel Lab

- Intel lab may need to have some downtime, because of electrical grid controls being put into place because of the heat wave in the region. If the lab gets the notice / details from the government, the intel team will send notice to the ci email list.
- Still having issues with FreeBSD 13.1 and meson. The new version of meson included with the OS causes issues, but using an older version of meson seems to work. Current ci install scripts specify version 0.49.2, but that is “very” old. Question for the techboard, what is the plan for supporting newer or updated versions. Lincoln & Owen will queue up a discussion with techboard on this topic.

Github Actions

- No updates.

Test Development

- Discussion on DTS unit test suite, per Lijuan's email
 - Proposal to remove some unit tests from DTS, where these test cases update dpdk source code. Intel team will make a patch. If extra information is needed from “inside” dpdk, tracepoints should be added to the upstream dpdk.
- Reviewers are still needed for DTS patches from Juraj

Any other business

- Next CI Meeting: September 1, 2022

August 4, 2022

Attendees

1. Lincoln Lavoie
2. Jeremy Spewock
3. Owen Hilyard
4. Juraj Linkeš
5. Nathan Southern
6. Ali Alnubani

7. Michael Santana

Agenda

1. General Announcements
2. CI Status
3. Test Development
4. Any other business

Minutes

General Announcements

- User Space Summit is still moving forward as a hybrid event (in-person and remote). Registration is open now, no deadline (until the event starts). We have 22 speakers selected, along with some wait-listed submissions. Agenda should be posted shortly.

CI Status

UNH-IOL Community Lab

- Some test report mails to the list are being blocked for “too many recipients.” Can we get the list permissions updated to avoid blocking messages from infrastructure? Original mail had 5 emails in To: and 5 emails in the CC:, where the list is created from maintainers and branch information. Ali will look into the list configuration.
- Planned DPDK maintenance window starting Monday, August 8, 2022
 - Jenkins software upgrades, along with plugins
 - Update Jenkins retention policy, logs and test artifacts will now only be kept for 8 months.
 - Deploy update to the patch apply system to use shallow and fresh clones for the beginning of each test run. This eliminates any git cache / sync issue.
 - Updates for some physical infrastructure within the lab, such as UPS systems.
- Should be rolling out the requested kernel build testing very shortly. This will test DPDK building against the “next” kernel (Linus tree), for kmods (kni and dpdk-kmods).
- OpenSSL testing is still pending patch to fix ipsec skipped tests. This is blocking rolling out this test. Patch is here: <https://patchwork.dpdk.org/project/dpdk/list/?series=23985>
- Lab secured an additional aarch64 server that will be coming online as an additional container job runner (i.e. compile and unit testing).
- Question for if there is an official list of distros that are supported by DPDK? Ideally, the lab would ensure these are maintained and tracked for updates. For example, are rolling distros, such as CentOS stream or arch expected to maintain support for testing. Similarly, how long are older releases expected to be maintained, such as a Fedora 31?

Intel Lab

- Updates via email (Lijuan had connectivity issues):
 - Intel is working on 19.11.13, and several build issues are found.
 - ice meson build error with gcc11.2 is fixed, bug-1055
 - unit_tests_eal failure is fixed.
 - gcc12 compiling failure with lots of modules and several bugs are recorded in Bugzilla.
 - A new testbed for 700Series NIC is being set up for functional smoke tests.

Github Actions

- CI had a small bit of downtime due to configuration issues within the lab, but it is up and running now. Upgrade work is still pending / planned for the robot / runner.

Test Development

- DTS WG has some patches into the dpdk main for review. Really need the DPDK community to participate in reviewing patches, so this work can be moved forward.
- These reviews are blocking other submissions that are dependent on these proposed patches. Trying to avoid creating too long of a patch dependency chain.

Any other business

- Next Meeting: August 18, 2022

July 21, 2022

Attendees

1. Lincoln Lavoie
2. Juraj Linkeš
3. Maksym Vynnyk
4. Ali Alnubani
5. Michael Santana
6. David Marchand
7. Jeremy Spewock
- 8.

Agenda

1. General Announcements
2. CI Status
3. Test Development

- 4. Any other business

Minutes

General Announcements

- Userspace Summit, September 6-8, 2022, <https://events.linuxfoundation.org/dpdk-userspace-summit/>, call for papers closes on July 22. September 6 will be the DPDK Hackathon, Tech Board Meeting, and Reception.

CI Status

UNH-IOL Community Lab

- ABI testing on DPDK main has been disabled, while things move towards the 22.11 LTS release. ABI testing will be “rebased” on that release once it’s complete
- Patch submitted for OpenSSL test case, to prevent IPsec cases from running when unintended.
 - <https://patchwork.dpdk.org/project/dpdk/patch/20220712141701.27797-1-jspewock@iol.unh.edu/>
 - https://bugs.dpdk.org/show_bug.cgi?id=1045
 - The patch is recommended for back-porting, so the LTS branches can run these unit tests.
- Both Broadcom and Mellanox systems should be back online. Need to confirm Broadcom results are reporting up to patchworks, Jenkins jobs are running.
- Monday will have some short downtime of the dashboard to roll out some small changes / improvements to internal infrastructure. This will not impact ongoing / running testing.
- Nearly complete with adding the test coverage map to the dashboard. Populates based on tests run during a specified interval (i.e. prior 2 weeks).
- Lab would like to plan for testing downtime in August, to allow for installing Jenkins updates. This will also deploy the changes to to only keep past 8 months of results artifacts (approximately 2 releases). This reduces the time required for Jenkins updates, when it has to inject and update old data (i.e. schema changes).
- During the same down-time, the lab will also be replacing some physical infrastructure (UPSes and switches).

