# **Project meetings (old)**

```
    Latest meeting minutes

    Broken links to meeting recordings

• 2023-10-24
• 2023-10-10
• 2023-09-26
• 2023-09-12
• 2023-08-29 (back to normal week, therefore only 1 week after previous meeting)
• 2023-08-22 (exceptionally one week later than normal)
• 2023-08-01
• 2023-07-18
• 2023-07-04
• 2023-06-20
• 2023-06-06
• 2023-05-23
• 2023-05-09
• 2023-04-25
• 2023-04-11
• 2023-03-28 (Tuesday)
• 2023-03-14 (Tuesday)

    2023-02-28 (Tuesday)

• 2023-02-14 (Tuesday)
• 2023-01-31 (Tuesday)
• 2023-01-17 (Tuesday)
• 2023-01-03 (Tuesday)
• 2022-12-06 (Tuesday)
• 2022-11-22 (Tuesday)

    2022-11-08 (Tuesday)

• 2022-10-25 (Tuesday)
• 2022-10-11 (Tuesday)
• 2022-09-27 (Tuesday)
• 2022-09-13 (Tuesday)
• 2022-08-30 (Tuesday)
• 2022-08-16 (Tuesday)

    2022-08-02 (Tuesday)

• 2022-07-19 (Tuesday)
• 2022-07-05 (Tuesday)

    2022-06-21 (Tuesday)

  2022-06-07 (Tuesday)
• 2022-05-24
• 2022-05-11 (exceptionally Wednesday)
  2022-04-26
• 2022-04-12
• 2022-03-29
• 2022-03-15
• 2022-03-01
• 2022-02-15
• 2022-02-01
• 2022-01-18
• 2022-01-04
• 2021-12-21
• 2021-12-07
• 2021-11-23
• 2021-11-09
• 2021-10-26
  2021-10-12
• 2021-09-28
• 2021-09-14
  2021-08-31
• 2021-08-17
• 2021-08-03
  2021-07-20 no meeting
• 2021-07-06
• 2021-06-22
• 2021-06-08
• 2021-05-25
• 2021-05-11
• 2021-04-27
• 2021-04-13
• 2021-03-30
• 2021-03-16
• 2021-03-02
• 2021-02-16
• 2021-02-02
```

• 2021-01-21 4th meeting on Dawn planning

• 2021-01-19

- 2021-01-05
- 2020-12-22
- 2020-12-08 dawn planning
- 2020-12-08 main project meeting
- 2020-11-24
- 2020-11-10
- 2020-10-27
- 2020-10-13
- 2020-09-29
- 2020-09-15
- 2020-09-01
- 2020-08-18 special meeting on E2 simulator
- 2020-08-18
- 2020-08-04
- 2020-07-21
- 2020-07-07
- 2020-06-23
- 2020-06-09
- 2020-05-26
- 2020-05-12
- 2020-04-28 2020-04-14
- 2020-03-31
- 2020-03-17
- 2020-03-03
- 2020-02-18
- 2020-02-04
- 2020-01-21
- 2020-01-14
- 2019-12-17
- 2019-12-03
- 2019-11-19
- 2019-11-05
- 2019-10-22
- 2019-10-08
- 2019-09-24
- 2019-09-10
- 2019-08-27
- 2019-08-13
- 2019-07-30
- 2019-07-23 (no meeting due to holiday period)
- 2019-07-09 (no meeting due to holiday period)
- 2019-06-25

# Latest meeting minutes

check from here: Project meetings

# Broken links to meeting recordings

Note that the links to the recordings before 2021-03-16 where mp4 files. They broke when copying the text into this archive page. You can still find them as attachments to the original meetings page Project meetings -> click on the three dots in the upper right corner and select "Attachments" from the menu.

### 2023-10-24

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. Last checked on 2023-09-26
    - i. https://gerrit.o ran se.org/r/c/ric plt/alarm go/+/11149 OK, go version update only
    - ii. https://gerrit.o-ran-sc.org/r/c/ric-plt/lib/rmr/+/11234-OK, test-case added for IPv6 tests
    - /r/c/ric-plt/a1/+/11324-OK, test case updated
    - iv. https://gerrit.o-ran-sc.org/t/c/ric-plt/xapp-frame-rust/+/11733-OK, generated-code-from API
    - v. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/11681 ok, (not yet merged)
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2023-05-23: we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC 1019 xapp frame incorrect removal of transmitted rmr message in unsuccessful case (Juha) DONE
  - b. RIC-1017 xapp-frame xapp-frame may not be able to successfully subscribe to messages

- c. RIC-1016 e2t sctp\_params structure may not be initialized properly
- d. RIC-1015 e2t too High default message size.
- e. RIC-1014 e2t potential race condition in the `listener` function due to multiple `listener` threads.
- f. RIC-1013 e2t e2term pod does not become ready. Possible stack/heap corruption
- g. RIC 1012 RMR not working in A1 mediator DONE (Thoralf also released fixed image in ric-dep recipe of h-release)
- h. RIC-1009 E2Mgr API can be improperly invoked convert to bigger Epic?
- i. RIC-1002 (Nokia fixes) Abnormal signaling process cause E2Term crash (this could be a security issue)
- j. RIC-1001 RMR service should verify route tables Alexandre will take a look
- k. RIC-991 RMR related (not a duplicate) Alexandre will take a look

  I. RIC-989 RMR (minor) security issue Alexandre will take a look
- m. RIC-972 (Naman) URL for A1 mediator to align with spec.
- n. RIC-965 RMR wormhole connections uses stale endpoints to make connections
- o. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
- p. RIC-915 dms\_cli for installing xapp not working (raised by James)
- g. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
- r. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
- s. RIC-896 xapps sending same msg type and sub id fails details to be clarified
- t. RIC-894 long idle period (days) causes RMR connection breaks
- u. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
- v. RIC-857 sporadically RMR takes multiple minutes before being "ready"
- w. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
  - i. 2021-12-21: Trying to get bandwidth for this during F release.
- x. RIC-837 RMR is not forwarding messages from E2T to E2M
- y. RIC-835 2021-12-07 no news from Viktor
- z. fixed: RIC-1019, RIC-1012
- 4. James: updates?
  - a. 2023-09-12: requested from PTLs pair-wise testing. From Near-RT RIC point of view we hope for the non-RT RIC project to initiate testing with A1 mediator standalone version.
  - b. 2023-09-26: This was presented in TOC (See link). Cases relevant for near-RT RIC:
    - i. ODU-high and near-RT RIC (currently using stub).
    - ii. near-RT RIC and xApp (KPIMON/bouncer or maybe adding CCC xApp)
    - iii. near-RT RIC and non-RT RIC (A1) next step on non-RT RIC side (A1 standalone mediator provided)
    - iv. James will check with Sunil on issues he has with the test cases
    - v. ArgoCD used by Taiwan lab in some ONAP SMO case and the engineers there where wondering if something similar could be done with OSC.
  - c. 2023-10-24
    - i. updates from O-RAN f-2-f:
      - 1. nephio and OAI discussion: Nephio team would like to add RAN components (OAI, OSC, and parts of the OSC SMO (via Seshu) into R2 (~Feb2024)
      - 2. OAI had three demos. One of them is about improving QoE with H release of near-RT RIC using some code copied from KPM and hello world xApps.
        - a. see demo "oai-osc-ric-demo.mp4" in link and the demo session recording on the O-RAN web site (thoralftodo)
        - b. more discussion coming at the joint OSC/OAI workshop in Boston
      - 3. session on SCCL did make some progress in that WG10/WG6 understanding improved. Additional discussion scheduled under O-RAN umbrella for Oct-31.
    - ii. OSFG discussed on the super wireless footprint (matrial available at O-RAN OSFG)
- 5. Prashant's work in near-RT RIC(subteam-p)
  - a. 2023-08-22, 2023-09-26: could not participate
- 6. Sunil updates (subteam-h)?
  - a. 2023-09-12: can give update next time. Maybe 2 or 3 items to work on.
- 7. Subhash/Naman updates (subteam-s) ?
  - a. 2023-08-29: no news, other than Naman working on the operator implementation.
  - b. 2023-09-12:
    - i. We had a meeting with John and Denis on non-rt RIC compatibility. Agreed in fixes for URL and policystatusobject type from integerstring (as per standard) Naman.
    - ii. Thoralf to figure out a way to start A1 mediator standalone for CI testing
      - 1. Thoralf sent instructions to John DONE
    - iii. current implementation of /data-delivery URL in A1 need to check if >1 consumer of EI data (sent by non-RT RIC) works on our side.
    - iv. Naman also works on the operator implementation
  - c. 2023-09-26:
    - i. kubernetes operator new repo needed or not?
      - 1. xapp deployment appmgr or ricdms
      - 2. ric platform ric-dep (still work in progress) check if operator can use helm chart defined by Abhijit.
    - ii. What happened to kserve adapter? Subhash can check.
- 8. Abhijit updates (subteam-ag) ?
  - a. 2023-08-22: next release item discussed and RIC-979
  - b. <del>2023-08-29:</del>
    - i. ereated RIC-1004 for release Litem.
    - ii. still working on RIC minimal implementation (demo coming once ready, might take still weeks)
      - 1. once it's somewhat usable, pls. place into subdirectory under ric-plt/ric-dep
  - c. 2023-09-12:
    - i. changes related to registration API needed in xapp-frame (problem still to be thought of)
    - ii. something not working in github: IT-25974 again related to github replication.
  - d. <del>2023-09-26</del>
    - i. Abhijit presented his work on a single near RT RIC helm chart and bringing up the platform on minikube on Ubuntu 22.04. Wedecided to proceed with this.
    - ii. github action problem with master vs g release for replication ticket DONE

- iii. Abhijit wanted to provide a video for new way of rie deployment (2023-10-24: did not find time to finally do this)
- e. 2023-10-24:
  - i. Abhijit and James release new base image: docker pull nexus3.o-ran-sc.org:10002/o-ran-sc/bldr-ubuntu22-c-go:0.1.0 still to be made 1.0.0
  - ii. no progress in review on the plain helm chart based deployment in https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/11743
  - iii. Abhiit raise RIC-1013 ... RIC-1017 for issues he has discovered. Thoralf to find someone to work on it.
- 9. Cap Gemini updates (subteam-cg)?
  - a. Conflict detection and management. Presentation by Gunja on Sep 12 link to slideset
    - i. Ashish S. (CapGemini) presented this.
    - ii. Thoralf will initiate a new repe for this: ric-plt/conflictmgr
      - 1. this might become an optional or mandatory (but default disabled) component of thr near-rt ric platform.
      - 2. todo-cap-gemini: align usage of UE ID with wg3 discussion on this.
      - 3. additional latency comes only from guidance request
      - 4. xapp-framework could be extended to automatically do E2 guidance requests
  - b. 2<del>023-09-26:</del>
    - first step of new repe created, but still issues with initial files in repe. Thoralf raised request to LF: https://jira.linuxfoundation.org/plugins/servlet/deck/portal/2/IT 26015-
  - c. 2023-10-10:
    - i. conflictmgr repo is now ready for commits: https://gerrit.o-ran-sc.org/r/admin/repos/ric-plt/conflictmgr,general
- 10. Himanshu (subteam-gs) would like to work on RIC-963
  - a. 2023-08-29: ready for merging once the CI problem (gofmt) is fixed. Can be merged together with a change in the helm chart (ric-dep). Default behavior is "strict order" (as currently). But config value can change to "any order".
- 11. Dhiraj (subteam-r)
  - a. 2023-08-22:
    - i. checking compliance/license issues
    - ii. How are policy types created? xApps register by policy type and understands the schema that is bound to it. Non-RT RIC should create policies using the same schema (there's a GUI for this on non-RT RIC side).
  - b. 2023-08-29:
    - i. got clarity on license issues and now waiting for internal approval before publishing ipv6 releated changes
- 12. Alexandre (subteam-utfpr)
  - a. 2023-08-29: Alexandre working on RIC-989 and RIC-991. Will also take a look at RIC-1001
  - b. 2023-09-26: subscription message issue with encoding E2SM parts. A. will send e-mail to Thoralf
- 13. Nokia (subteam-n)
  - a. ...
- 14. I release content
  - a. we mark items that you are >90% sure (="committed") to work on during 2H2023 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for I release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
  - b. input for release candidates: left overs and generally open items, RSAC
  - c. Sprint dates
    - i. Sprint I release dev sprint 1: Aug-21 to Sep-10
    - ii. Sprint I release dev sprint 2: Sep-11 to Oct-1
    - iii. Sprint I release dev sprint 3: Oct-2 to Oct-22
    - iv. Sprint I release dev sprint 4: Oct-23 to Nov-12 (last planned development sprint)
    - v. Sprint I release dev sprint 5: Nov-13 to Dec-3 (only for unplanned last-minute development items)
  - d. Plan (v03 as of 2023-08-18):
    - i. I release plan moved to I release page.
- 2. RICAPP agenda: RICAPP Meetings.

### 2023-10-10

no meeting as neither Thoralf nor Sunil were available to host the call

### 2023-09-26

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. Last checked on 2023-09-26
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/alarm-go/+/11149 OK, go version update only
    - ii. https://gerrit.o-ran-sc.org/r/c/ric-plt/lib/rmr/+/11234 OK, test case added for IPv6 tests
    - iii. https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/11324 PK, test case updated
    - iv. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/11733 OK, generated code from API
    - v. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/11681 ok, (not yet merged)
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2023-05-23: we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIG 1011 (Nokia fixes) E2 error with cause duplicate error for all subscriptions requests after resource limit failure. FIXED

- b. RIC-1009 E2Mgr API can be improperly invoked convert to bigger Epic?
- c. RIC-1002 (Nokia fixes) Abnormal signaling process cause E2Term crash (this could be a security issue)
- d. RIC-1001 RMR service should verify route tables Alexandre will take a look
- e. RIC-991 RMR related (not a duplicate) Alexandre will take a look
- f. RIC-989 RMR (minor) security issue Alexandre will take a look
- g. RIC 979 (Abhijit will close this one) Decode Error with e2sim on e2term Pod 2023-08-22: Abhijit still looking into this, but with latest Ubuntu packages this seems not to cause the problem anymore.
- h. RIC-972 (Naman) URL for A1 mediator to align with spec.
- i. RIC-965 RMR wormhole connections uses stale endpoints to make connections
- j. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
- k. RIC-915 dms\_cli for installing xapp not working (raised by James)
- I. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
- m. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
- n. RIC-896 xapps sending same msg type and sub id fails details to be clarified
- o. RIC-894 long idle period (days) causes RMR connection breaks
- p. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
- q. RIC-857 sporadically RMR takes multiple minutes before being "ready"
- r. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
  - i. 2021-12-21: Trying to get bandwidth for this during F release.
- s. RIC-837 RMR is not forwarding messages from E2T to E2M
- t. RIC-835 2021-12-07 no news from Viktor
- u. fixed: RIC-1011, RIC-979
- 4. James: updates?
  - a. <del>2023-08-01:</del>
    - i. O2 integration with OSC RIC is still pending with WR.
    - ii. OAI was discussed in last week's TOC, and it seems OAI license is not blocker for using OAI in OSC-labs.
  - b. <del>2023-08-22:</del>
    - i. Can we do pair wise testing, e.g., between (1) xapp and RIC, (2) non-RT RIC near-RT RIC testing (only A1)?
      - 1. E.g., KPIMON or bouncer xApp could be used. Sunil might be able to help.
      - 2. e.g., existing discussion with John
  - c. <del>2023-08-29: no news</del>
  - d. 2023-09-12: requested from PTLs pair-wise testing. From Near-RT RIC point of view we hope for the non-RT RIC project to initiate testing with A1 mediator standalone version.
  - e. 2023-09-26: This was presented in TOC (See link). Cases relevant for near-RT RIC:
    - i. ODU-high and near-RT RIC (currently using stub).
    - ii. near-RT RIC and xApp (KPIMON/bouncer or maybe adding CCC xApp)
    - iii. near-RT RIC and non-RT RIC (A1) next step on non-RT RIC side (A1 standalone mediator provided)
    - iv. James will check with Sunil on issues he has with the test cases
    - v. ArgoCD used by Taiwan lab in some ONAP SMO case and the engineers there where wondering if something similar could be done with OSC.
- 5. Prashant's work in near-RT RIC(subteam-p)
  - a. 2023-08-22, 2023-09-26: could not participate
- 6. Sunil updates (subteam-h)?
  - a. 2023-07-18, 2023-08-01, 2023-08-22, 2023-08-29: no news
  - b. 2023-09-12: can give update next time. Maybe 2 or 3 items to work on.
- 7. Subhash/Naman updates (subteam-s) ?
  - a. <del>2023-08-01:</del>
    - i. E2AP v3.0 we took a look at what changes are coming
    - ii. A1 enhancements
    - iii. considering upgrade of ubuntu and k8s
    - iv. deploying RIC and xapps using k8S operator I\_Release\_Proposal\_Samsung\_Naman.pptx
    - v. <del>DMS delete Pl</del>
    - vi. E2 reset from ric to e2 node
  - b. 2023-08-22: we discussed Jira item priority.
  - c. 2023-08-29: no news, other than Naman working on the operator implementation.
  - d. 2023-09-12:
    - i. We had a meeting with John and Denis on non-rt RIC compatibility. Agreed in fixes for URL and policystatusobject type from integerstring (as per standard) Naman.
    - ii. Thoralf to figure out a way to start A1 mediator standalone for CI testing
      - 1. Thoralf sent instructions to John DONE
    - iii. current implementation of /data-delivery URL in A1 need to check if >1 consumer of EI data (sent by non-RT RIC) works on our side.
      - iv. Naman also works on the operator implementation
  - e. 2023-09-26:
    - i. kubernetes operator new repo needed or not?
      - 1. xapp deployment appmgr or ricdms
      - 2. ric platform ric-dep (still work in progress) check if operator can use helm chart defined by Abhijit.
    - ii. What happened to kserve adapter? Subhash can check.
- 8. Abhijit updates (subteam-ag) ?
  - a. <del>2023-05-23</del>
- 1. hw-rust xapp using xapp descriptor (config.json) works, but still fixing lifeness and readiness probe
- 2. testing of subscriptions using hw-rust (facing the E2T problem)
- b. <del>2023-07-18: no news</del>
- c. 2023-08-01: got logs from Subhash. New ran into issues with Dockerfile in E2T (gcc related differences between ubuntu 20 and 22)
- d. 2023-08-22: next release item discussed and RIC-979
- e. 2023-08-29:
  - i. created RIC-1004 for release I item.
  - ii. still working on RIC minimal implementation (demo coming once ready, might take still weeks)
    - 1. once it's somewhat usable, pls. place into subdirectory under ric-plt/ric-dep

- f. 2023-09-12:
  - i. changes related to registration API needed in xapp-frame (problem still to be thought of)
  - ii. something not working in github: IT-25974 again related to github replication.
- g. 2023-09-26
  - Abhijit presented his work on a single near RT RIC helm chart and bringing up the platform on minikube on Ubuntu 22.04. We decided to proceed with this.
  - ii. github action problem with master vs g release for replication ticket.
  - iii. Abhijit wanted to provide a video for new way of ric deployment
- 9. Cap Gemini updates (subteam-cg)?
  - a. 2023-08-01
    - i. Gunja to present conflict management design
    - ii. thinking about adding support for DU in E2T/E2M/RNIB in I release
  - b. 2023-08-22
    - i. Gunja provided reviews for DU support. Nokia to reviewed and merged
      - 1. https://gerrit.o-ran-se.org/r/q/topie:%22Multiple+E2+Node+support%22 and https://gerrit.o-ran-se.org/r/q/topie:
    - ii. Conflict detection and management. Presentation by Gunja on Sep-12 link-to-slideset
      - 1. Ashish S. (CapGemini) presented this.
      - 2. Thoralf will initiate a new repo for this: ric-plt/conflictmgr
        - a. this might become an optional or mandatory (but default-disabled) component of thr near-rt ric platform.
        - b. todo-cap-gemini: align usage of UE ID with wg3 discussion on this.
        - c. additional latency comes only from guidance request
        - d. xapp-framework could be extended to automatically do E2 guidance requests
  - c. 2023-09-26:
    - first step of new repo created, but still issues with initial files in repo. Thoralf raised request to LF: https://jira.linuxfoundation.org /plugins/servlet/desk/portal/2/IT-26015
- 10. Himanshu (subteam-gs) would like to work on RIC-963
  - a. code changes, but difficult to test as difficult to change order of IEs in message.
  - b. 2023 06 06: Added unit tests (integrated in image building)—did some changes in the stubs (based on environment variables). Next step-looking into this.
  - c. 2023-07-18: Code changes almost ready for RIC subscription response gerrit review coming.
  - d. 2023-08-22: feedback from Anssi on submgr received and incorporating these changes, but not yet in review.
  - e. 2023-08-29: ready for merging once the CI problem (gofmt) is fixed. Can be merged together with a change in the helm chart (ric-dep). Default behavior is "strict order" (as currently). But config value can change to "any order".
- 11. Dhiraj (subteam-r)
  - a. 2023-07-18: IPv6 changes to come as review
  - b. <del>2023-08-01: working on it.</del>
  - c. 2023-08-22:
    - i. checking compliance/license issues
    - ii. How are policy types created? xApps register by policy type and understands the schema that is bound to it. Non-RT RIC should create policies using the same schema (there's a GUI for this on non-RT RIC side).
  - d. 2023-08-29
    - i. got clarity on license issues and now waiting for internal approval before publishing ipv6 releated changes
- 12. Alexandre (subteam-utfpr)
  - a. 2023-08-22: Alexandre couldn't participate, but informed after the meeting by e-mail: "My plan for the next two weeks is to fix both RIC-989 and RIC-991 issues."
  - b. 2023-08-29: Alexandre working on RIC-989 and RIC-991. Will also take a look at RIC-1001
  - c. 2023-09-26: subscription message issue with encoding E2SM parts. A. will send e-mail to Thoralf
- 13. Nokia (subteam-n)
  - a. 2023-08-22: want to work on RIC-997
  - b. 2023-09-12: Thoralf did changes to readthedocs in all near-RT-RIC repos. LF informed (link) these changes are needed because some configuration parameters are being removed. No further changes needed due to this. Example: https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/1747. Note, though, that some repos don't currently generate read the docs documention. For the "A1" example, though you see a new documentation version in this URL: https://readthedocs.org/projects/o-ran-sc-ric-plt-a1/builds/
  - c. Thoralf on holiday on Oct-10. Sunil?
- 14. I release content
  - a. we mark items that you are >90% sure (="committed") to work on during 2H2023 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for I release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
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  - c. Sprint dates
    - i. Sprint I release dev sprint 1: Aug-21 to Sep-10
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  - d. Plan (v03 as of 2023-08-18):
    - i. I release plan moved to I release page.
    - ii. E2 enhancements, incl. conflict mgmt.
      - 1. RIC-993 (CG): Near-RT RIC conflict management (\*)
      - 2. RIC-933 (CG): Adding support for DU in E2T/E2M/RNIB
      - 3. RIC-967 (CG) xApp-facing interface for subscription delete required (added on 2023-08-23)
      - 4. RIC-994 (S): Support for E2APv3.0
      - 5. RIC-995 (S): Support for RIC Query
      - 6. RIC-996 (S) Support for Subscription modifications (dhiraj interested as reviewer)
      - 7. RIC 387 (S): Support for E2 reset from RIC to RAN (completes also RIC 383) (prio1) (Dhiraj interested as reviewer, but we had earlier discussion on this)
      - 8. RIC-997 (N): Handling of RIC Error indication \_during\_ E2 setup

9. RIC-963 (CS) modify src code to be more lenient in ordering of IEs in ASN.1

#### iii. Other

- 1. RIC-998 (S): K8S operators for deploying/undeploy xApps(\*(1))
- 2 RIC-999 (S): A1 alignment with A1AP (still under investigation
- 3. RIC 954 (S): DMS Rest API support for deleting/undeploy xApps (DMS REST is 2nd ife addressing same space as dmscli) (1)
- 4. Already in H: RIC-985 (UTFPR) IPv6 support for RMR
- 5. RIC-1000 (R): Support for only-IPv6 in RIC-internal interfaces
- 6. RIC 1004 (AG): Xapp Rust Framework enhancement after initial basic Xapp Framework Support
- 2. RICAPP agenda: RICAPP Meetings.

### 2023-09-12

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. Last checked on 2023-04-11
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/10923 OK, module version updates only
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports...
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2023-05-23: we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-1011 (Nokia fixes) E2 error with cause duplicate-error for all subscriptions requests after resource-limit failure
  - b. RIC-1009 E2Mgr API can be improperly invoked convert to bigger Epic?
  - c. RIC-1002 (Nokia fixes) Abnormal signaling process cause E2Term crash (this could be a security issue)
  - d. RIC-1001 RMR service should verify route tables Alexandre will take a look
  - e. RIC-991 rmr related (not a duplicate) Alexandre will take a look

  - f. RIC-989 rmr (minor) security issue Alexandre will take a look
    g. RIC-979 (Abhijit will close this one) Decode Error with e2sim on e2term Pod 2023-08-22: Abhijit still looking into this, but with latest Ubuntu packages this seems not to cause the problem anymore.
  - h. RIC-972 (Naman) URL for A1 mediator to align with spec.
  - i. RIC-965 RMR wormhole connections uses stale endpoints to make connections
  - j. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
  - k. RIC-915 dms\_cli for installing xapp not working (raised by James)
  - I. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - m. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - n. RIC 897 SCTP connection fails with Viavi // update with workaround. Thoralf changed this into an Epic (problem was onsimulator side. But some useful extension on E2T comes from this as well)
  - o. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - p. RIC-894 long idle period (days) causes RMR connection breaks
  - q. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - r. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - s. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
  - i. 2021-12-21: Trying to get bandwidth for this during F release. t. RIC-837 RMR is not forwarding messages from E2T to E2M
  - u. RIC-835 2021-12-07 no news from Viktor
  - v. fixed: ...
- 4. James: updates?
  - a. 2023-08-01:
    - i. O2 integration with OSC RIC is still pending with WR.
    - ii. OAI was discussed in last week's TOC, and it seems OAI license is not blocker for using OAI in OSC-labs.
  - b. 2023-08-22
    - i. Can we do pair-wise testing, e.g., between (1) xapp and RIC, (2) non-RT RIC near-RT RIC testing (only A1) ?
      - 1. E.g., KPIMON or bouncer xApp could be used. Sunil might be able to help.
      - 2. e.g., existing discussion with John
  - c. 2023-08-29: no news
  - d. 2023-09-12: requested from PTLs pair-wise testing. From Near-RT RIC point of view we hope for the non-RT RIC project to initiate testing with A1 mediator standalone version.
- 5. Prashant's work in near-RT RIC(subteam-p)
  - a. 2023-08-22: could not participate
- 6. Sunil updates (subteam-h)?
  - a. 2023-07-18, 2023-08-01, 2023-08-22, 2023-08-29: no news
  - b. 2023-09-12: can give update next time. Maybe 2 or 3 items to work on.
- 7. Subhash/Naman updates (subteam-s)?
  - a. 2023-08-01:
    - i. E2AP v3.0 we took a look at what changes are coming
    - ii. A1 enhancements
    - iii. considering upgrade of ubuntu and k8s
    - iv. deploying RIC and xapps using k8S operator I\_Release\_Proposal\_Samsung\_Naman.pptx
    - v. DMS delete PI
    - vi. E2 reset from ric to e2 node
  - b. 2023-08-22: we discussed Jira item priority.
  - c. 2023-08-29: no news, other than Naman working on the operator implementation.
  - d. 2023-09-12:

- We had a meeting with John and Denis on non-rt RIC compatibility. Agreed in fixes for URL and policystatusobject type from integerstring (as per standard) Naman.
- ii. Thoralf to figure out a way to start A1 mediator standalone for CI testing
  - 1. Thoralf sent instructions to John
- iii. current implementation of /data-delivery URL in A1 need to check if >1 consumer of EI data (sent by non-RT RIC) works on our side.
- iv. Naman also works on the operator implementation
- 8. Abhijit updates (subteam-ag)?
  - a. 2023-05-23
- 1. hw-rust xapp using xapp descriptor (config.json) works, but still fixing lifeness and readiness probe
- 2. testing of subscriptions using hw-rust (facing the E2T problem)
- b. 2023-07-18: no news
- c. 2023-08-01: got logs from Subhash. Now ran into issues with Dockerfile in E2T (gcc related differences between ubuntu 20 and 22)
- d. 2023-08-22: next release item discussed and RIC-979
- e. 2023-08-29:
  - i. created RIC-1004 for release I item.
  - ii. still working on RIC minimal implementation (demo coming once ready, might take still weeks)
    - 1. once it's somewhat usable, pls. place into subdirectory under ric-plt/ric-dep
- f. 2023-09-12
  - i. changes related to registration API needed in xapp-frame (problem still to be thought of)
  - ii. something not working in github: IT-25974 again related to github replication.
- 9. Cap Gemini updates (subteam-cg)?
  - a. 2023-08-01
    - i. Gunja to present conflict management design
    - ii. thinking about adding support for DU in E2T/E2M/RNIB in I release
  - b. 2023-08-22:
    - i. Gunja provided reviews for DU support. Nokia to reviewed and merged
      - https://gerrit.o-ran-sc.org/r/q/topic:%22Multiple+E2+Node+support%22 and https://gerrit.o-ran-sc.org/r/q/topic: Multi\_E2\_Node
    - ii. Conflict detection and management. Presentation by Gunja on Sep-12 link-to-slideset
      - 1. Ashish S. (CapGemini) presented this.
      - 2. Thoralf will initiate a new repo for this: ric-plt/conflictmgr
        - a. this might become an optional or mandatory (but default-disabled) component of thr near-rt ric platform.
        - b. todo-cap-gemini: align usage of UE ID with wg3 discussion on this.
        - c. additional latency comes only from guidance request
        - d. xapp-framework could be extended to automatically do E2 guidance requests
- 10. Himanshu (subteam-gs) would like to work on RIC-963
  - a. code changes, but difficult to test as difficult to change order of IEs in message.
  - b. 2023-06-06: Added unit tests (integrated in image building) did some changes in the stubs (based on environment variables). Next step looking into this.
  - c. 2023-07-18: Code changes almost ready for RIC subscription response gerrit review coming.
  - d. 2023-08-22: feedback from Anssi on submgr received and incorporating these changes, but not yet in review.
  - e. 2023-08-29: ready for merging once the CI problem (gofmt) is fixed. Can be merged together with a change in the helm chart (ric-dep). Default behavior is "strict order" (as currently). But config value can change to "any order".
- 11. Dhiraj (subteam-r)
  - a. 2023-07-18: IPv6 changes to come as review
  - b. 2023-08-01: working on it.s
  - c. 2023-08-22:
    - i. checking compliance/license issues
    - ii. How are policy types created? xApps register by policy type and understands the schema that is bound to it. Non-RT RIC should create policies using the same schema (there's a GUI for this on non-RT RIC side).
  - d. 2023-09-29:
    - i. got clarity on license issues and now waiting for internal approval.
- 12. Alexandre (subteam-utfpr)
  - a. 2023-08-22: Alexandre couldn't participate, but informed after the meeting by e-mail: "My plan for the next two weeks is to fix both RIC-989 and RIC-991 issues."
  - b. 2023-08-29: Alexandre working on RIC-989 and RIC-991. Will also take a look at RIC-1001
- 13. Nokia (subteam-n)
  - a. 2023-08-22: want to work on RIC-997
  - b. 2023-09-12: Thoralf did changes to readthedocs in all near-RT RIC repos. LF informed (link) these changes are needed because some configuration parameters are being removed. No further changes needed due to this. Example: https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/11747. Note, though, that some repos don't currently generate read-the-docs documention. For the "A1" example, though you see a new documentation version in this URL: https://readthedocs.org/projects/o-ran-sc-ric-plt-a1/builds/
- 14. I release content
  - a. we mark items that you are >90% sure (="committed") to work on during 2H2023 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for I release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
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# 2023-08-29 (back to normal week, therefore only 1 week after previous meeting)

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  - j. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
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  - c. RIC-991 rmr related (not a duplicate) Alexandre will take a look
  - d. RIC-989 rmr (minor) security issue Alexandre will take a look
  - e. new: RIC 988 CLOSED e2 component configuration. Duplicate of fix https://gerrit.o-ran-se.org/r/gitweb?p=ric-plt/e2mgr.git;a=commit; h=d2f1a20d2f1cc770045148a82720f644c6110776
  - f. RIC-986 ping-pong example xapp-frame-py needs fixes in the dockerfile DONE
  - g. RIC-979 Decode Error with e2sim on e2term Pod 2023-08-22: Abhijit still looking into this, but with latest Ubuntu packages this seems not to cause the problem anymore.
  - h. RIC-972 URL for A1 mediator to align with spec.
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  - I. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - m. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - n. RIC-897 SCTP connection fails with Viavi // update with workaround Thoralf changed this into an Epic (problem was on simulator side. But some useful extension on E2T comes from this as well)
  - o. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - p. RIC-894 long idle period (days) causes RMR connection breaks
  - q. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - r. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - s. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - t. RIC-837 RMR is not forwarding messages from E2T to E2M
  - u. RIC-835 2021-12-07 no news from Viktor
  - v. fixed: RIC-986
- 4. Himanshu: demo on the OAI CU <--> OSC RIC integration
  - a. Himanshu presented the integration of SDRAN fork of OAI (with SDRAN E2 support added) and how the CU connects to OSC RIC
- 5. James: updates?
  - a. <del>2023-01-31</del>:
    - i. working on existing robot test cases (that integrate xapps and platform) to be part of xtesting tests.
    - ii. Subhash asked for a wiki page documenting this work.
    - iii. WR also want to contribute to xtesting for O2. CNF package definition still open and concept of DMS.
      - 1. discussion with Bin Yang in this meeting is possible. Maybe some proposal would be good.
      - 2. Tacker-based deployment needs to be checked.
  - b. <del>2023-03-14, 2023-03-28 : no news</del>
  - c. 2023-04-11: H release test cases related O2 IMS committed into it/test. Some of these related to existing robot test cases.
  - d. 2023-04-25: no updates
  - e. <del>2023-05-09:</del>
    - i. Q to James: summary of what you presented in TOC (1 min) and let's raise question to all for input to integration project.
      - 1. Xtesting is used in integration project now (already for 6 months or so). Xtesting works also with robot test cases
      - James working in this integration for the test cases that are already in it/test. Infrastructure team also contributed O2-releated robot test cases (requires o loud).
      - 3. Input from other subprojects, incl. our near-RT RIC project?
    - ii. James needs some hints on how to run the existing robot test cases in it/test related to missing env variables: GLOBAL\_INJECTED\_E2MGR\_USER and APPMGR\_ENDPOINT.
  - f. <del>2023-05-23 no news</del>
  - g. 2023-07-18: James' focus is currently on OSC & OAI cooperation. Current thinking is to use Taiwan lab to host OAI -based installation-over E2AP (2.0). See also https://openairinterface.org/mosaic5g/
    - i. usage of robot test cases (from it/test) is still something that James is thinking about.
    - ii. Himanshu commented that he tried OAI CU/DU with OSC RIC and KPM xApp.
  - h. 2023-08-01:
    - i. O2 integration with OSC RIC is still pending with WR.
    - ii. OAI was discussed in last week's TOC, and it seems OAI license is not blocker for using OAI in OSC-labs.
  - i. 2023-08-22:
    - i. Can we do pair-wise testing, e.g., between (1) xapp and RIC, (2) non-RT RIC near-RT RIC testing (only A1)?
      - 1. E.g., KPIMON or bouncer xApp could be used. Sunil might be able to help.
      - 2. e.g., existing discussion with John
- 6. Prashant's work in near-RT RIC(subteam-p)

- a. 2023-08-22 : could not participate
- 7. Sunil updates (subteam-h)?
  - a. 2023-07-18, 2023-08-01, 2023-08-22: no news
- 8. Subhash/Naman updates (subteam-s)?
  - a. 2023-02-28: working on RNIB models for E2 reset. Nanobot integration with A1 mediator. kServe adapter work engoing (RICDMS-extension planned).
    - i. Kserve adapter (mentioned in RSAC and e-mail from Hoejoo),
      - 2023-01-31 Joseph presented the kserve part. We agreed as working assumption to go for solution #1 (slide 2) withmodel-based inference. Comments by e-mail to Joseph. Slideset: link
        - a. Thoralf to create JIRA item for this
        - Subhash/Thoralf commented that riedms cli and REST should be implemented at same time. But also ok if only in one.
        - c. 2023-02-14: Subhash discussed with Hocjoe on this (internally) maybe a presentation coming later
        - d. https://wiki.o-ran-sc.org/plugins/servlet/mobile?contentId=67535114#content/view/67535114
      - 2. Integration with AI/ML project: kserve\_adapter
        - a. data pipeline (Hoejoo's e-mail)
          - i. 2023-01-31 not discussed in today's meeting
  - b. <del>2023-03-14:</del>
    - i. E2 Reset E2mgr changes done. submgr change and notification to xapp still open.
    - ii. A1 mediator nanobot integration still under work
  - c. 2023-03-28: work continues
  - d. 2023-04-11: E2 reset work in submgr is now under work.
  - e. 2023-04-25: Naman working on E2 reset (submgr part), riedms not too much progress. no update on kserve
  - f. <del>2023-05-09:</del>
    - i. E2 reset done, but still one more review coming on submgr to block subscriptions fo0r E2 nodes under reset.
    - ii. A1 bug fixes being almost ready.
    - iii. A1 mediator nanobot might be delayed.
    - iv. AI/ML adapter work is still engoing riedms changes still coming during next 1-2 weeks.
  - g. <del>2023-05-23</del>
    - i. E2 reset (from E2 node): done
    - ii. KServe adapter still being worked on.
    - iii. nanobot integration still being worked on.
  - h. 2023-07-18: no news, planning for I release
  - i. 2023-08-01:
    - i. E2AP v3.0 we took a look at what changes are coming
    - ii. A1 enhancements
    - iii. considering upgrade of ubuntu and k8s
    - iv. deploying RIC and xapps using k8S operator I\_Release\_Proposal\_Samsung\_Naman.pptx
    - v. DMS delete PI
    - vi. E2 reset from ric to e2 node
  - j. 2023-08-22: we discussed Jira item priority.
- 9. Abhijit updates (subteam-ag) ?
  - Abhijit is now committer for the rust subsystems (platform and xapp) but there seem to be issues on LF side that didn't actually made this happen.
    - i. Thoralf raised support request to LF. Reminders sent. Still no solution.
  - b. 2023-03-14: now has access to hw-rust, but not yet xapp frame-rust (no need to escalate yet). CI for xapp frame-rust works now.
  - c. <del>2023-03-28: working on RIC-969 and part of RIC-957</del>
  - d. <del>2023-04-11:</del>
    - i. RIC-969 first set of APIs (SDL) implemented. RNIB not yet (also under RIC-969).
    - ii. hw world xApp should grow with the implementation of xapp frame-rust. Initial hw-rust xapp will show use of SDL/RNIB.
  - e. <del>2023-04-25</del>
    - i. working on RNIB support in rust (https://gerrit.o-ran-se.org/t/o/rio-plt/xapp-frame-rust/+/10006) and next step hw-rust.
  - f. <del>2023-05-09</del>
    - i. RIC-977 (subscription API) pls. merge.
    - ii. RIC-978 pls. try to complete during this week.
    - iii. issues with E2 simulator to get in contact with Naman and Subhash
  - g. 2023-05-23
    - i. hw-rust xapp using xapp descriptor (config.json) works, but still fixing lifeness and readiness probe
    - ii. testing of subscriptions using hw-rust (facing the E2T problem)
  - h. 2023-07-18: no news
  - i. 2023-08-01: got logs from Subhash. Now ran into issues with Dockerfile in E2T (gcc related differences between ubuntu 20 and 22)
  - j. 2023-08-22: next release item discussed and RIC-979
- 10. Cap Gemini updates (subteam-cg)?
  - a. <del>2023-03-14</del>
    - i. RIC-851 done
    - ii. RIC-967 (RIC subscription delete required related changes in xApp communication) added to H release. We discussed this in a meeting and decided to implement pre and post notifications aligned with RICARCH.
  - b. <del>2023-03-28, 2023-04-11, 2023-04-25, 2023-05-23: no news.</del>
  - c. 2023-05-23: presentation on RIC SUBSCRIPTION DELETE REQUIRED and communication between xApps and submgr. DONE
  - d. 2023-07-18: Cap Gemini (Gunja) conflict management presentation planned for end of July
  - e. 2023-08-01
    - i. Gunja to present conflict management design
    - ii. thinking about adding support for DU in E2T/E2M/RNIB in I release
  - f. 2023-08-22:
    - i. Gunja provided reviews for DU support. Nokia to reviewed and merged
      - 1. https://gerrit.o-ran-sc.org/r/q/topic:%22Multiple+E2+Node+support%22 and https://gerrit.o-ran-sc.org/r/q/topic: Multi\_E2\_Node
    - ii. conflit management status?
- 11. Himanshu (subteam-gs) would like to work on RIC-963

- a. code changes, but difficult to test as difficult to change order of IEs in message.
- b. 2023-06-06: Added unit tests (integrated in image building) did some changes in the stubs (based on environment variables). Next step looking into this.
- c. 2023-07-18: Code changes almost ready for RIC subscription response gerrit review coming.
- d. 2023-08-22: feedback from Anssi on submgr received and incorporating these changes, but not yet in review.
- 12. Dhiraj (subteam-r)
  - a. 2023-05-23: ipv6 Alexandre working on this: RIC 985. Note that this requires re-creation of most container images.
  - b. 2023-06-06: ipv6 fix is merged. Dhiraj tried with this new version. Containers start. Good. Investigation continues most likely fix needed in routing manager ([ brackets cause issues) and E2T (crashes to be fixed).
  - c. 2023-07-18: IPv6 changes to come as review
  - d. 2023-08-01: working on it.
  - e. 2023-08-22:
    - i. checking compliance/license issues
    - ii. How are policy types created? xApps register by policy type and understands the schema that is bound to it. Non-RT RIC should create policies using the same schema (there's a GUI for this on non-RT RIC side).
- 13. Alexandre (subteam-utfpr)
  - a. <del>2023-05-23: no news</del>
  - b. <del>2023-06-06:</del>
    - fixed IPv6 support in RMR works in IPv6 only case and in case of providing specific IPv6 address. Routing mgr might require additional work.
    - ii. seems also to be a bug in interface name solution in RMR. Remember to create a JIRA item (RIC-987)
  - c. 2023-08-22: Alexandre couldn't participate, but informed after the meeting by e-mail: "My plan for the next two weeks is to fix both RIC-989 and RIC-991 issues."
- 14. Nokia (subteam-n)
  - a. GRPC vs RMR
    - i. 2023-01-17: Still working this within Nokia. WG3 also discusses this.
    - ii. 2023 01 31, 2023 02 14, 2023 02 28, 2023 03 14, 2023 03 28, 2023 04 11, 2023 04 25, 2023 05 09, 2023 05 23, 2023 07 18: no update
  - b. 2023-08-22: want to work on RIC-997
- 15. I release content
  - a. we mark items that you are >90% sure (="committed") to work on during 2H2023 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for I release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
  - b. input for release candidates: left overs and generally open items, RSAC
  - c. Sprint dates
    - i. Sprint I release dev sprint 1: Aug-21 to Sep-10
    - ii. Sprint I release dev sprint 2: Sep-11 to Oct-1
    - iii. Sprint I release dev sprint 3: Oct-2 to Oct-22
    - iv. Sprint I release dev sprint 4: Oct-23 to Nov-12 (last planned development sprint)
    - v. Sprint I release dev sprint 5: Nov-13 to Dec-3 (only for unplanned last-minute development items)
  - d. Plan (v03 as of 2023-08-18): link
    - i. E2 enhancements, incl. conflict mgmt.
      - 1. RIC-993 (CG): Near-RT RIC conflict management (\*)
      - 2. RIC-933 (CG): Adding support for DU in E2T/E2M/RNIB
      - 3. RIC-994 (S): Support for E2APv3.0
      - 4. RIC-995 (S): Support for RIC Query
      - 5. RIC-996 (S) Support for Subscription modifications (dhiraj interested as reviewer)
      - 6. RIC-387 (S): Support for E2 reset from RIC to RAN (completes also RIC-383) (prio1) (dhiraj interested as reviewer, but we had earlier discussion on this)
      - 7. RIC-997 (N): Handling of RIC Error indication \_during\_ E2 setup
      - 8. RIC-963 (GS)modify src code to be more lenient in ordering of IEs in ASN.1
    - ii. Other
      - 1. RIC-998 (S): K8S operators for deploying/undeploy xApps(\*(1))
      - 2. RIC-999 (S): A1 alignment with A1AP (still under investigation. Minimum is using correct URL) (\*(1))
      - 3. RIC-954 (S): DMS Rest API support for deleting/undeploy xApps (DMS REST is 2nd ifc addressing same space as dmscli) (1)
      - 4. Already in H: RIC-985 (UTFPR) IPv6 support for RMR
      - 5. RIC-1000 (R): Support for only-IPv6 in RIC-internal interfaces
      - 6. Abhijit will create issue and send e-mail
- 2. RICAPP agenda: RICAPP Meetings.

