

# 2023-10-17 Meeting notes

## Date

17 Oct 2023

## Attendees

- [Kieran Coghlan](#)

## Goals

## Discussion items

| Item   | Notes   | Links |
|--------|---|-------|
| Agenda | <b>RDK6</b> <ul style="list-style-type: none"><li>• Dac-Sec in rdk-next not turned on , cherrypicked to rdk6_main (LGI ticket) - not looking for certs. People / PIF can turn on themselves with their certs enabled in build.</li><li>• BRCM could take the RC candidate and fork - their changes not to be merged into RDK6 as it could adversely impact RDK6.</li><li>• Cobalt 24 being worked by App team for RDK6. Will need RDK6 updates, new recipe, DAB - independent components /changes. Missed RC.3</li><li>• RC.3 recut with revert of Rpi change (Pradeep/Deepthi agree basic sanity test gap) - will be available tomorrow. (builds in progress.)</li><li>• Need gap of a few days between rdk-next and rdk-main merge.</li></ul>   |       |
|        | <b>Q3</b> <ul style="list-style-type: none"><li>• RDKV Aamp issue - offending change identified. To be reverted and tried (was a specific change for Foxtel). James to provide Nightly with change reverted for platform teams to try.</li><li>• Gaps in testing - need dedicated manual testers and reviews from engineering leads.</li><li>• Hotfix for RDKV (sleep fix) required. TDK testing started.</li><li>• RDKB testing coming to end - should be able to release this week.</li><li>• Test results / documentation with Rama to update for RDKB.</li><li>• Might be an idea to drop camera next year.</li></ul>   |       |
|        | <b>Scanning</b> <ul style="list-style-type: none"><li>◦ Hackathon branches are an issue - not good, one is 320 MB into RDK_Apps.</li><li>◦ Retries issue on Github is quite rare (once a quarter) - Martin to open ticket for better error handling</li><li>◦ Alan investigating GitSecrets client side hooks with Steve.</li><li>◦ Needed to enable https to get UI to work - but introduces scan timeout issue- workaround is to do port forwarding to access the UI.</li><li>◦ Reading up on Coverity. Bitbake build for component in place. Options to run binary with files as parameters. will need to install coverity on elastic slaves and add coverity builds.</li><li>◦ Coverity exe used to generate json file - may be sufficient. Otherwise will need to look at soap/rest api. Need mapping to know which recipe is used for building a component.</li><li>◦ XGuardCert Comcast tool to be investigated</li><li>◦ Rialto coverity report created - follow up call with Luke of Sky needed.</li><li>◦ Supporting Alan on Coverity - connected with Tony Colclough also.</li><li>◦ Created Approval request for Jeremy's icons.</li><li>◦ Martin to address KB updates on return from vacation.</li><li>◦ .</li><li>◦ ermgr scanned.</li><li>◦ KB upgrades to be discussed with JAMES - Thurs/Fri.</li><li>◦ .</li><li>◦ 3 components opensourced</li><li>◦ Scanned repos in Comcast in preparation for hosting.</li><li>◦ Coverity upgrade to be done this week</li><li>◦ Target Friday for Protex KB upgrade.</li><li>◦ ermgr opensourced but recipe not moved / updated yet.</li><li>◦ .</li><li>◦ KB upgrade failed - synopsys ticket opened. Need dev license</li><li>◦ Working on dac_seec and LISA.</li></ul> |       |
|        | <b>Lab</b>  |       |