Intel Lab

- No updates / attendance

Github Actions

- Minor issue with the Github runner, was offline for a day. There is some planned downtime this weekend for maintenance, shutdown Friday, brought back up on Monday.

- Team is still planning for an update / upgrade for the runner, this should have minimal downtime and the team will confirm when it happens.

Test Development

- Need feedback on the patch from the DPDK community on the first DTS changes / submission, <https://patchwork.dpdk.org/project/dpdk/list/?series=23961>
- Discussions around the library used for ssh control of the tester / dut and the underlying library.
- Another discussion around concurrency, and what can be run in parallel and how will that be accomplished.
- Looking into reworking how the traffic generators are implemented / abstracted in the DTS code. Owen submitted an example direction that is being reviewed / discussed.

Any other business

- Next Meeting: August 4, 2022=

July 7, 2022

Attendees

1. Lincoln Lavoie
2. Nathan Southern
3. Owen Hilyard
4. Juraj Linkeš
5. Ali Alnubani
6. Jeremy Spewock
7. Aaron Conole
8. Michael Santana

Agenda

1. General Announcements
2. CI Status
3. Test Development
4. Any other business

Minutes

General Announcements

- Next Gov Board meeting is July 12, 2022, Lincoln / Aaron working on the update slides for the community CI testing.
- Userspace Summit, September 6-8, 2022, <https://events.linuxfoundation.org/dpdk-userspace-summit/>, call for papers closes on July 22. September 6 will be the DPDK Hackathon, Tech Board Meeting, and Reception.

CI Status

UNH-IOL Community Lab

- We have started work on turning on OpenSSL unit testing across the entire test matrix.
 - IPSEC tests start failing instead of being skipped across a range of distros (Ubuntu 20.04, Alpine, Arch) when an OpenSSL vdev is present
 - We would appreciate a list of other vdev tests that should be turned on, since we have updated our wrappers around meson to allow vdevs to be added to unit tests.
 - OpenSSL testing is tracked here: https://bugs.dpdk.org/show_bug.cgi?id=1045
- Broadcom hosts should be coming back online this week. New hardware install and setup completed. This upgrades those hosts to Ubuntu 22.04.
- Lab has continued internal tech debt work on the dashboard and Jenkins pipelines, that is the background work needed to improve the dashboard performance and upstream the definitions of the test containers.
- Need to begin planning for hardware refresh cycles for bare-metal infrastructure systems. Some systems are now approaching 5 years of age. Similarly, NIC vendors should plan for hardware refreshes of the specific NICs. UNH will be reaching out to vendors about hardware planning over the coming weeks.
- Mellanox systems were offline this week, because of a hardware glitch, they should be back up early next week.
- Still need to look into better caching approaches for git clones, where patches are applied. Couple of discussion points, can the system do depth-1 clones. This will remove the git history from tarballs, which means bisecting will not be possible in the case of regressions. Desire to limit the load on the upstream git servers.

Intel Lab

- No updates.

Github Actions

- Still waiting on the go-ahead for upgrading the Jenkins infrastructure that is driving the zero-day robot. Setup is running on an old version of RHEL, so a base OS is required. Waiting on lab logistics.

- Aaron is looking into updating the system to apply the patches onto the branches other than the main dpdk.

Test Development

- The DTS Working Group would appreciate feedback on <http://patches.dpdk.org/project/dpdk/list/?series=23695>
 - A V2 is in the works with a few additions (New config parser, more verbose logging, a new dependency manager and a Dockerfile), but any feedback is useful and appreciated
- Work has started on packet generator abstractions and upgrading the test harness to use modern reflection helpers
 - If you have a packet generator you think should be available for use in DTS, please let Owen know, since the abstraction is being designed around the common capabilities of all traffic generators.
 - Planned packet generators are Scapy (for functional testing only), Trex and IXIA.

Any other business

- Next Meeting: July 21, 2022

June 23, 2022

Attendees

1. Aaron Conole
2. Owen Hilyard
3. Nathan Southern
4. Jeremy Spewock
5. Ali Alnubani
6. Juraj Linkes
7. Lijuan Tu

Agenda

1. General Announcements
2. CI Status
3. Test Development
4. Any other business

Minutes

General Announcements

- Bug smashing - will occur in Arcachon hotel,
 - Polling email from Maxime w/ info to gather consensus on what the event should focus on.
- 2-6pm local time, local only, tech board meeting will follow
- CfP, Events page, etc. will go live this week with information on registration, location, attendance data, etc.
- Tech writer - found a candidate and Bruce, Stephen, and Thomas will interview today @ 10am EDT
- UNH attending userspace - At least one of Owen or Lincoln will be attending, ideally both.
-

CI Status

UNH-IOL Community Lab

- Lab is looking into patch failing to apply (seems like a git cache issue)
 - Thinking that there could be an issue with the mechanism for mirroring git repo
 - Owen to send out update
 - Team to investigate alternatives to the current caching scheme, as well
 - Aaron to send a request to Thomas/David re: removing the cache and just pulling all repositories fresh
- Performing maintenance on the dashboard
 - Working on resolving load times (ETA: ~1 mo)
 - Adam working on publishing container / script definitions, and cleaning git history
- Owen trying to root cause some performance and stability issues with CX-4 systems
 - Ali: This RCA can be postponed. There is an internal discussion about sending new cards and replacing the existing hardware
- Question re: unit tests @ UNH on ARM, are the OpenSSL tests being run? If not, we want to enable these.
 - UNH runs the 'fast-tests suite
 - Owen to write up ticket to enable OpenSSL on ARM
 - ARM hardware may be constrained, and need to check the load to see whether additional tests can be enabled

Intel Lab

- Several build issues Intel was working on
 - All compiling issues seem to be fixed (Ubuntu, Fedora, etc).
- DTS working group working to merge DTS to DPDK main branch
 - Intel considering a CI design to take advantage of this for the future

- Some DTS patches don't seem to be recognized by patchwork
 - Ali to investigate
- Intel working towards 22.07

Github Actions

- No updates

Test Development

- DTS working group focusing on cleanup of DTS to get it maintainable, etc.
 - For the move to the main repository
 - Config file infrastructure rework
 - Moving to poetry for development environment deployment
 - First real patchset moving parts of DTS was submitted, basic SSH functionality
 - Awaiting community feedback

Any other business

- Next meeting, Jul 7, 2022
-

June 9, 2022

Attendees

1. Juraj Linkeš
2. Adam Hassick
3. Owen Hilyard
4. Lincoln Lavoie
5. Nathan Southern
6. Jeremy Spewock
7. Lijuan Tu
8. Aaron Conole
- 9.