### 2023-08-01

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. Last checked on 2023-04-11
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/10923 OK, module version updates only
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2023-05-23: we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link

- a. new: RIC-991 rmr related (not a duplicate) Alexandre will take a look
- b. new: RIC-989 rmr (minor) security issue Alexandre will take a look
- c. new: RIC-988 CLOSED e2 component configuration Duplicate of fix https://gerrit.o-ran-sc.org/r/gitweb?p=ric-plt/e2mgr.git;a=commit; h=d2f1a29d3f1cc779045148a82729f644e6110776
- d. RIC-986 ping-pong example xapp-frame-py needs fixes in the dockerfile
- e. RIC-979 Decode Error with e2sim on e2term Pod AP-Subhash/Naman add logs
- f. RIC-972 URL for A1 mediator to align with spec.
- g. RIC-965 RMR wormhole connections uses stale endpoints to make connections
- h. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
- i. RIC-915 dms\_cli for installing xapp not working (raised by James)
- j. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
- k. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
- I. RIC-897 SCTP connection fails with Viavi // update with workaround
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- o. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
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- r. RIC-837 RMR is not forwarding messages from E2T to E2M
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  - a. Himanshu presented the integration of SDRAN-fork of OAI (with SDRAN E2 support added) and how the CU connects to OSC RIC
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  - i. working on existing robot test cases (that integrate xapps and platform) to be part of xtesting tests.
  - ii. Subhash asked for a wiki page documenting this work.
  - iii. WR also want to contribute to xtesting for O2. CNF package definition still open and concept of DMS.
    - 1. discussion with Bin Yang in this meeting is possible. Maybe some proposal would be good.
    - 2. Tacker-based deployment needs to be checked.
  - b. 2023-03-14, 2023-03-28: no news
  - c. 2023-04-11: H release test cases related O2 IMS committed into it/test. Some of these related to existing robot test cases.
  - d. 2023-04-25: no updates
  - e. 2023-05-09:
    - i. Q-to-James: summary of what you presented in TOC (1 min) and let's raise question to all for input to integration project.
      - 1. Xtesting is used in integration project now (already for 6 months or so). Xtesting works also with robot test cases.
      - 2. James working in this integration for the test cases that are already in it/test. Infrastructure team also contributed O2 releated robot test cases (requires o-loud).
      - 3. Input from other subprojects, incl. our near-RT RIC project?
    - ii. James needs some hints on how to run the existing robot test cases in it/test related to missing env variables: GLOBAL\_INJECTED\_E2MGR\_USER and APPMGR\_ENDPOINT.
  - f. 2023-05-23 no news
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    - i. usage of robot test cases (from it/test) is still something that James is thinking about.
    - ii. Himanshu commented that he tried OAI CU/DU with OSC RIC and KPM xApp.
  - h. 2023-08-01:
    - i. O2 integration with OSC RIC is still pending with WR.
    - ii. OAI was discussed in last week's TOC, and it seems OAI license is not blokcer for using OAI in OSC-labs.
- 6. Prashant's work in near-RT RIC(subteam-p)
  - a. 2023-04-25:
    - i. Prashant updated call flow for A1 polciy status update. Will send it for review RIC-973.
    - ii. Prashant, pls. create JIRA item for the Golang implementation related to policytypes: RIC-975 DONE
    - iii. Prashant, pls. create JIRA item for the SCTP E2 timeout change. RIC-976 Three reviews, but only one is valid
  - b. 2023-05-09
    - i. question related to O1 (for stats handling without Vespa) see RIC-798
  - c. 2023-05-23
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/11127?usp=search and two more minor ones to be reviewed Naman/Subhash during this week
    - ii. E2 Alexandre to review 2023-06-06: merged
  - d. 2023-06-06: Prashant posted in O-RAN WG3 on O1 a question related on the why of notifications + SFTP. No reply yet.
    - i. 2023-07-18: feedback was that this is a 3GPP issue. Not further following up on this.
  - e. 2023-06-18: Thoralf-AP: remove all items above as they are done
- 7. Sunil updates (subteam-h)?
  - a. 2023-03-14, 2023-03-28, 2023-04-11, 2023-04-25, 2023-05-09: no news
  - b. 2023-05-23: all items from HCL to be moved to I release.
  - c. 2023-07-18, 2023-08-01: no news
- 8. Subhash/Naman updates (subteam-s) ?
  - a. 2023-02-28: working on RNIB models for E2 reset. Nanobot integration with A1 mediator. kServe adapter work ongoing (RICDMS extension planned).
    - i. Kserve adapter (mentioned in RSAC and e-mail from Hoejoo),
      - 1. 2023-01-31 Joseph presented the kserve part. We agreed as working assumption to go for solution #1 (slide 2) with model-based inference. Comments by e-mail to Joseph. Slideset: link
        - a. Thoralf to create JIRA item for this
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        - c. 2023-02-14: Subhash discussed with Hoejoo on this (internally) maybe a presentation coming later
        - d. https://wiki.o-ran-sc.org/plugins/servlet/mobile?contentId=67535114#content/view/67535114

- 2. Integration with AI/ML project: kserve\_adapter
  - a. data pipeline (Hoejoo's e-mail)
    - i. 2023-01-31 not discussed in today's meeting
- b. 2023-03-14:
  - i. E2 Reset E2mgr changes done. submgr change and notification to xapp still open.
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  - a. GRPC vs RMR
    - i. 2023-01-17: Still working this within Nokia. WG3 also discusses this.

- ii. 2023-01-31, 2023-02-14, 2023-02-28, 2023-03-14, 2023-03-28, 2023-04-11, 2023-04-25, 2023-05-09, 2023-05-23, 2023-07-18: no update
- 15. I release content
  - a. we mark items that you are >90% sure (="committed") to work on during 2H2023 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for I release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
  - b. input for release candidates: left overs and generally open items, RSAC
  - c. Sprint dates
    - i. Sprint G release dev sprint 1: Aug-21 to Sep-10
    - ii. Sprint G release dev sprint 2: Sep-11 to Oct-1
    - iii. Sprint G release dev sprint 3: Oct-2 to Oct-22
    - iv. Sprint G release dev sprint 4: Oct-23 to Nov-12 (last planned development sprint)
    - v. Sprint G release dev sprint 5: Nov-13 to Dec-3 (only for unplanned last-minute development items)
  - d. We go through the rough views on what you might want to work on. Also as input use delayed items from previous release link
  - e. 2023-07-18: Naman proposed E2APv3.0 update and some A1 changes
    - i. E2APv3.0 changes for existing functionality (possible item for release I) to be sent by e-mail.
      - 1. Dhiraj to be involved.
    - ii. Changes for A1 to achieve spec compliance (for the URL change we could do it in a backwards compatible way)
    - iii. E2 Reset from RIC to RAN
  - f. 2023-07-18: (Dhiraj) IPv6 changes
  - g. 2023-07-18: (Thoralf) RIC Error indication during E2 setup
  - h. 2023-07-18: (Dhiraj) (not committed, but can prepare a list on where dynamic log level change is missing)
  - i. 2023-08-01: Summary of plans:
    - i. E2-related
      - 1. Near-RT RIC conflict management
      - 2. Adding support for DU in E2T/E2M/RNIB
      - 3. Support for E2APv3.0
      - 4. Support for RIC Query
      - 5. Support for Subscription modifications
      - 6. Support for E2 reset from RIC to RAN
      - 7. Handling of RIC Error indication \_during\_ E2 setup.
      - 8. RIC-963 modify src code to be more lenient in ordering of IEs in ASN.1
    - ii. Other
      - 1. K8S operators for deploying xApps
      - 2. A1 alignment with A1AP (still under investigation. Minimum is using correct URL)
      - 3. DMS Rest API support for deleting/undeploy xApps (DMS REST is 2nd ifc addressing same space as dmscli)
      - 4. IPv6 support for RMR
      - 5. Support for only-IPv6 in RIC-internal interfaces
- 16. RICAPP agenda: RICAPP Meetings.

### 2023-07-18

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. Last checked on 2023-04-11
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/10923 OK, module version updates only
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2023-05-23: we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. new: RIC-989 rmr (minor) security issue
  - b. new: RIC-988 CLOSED e2 component configuration Duplicate of fix https://gerrit.o-ran-sc.org/r/gitweb?p=ric-plt/e2mgr.git;a=commit; h=d2f1a29d3f1cc779045148a82729f644e6110776
  - c. RIC-986 ping-pong example xapp-frame-py needs fixes in the dockerfile
  - d. RIC-979 Decode Error with e2sim on e2term Pod AP-Subhash/Naman add logs
  - e. RIC-972 URL for A1 mediator to align with spec.
  - f. RIC-965 RMR wormhole connections uses stale endpoints to make connections
  - g. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
  - h. RIC-915 dms\_cli for installing xapp not working (raised by James)
  - i. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - j. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - k. RIC-897 SCTP connection fails with Viavi // update with workaround
  - I. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - m. RIC-894 long idle period (days) causes RMR connection breaks
  - n. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - o. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - p. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - q. RIC-837 RMR is not forwarding messages from E2T to E2M
  - r. RIC-835 2021-12-07 no news from Viktor

- s. fixed:
- 4. James: updates?
  - a. 2023-01-31:
    - i. working on existing robot test cases (that integrate xapps and platform) to be part of xtesting tests.
    - ii. Subhash asked for a wiki page documenting this work.
    - iii. WR also want to contribute to xtesting for O2. CNF package definition still open and concept of DMS.
      - 1. discussion with Bin Yang in this meeting is possible. Maybe some proposal would be good.
      - 2. Tacker-based deployment needs to be checked.
  - b. 2023-03-14, 2023-03-28: no news
  - c. 2023-04-11: H release test cases related O2 IMS committed into it/test. Some of these related to existing robot test cases.
  - d. 2023-04-25: no updates
  - e. 2023-05-09:
    - i. Q-to-James: summary of what you presented in TOC (1 min) and let's raise question to all for input to integration project.
      - 1. Xtesting is used in integration project now (already for 6 months or so). Xtesting works also with robot test cases.
      - 2. James working in this integration for the test cases that are already in it/test. Infrastructure team also contributed O2 releated robot test cases (requires o-loud).
      - 3. Input from other subprojects, incl. our near-RT RIC project?
    - ii. James needs some hints on how to run the existing robot test cases in it/test related to missing env variables:
    - GLOBAL\_INJECTED\_E2MGR\_USER and APPMGR\_ENDPOINT.
  - f. 2023-05-23 no news
  - g. 2023-07-18: James' focus is currently on OSC & OAI cooperation. Current thinking is to use Taiwan lab to host OAI -based installation over E2AP (2.0). See also https://openairinterface.org/mosaic5g/
    - i. usage of robot test cases (from it/test) is still something that James is thinking about.
    - ii. Himanshu commented that he tried OAI CU/DU with OSC RIC and KPM xApp.
- 5. Prashant's work in near-RT RIC
  - a. 2023-04-25:
    - i. Prashant updated call flow for A1 polciy status update. Will send it for review RIC-973.
    - ii. Prashant, pls. create JIRA item for the Golang implementation related to policytypes: RIC-975 DONE
    - iii. Prashant, pls. create JIRA item for the SCTP E2 timeout change. RIC-976 Three reviews, but only one is valid
  - b. 2023-05-09
    - i. question related to O1 (for stats handling without Vespa) see RIC-798
  - c. 2023-05-23
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/11127?usp=search and two more minor ones to be reviewed Naman/Subhash during this week
    - ii. E2 Alexandre to review 2023-06-06: merged
  - d. 2023-06-06: Prashant posted in O-RAN WG3 on O1 a question related on the why of notifications + SFTP. No reply yet.
    - i. 2023-07-18: feedback was that this is a 3GPP issue. Not further following up on this.
  - e. 2023-06-18: Thoralf-AP: remove all items above as they are done
- 6. Sunil updates?
  - a. 2023-03-14, 2023-03-28, 2023-04-11, 2023-04-25, 2023-05-09: no news
  - b. 2023-05-23: all items from HCL to be moved to I release.
  - c. 2023-07-18: no news
- 7. Subhash/Naman updates?
  - a. 2023-02-28: working on RNIB models for E2 reset. Nanobot integration with A1 mediator. kServe adapter work ongoing (RICDMS extension planned).
    - i. Kserve adapter (mentioned in RSAC and e-mail from Hoejoo),
      - 2023-01-31 Joseph presented the kserve part. We agreed as working assumption to go for solution #1 (slide 2) with model-based inference. Comments by e-mail to Joseph. Slideset: link
        - a. Thoralf to create JIRA item for this
        - Subhash/Thoralf commented that ricdms cli and REST should be implemented at same time. But also ok if only in one.
        - c. 2023-02-14: Subhash discussed with Hoejoo on this (internally) maybe a presentation coming later
        - d. https://wiki.o-ran-sc.org/plugins/servlet/mobile?contentId=67535114#content/view/67535114
      - 2. Integration with AI/ML project: kserve\_adapter
        - a. data pipeline (Hoejoo's e-mail)
          - i. 2023-01-31 not discussed in today's meeting
  - b. 2023-03-14:
    - i. E2 Reset E2mgr changes done. submgr change and notification to xapp still open.
    - ii. A1 mediator nanobot integration still under work
  - c. 2023-03-28: work continues
  - d. 2023-04-11: E2 reset work in submgr is now under work.
  - e. 2023-04-25: Naman working on E2 reset (submgr part), ricdms not too much progress. no update on kserve
  - f. 2023-05-09:
    - i. E2 reset done, but still one more review coming on submgr to block subscriptions fo0r E2 nodes under reset.
    - ii. A1 bug fixes being almost ready.
    - iii. A1 mediator nanobot might be delayed.
    - iv. Al/ML adapter work is still ongoing ricdms changes still coming during next 1-2 weeks.
  - g. 2023-05-23
    - i. E2 reset (from E2 node): done
    - ii. KServe adapter still being worked on.
    - iii. nanobot integration still being worked on.
  - h. 2023-07-18: no news, planning for I release
- 8. Abhijit updates?
  - a. Abhijit is now committer for the rust subsystems (platform and xapp) but there seem to be issues on LF side that didn't actually made this happen.
    - i. Thoralf raised support request to LF. Reminders sent. Still no solution.
  - b. 2023-03-14: now has access to hw-rust, but not yet xapp-frame-rust (no need to escalate yet). CI for xapp-frame-rust works now.
  - c. 2023-03-28: working on RIC-969 and part of RIC-957
  - d. 2023-04-11:

- i. RIC-969 first set of APIs (SDL) implemented. RNIB not yet (also under RIC-969).
- ii. hw world xApp should grow with the implementation of xapp-frame-rust. Initial hw-rust xapp will show use of SDL/RNIB.
- e. 2023-04-25
  - i. working on RNIB support in rust (https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/10906) and next step hw-rust.
- f. 2023-05-09
  - i. RIC-977 (subscription API) pls. merge.
  - ii. RIC-978 pls. try to complete during this week.
  - iii. issues with E2 simulator to get in contact with Naman and Subhash
- g. 2023-05-23
  - i. hw-rust xapp using xapp descriptor (config.json) works, but still fixing lifeness and readiness probe
  - ii. testing of subscriptions using hw-rust (facing the E2T problem)
- h. 2023-07-18: no news
- 9. Cap Gemini updates?
  - a. 2023-03-14
    - i. RIC-851 done
    - ii. RIC-967 (RIC subscription delete required related changes in xApp communication) added to H release. We discussed this in a meeting and decided to implement pre and post notifications aligned with RICARCH.
  - b. 2023-03-28, 2023-04-11, 2023-04-25, 2023-05-23: no news.
  - c. 2023-05-23: presentation on RIC SUBSCRIPTION DELETE REQUIRED and communication between xApps and submgr. DONE
  - d. 2023-07-18: Cap Gemini (Gunja) conflict management presentation planned for end of July
- 10. Himanshu would like to work on RIC-963
  - a. code changes, but difficult to test as difficult to change order of IEs in message.
  - b. 2023-06-06: Added unit tests (integrated in image building) did some changes in the stubs (based on environment variables). Next step looking into this.
  - c. 2023-07-18: Code changes almost ready for RIC subscription response gerrit review coming.
- 11. Dhiraj
  - a. 2023-05-23: ipv6 Alexandre working on this: RIC-985. Note that this requires re-creation of most container images.
  - b. 2023-06-06: ipv6 fix is merged. Dhiraj tried with this new version. Containers start. Good. Investigation continues most likely fix needed in routing manager ([ brackets cause issues) and E2T (crashes to be fixed).
  - c. 2023-07-18: IPv6 changes to come as review
- 12. Alexandre
  - a. 2023-05-23: no news
  - b. 2023-06-06:
    - fixed IPv6 support in RMR works in IPv6 only case and in case of providing specific IPv6 address. Routing mgr might require additional work.
    - ii. seems also to be a bug in interface name solution in RMR. Remember to cretae a JIRA item
- 13. I release content
  - a. we mark items that you are >90% sure (="committed") to work on during 2H2023 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for I release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
  - b. input for release candidates: left overs and generally open items, RSAC
  - c. Sprint dates
    - i. Sprint G release dev sprint 1: Aug-21 to Sep-10
    - ii. Sprint G release dev sprint 2: Sep-11 to Oct-1
    - iii. Sprint G release dev sprint 3: Oct-2 to Oct-22
    - iv. Sprint G release dev sprint 4: Oct-23 to Nov-12 (last planned development sprint)
    - v. Sprint G release dev sprint 5: Nov-13 to Dec-3 (only for unplanned last-minute development items)
  - d. We go through the rough views on what you might want to work on. Also as input use delayed items from previous release link
  - e. 2023-07-18: Naman proposed E2APv3.0 update and some A1 changes
    - i. E2APv3.0 changes for existing functionality (possible item for release I) to be sent by e-mail.
      - 1. Dhiraj to be involved.
    - ii. Changes for A1 to achieve spec compliance (for the URL change we could do it in a backwards compatible way)
    - iii. E2 Reset from RIC to RAN
  - f. 2023-07-18: (Dhiraj) IPv6 changes
  - g. 2023-07-18: (Thoralf) RIC Error indication during E2 setup
  - h. 2023-07-18: (Dhiraj) (not committed, but can prepare a list on where dynamic log level change is missing)
- 14. GRPC vs RMR
  - a. 2023-01-17: Still working this within Nokia. WG3 also discusses this.
  - b. 2023-01-31, 2023-02-14, 2023-02-28, 2023-03-14, 2023-03-28, 2023-04-11, 2023-04-25, 2023-05-09, 2023-05-23, 2023-07-18: no update
- RICAPP agenda: RICAPP Meetings.

### 2023-07-04

Since neither Thoralf nor Sunil can host this meeting it is cancelled.

2023-06-20

we did the demo meeting in the timeslot: link

# 2023-06-06

Recording: partial-only: link to zoom recording

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. Last checked on 2023-04-11
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/10923 OK, module version updates only
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2023-05-23: we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-986 ping-pong example xapp-frame-py needs fixes in the dockerfile
  - b. RIC-979 Decode Error with e2sim on e2term Pod AP-Subhash/Naman add logs
  - c. RIC-974 done: Errors running example ping/pong application in `xapp-frame-py , incl. new release of builder image. Can be closed after that.
  - d. RIC-972 URL for A1 mediator to align with spec.
  - e. RIC-965 RMR wormhole connections uses stale endpoints to make connections
  - f. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
  - g. RIC-915 dms\_cli for installing xapp not working (raised by James)
  - h. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - i. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - j. RIC-897 SCTP connection fails with Viavi // update with workaround
  - k. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - I. RIC-894 long idle period (days) causes RMR connection breaks
  - m. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - n. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - o. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - p. RIC-837 RMR is not forwarding messages from E2T to E2M
  - q. RIC-835 2021-12-07 no news from Viktor
  - r. fixed: RIC-974, RIC-980, RIC-981
- 4. H release status page: H Release #Near-Real-timeRANIntelligentControllerPlatform(E2Interface)(RICPLT) 2023-06-06 we checked the status a. Thoralf expects everything to be ready by Jun-22
- 5. O-RAN SC end of release of near-RT RIC: Demo scheduled for 2 weeks from now: 2023-06-20 Release H
- 6. Demo videos (Prashant, Subhash, Gunja) for O-RAN face-to-face to be ready this week: upload video here: Material for O-RAN June f2f in Osaka Jinri will combine
- 7. 2022-12-13, 2023-01-17: Bin Yang asked about O2 for RIC platform deployment and xapp deployment. Need to discuss on this topic. O-cloud is deployed in AT&T and Taiwan lab.
  - a. The current platform deployment scripts might not be in line with O2 envisions
  - b. David Liu (WR) asked from James on O2 as well. James to check if a proposal on using X testing framework could also be used for integration. There's is also a link to robot test cases.
  - c. O2-D(MS) is relevant to RIC platform.
  - d. deploying xApps (LCM) is also an O2 issue the alternative of using CRDs is not implemented in OSC RIC. Could be implemented as second option for deploying xApps.
  - e. 2023-01-31: No news yet
  - f. 2023-02-14: No news yet, Thoralf received e-mail on this from James. Still to check.
  - g. 2023-02-28: some e-mail discussion. Ball's on Bin Yang & James side. Subhash and Thoralf discussed this and Thoralf to call a meeting with Bin Yang, subhash, James, Thoralf.
  - h. 2023-03-14: AP-James Meeting was held. We see use cases around deploying RIC platform using helm charts over O2; and deploying xApps over O2. For xApps the role of descriptor->helmchartsk8s manifests in SMO is still missing. AP for James to check with SMO project on ASD (porting or making available "ricdms/dmscli" to SMO; kserve adapter also affected as it uses ricdms) and support for deploying using helm charts and James to discuss with RSAC. Bin-Yang wants to check how RIC can be deployed using helm charts only.
  - i. 2023-03-28: no news
  - j. 2023-04-11: Tacker team provided ideas on SMO architecture (in context of RSAC). No immediate action items for Near-RT RIC platform project
  - k. 2023-04-25, 2023-05-09, 2023-05-23: no news
- 8. James: updates?
  - a. 2023-01-31:
    - i. working on existing robot test cases (that integrate xapps and platform) to be part of xtesting tests.
    - ii. Subhash asked for a wiki page documenting this work.
    - iii. WR also want to contribute to xtesting for O2. CNF package definition still open and concept of DMS.
      - 1. discussion with Bin Yang in this meeting is possible. Maybe some proposal would be good.
      - 2. Tacker-based deployment needs to be checked.
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  - c. 2023-04-11: H release test cases related O2 IMS committed into it/test. Some of these related to existing robot test cases.
  - d. 2023-04-25: no updates
  - e. 2023-05-09:
    - i. Q-to-James: summary of what you presented in TOC (1 min) and let's raise question to all for input to integration project.
      - 1. Xtesting is used in integration project now (already for 6 months or so). Xtesting works also with robot test cases.
      - James working in this integration for the test cases that are already in it/test. Infrastructure team also contributed O2 releated robot test cases (requires o-loud).
      - 3. Input from other subprojects, incl. our near-RT RIC project?
    - ii. James needs some hints on how to run the existing robot test cases in it/test related to missing env variables: GLOBAL\_INJECTED\_E2MGR\_USER and APPMGR\_ENDPOINT.
  - f. 2023-05-23 no news
- 9. Prashant's work in near-RT RIC
  - a. 2023-04-25:
    - i. Prashant updated call flow for A1 polciy status update. Will send it for review RIC-973.

- ii. Prashant, pls. create JIRA item for the Golang implementation related to policytypes: RIC-975 DONE
- iii. Prashant, pls. create JIRA item for the SCTP E2 timeout change. RIC-976 Three reviews, but only one is valid
- b. 2023-05-09
  - i. question related to O1 (for stats handling without Vespa) see RIC-798
- c. 2023-05-23
  - https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/11127?usp=search and two more minor ones to be reviewed Naman/Subhash during this week
  - ii. E2 Alexandre to review 2023-06-06: merged
- d. 2023-06-06: Prashant posted in O-RAN WG3 on O1 a question related on the why of notifications + SFTP. No reply yet.
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  - b. 2023-05-23: all items from HCL to be moved to I release.
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  - a. 2023-02-28: working on RNIB models for E2 reset. Nanobot integration with A1 mediator. kServe adapter work ongoing (RICDMS extension planned).
    - i. Kserve adapter (mentioned in RSAC and e-mail from Hoejoo),
      - 1. 2023-01-31 Joseph presented the kserve part. We agreed as working assumption to go for solution #1 (slide 2) with model-based inference. Comments by e-mail to Joseph. Slideset: link
        - a. Thoralf to create JIRA item for this
        - Subhash/Thoralf commented that ricdms cli and REST should be implemented at same time. But also ok if only in one.
        - c. 2023-02-14: Subhash discussed with Hoejoo on this (internally) maybe a presentation coming later
        - d. https://wiki.o-ran-sc.org/plugins/servlet/mobile?contentId=67535114#content/view/67535114
      - 2. Integration with AI/ML project: kserve\_adapter
        - a. data pipeline (Hoejoo's e-mail)
          - i. 2023-01-31 not discussed in today's meeting
  - b. 2023-03-14:
    - i. E2 Reset E2mgr changes done. submgr change and notification to xapp still open.
    - ii. A1 mediator nanobot integration still under work
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  - d. 2023-04-11:
    - i. RIC-969 first set of APIs (SDL) implemented. RNIB not yet (also under RIC-969).
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  - e. 2023-04-25
    - i. working on RNIB support in rust (https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/10906) and next step hw-rust.
  - f. 2023-05-09
    - i. RIC-977 (subscription API) pls. merge.
    - ii. RIC-978 pls. try to complete during this week.
    - iii. issues with E2 simulator to get in contact with Naman and Subhash
  - g. 2023-05-23
    - i. hw-rust xapp using xapp descriptor (config.json) works, but still fixing lifeness and readiness probe
    - ii. testing of subscriptions using hw-rust (facing the E2T problem)
- 13. Cap Gemini updates?
  - a. 2023-03-14
    - i. RIC-851 done
    - ii. RIC-967 (RIC subscription delete required related changes in xApp communication) added to H release. We discussed this in a meeting and decided to implement pre and post notifications aligned with RICARCH.
  - b. 2023-03-28, 2023-04-11, 2023-04-25, 2023-05-23: no news.
  - c. 2023-05-23: presentation on RIC SUBSCRIPTION DELETE REQUIRED and communication between xApps and submgr. DONE
- 14. Himanshu would like to work on RIC-963
  - a. code changes, but difficult to test as difficult to change order of IEs in message.
  - b. 2023-06-06: Added unit tests (integrated in image building) did some changes in the stubs (based on environment variables). Next step looking into this.
- 15. Dhiraj
  - a. 2023-05-23: ipv6 Alexandre working on this: RIC-985. Note that this requires re-creation of most container images.
  - b. 2023-06-06: ipv6 fix is merged. Dhiraj tried with this new version. Containers start. Good. Investigation continues most likely fix needed in routing manager ([ brackets cause issues) and E2T (crashes to be fixed).
- 16. Alexandre
  - a. 2023-05-23: no news
  - b. 2023-06-06:
    - fixed IPv6 support in RMR works in IPv6 only case and in case of providing specific IPv6 address. Routing mgr might require additional work.

- ii. seems also to be a bug in interface name solution in RMR. Remember to cretae a JIRA item.
- 17. H release content
  - a. we mark items that you are >90% sure (="committed") to work on during 1H2023 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for H release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
  - b. Sprint dates
    - i. Sprint H release dev sprint 1: Feb-20'to Mar-12
    - ii. Sprint H release dev sprint 2: Mar-13 to Apr-2
    - iii. Sprint H release dev sprint 3: Apr-3 to Apr-23
    - iv. Sprint H release dev sprint 4: Apr-24 to May-14 (last planned development sprint)
    - v. Sprint H release dev sprint 5: May-15 to Jun-4 (only for unplanned last-minute development items)
- c. We go through the rough views on what you might want to work on. Also as input use delayed items from previous release link 18. GRPC vs RMR
  - a. 2023-01-17: Still working this within Nokia. WG3 also discusses this.
  - b. 2023-01-31, 2023-02-14, 2023-02-28, 2023-03-14, 2023-03-28, 2023-04-11, 2023-04-25, 2023-05-09, 2023-05-23: no update
- 19. RICAPP agenda: RICAPP Meetings.

### 2023-05-23

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. Last checked on 2023-04-11
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/10923 OK, module version updates only
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2023-05-23: we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-980 new-and-doneNaman Reading Configuration for rmr from config file
  - b. RIC-981 new-and-doneNaman Missing health check checking the Db connection through SDL even when the a1 name space is not present in db
  - c. RIC-979 Decode Error with e2sim on e2term Pod AP-Subhash/Naman add logs
  - d. RIC-974 done: Errors running example ping/pong application in `xapp-frame-py , incl. new release of builder image. Can be closed after that.
  - e. RIC-972 URL for A1 mediator to align with spec.
  - f. RIC-965 RMR wormhole connections uses stale endpoints to make connections
  - g. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
  - h. RIC-915 dms\_cli for installing xapp not working (raised by James)
  - i. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - j. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - k. RIC-897 SCTP connection fails with Viavi // update with workaround
  - I. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - m. RIC-894 long idle period (days) causes RMR connection breaks
  - n. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - o. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - p. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - q. RIC-837 RMR is not forwarding messages from E2T to E2M
  - r. RIC-835 2021-12-07 no news from Viktor
  - s. fixed: RIC-974, RIC-980, RIC-981
- 2022-12-13, 2023-01-17: Bin Yang asked about O2 for RIC platform deployment and xapp deployment. Need to discuss on this topic. O-cloud is deployed in AT&T and Taiwan lab.
  - a. The current platform deployment scripts might not be in line with O2 envisions
  - b. David Liu (WR) asked from James on O2 as well. James to check if a proposal on using X testing framework could also be used for integration. There's is also a link to robot test cases.
  - c. O2-D(MS) is relevant to RIC platform.
  - d. deploying xApps (LCM) is also an O2 issue the alternative of using CRDs is not implemented in OSC RIC. Could be implemented as second option for deploying xApps.
  - e. 2023-01-31: No news yet
  - f. 2023-02-14: No news yet, Thoralf received e-mail on this from James. Still to check.
  - g. 2023-02-28: some e-mail discussion. Ball's on Bin Yang & James side. Subhash and Thoralf discussed this and Thoralf to call a meeting with Bin Yang, subhash, James, Thoralf.
  - h. 2023-03-14: **AP-James** Meeting was held. We see use cases around deploying RIC platform using helm charts over O2; and deploying xApps over O2. For xApps the role of descriptor->helmchartsk8s manifests in SMO is still missing. AP for James to check with SMO project on ASD (porting or making available "ricdms/dmscli" to SMO; kserve adapter also affected as it uses ricdms) and support for deploying using helm charts and James to discuss with RSAC. Bin-Yang wants to check how RIC can be deployed using helm charts only.
  - i. 2023-03-28: no news
  - j. 2023-04-11: Tacker team provided ideas on SMO architecture (in context of RSAC). No immediate action items for Near-RT RIC platform project
  - k. 2023-04-25, 2023-05-09, **2023-05-23**: no news
- 5. Prashant's work in near-RT RIC

- a. 2023-04-25:
  - i. Prashant updated call flow for A1 polciy status update. Will send it for review RIC-973.
  - ii. Prashant, pls. create JIRA item for the Golang implementation related to policytypes: RIC-975 DONE
  - iii. Prashant, pls. create JIRA item for the SCTP E2 timeout change. RIC-976 Three reviews, but only one is valid
- b. 2023-05-09
  - i. guestion related to O1 (for stats handling without Vespa) see RIC-798
- c. **2023-05-23** 
  - https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/11127?usp=search and two more minor ones to be reviewed Naman/Subhash during this week
  - ii. E2 Alexandre to review
- 6. James: updates?
  - a. 2023-01-31:
    - i. working on existing robot test cases (that integrate xapps and platform) to be part of xtesting tests.
    - ii. Subhash asked for a wiki page documenting this work.
    - iii. WR also want to contribute to xtesting for O2. CNF package definition still open and concept of DMS.
      - 1. discussion with Bin Yang in this meeting is possible. Maybe some proposal would be good.
      - 2. Tacker-based deployment needs to be checked.
  - b. 2023-03-14. 2023-03-28: no news
  - c. 2023-04-11: H release test cases related O2 IMS committed into it/test. Some of these related to existing robot test cases.
  - d. 2023-04-25: no updates
  - e. 2023-05-09:
    - i. Q-to-James: summary of what you presented in TOC (1 min) and let's raise question to all for input to integration project.
      - 1. Xtesting is used in integration project now (already for 6 months or so). Xtesting works also with robot test cases.
      - 2. James working in this integration for the test cases that are already in it/test. Infrastructure team also contributed O2 releated robot test cases (requires o-loud).
      - 3. Input from other subprojects, incl. our near-RT RIC project?
    - ii. James needs some hints on how to run the existing robot test cases in it/test related to missing env variables:
    - GLOBAL\_INJECTED\_E2MGR\_USER and APPMGR\_ENDPOINT.
  - f. **2023-05-23** no news
- 7. Sunil updates?
  - a. 2023-03-14, 2023-03-28, 2023-04-11, 2023-04-25, 2023-05-09: no news
  - b. 2023-05-23: all items from HCL to be moved to I release.
- 8. Subhash/Naman updates?
  - a. 2023-02-28: working on RNIB models for E2 reset. Nanobot integration with A1 mediator. kServe adapter work ongoing (RICDMS extension planned).
    - i. Kserve adapter (mentioned in RSAC and e-mail from Hoejoo),
      - 2023-01-31 Joseph presented the kserve part. We agreed as working assumption to go for solution #1 (slide 2) with model-based inference. Comments by e-mail to Joseph. Slideset: link
        - a. Thoralf to create JIRA item for this
        - Subhash/Thoralf commented that ricdms cli and REST should be implemented at same time. But also ok if only in one.
        - c. 2023-02-14: Subhash discussed with Hoejoo on this (internally) maybe a presentation coming later
        - d. https://wiki.o-ran-sc.org/plugins/servlet/mobile?contentId=67535114#content/view/67535114
      - 2. Integration with AI/ML project: kserve\_adapter
        - a. data pipeline (Hoejoo's e-mail)
          - i. 2023-01-31 not discussed in today's meeting
  - b. 2023-03-14:
    - i. E2 Reset E2mgr changes done. submgr change and notification to xapp still open.
    - ii. A1 mediator nanobot integration still under work
  - c. 2023-03-28: work continues
  - d. 2023-04-11: E2 reset work in submgr is now under work.
  - e. 2023-04-25: Naman working on E2 reset (submgr part), ricdms not too much progress. no update on kserve
  - f. 2023-05-09:
    - i. E2 reset done, but still one more review coming on submgr to block subscriptions fo0r E2 nodes under reset.
    - ii. A1 bug fixes being almost ready.
    - iii. A1 mediator nanobot might be delayed.
    - iv. Al/ML adapter work is still ongoing ricdms changes still coming during next 1-2 weeks.
  - g. **2023-05-23** 
    - i. E2 reset (from E2 node): done
    - ii. KServe adapter still being worked on.
    - iii. nanobot integration still being worked on.
- 9. Abhijit updates?
  - a. Abhijit is now committer for the rust subsystems (platform and xapp) but there seem to be issues on LF side that didn't actually made this happen.
    - i. Thoralf raised support request to LF. Reminders sent. Still no solution.
  - b. 2023-03-14: now has access to hw-rust, but not yet xapp-frame-rust (no need to escalate yet). CI for xapp-frame-rust works now.
  - c. 2023-03-28: working on RIC-969 and part of RIC-957
  - d. 2023-04-11:
    - i. RIC-969 first set of APIs (SDL) implemented. RNIB not yet (also under RIC-969).
    - ii. hw world xApp should grow with the implementation of xapp-frame-rust. Initial hw-rust xapp will show use of SDL/RNIB.
  - e. 2023-04-25
    - i. working on RNIB support in rust (https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/10906) and next step hw-rust.
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### 2023-05-09

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  - a. Last checked on 2023-04-11
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/10906 OK tests included
    - ii. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/10907 OK, tests included
    - iii. https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/11023 OK, tests included
    - iv. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/10918 OK, as files are generated
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2022-05-27, 2022-11-22, 2023-03-28, 2023-04-11: we did not do this this time
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  - a. RIC-974 Errors running example ping/pong application in `xapp-frame-py`, incl. new release of builder image. Can be closed after that.
  - b. RIC-972 URL for A1 mediator to align with spec.
  - c. DONE: RIC-971 Fix potential segfaults and double free corruption (in E2T)
  - d. RIC-965 RMR wormhole connections uses stale endpoints to make connections
  - e. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
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  - h. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - i. RIC-897 SCTP connection fails with Viavi // update with workaround
  - j. RIC-896 xapps sending same msg type and sub id fails details to be clarified
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    - i. 2021-12-21: Trying to get bandwidth for this during F release.
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  - q. fixed: RIC-971
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  - b. David Liu (WR) asked from James on O2 as well. James to check if a proposal on using X testing framework could also be used for integration. There's is also a link to robot test cases.
  - c. O2-D(MS) is relevant to RIC platform.
  - d. deploying xApps (LCM) is also an O2 issue the alternative of using CRDs is not implemented in OSC RIC. Could be implemented as second option for deploying xApps.
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  - f. 2023-02-14: No news yet, Thoralf received e-mail on this from James. Still to check.