- Status
  - Everything setup manually first - Plan to work with Cedric to add lab slaves to Cedric's Puppet.
  - Rack 2 - switch is fubar - not currently used so won't spend too much time on that.
  - Rack 4 has intermittent IOLAN issues - low priority
  - Rack 5 - 12 slots out of 16
  - 5GHZ WiFi connection failures (40%) - needs ticket and investigation.
- Priority now: Stormtest->CATSPuppet
- Providing access to CMFLab to RDKM team would expose .netrc passwords etc. and give access to soc code. So problematic.
- Python 2 special on old stormtest server is fine as is - won't update
- PFSense has different base OS - need to figure out how to handle that - reading documentation
- Rpi3 Broadband sanity test issue ([REFPLTB-2296](#)) - being worked. (Not seen on Rpi-4) rpi-4 default now, rpi-3 nightly.
- CATS Power requirements worked out by Alan - 33KW (PIF team may also be able to provide input). Mapping out circuitry of racks
- Waiting on electrician for transformer
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- One transformer arrived. NSC rack removed. Next step is for 2nd transformer to arrive, electrician to lift floor tiles to provide power circuit. Will do PFSense at same time
- Need to request CATs support person in advance. Alan to get electrician timelines from Sue.
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- 1 transformer in place - electrician trying to source 3 phase one.
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- Rack moved to make space for CATS rack - power moved by electrician
- 3-Phase transformer - bespoke being sourced by electrician.
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- Completed NW and power change connections to make way for CATs rack. VM updates in progress. Alan to add checklist for James for when he is out.
- Metric report being generated
- Griffin has potential HD issue - repowered up and okay for now.
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- Hybrid networking changes complete (avahi support)

#### Test

- DAC tests to be added or refapp2 - once 23.0.1 migration is complete.
- BRCM RefApp2 broken
- Rpi-4 migration in progress.
- Next up supporting Aamp team CI.
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- Rpi-4 CI done - adding RPi4s to racks this week.
- Supporting BRCM team on serial port issues
- Need to reflash realtek boards due to OTA issue
- Complete WLPL investigation.
- Next - support AAMP CI.
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- Imports / Roundtripping taking a lot of time
- Lost day to realtek issue.
- Rpi-4 migration in progress
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- Rpi-3 to be removed from contribution testing (will still do nightly). Some Rpi3s will continue to be used for Aamp CI.

#### • Metrics / Tooling :

- TruffleHog now reporting to slack for Gerrit and GitHub - if issues detected - DSL changes to be pushed. Martin and Stephen to be added to channel.
- Jenkins DSL pipeline triggering - put on hold for now
- Migrated secrets scanning to python3
- Need table on TruffleHog/GitSecreta/Coverity on Gerrit , on Github, automated/manual, contributions.
- Coverity:
  - Challenge with Coverity will be mapping of recipes to components.
  - Refocus on coverity contribution scanning for next month.
  - Analysing rdk coverity builds, Charlies web pages, Simon's scripts. Got new slave to work on Coverity.
  - Lots of work on Coverity - documented on wiki. (Builds, Streams / Projects). Static analysis on all components - not just C (Javascript/Python etc.)
  - Steve to create metadata tuple recipe - component.
  - CMF-13655 coverity contribution - get POC on internal jenkins hardcoded with Utopia to begin with.
  - Coverity scanning - reading up on synopsys documentation. Did build all and produced utopia report.
  - Next step build Utopia in isolation. Need to have meeting with Simon/Martin to clarify how existing tools handle changes.
  - Martin to reach out to Tony Colcough to request meeting on on what they do in Comcast.
  - Coverity pipeline put in place by Simon - for contributions. alan looking at data - analysing existing versus new - generate report that identifies changes.
  - Update from Tony Colcough - provided link to what they do, webportal available for developers. Nightly builds - can isolate newly occurring issues only.
- Contribution metrics pages updated for August
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- Metrics report released today.
- Coverity - going through Martins report. Next step contribution identification - need to identify lines changed - Steve working on providing that
- This week focus on isolating changes to files.
- Alan to provide table of tools - Gerrit & GitHub status
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- Script to identify line numbers of change set in Gerrit completed - json format to be agreed.
- Next step is to marry that with work done to generate an over all report.
- Next step get working for GitHub.
- Investigating static analysis on non C repos (WebUI)
- Project: Repo, Stream : Branch. vs Project : Profile, Stream component.
- Monthly metrics reports (Parked SLOC)
- Need to plan migration to main from python3-master.
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- Coverity static analysis working for non C code on Gerrit and GitHub
- Writing python script to marry Steve's line number data with Coverity reports.
- Steve to work on providing line numbers from GitHub PRs - non trivial. GraphQL
- Alan also updated SLOC data - will sync on that.
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- Working on GitHub PRs which can contain hundreds of commits - complex but possible to get lines. (Plan B - clone and do diff)
- Static analysis of contributions working on Gerrit - received first issue reported to slack today.
- Next step C code - how to get the list of changes to pipe into Steve's script? Take offline - chat with Simon.
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- Metric maintenance completed.
- Coverity removed hardcoding form scripts. Investigated robot comments - back to gerrit/github. Utilities available (Simon's scripts etc)
- C code integration not progressed - to be discussed with Steve/Simon/Alan today.
- Martin / Alan / Steve to review ticket before sharing with Comcast security team.
- GitHub use of GraphQL - too complex. Will try git diff instead - hopefully works by end of this week (sed / awk to pick out line numbers.)