Agenda

1. General Announcements
2. CI Status
3. Test Development

4. Any other business

Minutes

General Announcements

- DPDK User Summit - September 6 to 8
 - Approved by the Board to move forward, call for papers, forthcoming

CI Status

UNH-IOL Community Lab

- Continued work on the Broadcom NIC hosts, which have been installed with Ubuntu 22.04. This has caused some other required changes in DTS and TRex, due to the newer python versions, libraries, and newer GCC compiler.
- Alpine ABI testing should now be stable. Still need to look into an issue with the unit testing when running in the Alpine container.
- FIPS sample application updates were accepted, thank you Gowrishankar Muthukrishnan, who helped with some clean up items, since Brandon Lo left the project. Once these are merged, the lab will look to turn on the FIPS testing (likely in the July time-frame).
- Adam Hassick has started the process for the changes to publish the container and script definitions that are run in the lab for the unit and ABI testing. This is a “shell game” to not break the current system, that depends on the locations for builds and updates to the containers.
- New hire, Manit, will be working on the dashboard, and addressing some of the technical debt associated with page load times, etc.
 - The community lab would like to drop support for Internet Explorer on the Dashboard (lab.dpdk.org), is this acceptable?

Intel Lab

- Working on the bugfix for the RC1, bugzilla ID 1029, impacts an option on GCC 11 on RHEL 8.6 and Ubuntu 22.04.
- Still two other open bugs that need to be fixed as well (IDs: 1011, 1016), the team is working on the fixes, but not finalized yet. These only impact the Fedora 36
- Other OSes and tests are running and reporting up to patchworks.

Github Actions / OBS

- Officially dropped support for OBS, since it's been proved other OSes can be run through Github actions and runners.
- Aaron is planning to create a patch to remove Travis CI from the systems, just to make it clear to developers this isn't supported.

- Two patches under review, 1) for RISCv 64-bit support, 2) changing how logs are collected from the systems.

Test Development

- The DTS Improvement Working Group has decided to do a complete rewrite of the configuration system for DTS.
 - Currently, it uses INI files with additional parsing happening throughout DTS to enable lists and maps to be embedded despite lack of format support.
 - The available options and value syntax allowed in these INI files is undocumented, and the syntax for specifying a list or map varies by config file.
 - The new system will parse a single YAML file and then validate it against a JSON schema (YAML uses its JSON schemas), before converting it to strongly typed objects and performing data validation.
 - In the new system, the user will be informed of any mistakes in configuration as soon as it is possible to do, making first-time setup much easier.
- Continued work on a patch that will allow running the “Hello World” test suite, which runs the hello_world DPDK example.
 - This patch will mostly contain documentation and the components necessary for bootstrapping the distributed system, as well as the test runner.
- Some Interns from Intel are going to be helping to get DTS ready to be merged.

Any other business

- Next Meeting: June 23, 2022
- Need a volunteer to chair the meeting, Lincoln will be out of the office.

May 26, 2022

Attendees

1. Lincoln Lavoie
2. Nathan Southern
3. Owen Hilyard
4. Adam Hassick
5. Aaron Conole
6. Ali Alnubani
7. Jeremy Spewock
8. Juraj Linkes
9. Lijuan Tu

Agenda

1. General Announcements
2. CI Status
3. Test Development
4. Any other business

Minutes

General Announcements

- Updates from Community CI to the DPDK Governing Board May 31 meeting.
 - Need to sync with Honnappa on the DTS improvements updates, Nathan will reach out to him.
 - Aaron will provide some updates on the Redhat robot for the Github Actions. We should also mention the Github issues with the API did impact the project over a couple of weeks.
 - Lincoln to review the past tech releases from the community lab (since March) and provide those updates as well.
- DPDK project is looking to hire a tech writer for the project.
 - There are currently 16 applicants.
 - Nathan is working on pulling together the scope for the writer / position.
 - This position might be able to help with some of the DTS documentation updates, as that moves into the main DPDK repos and documentation.

CI Status

UNH-IOL Community CI Lab

- Windows Unit testing should now be enabled and reporting up. There was a small bug that prevented reports from upstreaming when this was first turned on at the end of last week (that's fixed now). Note, this is running only on the DPDK current main, and not LTS branches, as they do not have the fixes required to run the unit testing on Windows.
- Alpine Linux unit testing is also now running / reporting up for main DPDK branches.
- Continued to investigate the random issues seen in the Windows compile / unit environment. This may be caused by a process not ending from a previous compile and "blocking" the clean up (file deletion) of the environment by Meson. We are still debugging the problem.
- Team is still working on bringing the Broadcom NIC hosts back online on the new hardware.
- Still waiting to hear back from the arm team about the hardware issue we ran into with the Dell server (bad RAID controller), that is blocking bringing the arm / ampere systems online.