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- i. 2023-03-28: no news
- j. 2023-04-11: Tacker team provided ideas on SMO architecture (in context of RSAC). No immediate action items for Near-RT RIC platform project
- k. 2023-04-25, 2023-05-09: no news
- 5. Prashant's work in near-RT RIC
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    - i. Prashant updated call flow for A1 polciy status update. Will send it for review RIC-973.
    - ii. Prashant, pls. create JIRA item for the Golang implementation related to policytypes: RIC-975 DONE
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  - b. 2023-05-09
    - i. question related to O1 (for stats handling without Vespa) see RIC-798
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    - iii. WR also want to contribute to xtesting for O2. CNF package definition still open and concept of DMS.
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      - 2. Tacker-based deployment needs to be checked.
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  - c. 2023-04-11: H release test cases related O2 IMS committed into it/test. Some of these related to existing robot test cases.
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    - v. Sprint H release dev sprint 5: May-15 to Jun-4 (only for unplanned last-minute development items)
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  - a. 2023-01-17: Still working this within Nokia. WG3 also discusses this.
  - b. 2023-01-31, 2023-02-14, 2023-02-28, 2023-03-14, 2023-03-28, 2023-04-11, 2023-04-25, 2023-05-09: no update
- 14. RICAPP agenda: RICAPP Meetings.

### 2023-04-25

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. Last checked on 2023-04-11
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2/+/10803 OK, bug fixed for dynamic log level change
    - ii. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/10675 OK, tests included
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
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  - e. RIC-915 dms\_cli for installing xapp not working (raised by James)
  - f. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - g. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - h. RIC-897 SCTP connection fails with Viavi // update with workaround
  - i. RIC-896 xapps sending same msg type and sub id fails details to be clarified
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  - k. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - I. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - m. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - n. RIC-837 RMR is not forwarding messages from E2T to E2M
  - o. RIC-835 2021-12-07 news from Viktor
  - p. fixed:
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  - b. David Liu (WR) asked from James on O2 as well. James to check if a proposal on using X testing framework could also be used for integration. There's is also a link to robot test cases.
  - c. O2-D(MS) is relevant to RIC platform.
  - d. deploying xApps (LCM) is also an O2 issue the alternative of using CRDs is not implemented in OSC RIC. Could be implemented as second option for deploying xApps.
  - e. 2023-01-31: No news yet
  - f. 2023-02-14: No news yet, Thoralf received e-mail on this from James. Still to check.
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  - i. 2023-03-28: no news

- j. 2023-04-11: Tacker team provided ideas on SMO architecture (in context of RSAC). No immediate action items for Near-RT RIC platform project
- k. 2023-04-25: we did not discuss
- 5. Prashant's work in near-RT RIC
  - a. 2023-04-25:
    - i. Prashant updated call flow for A1. Will send it for review RIC-973
    - ii. Prashant, pls. create JIRA item for the Golang implementation related to policytypes: RIC-975
    - iii. Prashant, pls. create JIRA item for the SCTP E2 timeout change. RIC-976
- 6. James: updates?
  - **a.** 2023-01-31:
    - i. working on existing robot test cases (that integrate xapps and platform) to be part of xtesting tests.
    - ii. Subhash asked for a wiki page documenting this work.
    - iii. WR also want to contribute to xtesting for O2. CNF package definition still open and concept of DMS.
      - 1. discussion with Bin Yang in this meeting is possible. Maybe some proposal would be good.
      - 2. Tacker-based deployment needs to be checked.
  - **b.** 2023-03-14, 2023-03-28 : no news
  - c. 2023-04-11: H release test cases related O2 IMS committed into it/test. Some of these related to existing robot test cases.
  - d. 2023-04-25: no updates
- 7. Sunil updates?
  - **a.** 2023-03-14, 2023-03-28, 2023-04-11, 2023-04-25: no news
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  - a. 2023-02-28: working on RNIB models for E2 reset. Nanobot integration with A1 mediator. kServe adapter work ongoing (RICDMS extension planned).
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        - c. 2023-02-14: Subhash discussed with Hoejoo on this (internally) maybe a presentation coming later
        - d. https://wiki.o-ran-sc.org/plugins/servlet/mobile?contentId=67535114#content/view/67535114
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        - a. data pipeline (Hoejoo's e-mail)
          - i. 2023-01-31 not discussed in today's meeting
  - **b.** 2023-03-14:
    - i. E2 Reset E2mgr changes done. submgr change and notification to xapp still open.
    - ii. A1 mediator nanobot integration still under work
  - c. 2023-03-28: work continues
  - d. 2023-04-11: E2 reset work in submgr is now under work.
  - e. 2023-04-25: Naman working on E2 reset (submgr part), ricdms not too much progress. no update on kserve
- 9. Abhijit updates?
  - a. Abhijit is now committer for the rust subsystems (platform and xapp) but there seem to be issues on LF side that didn't actually made this happen.
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  - c. 2023-03-28: working on RIC-969 and part of RIC-957
  - **d.** 2023-04-11:
    - i. RIC-969 first set of APIs (SDL) implemented. RNIB not yet (also under RIC-969).
    - ii. hw world xApp should grow with the implementation of xapp-frame-rust. Initial hw-rust xapp will show use of SDL/RNIB.
  - e. 2023-04-25
    - i. working on RNIB support in rust (https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/10906) and next step hw-rust.
- 10. Cap Gemini updates?
  - **a.** 2023-03-14
    - i. RIC-851 done
    - ii. RIC-967 (RIC subscription delete required related changes in xApp communication) added to H release. We discussed this in a meeting and decided to implement pre and post notifications aligned with RICARCH.
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    - b. 2023-01-31, 2023-02-14, 2023-02-28, 2023-03-14, 2023-03-28, 2023-04-11, 2023-04-25: no update
- 13. Himanshu would like to work on RIC-963 ok.
- 14. Anybody ever tried RIC platform with IPv6? E2T should work with IPv6 for E2. Rest Thoralf does not know.
- 15. RICAPP agenda: RICAPP Meetings.

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  - n. RIC-837 RMR is not forwarding messages from E2T to E2M
  - o. RIC-835 2021-12-07 news from Viktor
  - p. fixed: RIC-962, RIC-961, RIC-964, RIC-966, RIC-968, RIC-939, RIC-940. RIC-970
- 4. 2022-12-13, 2023-01-17: Bin Yang asked about O2 for RIC platform deployment and xapp deployment. Need to discuss on this topic. O-cloud is deployed in AT&T and Taiwan lab.
  - a. The current platform deployment scripts might not be in line with O2 envisions
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  - i. 2023-04-11: Tacker team provided ideas on SMO architecture (in context of RSAC). No immediate action items for Near-RT RIC platform project
- 5. Prashant's work in near-RT RIC
  - a. Example of additional work needed: A1 registry and "policystatusobject" (defined in spec, but not implemented in OSC near-RT RIC)
    - i. best approach is to create a JIRA item and attach document to it
    - ii. link to JIRA item
    - iii. Another issue was related to SCTP in E2. Prashant will write an e-mail on the topic (incl Alexandre )
  - b. Naman/subhash commented that e-mail is maybe good enough.
- 6. James:updates?
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### 2023-03-28 (Tuesday)

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    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/10666 OK
    - ii. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/10287 OK
    - iii. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/10405 how automated CI module testing can be done is to be discussed // also need to discuss CI // already known that this requires discussion with LF
      - 1. 2023-02-28: Abhijit worked with Matt and Sridhar from LF on this. Jobs are now running, but they fail. There's a credential issue. Abhijit to remind Sridhar. Once this is fixed, we can change Dockerfile to install prerequisites.
      - 2. **2023-03-28**: This is OK and is now closed.
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  - b. RIC-961 (fixed already)
  - c. RIC-964 (fixed already)
  - d. RIC 966 (fixed already)
  - e. RIC-968 (fixed already)
  - f. RIC-940 sdlpy missing whitespace Timo
  - g. RIC-939 race conditions in RMR Abdulwahid
  - h. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
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  - a. we mark items that you are >90% sure (="committed") to work on during 1H2023 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for H release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
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    - iii. Sprint H release dev sprint 3: Apr-3 to Apr-23
    - iv. Sprint H release dev sprint 4: Apr-24 to May-14 (last planned development sprint)
    - v. Sprint H release dev sprint 5: May-15 to Jun-4 (only for unplanned last-minute development items)
- c. We go through the rough views on what you might want to work on. Also as input use delayed items from previous release link

  11. GRPC vs RMR
  - a. 2023-01-17: Still working this within Nokia. WG3 also discusses this.
  - b. 2023-01-31, 2023-02-14, 2023-02-28, 2023-03-14, **2023-03-28** : no update
- 12. RICAPP agenda: RICAPP Meetings.

# 2023-03-14 (Tuesday)

#### Recording: link to zoom recording

We stick to the 4pm Helsinki time slot for this meeting. Note that Europe will switch to summer time on March-26. So, for people not doing the switch at the same time, the meetings after March-26 start one hour earlier. Reminder for participants from the US: The US already switched to summer time on Mar-12.

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. Last checked on 2023-02-28
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/10405 how automated CI module testing can be done is to be discussed // also need to discuss CI // already known that this requires discussion with LF
      - 1. 2023-02-28: Abhijit worked with Matt and Sridhar from LF on this. Jobs are now running, but they fail. There's a credential issue. Abhijit to remind Sridhar. Once this is fixed, we can change Dockerfile to install prerequisites.
    - ii. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/10287 waiting for test cases, Gunja know and will update test case.
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2022-05-27. 2022-11-22: we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. new bug report RIC-962
  - b. RIC-961 (fixed already)
  - c. RIC-964 (fixed already)
  - d. RIC\_966 (fixed already)
  - e. RIC-968 (fixed already)
  - f. RIC-940 sdlpy missing whitespace Timo
  - g. RIC-939 race conditions in RMR Abdulwahid
  - h. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)

  - i. RIC-915 dms\_cli for installing xapp not working (raised by James)
     j. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - k. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - I. RIC-897 SCTP connection fails with Viavi // update with workaround
  - m. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - n. RIC-894 long idle period (days) causes RMR connection breaks
  - o. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - p. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - q. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - r. RIC-837 RMR is not forwarding messages from E2T to E2M
  - s. RIC-835 2021-12-07 news from Viktor
  - t. fixed: no new fixes
  - u. anybody would like to get more familiar with RMR?
- 4. 2022-12-13, 2023-01-17: Bin Yang asked about O2 for RIC platform deployment and xapp deployment. Need to discuss on this topic. O-cloud is deployed in AT&T and Taiwan lab.
  - a. The current platform deployment scripts might not be in line with O2 envisions
  - b. David Liu (WR) asked from James on O2 as well. James to check if a proposal on using X testing framework could also be used for integration. There's is also a link to robot test cases.
  - c. O2-D(MS) is relevant to RIC platform.
  - d. deploying xApps (LCM) is also an O2 issue the alternative of using CRDs is not implemented in OSC RIC. Could be implemented as second option for deploying xApps.
  - e. 2023-01-31: No news yet
  - f. 2023-02-14 No news yet, Thoralf received e-mail on this from James. Still to check.
  - g. 2023-02-28: some e-mail discussion. Ball's on Bin Yang & James side. Subhash and Thoralf discussed this and Thoralf to call a meeting with Bin Yang, subhash, James, Thoralf.
  - h. 2023-03-14: AP-James Meeting was held. We see use cases around deploying RIC platform using helm charts over O2; and deploying xApps over O2. For xApps the role of descriptor->helmchartsk8s manifests in SMO is still missing. AP for James to check with SMO project on ASD (porting or making available "ricdms/dmscli" to SMO; kserve adapter also affected as it uses ricdms) and support for deploying using helm charts and James to discuss with RSAC. Bin-Yang wants to check how RIC can be deployed using helm charts only.
- 5. James:updates?
  - a. 2023-01-31:
    - i. working on existing robot test cases (that integrate xapps and platform) to be part of xtesting tests.
    - ii. Subhash asked for a wiki page documenting this work.
    - iii. WR also want to contribute to xtesting for O2. CNF package definition still open and concept of DMS.
      - 1. discussion with Bin Yang in this meeting is possible. Maybe some proposal would be good.
      - 2. Tacker-based deployment needs to be checked.
  - b. 2023-03-14: no news
- 6. Sunil updates?
  - a. 2023-03-14: no news
- 7. Subhash/Naman updates?
  - a. 2023-02-28: working on RNIB models for E2 reset. Nanobot integration with A1 mediator. kServe adapter work ongoing (RICDMS extension planned).
    - i. Kserve adapter (mentioned in RSAC and e-mail from Hoejoo),
      - 1. 2023-01-31 Joseph presented the kserve part. We agreed as working assumption to go for solution #1 (slide 2) with model-based inference. Comments by e-mail to Joseph. Slideset: link

- a. Thoralf to create JIRA item for this
- Subhash/Thoralf commented that ricdms cli and REST should be implemented at same time. But also ok if only in one.
- c. 2023-02-14: Subhash discussed with Hoejoo on this (internally) maybe a presentation coming later
- d. https://wiki.o-ran-sc.org/plugins/servlet/mobile?contentId=67535114#content/view/67535114

#### b. 2023-03-14:

- i. E2 Reset E2mgr changes done. submgr change and notification to xapp still open.
- ii. A1 mediator nanobot integration still under work.
- 8. Abhijit updates?
  - a. Abhijit is now committer for the rust subsystems (platform and xapp) but there seem to be issues on LF side that didn't actually made this happen.
    - i. Thoralf raised support request to LF. Reminders sent. Still no solution.
  - b. 2023-03-14: now has access to hw-rust, but not yet xapp-frame-rust (no need to escalate yet). CI for xapp-frame-rust works now.
- 9. Cap Gemini updates?
  - a. 2023-03-14
    - i. RIC-851 done
    - ii. RIC-967 (RIC subscription delete required related changes in xApp communication) added to H release. We discussed this in a meeting and decided to implement pre and post notifications aligned with RICARCH.
- 10. H release content
  - a. we mark items that you are >90% sure (="committed") to work on during 1H2023 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for H release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
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  - b. 2023-01-31, 2023-02-14, 2023-02-28, **2023-03-14**: no update
- 12. Integration with AI/ML project: kserve\_adapter
  - a. data pipeline (Hoejoo's e-mail)
    - i. 2023-01-31 not discussed in today's meeting
- 13. Gunja and Sachin (CapGemini) presented changes that were done for RIC subscription delete required as per RIC-851. Thoralf to start a mail thread with Nitin, Subhash, Gunja, Sachin on how xapps can be notified of subscription changes. link to the presentation **2023-03-14**: Discussion done and resulted in RIC-967.
- 14. RICAPP agenda: RICAPP Meetings.

# 2023-02-28 (Tuesday)

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. Last checked on 2023-02-28
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    - iii. WR also want to contribute to xtesting for O2. CNF package definition still open and concept of DMS.
      - 1. discussion with Bin Yang in this meeting is possible. Maybe some proposal would be good.
      - 2. Tacker-based deployment needs to be checked.
  - b. 2023-02-14: no updates
  - c. 2023-02-28: no updates (James did not participate).
- 6. Sunil updates?
  - a. **2023-02-28:** no updates
- 7. Subhash/Naman updates?
  - a. 2023-02-28: working on RNIB models for E2 reset. Nanobot integration with A1 mediator. kServe adapter work ongoing (RICDMS extension planned).
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  - a. data pipeline (Hoejoo's e-mail)
    - i. 2023-01-31 not discussed in today's meeting
- 12. Gunja and Sachin CapGemini) presented changes that were done for RIC subscription delete required as per RIC-851. Thoralf to start a mail thread with Nitin, Subhash, Gunja, Sachin on how xapps can be notified of subscription changes. link to the presentation
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- o. fixed: no new fixes
- p. anybody would like to get more familiar with RMR?
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  - b. David Liu (WR) asked from James on O2 as well. James to check if a proposal on using X testing framework could also be used for integration. There's is also a link to robot test cases.
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  - d. deploying xApps (LCM) is also an O2 issue the alternative of using CRDs is not implemented in OSC RIC. Could be implemented as second option for deploying xApps.
  - e. 2023-01-31: No news yet
  - f. 2023-02-14 No news yet, Thoralf received e-mail on this from James. Still to check.
- 5. Sunil still to discuss with other team members for other items from subteam-h
  - a. 2023-02-14: Sunil provided list with four items.
- 6. James:updates?
  - a. 2023-01-31:
    - i. working on existing robot test cases (that integrate xapps and platform) to be part of xtesting tests.
    - ii. Subhash asked for a wiki page documenting this work.
    - iii. WR also want to contribute to xtesting for O2. CNF package definition still open and concept of DMS.
      - 1. discussion with Bin Yang in this meeting is possible. Maybe some proposal would be good.
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- 8. GRPC vs RMR
- a. 2023-01-17: Still working this within Nokia. WG3 also discusses this.
  - b. 2023-01-31: no update
- c. 2023-02-14: no update9. Johannes/Bryan: RUST as a language for xApps and framework. Will take this in the details in next meeting.
  - a. 2023-01-31: Abhijit wanted to merge something. pls. contact Thoralf.
    - i. no news from Johannes/Bryan
  - b. **2023-02-14:** 
    - i. Abhijit is now committer for the rust subsystems (platform and xapp) but there seem to be issues on LF side that didn't actually made this happen.
    - ii. Thoralf to raise support request to LF
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      - 1. Thoralf to create JIRA item for this
      - 2. Subhash/Thoralf commented that ricdms cli and REST should be implemented at same time. But also ok if only in one.
      - 3. **2023-02-14:** Subhash discussed with Hoejoo on this (internally) maybe a presentation coming later
  - b. data pipeline (Hoejoo's e-mail)
    - i. 2023-01-31 not discussed in today's meeting
- 11. CapGemini to present to project meeting changes that were done for RIC subscription delete required
- 12. RICAPP agenda: RICAPP Meetings.

# 2023-01-31 (Tuesday)

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. Last checked on Dec-15

- i. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/9117 how automated CI module testing can be done is to be discussed // also need to discuss CI // already known that this requires discussion with LF
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- 6. Sunil still to discuss with other team members for other items from subteam-h
  - a. 2023-01-31: no news yet. HCL still in internal discussion on what open-src items to work on in 1H2023
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- 8. H release content
  - a. we mark items that you are >90% sure (="committed") to work on during 1H2023 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for H release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
  - b. Sprint dates
    - i. Sprint H release dev sprint 1: Feb-20'to Mar-12
    - ii. Sprint H release dev sprint 2: Mar-13 to Apr-2
    - iii. Sprint H release dev sprint 3: Apr-3 to Apr-23
    - iv. Sprint H release dev sprint 4: Apr-24 to May-14 (last planned development sprint)
    - v. Sprint H release dev sprint 5: May-15 to Jun-4 (only for unplanned last-minute development items)
  - c. We go through the rough views on what you might want to work on. Also as input use delayed items from previous release link
- 9. GRPC vs RMR
  - a. 2023-01-17: Still working this within Nokia. WG3 also discusses this.
  - **b. 2023-01-31**: no update
- 10. Johannes/Bryan: RUST as a language for xApps and framework. Will take this in the details in next meeting.
  - a. 2023-01-31: Abhijit wanted to merge something. pls. contact Thoralf.
    - i. no news from Johannes/Bryan
- 11. Integration with AI/ML project: kserve\_adapter
  - a. Kserve adapter (mentioned in RSAC and e-mail from Hoejoo),
    - i. 2023-01-31 Joseph presented the kserve part. We agreed as working assumption to go for solution #1 (slide 2) with modelbased inference. Comments by e-mail to Joseph. Slideset: link
      - 1. Thoralf to create JIRA item for this
      - 2. Subhash/Thoralf commented that ricdms cli and REST should be implemented at same time. BUt also ok if only in one.
  - b. data pipeline (Hoejoo's e-mail)
    - i. 2023-01-31 not discussed in today's meeting
- 12. RICAPP agenda: RICAPP Meetings.

# 2023-01-17 (Tuesday)

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. Last checked on Dec-15
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/9117 how automated CI module testing can be done is to be discussed // also need to discuss CI // already known that this requires discussion with LF
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2022-05-27. 2022-11-22: we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-940 sdlpy missing whitespace Timo
  - b. RIC-939 race conditions in RMR Abdulwahid
  - c. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
  - d. RIC-915 dms\_cli for installing xapp not working (raised by James)
  - e. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - f. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - g. RIC-897 SCTP connection fails with Viavi // update with workaround
  - h. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - i. RIC-894 long idle period (days) causes RMR connection breaks
  - j. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - k. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - I. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - m. RIC-837 RMR is not forwarding messages from E2T to E2M
  - n. RIC-835 2021-12-07 news from Viktor
  - o. fixed: no new fixes
  - p. anybody would like to get more familiar with RMR?
- 4. 2022-12-13, 2023-01-17: Bin Yang asked about O2 for RIC platform deployment and xapp deployment. Need to discuss on this topic. O-cloud is deployed in AT&T and Taiwan lab.
  - a. The current platform deployment scripts might not be in line with O2 envisions
  - b. David Liu (WR) asked from James on O2 as well. James to check if a proposal on using X testing framework could also be used for integration. There's is also a link to robot test cases.
  - c. O2-D(MS) is relevant to RIC platform.
  - d. deploying xApps (LCM) is also an O2 issue the alternative of using CRDs is not implemented in OSC RIC. Could be implemented as second option for deploying xApps.
- 5. Sunil still to discuss with other team members for other items from subteam-h
  - a. Other tickets CI/CD and Code coverage tickets? Sunil: I am still looking for the resources to work on that.

#### i. RIC-860 + RIC-878

- Sangeetha working on RIC-860, done, but code still to be checked in. 2022-07-05 & 2022-07-19 update: Code checked-in, but it seems <a href="https://gerrit.o-ran-sc.org/r/c/it/test/+/8530">https://gerrit.o-ran-sc.org/r/c/it/test/+/8530</a> that is part of GIT relation chain was abandoned (it contained the bulk of the changes for subscription deletion test)
- Sangeetha working on RIC-878, status see Jira item, code still to be checked in. 2022-07-05 & 2022-07-19 update: -Code checked-in
- 3. O1 testing is also being worked on. 2022-03-29 Sangeetha to raise Jira ticket
- 4. Subhash asked for documentation of nanobot from Sunil. Almost done. 2022-05-11: Still open
- 5. 2022-04-26: still open
- 6. 2022-05-11: expecting to finalize by May-27
- 7. 2022-06-07: news on RIC-860 and RIC-878 or O1 testing?
- 8. 2022-07-05: Thoralf marked RIC-860 and RIC-878 as moved out of F release
- 9. 2022-07-19: This is pending on LF to get permissions resolved and could then merge these.
- 10. 2022-08-02: SUNIL SINGH to check any news on RIC-860 or RIC-878?
- 11. 2022-08-162022-08-30->2022-09-13**2022-09-27**: no update
- 12. : some cleanup is needed first.
  - a. RIC-860 suggestion is to merge the one abandoned RIC-860 review and the one that is still open into one review and keep that as new review.
  - RIC-878 suggest to re-start review 8500 and merge it with the current open one for RIC-878 and start this
    as new review.
  - c. test both if they are actually working
  - d. 2022-08-30: team currently busy, but will pick up on this again soon
- 13. 2023-01-17: for now remove form agenda and take back if we find someone to work on it.
- ii. RIC-641 + RIC-705
  - 1. RIC-641: done in G
  - 2. RIC-705: xapp registration still open (for H?) manage this via H content and don't keep it in the agenda.
- 6. contributions by new contributor on asn.1 encoders/decoders and APER ASN.1XML tool waiting for repo proposal
  - a. created on 2022-08-30: Update 2022-09-13 2022-09-27: Now hanging with Augu. waiting for reply
  - b. 2023-01-17: no news we drop this item from the agenda
- 7. James:
  - a. 2022-11-08: continues work with keysight (using KPI-mon-go xApp (E2APv1, and older E2SM). hw-go could be used if E2AP2.0 is needed. hw-go does not parse E2SM-parts.
    - i. HCL also working on E2APv2.0 xApps.
  - b. 2023-01-17: work with keysight completed before thanksgiving weekend (excl. xapp; focus on base E2AP cases). No need to keep this in the agenda.
- 8. H release content
  - a. we mark items that you are >90% sure (="committed") to work on during 1H2023 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for H release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
  - b. Sprint dates

- i. Sprint H release dev sprint 1: Feb-20'to Mar-12
- ii. Sprint H release dev sprint 2: Mar-13 to Apr-2
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- iv. Sprint H release dev sprint 4: Apr-24 to May-14 (last planned development sprint)
- v. Sprint H release dev sprint 5: May-15 to Jun-4 (only for unplanned last-minute development items)
- c. Please prepare for next meeting a rough view on what you might want to work on. Also as input use delayed items from previous release link
- 9. GRPC vs RMR
  - a. Nokia is plannig RMR with GRPC (E2AP-equivalent xApp interfaces)
  - b. to include Alexandre in discussion as well. Subhash also interested in what's coming. Nitin (mavenir) and Sunil (HCL) also interested.
  - c. need to look at Mavenir E2SM-RC proposal.
  - d. impact on xapp frameworks will happen as well.
  - e. Alexandre mentioned option of using QUIC (grpc over QUIC).
  - f. Thoralf to schedule a meeting once a proposal is ready.
  - g. 2022-08-16 2022-08-30 2022-09-27 **2022-10-11**: no news yet, current approach we assume E2M manages E2 node to gNB list mapping and submgr (together with E2T) manage subscriptions. xApps to be aware of many E2T instances and many xApp instances.
  - h. 2022-11-08: focus of Nokia proposal will be on scalability (xApps, #E2 connections)
  - i. 2022-11-22: WG3 spec for RICAPI available in current train. Worth reading. Defines GRPC, but also SCTP+Protobuf interfaces.
  - j. 2023-01-17: Still working this within Nokia. WG3 also discusses this.
- 10. RUST as a language for xApps and framework. Will take this in the details in next meeting.
  - a. 2023-01-17: not discussed today.
- 11. RICAPP agenda: RICAPP Meetings.
- 12. Remember to click on "end meeting for all"

### 2023-01-03 (Tuesday)

Recording: Link to zoom recording

Sunil kindly agreed to host also the RIC platform part of this week's project meeting.

We will discuss the plans for the H release in the next meeting. As before, items that were delayed from the previous release and leftover items are prime candidates to work on. Left overs: link

# 2022-12-06 (Tuesday)

Recording: Link to zoom recording

The meeting was hosted by Sunil.

Updates on RICP.

- 1. Updates (from Subhash)
  - a. RIC-385: first part done defining the E2 messages in golang, but actual Reset implementation still needed. Rest goes to release H
  - b. RIC-714: dms Rest interface. Instructions still missing
  - c. RIC-914+RIC-849: done (helm charts and jenkins job still coming)
  - d. RIC-911: done
- 2. Updates (from Sunil)
  - a. RIC-860 and RIC-878 code for REST subscriptiopn API is now actively being worked on.
- 3. Updates (from Johannes)
  - a. still struggling with CI, but likely to "formally" release RMR part of RUST framework.
- 4. RICAPP agenda: RICAPP Meetings.

# 2022-11-22 (Tuesday)

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. 2022-10-11+2022-11-08+2022-11-22
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/9117 how automated CI module testing can be done is to be discussed // also need to discuss CI // already known that this requires discussion with LF
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2022-05-27. 2022-11-22: we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-940 sdlpy missing whitespace Timo
  - b. RIC-939 race conditions in RMR Abdulwahid
  - c. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
  - d. RIC-915 dms\_cli for installing xapp not working (raised by James)

- e. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
- f. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
- g. RIC-897 SCTP connection fails with Viavi // update with workaround
- h. RIC-896 xapps sending same msg type and sub id fails details to be clarified
- i. RIC-894 long idle period (days) causes RMR connection breaks
- j. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
- k. RIC-857 sporadically RMR takes multiple minutes before being "ready"
- I. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
- i. 2021-12-21: Trying to get bandwidth for this during F release. m. RIC-837 RMR is not forwarding messages from E2T to E2M  $\,$
- n. RIC-835 2021-12-07 news from Viktor
- o. fixed: no new fixes
- p. anybody would like to get more familiar with RMR?
- 4. demo day? Suggestion: Dec-20. Add demo topic here: 2022-12-20 Release G
- 5. Sunil still to discuss with other team members for other items from subteam-h
  - a. Other tickets CI/CD and Code coverage tickets? Sunil: I am still looking for the resources to work on that.
    - i. RIC-860 + RIC-878
      - Sangeetha working on RIC-860, done, but code still to be checked in. 2022-07-05 & 2022-07-19 update: Code checked-in, but it seems https://gerrit.o-ran-sc.org/r/c/it/test/+/8530 that is part of GIT relation chain was abandoned (it contained the bulk of the changes for subscription deletion test)
      - 2. Sangeetha working on RIC-878, status see Jira item, code still to be checked in. 2022-07-05 & 2022-07-19 update: Code checked-in
      - 3. O1 testing is also being worked on. 2022-03-29 Sangeetha to raise Jira ticket
      - 4. Subhash asked for documentation of nanobot from Sunil. Almost done. 2022-05-11: Still open
      - 5. 2022-04-26: still open
      - 6. 2022-05-11: expecting to finalize by May-27
      - 7. 2022-06-07: news on RIC-860 and RIC-878 or O1 testing?
      - 8. 2022-07-05: Thoralf marked RIC-860 and RIC-878 as moved out of F release
      - 9. 2022-07-19: This is pending on LF to get permissions resolved and could then merge these.
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      - 11. 2022-08-162022-08-30->2022-09-13**2022-09-27**: no update
      - 12. : some cleanup is needed first.
        - a. RIC-860 suggestion is to merge the one abandoned RIC-860 review and the one that is still open into one review and keep that as new review.
        - b. RIC-878 suggest to re-start review 8500 and merge it with the current open one for RIC-878 and start this as new review.
        - c. test both if they are actually working
        - d. 2022-08-30: team currently busy, but will pick up on this again soon
    - ii. contributions by new contributor on asn.1 encoders/decoders and APER ASN.1XML tool waiting for repo proposal
      - 1. created on 2022-08-30: Update 2022-09-13 **2022-09-27**: Now hanging with Augu. waiting for reply
    - iii. RIC-641 Progress on xapp side adaptation to REST interface? RIC-641 Sandeep Anh Nguyen (HCL) is working on this. Work is progressing.
      - 1. 2022-04-12: framework changes done. Now integrating with Bouncer xApp. The reviews are coming.
      - 2. 2022-06-21
        - a. RIC-642 (python) done
        - B. RIC-705 and RIC-641 being worked on by Anh Nguyen: https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-cpp/+/8561
      - 3. 2022-07-05: Thoralf moved RIC-705 and RIC-641 (xapp-frame-cpp) out of the F release. Which means they are likely early G release features.
      - 2022-07-19: RIC-912 for clean up of the build process (should use dockerfile). But we first try to get current review through
      - 5. 2022-08-02: SUNIL SINGH check status with Anh Nguyen
      - 6. 2022-08-16: any news?
        - a. one optinion is to cleanup CI first with the approach in RIC-912
        - b. there are also instructions for testing CI given by LF infra. Thoralf-to dig out the instructions
      - 7. 2022-08-30 Waiting for Anh Nguyen to come fully back to work.
      - 8. 2022-09-13 2022-09-27: no update, but Anh Nguyen is now back and in discussion with Anssi
      - 2022-10-11: Anh Nguyen to pick up again. Thoralf fixed CI issues via sandbox, minor change in CI job definition and it commit.
- 6. James: RSAC recommended incorporating OTF in testing (David Kinsey can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha) and David on this plus James.
  - a. 2022-04-12
    - i. last Thursday RSAC call was used for preparing OTF installation of the three microservices into O-Cloud (WR k8s with O2 IMS /DMS) to avoid firewall issues
    - ii. actual workshop planned for RSAC on Apr-21 9am EDT.
    - iii. Taking OTF into use in E release might be only partially done in E release (also discussed in last week's TOC)
  - b. 2022-04-26
    - i. OTF installed and configured in Bedminster lab. Still access issues, though. Workshop planned for next Wed morning, 8am ET.
    - David K. shared a lab network picture with the RIC on a separate network. Thoralf not sure why. Subhash and Thoralf
      interested in the document shared in last RSAC meeting.
  - c. 2022-05-11:
    - i. Currently in the hands of OTF team (Alex)
    - ii. dms\_cli seems to have issues (James has used this in E release), dms\_cli does not have CI/CD case. For now, let's agree if a good problem report is sent, Nune or Thoralf can look at it.
      - 1. 2022-05-30: Thoralf comment in RIC-915
  - d. 2022-06-21: XTesting (used by Anuket) proposed as alternative to OTF (lack of support from OTF developers)
  - e. 2022-07-19: James is working on it with LF
  - f. 2022-08-02: any updates?
    - i. caur.us (johannes@ c...) working on docker compose deployment (no K8S), usable in CI?

- ii. James working Sridhar on xTesting.
- g. 2022-08-16 no news. Friday James will have further discussion with xTesting "evangelist" from Anuket
- h. 2022-08-30 progress on xTesting first results to be presented in RSAC on Sep-21.
- i. 2022-09-13: kubectl version used in testing doesn't match expectations. Work in progress
- j. 2022-09-27: Demo is in the RSAC meeting from last week. Instructions are here: Automated Testing via XTesting And also watch the RSAC video recording from last week: link (fast forward to minute 9:00).
  - i. next step: promote this to all OSC subprojects via TOC.
  - ii. James trying to run robot test cases in it/test.
- k. 2022-10-11: still work in progress. Second demonstration with updated scripts: https://wiki.o-ran-sc.org/download/attachments/3604609 /XTesting-demo.mp4?api=v2
- 2022-11-08: continues work with keysight (using KPI-mon-go xApp (E2APv1, and older E2SM). hw-go could be used if E2AP2.0 is needed. hw-go does not parse E2SM-parts.
  - i. HCL also working on E2APv2.0 xApps.
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  - a. we mark items that you are >90% sure (="committed") to work on during 2H2022 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for G release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
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    - iv. Sprint G release dev sprint 4: Oct-24 to Nov-13 (last planned development sprint)
    - v. Sprint G release dev sprint 5: Nov-14 to Dec-4 (only for unplanned last-minute development items)
  - c. link to G Release summary. Try to finalize all work by Dec-6 so we can generate the release images in the week of Dec-6
- 8. GRPC vs RMR
  - a. Nokia is plannig RMR with GRPC (E2AP-equivalent xApp interfaces)
  - b. to include Alexandre in discussion as well. Subhash also interested in what's coming. Nitin (mavenir) and Sunil (HCL) also interested.
  - c. need to look at Mavenir E2SM-RC proposal.
  - d. impact on xapp frameworks will happen as well.
  - e. Alexandre mentioned option of using QUIC (grpc over QUIC).
  - f. Thoralf to schedule a meeting once a proposal is ready.
  - g. 2022-08-16 2022-08-30 2022-09-27 **2022-10-11**: no news yet, current approach we assume E2M manages E2 node to gNB list mapping and submgr (together with E2T) manage subscriptions. xApps to be aware of many E2T instances and many xApp instances.
  - h. 2022-11-08: focus of Nokia proposal will be on scalability (xApps, #E2 connections)
  - i. 2022-11-22: WG3 spec for RICAPI available in current train. Worth reading. Defines GRPC, but also SCTP+Protobuf interfaces.
- In O-RAN F2 f in October, OSC has a three hour slot for presentations about what OSC did. RSAC coordinates this. Slideset on content of E and F-release, show existing demo on RIC deploy, xapp deploy and connect simulator, show demo on E2AP2.0 incl. E2 config update (all together 30-min).
  - a. 2022-09-13: likely the way we go forward Subhash and Thoralf will handle
    - i. 2022-09-27: Thoralf to create presentation material and send to subhash
    - ii. 2022-10-11: Material shared and sent to RSAC
    - iii. 2022-11-08: DONE
  - b. FYI: FYUZ (O-RAN, TIP, Metaverse summit) happens the week after the O-RAN F-2-F (same place) Theralf will present on the O-RAN-day
    - i. 2022-11-08: DONE
    - ii. Theralf talked about the RIC in the presentation "Panel 3 The RIC: How to over deliver on the promise". The panel 3 recording starts at 1:46:00 into the youtube video: https://youtu.be/W1i6EPQ1wzo?t=6370 Theralf also talked in the breakout panel discussion "Unpacking the intelligence of RIC: optimization and automation of complexity" (no video)
    - iii. James organized a video loop for the OSC video recordings and James (CMCC) and and Ramesh (HCL) talked in the breakout panel discussion "Accelerating O RAN adoption through open source"
    - iv. OAI planning to support E2SM-KPM/E2SM-RC in CU/DU/gNB
    - v. ns-3 E2 adapter (GPL) is now published in OSC.
- 10. Update from Samsung side
  - a. news discussed in G release content section
- 11. RUST as a language for xApps and framework. Will take this in the details in next meeting.
  - a. 2022-08-02
    - i. hw-rust creation review by Johannes = https://gerrit.linuxfoundation.org/infra/c/releng/info-master/+/70416 ?
    - ii. Sunil to contact Johannes that he abandons his change and we continue with Sunil's: https://gerrit.linuxfoundation.org/infra/c/releng/info-master/+/70429
  - b. 2022-09-13: working is progressing. end of September first commits should come.
  - c. 2022-09-27: first commit likely coming this week. Johannes could demo in two weeks from now.
  - d. 2022-10-11: first commit under review.
    - i. 2022-10-11 Johannes to look into CI (and module tests) for Rust
      - 1. status: basic framework ready (ping-pong dmeo works between two xapps). next step SDL.
    - ii. 2022-11-08 demo (5-10min)
  - e. 2022-11-22. Thoralf to ask for status
- 12. RICAPP agenda: RICAPP Meetings.