**Sysadmin:**

- Jenkins Pipeline- deferred. Gerrit upgraded to 3.7.4
- Gerrit issue where UI reverts didn't get mirrored to replica. Ticket raised. Alarm script complete for reverts not getting to replica.
- Moving ubuntu entities to 20.04. Kirkstone requires 20.04
- Final jenkins upgraded to ubuntu 20.04. Build slaves remain on 18.04 for now - will migrate to 20.04 when we move to kirkstone.
- BOT account still to be reassigned to Cedric - will follow up with Rama next week.
- Lambda job in pace - SQS plugin still there but not required. Cedric to raise a ticket outlining jobs that need to move.
- Build IMI images - removed python2 stuff. Shining Panda uses 2.7. Yocto analysis. Ticket to update to python 3. Build Slave - 20.04 in progress. Needs tests
- Crowdstrike update - Cedric to email for update.
- Upgraded Ubuntu build AMI to be tested by Simon when time permits.
- Tracked emails sent to junk folders
- Gerrit upgraded to 3.7.4 - issue with labels mostly sorted.
- Will upgrade jenkins next weekend.
- Progressing SQS removal from build jobs
- Still chasing Crowdstrike issue and Junk email issue.
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- SQS removed from internal jenkins. 1 to do on RDM jenkins (handle Simon's blacklist filter - cant access meta data on public jenkins. Steve to check if anything proprietary there.
- Working on persistent build slaves for wider RDKM team.
- Ticket closed on junk email issue - seems sorted
- Jenkins upgrade postponed for now.
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- Jenkins internal upgrade complete
- Additional Alerts added
- 2 AM Gerrit load very high - analysing.
- 1 Tata person - stopped cloning, 1 still cloning with multiple threads - will contact again.
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- Cedric working to provide RDKM access to builds - phase 1 provide access, phase 2 optimise ss state cache.
- Setting up Autobahn for external access (superseed ssm access) = subnet created, AWS setup implemented, AMIs in place - next security groups and Autobahn.
- Should be able to test with friend user in a few days.
- Crowdstrike issue persists on ephemeral build slaves.
- Vantiva issue resolved, Tata person needs follow up.
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- Crowdstrike upgrades completed. Still an issue on build servers - no response to Cedrics suggested solution.
- Autobahn not a good option as would need to publish IPs. Will go with AWS SSM instead. End of month should be ready with phase 1.
- Phase 2 might take a bit longer - ssstate cache - need to be clear on what can be shared, how to limit access.
- Have 2 flavours of EFS - Rpi and Platform. Will need 2 more for platform variants. This week meet to determine how its going to be done.
- No outstanding issues with community high volume clones.