- Crypto maintainers have been reviewing Brandon's patches on the FIPS testing and updates to support the new NIST format

Intel Lab

- Intel is still working on updating the test beds for the 22.07 releases.
- Still seeing 3 compile issues with the different OS updates
- Ubuntu 22.04, kni (https://bugs.dpdk.org/show_bug.cgi?id=1017)
- Fedora 36 fails with GCC 12, issues with vhosts (possibly others) (https://bugs.dpdk.org/show_bug.cgi?id=1016)
- FreeBSD 13.1 is facing an issue with GCC 10, issues may have already been fixed by Bruce (https://bugs.dpdk.org/show_bug.cgi?id=1014). There were also some other issues with 13.0 on unit tests (https://bugs.dpdk.org/show_bug.cgi?id=761) that are likely still open.

Github Actions / OBS

- Still working through the upgrade planning for the zero-day robot, there have been a couple of issues that they are working through. Working on the upgrade as a parallel system, so it can "swap into live" when ready.

Test Development

- DTS improvements team is moving towards the first patches to move in. Patches are trying to break up DTS.
- Owen is working on an upgrade to the config file handling, moving into YAML, with a schema validation. Should be ready around next Wednesday's DTS meeting.
- Added a DTS future branch, that will be used for moving things into the DPDK main repos, while refactoring efforts will be in the future branch.

Any other business

- Next meeting: June 9, 2022

May 12, 2022

Attendees

1. Lincoln Lavoie
2. Aaron Conole
3. David Marchand
4. Juraj Linkeš
5. Michael Santana
6. Lijuan Tu

Agenda

1. General Announcements
2. CI Status
3. Test Development
4. Any other business

Minutes

General Announcements

- Nothing specific

CI Status

UNH-IOL Community Lab

- Still working to bring the new arm / Ampere systems online, stability issues in the tester server traced to a failing RAID controller, working with the arm team to get this through the RMA process.
- This week (May 9 & May 16) are finals, so will have slower progress on new items, then will transition to summer time (full-time) hours for the team.
- Fixed an issue with the ABI tests failing (runners were low on disk space).
- Working to bring the Broadcom NICs back online for DTS functional / performance testing, on the new hardware. OSes are installed, working to get DTS installed and running properly.
- Unit testing on Alpine Linux is fixed (22.03 has the fixes), need to close: https://bugs.dpdk.org/show_bug.cgi?id=756 Need to get this enabled to report upstream to patchworks.
- Windows unit testing should be coming online as soon as possible, as upstream / mainline DPDK now supports running the tests. Unit testing needs to be excluded from LTS testing for now (i.e. older DPDK branches will not run).
- Windows compile runs have seen a couple of random failures, where the process seems to end / exit before the actual meson compile starts (log just ends).

Intel Lab

- Updating the test beds for the 22.07 release. Found an issue with compiling the latest, for Ubuntu 22.04, because of libssl-dev errors. That's been disabled for the time being. This needs to be reported up to the dpdk bugzilla.

Github Actions / OBS

- Redhat needs to plan for an upgrade of the zero-day robot, which will create a little down-time / gap in the testing. Aaron will send out notices before the actual work begins.

- Github actions infrastructure had an outage, caused by changes on their (Github) systems. Aaron and team had deployed a work around, but they would like to “roll back” to the “correct” code. They’ll leave some of the work around code in place (future protections).
- Planning to drop Travis CI from the main branch configurations, as it’s no longer being well maintained / used at this time.
- Probably going to drop efforts on OBS, and focus on working through the Github Actions infrastructure, as they are having success adding different containers / OSes through this setup.

Test Development

- DTS WG Meeting Minutes:
<https://docs.google.com/document/d/1E2mkTHNQ5vylN1JvnJTil15cjacUTXP7LXb9K960Vxs/edit>
- Still working on creating / reviewing the first patch series to submit to the dpdk main repos.
- Some recent patches to DTS are still submitting test case code that modifies the DPDK main source. The teams all previously agreed this approach should not be used and work is already started to “undo” past tests that used this approach.

Any other business

- Next Meeting: May 26, 2022
- Plans for the DPDK User Space Summit in September? Aiming to have a good CI “presence” during the event.

April 28, 2022

Attendees

1. Lincoln Lavoie
2. Juraj Linkeš
3. Michael Santana
4. Ali Alnubani
5. Nathan Southern
6. Thomas Monjalon

Agenda

1. General Announcements
2. CI Status

3. Test Development
4. Any other business

Minutes

General Announcements

- There are a number of open patches on the dpdk-ci repo that need review. Thomas volunteered to look at them this afternoon.
- User summit is planned for September (3 day event, 1 day workshop, 2 day presentations), one potential topic for the CI space is an update / overview of the DTS improvements and how developers can support / leverage that testing. The workshop day is open for proposals (i.e. hackfest focus, group development, training, etc.), note the room is big enough to support 2 to 3 groups.

CI Status

UNH-IOL Community Lab

- UNH-IOL increased the disk space for the 3 container runners (unit / compile / abi testing).
- FIPS discussion has continued on the dev list, with a community member volunteering to take some other algorithms that Brandon hadn't updated yet.
- Still working on the Arm ampere server deployment. Owen was troubleshooting some stability issues for the DTS test cases on those systems, before we enable the upstream reporting. This will enable both the functional and performance bare-metal testing.
- Hardware came in for the Broadcom host repairs, Jeremy has been working to reinstall the OS on the new systems and get those configured to run DTS testing again.

Intel Lab

- No updates.

Github Actions / OBS

- No update on Github actions.
- Future work still underway for enhancements to the zero-day bot, need to update podman on the systems, which is going to take a little longer.
- No action on OBS.
- OBS does provide aarch64 systems, which is missing in Github Actions coverage.
- Arm was looking into providing resources for Github Actions, but that work got stalled a couple of months ago. Juraj can look into this with the arm folks, just to get a check on the status, etc.