## 2022-11-08 (Tuesday)

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
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    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/9117 how automatec CI module testing can be done is to be discussed // also need to discuss CI // already known that this requires discussion with LF

- 2. every second time: Review code coverage stats and blocker code smells
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  - e. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
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    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - m. RIC-837 RMR is not forwarding messages from E2T to E2M
  - n. RIC-835 2021-12-07 news from Viktor
  - o. fixed: RIC-943 (alarm-go), RIC-944 + RIC-945 (E2term)
  - p. anybody would like to get more familiar with RMR?
- Suggestion: for the next meeting, as over the last two years, let's stick to the EET 4pm time slot even as the US and most parts of Europe change back from DST.
- 5. demo day? Suggestion: Dec-20
- 6. Sunil still to discuss with other team members for other items from subteam-h
  - a. Other tickets CI/CD and Code coverage tickets? Sunil: I am still looking for the resources to work on that.
    - i. RIC-860 + RIC-878
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      - Sangeetha working on RIC-878, status see Jira item, code still to be checked in. 2022-07-05 & 2022-07-19 update: -Code checked-in
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      - 4. Subhash asked for documentation of nanobot from Sunil. Almost done. 2022-05-11: Still open
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    - ii. actual workshop planned for RSAC on Apr-21 9am EDT.
    - iii. Taking OTF into use in E release might be only partially done in E release (also discussed in last week's TOC)
  - b. 2022-04-26

- i. OTF installed and configured in Bedminster lab. Still access issues, though. Workshop planned for next Wed morning, 8am ET.
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- e. 2022-07-19: James is working on it with LF
- f. 2022-08-02: any updates?
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  - ii. James working Sridhar on xTesting.
- g. 2022-08-16 no news. Friday James will have further discussion with xTesting "evangelist" from Anuket
- h. 2022-08-30 progress on xTesting first results to be presented in RSAC on Sep-21.
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  - i. next step: promote this to all OSC subprojects via TOC.
  - ii. James trying to run robot test cases in it/test.
- k. 2022-10-11: still work in progress. Second demonstration with updated scripts: https://wiki.o-ran-sc.org/download/attachments/3604609 /XTesting-demo.mp4?api=v2
- I. 2022-11-08: continues work with keysight (using KPI-mon-go xApp (E2APv1, and older E2SM). hw-go could be used if E2AP2.0 is needed. hw-go does not parse E2SM-parts.
  - i. HCL also working on E2APv2.0 xApps.
- 8. G release content planning
  - a. we mark items that you are >90% sure (="committed") to work on during 2H2022 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for G release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
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    - ii. Sprint G release dev sprint 2: Sep-12 to Oct-2
    - iii. Sprint G release dev sprint 3: Oct-3 to Oct-23
    - iv. Sprint G release dev sprint 4: Oct-24 to Nov-13 (last planned development sprint)
    - v. Sprint G release dev sprint 5: Nov-14 to Dec-4 (only for unplanned last-minute development items)
- 9. GRPC vs RMR
  - a. Nokia is plannig RMR with GRPC (E2AP-equivalent xApp interfaces)
  - b. to include Alexandre in discussion as well. Subhash also interested in what's coming. Nitin (mavenir) and Sunil (HCL) also interested.
  - c. need to look at Mavenir E2SM-RC proposal.
  - d. impact on xapp frameworks will happen as well.
  - e. Alexandre mentioned option of using QUIC (grpc over QUIC).
  - f. Thoralf to schedule a meeting once a proposal is ready.
  - g. 2022-08-16 2022-08-30 2022-09-27 2022-10-11: no news yet, current approach we assume E2M manages E2 node to gNB list mapping and submgr (together with E2T) manage subscriptions. xApps to be aware of many E2T instances and many xApp instances.
     h. 2022-11-08: focus of Nokia proposal will be on scalability (xApps, #E2 connections)
- 10. In O-RAN f-2-f in October, OSC has a three hour slot for presentations about what OSC did. RSAC coordinates this. Slideset on content of E and F release, show existing demo on RIC deploy, xapp deploy and connect simulator, show demo on E2AP2.0 incl. E2 config update (all together 30 min).
  - a. 2022-09-13: likely the way we go forward Subhash and Thoralf will handle
    - i. 2022-09-27: Thoralf to create presentation material and send to subhash
    - ii. 2022-10-11: Material shared and sent to RSAC
    - iii. 2022-11-08: DONE
  - b. FYI: FYUZ (O-RAN, TIP, Metaverse summit) happens the week after the O-RAN F-2-F (same place) Thoralf will present on the O-RAN day
    - i. 2022-11-08: DONE
    - ii. Thoralf talked about the RIC in the presentation "Panel 3 The RIC: How to over-deliver on the promise". The panel 3 recording starts at 1:46:00 into the youtube video: https://youtu.be/W1i6EPQ1wzo?t=6370 Thoralf also talked in the breakout panel discussion "Unpacking the intelligence of RIC: optimization and automation of complexity" (no video)
    - iii. James organized a video loop for the OSC video recordings and James (CMCC) and and Ramesh (HCL) talked in the breakout panel discussion "Accelerating O-RAN adoption through open source"
    - iv. OAI planning to support E2SM-KPM/E2SM-RC in CU/DU/gNB
    - v. ns-3 E2 adapter (GPL) is now published in OSC.
- 11. Update from Samsung side
  - a. A1 golang Naman used RMR from E2 manager (not from xapp-framework).
  - b. DMS REST server Remote-API-equivalent to dmscli.
- 12. RUST as a language for xApps and framework. Will take this in the details in next meeting.
  - a. 2022-08-02
    - i. hw-rust creation review by Johannes = https://gerrit.linuxfoundation.org/infra/c/releng/info-master/+/70416 ?
    - ii. Sunil to contact Johannes that he abandons his change and we continue with Sunil's: https://gerrit.linuxfoundation.org/infra/c/releng/info-master/+/70429
  - b. 2022-09-13: working is progressing. end of September first commits should come.
  - c. 2022-09-27: first commit likely coming this week. Johannes could demo in two weeks from now.
  - d. 2022-10-11: first commit under review.
    - i. 2022-10-11 Johannes to look into CI (and module tests) for Rust
      - status: basic framework ready (ping-pong dmeo works between two xapps). next step SDL.
  - ii. 2022-11-08 demo (5-10min)
- 13. RICAPP agenda: RICAPP Meetings.

## 2022-10-25 (Tuesday)

CANCELLED due to conference participation and sick leave.

## 2022-10-11 (Tuesday)

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. 2022-10-11
    - https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-rust/+/9117 how module testing can be done is to be discussed // also need to discuss CI
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports...
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2022-05-27. 2022-10-11: we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-940 sdlpy missing whitespace Timo
  - b. RIC-939 race conditions in RMR Abdulwahid
  - c. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
  - d. RIC-915 dms\_cli for installing xapp not working (raised by James)
  - e. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - f. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - g. RIC-897 SCTP connection fails with Viavi // update with workaround
  - h. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - i. RIC-894 long idle period (days) causes RMR connection breaks
  - j. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - k. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - I. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
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- 6. 2022-10-11: last remaining demo from F-release
  - a. 10min RIC-642 xapp-frame-py subscription REST interface end of August middle of Sept (updated 2022-09-27): now scheduled for **202 2-10-11** (Erkki)
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  - h. 2022-08-30 progress on xTesting first results to be presented in RSAC on Sep-21.
  - i. 2022-09-13: kubectl version used in testing doesn't match expectations. Work in progress
  - j. 2022-09-27: Demo is in the RSAC meeting from last week. Instructions are here: Automated Testing via XTesting And also watch the RSAC video recording from last week. TODO
    - i. next step: promote this to all OSC subprojects via TOC.
    - ii. James trying to run robot test cases in it/test.
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    - ii. Sunil to contact Johannes that he abandons his change and we continue with Sunil's: https://gerrit.linuxfoundation.org/infra/c/releng/info-master/+/70429
  - b. 2022-09-13: working is progressing. end of September first commits should come.
  - c. 2022-09-27: first commit likely coming this week. Johannes could demo in two weeks from now.
- 11. RICAPP agenda: RICAPP Meetings.

## 2022-09-13 (Tuesday)

Recording: link to zoom recording

1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).

- a. 2022-09-13
  - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/9006 OK, (influx update) only deployment changes. So ok with test case.
  - ii. https://gerrit.o-ran-sc.org/r/c/ric-plt/stslgo/+/9010 OK, (influx update) test cases included.
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  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on 2022-05-27. 2022-08-30, 2022-09-13: we did not do this this time
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  - a. 2022-09-13: one new bug: RIC-939
  - b. RIC-939 race conditions in RMR Abdulwahid
  - c. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
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  - n. RIC-835 2021-12-07 news from Viktor
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- 13. 2022-09-13: Joseph Thaliath & Sandeep J to present plans of OSC AI/ML subproject
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    - iii. Sprint G release dev sprint 3: Oct-3 to Oct-23
    - iv. Sprint G release dev sprint 4: Oct-24 to Nov-13 (last planned development sprint)
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- 9. GRPC vs RMR
  - a. Nokia is plannig RMR with GRPC (E2AP-equivalent xApp interfaces)
  - b. to include Alexandre in discussion as well. Subhash also interested in what's coming. Nitin (mavenir) and Sunil (HCL) also interested.
  - c. need to look at Mavenir E2SM-RC proposal.
  - d. impact on xapp frameworks will happen as well.
  - e. Alexandre mentioned option of using QUIC (grpc over QUIC).
  - f. Thoralf to schedule a meeting once a proposal is ready.

- g. 2022-08-16 2022-08-30 no news yet
- 10. Meeting on E2 Reset scheduled for Apr-13->Apr-20 9:30am IST -> 2022-08-04
  - a. 2022-04-26: in the meeting we discussed various ways how E2 reset can be implemented. We decided to check current specifications by O-RAN on how to support E2 Reset and how to align contributions with it.
  - b. timer limitation still to be discussed and whether we can two implementations (with timer/without timer)
  - c. Thoralf to schedule another meeting end of May (after F).
  - d. 2022-06-07: Thoralf will schedule a meeting for week after next week
  - e. 2022-06-212022-07-05: This has to wait for end of July
  - f. 2022-08-02: meeting scheduled for 2022-08-04
  - g. 2022-08-30: Subhash presented the results of the discussion material is here https://wiki.o-ran-sc.org/display/RICP/E2AP+2.0+Design
- 11. In O-RAN f-2-f in October, OSC has a three hour slot for presentations about what OSC did. RSAC coordinates this. Slideset on content of E and F release, show existing demo on RIC deploy, xapp deploy and connect simulator, show demo on E2AP2.0 incl. E2 config update (all together 30
- 12. RUST as a language for xApps and framework. Will take this in the details in next meeting.
  - a. 2022-08-02
    - i. hw-rust creation review by Johannes = https://gerrit.linuxfoundation.org/infra/c/releng/info-master/+/70416 ?
    - ii. Sunil to contact Johannes that he abandons his change and we continue with Sunil's: https://gerrit.linuxfoundation.org/infra/c /releng/info-master/+/70429
- 13. RICAPP agenda: RICAPP Meetings.

## 2022-08-16 (Tuesday)

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/ricdms/+/8824 OK, as only new swagger yaml file for which nothing is implemented yet.
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on May-27-2022. 2022-08-16 we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. 2022-08-16: TODO
  - b. RIC-936 change from gcr.io ghcr.io in master and f-release DONE
  - c. RIC-935 flannel namespace change, fixed in master and f-release DONE
  - d. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
  - e. RIC-915 dms\_cli for installing xapp not working (raised by James)
  - f. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - g. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - h. RIC-897 SCTP connection fails with Viavi // update with workaround
  - i. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - j. RIC-894 long idle period (days) causes RMR connection breaks
  - k. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - I. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - m. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
  - i. 2021-12-21: Trying to get bandwidth for this during F release. n. RIC-837 RMR is not forwarding messages from E2T to E2M
  - o. RIC-835 2021-12-07 news from Viktor
  - p. fixed: RIC-935, RIC-936

  - q. anybody would like to get more familiar with RMR?
- 4. Sunil still to discuss with other team members for other items from subteam-h
  - a. Other tickets CI/CD and Code coverage tickets? Sunil: I am still looking for the resources to work on that.
    - i. Sangeetha working on RIC-860, done, but code still to be checked in. 2022-07-05 & 2022-07-19 update: Code checked-in, but it seems https://gerrit.o-ran-sc.org/r/c/it/test/+/8530 that is part of GIT relation chain was abandoned (it contained the bulk of the changes for subscription deletion test)
    - ii. Sangeetha working on RIC-878, status see Jira item, code still to be checked in. 2022-07-05 & 2022-07-19 update: Code checked-in
    - iii. O1 testing is also being worked on. 2022-03-29 Sangeetha to raise Jira ticket
    - iv. Subhash asked for documentation of nanobot from Sunil. Almost done. 2022-05-11: Still open
    - v. 2022-04-26: still open
    - vi. 2022-05-11: expecting to finalize by May-27
    - vii. 2022-06-07: news on RIC-860 and RIC-878 or O1 testing?
    - viii. 2022-07-05: Thoralf marked RIC-860 and RIC-878 as moved out of F release
    - ix. 2022-07-19: This is pending on LF to get permissions resolved and could then merge these. x. 2022-08-02: SUNIL SINGH to check any news on RIC-860 or RIC-878?
    - xi. 2022-08-16: some cleanup is needed first.
      - 1. RIC-860 suggestion is to merge the one abandoned RIC-860 review and the one that is still open into one review and keep that as new review.
      - 2. RIC-878 suggest to re-start review 8500 and merge it with the current open one for RIC-878 and start this as new
      - 3. test both if they are actually working
- 5. James: RSAC recommended incorporating OTF in testing (David Kinsey can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha) and David on this plus James.
  - a. 2022-04-12
    - i. last Thursday RSAC call was used for preparing OTF installation of the three microservices into O-Cloud (WR k8s with O2 IMS /DMS) to avoid firewall issues

- ii. actual workshop planned for RSAC on Apr-21 9am EDT.
- iii. Taking OTF into use in E release might be only partially done in E release (also discussed in last week's TOC)
- b. 2022-04-26
  - i. OTF installed and configured in Bedminster lab. Still access issues, though. Workshop planned for next Wed morning, 8am ET.
  - David K. shared a lab network picture with the RIC on a separate network. Thoralf not sure why. Subhash and Thoralf interested in the document shared in last RSAC meeting.
- c. 2022-05-11:
  - i. Currently in the hands of OTF team (Alex)
  - ii. dms\_cli seems to have issues (James has used this in E release), dms\_cli does not have CI/CD case. For now, let's agree if a good problem report is sent, Nune or Thoralf can look at it.
    - 1. 2022-05-30: Thoralf comment in RIC-915
- d. 2022-06-21: XTesting (used by Anuket) proposed as alternative to OTF (lack of support from OTF developers)
- e. 2022-07-19: James is working on it with LF
- f. 2022-08-02: any updates?
  - i. caur.us (johannes@ c...) working on docker compose deployment (no K8S), usable in CI?
  - ii. James working Sridhar on xTesting.
- g. 2022-08-16 no news. Friday James will have further discussion with xTesting "evangelist" from Anuket
- 6. Progress on xapp side adaptation to REST interface? RIC-641 Sandeep Anh Nguyen (HCL) is working on this. Work is progressing.
  - a. 2022-04-12: framework changes done. Now integrating with Bouncer xApp. The reviews are coming.
  - b. 2022-06-21
    - i. RIC-642 (python) done
    - ii. RIC-705 and RIC-641 being worked on by Anh Nguyen: https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-cpp/+/8561
  - c. 2022-07-05: Thoralf moved RIC-705 and RIC-641 (xapp-frame-cpp) out of the F release. Which means they are likely early G release features
  - d. 2022-07-19: RIC-912 for clean up of the build process (should use dockerfile). But we first try to get current review through
  - e. 2022-08-02: SUNIL SINGH check status with Anh Nguyen
  - f. 2022-08-16: any news?
    - i. one optinion is to cleanup CI first with the approach in RIC-912
    - ii. there are also instructions for testing CI given by LF infra. Thoralf-to dig out the instructions
- 7. 2022-07-05: still one remaining demos.
  - a. 10min RIC-642 xapp-frame-py subscription REST interface end of August (update 2022-08-16) middle of Sept (Erkki)
- 8. G release content planning
  - a. we mark items that you are >90% sure (="committed") to work on during 2H2022 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for G release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
  - b. Sprint dates
    - i. Sprint G release dev sprint 1: Aug-22 to Sep-11
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    - iv. Sprint G release dev sprint 4: Oct-24 to Nov-13 (last planned development sprint)
    - v. Sprint G release dev sprint 5: Nov-14 to Dec-4 (only for unplanned last-minute development items)
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  - a. Nokia is plannig RMR with GRPC (E2AP-equivalent xApp interfaces)
  - b. to include Alexandre in discussion as well. Subhash also interested in what's coming. Nitin (mavenir) and Sunil (HCL) also interested.
  - c. need to look at Mavenir E2SM-RC proposal.
  - d. impact on xapp frameworks will happen as well.
  - e. Alexandre mentioned option of using QUIC (grpc over QUIC).
  - f. Thoralf to schedule a meeting once a proposal is ready.
  - g. 2022-08-16 no news yet
- 10. Meeting on E2 Reset scheduled for Apr-13->Apr-20 9:30am IST -> 2022-08-04
  - a. 2022-04-26: in the meeting we discussed various ways how E2 reset can be implemented. We decided to check current specifications by O-RAN on how to support E2 Reset and how to align contributions with it.
  - b. timer limitation still to be discussed and whether we can two implementations (with timer/without timer)
  - c. Thoralf to schedule another meeting end of May (after F).
  - d. 2022-06-07: Thoralf will schedule a meeting for week after next week
  - e. 2022-06-212022-07-05: This has to wait for end of July
  - f. 2022-08-02: meeting scheduled for 2022-08-04
  - g. 2022-08-16: Subhash to present results of discussion in next meeting on 2022-08-30
- 11. RUST as a language for xApps and framework. Will take this in the details in next meeting.
  - a. 2022-08-02
    - i. hw-rust creation review by Johannes = https://gerrit.linuxfoundation.org/infra/c/releng/info-master/+/70416 ?
    - ii. Sunil to contact Johannes that he abandons his change and we continue with Sunil's: https://gerrit.linuxfoundation.org/infra/c/releng/info-master/+/70429
  - b. 2022-08-16: repo is now created ->Closed
- 12. RICAPP agenda: RICAPP Meetings.

# 2022-08-02 (Tuesday)

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerrit tilter instructions // gerrit t-shirt-sizing).
  - a. **2022-08-02**: no large commits
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)

- c. Thoralf did this last on May-27-2022. 2022-08-02 we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. 2022-08-02: no new bugs, no new fixes
  - b. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
  - c. RIC-915 dms\_cli for installing xapp not working (raised by James) (2022-05-30 Thoralf added comment in the case)
  - d. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - e. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - f. RIC-897 SCTP connection fails with Viavi // update with workaround
  - g. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - h. RIC-894 long idle period (days) causes RMR connection breaks
  - i. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - j. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - k. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - I. RIC-837 RMR is not forwarding messages from E2T to E2M
  - m. RIC-835 2021-12-07 news from Viktor
  - n. fixed:no new fixes
  - o. anybody would like to get more familiar with RMR?
- 4. Sunil still to discuss with other team members for other items from subteam-h
  - a. Other tickets CI/CD and Code coverage tickets? Sunil: I am still looking for the resources to work on that.
    - i. Sangeetha working on RIC-860, done, but code still to be checked in. 2022-07-05 & 2022-07-19 update: Code checked-in, but it seems https://gerrit.o-ran-sc.org/r/c/it/test/+/8530 that is part of GIT relation chain was abandoned (it contained the bulk of the changes for subscription deletion test)
    - ii. Sangeetha working on RIC-878, status see Jira item, code still to be checked in. 2022-07-05 & 2022-07-19 update: Code checked-in
    - iii. O1 testing is also being worked on. 2022-03-29 Sangeetha to raise Jira ticket
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- 5. James: RSAC recommended incorporating OTF in testing (David Kinsey can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha) and David on this plus James.
  - a. 2022-04-12
    - i. last Thursday RSAC call was used for preparing OTF installation of the three microservices into O-Cloud (WR k8s with O2 IMS /DMS) to avoid firewall issues
    - ii. actual workshop planned for RSAC on Apr-21 9am EDT.
    - iii. Taking OTF into use in E release might be only partially done in E release (also discussed in last week's TOC)
  - b. 2022-04-26
    - i. OTF installed and configured in Bedminster lab. Still access issues, though. Workshop planned for next Wed morning, 8am ET.
    - David K. shared a lab network picture with the RIC on a separate network. Thoralf not sure why. Subhash and Thoralf
      interested in the document shared in last RSAC meeting.
  - c. 2022-05-11
    - i. Currently in the hands of OTF team (Alex)
    - ii. dms\_cli seems to have issues (James has used this in E release), dms\_cli does not have CI/CD case. For now, let's agree if a good problem report is sent, Nune or Thoralf can look at it.
      - 1. 2022-05-30: Thoralf comment in RIC-915
  - d. 2022-06-21: XTesting (used by Anuket) proposed as alternative to OTF (lack of support from OTF developers)
  - e. 2022-07-19: James is working on it with LF
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    - ii. RIC-705 and RIC-641 being worked on by Anh Nguyen: https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-cpp/+/8561
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  - d. 2022-07-19: RIC-912 for clean up of the build process (should use dockerfile). But we first try to get current review through
  - e. 2022-08-02: SUNIL SINGH check status with Anh Nguyen
- $7. \ \ \, \textbf{2022-07-05: still one remaining demos.}$ 
  - a. 10min RIC-642 xapp-frame-py subscription REST interface end of August (Erkki)
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  - d. 2022-06-07: Thoralf will schedule a meeting for week after next week
  - e. 2022-06-212022-07-05: This has to wait for end of July
  - f. 2022-08-02: meeting scheduled for 2022-08-04
- 11. Pranesh raised the issue of message drops after idle times of about 15 minutes. Could be the same as RIC-894. May or not be related to K8S.
  - a. 2022-07-19 no news
  - b. 2022-08-02 move to bug sections (Thoralf added this as comment to RIC-894)
- 12. RUST as a language for xApps and framework. Will take this in the details in next meeting.
  - a. 2022-08-02
    - i. hw-rust creation review by Johannes = https://gerrit.linuxfoundation.org/infra/c/releng/info-master/+/70416 ?
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# 2022-07-19 (Tuesday)

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  - c. RIC-915 dms\_cli for installing xapp not working (raised by James) (2022-05-30 Thoralf added comment in the case)
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  - e. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
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  - d. 2022-07-19: RIC-912 for clean up of the build process (should use dockerfile). But we first try to get current review through
- 7. 2022-07-05: still two remaining demos.
  - a. 2022-07-19: RIC-888 query interface in nodeb-rnib for querying RAN functions by OID. (Shobha)
    - i. new function in https://gerrit.o-ran-sc.org/r/gitweb?p=ric-plt/nodeb-rnib.git;a=blob;f=reader/rNibReader.go -> GetRanFunctionDefinition()
    - ii. C version via creader (see https://packagecloud.io/o-ran-sc/release/packages/debian/stretch/rnib\_1.2.5\_all.deb)
    - iii. play video "RIC\_888.mp4" from tmp folder (remember ... "share sound")
  - b. 10min RIC-642 xapp-frame-py subscription REST interface end of August (Erkki)
  - c. 2022-07-19: Thoralf uploaded demo on deploying RIC, connecting the simulator project's E2 (node) simulator, Nokia simulator and deploy the hw-go xapp as well: 2022-05-24 Release F
- 8. F release wrap up
  - a. 2022-07-05 & 2022-07-19: F release. See demo page: Release criteria checklist Release F, Near-RT RIC (F release) = image list, F Release = summary, 2022-05-24 Release F = demos.
- 9. G release content planning
  - a. we mark items that you are >90% sure (="committed") to work on during 2H2022 with your label, like subteam-n (Nokia), subteam-s (Samsung) and so on. Items that are proposed for G release but not "committed" we mark with subteam-n-proposal, subteam-s-proposal and so on. To ease usage I created a couple of filters for follow up. See §7.3 from Jira usage conventions.
  - b. Sprint dates
    - i. Sprint G release dev sprint 1: Aug-22 to Sep-11
    - ii. Sprint G release dev sprint 2: Sep-12 to Oct-2
    - iii. Sprint G release dev sprint 3: Oct-3 to Oct-23
    - iv. Sprint G release dev sprint 4: Oct-24 to Nov-13 (last planned development sprint)
    - v. Sprint G release dev sprint 5: Nov-14 to Dec-4 (only for unplanned last-minute development items)
- 10. GRPC vs RMR
  - a. Nokia is plannig RMR with GRPC (E2AP-equivalent xApp interfaces)
  - b. to include Alexandre in discussion as well. Subhash also interested in what's coming. Nitin (mavenir) and Sunil (HCL) also interested.
  - c. need to look at Mavenir E2SM-RC proposal.
  - d. impact on xapp frameworks will happen as well.
  - e. Alexandre mentioned option of using QUIC (grpc over QUIC).
- 11. Meeting on E2 Reset scheduled for Apr-13->Apr-20 9:30am IST
  - a. 2022-04-26: in the meeting we discussed various ways how E2 reset can be implemented. We decided to check current specifications by O-RAN on how to support E2 Reset and how to align contributions with it.
  - b. timer limitation still to be discussed and whether we can two implementations (with timer/without timer)
  - c. Thoralf to schedule another meeting end of May (after F).
  - d. 2022-06-07: Thoralf will schedule a meeting for week after next week
  - e. 2022-06-212022-07-05: This has to wait for end of July
- 12. Pranesh raised the issue of message drops after idle times of about 15 minutes. Could be the same as RIC-894. May or not be related to K8S.
  - a. 2022-07-19 no news
- 13. RUST as a language for xApps and framework. Will take this in the details in next meeting.
  - a. 2022-07-19 TOC approved ric-plt/xapp-frame-rust is ready for content. ric-app/hw-rust still to be created
  - b. 2022-07-19 go through commit steps
- 14. RICAPP agenda: RICAPP Meetings.

# 2022-07-05 (Tuesday)

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).2022-07-05:
  - we did not do this this time
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on May-27-2022. 2022-07-05 we did not do this this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. 2022-07-05: we did not check this this time.
  - b. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
  - c. RIC-915 dms\_cli for installing xapp not working (raised by James) (2022-05-30 Thoralf added comment in the case)
  - d. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - e. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - f. RIC-897 SCTP connection fails with Viavi // update with workaround
  - g. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - h. RIC-894 long idle period (days) causes RMR connection breaks
  - i. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build

- j. RIC-857 sporadically RMR takes multiple minutes before being "ready"
- k. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
  - i. 2021-12-21: Trying to get bandwidth for this during F release.
- I. RIC-837 RMR is not forwarding messages from E2T to E2M
- m. RIC-835 2021-12-07 news from Viktor
- n. fixed:no new fixes
- o. anybody would like to get more familiar with RMR?
- 4. Sunil still to discuss with other team members for other items from subteam-h
  - a. Other tickets CI/CD and Code coverage tickets? Sunil: I am still looking for the resources to work on that.
    - i. Sangeetha working on RIC-860, done, but code still to be checked in. 2022-07-05 & 2022-07-19 update: Code checked-in, but it seems https://gerrit.o-ran-sc.org/r/c/it/test/+/8530 that is part of GIT relation chain was abandoned (it contained the bulk of the changes for subscription deletion test)
    - ii. Sangeetha working on RIC-878, status see Jira item, code still to be checked in. 2022-07-05 & 2022-07-19 update: Code checked-in
    - iii. O1 testing is also being worked on. 2022-03-29 Sangeetha to raise Jira ticket
    - iv. Subhash asked for documentation of nanobot from Sunil. Almost done. 2022-05-11: Still open
    - v. 2022-04-26: still open
    - vi. 2022-05-11: expecting to finalize by May-27
    - vii. 2022-06-07: news on RIC-860 and RIC-878 or O1 testing?
    - viii. 2022-07-05: Thoralf marked RIC-860 and RIC-878 as moved out of F release
- 5. James: RSAC recommended incorporating OTF in testing (David Kinsey can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha) and David on this plus James.
  - a. 2022-04-12
    - i. last Thursday RSAC call was used for preparing OTF installation of the three microservices into O-Cloud (WR k8s with O2 IMS /DMS) to avoid firewall issues
    - ii. actual workshop planned for RSAC on Apr-21 9am EDT.
    - iii. Taking OTF into use in E release might be only partially done in E release (also discussed in last week's TOC)
  - b. 2022-04-26
    - i. OTF installed and configured in Bedminster lab. Still access issues, though. Workshop planned for next Wed morning, 8am ET.
    - David K. shared a lab network picture with the RIC on a separate network. Thoralf not sure why. Subhash and Thoralf
      interested in the document shared in last RSAC meeting.
  - c. 2022-05-11:
    - i. Currently in the hands of OTF team (Alex)
    - ii. dms\_cli seems to have issues (James has used this in E release), dms\_cli does not have CI/CD case. For now, let's agree if a good problem report is sent, Nune or Thoralf can look at it.
      - 1. 2022-05-30: Thoralf comment in RIC-915
  - d. 2022-06-21: Xtesting proposed as alternative to OTF
  - e. 2022-07-05: Any news from James?
- 6. Progress on xapp side adaptation to REST interface? RIC-641 Sandeep Anh Nguyen (HCL) is working on this. Work is progressing.
  - a. 2022-04-12: framework changes done. Now integrating with Bouncer xApp. The reviews are coming.
  - b. 2022-06-21
    - i. RIC-642 (python) done
    - ii. RIC-705 and RIC-641 being worked on by Anh Nguyen: https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-cpp/+/8561
  - c. 2022-07-05: Thoralf moved RIC-705 and RIC-641 (xapp-frame-py) out of the F release. Which means they are likely early G release features.
- 7. 2022-07-05: still two remaining demos.
  - a. No demo today (plan for 2022-07-19) 5 min RIC-888 query interface in nodeb-rnib for querying RAN functions by OID. (Manoj)
  - b. 10min RIC-642 xapp-frame-py subscription REST interface end of August (Erkki)
  - c. 2022-07-05: Thoralf uploaded demo on deploying RIC, connecting the simulator project's E2 (node) simulator, Nokia simulator and deploy the hw-go xapp as well: 2022-05-24 Release F
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    - ii. timer limitation still to be discussed and whether we can two implementations (with timer/without timer)
    - iii. Thoralf to schedule another meeting end of May (after F).
    - iv. 2022-06-07: Thoralf will schedule a meeting for week after next week
  - b. 2022-06-21**2022-07-05: This has to wait for end of July**
- 10. Pranesh raised the issue of message drops after idle times of about 15 minutes. Could be the same as RIC-894. May or not be related to K8S.
  - a. 2022-07-05 no news
- 11. RUST as a language for xApps and framework. Will take this in the details in next meeting.
  - a. 2022-06-21: We had a meeting on this last week and proposal for TOC is in the making. Two new components: ric-plt/xapp-frame-rust and ric-app/hw-rust)
  - b. **2022-07-05:** 
    - i. addition of ric-plt/xapp-frame-rust and ric-app/hw-rust was approved by TOC on Jun-23-2022.
    - ii. Thoralf to create the repos once back from holiday (mid July)
- 12. RICAPP agenda: RICAPP Meetings.

## 2022-06-21 (Tuesday)

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/8368 OK cleanup of ric-dep and it-dep (only copied code)
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493 OK
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-py/+/8569 OK
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this last on May-27-2022. Not done this time
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-921 fix UT test case in e2mgr to stub time (leftover from review https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8493)
  - b. RIC-915 dms\_cli for installing xapp not working (raised by James) (2022-05-30 Thoralf added comment in the case)
  - c. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - d. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - e. RIC-897 SCTP connection fails with Viavi // update with workaround
  - f. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - g. RIC-894 long idle period (days) causes RMR connection breaks
  - h. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - i. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - j. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - k. RIC-837 RMR is not forwarding messages from E2T to E2M
  - I. RIC-835 2021-12-07 news from Viktor
  - m. fixed: RIC-920 (gNB ID fix)
  - n. anybody would like to get more familiar with RMR?
- 4. Sunil still to discuss with other team members for other items from subteam-h
  - a. Other tickets CI/CD and Code coverage tickets? Sunil: I am still looking for the resources to work on that.
    - i. Sangeetha working on RIC-860, done, but code still to be checked in.
    - ii. Sangeetha working on RIC-878, status see Jira item, code still to be checked in.
    - iii. O1 testing is also being worked on. 2022-03-29 Sangeetha to raise Jira ticket
    - iv. Subhash asked for documentation of nanobot from Sunil. Almost done. 2022-05-11: Still open
    - v. 2022-04-26: still open
    - vi. 2022-05-11: expecting to finalize by May-27
    - vii. 2022-06-07: news on RIC-860 and RIC-878 or O1 testing?
- 5. James: RSAC recommended incorporating OTF in testing (David Kinsey can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha) and David on this plus James.
  - a. 2022-04-12
    - i. last Thursday RSAC call was used for preparing OTF installation of the three microservices into O-Cloud (WR k8s with O2 IMS /DMS) to avoid firewall issues
    - ii. actual workshop planned for RSAC on Apr-21 9am EDT.
    - iii. Taking OTF into use in E release might be only partially done in E release (also discussed in last week's TOC)
  - b. 2022-04-26
    - i. OTF installed and configured in Bedminster lab. Still access issues, though. Workshop planned for next Wed morning, 8am ET.
    - David K. shared a lab network picture with the RIC on a separate network. Thoralf not sure why. Subhash and Thoralf interested in the document shared in last RSAC meeting.
  - c. 2022-05-11:
    - i. Currently in the hands of OTF team (Alex)
    - ii. dms\_cli seems to have issues (James has used this in E release), dms\_cli does not have CI/CD case. For now, let's agree if a good problem report is sent, Nune or Thoralf can look at it.
      - 1. 2022-05-30: Thoralf comment in RIC-915
  - d. 2022-06-21: Xtesting proposed as alternative to OTF
- 6. Progress on xapp side adaptation to REST interface? RIC-641 Sandeep Anh Nguyen (HCL) is working on this. Work is progressing.
  - a. 2022-04-12: framework changes done. Now integrating with Bouncer xApp. The reviews are coming.
  - b. **2022-06-21** 
    - i. RIC-642 (python) done
    - ii. RIC-705 and RIC-641 being worked on by Anh Nguyen: https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-cpp/+/8561
- 7. 2022-06-21: demo held on 2022-07-06. Remaining demos planned for 2022-06-21
  - a. No demo today (plan for 2022-07-19) 5 min RIC-888 query interface in nodeb-rnib for querying RAN functions by OID. (Manoj)
  - b. 10min RIC-916 new reconnect timer in E2 to reject new connect for x seconds (dhiraj)
  - c. 10min RIC-642 xapp-frame-py subscription REST interface end of August (Erkki)
- 8. F release wrap up
  - a. see §6 in Jira usage conventions
  - b. Thoralf to go through JIRA and check status of items. Thoralf might send e-mails to get current status.
  - c. Thoralf to organize sprint demos for May-24, at 9am ET in an extended timeslot of the project meeting.
    - i. See demo page: 2022-05-24 Release F
- New contribution proposals: Thoralf created JIRA items for the items in c and d and b: Link =https://jira.o-ran-sc.org/issues/?jql=labels%20%3D% 20subteam-p
  - a. Meeting on E2 Reset scheduled for Apr-13->Apr-20 9:30am IST
    - i. 2022-04-26:
      - 1. in the meeting we discussed various ways how E2 reset can be implemented. We decided to check current specifications by O-RAN on how to support E2 Reset and how to align contributions with it.
      - 2. timer limitation still to be discussed and whether we can two implementations (with timer/without timer)
      - 3. Thoralf to schedule another meeting end of May (after F).
      - 4. 2022-06-07: Thoralf will schedule a meeting for week after next week
      - 5. 2022-06-21: This has to wait for end of July
- 10. Pranesh raised the issue of message drops after idle times of about 15 minutes. Could be the same as RIC-894. May or not be related to K8S.
- 11. RUST as a language for xApps and framework. Will take this in the details in next meeting.

- a. 2022-06-21: We had a meeting on this last week and proposal for TOC is in the making. Two new components: ric-plt/xapp-frame-rust and ric-app/hw-rust)
- b. Approved by the TOC.
- 12. RICAPP agenda: RICAPP Meetings.