## Build

- IPClient Rpi4 build broken - with platform team.
- DVBDT/KIT - new branch in GitHub. Platform team to try out. BRCM only. Rpi use binaries in build. Hosted code not merged. Martin okay to scan code on Gerrit - not related to SDK23.
- Clean up of branch names on cmflib etc will be done in August by James..
- QT source code needs update for new ubuntu AMI builds.
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- WLPL change to be brought to rdk6\_main
- rc.2 build jobs / scripts created to handle hybrid of rdk-main and BSP update. Testing. rc.2 has new bsp.
- Next
  - Slash / Dash problem with branching under investigation - goes back to Morty.
  - Kirkstone support - a lot of the changes are very hacky (if it doesn't work - remove it!). Depends on BRoadband team having a build off of rdk\_next.
  - Feature branch CI support (need to consider DEPS notation)
  - QT code change for focal upgrade
- Imports very busy - breaking builds
- RC.2 cut
- RDK6\_Main CCB, management
- Assisting those with basic cherry picking problems - dealing with conflicts.
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- Updating branching scripts for kirkstone. Q3 will use feature branch. Lots of changes yet to roundtrip to rdk\_next.
- Rpi-4 roundtrips still not completed after 3 months! Follow up with Pradeetpa re prioritising strategy.
- Fixed coverity build script to handle corner case.
- A lot of refactoring ongoing - breaking imports,
- CI support for branches up next.
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- Lots of build breakages - not getting to important stuff
- Another raft of AAMP changes came in this week.
- CI for feature branches started (changed refapp build to use our manifest)
- James has slave that Simon can use.
- Way too many patches (particularly in SOC layers)- lots of work for us.
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- Added recipe for ermgr (not rc3.1)
- Import fixing and patch updates taking up most of time
- Not much progress on branch CI
- Removed Turris extender and Rpi3 broadband builds.
- Lots of work on releases - Q3 and RC.3
- RDK6-Main taking a lot of time.

#### • General Admin

- Working on repo creation tickets - CMFSupport
- Developing scripts for Coverity contribution isolation
- Working on changelog stuff. (cherrypicks, hyperlinks, Gerrit/Github - determine remote.
- Branching convention for OE layers to be agreed.
- James to update changelogs associated with the quarterly release.
- Slides yet to be done.
- Hal and Halif repos to be renamed today.
- halif repos renamed - metadata to be updated.
- Branch protection on GitHub
- Working with Sky (Luke) on CI questions.
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- Discussion ongoing on amazon launcher access - Steve to provide conversation trail

#### Other

- Requested intern.
- Client side webhooks pseudo code to be provided to Alan to progress. Git client-side hooks working in principle - need to document workflow. Will create repo to host. Release naming rules to be defined.
- Irdeto VA being worked to enable better security, to satisfy premium apps requirements. (Anand). Nagra CAS also being progressed.
- Kirkstone on Broadband for Q2 will be dev version only. Q3 will be timeframe for formal Kirkstone release.
- Completed scripts for file extension detection - deployed on Gerrit. Github needs table - not deployed yet. Need DSL base builder!
- Glee to host monthly call with team.
- One CODEMGMT ticket to be created for all HAL / HALTest repos.
- Regular calls with Z and Bart to be setup.
- Progressed scripting for importing GitHub repos (snapshots, with history, with branched etc) all defined in meta data)..
- Global summit 19th Sep - Follow up with Brendan re IBC meetings that would require technical backup.
- Trufflehog / Git Secrets client side pre-commits being worked by Steve - will expand to rest of team and look to make available globally to dev community - plan next week.
- Steve to email 2 tata resources with very slow connections.
- RDK7/RDK-E hosting still under discussion - Khem producing something for Labeeb
- Steve to provide slides on Dev Sec Ops key drivers.
- Need to connect with Jose re LAB support.
- Martin on vacation next week
- Kieran to check is alternative office can be used for meeting room.
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- RDKM senior leadership team planning Ireland trip in October / November (and Rotterdam)
- Trip to Philadelphia - sync with Brendan / Jose, in context of travel restrictions. Early October. (SCTE 16-19 Oct Network X 24-26 Oct)
- Lightning 2.0 maintenance. Lightning 3.0 Wouter to manage his own space on GitHub
- Glee setup monthly call with team.
- Monthly status report to senior RDKM team to be created / presented
- Broadband to remain as quarterly release. No VA planned.
- RDK7 - not fully understood yet.
- Change logs updated to include GitHub. Federated components are not in manifests - so need to use gitlog command to get changes between 2 sha-1s (wpe framework, rdkservices, rbus etc.)
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- IBC Comcast focus on EntOS + Sky Glass.
- Summit focused on Apps, and certification suite. Irdeto support for operators.
- Lab support for Broadcom initiatives - Jose looking to Rotterdam lab.
- Network issue since Friday - requires DNS updates to config files. Imports from Comcast only handled mediaclient case not hybrid.
- RDKB release candidate cut today.