Test Development

- <https://docs.google.com/document/d/1E2mkTHNQ5vylN1JvnJTil15cjacUTXP7LXb9K960Vxs/edit#>
- Identified the first 4 areas to propose as merges into the DPDK main repo.
- DTS will have the future-dts branch, which will be used for CI testing (i.e. incoming code changes), to keep the DTS in DPDK main stable. Team will need to define a merge strategy for how stable changes are merged into DPDK main.

Any other business

- Next Meeting: May 12, 2022

Apr 14, 2022

Attendees

1. Lincoln Lavoie
2. Brandon Lo
3. Aaron Conole
4. Nathan Southern
5. Juraj Linkeš
6. Ali Alnubani
7. Lijuan Tu
- 8.

Agenda

1. General Announcements
2. CI Status
3. Test Development
4. Any other business

Minutes

General Announcements

- Need general updates / deck updates for the governing board on April 19. Aaron will work on getting lab updates prepared.

CI Status

UNH-IOL Community Lab

- Brandon Lo will be graduating in May and leaving the UNH-IOL Community Lab at the end of April. Adam Hassick (existing team member) will be taking over Brandon's work on the CI testing containers / unit testing etc.
- Jeremy Spewock will also be working with the DPDK teams, to help take over some system administration roles.
- Owen Hilyard will still be participating in the team and is focused on the DTS improvements and bare-metal testing.
- Community Lab SOW for 2022 was completed by LF.
- Broadcom NICs / DUT is currently offline, because of a hardware failure. Replacement hardware has been ordered, ETA is next week.
- Lab is still working to complete the setup of the ARM Ampere hardware. Systems required some firmware updates on the raid and bios to get to a stable state.
- VirtIO smoke testing is now online / reporting up to patchworks for the Intel systems. Working on fixing the issues with VirtIO performance tests on the Intel systems. To support the other systems, more general fixes are needed, as the DTS implementation assumes (hardcodes) that Tester and DUT are the same system. This is not the case for most Community Lab deployments. Current work plan is to address those fixes as part of the DTS improvements work.
- Windows unit testing has been set up to run, but is waiting on one remaining patch to merge to get a clean / all passing run on the main DPDK branch. Once that is confirmed / merged, we'll enable the Windows unit testing in the CI to automatically report up to patchworks.
- Continuing to work on the FIPS testing / sample application fixes to support the new NIST API system. Patches submitted, but not merged. Need support from the maintainers to merge changes, to enable some testing to "turn on" while the other parts of the sample application are brought up to date.
 - <http://patches.dpdk.org/project/dpdk/list/?series=21426>
 - <http://mails.dpdk.org/archives/ci/2022-January/001611.html>

Intel Lab

- Issues on the system were being missed, because of the date exposed for the Patches API, this was fixed by using the Event API.
- Still having an issue with 502 errors from the Patchwork API server. Working on trying to lower the frequency of "hitting" the patchwork API. Ali has been looking into this, but hasn't come up with a solution yet.
- Working on the DTS merge into DPDK, look at how the Intel CI systems can support DTS testing / changes merging into the DPDK main branch.
- Intel is working on the validation of the LTS branches (19.11 and newer).

Github Actions / OBS

- Currently a partial outage on the Github actions REST interface. The robot / runner is trying to work around it, but it may be causing missing reports for some patches. Aaron has asked for an ETA on when the REST API will be fixed, but no update yet.
- Series applied to enable Fedora 35 testing, in addition to the Ubuntu testing. This is based on adding the containers to the Github systems. Solved the image pull issues, by pulling from the Fedora registry directly.

Test Development

- DTS Improvements WG:
<https://docs.google.com/document/d/1E2mkTHNQ5vylN1JvnJTil15cjacUTXP7LXb9K960Vxs/edit#>
- Team is focused on reviewing / dividing up the patches for the initial submission of the framework components into the DPDK main. Aiming to get this in for the 22.07 release (it's the goal).
- Meeting happens each Wednesday, 9am Eastern USA time.
- May need some CI resources for the effort, especially as the framework is being divided up.

Any other business

- Next Meeting: April 28, 2022

March 30, 2022

Attendees

1. Lincoln Lavoie
2. Brandon Lo
3. Nathan Southern
4. Michael Santana
5. juraj.linkes@pantheon.tech
6. Ali Alnubani
7. Aaron Conole

Agenda

1. General Announcements
2. CI Status
3. Test Development
4. Any other business

Minutes

General Announcements

- Welcome Nathan Southern .

CI Status

UNH-IOL Community Lab

- SOW goals and priorities were approved by the tech board, SOW sent to LF for signatures.
- Two new ARM bare-metal systems are set up in the lab for internal testing. Systems include Intel and Mellanox NICs. ARM system has the new Altra CPU.
- ABI testing is upgraded to v22.03.
- Working on getting Windows unit testing running in the lab, per request from Tyler Retzlaff. Latest patches should enable these tests to run now.
- Continuing to work through updates to the FIPS sample applications to expand the test coverage.

Intel Lab

- No updates.

Github Actions & OBS

- Michael has been working on security improvements for the testing bot to runs the Github Actions scripts.
- ABI testing was also updated to the v22.03 release.

Test Development

- DTS WG minutes are here:
<https://docs.google.com/document/d/1E2mkTHNQ5vylN1JvnJTil15cjacUTXP7LXb9K960Vxs/edit#heading=h.12ft7412ly1n>
- Patch series is being reviewed to merge the DTS framework into DPDK repo, to meet the 22.07 RC1 goal.
- Owen is working on a proof of concept for python bindings to call DPDK moire directly from DTS, so we will not have to rely on parsing the testpmd CLI output.