## 2022-06-07 (Tuesday)

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/nodeb-rnib/+/8324 OK (commit of previously reviewed files in e2ap branch)
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8303 **OK** (commit of previously reviewed files in e2ap branch)
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2/+/8323 **OK** (commit of previously reviewed files in e2ap branch)
  - d. https://gerrit.o-ran-sc.org/r/c/ric-plt/nodeb-rnib/+/8332 OK (change in proto file that caused changes in generated files)
  - e. https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/8368 **OK** (lots of code moved from it/dep repo)
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Thoralf did this on May-27-2022 no surprises

  - d. ric-plt/alarm-go 0,0 // no bugs (2021-11-22 2022-02-13 2022-05-26) e. ric-plt/appmgr 19,3 // 1 major bug (2022-01-30 2022-02-13 2022-05-26)
  - f. ric-plt/e2mgr 88,6 87,7 // no bugs (2021-11-18 2022-02-14 2022-05-27)
  - g. ric-plt/lib/rmr 86,1 // no bugs (2021-11-23 2022-02-08 2022-05-24) h. ric-plt/sdlgo 90,2 90,5 // no bugs (2022-01-31 2022-02-14 2022-05-27)
  - i. ric-plt/submgr 51,4 // no bugs (2022-01-30 2022-02-13 2022-05-27)
  - j. ric-plt/tracelibcpp 0,0 // 1 major bug (2022-01-25 2022-02-08 2022-05-24)
  - k. ric-plt/tracelibgo 96,2 //0 bugs (2022-01-30 2022-02-13 2022-05-27)

  - I. ric-plt/xapp-frame 0,0 // no bugs (2021-11-22 2022-02-13 2022-05-26)
  - m. ric-plt/xapp-frame-cpp 95,6 96,3 // no blocker bugs (2022-01-26 2022-02-00 2022-05-25)
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  - a. RIC-915 dms\_cli for installing xapp not working (raised by James) (2022-05-30 Thoralf added comment in the case)
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  - k. RIC-835 2021-12-07 news from Viktor

  - I. fixed: no new fixes
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    - ii. dms\_cli seems to have issues (James has used this in E release), dms\_cli does not have CI/CD case. For now, let's agree if a good problem report is sent, Nune or Thoralf can look at it.
      - 1. 2022-05-30: Thoralf comment in RIC-915
- - a. in xapps? E2APv2.0 update in xApps that use the old RMR to-be-removed xapp subscription interface Thoralf asking Sunil to coordinate xapp-side adaptation to REST interface - see RIC-375
    - i. kpimon
    - ii. bouncer (working on rest based submgr API if that means HCL is working RIC-641, please inform Alexandre about this.
    - iii. all hello-world xapps (hw-go already uses submgr REST ifc)

- 1. hw-go issue with old xapp frame lib used. needs to be updated.
- iv. update simulators (discuss with Subhash if needed) do we have two simulators we have to update?
  - 1. done, but not yet open for review.
  - 2. 2022-05-30: Simulator worked fine, but thoralf raised SIM-99 for supporting source-address binding in the simulator
- v. 2022-05-31: as we're not ready with RIC-641 (cpp) and RIC-642 (python) we decided to still keep RMR enabled as interface provided by the subscription manager. RIC-642 is almost ready, and I understand RIC-641 is also being worked on. 07-06-2022 - RIC-641 HCL team is working on this.
- vi. 07-06-2022: E2APv2.0 Code merged
- b. in DU
  - i. 2022-02-23 user-30c9d reported in TOC that this work is done.
- 7. RIC-641 Sandeep (HCL) is working on this. Work is progressing.
  - a. 2022-04-12: framework changes done. Now integrating with Bouncer xApp. The reviews are coming.
  - b. 2022-04-26: working on it
  - c. 2022-05-11: news? Could be handled as exception to be worked on during May-15 to Jun-5 so we can still include this into F.
  - d. 2022-06-07: Any news?
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  - a. see §6 in Jira usage conventions
  - b. Thoralf to go through JIRA and check status of items. Thoralf might send e-mails to get current status.
  - c. Thoralf to organize sprint demos for May-24, at 9am ET in an extended timeslot of the project meeting.
    - i. See demo page: 2022-05-24 Release F
    - ii. 2022-07-06 demo held. Remaining demos planned for 2022-06-21
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- 10. Pranesh raised the issue of message drops after idle times of about 15 minutes. Could be the same as RIC-894. May or not be related to K8S.
- 11. Note 6-7-2022 : Matti send a mail on this. RUST as a language for xApps and framework. Will take this in the details in next meeting.
- 12. RICAPP agenda: RICAPP Meetings

### 2022-05-24

we used this slot as demo meeting for the F release. Demo recording: 2022-05-24 Release F

## 2022-05-11 (exceptionally Wednesday)

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/8127 ok
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/stslgo/+/8112 ok

  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8136 ok d. https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/8147 ok as only files only moved from other repo
  - e. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8196 ok
  - f. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8215 ok
  - g. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8218 ok
  - h. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/7592 ok
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports...
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. We did not do this today.
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - b. RIC-903 new (from PW) DefaultUser setup fails when authentication is enabled for InfluxDB. 2022-05-11: fixed
  - c. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND
  - d. RIC-897 SCTP connection fails with Viavi // update with workaround
  - e. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - f. RIC-894 long idle period (days) causes RMR connection breaks
  - g. RIC-890, RIC-891, RIC-892: build of xapp-ccp framework seems to fail. 2022-05-11: fixed
    - i. could be staging repo related (10004) vs release repo (10002) for the base image
  - h. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - i. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - j. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - k. RIC-837 RMR is not forwarding messages from E2T to E2M
  - I. RIC-835 2021-12-07 news from Viktor
  - m. fixed: RIC-903, RIC-890, RIC-891, RIC-892

- n. anybody would like to get more familiar with RMR?
- 4. 2022-06-07: We plan to release in June. Thoralf will coordinate creation of container images by e-mail.
  - a. F release tasks for releasing the container images: Near-RT RIC (F release)
  - b. F release status: F Release
  - c. F release criteria checklist (filled in by Thoralf): Release criteria checklist Release F
- 5. Sunil still to discuss with other team members for other items from subteam-h
  - a. Other tickets CI/CD and Code coverage tickets? Sunil: I am still looking for the resources to work on that.
    - i. Sangeetha working on RIC-860, done, but code still to be checked in.
    - ii. Sangeetha working on RIC-878, status see Jira item, code still to be checked in.
    - iii. O1 testing is also being worked on. 2022-03-29 Sangeetha to raise Jira ticket
    - iv. Subhash asked for documentation of nanobot from Sunil. Almost done. 2022-05-11: Still open
    - v. 2022-04-26: still open
    - vi. 2022-05-11: expecting to finalize by May-27
- 6. James: RSAC recommended incorporating OTF in testing (David Kinsey can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha) and David on this plus James.
  - **a.** 2022-04-12
    - last Thursday RSAC call was used for preparing OTF installation of the three microservices into O-Cloud (WR k8s with O2 IMS /DMS) to avoid firewall issues
    - ii. actual workshop planned for RSAC on Apr-21 9am EDT.
    - iii. Taking OTF into use in E release might be only partially done in E release (also discussed in last week's TOC)
  - **b.** 2022-04-26
    - i. OTF installed and configured in Bedminster lab. Still access issues, though. Workshop planned for next Wed morning, 8am ET.
    - ii. David K. shared a lab network picture with the RIC on a separate network. Thoralf not sure why. Subhash and Thoralf interested in the document shared in last RSAC meeting.
  - c. 2022-05-11:
    - i. Currently in the hands of OTF team (Alex)
    - ii. dms\_cli seems to have issues (James has used this in E release), dms\_cli does not have CI/CD case. For now, let's agree if a good problem report is sent, Nune or Thoralf can look at it.
- 7. Progress on E2APv2.0?
  - a. in ric platform and simulators?
    - i. 2022-04-26
      - 1. subscription manager change for E2APv2.0 is now in E2APv2.0 branch
      - 2. config update message support coming this week.
      - 3. after this cleanup of small things here and there that are still needed.
    - ii. 2022-05-10
      - 1. thoralf suggests May-13 as day for moving E2AP branch to master
        - a. Subhash agrees. So let's aim for that.
        - b. Subhash to list which Config transfer failure cases move into next release (just left-over create JIRA item)
      - 2. Nokia has already tested some E2APv2.0 procedures with Nokia simulator (like E2 setup, subscription success case)
    - 3. Subhash still working on simulator in sim project
  - b. in xapps? E2APv2.0 update in xApps that use the old RMR to-be-removed xapp subscription interface Thoralf asking Sunil to coordinate xapp-side adaptation to REST interface see RIC-375
    - kpimon
    - ii. bouncer (working on rest based submgr API if that means HCL is working RIC-641, please inform Alexandre about this.
    - iii. all hello-world xapps (hw-go already uses submgr REST ifc)
      - 1. hw-go issue with old xapp frame lib used. needs to be updated.
    - iv. update simulators (discuss with Subhash if needed) do we have two simulators we have to update?
      - 1. done, but not yet open for review.
  - c. in DU
    - i. 2022-02-23 user-30c9d reported in TOC that this work is done.
- 8. RIC-641 Sandeep (HCL) is working on this. Work is progressing.
  - a. 2022-04-12: framework changes done. Now integrating with Bouncer xApp. The reviews are coming.
  - **b.** 2022-04-26: working on it
  - c. 2022-05-11: news? Could be handled as exception to be worked on during May-15 to Jun-5 so we can still include this into F.
- 9. F release wrap up
  - a. see §6 in Jira usage conventions
  - b. Thoralf to go through JIRA and check status of items. Thoralf might send e-mails to get current status.
  - c. Thoralf to organize sprint demos for May-24, at 9am ET in an extended timeslot of the project meeting.
    - i. See demo page: 2022-05-24 Release F
- New contribution proposals: Thoralf created JIRA items for the items in c and d and b: Link =https://jira.o-ran-sc.org/issues/?jql=labels%20%3D% 20subteam-p
  - a. Meeting on E2 Reset scheduled for Apr-13->Apr-20 9:30am IST
    - i. 2022-04-26:
      - 1. in the meeting we discussed various ways how E2 reset can be implemented. We decided to check current specifications by O-RAN on how to support E2 Reset and how to align contributions with it.
      - 2. timer limitation still to be discussed and whether we can two implementations (with timer/without timer)
      - 3. Thoralf to schedule another meeting end of May (after F).
- 11. Pranesh raised the issue of message drops after idle times of about 15 minutes. Could be the same as RIC-894. May or not be related to K8S.
- 12. RICAPP agenda: RICAPP Meetings.

### 2022-04-26

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/8095 ok

- b. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/8069 ok
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. We did not do this today.
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-905 new (from PW) Issue in reporting the CLEAR ALARM as VES EVENT
  - b. RIC-903 new (from PW) DefaultUser setup fails when authentication is enabled for InfluxDB
     c. RIC-901 new (from PW) BUG FIX IN 'Get ALARM INFO' NETCONF COMMAND

  - d. RIC-897 SCTP connection fails with Viavi // update with workaround
  - e. RIC-894 long idle period (days) causes RMR connection breaks // update with more information
  - f. RIC-896 xapps sending same msg type and sub id fails details to be clarified
  - g. RIC-890, RIC-891, RIC-892: build of xapp-ccp framework seems to fail.
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  - h. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - i. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - j. RIC-835 2021-12-07 news from Viktor
  - k. RIC-837 RMR is not forwarding messages from E2T to E2M
  - I. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - m. fixed: no new fixes
  - n. anybody would like to get more familiar with RMR?
- 4. Sunil still to discuss with other team members for other items from subteam-h
  - a. Other tickets CI/CD and Code coverage tickets? Sunil: I am still looking for the resources to work on that.

    - i. Sangeetha working on RIC-860, done, but code still to be checked in.
      ii. Sangeetha working on RIC-878, status see Jira item, code still to be checked in.
    - iii. O1 testing is also being worked on. 2022-03-29 Sangeetha to raise Jira ticket
    - iv. Subhash asked for documentation of nanobot from Sunil. Almost done. 2022-04-12: Still open
    - v. 2022-04-26: still open
- 5. James: RSAC recommended incorporating OTF in testing (David Kinsey can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha) and David on this plus James.
  - a. 2022-04-12
    - i. last Thursday RSAC call was used for preparing OTF installation of the three microservices into O-Cloud (WR k8s with O2 IMS /DMS) to avoid firewall issues
    - ii. actual workshop planned for RSAC on Apr-21 9am EDT.
    - iii. Taking OTF into use in E release might be only partially done in E release (also discussed in last week's TOC)
  - b. 2022-04-26
    - i. OTF installed and configured in Bedminster lab. Still access issues, though. Workshop planned for next Wed morning, 8am ET.
    - ii. David K. shared a lab network picture with the RIC on a separate network. Thoralf not sure why. Subhash and Thoralf interested in the document shared in last RSAC meeting.
- 6. Progress on E2APv2.0?
  - a. in ric platform and simulators?
    - i. 2022-03-29
      - 1. AP: Subhash to present he E2AP2.0 slides (15min) from here: E2AP 2.0 Design
      - 2. Simulator code updated to E2APv2.0: https://gerrit.o-ran-sc.org/r/c/sim/e2-interface/+/7971 (incl. asn1c generated files) config transfer message coming soon
      - 3. protobuf definitions for configuration components under re-work
      - 4. E2APv2-0 branches? nodeb-rnib already branched.
    - ii. 2022-04-12
      - 1. E2M patch for E2 Setup as per new version (Dhiraj/Arun to review). Octet sequence for config request/repsonse within E2 setup not yet correctly handled
      - 2. next step is config update message (1-2 weeks)
      - 3. transaction id handling should be in same patch as well.
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      - 1. subscription manager change for E2APv2.0 is now in E2APv2.0 branch
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    - ii. bouncer (working on rest based submgr API if that means HCL is working RIC-641, please inform Alexandre about this.
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- i. 2022-02-23 user-30c9d reported in TOC that this work is done.
- 7. RIC-641 Sandeep (HCL) is working on this. Work is progressing.
  - a. 2022-04-12: framework changes done. Now integrating with Bouncer xApp. The reviews are coming.
  - b. 2022-04-26:working on it
- 8. 2022-04-26: NU (Northeastern University) proposed as new repo in the simulator project for their contribution of an E2 adapter that adapts E2 to the ns-3 (RAN) simulator. A presentation is planned for the TOC call on Apr-27.
- 9. F release wrap up
  - a. see §6 in Jira usage conventions
  - b. Thoralf to go through JIRA and check status of items. Thoralf might send e-mails to get current status.
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    - 3. Thoralf to schedule another meeting end of May (after F).
- b. Thoralf (near-RT RIC) proposed a new repo ric-plt/stslgo . Details: https://lists.o-ran-sc.org/g/toc/message/674
   i. 2022-04-26: repo is now available
- 11. Pranesh raised the issue of message drops after idle times of about 15 minutes. Could be the same as RIC-894. May or not be related to K8S.
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### 2022-04-12

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  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/nodeb-rnib/+/7974 ok, protobuf definitions only
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2/+/8037 ok, generated asn.1 encoder/decoder files.
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  - f. RIC-896 xapps sending same msg type and sub id fails details to be clarified
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  - k. RIC-837 RMR is not forwarding messages from E2T to E2M
  - I. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
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  - m. fixed:
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  - a. 2022-01-27 (Mail sent)
  - b. 2022-02-15: resending with the right David
  - c. 2022-03-01:
    - i. workshop to be planned (James in discussion with David)
    - ii. in last weeks SMO+RSAC meeting this was discussed as well. It would be good to have a test case that just verifies successful deployment of the RIC platform, workshop still to be scheduled.
    - iii. James ran O-ran profile in powder lab. Seemed to work and deploy Dawn. Working with David Jo. (UoU) to update to E release.
    - iv. 2022-03-15: James creating a E release profile for powder
  - d. 2022-03-15: workshop still to be held (was moved by two weeks (Mar-24))
  - e. 2022-03-29: OTF workshop planned for April-7 9am EDT https://lists.o-ran-sc.org/g/discuss/message/487
  - f. 2022-04-12
    - i. last Thursday RSAC call was used for preparing OTF installation of the three microservices into O-Cloud (WR k8s with O2 IMS/DMS) to avoid firewall issues
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### 2022-03-29

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  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/7955 ok, removal of deprecated code
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
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  - g. RIC-835 2021-12-07 news from Viktor
  - h. RIC-837 RMR is not forwarding messages from E2T to E2M
  - i. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - j. fixed: RIC-895 (routes in routing mgr for service update messages)
  - k. anybody would like to get more familiar with RMR?
- 4. Sunil still to discuss with other team members for other items from subteam-h
  - a. Other tickets CI/CD and Code coverage tickets? Sunil: I am still looking for the resources to work on that.
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    - i. Sangeetha working on RIC-860, done, but code still to be checked in.
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    - iii. O1 testing is also being worked on. 2022-03-29 Sangeetha to raise Jira ticket
    - iv. Subhash asked for documentation of nanobot from Sunil. almost done.
  - c. 2022-03-15: status Sangeetha?
- 5. James: RSAC recommended incorporating OTF in testing (David Kinsey can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha) and David on this plus James.
  - a. 2022-01-27 (Mail sent)
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    - i. workshop to be planned (James in discussion with David)
    - ii. in last weeks SMO+RSAC meeting this was discussed as well. It would be good to have a test case that just verifies successful deployment of the RIC platform, workshop still to be scheduled.
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- 6. Progress on E2APv2.0?
  - a. in ric platform and simulators?
    - i. Any first code/design review request that Arun and Dhiraj should review?
    - ii. progress, subhash: simulator adapted. E2T changes internally ready.
    - iii. Subhash&co did not plan to do any testing on xApp side.
    - iv. thoralf to sent invitation to Subhash &co for Friday DONE
      - agreed on configuration transfer to be handled similar to function definitions as E2APv2.0 now defines configuration updates as replacing instead of updating existing component configuration entries.
      - E2 reset to be handled as new state that xApps see: "connected---<u>transition1</u>-->connected-but-under-reset---<u>transition2</u> -->connected". We use a timer, instead of strict xapp and submgr confirmation that all has been cleaned up. xApps shall resubscribe only after transition2. xapps can assume that submgr has removed all subscriptions (in its view of the world) and that the E2 node has removed them (in its view of the world)
      - 3. Subhash will send slideset for this during this week

- 4. E2 implementation status and reviews coming?
- v. 2022-03-15 any news?
  - 1. do we need an E2APv2.0 branch (submgr used/uses e2ap-v02.00)
    - a. if we create a E2 branch now we can do the review in that branch. E2T, E2M, and RNIB. submgr already has branch.
    - b. Subhash to ask from Alex Stancu for branch in E2 sim
  - 2. Already initial versions of the work? Dhiraj and Arun are available for reviewing.
  - 3. updated design: E2AP 2.0 Design
  - 4. Could provide initial version in which config handling (IE in E2 Setup) is just ignored.
  - 5. AP: Subhash to present he E2AP2.0 slides (15min)
  - 6. A1 mediator work proceeding (two more APIs)
- vi. 2022-03-29
  - 1. AP: Subhash to present he E2AP2.0 slides (15min) from here: E2AP 2.0 Design
  - Simulator code updated to E2APv2.0: https://gerrit.o-ran-sc.org/r/c/sim/e2-interface/+/7971 (incl. asn1c generated files) config transfer message coming soon
  - 3. protobuf definitions for configuration components under re-work
  - 4. E2APv2-0 branches? nodeb-rnib already branched.
- b. in xapps? E2APv2.0 update in xApps that use the old RMR to-be-removed xapp subscription interface Thoralf asking Sunil to coordinate xapp-side adaptation to REST interface see RIC-375
  - i. kpimon
  - ii. bouncer (working on rest based submgr API if that means HCL is working RIC-641, please inform Alexandre about this.
  - iii. all hello-world xapps (hw-go already uses submgr REST ifc)
    - 1. hw-go issue with old xapp frame lib used. needs to be updated.
    - 2. in same mail thread there's another issue to be discussed over mail.
    - 3. 2022-03-15: Still open corner case where registration is not done yet, but sub requests are already sent. Thoralf to ask from Nune.
  - iv. update simulators (discuss with Subhash if needed) do we have two simulators we have to update?
    - 1. done, but not yet open for review.
- c. in DU
- i. 2022-02-23 user-30c9d reported in TOC that this work is done.
- 7. RIC-641 Sandeep (HCL) is working on this. Work is progressing
- 8. New contribution proposals
  - a. E2 RESET handling
    - i. when meeting?
    - ii. Thoralf to send meeting invitation for this or next week (timezone india+europe)
  - b. Influx-DB Wrapper
    - i. new repo=stslgo (shared time series layer)
    - ii. involve Sunil (HCL) and Dhiraj and Subhash & co for proposal
  - c. O1-NetConf Enhancements
    - i. Nune said "ok"
  - d. Stability Issues
    - i. Nune said "ok"
  - e. Thoralf created JIRA items for the items in c and d and b: Link =https://jira.o-ran-sc.org/issues/?jql=labels%20%3D%20subteam-p
- 9. RICAPP agenda: RICAPP Meetings.

### 2022-03-15

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/7944 OK
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlpy/+/7945 OK
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdl/+/7946 OK
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. 2022-03-15: Thoralf went through the list no updates.
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-890, RIC-891, RIC-892: build of xapp-ccp framework seems to fail.
  - b. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - c. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - d. RIC-835 2021-12-07 news from Viktor
  - e. RIC-837 RMR is not forwarding messages from E2T to E2M
  - f. RIC-840 Unable to deploy E2Term on Dawn release
  - g. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - h. fixed: no new fixes since last meeting. We marked RIC-840 as done because in E it seems to work.
  - i. anybody would like to get more familiar with RMR?
- 4. Sunil still to discuss with other team members for other items from subteam-h
  - a. Other tickets CI/CD and Code coverage tickets? Sunil: I am still looking for the resources to work on that.
  - b. 2022-03-01
    - i. Sangeetha working on RIC-860, done, but code still to be checked in.
    - ii. Sangeetha working on RIC-878, status see Jira item, code still to be checked in.
    - iii. O1 testing is also being worked on.
    - iv. Subhash asked for documentation of nanobot from Sunil. almost done.

- c. 2022-03-15: status Sangeetha?
- 5. James: RSAC recommended incorporating OTF in testing (David Kinsey can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha) and David on this plus James.
  - a. 2022-01-27 (Mail sent)
  - b. 2022-02-15: resending with the right David
  - c. 2022-03-01:
    - i. workshop to be planned (James in discussion with David)
    - ii. in last weeks SMO+RSAC meeting this was discussed as well. It would be good to have a test case that just verifies successful deployment of the RIC platform, workshop still to be scheduled.
    - iii. James ran O-ran profile in powder lab. Seemed to work and deploy Dawn. Working with David Jo. (UoU) to update to E release.
    - iv. 2022-03-15: James creating a E release profile for powder
  - d. 2022-03-15: workshop still to be held (was moved by two weeks (Mar-24))
- 6. Progress on E2APv2.0?
  - a. in ric platform and simulators?
    - i. Any first code/design review request that Arun and Dhiraj should review?
    - ii. progress, subhash: simulator adapted. E2T changes internally ready.
    - iii. Subhash&co did not plan to do any testing on xApp side.
    - iv. thoralf to sent invitation to Subhash &co for Friday DONE
      - 1. agreed on configuration transfer to be handled similar to function definitions as E2APv2.0 now defines configuration updates as replacing instead of updating existing component configuration entries.
      - 2. E2 reset to be handled as new state that xApps see: "connected---transition1-->connected-but-under-reset---transition2 -->connected". We use a timer, instead of strict xapp and submgr confirmation that all has been cleaned up. xApps shall resubscribe only after transition2. xapps can assume that submgr has removed all subscriptions (in its view of the world) and that the E2 node has removed them (in its view of the world)
      - 3. Subhash will send slideset for this during this week
      - 4. E2 implementation status and reviews coming?
    - v. 2022-03-15 any news?
      - 1. do we need an E2APv2.0 branch (submgr used/uses e2ap-v02.00)
        - a. if we create a E2 branch now we can do the review in that branch. E2T, E2M, and RNIB. submgr already has branch.
        - b. Subhash to ask from Alex Stancu for branch in E2 sim
      - 2. Already initial versions of the work? Dhiraj and Arun are available for reviewing.
      - 3. updated design: E2AP 2.0 Design
      - 4. Could provide initial version in which config handling (IE in E2 Setup) is just ignored.
      - 5. AP: Subhash to present he E2AP2.0 slides (15min)
      - 6. A1 mediator work proceeding (two more APIs)
  - b. in xapps? E2APv2.0 update in xApps that use the old RMR to-be-removed xapp subscription interface Thoralf asking Sunil to coordinate xapp-side adaptation to REST interface - see RIC-375
    - i. knimon
    - ii. bouncer (working on rest based submgr API if that means HCL is working RIC-641, please inform Alexandre about this.
    - iii. all hello-world xapps (hw-go already uses submgr REST ifc)
      - 1. hw-go issue with old xapp frame lib used. needs to be updated.
      - 2. in same mail thread there's another issue to be discussed over mail.
      - 3. 2022-03-15: Still open corner case where registration is not done yet, but sub requests are already sent. Thoralf to ask
      - 4. 2022-03-29: xapp wasn't registered (as visible in output of curl commane below. instructions how to register are in user\_guide\_v2
        - a. \$ curl -i -X GET http://10.244.0.138:8080/ric/v1/xapps //IP = appmgr IP
    - iv. update simulators (discuss with Subhash if needed) do we have two simulators we have to update?
  - 1. done, but not yet open for review. c. in DU
  - i. 2022-02-23 user-30c9d reported in TOC that this work is done.
- 7. Alexandre started work on RIC-705
- 8. RIC-641 Sandeep (HCL) is working on this.
- 9. RICAPP agenda: RICAPP Meetings.

### 2022-03-01

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/7610 OK
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/7587 OK redis client from v7 to v8 and adapting to changes in interface.
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. not done this time.
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - b. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - c. RIC-835 2021-12-07 news from Viktor
  - d. RIC-837 RMR is not forwarding messages from E2T to E2M
  - e. RIC-840 Unable to deploy E2Term on Dawn release
  - f. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.

- i. 2021-12-21: Trying to get bandwidth for this during F release.
- g. fixed: no new fixes since last meeting.
- h. anybody would like to get more familiar with RMR?
- 4. Cross-check with A. if he has updated the instructions to point to helm3.
  - a. A. can look on this on Jan-31 and update here: new section here https://docs.o-ran-sc.org/projects/o-ran-sc-it-dep/en/latest/installation-quides.html
  - b. 2022-02-14: there's a review for this documentation change (change 7638). The review fails in LF CI/Jenkins in SMO/non-rt RIC related parts. Asked help from James by e-mail. James raised a request to LF: IT-23628
  - c. 2022-02-16: merged and DONE.
- 5. Sunil still to discuss with other team members for other items from subteam-h
  - a. Other tickets CI/CD and Code coverage tickets? Sunil: I am still looking for the resources to work on that.
  - b. Sangeetha working on RIC-860, done, but code still to be checked in.
  - c. Sangeetha working on RIC-878, status see Jira item
  - d. Subhash asked for documentation of nanobot from Sunil.
- 6. James: RSAC recommended incorporating OTF in testing (David Kinsey can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha) and David on this plus James.
  - a. 2022-01-27 (Mail sent)
  - b. 2022-02-15: resending with the right David
  - c. 2022-03-01: workshop to be planned (James in discussion with David)
  - d. in last weeks SMO+RSAC meeting this was discussed as well. It would be good to have a test case that just verifies successful deployment of teh RIC platform, workshop still to be scheduled.
  - e. James ran O-ran profile in powder lab. Seemed to work and deploy Dawn. Working with David Jo. (UoU) to update to E release.
- 7. Progress on E2APv2.0?
  - a. in ric platform and simulators?
    - i. Any first code/design review request that Arun and Dhiraj should review?
    - ii. progress, subhash: simulator adapted. E2T changes internally ready.
    - iii. Subhash&co did not plan to do any testing on xApp side.
    - iv. thoralf to sent invitation to Subhash &co for Friday DONE
      - agreed on configuration transfer to be handled similar to function definitions as E2APv2.0 now defines configuration updates as replacing instead of updating existing component configuration entries.
      - 2. E2 reset to be handled as new state that xApps see: "connected---<u>transition1</u>-->connected-but-under-reset---<u>transition2</u>-->connected". We use a timer, instead of strict xapp and submgr confirmation that all has been cleaned up. xApps shall resubscribe only after transition2. xapps can assume that submgr has removed all subscriptions (in its view of the world) and that the E2 node has removed them (in its view of the world)
      - 3. Subhash will send slideset for this during this week
  - b. in xapps? E2APv2.0 update in xApps that use the old RMR to-be-removed xapp subscription interface Thoralf asking Sunil to coordinate xapp-side adaptation to REST interface see RIC-375
    - i. kpimon
    - ii. bouncer (working on rest based submgr API if that means HCL is working RIC-641, please inform Alexandre about this.
    - iii. all hello-world xapps (hw-go already uses submgr REST ifc)
      - 1. hw-go issue with old xapp frame lib used. needs to be updated.
      - 2. in same mail thread there's another issue to be discussed over mail.
    - iv. update simulators (discuss with Subhash if needed) do we have two simulators we have to update?
  - c. in DU
    - i. 2022-02-23 user-30c9d reported in TOC that this work is done.
- 8. anybody working on this RIC-705 Alexandre wants to know.
  - a. 2022-02-15: Thoralf sent mail to E & A.
  - b. 2022-02-21: Alexandre agree to work on RIC-705. Might also later work on RIC-641. To keep track of things, I (Thoralf) took the liberty to give Alexandre a separate subteam tag in Jira: "subteam-utfpr" and marked RIC-705 as per the convention. I updated the links in §7.2 accordingly in Jira usage conventions.
- 9. RICAPP agenda: RICAPP Meetings.

## 2022-02-15

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. not done this time.
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. ric-plt/alarm-go 0,0 // no bugs (2021-11-22 2022-02-13 )
  - d. ric-plt/appmgr 19,3 // 1 major bug (2022-01-30 2022-02-13)
  - e. ric-plt/e2mgr 88,6 // no bugs (2021-11-18 2022-02-14)
  - f. ric-plt/lib/rmr 86,2 // no bugs (2021-11-23 2022-02-08)
  - g. ric-plt/sdlgo 25,2 90,2// no bugs (2022-01-31 2022-02-14) RIC-887 fixed reporting job issue
  - h. ric-plt/submgr 51,2 // no bugs (2022-01-30 2022-02-13)
  - i. ric-plt/tracelibcpp 0,0 // 1 major bug (2022-01-25 2022-02-08)
  - j. ric-plt/tracelibgo 96,2 //0 bugs (2022-01-30 2022-02-13)
  - k. ric-plt/xapp-frame 0,0 // no bugs (2021-11-22 2022-02-13)
  - I. ric-plt/xapp-frame-cpp 95,6 // no blocker bugs (2022-01-26 2022-02-09)
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. new RIC-885, RIC-887 (sdlgo) fixed
  - b. new RIC-883 xappframe-cpp Alexandre fixed this
  - c. RIC-872 Alexandre fixed this

- d. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
- e. RIC-857 sporadically RMR takes multiple minutes before being "ready"
- f. RIC-835 2021-12-07 news from Viktor
- g. RIC-837 RMR is not forwarding messages from E2T to E2M
- h. RIC-840 Unable to deploy E2Term on Dawn release
- i. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
  - i. 2021-12-21: Trying to get bandwidth for this during F release.
- j. fixed: RIC-872, RIC-883, RIC-885, RIC-887
- k. anybody would like to get more familiar with RMR?
- 4. Cross-check with A. if he has updated the instructions to point to helm3.
  - a. A. can look on this on Jan-31 and update here: new section here https://docs.o-ran-sc.org/projects/o-ran-sc-it-dep/en/latest/installationguides.html
  - b. 2022-02-14: there's a review for this documentation change (change 7638). The review fails in LF CI/Jenkins in SMO/non-rt RIC related parts. Asked help from James by e-mail. James raised a request to LF: IT-23628
- 5. Sunil still to discuss with other team members for other items from subteam-h
  - a. 2022-02-15 done and clarified
    - i. RIC-878 A1 mediator testing in nanobot
    - ii. RIC-860 xapp testing nanobot enhancements: wider coverage of functionality, e.g., Subscription deletion
    - iii. RICAPP-176 adapting bouncer xapp to REST subscription interface.
    - iv. Other tickets CI/CD and Code coverage tickets, I am still looking for the resources to work on that.
- 6. James: RSAC recommended incorporating OTF in testing (David Kinsey can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha) and David on this plus James.

  - a. 2022-01-27 (Mail sent)b. 2022-02-15: resending with the right David
- 7. Progress on E2APv2.0?
  - a. in ric platform and simulators?
    - i. any questions/comments on Arun's slideset in RIC-722?
    - ii. Any first code/design review request that Arun and Dhiraj should review?
    - iii. progress, subhash: simulator adapted. E2T changes internally ready.
    - iv. config xapp and E2 manager interface.
    - v. discuss E2 reset
    - vi. thoralf to sent invitation to Subhash &co for Friday
    - vii. Subhash&co did not plan to do any testing on xApp side.
  - b. in xapps? E2APv2.0 update in xApps that use the old RMR to-be-removed xapp subscription interface Thoralf asking Sunil to coordinate xapp-side adaptation to REST interface - see RIC-375
    - i. kpimon
    - ii. bouncer
    - iii. all hello-world xapps (hw-go already uses submgr REST ifc)
    - iv. update simulators (discuss with Subhash if needed) do we have two simulators we have to update?
  - c. in DU?
- 8. anybody working on this RIC-705 Alexandre wants to know.
  - a. 2022-02-15: Thoralf sent mail to E & A.
- 9. RICAPP agenda: RICAPP Meetings.

### 2022-02-01

- 1. Thoralf-TODO-cross-check with A. if he has updated the instructions to point to helm3.
  - a. A. can look on this on Jan-31 and update here: new section here https://docs.o-ran-sc.org/projects/o-ran-sc-it-dep/en/latest/installationquides.html
- 2. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/7450 ok
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/alarm-go/+/7465 ok
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/7481 ok
  - d. https://gerrit.o-ran-sc.org/r/c/ric-plt/lib/rmr/+/7515 ok
  - e. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/7592 ok (note this is the E2APv2.0 support in submgr in subbranch "e2ap-02.00" only to be merged with other E2APv2.0 changes)
  - f. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/7587 ok
  - g. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/7610 ok
- 3. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. The list below is only working reports // Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. ric-plt/alarm-go 0,0 // no bugs (2021-11-22 2022-01-30 )
  - d. ric-plt/appmgr 17,5 19,3 // 1 major bug (2021-11-22 2022-01-30)
  - e. ric-plt/e2mgr 88,6 // no bugs (2021-11-18 2022-01-30)
  - f. ric-plt/lib/rmr 70,4 86,2 // no bugs (2021-11-23 2022-01-25)
  - g. ric-plt/sdlgo 47,4 32.4 25,2 // no bugs (2021-11-23 2022-01-31) raise bug
  - h. ric-plt/submgr 44,8 47,4 51,2 // no bugs (2021-11-22 2022-01-30)
  - i. ric-plt/tracelibcpp 0,0 // 1 major bug (2021-11-16 2022-01-25)
  - j. ric-plt/tracelibgo 94,7 96,2 //0 bugs (2021-11-22 2022-01-30)
  - k. ric-plt/xapp-frame 0,0 // no bugs (2021-09-30 2021-11-22) same as before. I. ric-plt/xapp-frame-cpp 96,3 95,6 // still 2 blocker bugs 0 blocker bugs (fix) (2021-11-17 2022-01-26)
- 4. Every time: Check if there are new bug reports in JIRA: link
  - a. new: RIC-872 needs someone to fix. Alexandre working it. Discussion in revies

- b. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
- c. RIC-857 sporadically RMR takes multiple minutes before being "ready"
- d. RIC-835 2021-12-07 news from Viktor
- e. RIC-837 RMR is not forwarding messages from E2T to E2M
- f. RIC-840 Unable to deploy E2Term on Dawn release
- g. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
  - i. 2021-12-21: Trying to get bandwidth for this during F release.
- h. fixed: RIC-880, RIC-875, RIC-873, RIC-869, RIC-862
- i. anybody would like to get more familiar with RMR?
- 5. F release
  - a. schedule
    - i. Sprint F release dev sprint 1: Feb-21 to Mar-13 (as per Releases)
    - ii. Sprint F release dev sprint 2: Mar-14 to Apr-3
    - iii. Sprint F release dev sprint 3: Apr-4 to Apr-24
    - iv. Sprint F release dev sprint 4: Apr-25 to May-15 (last planned development sprint)
    - v. Sprint F release dev sprint5: May-16 to Jun-5 (only for unplanned last-minute development items)
  - b. Filter All RICP items: F release only (links copied from Jira usage conventions)
    - i. committed (90% sure) and tentative (90...30% sure) items: subteam-n, subteam-h, subteam-s and all teams.
    - ii. committed items only: all teams (committed)
    - iii. items that are known to require work, but are currently not in F release: link
  - update xApps that use the old RMR to-be-removed xapp subscription interface Thoralf asking Sunil to coordinate xapp-side adaptation to REST interface - see RIC-375
    - i. kpimon
    - ii. bouncer
    - iii. all hello-world xapps (hw-go already uses submgr REST ifc)
    - iv. update simulators (discuss with Subhash if needed) do we have two simulators we have to update?
  - d. Sunil still to discuss with other team members for other items from subteam-h
  - e. James: RSAC recommended incorporating OTF in testing (David K. can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha) and David on this plus James. 2022-01-27 (Mail sent)
- 6. James had a meeting with Powderlab in UofU on using their lab setup for testing. They have earlier tested OSC D release (and others). James is thinking about using this. Low hanging fruit would be to see if we can run our end-2-end robot test cases in this lab.
  - a. POWDER testbed ORAN demo submission at MWC 2022: https://oranalliance.atlassian.net/wiki/spaces/OAH/pages/2330100360 /PROCESSING+MWC-B-22-14+University+of+Utah
- 7. Needed: overview of what is in golang and what in python and what in c++ and what is missing
  - a. Added this as RIC-882 (F release)
- 8. RICAPP agenda: RICAPP Meetings.

### 2022-01-18

Recording: RIC platform meeting, demo on OID support in RIC, RIC xApp meeting, demo on hello-world python xapp

- 1. Thoralf-TODO-cross-check with Abdulwahid if he has updated the instructions to point to helm3.
- Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. we did not do this this time.
- 3. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. We did not do this this time

#### Anybody willing to work on them?

- 4. Every time: Check if there are new bug reports in JIRA: link
  - a. new: RIC-872 needs someone to fix. Alexandre fixed this.
  - b. RIC-875 thoralf to gheck with timo if fixed already.
  - c. All others thoralf still to gpo thoorugh if any news on them.
  - d. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - e. RIC 862 xapp frame py caching of error code data not happening (was: Python RMR Memory Leak) Alexandre DONE
  - f. RIC-861 re-enable RMR libary's module tests
  - g. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - h. RIC-835 2021-12-07 news from Viktor
  - i. RIC-837 RMR is not forwarding messages from E2T to E2M
  - j. RIC-840 Unable to deploy E2Term on Dawn release
  - k. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - I. fixed: RIC-862, RIC-828, RIC-836, RIC-858, RIC-859, RIC-863, RIC-865
  - m. anybody would like to get more familiar with RMR?
- F release
  - a. schedule
    - i. Sprint F release dev sprint 1: Feb-21 to Mar-13 (as per Releases)
    - ii. Sprint F release dev sprint 2: Mar-14 to Apr-3
    - iii. Sprint F release dev sprint 3: Apr-4 to Apr-24
    - iv. Sprint F release dev sprint 4: Apr-25 to May-15 (last planned development sprint)
    - v. Sprint F release dev sprint5: May-16 to Jun-5 (only for unplanned last-minute development items)
  - b. Filter All RICP items: F release only (links copied from Jira usage conventions)
    - i. committed (90% sure) and tentative (90...30% sure) items: subteam-n, subteam-h, subteam-s and all teams.
    - ii. committed items only: all teams (committed)
    - iii. items that are known to require work, but are currently not in F release: link

- update xApps that use the old RMR to-be-removed xapp subscription interface Thoralf asking Sunil to coordinate xapp-side adaptation to REST interface - see RIC-375
  - i. kpimon
  - ii. bouncer
  - iii. all hello-world xapps (hw-go already uses submgr REST ifc)
  - iv. update simulators (discuss with Subhash if needed) do we have two simulators we have to update?
- d. Sunil still to discuss with other team members for other items from subteam-h
- James: RSAC recommended incorporating OTF in testing (David K. can help)- Thoralf to start mail thread with HCL (sunil, Sangeetha)
  and David on this plus James.
- 6. Needed: overview of what is in golang and what in python and what in c++ and what is missing
- 7. E-release Demo for E2APv1.1 and support for OID in function definitions (Naman)
- 8. RICAPP agenda: RICAPP Meetings.

### 2022-01-04

Recording: link to zoom recording

- 1. no near-rt RIC platform issues on the agenda. If anything to discuss, pls. discuss. If not, move on to point 2.
- 2. RMR related bug raised by Erkki RIC-872, Matti assigned it to Alexander, who will work on it.
- 3. RICAPP agenda: RICAPP Meetings.