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|  | <p>RDKB Roadmap</p> <p>Q4</p> <ul style="list-style-type: none"> <li>▪ Kirkstone.</li> <li>▪ ACK 5.10 5.15</li> <li>▪ Rpi4 Router Onewifi + Opensync integrated - then deprecate Turris.</li> </ul> <p>Beyond Q4 (Q1 Plan for Q2/Q3)</p> <ul style="list-style-type: none"> <li>▪ RPi-5 (hackathon?) - Low level</li> <li>▪ Banana-Pi - Medium Level</li> <li>▪ NXP Ref / Panther mediatek - High end. ( Not opensourced completely)</li> </ul> <p>IOT - Zilker / Matter / OpenThread</p> <ul style="list-style-type: none"> <li>▪ Lots of non OS parts</li> <li>▪ Sky integrating on TV (but core in gateway)</li> <li>▪ Silicon Labs stack - more open - connects with any eco system e.g. Apple Home.</li> </ul> <p>RDK-V Roadmap</p> <ul style="list-style-type: none"> <li>◦ Hybrid to be supported on TV</li> <li>◦ Sky X11 mediarite stack for DVB</li> <li>◦ RMF no longer being supported</li> <li>◦ AAMP + mediarite for hybrid - side car implementation.</li> <li>◦ TVs CI++ for Europe. STBs - AnyCAS.</li> </ul> <p>Firebolt Connect</p> <ul style="list-style-type: none"> <li>◦ Launch Apps from GitHub repos</li> <li>◦ Migration of Apps progressing to pan 50 - 60 by Q4</li> <li>◦ HBO moving apps from android to Lightning.</li> <li>• Other <ul style="list-style-type: none"> <li>◦ Comcast moving away from supporting hybrids - a lot of work for us to continue to support. (Requires network changes in our lab)</li> <li>◦ RDK7 Entertainment OS - Phase 1 Reqs from SOCs Phase 2 Hosting. Frasier Sterling - community is paramount. Jason strategy deck. New stack</li> <li>◦ Lab for RDKB to be in US with UNI New Hampshire.</li> </ul> </li> </ul>   |  |
|  | <p><b>Mastership - Stalled</b></p> <ul style="list-style-type: none"> <li>• <a href="#">STBT-33275</a>. <del>Resolved</del> Reopened. Kieran to organise call to get latest update.</li> <li>• ccspPandM POC - Glee to follow up with Sanjay Dwivedi on ccspPandM - no response from Sanjay. On hold</li> </ul> <p><b>RDK-E</b></p> <ul style="list-style-type: none"> <li>• Self hosting key - availability replicas etc. Gerrit no support for sub modules. Manifest - discrete repos. Automation via meta data key. RDK6RDK7 OneRDK compromised?</li> <li>• Frasier Sterling driving. GitHub chosen. RDKM to manage - Steve putting together proposal this week. Need to know how many repos, from where.</li> <li>• Comcast enterprise - users have no access to public repos - by policy, RDKM could change model to use personal accounts - need to be careful about roll off of people who can access private repos.</li> <li>• Profile info can include company - useful in determining access. Authentication policy is key. Could also have personal accounts in LDAP to manage access to artifactory etc.</li> <li>• Manifest, Scripts, automation. plumb CI, branch comparisons can be done if history is maintained. Jira vs Issues, Confluence vs Pages etc.</li> <li>• Steve working on approach to authorisation of company people - possibly via LDAP mapping of company emails to GitHub user-ids. Possibly use script to audit nightly etc. Reminders to login every 60 days etc.</li> <li>• Current Jira ticket approach for approvals Glee meeting with Pramod to progress permission from SOCs to host on GitHub cloud.</li> <li>• Pramod cancelled meetings. Steve has hosted new meta layer for Gerald.</li> <li>• Document updated with onboarding/offboarding approaches (LDAP could be used to store mappings to company emails - would need to discuss with Infosys folks)</li> <li>• Script to be developed for snapshotting / importing from other GitHub repos, - 2 weeks time.</li> <li>• RDK-E off track plus RDK-VS (Strategy) - the latter may form basis for RDK7. Develop in the open.</li> <li>• Meeting with Khem to discuss use of GitHub Enterprise for RDKCentral. Document shared.</li> </ul> |  |