Any other business

- Next Meeting: April 14, 2022

March 17, 2022

Attendees

8. Aaron Conole
9. Ali Alnubani
10. Brandon Lo
11. David Marchand
12. Lijuan
13. Juraj Linkes
14. Michael Santana
15. Thomas Monjalon

Agenda

5. General Announcements
6. CI Status
7. Test Development
8. Any other business

Minutes

General Announcements

- SOW voting needs to happen in the tech board - requested by Gov board. Aaron to send a reminder as well.
- New release

CI Status

UNH-IOL Community Lab

- Currently getting the 2 new ARM hosts set up in the lab.
 - Received the servers, currently racked and integration ongoing
 - Expectation is that it will be done this week, with internal testing next week
- FIPS work is continuing to expand after some internal lab work.
 - Making progress, but sidelined to get the ARM servers up and running
- FreeBSD 13 enabled for compile testing; working to get the ABI testing back up again.
- There are a few outstanding patches (ACVP tool related) to be reviewed
- ABI version testing should be upgraded to v22.03

Intel Lab

- BZ 939 - fixed

- Busy with release testing
- Identified patches without series ID, patchwork was down at that time, which looks to be root cause. Will notify of any issues.
- Question about patch testing dates. We should rely on patch creation date, rather than patch author date.
- Recommend to use the events API rather than the patches API
- ABI version testing will be upgraded to v22.03

Github Actions & OBS

- Looking at better isolation of the 0-day robot for more security / better resource utilization
- Benefit of OBS is to get better distribution coverage - at the moment GitHub actions isn't working for other distributions, due to timeouts.

Test Development

- Nothing to report at the moment

Any other business

-

March 2, 2022

Attendees

16. Lincoln Lavoie
17. Brandon Lo
18. Aaron Conole
19. Liang-min "Larry" Wang
20. Michael Santana
21. Lijaun Tu

Agenda

9. General Announcements
10. CI Status
11. Test Development
12. Any other business

Minutes

General Announcements

- Nothing specific for this meeting

CI Status

UNH-IOL Community Lab

- Working on deploying test coverage measurements (lcov / gcov) for the unit testing. First need to get this running stable within the test, then work on a solution to parse / store metrics to track over time.
- FIPS work is continuing, working with members from Intel to get all other algorithms working with the ACVP API.
- RTE Flow & VirtIO should be deployed.
 - VirtIO can only be run on the Intel NIC x86_64 systems until DTS upgrades generalize the required test topology.
 - RTE Flow is running periodically, until some failures can be addressed. Emails are being sent to RTE flow maintainers.
- SOW for 2022 is going to the governing board for final review on March 8.

Intel Lab

- Removed the icc_build for cntx modules in the CI.
- Found some issues with patches that were missing the Series ID.
 - Seems like there might be a bug in patchworks.
 - An Example:
<http://patches.dpdk.org/project/dpdk/patch/20220217150239.69876-1-bruce.richardson@intel.com/>
 - It seems like, without the Series ID, all testing and checks are missing the patch, including the check patch scripts.
 - Lincoln to reach out to Ali Alnubani about the issue, will copy Lijuan and Aaron.
- Around the RC1, there will be a lot of patches to be tested / queued. Intel is receiving a 502 error from the server sometimes (fairly frequently).
 - May be caused by polling vs event subscription. Can try to lower the frequency or change the back off time.
 - Aaron confirmed the github action scripts see that occur sometimes and have a recovery built into wait and then try again.

Github Actions & OBS

- No updates, maintainers tied up in other products for the time-being.

Test Development

- DTS improvements work is still ongoing, aiming to migrate DTS test suite into the DPDK repo for the 22.07 release
- Work is in progress to fix test suites that directly modify DPDK source code before compile / test run.
- Working on tool chains for developers, including lint and static analysis for python (DTS' language).
- Dropping / removing redundant test suites (there was an ABI test and some calls to unit testing).
- Next Meeting: March 9, 2022
 - <https://armltd.zoom.us/j/97503259680?pwd=VVlmWnlnTXJkVGkwR2JOU3R3b3Vndz09&from=addon>
- Notes:
 - <https://docs.google.com/document/d/1E2mkTHNQ5vylN1JvnJTil15cjacUTXP7LXb9K960Vxs/edit#heading=h.12ft7412ly1n>

Any other business

- Next Meeting: March 17, 2022
 - Note, Lincoln will be on vacation during this week
 - Aaron will be chairing the meeting.

February 17, 2022

Attendees

1. Lincoln Lavoie
2. Aaron Conole
3. Brandon Lo
4. david.marchand@redhat.com
5. msantana@redhat.com
6. lijuan.tu@intel.com
7. alialnu@nvidia.com

Agenda

1. General Announcements
2. CI Status
3. Test Development
4. Any other business

Minutes

General Announcements

- None

CI Status

UNH-IOL Community Lab

- Arm is working to send some additional systems into the lab
- AMD has joined DPDK and is working to secure systems to send into the lab
- Subset of RTE flow testing ready to be deployed
 - Limited RTE flow support in testpmd forced a reduction in the test cases run. Discussing approaches to extend / add more support / coverage in testpmd, so we can re-enable the cases.
 - Tests that are compatible with testpmd have seem to have many failures
 - Not suitable for general CI at this time since it would generate too many false negatives. Setting up the system to report failures to the RTE maintainers.
 - There will be bare-metal downtime on Monday, Feb 28, to enable the RTE testing, which depends on an upgrade to the latest DTS.
- Virtio is being tested internally
 - Seems to require a physical loopback (using a cable) on a single system
 - This is not compatible with many of the community lab systems, and the test suites may need to be rewritten to accommodate a two system configuration.
 - Virtio will be deployed on the two compatible systems alongside the RTE flow deployment
 - The “rewrite” of DTS to support the more general configuration will be taken as part of the DTS improvements work.
- FIPS test still waiting for review of the patches to DPDK main and DPDK ci
 - Responded to questions from reviewers last week, but no further response
 - Sent out a follow up email this morning
- Coverity upgraded to 2021.12
 - Created 77 new issues and closed 50 issues reported by the older tool.
- Sonar Cloud scanning has also been turned on, follows similar frequency to Coverity
 - Reports are being sent to the dev mailing list.
 - If you'd like to be added to the DPDK organization on the web interface, please let us know, and we can add your account.
- Working to finalize the 2022 SOW objectives this week, followed by final review by the tech board & governing board.