### 2021-12-21

Recording: link to zoom recording

- 1. We will have the E-release demo in one hour from now: 2021-12-21 Release E
- 2. next meeting: Jan-4-2022 focus will be the ric xapp project. After this the next one is on Jan-18 which will again handle xapp and ric platform combined.
  - a. Any input for F release, pls. send to Thoralf (back in office on Jan-10)
- 3. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/ricdms/+/6964 ok, not relevant as only API definition
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/7151 ok
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/7152 ok
  - d. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdl/+/6712 ok, as a test tool.
  - e. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/7398 ok
  - f. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/7428 ok
  - g. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/7290 ok
- 4. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. We did not do this this time

#### Anybody willing to work on them?

- 5. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - b. RIC-862 xapp-frame-py caching of error code data not happening (was: Python RMR Memory Leak) Alexandre
  - c. RIC-861 re-enable RMR libary's module tests
  - d. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - e. RIC-835 2021-12-07 news from Viktor
  - f. RIC-837 RMR is not forwarding messages from E2T to E2M
  - g. RIC-840 Unable to deploy E2Term on Dawn release
  - h. RIC-852 Intermittent Issue with E2T: While setting up E2 setup request and response.
    - i. 2021-12-21: Trying to get bandwidth for this during F release.
  - i. fixed: RIC-828, RIC-836, RIC-858, RIC-859, RIC-863, RIC-865
  - j. anybody would like to get more familiar with RMR?
- 6. Action items
  - a. SCCL update Matti will check with Tracy
    - i. still discussion within O-RAN-SC still ongoing
    - ii. publication of O-RAN specs of July train should happen any time now.
    - iii. O-RAN specs of July train have been released. Need to check if any parts have been put under SCCL
  - b. E2 simulator seeing E2 setups not passing through: Wiki page updated but no word from Nokia trying 100 subscriptions testing still in progress, will check with Amit if bug has been filed (nokia waiting for test case being run in newer cloud environment). Amit raised RIC-852 for this.
    - i. 2021-12-21 no news from Nokia side. see RIC-852 above
- 7. E release
  - a. E release images test-deployed. E2 Setup works, xApp deployment. All manual checks.
  - b. TOC approved E release on Dec-15. Release images are here: Near-RT RIC (E release)
  - c. 2021-12-21 Thoralf double-checked that branch "e-release" has been created in all components and also updated release checklist (all OK now): Release criteria checklist Release E. All criteria "ok"
- 8. Preliminary planning for the F release
  - a. Not completed in E release (spill over into F): RIC-849, and all from this list.

- b. Candidate list for F release (priority column as per Thoralf's best understanding) https://jira.o-ran-sc.org/issues/?jql=(fixVersion%20in%20 (ZZZ\_future)%20or%20fixVersion%20in%20(F)%20)AND%20project%20%3D%20%22Near%20Realtime%20RAN%20Intelligent%20Controller%22%20%20ORDER%20BY%20component%20ASC
- c. we will discuss this again in the next meeting.
- d. Thoralf to send a reminder.
- 9. Nitin: submgr subscription REST interface: https://gerrit.o-ran-sc.org/r/gitweb?p=ric-plt/xapp-frame.git;a=tree;f=api
- 10. RICAPP agenda: RICAPP Meetings.

#### 2021-12-07

#### Recording: link to zoom recording

- 1. Anybody new who wants to introduce him/herself?
- 2. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. we did not do this this time.
- 3. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. We did not do this this time

#### Anybody willing to work on them?

- 4. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-865 Done fix unit tests in xapp-frame-py
  - b. RIC-864 xapp-frame-cpp CI does not use Dockerfile and therefore uses Ubuntu18.04 (not 20.04) in build
  - c. RIC-862 xapp-frame-py caching of error code data not happening (was: Python RMR Memory Leak)
  - d. RIC-861 re-enable RMR libary's module tests
  - e. RIC-858 Done
  - f. RIC-857 sporadically RMR takes multiple minutes before being "ready"
  - g. RIC-835 2021-12-07 news from Viktor
  - h. RIC-836 Done
  - i. RIC-837
  - j. RIC-840
  - k. RIC-852
  - I. anybody would like to get more familiar with RMR?
  - m. Can Alexandre help with the RMR bug RIC-858?
- 5. Action items
  - a. SCCL update Matti will check with Tracy
    - i. still discussion within O-RAN-SC still ongoing
    - ii. publication of O-RAN specs of July train should happen any time now.
    - iii. O-RAN specs of July train have been released. Need to check if any parts have been put under SCCL
  - b. E2 simulator seeing E2 setups not passing through: Wiki page updated but no word from Nokia trying 100 subscriptions testing still in progress, will check with Amit if bug has been filed (nokia waiting for test case being run in newer cloud environment). Amit raised RIC-852 for this.
    - i. 2021-12-07 no news from Nokia side.
- Expected that we stop development end of November. In Dec-7 meeting we will do status check and after this only exceptional (specially managed) commits to near-RT RIC for the rest of December.
  - a. reverting a commit related to simulator in https://gerrit.o-ran-sc.org/r/c/sim/e2-interface/+/7253
  - b. E release images test-deployed. E2 Setup works, xApp deployment. All manual checks.
- 7. Preliminary planning for the F release
  - a. likely not completed in E release (spill over into F): RIC-647, and all from this list.
  - b. Candidate list for F release (priority column as per Thoralf's best understanding) https://jira.o-ran-sc.org/issues/?jql=(fixVersion%20in%20 (ZZZ\_future)%20or%20fixVersion%20in%20(F)%20)AND%20project%20%3D%20%22Near%20Realtime%20RAN%20Intelligent%20Controller%22%20%20ORDER%20BY%20component%20ASC
  - c. we will discuss this again in two weeks from now.
  - d. Thoralf to send a reminder.
- 8. Thoralf to arrange release demo for Dec-21: Release Demo with e.g. OID, submgr changes and E release example deployment
- 9. RICAPP agenda: RICAPP Meetings.

### 2021-11-23

- 1. Anybody new who wants to introduce him/herself?
- Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri
  t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/7017 ok
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/7074 ok
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/7088 ok
  - d. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/7087 ok
  - e. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/7103 ok
- 3. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. ric-plt/alarm-go 0,0 // no bugs (2021-09-30 2021-11-22)
  - d. ric-plt/appmgr 0,0 17,5 // 1 major bug ( 2021-09-30 2021-11-22)

- e. ric-plt/e2mgr 88,0 // no bugs (2021-09-28 2021-11-18)
- f. ric-plt/lib/rmr 86,1->70,4 // no bugs (2021-09-07 2021-11-23) raise bug
- g. ric-plt/sdlgo 47,4 32.4// no bugs (2021-09-28 2021-11-23) raise bug
- h. ric-plt/submgr 44,8 47,4// no bugs (2021-09-30 2021-11-22)
- i. ric-plt/tracelibcpp 0,0 // 1 major bug (2021-08-10 2021-11-16)
- j. ric-plt/tracelibgo 94,7//0 bugs (2021-09-30 2021-11-22)
- k. ric-plt/xapp-frame 0,0 // no bugs (2021-09-30 2021-11-22) same as before.
- I. ric-plt/xapp-frame-cpp 96,3 // still 2 blocker bugs (2021-09-22->2021-11-17)

#### Anybody willing to work on them?

- 4. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-858 new
  - b. RIC-835
  - c. RIC-836 Done
  - d. RIC-837
  - e. RIC-840
  - f. RIC-852
  - g. RIC-857
  - h. anybody would like to get more familiar with RMR?
  - i. Can Alexandre help with the RMR bug RIC-858?
- 5. Action items
  - a. SCCL update Matti will check with Tracy
    - i. still discussion within O-RAN-SC still ongoing
    - ii. publication of O-RAN specs of July train should happen any time now.
  - b. E2 simulator seeing E2 setups not passing through: Wiki page updated but no word from Nokia trying 100 subscriptions testing still in progress, will check with Amit if bug has been filed (nokia waiting for test case being run in newer cloud environment). Amit raised RIC-
  - c. DONE-2021-11-23 James (INT PTL): Sent email to PTLs on what is needed. Need automation of testing for all projects.
    - i. Any comments?
    - ii. VES alarm events, for example (James)
    - iii. James: non-rt RIC near-RT RIC integration A1. Discuss With Sunil/Matti/James, e.g. TS xApps has disabled code for this.
    - iv. A1-EI could also be integrated (Subhash raised this)
    - v. Ramesh resue E2 simulator
    - vi. DONE-2021-11-23: thoralf to start mail thread on this.
- 6. Expected that we stop development end of November. In Dec-7 meeting we will do status check and after this only exceptional (specially managed) commits to near-RT RIC for the rest of December.
- 7. Subhash (sent this before the meeting)
  - a. E2AP v1.1 support [RIC-640 and RIC-638]: We are working on implementation of RIC-640 and RIC-638. https://gerrit.o-ran-sc.org/r/c /ric-plt/e2/+/6931 https://gerrit.o-ran-sc.org/r/c/ric-plt/nodeb-rnib/+/7041 https://gerrit.o-ran-sc.org/r/c/ric-plt/nodeb-rnib/+/7050
  - b. A1 mediator (Could be moved to F release) (RIC-647): partial implementation is done to support A1-P API which is not enabled yet.
  - c. RICDMS (Could be moved to F release) [RIC-714]: Implementation is not yet started only we have finalized the API.
  - d. RICCTL (Could be moved to F release) [RIC-445]: Pushed some sample commands for A1-P related operations. We are discussing with our internal team to use code from ONAP community which is taking little time.
- 8. Preliminary planning for the F release

  - a. likely not completed in E release (spill over into F): RIC-647, and all from this list.
    b. Candidate list for F release (priority column as per Thoralf's best understanding) https://jira.o-ran-sc.org/issues/?jql=(fixVersion%20in%20 (ZZZ\_future)%20or%20fixVersion%20in%20(F)%20)AND%20project%20%3D%20%22Near%20Realtime%20RAN%20Intelligent% 20Controller%22%20%20ORDER%20BY%20component%20ASC
  - c. we will discuss this again in two weeks from now.
- 9. Do we update to golang 1.16 (in go.mod) in all repos? Juha now updated golang version in Ubuntu base image along with Ubuntu image update
  - a. A1-Med is using 1.16; others need to be checked
  - b. I understand that we updated this together with the Ubuntu 20.04 update during the last two weeks.
- 10. Nitin: installation using helm3.
  - a. Sangeetha: this should be possible since Cherry. Helm charts are the same.
- 11. Calico should also work.
- 12. Sangeetha asked for bug reports if any help is needed. Thoralf commented that before starting to work check with Thoralf if already someone working on the item.
- 13. RICAPP agenda: RICAPP Meetings.

## 2021-11-09

- 1. Anybody new who wants to introduce him/herself?
  - a. GG (Parallel Wireless): wants to participate and possible contribute
  - b. Viktor (contractor for globallogic/ARM) working on the ARM64 port
- 2. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/6887 ok
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/6832 ok
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/6939 ok
  - d. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/6966 ok
  - e. https://gerrit.o-ran-sc.org/r/c/ric-plt/ricctl/+/6963 ok, yaml only
  - f. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6915 ok
  - g. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2/+/6931 ok, asn1c output only

- h. https://gerrit.o-ran-sc.org/r/c/ric-plt/ricdms/+/6964 ok, yaml only
- i. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/6958 ok
- j. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/7006 ok
- 3. every second time: Review code coverage stats and blocker code smells
  - i. We take a look at the two links in the beginning of this page: Code coverage reports...
  - ii. Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - a. Anybody willing to work on them?
- 4. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-835
  - b. RIC-836 Done
  - c. RIC-837
  - d. RIC-840
  - e. RIC-852
  - f. RIC-857
  - g. anybody would like to get more familiar with RMR?
    - i. Alexandre offered to help a bit and would like to get familiar with RMR.
- 5. Action items
  - a. SCCL update Matti will check with Tracy
    - i. still discussion within O-RAN-SC still ongoing
    - ii. publication of O-RAN specs of July train should happen any time now.
    - iii. no news (2021-11-23)
  - b. E2 simulator seeing E2 setups not passing through: Wiki page updated but no word from Nokia trying 100 subscriptions testing still in progress, will check with Amit if bug has been filed (nokia waiting for test case being run in newer cloud environment). Amit raised RIC-852 for this.
    - i. 2021-11-23: still open as we focus on RMR E2T case
  - c. James (INT PTL): Sent email to PTLs on what is needed. Need automation of testing for all projects.
    - i. Any comments?
    - ii. VES alarm events, for example (James)
    - iii. James: non-rt RIC near-RT RIC integration A1. Discuss With Sunil/Matti/James, e.g. TS xApps has disabled code for this.
    - iv. A1-EI could also be integrated (Subhash raised this)
    - v. Ramesh resue E2 simulator
    - vi. TODO thoralf to start mail thread on this.
    - vii. 2021-11-23: Thoralf to send
- 6. Thoralf recorded a 24min step-by-step video on how to deploy the Dawn release: 2021-11-05 Demo video release Dawn
  - a. anybody has time to do part of the demo with public E2 simulator?
- 7. Expected that we stop development end of November. In Dec-7 meeting we will do status check and after this only exceptional (specially managed) commits to near-RT RIC for the rest of December.
- 8. Arm port (do we need Jenkins CI jobs?)
  - a. new merge requests
  - b. RIC-835 Viktor offered possibility of access to ARM hardware if needed (Subhash said restarting the componet helps)
- 9. Preliminary planning for the F release
  - a. likely not completed in E release (spill over into F): RIC-647, and all from this list.
  - b. Candidate list for F release (priority column as per Thoralf's best understanding) https://jira.o-ran-sc.org/issues/?jql=(fixVersion%20in%20 (ZZZ\_future)%20or%20fixVersion%20in%20(F)%20)AND%20project%20%3D%20%22Near%20Realtime%20RAN%20Intelligent% 20Controller%22%20%20ORDER%20BY%20component%20ASC
- 10. We did not discuss this today: Do we update to golang 1.16 (in go.mod) in all repos? Juha now updated golang version in Ubuntu base image along with Ubuntu image update to 20.04.
  - a. A1-Med is using 1.16; others need to be checked
- 11. RICAPP agenda: RICAPP Meetings.

### 2021-10-26

- 1. Note that originally we wanted to do some preliminary planning for the F release, but I did not have time to prepare for this, So we can handle this only on Nov-9
- 2. Anybody new who wants to introduce him/herself?
  - a. LoreLei PlugFests, RIC in PowderLab, proof of concept AT&T
  - b. Yasmin, Joyce, Mirette Dell
  - c. Wasi, Nitin, Praneeth Mavenir
  - d. David Allabaugh Fujitsu WG-10 info modelling
- 3. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).

- 4. every second time: Review code coverage stats and blocker code smells
  - i. We take a look at the two links in the beginning of this page: Code coverage reports...
  - ii. Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - a. Anybody willing to work on them?
- 5. Every time: Check if there are new bug reports in JIRA: link
  - a. no new items
- 6. Do we update to golang 1.16 (in go.mod) in all repos? Juha now updated golang version in Ubuntu base image along with Ubuntu image update to 20.04.
  - a. A1-Med is using 1.16; others need to be checked
- 7. Subhash:
  - a. RIC-CTL repo created, RIC-DMS repo created for O2 related interfaces; no blockers

- b. SCCL update Matti will check with Tracy
- 8. RIC tester: Wiki page updated but no word from Nokia trying 100 subscriptions testing still in progress, will check with Amit if bug has been filed
- 9. Nitin: Can RIC be installed on anything but Ubuntu? See ric-dep folder.
- 10. James (INT PTL): Sent email to PTLs on what is needed. Need automation of testing for all projects.
- 11. RICAPP agenda: RICAPP Meetings.

### 2021-10-12

#### Recording: link to zoom recording

- 1. Anybody new who wants to introduce him/herself (michel p (from NU working with Mavenir))
- 2. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/6795 ok
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/6806 ok
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/6807 ok
  - d. https://gerrit.o-ran-sc.org/r/c/ric-plt/nodeb-rnib/+/6705 ok
  - e. https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/6810 ok
  - f. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/6814 ok
  - g. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/6832 ok
- 3. Every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports...
    - b. Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
    - c. ric-plt/alarm-go 0,0 // no bugs (2021-01-31 2021-09-30)
    - d. ric-plt/appmgr 0.0 // 1 major bug (2021-01-31 **2021-09-30**)
    - e. ric-plt/e2mgr 88,0 // no bugs (2021-01-30 2021-09-28)
    - f. ric-plt/sdlgo 47,4 // no bugs (2021-09-28 2021-09-30)
    - g. ric-plt/streaming-protobufs 0,0 // no bugs (2021-01-31 2021-09-30)
    - h. ric-plt/submgr 33,4 44,8 // no bugs (2021-01-31 2021-09-30 (fail) )
    - i. ric-plt/tracelibgo 94,7 // no bugs (2021-01-31 2021-09-30)
    - j. ric-plt/xapp-frame 0,0 // no bugs (2021-01-31 2021-09-30 (fail)) same as before.
    - k. Anybody willing to work on them?
- 4. Every time: Check if there are new bug reports in JIRA: link
  - a. no new items
- 5. A reminder related to the visibility of LF IT support requests: "If you raise issues to LF support that are sensible to make visible to others, pls. first raise a ticket to join "ORAN" organization in the support tool: "When these organizations (ORAN) were created in the beginning, we added by default all members from the committer groups into the organization. If at that time a particular user was not part of any group or just joined the community, then they will not be automatically added into the oran organization. Going forward, the new user will need to create a support ticket to be added to the organization."
- 6. https://gerrit.o-ran-sc.org/r/admin/repos/ric-plt/ricctl now exists. Also added in Scope of the near-RT RIC platform and its components (summary)
- 7. F release is coming. Need to start some planning on F release. Anything you would like to work on? Anything we should be working on. Let's do a bit of planning in the meeting two weeks from now.
- 8. Subhash: shared updates from Samsung
  - a. E2APv1.1 using simulator from sim/... This project also requires some cleanup. Ron Shacham
    - i. there are more changes coming in this simulator area (not further elaborated here)
    - ii. let's come back to this in F release planning
  - b. A1 reimplementation. A1-P one read-like ifc now ported. Rest of work still remaining.
  - c. O2 (dmscli). Thoralf to schedule meeting for Thursday.
  - d. ricctl repo exists. work can start.
- 9. Alexandre raised RIC-826
  - a. thoralf to double-check ric-dep using helm3.
  - b. original bug in RIC-826 was acatully fixed and conifirmed by Alexandre. Thoralf to clsoe.
  - c. Alexandre to write e-mail to Thoralf about the local image problem.
- 10. SCCL: https://www.o-ran.org/sccl
- 11. Post-meeting there was a discussion on a new xApp with Mavenir and various others: link
- 12. RICAPP agenda: RICAPP Meetings.

## 2021-09-28

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/vespamgr/+/6638 ok, only counter definitions.
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/6704 ok
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdl/+/6712 ok, Thoralf asked authors for more info. Feedback: The change is done for sdltool that is used for testing (robot testing etc.). We do not have any unit tests for this test tool in "src/cli/\*"
  - d. https://gerrit.o-ran-sc.org/r/c/ric-plt/nodeb-rnib/+/6705 ok
  - e. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6766 ok
- 2. Skipped today: every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. Anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
  - c. Only a few components where code coverage reports work:
  - d. ric-plt/e2mgr 88,4  $\,$  88,0 // no bugs (2021-01-30  $\,$  2021-09-28) there was a minor code addition

- e. ric-plt/lib/rmr 86,1 // no bugs (2021-08-17 2021-09-07)
- f. ric-plt/sdlgo 45,5 47,4 // no bugs (2021-02-01 2021-09-28)
- g. ric-plt/xapp-frame-cpp 95,6 // still 2 blocker bugs (2021-08-04 2021-09-22) same as before. Anybody willing to work on them?
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. RIC-828 (some security issue in DBAAS container) already fixed.
  - **b.** RIC-830 (raised by Subhash after discussion): unless someone has an idea how to do auto-tagging for go modules that are in the same repo, Thoralf suggests to close this as "not fixed" and we continue with manual labelling of each module.
- 4. discuss RIC-184 and why we still have helm2 as in RIC-826. To me it seems RIC should be deployed using helm3, but Nune, for example says still, "You should use helm3 only for xApp deployment. For the deployment of platform components, you still need to use helm2".
  - a. old report (checked already two weeks ago): RIC-826 discusses issue around helm3 usage in app manager. Anybody volunteering (HCL?) to check if we still have helm2 instructed somewhere in it/dep or ric-plt/ric-dep?
  - b. Sunil & Sangeetha to check if we still have any helm2 references in code or in wiki pages for Dawn.
  - c. Onboarding (provided by xApp manager) is already using helm3, but the helm2 question is about deploying the base RIC platform.
- 5. E2 simulator? Which we is still maintained:
  - a. https://gerrit.o-ran-sc.org/r/gitweb?p=sim%2Fe2-interface.git;a=summary
    - i. originally developed by AT&T and managed by Alex. Not sure if V... is still maintaining.
  - b. https://gerrit.o-ran-sc.org/r/gitweb?p=it/test.git;a=blob;f=ric\_benchmarking/e2-interface/e2sim/src/ASN1c/E2AP-PDU.h
    - i. used by HCL for e2sim deployment and bouncer xapp communication. Here the version which we are using in E2AP-PDU.h is E2APv1.01 (ok to use).
  - c. https://gerrit.o-ran-sc.org/r/gitweb?p=it/test.git;a=blob;f=simulators/e2sim/ASN1c/E2AP-PDU.h
  - d. Summary Ask Alex to continue supporting/working in sim repo's e2 simulator. The other one that should be continued is it/test's ric\_benchmarking (as it works with bouncer xApp). (b) was taken from (a) and further enhanced.
  - e. Summary Delete the simulator in it/test's simulators/e2sim subdirectory. Thoralf to file a JIRA case for this towards the infra project. Thoralf filed: INT-144
- 6. HCL needs access to it/test (still open, Sunil to check)
- 7. Samsung items
  - a. RIC-653 A1 image in deplooyment is now updated.
  - b. RIC-812 thoralf to mark thiis item as dropped from E release
  - c. RIC-647 needs to have UTR from the beginning
  - d. RIC-445 new repo is requested from TOC: "ricctl"
  - e. RIC-714 Subhash to schedule meeting with Nune (=Abukar) and Thoralf
- 8. SDRAN (ONF) implementation now is open-sourcing the 1.1 version. If there's re-use potential (e.g. in simulator), let's do that.
- 9. RICAPP agenda: RICAPP Meetings.

## 2021-09-14

Recording: link to zoom recording

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. (Thoralf checked on 2021-09-10 no large commits)
- 2. Skipped today: every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports..
  - b. Not done this time // anybody volunteering to work with LF on making the code coverage CI to work again (there's still the old JVM version)
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. old report RIC-826 discusses issue around helm3 usage in app manager. Anybody volunteering (HCL?) to check if we still have helm2 instructed somewhere in it/dep or ric-plt/ric-dep?
  - **b.** (Thoralf checked on 2021-09-10 no new items)
- 4. Nokia had to move O1-related JIRA items to post-E release: RIC-655, RIC-656, RIC-497 and RIC-798. Also there are still legal issues around the copyright of definitions from 3GPP specs that are needed when implementing O1.
- 5. Subhash:
  - a. RIC-653: A1 Mediator image old has been corrected. Another issue with helm has also been resolved. Needs to be reviewed. Somebody from Nokia need to update RIC deployment.
  - b. New repo requested for RIC CLI still pending Thoralf. A1 Mediator go version will use the existing repo (replacing python version)
  - c. Naman pushed an update to python xapp framework under review.
- 6. HCL:
  - Continue on RIC benchmarking.
- 7. Can we share ONeS slides to Subhash now?
- 8. RICAPP agenda: RICAPP Meetings.

## 2021-08-31

Exceptionally, we did not have a meeting today.

## 2021-08-17

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. **link-to-reviews** (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdl/+/6584 OK
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-py/+/6551 OK (move of implementation from one repo to another)
- 2. Skipped today: every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports
    - i. ric-plt/a1 85,3 // no bugs (2021-01-26)
    - i. ric-plt/alarm-go 0,0 // no bugs (2021-01-31)
    - ii. ric-plt/appmgr 0,0 // 1 major bug (2021-01-31)
    - iii. ric-plt/asn1-documents not applicable
    - iv. ric-plt/dbaas 0,0 // 2 blocker bugs in UT code (2021-01-27) seems not to be anymore in latest version of source code.
    - v. ric-plt/e2 0,0 // 2 blocker bugs (2021-06-18) Thoralf raised RIC-802 and send e-mail to Dhiraj, Subhash and Naman. 2021-08-17: RIC-802 is for subteam-n in E. No other news
    - vi. ric-plt/e2mgr 88,4 // no bugs (2021-01-30)
    - vii. ric-plt/lib/rmr 86,1 // no bugs (2021-08-17)
    - viii. ric-plt/rtmgr 77,8 // no bugs (2021-01-31)
    - ix. ric-plt/sdl 66,6 // 1 minor vulnerability bug (2021-01-29)
    - x. ric-plt/sdlgo 45,5 // no bugs (2021-02-01)
    - xi. ric-plt/streaming-protobufs 0,0 // no bugs (2021-01-31)
    - xii. ric-plt/submgr 33,4 // no bugs (2021-01-31)
    - xiii. ric-plt/tracelibcpp 0,0 // 1 major bug (2021-08-10)
    - xiv. ric-plt/tracelibgo 94,7 // no bugs (2021-01-31)
    - xv. ric-plt/vespamgr 79,0 // no bugs (2020-12-07)
    - xvi. ric-plt/xapp-frame 0,0 // no bugs (2021-01-31)
    - xvii. ric-plt/xapp-frame-cpp 95,6 // still 2 blocker bugs (2021-08-04) same as before. Anybody willing to work on them?
    - xviii. ric-plt/xapp-frame-py 96,3 // 0 blocker bugs (2021-01-26)
    - xix. com/golog 80,7 // no bugs (2021-01-31)
    - xx. com/log 73,5 // 1 blocker bug and 8 minor ones (2021-01-27) same as before. Need to fix Sonarcube issues (with Java version) first.
    - xxi. com/pylog 33,7 // 11 major and minor bugs (2021-01-26)
- 3. Every time: Check if there are new bug reports in JIRA: link
  - a. new: RIC-826 (discussion ongoing)
- 4. Note the presentation slides and video from "Open Source Conference 2021 (5G, IoT and Edge Computing) (organized by the IEEE ComSoc Bangalore chapter and Samsung SOSCON" is now available here: Overall architecture (not component-specific)
- 5. E2-related specs are now in IPR approval phase on O-RAN alliance side (O-RAN alliance member only access):
  - a. O-RAN.WG3.UCR-v01.00: https://oranalliance.atlassian.net/wiki/download/attachments/2068513840/Ó-RAN.WG3.UCR-v01.00.docx?
  - b. O-RAN.WG3.E2GAP-v02.00 https://oranalliance.atlassian.net/wiki/download/attachments/213254315/O-RAN.WG3.E2GAP-v02.00.docx? api=v2
  - c. O-RAN.WG3.E2AP-v02.00 https://oranalliance.atlassian.net/wiki/download/attachments/226295809/O-RAN.WG3.E2AP-v02.00.docx? api=v2
     d. O-RAN.WG3.E2SM-v02.00 https://oranalliance.atlassian.net/wiki/download/attachments/244318246/O-RAN.WG3.E2SM-v02.00.docx?
  - api=v2
    e. O-RAN.WG3.E2SM-KPM-v02.00 https://oranalliance.atlassian.net/wiki/download/attachments/244318246/O-RAN.WG3.E2SM-KPM-v02.
  - 00.docx?api=v2

    f. O-RAN.WG3.E2SM-RC-v01.00 https://oranalliance.atlassian.net/wiki/download/attachments/244318246/O-RAN.WG3.E2SM-RC-v01.00.docx?api=v2
- 6. E release "committed" content: link
- 7. Design or coordination aspects of some items of the E release
  - a. RIC-638 config transfer E2APv1.1 (Subhash)
  - b. RIC-445 CLI (demo from subhash as well)
  - c. NOT today: RIC-80 and RIC-796 (REST interface for subscriptions only) (Possibly Anssi)
  - d. RIC-809 subscription interface (Supreeth)
  - e. RIC-805 We are likely moving the "remove old API part" only in the next release, i.e., maintain old and new in parallel for one release. Team needs some more discussion before something can be presented. Namespace in new implementation is given as part of each get /set method. Previously the namespace was given during SDK initialization. During E release we will only deprecate the old interface, but keep it. Only in F release we will remove.
  - f. Mavenir thinking about gRPC as communication mechanism (Matti to send e-mail address to Thoralf).
    - i. probably for next meeting due to holiday
  - g. Discuss disaggregated VES agent use case and impact on RIC. Thoralf
    - i. This is O-RAN O1 release 6 work (July-Dec 2021). Thoralf understands it introduces a "VES proxy agent" into the Edge CloudInfra that on the left gets VES events from CNFs (e.g., via REST events, or (the new thing) a CloudInfra Kafka instance) and on the right side forwards these to the SMO (e.g., directly into Kafka). Not sure if left-side injection can also be done via O1 websocket performance data streaming.
    - ii. There might be some issues around data schema alignment that need to be addressed
    - iii. Anyway, from CNF point of view seems to be one more way of sending statistics/metrics out towards the SMO. For now let's focus on existing O1 (files or websocket streaming) means. Also note that statistics are currently collected via Prometheus. I.e., if, we'd be talking about a new or update mediator component that takes the data from Prometheus and sends it to that new "VES proxy agent".
    - iv. Note that performance related there are also activities under the Prometheus umbrella that might be relevant, e.g., https://open.metrics.io/
    - v. So this seems not to be relevant for the E release of near-RT RIC.
- 8. .
- 9. RICAPP agenda: RICAPP Meetings.

#### Recording: link to zoom recording

- 1. Skipped today: Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerrit filter instructions // gerrit t-shirt-sizing).
- 2. Skipped today: every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports
- 3. Every time: Check if there are new bug reports in JIRA: link
- 4. E release timeline: Releases and see §6 in Jira usage conventions
  - a. Sprint E release dev sprint 1: Aug-23 to Sep-12
  - b. Sprint E release dev sprint 2: Sep-13 to Oct-3
  - c. Sprint E release dev sprint 3: Oct-4 to Oct-24
  - d. Sprint E release dev sprint 3: Oct-25 to Nov-14 (last planned development sprint)
  - e. Sprint E release dev sprint 5: Nov-15 to Dec-3 (only for unplanned last-minute development items)
- 5. E release planning
- 6. ..
- 7. RICAPP agenda: RICAPP Meetings.

# 2021-07-20 no meeting

#### 2021-07-06

Recording: link to zoom recording

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-py/+/4880 OK
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2/+/6395 OK
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/6301 OK as helm chart adaptations that just did some same renaming in many files.
  - d. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2/+/6447 OK
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports
- 3. New item for every meeting: check if there are new bug reports in JIRA: link
- 4. Dawn release criteria checklist filled in: Release criteria checklist Release D
- 5. Sonarcube jobs are failing because of the same issue it seems (grep for ERROR): https://jenkins.o-ran-sc.org/view/com-log/job/com-log-autotools-sonarqube/55/ and https://jenkins.o-ran-sc.org/view/ric-plt-e2mgr/job/ric-plt-e2mgr-sonar-prescan-script/ and many more. Chaitanya raised https://jira.linuxfoundation.org/plugins/servlet/theme/portal/2/IT-22326 for this. It's related to opensdk. No fix yet available, but ideas what to do.
  - a. Sunil will check with Chaitanya and Alok
- 6. thoralf on holiday, matti as well. No meeting in two weeks from now. And next meeting first week of August: On Aug-3.
- 7. Release E planning. Thoralf to send e-mail as kick-off.
- 8. RICAPP agenda: RICAPP Meetings.

#### 2021-06-22

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/com/asn1c/+/6266 OK
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6132 OK
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6134 OK
  - d. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdl/+/6128 OK
  - e. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/6014 OK
  - f. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/6157 OK (existing test case was updated with new attributes)
  - g. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlpy/+/6060 OK
  - h. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6167 OK
  - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/6183 OK
  - j. https://gerrit.o-ran-sc.org/r/c/ric-plt/libe2ap/+/6131 OK (as per meeting minutes from 2021-05-25)
  - k. https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/6199 OK (all code copied from other place into 3rdparty subdir)
  - I. https://gerrit.o-ran-sc.org/r/c/ric-plt/alarm-go/+/6237 OK (removal)
  - m. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/6241 OK (test case was adapted to change in data type)
  - n. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6242 OK (only documentation)
  - o. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlpy/+/6261 OK
  - p. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6211 OK
  - q. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6265 OK
  - r. https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/6301 OK as Influx helm chart changes.
  - s. https://gerrit.o-ran-sc.org/r/c/ric-plt/alarm-go/+/6309 OK
  - t. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6313 OK
  - u. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6322 OK
  - v. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6081 OK
  - w. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-py/+/6345 OK
  - x. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame-py/+/4880 OK (not yet merged)
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports
    - i. ric-plt/a1 85,3 // no bugs (2021-01-26)

```
i. ric-plt/alarm-go 0,0 // no bugs (2021-01-31)
  ii. ric-plt/appmgr 0,0 // 1 major bug (2021-01-31)
 iii. ric-plt/asn1-documents not applicable
 iv. ric-plt/dbaas 0,0 // 2 blocker bugs in UT code (2021-01-27) - seems not to be anymore in latest version of source code.
  v. ric-plt/e2 0,0 // 2 blocker bugs (2021-06-18) - Thoralf raised RIC-802 and send e-mail to Dhiraj, Subhash and Naman.
 vi. ric-plt/e2mgr 88,4 // no bugs (2021-01-30)
vii. ric-plt/lib/rmr 86,1 // no bugs (2021-06-22)
viii. ric-plt/rtmgr 77,8 // no bugs (2021-01-31)
 ix. ric-plt/sdl 66,6 // 1 minor vulnerability bug (2021-01-29)
 x. ric-plt/sdlgo 45,5 // no bugs (2021-02-01)
 xi. ric-plt/streaming-protobufs 0,0 // no bugs (2021-01-31)
 xii. ric-plt/submgr 33,4 // no bugs (2021-01-31)
xiii. ric-plt/tracelibcpp 0,0 // 1 major bug (2021-06-22)
xiv. ric-plt/tracelibgo 94,7 // no bugs (2021-01-31)
xv. ric-plt/vespamgr 79,0 // no bugs (2020-12-07)
xvi. ric-plt/xapp-frame 0,0 // no bugs (2021-01-31)
xvii. ric-plt/xapp-frame-cpp 95,6 // 2 blocker bugs (2021-06-23) - Thoralf sent e-mail reminder to Anssi, Ron, Matti.
```

- xviii. ric-plt/xapp-frame-py 96,3 // 0 blocker bugs (2021-01-26) xix. com/golog 80,7 // no bugs (2021-01-31)
- xx. com/log 73,5 // 1 blocker bug and 8 minor ones (2021-01-27) Thoralf sent e-mail to Abdulwahid
- xxi. com/pylog 33,7 // 11 major and minor bugs (2021-01-26)
- 3. Subhash: pls. merge: https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/6365 and re-release
- 4. check D-release status: Release criteria checklist template, including e-mail reminder. All components to be handled by Nokia, except A1 Subhash and RMR Scott
- 5. Subhash shared the information about this public anybody-can-attend conference. It also includes a session about O-RAN SC (Subhash and Thoralf speaking): https://opensource.samsung.com/community/blogList
- RICAPP agenda: RICAPP Meetings.

#### 2021-06-08

We used the timeslot for demos: link

#### 2021-05-25

- 1. Every time: Check rule RC-4 (link) that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerri t filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/rtmgr/+/5990 ok (Abdulwahid checked this. It's only M size as the commit incorrectly replace many lines with spaces to tabs. Also review 6105 actually fixes some test cases in this area: This should be sufficient as the underlying functionality wasn't changed)

  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6132 ok c. https://gerrit.o-ran-sc.org/r/c/ric-plt/vespamgr/+/5987 ok
  - d. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/6014 ok
  - e. https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/5826 (ok, even if no test cases as this is yaml files (Helm chart) repackaged.)
  - f. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlpy/+/6060 ok
  - g. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/6061 ok
  - h. https://gerrit.o-ran-sc.org/r/c/ric-plt/sdlgo/+/6062 ok
  - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6082 ok
  - j. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6109 ok
  - k. https://gerrit.o-ran-sc.org/r/c/ric-plt/rtmgr/+/6112 ok
  - I. https://gerrit.o-ran-sc.org/r/c/ric-plt/libe2ap/+/6131 (still in review, Thoralf commented that unit test cases to be added // we can compromise and extract this into separate item for E)
  - m. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/6081ok (replaced by other review, anyway contains test cases, but will likely be abandoned anyway)
- 2. every second time: Review code coverage stats and blocker code smells
  - a. We take a look at the two links in the beginning of this page: Code coverage reports
    - i. ric-plt/a1 85,3 // no bugs (2021-01-26)
    - ii. ric-plt/alarm-go 0,0 // no bugs (2021-01-31)
    - iii. ric-plt/appmgr 0,0 // 1 major bug (2021-01-31)
    - iv. ric-plt/asn1-documents not applicable
    - v. ric-plt/dbaas 0,0 // 2 blocker bugs in UT code (2021-01-27) seems not to be anymore in latest version of source code.
    - vi. ric-plt/e2 0,0 // 2 blocker bugs (2021-06-18)
    - vii. ric-plt/e2mgr 88,4 // no bugs (2021-01-30)
    - viii. ric-plt/lib/rmr 86,1 // no bugs (2021-06-22)
    - ix. ric-plt/rtmgr 77,8 // no bugs (2021-01-31)
    - x. ric-plt/sdl 66,6 // 1 minor vulnerability bug (2021-01-29)
    - xi. ric-plt/sdlgo 45,5 // no bugs (2021-02-01)
    - xii. ric-plt/streaming-protobufs 0,0 // no bugs (2021-01-31)
    - xiii. ric-plt/submgr 33,4 // no bugs (2021-01-31)
    - xiv. ric-plt/tracelibcpp 0,0 // 1 major bug (2021-06-22)
    - xv. ric-plt/tracelibgo 94,7 // no bugs (2021-01-31) xvi. ric-plt/vespamgr 79,0 // no bugs (2020-12-07)
    - xvii. ric-plt/xapp-frame 0,0 // no bugs (2021-01-31)
    - xviii. ric-plt/xapp-frame-cpp 95,6 // 2 blocker bugs (2021-06-23) Thoralf sent e-mail to Anssi, Ron, Matti.

- xix. ric-plt/xapp-frame-py 96,3 // 0 blocker bugs (2021-01-26)
- b. As of 2021-05-25 the following components are missing in the report: ric-plt/alarm-cpp, ric-plt/libe2ap, ric-plt/nodeb-rnib, ric-plt/o1, ric-plt /ric-dep, ric-plt/ric-test, ric-plt/sdlpy, ric-plt/utils. Also ric-plt/jaegeradapter is missing, but we probably abandon that component. So no need to spend time on it.
  - i. AP-Sunil: check this with HCL team
- c. How to get reports more frequently and up to date?
  - i. AP-Sunil: check this with HCL team
- d. check why some have zero code coverage
  - i. AP-Sunil: check this with HCL team
- e. ric-plt/e2 is already being handled via RIC-731 (expected to complete in Dawn)
- Thoralf updated the CII evaluation criteria. We are now marked as "passed": Core Infrastructure Initiative (CII) Badging and https://bestpractices. coreinfrastructure.org/en/projects/4605
  - a. Note I added RC-5 in Release criteria checklist template "RC-5: Check that "blocker" code smells in Sonartype have been addressed"
- 4. Status check of D release items.
- 5. Subhash's mail we went through the D release status of various items Samsung was planning to work on.
- 6. Sunil. RIC-723 further input needed from Thoralf
  - a. Chaitanya (taking over from Alok): discuss in Wednesday's call.
- 7. Sunil:
  - a. RIC-184 [Adapt to latest K8S and helm (testing in OSC labs)] completed // Subtask RIC-746 (Testing nanobot on top of helm 3 and k8s v1.18 version): Closed // Subtask RIC-747( Study how nanobot tests can be extended to Xapp) Closed // Subtask RIC-748(Study OTF & Xtesting as a prospective test framework candidate to draw from for ORAN Near RT RIC): Attached the ppt to the ticket. Given presentation to Thoralf and Matti. As suggested we need some hands-on experience with OTF to confirm on this. OTF installation on local setup Moved to Next release. // Subtask RIC-779(Xapp Testing Enhancement like Subscription deletion need to be handled using nanobot): Newly created ticket for handling subscription deletion using nanobot automation. Next Release. // Subtask RIC-775(Run nanobot based test automation from it/test repository on RIC with k8 1.18/helm3 in OSC lab) Working on the vpn client connectivity (Softether). In-progress // Ticket RIC-791: Raised for updating the container tag and pushing in to staging nexus repo.
  - b. RIC-723 [Study performance overhead of latest opentracing solutions] InProgress Able to generate sampling data after getting some help from Thoralf. Continue to work with other scenarios to compare with previous results.
  - c. RIC-731- [Static code and test coverage for E2] 90% Completed. // Blocked on RIC-760 for test coverage.HCL working actively on RIC-731
  - d. RIC-743 Create multiple e2sim for RIC benchmarking // Thoralf created RIC-790 and moved the two remaining subtasks from RIC-150 to it. I closed RIC-150 as DONE
- 8. demos again? Yes. On Jun-8 same time slot as this meeting, but 2 hours. Organizational issues after the demo.
  - a. From last meeting:
    - Thoralf to discuss demos for Nokia features, e.g. REST subscriptions, O2 CLI (DMS CLI Subhash wished for this as REST API is the next step)
    - ii. Possible influxDB demo to show how to use from xApps
    - iii. Possible demos in devops areas (e.g. RIC-754)
    - iv. RIC-129 as slideset demo as real data cannot be used in public demo
    - v. RIC-773 if ready by demo
    - vi. demo for RIC-747/RIC-748 slidesets
- 9. Remove Scott as committer AP Thoralf to start mail thread
- 10. Replace Rahul with Naman AP Thoralf to start approval mail on this.
- 11. RICAPP agenda: RICAPP Meetings.