Intel Lab

- Focused on the RC1 validation for 2022.03. Running into issues with the icc builds, being discussed in techboard currently.
- Run into issues with 2019.11 compile, there is a module libtmp-net-ice, the fix can't be back ported to the older LTS branch. Those tests are now disabled on that module.
- RC1 reports have been sent up to the release meetings.

Github / OBS

- No updates, the team hasn't had time to come back to finish up the OBS scripts.
- Container based build in Github actions based distro based building can be "flaky" based on container image pulls (if the pull fails, it looks like the build fails). OBS is likely the better approach for distro based building.

Test Development

- DTS improvement WG is continuing to meet: [DTS Working Group Minutes 2022](#)
- Next meeting is February 23, 2022, 2pm UTC
<https://armltd.zoom.us/j/97503259680?pwd=VVlmWnlnTXJkVGkwR2JOU3R3b3Vndz09&from=addon>

Any other business

- Next Meeting: March 3, 2022
- Note, March 17, Lincoln will be on vacation, need someone to chair the meeting.

February 3, 2022

Attendees

1. Lincoln Lavoie
2. Brandon Lo
3. Ali Alnubani
4. Maxime Coquelin
5. Michael Santana
6. Aaron Conole

Agenda

1. General Announcements
2. CI Status
3. Test Development

4. Any other business

Minutes

General Announcements

- None

CI Status

UNH-IOL Community Lab

- Unplanned maintenance
 - There was a significant CVE on polkit last week that required downtime to implement a patch across all systems in the lab.
- FIPS
 - Changes to DPDK and DPDK-CI are waiting for review.
 - Internal scripts to deploy FIPS testing are completed.
 - Going to only run this test on crypto changes, based on where the patch “applies” within the directory tree.
- FreeBSD 13 compiled and ABI disabled
 - Looking into why FreeBSD 13 now fails to compile tarballs that compiled before. Only change to the VM was rebooting during the maintenance process for recent CVE.
- VirtIO
 - Scripts for generating VM are complete, and need to be submitted as a patch for DTS.
 - Smoke tests and basic cases are ready to be turned on in CI, just need to get this enabled across the different bare-metal platforms.
 - Maxime Coquelin offered to help with any issues encountered in setting up the tests for virtIO.
- RTE Flow
 - Still working on the rollout of this testing. This has driven a number of changes / patches needed into DTS, as things have changed since this was originally developed.

Intel Lab

- Lunar New Year Holiday

Github Actions / OBS

- No Updates

Test Development

- DTS WG continues to meet and move forward. Aiming to merge DTS into the DPDK main repo with tests that are currently used in CI as part of the 22.07 release.

Any other business

- Next Meeting: February 17, 2022

January 20, 2022

Attendees

7. Lincoln Lavoie
8. Lijuan Tu
9. Brandon Lo
10. Owen Hilyard
11. Juraj Linkeš
12. Michael Santana
13. Ali Alnubani
14. Henry Nadeau
15. David Marchand
16. Thomas Monjalon

Agenda

5. General Announcements
6. CI Status
7. Test Development
8. Any other business

Minutes

General Announcements

- No updates

CI Status

UNH-IOL Community Lab

- FIPS

- Overall refactors to the FIPS validation example application are done, need to work on a script that handles submitting the results back to the API
 - Working to publish the script that interacts with the ACVP API as a patch to the dpdk-ci repo
 - Code should be out for review by the end of next week at the latest.
- DTS upgrades completed across the bare-metal hardware, to roll out changes (in DTS) to enable RTE Flow testing to be turned on.
 - Sending up a patch to DTS to repair an issue with how TRex is started for the NIC single core (is hardcoded to be different between vendors), v2 patch is being worked on.
- Still working on VirtIO VMs and rolling out the first parts of that testing. Some parts of the DTS VirtIO tests require updates (i.e. remove assumptions about physical setup, remove modifications made to DPDK code during testing, etc.) That DTS update work is proposed as part of the 2022 work plan. Aiming to turn on the “other” virtIO test cases that don’t require repair by the end of next week. Patch for VM generation should be up to DTS next week as well.
 - VM generation scripts are intended to generate VMs for both x86_64 and aarch64 platforms, but generation has to be done on the target architecture (i.e. no cross builds). Generation tested under an emulated VM.
 - Should also support PowerPC architecture, but this is not tested.
- Made some tweaks to the 20.11 and 21.11 LTS periodic testing to skip Alpine Linux tests for 20.11 (not supported, etc.).
- Have a plan to leverage a local GitLab instance to host patch sets as pull results to enable analysis of changes / deltas for the static analysis tools. Work on the tool chain to implement that has started. Jenkins can then use the pull results as the input to the static analysis pipelines
 - If this is as successful as we believe it could be, we may be able to expose the GitLab instance and store the test artifacts alongside the PR (i.e. link from patchworks or the dashboard could take you to the “PR” for the patch, where artifacts are available.
- 2022 Planning: [DPDK 2022 Work Planning](#)
 - Please add feedback to this document ASAP. Lincoln will send a reminder to the tech board email list well.
 - Needs to be finalized by the end of January.