### 2021-05-11

- 1. Every time: Check that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerrit filter instructions // gerrit t-shirt-sizing).
  - a. TODO-check in next meeting only
  - b. not yet merged: https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/5933 abandoned
  - c. not yet merged: https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/5826 (conclusion: no unit testing equivalent for YAML files in helm charts). need to coordinate with Felix decide to get rid of the 3rdpart directory because files will be slightly modified to refer to common template.
- every second time: Review code coverage stats. (Sunil checks if this next step (overview page) is on HCL or on Thoralf's side as next action) will discuss with Thoralf next time or by email.
  - a. https://sonarcloud.io/organizations/o-ran-sc/projects?search=ric&sort=coverage
    - b. NExt Sstep: Thoralf to create some way to maintain history data
- 3. When does Dawn end? As per release calendar, normally May-14. However I think we will start late with integrating everything together. So the 3-week sprint that is normally reserved for integration (May-17 Jun-4) is likely still ok for additions. Based on this I would set a deadline for last commits to **Jun-4**.
- 4. Thoralf still to update or CII evaluation
  - a. I added RC-5
- 5. Heewon's xApp python framework issue related to RIC-773 some issues still
- 6. Update on A1-El interface implementation.- Able to query A1-El types from non RT RIC- Issue is clarified from nonRT RIC team to create EI-JOB
- 7. No progress done on E2APv1.1 support as Naman cannot work on it yet.
- HCL updates;
  - a. RIC-184 [Adapt to latest K8S and helm (testing in OSC labs)] completed
    - Subtask RIC-747( Study how nanobot tests can be extended to Xapp) Had discussion with Thoralf and prioritize the testing scenarios for the next release. - Closed this ticket,
    - ii. Subtask RIC-748(Study OTF & Xtesting as a prospective test framework candidate to draw from for ORAN Near RT RIC)
      : Attached the ppt to the ticket. Given presentation to Thoralf and Matti.

- As suggested we need some hands-on experience with OTF to confirm on this. OTF installation on local setup Ongoing.
- iii. **Subtask RIC-779**(Xapp Testing Enhancement like Subscription deletion need to be handled using nanobot): Newly created ticket for handling subscription deletion using nanobot automation.
- b. RIC-723 [Study performance overhead of latest opentracing solutions] InProgress
  - i. Able to generate sampling data after getting some help from Thoralf. Continue to work with other scenarios to compare with previous results. Same status as in last meeting, work on it this week.
- c. RIC-731- Static code and test coverage for E2] 90% Completed.
  - i. Blocked on RIC-760 for test coverage.
  - ii. Same status as in last meeting
- d. RIC-671 [Achieve level "passing" in CII]
  - i. Requested Thoralf for submitting application for ORAN project onboarding on LFN security.
  - ii. Same status as in last meeting
- e. RIC-150 Perform e2e RIC benchmarking

Subtask RIC-741(Verify Subcription flow using nanobot): Closed. Code merged

Subtask RIC-742(Verify Indication flow using nanobot): Closed. Code merged

Subtask RIC-750: (Bouncer to E2sim E2E Testing using nanobot): Closed. Code merged

Subtask RIC-754: (Kpimon to E2sim E2E testing using nanobot): Closed. Code merged

.RIC-743 Create multiple e2sim for RIC benchmarking

Same status as in last meeting - some indications are still dropping

RIC-744 Verify the E2E communication for multiple e2sim

Had debug session with Nokia team on E2term pod restart issue. Working further on this.

- · demos again?
  - 1. From last meeting:
    - a. Thoralf to discuss demos for Nokia features.
    - b. Possible influxDB demo to show how to use from xApps
    - c. Possible demos in devops areas (e.g. RIC-754)
    - d. demo for RIC-747/RIC-748 slidesets
- RICAPP agenda: RICAPP Meetings.

#### 2021-04-27

- Every time: Check that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerrit filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/lib/rmr/+/5848 (ok, exceptional) "Add ability to save route table updates to disk". Actual code lines changed is "only" 96 in an area that supports debugging. Wrote a note to Scott, but no expectation to add test cases.
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/5856 (ok, includes unit test)
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/vespamgr/+/5864 (ok, actually only test cases for coverage improvements)
  - d. https://gerrit.o-ran-sc.org/r/c/ric-plt/xapp-frame/+/5865 (ok, adds HTTP port in subscription, test case was adapted)
  - e. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/5897 (ok, unit testing coverage improvements)
  - f. https://gerrit.o-ran-sc.org/r/c/ric-plt/lib/rmr/+/5909 (ok,. test case was added)
  - g. https://gerrit.o-ran-sc.org/r/c/ric-plt/lib/rmr/+/5925 (ok, new test cases)
  - h. not yet merged: https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/5933
  - i. not yet merged: https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/5826 (conclusion: no unit testing equivalent for YAML files in helm charts).
- every second time: Review code coverage stats. (Sunil checks if this next step (overview page) is on HCL or on Thoralf's side as next action) will discuss with Thoralf next time or by email.
  - a. no news yet.
- 3. Thoralf still to update or CII evaluation
- 4. Heewon's xApp python framework issue related to RIC-773 check agian two weeks from now.
- 5. RIC-184 [Adapt to latest K8S and helm (testing in OSC labs)] completed
  - a. Subtask RIC-747( Study how nanobot tests can be extended to Xapp) Prepared a study PPT and will discuss in next call with Matti and Thoralf.
  - b. **Subtask RIC-748**(Study OTF & Xtesting as a prospective test framework candidate to draw from for ORAN Near RT RIC): Prepared a PPT and will discuss in next call with Matti and Thoralf
- 6. RIC-723 [Study performance overhead of latest opentracing solutions] InProgress // Able to generate sampling data after getting some help from Thoralf. Continue to work with other scenarios to compare with previous results. Same status as in last meeting
- 7. RIC-731- [Static code and test coverage for E2] 90% Completed. Blocked on RIC-760 for test coverage. Same status as in last meeting
- 8. RIC-671 [Achieve level "passing" in CII] Requested Thoralf for submitting application for ORAN project onboarding on LFN security. Same status as in last meeting
- 9. RIC-150 Perform e2e RIC benchmarking

- a. Subtask: RIC-740, RIC-741 & RIC-742 Addressed the review comments provided by Dave. Jenkin job is also successful. Waiting for Bharath to review the tickets. So that tickets can be closed.
- b. Subtask: RIC-754 KPIMON xapp validation using nanobot with SDL successful. Will merge the code.
- Committed the code in gerrit. Review and Job is
- 10. .RIC-743 Create multiple e2sim for RIC benchmarking Same status as in last meeting
- 11. RIC-744 Verify the E2E communication for multiple e2sim Same status as in last meeting
- 12. A1-EI Subhash is now working on this. E2 work. Subhash to send e-mail to Thoralf with details on change in committers, incl. LF ID of Naman.
- 13. demos again?
  - a. Thoralf to discuss demos for Nokia features.
  - b. Possible influxDB demo to show how to use from xApps
  - c. Possible demos in devops areas (e.g. RIC-754)
  - d. demo for RIC-747/RIC-748 slidesets
- 14. RICAPP agenda: RICAPP Meetings.
- 15. RIC-184 [Adapt to latest K8S and helm (testing in OSC labs)] completed
  - a. Subtask RIC-747( Study how nanobot tests can be extended to Xapp): Discussed with Thoralf and based on priority we listed out the scenarios for xapp testing using nanobot.

#### First Priority:

- Xapp Testing Enhancement like Subscription deletion need to be addup.
- The control interface nanobot could even steer different scenarios, e.g., related to timing. E.g., send a subscription delete for a
  originally-failed or non-existent subscription; or send duplicate subscriptions, ... I.e., testing for correct behavior in failure
  /timeout scenarios.

#### Second Priority:

- Xapp need to handle E2 Control which already has a scenario (see spec) in which the E2 node sends back a RIC CONTROL ACK. That could be tested as well.
- Additionally we could have test cases for A1 policy handling (and possibly A1-EI handling if we get +https://jira.o-ran-sc.org /browse/RIC-129+ implemented within Dawn)

#### Third Priority:

- O1 proxying, i.e., the CM flow to xApps and FM/PM flow from xApps would be more test cases.
- Change in the xApp test implementation in which we do not rely on logs but nanobot communicates with the test xApp via some
  control interface to check Whether a test has been successful or not.
- b. **Subtask RIC-748**(Study OTF & Xtesting as a prospective test framework candidate to draw from for ORAN Near RT RIC): Given demo to Thoralf and Matti about this OTF and xtesting comparison.

As discussed with Thoralf he asked which one we can go with either xtesting or OTF.

I preferred OTF test framework need to explore more on hands-on experience with OTF and VTH integration.

Working in progress on deploying OTF in to our environment and also looking for OSC lab access to understand.

#### 2021-04-13

- 1. Every time: Check that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerrit filter instructions // gerrit t-shirt-sizing).
  - a. not done this time, but will do next meeting.
- 2. every second time: Review code coverage stats. (Sunil checks if this next step (overview page) is on HCL or on Thoralf's side as next action) will discuss with Thoralf next time or by email.
- 3. Samsung: Naman replacement for Rahul will focus on E2AP 1.1 in E2 Manager
  - a. A1-EI: Building infrastructure and dev setup initial implementation this month.
  - b. py xapp framework (Heewon Park reported one issue on missing API in E2AP library) RIC-773 Matti will followup.
- 4. RIC-184 [Adapt to latest K8S and helm (testing in OSC labs)] completed
- 5. RIC-762- Code is merged by Felix. Closed
  - a. Subtask: RIC-746 Run nanobot based test automation from it/test repository on RIC with k8 1.18/helm3 in OSC Lab Nanobot testing completed on top of helm 3 and k8s v1.18 version. Closed this subtask. Created a new subtask RIC-755, to do nanobot testing in OSC lab with steps provided. As suggested by Thoralf.
- 6. RIC-723 [Study performance overhead of latest open-tracing solutions] InProgress
  - a. Able to generate sampling data after getting some help from Thoralf. Continue to work with other scenarios to compare with previous results. Work in progress
- 7. RIC-731- [Static code and test coverage for E2T] 90% Completed. // Blocked on RIC-760 for test coverage.
- 8. RIC-671 [Achieve level "passing" in CII] Requested Thoralf for submitting application for ORAN project onboarding on LFN security. Work in progress
- 9. RIC-150 Perform e2e RIC benchmarking
  - Subtask: RIC-740, 741 & 742Code committed. Addressed the review comments provided by Dave. Job build failed issue resolved. The tickets can now be closed
  - Subtask: RIC-754 KPIMON xapp validation using nanobot with SDL // SDL database query validation using robot and Testing part done.
     Updated the steps in readme file. // Code commit InProgress.

- 10. RIC-743 Create multiple e2sim for RIC benchmarking // E2term pod restart issue Work in progress waiting for meeting with Nokia.
- 11. RIC-744 Verify the E2E communication for multiple e2sim // Multiple RIC indication messages is working fine with the connected E2 Nodes. Tested with 100+ E2 nodes.
- 12. HCL account request still in progress both account and VM is missing Matti will keep on reminding Felix.
- 13. RICAPP agenda: RICAPP Meetings.

### 2021-03-30

Recording: link to zoom recording with audio transcript

- Every time: Check that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerrit filter instructions // gerrit t-shirt-sizing).
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/appmgr/+/5816 test cases were added separately via: https://gerrit.o-ran-sc.org/r/c/ric-plt/appmgr/+/5820
- 2. every second time: Review code coverage stats. (Sunil checks if this next step (overview page) is on HCL or on my side as next action)
- 3. Thoralf on holiday: Apr-02 to Apr-13. Matti to host the next meeting
- 4. Time changed to 1pm UTC. I.e., locations without daylight savings time the meeting starts now one hour earlier
- 5. CII badging: https://bestpractices.coreinfrastructure.org/en/projects?q=oranand not yet public: https://security.lfx.linuxfoundation.org/#/my-projects (near-RT RIC)
- 6. RIC-184 [Adapt to latest K8S and helm (testing in OSC labs)] InProgress // VPN access enabled waiting for Felix to create VM in T-lab & share details. Pending // Subtask: RIC-746 Run nanobot based test automation from it/test repository on RIC with k8 1.18/helm3 in OSC Lab // Nanobot Testing done on latest helm version and k8s. Found issue in submgr, we got decode failed due to RECIPE.yaml which is not having the latest versions of ricplt components. We internally changed with latest tag of submgr and completed the testing. Once we get the updated RECIPE.yaml we will test this one more time and close the ticket.
- 7. RIC-723 [Study performance overhead of latest opentracing solutions] InProgress // Able to generate sampling data after getting some help from thoralf. Continue to work with other scenarios to compare with previous results. Shared the progress with Thoralf in a dedicated session. Need to study cpp based library of opentracing to modify existing artifacts. Work in progress.
- 8. RIC-731- [Static code and test coverage for E2] 90% Completed. Blocked on RIC-760 for test coverage. Dhiraj waiting for prioritisation of this task by project management. For now this is blocked.
- 9. RIC-671 [Achieve level "passing" in CII] // Requested Thoralf for submitting application for ORAN project onboarding on LFN security. Waiting for the reply from LFN to move further. (see item 5 above)
- 10. RIC-150 Perform e2e RIC benchmarking
  - a. Subtask: RIC-740, 741 & 742 Code committed. Addressed the review comments. Job build failed. working in progress.
  - b. Subtask: RIC-754 KPIMON xapp validation using nanobot with SDL // Manually checked the database entry from Kpimon and adding up code for checking via SDL. Waiting for the mail response from Matti and Ron on clarifications. The question is related to the simulator. Ron should answer today or tommorrow.
- 11. RIC-743 Create multiple e2sim for RIC benchmarking // Mail is send with the detailed information on multi e2sim e2 connection status for Jira ticket. Checked the e2term pod for memory issue at the time of restart. It seems there is no issue in pod memory and CPU configuration. pod restart due to e2term application error only. Currently trying to capture the application log (remember to change config file and restart binary from within the pod) at the time of restart.
- 12. RIC-744 Verify the E2E communication for multiple e2sim // Verified the E2E communication with more that 120+ E2 nodes connections with Multiple RIC indication messages. Observed 2-3 RIC subscription delete request everytime. E2Term is randomly restarted. Multiple RIC indication messages is working fine with the connected E2 Nodes. Tested with 100+ E2 nodes.
- 13. Influx helm charts work in progress in ric-dep (no review yet)
- 14. update from Samsung
  - a. design aspects for E2APv1.1 (Rahul to upload) design should be ready.
  - b. A1 (Subhash to upload)
  - c. R. to be replaced with someone new.
- 15. RICAPP agenda: RICAPP Meetings.

#### 2021-03-16

Recording: link to zoom recording with audio transcript

- record-to-cloud. Note we change the recording format and I will post after the meeting in the meeting minutes a publicly available link like this
  one: link. This allows reading the audio transcript and fast-forward to places in the video that are highly-relevant. The transcript usually take a few
  hours before available. The video is available immediately.
- Regular items:
  - Every time: Check that all L or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerrit filter instructions // gerrit t-shirt-sizing).
    - i. https://gerrit.o-ran-sc.org/r/c/ric-plt/lib/rmr/+/5748 OK
    - ii. https://gerrit.o-ran-sc.org/r/c/ric-plt/rtmgr/+/5743 OK Thoralf contacted committers. Bug report RIC-764. The commit included a lot of formatting changes that made it large. Remember to separate such changes from functionality commits.
    - iii. https://gerrit.o-ran-sc.org/r/c/ric-plt/lib/rmr/+/5681 OK
    - iv. https://gerrit.o-ran-sc.org/r/c/ric-plt/submgr/+/5640 OK
    - v. https://gerrit.o-ran-sc.org/r/c/ric-plt/libe2ap/+/5617 OK as documentation commit
  - b. every second time: Review code coverage stats.
- Snapshot (2021-03-16) jira\_dawn\_near\_rt\_ric.xlsx // Always latest view from JIRA: Content of Dawn: 31 items planned: link and 15 "stretch goals": link
- 4. RIC-671 (Alok) Who did originally pointed us to the "LF security" service? Which security issues it actually discovers that we do not already cover with Sonarcube? Does it actually address "container scans" for vulnerabilities? Does it cover scanning for including of vulnerable libraries or modules, like go modules? If we decide to go forward, we need to ... (1) decide if we create a "meta project" entry similar to, e.g., CNCF? Like "O-RAN software community (O-RAN SC)" under which we then have separate projects, like, Near-RT RIC, which in turn will include a certain number of repositories?

- a. RIC-671 [Achieve level "passing" in CII] Requested Thoralf for submitting application for ORAN project onboarding on LFN security. // Also explored LFN inputs using nexus IQ. The example jobs failed into sandbox. Will continue to work on it.
- b. Alok to schedule a meeting on this
- 5. Initial discussion on alpine base images. We handle by e-mail. At least QP xApp uses alpine (the same was as A1)
- HCI Items:
  - a. RIC-184 [Adapt to latest K8S and helm (testing in OSC labs)] InProgress VPN access enabled waiting for Felix to create VM in T-lab & share details. Pending In the absence of VM provisioned in Tlab, VM was created in HCL Lab & tested with k1.18 with helm3. The logs were shared with Thoralf & two minor bugs reported (RIC-761 for dbaas & RIC-762 for helm3). The fix for both bugs have been submitted into Gerrit review by respective owners.
    - i. Subtask: RIC-746 Run nanobot based test automation from it/test repository on RIC with k8 1.18/helm3 in OSC Lab // Nanobot Testing in progress on latest helm version and k8s.
  - b. RIC-723 [Study performance overhead of latest opentracing solutions] InProgress // Able to generate sampling data after getting some help from thoralf. Continue to work with other scenarios to compare with previous results.
  - c. RIC-731- [Static code and test coverage for E2] 90% Completed. Blocked on RIC-760 for test coverage.
  - d. RIC-150 Perform e2e RIC benchmarking
    - i. Subtask: RIC-741 Verify Subscription flow using RMR API // Code committed and sent for review
    - ii. Subtask: RIC-742 Verify Indication flow using RMR API // Code committed and sent for review
    - iii. Subtask: RIC-754 KPIMON xapp validation using nanobot with SDL // KPIMON deployed and it is running. Validating the packet flow between KPIMON & E2SIM. InProgress
  - e. RIC-743 Create multiple e2sim for RIC benchmarking // Able to connect 800 e2sim nodes to the ric platform. Number of connected nodes drops after scaling. Tested with 1500 E2 node iterations. // Collecting the logs and document the observation in a Jira Ticket (still pending)
  - f. RIC-744 Verify the E2E communication for multiple e2sim // Debugging the issue on subscription response messages with multiple e2simulator For 10 E2 SIM, RIC subscription Request and response is working fine. // Now scaling it for 800+ RIC Subscription request /response.
    - Thoralf asked Himesh: Could you provide a description of what you did and what happened in the failure case and where we currently are.
- 7. InfluxDB issue (simple single-instance should be enough).
- 8. configuration handling in EZAP seems to settle down. Rahul (not in meeting today) will finalize via e-mail.
- 9. Subhash (Samsung) asked about t-lab access. About VMs OSC Community Labs Note that HCL is also working on this. Matti looking for someone from ATT to help (Felix busy).
- 10. RICAPP agenda: RICAPP Meetings.

#### 2021-03-02

Recording:near\_rt\_ricplatform\_and\_ricapp\_meeting\_2021\_03\_02.mp4

- 1. Thoralf to figure out how to publish zoom recording
- 2. for CII compliance improvements we should do this from now on
  - a. check that all large or XL commits of the last two weeks have also new unit tests. This is our policy. link-to-reviews (gerrit filter instructions // gerrit t-shirt-sizing).
  - b. add a regular item in the meeting (once per month) to check code coverage
- 3. in context of CII, pls. note this convention in section "security bugs": Tools (mailing list, JIRA, Gerrit)
- 4. Release criteria checklist template
- 5. If you raise issues to LF support that are sensible to make visible to others, pls. first raise a ticket to join "ORAN" organization in the support tool: "When these organizations (ORAN) were created in the beginning, we added by default all members from the committer groups into the organization. If at that time a particular user was not part of any group or just joined the community, then they will not be automatically added into the oran organization. Going forward, the new user will need to create a support ticket to be added to the organization."
- HCL items:
  - a. RIC-184 [Adapt to latest K8S and helm (testing in OSC labs)] InProgress VPN access enabled waiting for Felix to create VM in T-lab & share details. Sent the reminder on Thu (25th Feb). VM in T-lab still needed from Felix.
  - b. RIC-723 [Study performance overhead of latest opentracing solutions] InProgress Able to generate sampling data after getting some help from thoralf. Continue to work with other scenarios to compare with previous results. sampling data now available. Numbers seem to be different than from previous PDF. Alok to schedule meeting with Thoralf once enough new information is available.
  - c. RIC-731- [Static code and test coverage for E2] 90% Completed. Had a debug session with E2 dev team today (2nd March) & we were able to get the blocker issue resolved. Looking forward to close the issue by this week & ready for submitting Gerrit changes to cimanagement repo.
  - d. RIC-671 [Achieve level "passing" in CII] Received information from LFN on queries on dynamic code analysis & CLM. Going through it.
  - e. RIC-150 Perform e2e RIC benchmarking
    - i. Subtask: RIC-741 Verify Subscription flow using RMR API Done Still need to commit the code
    - ii. Subtask: RIC-742 Verify Indication flow using RMR API Done Still need to commit the code
    - iii. Subtask: RIC-754 KPIMON xapp validation using nanobot with SDL: KPIMON Xapp deployment got crashloopbackoff state. Sent mail to the committer (Jinwei.fan@samsung.com) to confirm on this.
  - f. RIC-743 Create multiple e2sim for RIC benchmarking Able to connect 800 e2sim nodes to the ric platform. Number of connected nodes drops after trying to scale >800 (Tests fail with 1500 E2 node iterations).
  - g. RIC-744 Verify the E2E communication for multiple e2sim Transaction ID issue has been resolved. Now debugging the issue on subscription response messages with multiple e2simulator.
- 7. 1.5 slides from Rahul (if no time, by e-mail). Rahul to send mail. include Matti, Thoralf, Abukar, Alok. Ramesh, Sunil (if you don't have the address, I can add them to the mail later) Slide E2APDesign 2.0.pptx
- 8. RICAPP agenda: RICAPP Meetings.

#### 2021-02-16

- 1. discuss how to proceed with RIC-184. OTF,, robot. Maybe schedule another meeting during this week,
- update from HCL: User stories created under RIC-184 (InProgress)
  - Got credentials for OSC lab created for Alok facilitated by Felix.
  - o Requested Felix, for rest of the credentials for HCL team members
  - Working with HCL local IT team for VPN client whitelisting

RIC-723 - [Study performance overhead of latest opentracing solutions] - InProgress

We be going through the content shared by Thoralf from previous effort of opentracing based work

RIC-731- [Static code and test coverage for E2] - 90% Completed.

· Blocked for Developer's response.

RIC-671 [Achieve level "passing" in CII]

- Internally discussed the requirements for Epic.
- Need a setup call with Thoralf this week for clarifying & grooming the stories. Alok created a gap analysis. Alok to call for a meeting.

RIC-150 - Perform e2e RIC benchmarking

Subtask: RIC-741 Verify Subscription flow using RMR API Subscription Request and response verification done using kubectl api and calculated latency on RoundTripTime of subscription flow in nanobot automation

Subtask: RIC-742 Verify Indication flow using RMR API Currently working on latest code of bouncer xapp and e2sim to validate the indication message flow locally using nanobot. Working on CDF (distribution function) plotting to represent latency vs throughput on the message flow.

RIC-743 Create multiple e2sim for RIC benchmarking

Benchmarking the code with 1500+ E2SIM, But the result is not stable (only 50 or 700 E2 nodes are connected). "moving up from 50 is not yet stable". Currently checking on this.

Try to make this reproducible. Maybe someone from E2T/E2M can take a look at it,

RIC-744 Verify the E2E communication for multiple e2sim // adding the sleep timer after every GNB sub request that has reduced the number of message rejection on subMgr side. It like the 1 is rejected out of 5 messages. // Debugging the issue // continue by e-mail with committers.

Dhjiraj to talk to Sangeetha on the automation side.

E2AP config transfer (Rahul)

Rahul to send a mail on the type of octet strings we might have.

A1-EI design updated: A1-EI\_v2.pptx

RICAPP agenda: RICAPP Meetings.

## 2021-02-02

Recording: near\_rt\_ricplatform\_and\_ricapp\_meeting\_2021\_02\_02.part1.mp4 and near\_rt\_ricplatform\_and\_ricapp\_meeting\_2021\_02\_02.part2.mp4

- 1. We would like to introduce a minor branch from Cherry in which we combine Cherry with the xApp onboarding feature. This way we have a stable branch (as compared to master) against which xApps can be developed that require this change.
  - a. fixes done to cherry we will also do to "cherry-plus-onboarding" (exact branch date to be checked with Felix, but it should be soon (this or next week)).
  - b. only branch is in components that actually have a change.
  - c. all Dawn features continue on master (no similar approach for such features)
- 2. Moved the following items from subteam-n back to subteam-n-proposal
  - a. RIC-71 Subscription manager: Better debugging capabilities
  - b. RIC-226 fix for SDL (C++) silent hang
  - c. RIC-330 Merge individual library repos (lib) python into framework repo. Also for C++ and for Golang
  - d. RIC-366 A1 API as higher abstraction level in xapp framework SDK (golang) higher abstraction level in xapp framework SDK (golang)
  - e. RIC-373 O1 mediator to check health of all platform components and expose this via O1
  - f. RIC-421 O1 mediator to handle restart gracefully
- 3. please check your contribution plan and mark things as "soft commitment" like subteam-X. and things that you don't commit to as "subteam-Xproposal". Once done, send me a e-mail with that fact. Deadline: Feb-9-2021
  - a. links under §7.5 in Jira usage conventions
- a. only minor update to slideset and that serves as design proposal according to which implementation is done. A1-EI\_v2.pptx
- 5. configuration update concept.
  - a. further discussion by mail.
- 6. A1 mediator and RMR lib update?
  - a. updating A1 mediator with latest RMR image. Matti to add thoralf in mail thread on this
- 7. RICAPP agenda: RICAPP Meetings.

## 2021-01-21 4th meeting on Dawn planning

Recording: RIC\_and\_RICAPP\_dawn\_planning\_2021\_01\_21.part1.mp4 and RIC\_and\_RICAPP\_dawn\_planning\_2021\_01\_21.part2.mp4

- 1. discuss CII badging page: CII status: near-RT RIC
  - a. HCL wanted to some work related to CII: (1) code scanning for vulnerabilities (owasp tool and more tools) (2) continuation of static code analysis (E2T)
    - i. contact on LF side is: trishan de lanerolle (tdelanerolle@linuxfou....org)
  - b. HCL Sangeetha take a look if we can do dsomething for CII "The project MUST have evidence that the test\_policy for adding tests has been adhered to in the most recent major changes to the software produced by the project."
- 2. RIC-671 mark to E and Dawn
- 3. RIC-636 and RIC-635 Ramesh is checking
- 4. RIC-114: Thoralf to remove from HCL and create new item for INflux-based time series support. Thoralf created RIC-734 after the mneeting and removed RIC.-114 from HCL and dawn
- 5. RIC-682 (Samsung) look if the only remaining item in it (RIC-382) make sense and if you want to work on this.

#### 2021-01-19

Recording: near\_rt\_ricplatform\_and\_ricapp\_meeting\_2021\_01\_19.mp4

- 1. Implementation of RIC-114 (redis time series plugin) Ramesh
  - a. move out from Dawn: RIC-114
  - b. create new item for InfluxDB Relay integration and unless we see issues we include it always into Near-RT platform, but only for xApp usage. No need to have an abstract SDL interface that hides the actual underlying Time-series DB. Still to be discussed: Only put this in xApp framework if we can fully hide the fact that it is InfluxDB or put dependency on InfluxDB into xapp framework. Pending Also WG3 work.
- 2. E2APv1.1 vs E2APv2.0 and do we upgrade to E2APv1.1. Do we define configuration transfer and OID in E2 Setup as mandatory (as in E2APv2. 0) even if in E2APv1.1 they are optional?
  - a. E2SIM work also needed. Need to bring this up in TOC as it might affect other E2 nodes implementations on DU/CU.
  - b. thoralf to schedule a meeting on this with Rahul/Subhash/Rittwik for next week Wednesday/Thursday
- 3. FYI: Dhiraj (committer in E2T) would like to have discussion with Alok on RIC-731. He (Dhiraj) will call a meeting, To get some understanding of how this was done for other repos and what Alok is planing.
- 4. Subhash wants to discuss A1-EI. We agreed to
  - a. A1 mediator should provide the mechanism to receive EIJobResult and further send it to xApp over RMR.
  - b. xApp should use preconfigured EITypeID to create EIJob.
- 5. going through current list of Dawn items and checking commitments meeting on Thursday, 8am, ET.
- 6. RICAPP agenda: RICAPP Meetings.

#### 2021-01-05

Recording: near\_rt\_ricplatform\_and\_ricapp\_meeting\_2021\_01\_05.mp4

- 1. discuss RIC-708 on whether AT&T or Samsung can work on the python and c++ subitem for the xapp framework (mentioned in description of RIC-708). Matti said the python part AT&T could work on. To be checked by Matti.
- 2. E2AP 1.1 spec high level discussion (raised by Rahul) slideset presented, next step is to continue by e-mail discussion (Matti, Thoralf, E2M/E2T committers, )
- 3. A1-EI discussion. Subhash waiting for comments from Matti. Also there was some discussion on the "EI result object" (received by xApp/near-RT RIC). EI result object expected top be provided by EI data producer, while job is managed by non-rt RIC. I.e., there's an interface between non-RT RIC and EI data producer on informing about jobs (and URL targets for the EI result objects).
- 4. HCL (Alok) to report on quick analysis on "more advanced" LF CI/CD pipeline that we might want to use in context of OTF (integration track).
  - a. uses gitlab-based CI. for continuing testing LF uses XTESTING
  - b. Alok shared the link from opnfv: http://testresults.opnfv.org/functest/xtesting/
  - c. Alok still discuss with nanobot folks and Felix how current verification is done. (infrastructure testing?)
  - d. Subhash asked about existing robot test cases and how they would be integrated.
  - e. Ramesh commented that ONAP is more aligned with LFN and that's one of the reasons we are looking into this.
- RICAPP agenda: RICAPP Meetings.

#### 2020-12-22

Recording: near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_12\_22.mp4

- 1. we started 15 minutes late
- 2. next meeting Jan-5-2021
- 3. For 2021: HCL (Alok) to report on quick analysis on "more advanced" LF CI/CD pipeline that we might want to use in context of OTF (integration track).
- 4. A1/EI implementation plan A1-EI-HLD.pptx
- 5. RICAPP agenda: RICAPP Meetings.

# 2020-12-08 dawn planning

# 2020-12-08 main project meeting

Recording: near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_12\_08\_part1.mp4 and near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_12\_08\_part2.mp4

- 1. CII badging status (end of Cherry) needs to be filled in: CII status: near-RT RIC
  - a. nobody volunteered. Thoralf to do this.
- 2. committers changed for E2T and E2Mgr. For A1, for ric-dep
  - a. https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/5249 ric-dep
  - b. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2mgr/+/5196 e2mgr
  - c. https://gerrit.o-ran-sc.org/r/c/ric-plt/e2/+/5195 e2
  - d. https://gerrit.o-ran-sc.org/r/c/ric-plt/a1/+/5238 a1
- 3. Dawn planning: See §7.5 for filters for Dawn planning. We use labels:
  - a. preliminarily committed: subteam-n, subteam-h / h1, subteam-s / s1 / s2, subteam-a
  - b. proposal to other team: subteam-n-proposal, subteam-s-proposal, subteam-h-proposal, subteam-a-proposal
- 4. demos in December for Dec-17? let me know if there's something to demo.
  - a. HCL proposed demo of benchmarking
- 5. meeting on Dec-22? We will keep the meeting. What about Jan-5? Also ok.
- 6. HCL status
- HCL: RIC-149: Review comments completed. Merged. DONE
- HCL: RIC-150: Code committed and Merged. completed part in Cherry (log-base checking), but more work in Dawn (API based checking)
- HCL: RIC-109: Merged. marked as DONE
- HCL: RIC-360: Code submitted & Merged CLOSE once gerrit review in RIUC-678 is done (see open review https://gerrit.o-ran-sc.org/r/c/it/dep/+/5237)
- HCL: RIC-509: Merged. CLOSE in JIRA DONE

#### In Progress:

- · Enhancing E2E packet flow between xapp and e2sim by adding APIs to capture and parse the packets
- RIC indication message decoded in bouncer xapp. Multi E2 connection setup in progress.
- 7. Samsung: no updates related to Cherry.
- 8. RICAPP agenda: RICAPP Meetings.

#### For Dawn planning meeting:

- 1. Dawn-R7 starts this week and is up to about Mar-5, Dawn-R8 starts Mar-6 and ends ~Apr-26
- 2. RIC-705/RIC-706 subteam-s or subteam-a?

#### 2020-11-24

Recording: near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_11\_24\_part1.mp4 and near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_11\_24\_part2.mp4

- 1. Cherry status. See Cherry Release (Dec 2020) 12 items status unclear, 18 items done, some amount of items moved out from Cherry TODO-link
- 2. Dawn filter: link
- 3. Dawn another planing meeting next week or two weeks from now? One meeting two weeks from now. Thoralf to schedule.
- Samsung status
  - a. A1-EI could be a work for Dawn. Thoralf-to-map-to S1
  - b. E2AP work proceeds
  - c. LCM Thoralf to schedule a meeting with Nune and Samsung
  - d. Security: Samsung could work on (1) Document known vulnerability in release notes. (2) (low-prio) Dynamic code analysis. Note that HCL is also looking at vulnerability scanning. From WG there was no work (yet).
- 5. HCL
  - a. HCL: RIC-149: Review comments completed. Merge is pending.
  - b. HCL: RIC-150: Code committed into "it/test", but not yet merged.
  - c. HCL: RIC-109: Merged, i.e. DONE.
  - d. HCL: RIC-360: Code submitted & Merged. One change still not yet merged.
  - e. HCL: RIC-509: Merged, Go through subitem in JIRA and check if still sensible. If not, let me know if I should delete, or transfer into a new Dawn Epic
- CLI footprint
  - a. no data yet.
- 7. RICAPP agenda: RICAPP Meetings.

### 2020-11-10

Recording: near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_11\_10.mp4

1. After this meeting we had Dawn planning meeting. Updated slideset (v6 - same link as before): https://wiki.o-ran-sc.org/download/attachments /3605124/cherry\_and\_dawn\_near\_rt\_ric.pptx?api=v2

- a. recording of the meeting: RIC\_and\_RICAPP\_dawn\_planning\_2020\_11\_10\_part1.mp4 and RIC\_and\_RICAPP\_dawn\_planning\_2020\_11\_10\_part2.mp4
- 2. We plan to introduce a more O2-like xApp deployment interfaces. This introduces incompatibility for xApps. xApps will pass their descriptor information when registering with the app manager.
  - a. check O-RAN WG on current shared view.
  - b. registration could be hidden in xApp framework
  - c. RSAC LCM also has something about this.
- 3. Status updates
  - a. HCL
- HCL: RIC-149: Commit done. Working on Review comments.
- HCL: RIC-150: Targeting to submit for gerrit review by wed.
- HCL: RIC-109: In Review reminder sent
- HCL: RIC-360: Targeting to submit for gerrit review by wed. pls. send e-mail to Felix and committers of ric-dep.
- HCL: RIC-509: 3 Jobs remaining (Out of 18).
- b. Samsung
  - i. RIC-95 merge still pending. Subhash sent a reminder. Thoralf tested RIC-95 with three E2 nodes.
- 4. 5min Subhash (Samsung) to present CLI plan. More discussion needed, check progress in two weeks from now.
- RICAPP agenda: RICAPP Meetings.

#### 2020-10-27

Recording: RIC\_and\_RICAPP\_dawn\_planning\_2020\_10\_27\_part2.mp4

- 1. project status updates
  - a. known issues with Alpine base image. Scott and Timo are resolving.
  - b. including ASN.1 to be included in python or C++ repo. Various options, but let's wait for TOC's legal aspects.
  - c. formally this week should be code freeze for Cherry. Let me know if we need to manage any exceptions.
  - d. HCL: RIC-109 commit coming, review ongoing
  - e. HCL: RIC-509 commit coming, review ongoing
  - f. HCL: RIC-149 commit coming, review ongoing
  - g. HCL: RIC-360, RIC-150 likely to be finnished over the next few weeks
- 2. Samsung
  - a. Subhash working on RIC-95 and all items done. Concluded now after last reviews.
  - b. RIC-203 subteam-s1 not planning to work on it. Moving it out from Cherry.
- 3. Dawn planning slide: https://wiki.o-ran-sc.org/download/attachments/3605124/cherry\_and\_dawn\_near\_rt\_ric.pptx?api=v2 updated in 1h planning meeting we had before this meeting. Recording: RIC\_and\_RICAPP\_dawn\_planning\_2020\_10\_27\_part1.mp4 and RIC\_and\_RICAPP\_dawn\_planning\_2020\_10\_27\_part2.mp4. Next planning meeting in two weeks from now. Initial interests on who would like to work on what should come by then
- 4. RICAPP agenda: RICAPP Meetings.