Intel Lab

- Intel CI is recovered since the upgrades and has been running since [Jan 7, 2022](#).
- Upgraded refreshed OSes and prepared for the 22.03 release.
- Planning for the upcoming Chinese New Year holiday (end of January / early February).

Github Actions / OBS

- No updates.

Test Development

- DTS WG meeting (January 19, 2022)
 - Work is still ongoing to remove places where DTS modifies DPDK code during testing.
 - Request for comments on the DTS contribution guidelines (https://docs.google.com/document/d/1G7_AEA-4MAAd88bxjfP-IOcly_6mnrMz3HCsUI8e-NN4/edit?usp=drive_web&oid=111054014354037689830), based on DPDK guidelines, with additions for python.
 - Some code was found with GPL license headers and other work with no identified license header. Honnappa is raising this with the tech board.
 - Investigating documentation generation tooling in prep for moving into DPDK repos.
 - Aiming on moving in the framework and CI test suites to the DPDK CI repo by the 22.07 release.
 - Looking into pinning the python version to 3.6 for DTS (requesting comments via email).

Any other business

- Next Meeting: February 3, 2022

January 6, 2022

Attendees

17. Lincoln Lavoie
18. Owen Hilyard
19. Brandon Lo
20. Henry Nadeau
21. Aaron Conole
22. Ali Alnubani
23. Michael Santana
24. Lijuan Tu

Agenda

9. General Announcements
10. CI Status
11. Test Development
12. Any other business

Minutes

General Announcements

- Happy New Year!

CI Status

UNH-IOL Community Lab

- Results log archives. Currently, logs and artifacts are kept indefinitely, with these maintained / stored within Jenkins. This drastically increases the Jenkins startup and migration times (i.e. when it migrates records during an upgrade). What is the minimum time to store these artifacts, 8 months has been suggested (approximately 2 releases)?
 - Need to post this question to the tech board, Aaron will add this to the next meeting agenda (1/13/2022).
- 2021 Retrospective: 📅 DPDK Community Lab 2021 Retro
- 2022 Planning: 📅 DPDK 2022 Work Planning
- ABI tests are now enabled in production
 - Currently testing against v21.11.
- FIPS
 - Need to plan out the deprecation of non-JSON test vectors from FIPS for the example application.
 - Currently able to process and output the correct result for AES-GCM tests from a NIST test session's request file.
 - More work needs to be done to finish converting different algorithms to match the new JSON specification.
- Virtio
 - Working on creating a replicable way to create the VMs
 - Scripted creation currently using libguestfs (<https://libguestfs.org/>), where this would be contributed up to and maintained as part of DTS.
 - Have working VMs (Ubuntu 20.04, checking some failed tests and crypto devices), still working on Fedora family OS.
 - Next, work to turn on these tests on in the lab.
- Static Analysis
 - All static analysis can now run automatically
 - Produces ~8000 issues
 - Unable to show only issues for a particular patch due to limitations of Jenkins
 - Jenkins expects a Pull Request development model
 - Requested help from the github actions team in getting patches into a Gitlab instance, which would enable this functionality.
 - Could we leverage the github robot tests
 - Robot pulls all patches, clones a repo, and then applies all patches to that repo and pushes that to the github (as a new branch). Github Actions is

configured to run per commit on a branch. Robot then polls for the Github action output.

- Going to have an offline discussion with Aaron about the OVS robot.

- Spell Check
 - Patch has been submitted to patchworks any suggestions/changes are welcome. If there are any concerns with the patch please feel free to leave comments on patchworks. The flags are mainly used for CI but some may find them helpful for their use case.
 - The script outputs to console the list of potential errors it found, as well as an error count for the file.
 - Any false flags should be added to the dictionary and submitted with the patch as our CI will report the false flags back if not.
 - The regex file currently isn't in use, but should help anyone remove any errors that can't be resolved through a dictionary entry.
 - <http://patchwork.dpdk.org/project/dpdk/patch/20211201165954.16153-1-hnadeau@iol.unh.edu/>
- Issue Tracking
 - SPDK is still disabled, tracking here: https://bugs.dpdk.org/show_bug.cgi?id=876
 - Mellanox 25G and 40G NICs are disabled for performance testing, tracking here: https://bugs.dpdk.org/show_bug.cgi?id=844
- SonarCloud Analysis
 - https://sonarcloud.io/summary/overall?id=DPDK_Official
 - Reporting up as of yesterday, will run 3 times a week (M, W, F) and reports are all based on the main branch
 - Information under overall code (new code isn't supported for our use)
 - Still working on the reporting process (i.e. emails to patchwork / devs).
 - May also be able to leverage the git-repo-branch work discussed above for the static analysis.

Intel Lab

- CI Upgrades are still in process, had some internal failures last week, so about 1 week delayed in coming back online (aiming to be back online next week, January 10).

Github Actions / OBS

- Working with a group inside Intel on OVS testing for AVX512 (with DPDK).
- No progress on the non-Ubuntu containers within Github actions.
- OBS scripts are still pending the final polish and push to production.
- Aaron reached out to ARM folks about the Github integration (github actions runner).

Test Development

- DTS Group met yesterday, will be meeting each Wednesday, 9am Eastern USA time.
 - <https://armltd.zoom.us/j/97503259680?pwd=VVlmWnlnTXJkVGkwR2JOU3R3b3Vndz09&from=addon#success>

- Group is working through documentation for committer guidelines, etc. Goal to get this out to the community for wider review after next week's meeting.
 - https://docs.google.com/document/d/1G7_AEA-4MAAd88bxjP-IOcly_6mnrMz3HCsUI8e-NN4/edit

Any other business

- Next Meeting: January 20, 2022