#### 2020-10-13

Recording: near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_10\_13.mp4

- 1. note the presentations on RIC and xApps from ONeS (link) and in O-RAN.
- 2. demo on Thursday Sprint demos 2020-10-15 Cherry R6.2 (please add agenda items)
- 3. asn1-py as separate repo or as part of xapp-frame-py? Discussion to be continued over e-mail.
- status update (HCL).
  - a. Thoralf to organize a meeting with Abdulwahid, Anssi, Adi, Felix. Ask Abdulwahid to have some working setup ready for comparison. HCL (Neeraj) to setup the environment (which is not working)
    - meeting recording: RIC\_troubleshooting\_part1.mp4 RIC\_troubleshooting\_part2.mp4 RIC\_troubleshooting\_part3.mp4 RIC\_troubleshooting\_part4.mp4
  - b. Subhash raised the issue of where the test cases are stored) e2's folder "automation". To be discussed in Bharath's meeting. Also Thoralf would like it to be clear if platform test cases go into ric-plt/ric-test or into it/test.
  - c. RIC-109 DB: study: SDL scaling with Redis cluster (instead of sentinel) "Ready to submit gerrit review request with helm chart & docs for redis-cluster."
  - d. RIC-360 Plan and prototype helm (and k8s) upgrade with xApp manager, REC, RIC infrastructure "Work in progress. Changing appmgr /xapp-onboarder
  - e. RIC-509 Components supporting continuous integration infrastructure, e.g., static code analysis "Gerrit Changes for below JIRA tickets (Under RIC-509 Epic) have been merged: RIC-648, RIC-649, RIC-650 (Verified & Reviewed but not merged yet)
  - f. RIC-150 Perform e2e RIC benchmarking "Working on end to end E2SM message exchange among HW xAPP, SubMgr, RTMgr, E2Term & E2SIM. Facing issues w.r.t message exchange with SubMgr, RTMgr. Debugging is in progress. Shared the logs to community and getting support from these components experts to resolve the issue."
  - g. RIC-149 Define and implement automated test cases for flows to be defined early in Bronze-R4 1) Ricdeployment: Done. Need repo(it /test) access to commit our changes for review. 2) HealthCheck Testsuite: i)dbaas: Kubectl ping pong done and coding completed. ii) dbaas: As confirmed, using SDL is the best approach to check for dbaas healthcheck and manual testing completed. Integrating with robot framework is in progress. iii)Submgr healthcheck As confirmed Anssi we tried adding liveness/readiness probe to submgr and check for http requests. Its in progress. 3) ETE Testssuite: i)Robotxapp deployment checked manually and its working fine. But rmr code which i used for robotxapp deployment is the older one with NNG package. Hence want to check with Bharath and Dave. ii) Automation: out of 11 testcases, 8 testcases passed for this xappdeployments and 3 testcases failed using post request for RAN via E2mgr X2 interface and seems the commands are deprecated. Alternate commands to check for and try proceeding. URL: https://wiki.o-ran-sc.org/display/RICP/E2+Manager+R4+Interface+Design#E2ManagerR4InterfaceDesign-X2SetupRequest(Deprecated)
- RIC-95 updates (Subhash). RIC-260, RIC-643. Rahul commented that RIC-95 is basically done. Two merges still pending, but code review already done. Thoralf is still to do testing.
- 6. How do we plan work for Dawn. Thoralf proposes 1h planning meeting where we collect input from all possible contributors.
  - a. We also look at the current draft/wish list cherry\_and\_dawn\_near\_rt\_ric.pptx

- b. Thoralf to organize a separate meeting next week on this
- 7. RICAPP agenda: RICAPP Meetings.

#### 2020-09-29

Recording: near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_09\_29\_part1.mp4 and near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_09\_29\_part2.mp4

- 1. reminder on next demo: 2020-10-15 Cherry R6.2 . Pls. add anything you want to demo there.
- 2. RIC-360 any progress. Discussion with Nune and Nithin kept?
  - a. deployment script changes (Abdulwahid) related to helm3. Discussed with Felix (onboarder (felix) changes still needed).
  - b. appmgr changes no discussion Nune
  - c. Thoralf to invite meeting with Alok + Sri + ramesh (still this weeks)
  - d. Status: working on go code changes in appmgr
- 3. RIC-509
  - a. subitems being worked on by LF next.
  - b. Status: Created Jira tickets for each component under the EPIC: (e.g. RIC-648, RIC-649, RIC-650) & submitted Gerrit change requests to these three tickets.
- 4. RIC-109: since Jussi on holiday pls. involve Timo T (another committer for dbaas). Status:Converted the k8 manifest files into helm chart. Creating documentation other artifacts as discussed on the call with ORAN SPOCs.
- 5. RIC-249 (of RIC-95) currently blocked by XML-to-PER conversion of RIC\_SERVICE\_UPDATE\_ACK.
  - a. Thoralf still to test the 1-week old code that Rahul wrote (RIC-248)
  - b. This now hangs with Adi.
  - c. Also another issue is how an empty RIC Service Query/update would look like. ASN.1 is also a bit unclear.
- 6. RIC-203 is still in team S1 or currently nobody planning to work on this?
  - a. Rahul might be able to work on this, but earliest decision on this in next meeting.
- 7. RIC-150 (RIC benchmark) Status: Able to exchange RIC Subscription Request & Response between HW xAPP and E2 Simulator (Action type Report). Now working on handling RIC Indication message exchange between HW xAPP & E2 Simulator
- 8. RIC-149 (more tests) Status: 1) RIC deployment Testsuite: RIC deployment testing is done. Need to send the code for review. 2) Healthcheck Testsuite: O1mediator issue is fixed. Created interface.robot and verified the log for this component. dbaas ping pong test is in progress. submgr Unable to proceed due to ClusterIP issue. We sent query to Dave on this. 3) ETE Testsuite: robotxapp deployment is in progress.
- 9. some items postponed from Cherry to Dawn: RIC-585 (the alarm for E2 connection loss), RIC-139 (O1 adapter to summarize platform health state), RIC-421 (O1 mediator graceful restart)
- 10. Subhash xApp demo can be in platform code. Subhash would like to discuss this.
- 11. RICAPP agenda: RICAPP Meetings.

#### 2020-09-15

Recording: near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_09\_15.mp4

- 1. Schedule for R6 (second half of Cherry: Jira usage conventions §6).
- 2. demos for demo day (next week Thursday = Sep-24 in 2020-09-24 Cherry R6.1 CANCELLED)
- 3. Subhash: move on with exact contribution.
  - a. [1] Higher abstraction level in xAPP framework SDK (golang) [https://jira.o-ran-sc.org/browse/RIC-366]
    - i. We discussed possible abstraction of this on API level. Matti said one person on AT&T side has been working on this before. We need to set up a separate meeting on this: Subhash, Nune, Matti, Neeraj Gupta (HCL), Vaishali (HCL), h\_w.park@samsung.com, Akash (bouncer xapp) Identify new capabilities that we can implement on xapp framework side. Focus on things not yet implemented in any xapp frameworks. presentation by h\_w.park@samsung.com on what is planned. Aim for 10am EDT (NewYork) on Monday, Sep-21
    - ii. RIC-80 is already in progress by Antti teams.
    - iii. general goal xApps should only rely on E2SM, but do not need to touch E2AP messages (using ASN.1). So, a good abstraction would allow xApp implementation without ever touching an ASN.1 compiler if an E2SM would be defined in something else than ASN.1. We can discuss this further in the Monday meeting.
  - b. [2] Support for E2AP RESET procedure [https://jira.o-ran-sc.org/browse/RIC-383]
  - c. [3] Developing version of xAPP [https://jira.o-ran-sc.org/browse/RIC-120]
    - i. existing "hello world" is C++, but does more than just saying "Hello world", e.g. has own service model. Additional demo xapps in go/python are welcome. For go see in xapp-framework for Go for some skeleton code.
    - ii. for example, it would be good to have E2SM support for "hello world" E2SM in the simulator.
- 4. Alok RIC-509 works better with Ceph (instead of NFS). Meeting to discuss how to integrate this to be called by Alok.
- 5. Akash asked about the hello world xApp in terms of a new bouncer xApp (for benchmarking). Pls. contact Matti to get you in contact with hello world expert. Akash to attend also the Monday meeting.
- 6. (post-meeting addition): Ron now merged the patch into the E2 simulator: https://gerrit.o-ran-sc.org/r/c/sim/e2-interface/+/4700 Work on the simulator can now continue.
- 7. (post-meeting addition): RIC-360: continued work on appmgr // RIC-509: testing JJB templates in sandbox (sandbox permissions obtained) // RIC-150 Able to send RIC Subsription Request message from Bouncer xAPP to E2 terminator. Working on handling of the RIC Subsription request message at E2 terminator to E2SIM. Debuging is in progress. Able to exchange E2 Setup request and response. RIC-149: Ricdeployment Testsuite existing issue got fixed except statefulset, working on this. Sent code modification to Dave and Bharath for review. Healthcheck Testsuite Interface.robot files missing for few components got fixed and added keyword healthcheck for missing components as well. Working on dbaas, submgr related inerface.robot parameters to add and test. E2E Testsuite: Working robotxapp deployment using http post request using both manual and robot automation.
- 8. RICAPP agenda: RICAPP Meetings.

- S1+S2 team any news?
  - a. Rahul progressing on RIC-95. Thoralf will help with testing as E2 simulator is needed.
  - b. Subhash interested in picking up items on near-RT RIC platform. Thoralf to send information package.
  - c. Double-check progress on E2 simulator in simulator project. Action item-Matti: check with Ron. Make sure to to add copyright and license statement.
  - d. RIC-372 (sdlpy now supports notifications) now done.
- 2. H1 team any news?
  - a. RIC-109 (helm/k8s upgrade) Working on Non NFS based cluster storage on k8s
  - b. RIC-509: HCL to present output/status of RIC-509.
    - i. analysed com-pylog project on sonarcloud using our a/c
    - ii. Matti noted that xApp's MC xapp has done the same. Always needs to involve LF support case. HCL to include Matti in discussion.
  - c. RIC-360: Go lang based code changes in progress
  - d. RIC-150: (e2e benchmarking) Working on the Bouncer xAPP Implementation. "successfully built the e2apv1sim code manually in the LAB and run the e2sim binary. The e2sim sending the E2 setup request message to RIC terminator. The RIC terminator received the E2 setup message and it is not sending the response to e2sim. Because, in decode part of E2 setup request message in RIC, some parameters(RANfunction\_Item) are not handled in RIC side and it's giving the decode error."
  - e. RIC-149 (testing): Started fixing up the health check of ric component testsuites with few missing keywords and missing riccomponent\_interface.robot files. As we confirmed with Bharath and Dave we are proceeding to fix the healthcheck and e2e testsuites related issues. Status: In progress Issue: Currently working on this while adding a1mediator interface robot file " <tpl (\$content) AsConfig \$>: error calling tpl: Error during tpl function execution for "a1mediator robot". Due to this some component related files are not mounted to nanobot pod.
- 3. alarms implemented in Cherry check status with owners of sub user stories in RIC-56 Getting issue details...

(check with STATUS

- owners of 585 203 and 204). Contact Nune 4. to discuss this reply to Jinri's request: https://lists.o-ran-sc.org/g/main/message/812
  - a. reply: "from near-RT RIC side we work with: (1) Akraino REC as the Akraino blueprint that we integrate RIC with (2) Nokia investigating if we can provide a wireshark dissector for E2AP (pending discussion with O-RAN alliance) (3) We're using the VESPA (Prometheus to VES adapter) project.
- 5. Anything to demo on Thursday? Matti (50/50)?
- 6. RICAPP agenda: RICAPP Meetings.

## 2020-08-18 special meeting on E2 simulator

Recording: 2018\_08\_18\_special\_meeting\_on\_e2\_simulator.mp4 (no meeting notes created)

#### 2020-08-18

Recording: 2 parts: near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_08\_18\_part1.mp4 and near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_08\_18\_part2. mp4

- 1. Note that previous demo was on Thursday, 2020-08-13 Cherry R5.4. Recording available on the confluence page.
- 2. RIC-628 now also fixed. Together with the earlier fix of RIC-444 this should now remove any issues with unintended dependencies on E2SMs. Now the RIC platform should again be independent of E2SMs. Note that the new routing manager implementation >0.6.1 requires an update of the routing manager helm chart as well. These helm charts are in master branch of repo ric-plt/ric-dep.
- 3. RIC-509 we are aiming for CII (core infrastructure initiative of the Linux foundation) self-certified badge "basic". Need to check what basic "passing" badge actually implies. Initially this might be a reasonable aim: (1) Weekly static code scans by SonarCloud, (2) Weekly scans by NexusIQ for outdated 3rd-party packages/libraries (3) All critical and major vulnerabilities are remediated, (4) automatic code coverage is 80% -90%. Note that originally we planned for Cherry: "80% for all existing components and 50% code coverage for new ones."
  - a. The below projects are onboarded to SonarCloud but not scanned.

ric-plt-e2 ric-plt-sdlgo ric-plt-xapp-frame ric-plt-appmgr ric-plt-dbaas ric-plt-dbaas-hiredis-vip ric-plt- nodeb-rnib ric-plt-submgr ric-plt-utils ric-plt-jaegeradapter ric-plt-tracelibcpp ric-plt-tracelibgo ric-plt- vespamgr ric-plt-asn1-documents ric-plt-streaming-protobufs ric-plt-ric-test ric-plt-ric-dep ric-plt-demo1

not in sonar: com-golog com-pylog com-gs-lite

b. None of the components except ric-plt-a1 (scanned 3 months ago) is onboarded to NexusIQ.

c.	Project name in SonarCoud	Vulnerabilities	Coverage	Last scan
	ric-plt-alarm-go	0	38.8	8/5/2020
	ric-plt-lib-rmr	0	73.6	8/3/2020
	ric plt lib rmr c (old code, old job not in use anymore)	<del>10</del>	<del>42</del>	3/29/2020
	ric-plt-lib-rmr-py	0	0	4/5/2020
	ric-plt-rtmgr	0	77.5	8/5/2020
	ric-plt-sdl	1 - minor	66.6	7/30/2020
	ric-plt-xapp-frame-cpp	0	94.3	3/25/2020

com-log | 3 | 89.9 | 8/5/2020

Note that Matti and scot are trying to remove the old job info sonarcloud. ric-plt-lib-rmr-c

- a. T1 (Antti)
  - i. RIC-114 scope change
- b. T2 (Abdulwahid)
  - i. Routing Manager now supports route distribution to multiple RMR control ports.
- c. T4 (Avinoam)
  - i. E2M Get node list API changed and now return also the node connection status completed. Swagger: https://wiki.o-ran-sc. org/display/RICP/E2+Manager+REST+API+Swagger
  - ii. Publish SDL event in case Connection Status is changed Testing is completed waiting for further testing with some sample xApp from Nokia
  - iii. Publish SDL event in case gNB is added/updated/deleted in progress
  - iv. E2T Prometheus implementation completed (including review and testing)
- d. T5 (Matti)
  - O1 APIs (O1-PM/FM/CM) in C++ framework completed see demo from last week // python framework demo was done earlier in Cherry.
  - ii. E2 Simulator work still ongoing (Ron doing cleanup work). Ron will give presentation about simulator code in meeting with Samsung/HCL/ATT/Nokia after this meeting.
  - iii. RMR-to-VES event adapter for statistics implemented
- e. T6 (Lusheng)
- f. T7 (Bharath)
- g. Subteam-h1 (Alok, Sangeetha)

	Ticket Numb er	Ticket Summary	8/18 Updates
	RIC- 109	DB: study: SDL scaling with Redis cluster (instead of sentinel)	Found an approach for the ask
			First level of demo scheduled for Fri,21st with ticket SPOCs from ORAN
			Preparing for demo ppt
	RIC- 360	Plan and prototype helm (and k8s) upgrade with xApp manager, REC, RIC infrastructure	Understood the as-is deployment scripts.
			Explored the Helm2/Helm3 Delta for these deployment scripts
			Changes done in deployment scripts & shared understanding via email to SPOCs/experts (Lusheng)
			Received feedback for additional Code level changes (Go lang based) in few components (in deployment script)
	RIC- 509	Components supporting continuous integration infrastructure, e.g., static code analysis	Local environment set-up is completed (Thoralf: goal eventually to use LF infra)
			Code-analysis is done on an ORAN project that already supports it and found results to be comparable.
			Working on a candidate ORAN project to run code-analysis.
- 1 '	RIC- 150	Perform e2e RIC benchmarking	Understanding flow and scope of this RIC benchmarking across E2 Sim, Bouncer xApp, KPI Mon xApp
			Subtask (RIC-633) E2sim and Xapp created and added to this.
			E2simulator is installed in our lab and checking for RIC Communication.
			Working on KPIMON xApp standup along with its dependencies (E2 Mgr, E2 Subscription Mgr and E2 Term) - waiting for inputs
	RIC- 149	Define and implement automated test cases for flows to be defined early in Bronze-R4	Understood nanobot flow and deployed the same in our lab for testing health of the RIC Platform.  Currently working on E2E tests to check for health of Xapp manager, deployments and E2mgr.

<sup>4.</sup> Himesh asked about KPImon (go) related to: View/Reply Online (#828). Matti to discuss with Samsung committers of KPIMON. Contact Ron S.

## 2020-08-04

<sup>5.</sup> RICAPP agenda: RICAPP Meetings.

- 1. Note updates in E2APv01.01 compared to E2APv01.00, e.g., related to config transfer and TNL (failover, scalability).
- 2. progress by subteams
  - a. RIC-95 currently blocked by IPR checks on Samsung side.
  - b. Rahul mentioned integration test setup issues. One option is to ask fro help from Tel Aviv. E2 Sim is the other option. Samsung exploring options to make testing easier.
  - c. Arun (from Samsung) not working for RIC anymore. Subhash replacing him.
  - d. Simulator key contacts: Bharath, Ron shacham, Thoralf . Thoralf send a e-mail to Subhash as he was interested in this.
  - e. RIC-109 call with Jussi done. Problem understood and how to do it. Next step how to distribute in K8S for efficient failover.
  - f. RIC-360 helm and K8S (1.16 1.18) upgrade. Issues with one of the docker images for app manager. Trying to update the code for helm3. Alok did install on K8S 1.18. Did not find any issues.
  - g. Thoralf to schedule a meeting with Ron, Rahul (Samsung), Subhash (Samsung), Ramesh (HSL), Sangeetha (HCL), Alex with Ron introducing his vision on how to implement additional messages in teh E2 simulator. Also Bharath.
- 3. Thoralf to think how to report Nokia and AT&T progress
- 4. RIC app meeting

#### 2020-07-21

Recording: near\_rt\_ricplatform\_and\_ricapp\_meeting\_2020\_07\_21.mp4

- 1. Matti hosts this meeting as Thoralf is on holiday
- 2. Thoralf added subteams S1, S2, H1 to Jira usage conventions. Check also §1e from the same wiki page on how they are used in JIRA.
  - a. Alok: Helm 23, identified key areas, helm commands not supported, validation errors, tiller not supported in Helm 3, Zhe Huang
  - b. Matti will introduce Alok (alok\_bh@hcl.com) to Felix
  - c. Alok: RIC-360 who can provide detailed user stories Matti will check with Felix first, then Thoralf when he is back
- 3. Next demo will be on Thursday, 2020-07-23 Cherry R5.3. Anything to demo?
- 4. RIC app meeting

#### 2020-07-07

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_07\_07.mp4

- 1. Recording of Jul-2 demo: TODO (pending Matti)
- 2. Thoralf on holiday Jul-21. The Jul-7 meeting we still have normally. Matti (hiltunen@a...) to host the Jul-21 meeting.
- 3. After discussion with xApp PTL (Matti), we will use the old existing empty repo "utils" as a general repo for small utility-like code. The first usage will be for RMR-to-VES mediator (event converter) "platform xapp". This work is done under RIC-420.
- 4. discuss contributions by HCL.
  - a. Assign to Alok Bhatt:
    - i. ricp-integration RIC-360: plan and prototype helm upgrade with xApp manager, REC, RIC infrastructure

Which K8S version with Helm 3 support to move to? Is 1.18 confirmed? Yes

App owners with whom we need to work with for this co-existence of Helm 2 and 3 change and for doing post deployment check / sanity testing? xapp manager, it-dep, ric-dep, **Schedule meeting with Lusheng and Felix, Abdulwahid.** 

 i. ricp-e2e RIC-509: Components supporting continuous integration infrastructure, e.g., static code analysis. Schedule meeting with Lusheng

PI share more info on LF CI/CD. Sonarcloud or SonarQube? Jenkins Job Builder / Chained CI? Schedule meeting with Lusheng

i. DBaaS RIC-109: DB: study: SDL scaling with Redis cluster (instead of sentinel) Schedule meeting with Jussi.

App owners with whom we need to work with for doing this before and after comparison for this move from Sentinel to Redis Cluster mode? Should be transparent to user

Output format expected from this study, if any

Assign to Sangeetha KR:

- i. ricp-e2e RIC-149: Define and implement automated test cases for flows to be defined early in Bronze-R4
- ii. ricp-e2e RIC-150: Perform e2e RIC benchmarking

#### PI connect us with Bharath Balasubramanian on these items.

- b. PI enable community lab access for us to work on these. connect with Lusheng for how to use TLab.
- $\ensuremath{\text{c.}}$  We manage this existing team mapping, but the items are assigned to Alok and Sangeetha.
- 5. discuss contributions by Samsung
  - a. For now, we would like to get your opinion regarding adding pub-sub feature to sdlpy/xapp-frame-py. As far as I know, this feature is already exists in sdlgo, but there seems to be no ticket related to this feature.
  - b. This would be item RIC-372. Note that this is not related to xapp-frame-py, but to sdlpy only. Thoralf to reply to Timothy John Ebido.
  - c. item in JIRA to be assigned to him. Note that right now we have notifications only in go, but not in python or C++.
- ricapp meeting

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_06\_23.mp4

- 1. Demo day is Jul-2. 9am ET: 2020-07-02 Cherry R5.2
- 2. Thoralf on holiday Jul-21. The Jul-7 meeting we still have normally.
- 3. Bengi asked for RMR performance data comparing old NNG against SI95 implementation. Nothing on wiki page, but we have the PDF in RIC-48 Getting issue details... STATUS that might help. Matti to ask Scott to eventually post the results also in the wiki page. Also to

double-check that SI95 results are not already in wiki page somewhere.

- 4. Chokha interested in contributing to near-RT RIC.
- 5. Rittwik asked about what we should push to the maintenance release. So far nothing. Matti asked about adding alarm routes to routing manager.

We created RIC-525 - Getting issue details... STATUS for this

### 2020-06-09

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_06\_09.mp4

- 1. new contributors (Rahul) planning to work on RIC-203 implementation with Abdulwahid and on RIC-133 xApp scalability with Matti.
- 2. presentation to O-RAN alliance: 2020-06-08: Report to O-RAN alliance on plans for release "Cherry" under Project reports
- 3. demo moved by one week. We now demo in the first week of a sprint. For Sprint 1 in near-RT RIC we don't have a demo. First one for sprint 2 will be Jul-2.
- 4. committer change: Tommy Chris L. (in a1, rmr, xapp-frame-py). Remove rajesh from RMR. Katri and Roni to be removed from all repos. Need a replacement.
- 5. RICAPP agenda: RICAPP Meetings.

#### 2020-05-26

This event is cancelled due to overlapping workshop. Next meeting will be in two weeks in regular time slot.

#### 2020-05-12

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_05\_12.mp4

- 1. Review and agree to minutes of previous meetings
- check RIC-95 status. Quite a lot of work. Code review and unit test cases still to be done. We quickly discussed a possibility of doing healthcheck
  also via a healthcheck E2SM that would have to be defined by O-RAN WG3. We discussed this because in the RICAPPSs Hello World xApp an
  non-standard E2SM does something similar. Current expectation is that WG3 work will not be picking up this E2SM any time soon.
- 3. Check for Bronze what we achieved and Cherry-R5 plans: link (check under "Status 2020-04-29 and 2020-04-30 and 2020-05-06 and 2020-05-12")
- 4. Rittwik wants to talk about Cherry release planning.
  - a. TS use case will probably be expanded on // possibly some ML model management aspects for RIC platform
  - b. Rittwik mentioned more work in O1/O2, but for Cherry-R5 we might have issues with standardization not ready yet. More likely Cherry-R6 content
  - c. For scalability on E2AP no plans in R5 because of standardization being blocked. We do have work for xapp scalability study in Cherry-R5 and benchmarking planned for Cherry-R5.
- 5. We might or might not have to cancel the next meeting due to overlapping workshop. I will update the groups io calendar if it's cancelled.
- 6. postponed items (out of Bronze): RIC-76 (subscription manager) and many more see Cherry-R5 plans (same link as in (3) above).

#### 2020-04-28

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_04\_28.mp4

- 1. Review and agree to minutes of previous meetings
- 2. FYI RICP (combined with RICAPP) demos are every third week: Sprint demos
- 3. Status of
  - a. RIC-95 (design approved by tel aviv teams // implementation should be ready // problem with testing as no access to simulator) Tel Aviv cannot test with proprietary simulator as no time. This might delay RIC-95 further. Harry cannot help as on leave. Ron might get simulator ready within two weeks, but there is some risk that service query is not working yet in simulator. Arunkumar could take a look at the service query support in simulator during next week once RIC-95 is ready. If we make good progress, we could still push this into maintenance release (after TOC approval).
  - b. RIC-203 no progress. design not clear yet. Drop this from Bronze (not try to push it into maintenance release)
- 4. postponed DB items EPICS: (not even started): RIC-123, RIC-107, RIC-118 and RIC-119 as well as user story: RIC-104 to post-Bronze-R4
- 5. 2020-04-28: epics still open team 1: 17, team 2: 5, team 3: 3, team 4: 8: team 5: 10, team 6: 2, team 7: 2. sum = 47 still open
- 6. FYI: Tommy Carpenter has left the project. Committer upgrade needed. A1, xapp-frame-py Chris Lott. RMR python version is in xapp-frame-py. RMR also replace tommy with Chris (even if no RMR python work a<nymore), Rpanta also remove from RMR repo. The repo "utils" we should remove. Add Chris now. Remove Tommy after Bronze. Thoralf to initiate this change.</p>

#### 2020-04-14

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_04\_14.mp4

- 1. Review and agree to minutes of previous meetings
- 2. Between "DBAAS" single-instance and "HA" we switch by using same configmap with different content as in this review: https://gerrit.o-ran-sc.org/r/c/ric-plt/ric-dep/+/3105 For platform components this is a good solution. The idea is that xApps (if they use SDL) have something similar. We might have to expand how this works for xApps later on, e.g., so that xApps have a way to declare what they need in terms of data storage.
- 3. RICAPP agenda: RICAPP Meetings.

## 2020-03-31

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_03\_31.mp4

- 1. Review and agree to minutes of previous meetings
- 2. status update in Bronze Release (Jun 2020)
- 3. RICAPP agenda: RICAPP Meetings.

## 2020-03-17

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_03\_17.mp4

- 1. Review and agree to minutes of previous meetings
- 2. Changing committers: New instructions are here: How to request committer changes.
- 3. Matti and I will give a 40 minute talk about RIC at ONeS, North America. However the conference has been postponed from April to Aug/Sep/Oct.
- 4. Two requests filed to O-RAN and O-RAN SC for (1) right to publish E2AP ASN.1 in O-RAN-SC's gerrit (ric-plt/asn1-documents) and (2) machine readable version of ASN.1 to be made available for automatic download (e.g. as part of compilation) from O-RAN web page. Matti noted that E2SM have a similar problem on RICAPP side.
- 5. RICAPP agenda: RICAPP Meetings.

#### 2020-03-03

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_03\_03.mp4

- 1. Review and agree to minutes of previous meetings
- 2. new repo request now all new repos created. See last four entries in Scope of the near-RT RIC platform and its components (summary)
- 3. Progress report on RIC-203 and RIC-95 (golang) by Arun
  - a. first meeting with Abdulwahid related to RIC-203. Dependencies on other capabilities mean work can only start after a couple of weeks
    - b. meeting with Avinoam's team to be set up by Arun if e-mail discussion does not proceed. T4 has a design proposal. Arun to comment /proceed.
- 4. Bengi asked about how we introduce support for WG3 E2AP in E2T and E2M.
  - a. The code is being adapted to the new E2AP spec from WG3 (with E2 Setup being sent from E2 node to RIC) right now. This is done under <a href="https://jira.o-ran-sc.org/browse/RIC-60">https://jira.o-ran-sc.org/browse/RIC-60</a>. You can even check this in terms of more fine-grained user stories from the scrum board (which the T4 team is using quite well): <a href="https://jira.o-ran-sc.org/secure/RapidBoard.jspa?rapidView=19&view=planning.nodetail&epics=visible&issueLimit=100&selectedEpic=RIC-60">https://jira.o-ran-sc.org/secure/RapidBoard.jspa?rapidView=19&view=planning.nodetail&epics=visible&issueLimit=100&selectedEpic=RIC-60</a> The sprints (and mapping to days) used in this board are explained in §6 here: <a href="https://wiki.o-ran-sc.org/display/RICP/Jira+usage+conventions">https://wiki.o-ran-sc.org/display/RICP/Jira+usage+conventions</a>
- 5. RICAPP agenda: RICAPP Meetings.

## 2020-02-18

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_02\_18.mp4

- 1. Review and agree to minutes of previous meetings
- 2. new repo requests: ric-plt/xapp-frame-py, ric-plt/xapp-frame-cpp, ric-plt/alarm-go, ric-plt/alarm-cpp. Thoralf to send this for approval to TOC.
- 3. Progress on RIC-203 and RIC-95 (golang).
  - a. Arun quickly introduced himself. For now only person from Samsung who wants to contribute. Working in a team that has already some usage experience with RIC and RIC xAPPs. C++/python experience.
  - b. Team T4 (Avinoam) work principles: Design review, Unit tests coverage 80%, Automation coverage, Code review, Sonar zero issues
  - c. RIC-95 will involve concrete proposal on design to check with Arunkumar if he can make a design proposal as well.
  - d. This is a first for existing near-RT RIC project as well. So, we will have to learn form this and adjust our way of working as well.
  - e. next step: Thoralf to organize a meeting with T4 on Monday/Tuesday and T3 as well. Next steps are planned there.
- 4. Schedule alignment between O-RAN and O-RAN-SC (O-RAN member link only: link (or check recording of this meeting))
- 5. RICAPP agenda: RICAPP Meetings.

#### 2020-02-04

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_02\_04.mp4

1. Review and agree to minutes of previous meetings

- 2. Discuss some of the Bronze-R4 flows: RICflows-Bronze-R4.pdf
- 3. Go through current backlog.
- 4. RICAPP agenda: RICAPP Meetings.

### 2020-01-21

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_01\_21.mp4

- 1. Review and agree to minutes of previous meetings
- 2. We have this meeting intentionally one week after the previous one. To align on even weeks. We will keep the next meeting (in 2 weeks) even if many participants are in a workshop.
- 3. RSAC health check use case discussion: Now the information is in a wiki: https://wiki.o-ran-sc.org/display/RSAC
  - a. health check of E2 via O1
  - b. status of E2 connections via E2M
  - c. alarm management
  - d. platform statistics and a few statistics providers (E2T could provide latency measurements of number of E2 packets per connection)
  - e. A1 health check
  - f. RMR-based health check for xApps
- 4. Go through current backlog.
  - a. we created RIC-126 as a item that might come post-Bronze.
- 5. RICAPP agenda: RICAPP Meetings.

#### 2020-01-14

Recording: near\_rt\_ric\_platform\_project\_meeting\_2020\_01\_14.mp4

- 1. Review and agree to minutes of previous meetings
- 2. Propose to have every even week and next meeting would be on 2020-01-21. This is to align with O-RAN alliance meetings. This was ok-ed.
- 3. JIRA conventions for release B planning: Jira usage conventions . We take a quick look at the current Epics in JIRA.
- RSAC use case on health check seems difficult to digest. Further discussion needed. Direction is to use alarm management, and statistics for alarm monitoring. Actual health checks based test messages also needed, but details still open.
- a. John to move the updated health check document into a RSAC wiki page by Thursday. Further updates can be done there.
- 5. RICAPP agenda: RICAPP Meetings.

## 2019-12-17

Recording: near\_rt\_ric\_platform\_project\_meeting\_2019\_12\_17.mp4

- 1. Review and agree to minutes of previous meetings OK
- 2. Next meeting will be in 2020 on January, 14.
- 3. tentative: JIRA conventions for release B planning: Jira usage conventions
- 4. RSAC use case on health check seems difficult to digest. Further discussion needed.
- 5. RICAPP agenda: RICAPP Meetings.

#### 2019-12-03

Recording: near\_rt\_ric\_platform\_project\_meeting\_2019\_12\_03.mp4 (last 25 minutes lost due to Zoom software not working correctly)

- 1. Review and agree to minutes of previous meetings OK
- 2. Amber press release should be out today.
- 3. ASN.1 compiler asn1c is now maintained outside of O-RAN SC in https://github.com/nokia/asn1c Related e-mail: link
- 4. December, 17 is the last meeting in 2019. Dec-31 we skip due to holiday season. First meeting in 2020 is on January, 14.
- 5. Status on this? No progress yet. We're working on good instructions. For now the best is to start reading README.md in the repo "it/dep" (https://gerrit.o-ran-sc.org/r/gitweb?p=it/dep.git;a=tree). This is maintained outside of the RIC platform project, though. Eventually, we will have the RIC platform deployment in ric-plt/ric-dep. We are also working on an xApp developer guide for how to develop an xApp in golang. Thoralf to check how we could do this for C++. There is value in the guideline describing a "base". It does not have to describe each and every option. Instructions should work on REC Akraino blueprint and on plain K8S. LE-status-20191204: Waiting for Felix' cleanup work (currently in review). After this 5 working days.
- 6. Related to the developer guide: current idea is to talk about (1) Helm Charts, xApp descriptor and schema files, (2) HTTP interface for K8s health probes (aliveness, readiness), (3) RMR interface for communication with other RIC components, (4) Logging, (5) SDL, (6) Config managements (Configmap), (7) metrics creation. If we do not have a E2SM coming soon into WG3, then some simple hello-world E2SM would be good as a base for a demo/sample xApp. We need to consider if we can use the demo1 xApp for the documentation. For C++ let's use a simple E2SM (which has nothing to do with X2). Aim for combined document go and C++. LE-20191204: Thoralf asked from Antti. No reply yet.
- 7. SDL Dev guide = 20191213 (LE given on 20191204)
- 8. Status of RMR library which will include new MEID handling and update of the documentation related to this.
  - a. RMR-routing manager and E2T-to-routing-manager interface is now designed. Scott is optimistic that RMR part is ready by end of this week.
  - b. Matti to at design of MEID routing in RMR under RMR wiki pages as "RMR MEID routing draft design"
- 9. Some question related to SDL library from Bengi (primarily developing C++; possibly python).
  - a. Q: SDL user guide is needed. Should include some **design principles and the big picture**. E.g. why there are some constraints on the data types that can be used (e.g. using ordered sets). What is the role of event API and timer API, and when to use own namespace,

role of access libraries for read and write APIs (e.g. R-NIB API of E2 manager (go)). Best practices around that also needed. TODO-Thoralf-ask-SDL documentation to go into open-src wiki.

- 10. Input from the TS use case for Bronze: "how do we update ML models" is one question we need to address in RICP
- 11. Need to plan how we use JIRA in RIC
- 12. RICAPP agenda: RICAPP Meetings.

## 2019-11-19

Recording: near\_rt\_ric\_platform\_project\_meeting\_2019\_11\_19.mp4

- 1. Review and agree to minutes of previous meetings
- 2. Release names: Amber, Bronze, Cherry are now decided.
- 3. INFO.yaml files should now be ready (exceptions: RSM and rtmgr). Committer management still requires approval by ToC. Plan is to change this approval practices for release Bronze. Once approved, PTL or delegate must update INFO.yaml with new/changed names and reference to approval. We might go for a solution where existing committers must approve and ToC only is notified, but this is not changed yet.
- 4. Amber release status by repo: Project Readiness for Amber Release#(NearRealtime)RICPlatform
- 5. All license exceptions (code re-used form other sources) are now listed here: https://wiki.o-ran-sc.org/display/ORAN/License+Attribution+Records
  To be approved by TOC on Wednesday, Nov-19.
- 6. We're working on good instructions. For now the best is to start reading README.md in the repo "it/dep" (https://gerrit.o-ran-sc.org/r/gitweb?p=it /dep.git;a=tree). This is maintained outside of the RIC platform project, though. Eventually, we will have the RIC platform deployment in ric-plt/ric-dep. We are also working on an xApp developer guide for how to develop an xApp in golang. Thoralf to check how we could do this for C++.
- 7. RICAPP agenda: RICAPP Meetings.

#### 2019-11-05

Recording: near\_rt\_ric\_platform\_project\_meeting\_2019\_11\_05.mp4

- 1. Review and agree to minutes of previous meetings
- 2. Amber release status by repo: Project Readiness for Amber Release#(NearRealtime)RICPlatform
  - a. as part of this Paul asked, can someone actually deploy the RIC platform? Bengi clearly said that getting other RIC platform components up is difficult. Documentation needed.
- 3. Documentation guidelines: https://wiki.o-ran-sc.org/display/DOC#DocumentationHome-RequiredFiles and Configure Repo for Documentation
- 4. New component request to be made for Resource Status Processor. Compare to Resource Status Manager (defined here).
- 5. Proposal: new component: resource-status-processor
  - The resource status processor handles incoming E2 resource status report messages and saves the data from these messages into the RNIB. Note that control or management of resource status reporting is not done by this processor, but by the Resource Status Manager. Committers: Shuky Har-Noy, Hila Anina, Yaki Ratz
- 6. I will also propose change of committers to TOC:
  - a. ric-plt/rtmgr: existing committers work on other project. New ones (all Nokia): Nithinsen K and Abdulwahid W
  - b. ric-plt/submgr: existing committers work on other project. New ones (all Nokia): Anssi Mannila, Juha Hyttinen
- 7. We plan to work on O1 implementation using "sysrepo data store plus netopeer 2" over the next few months. We also plan to work on A1 implementation and scalability if E2 termination component. Eventually this work is likely to become b-release content.
- 8. There will soon be coming changes in E2 definitions that we are currently using in near-RT RIC. Once WG3 settles on a stable draft specification we can start adapting.
- 9. RICAPP agenda: RICAPP Meetings.

#### 2019-10-22

Recording: near\_rt\_ric\_platform\_project\_meeting\_2019\_10\_22\_part1.mp4 and near\_rt\_ric\_platform\_project\_meeting\_2019\_10\_22\_part2.mp4

- 1. Review and agree to minutes of previous meetings
- 2. Discuss repo changes before sending them as one batch to TOC for approval.
- 3. Release B planning: Contributions
- 4. O1 in Release B?
- 5. RICAPP agenda: RICAPP Meetings

#### 2019-10-08

Recording: near\_rt\_ric\_platform\_project\_meeting\_2019\_10\_08\_part1.mp4 and near\_rt\_ric\_platform\_project\_meeting\_2019\_10\_08\_part2.mp4

- 1. Review and agree to minutes of previous meetings
- Review and approve Scope of the RIC platform and its components (summary). After approval next step is to inform this to TOC. This was
  discussed. No further comments. Thoralf to bring this to TOC and to discuss the sentence "This source code is part of the near-RT RIC (Radio
  Intelligent Controller) platform project (RICP)" in TOC, esp. with Jack
- 3. B-release content. O1 southbound if netconf based as per Matti mainly related to xApp manager. O1 simulator RU and DU (requires yang as input). Provide yang models for RIC (with managed objects). Ritwick to post b-releas analysis in RSAC wiki page.
- 4. FYI. RICP presentation at ONS, Antwerpen, 2019: Overall architecture (not component-specific)
- 5. E2AP documentation in gerrit: https://gerrit.o-ran-sc.org/r/gitweb?p=ric-plt/asn1-documents.git;a=tree
- 6. RICAPP agenda: RICAPP Meetings

#### 2019-09-24

#### Recording:RICmeeting9-24.mp4

- 1. Review and agree to minutes of previous meetings
- 2. Open action item from last meeting: Thoralf Czichy: status check for each item with owners of JIRA item. 2019-09-24: Still open.
- 3. There are no particular issues being discussed in RICP in this session. So this will focus on RICAPP.
- 4. RICAPP agenda: RICAPP Meetings

#### 2019-09-10

Recording: near\_rt\_ric\_platform\_project\_meeting\_2019\_09\_10.mp4

- 1. Review and agree to minutes of previous meetings
- 2. Discuss draft status report for RICP: Project reports
- 3. Who hosts next meeting on 2019-09-24 (Thoralf at ONS (Open Networking Summit) Europe, e.g., presenting RIC link)? Matti
- 4. Open action item Thoralf Czichy: status check for each item with owners of JIRA item.
- 5. RICAPP agenda: RICAPP Meetings

### 2019-08-27

Recording: near\_rt\_ric\_platform\_project\_meeting\_2019\_08\_27.mp4

- 1. Review and agree to minutes of previous meetings
- 2. T1 = Antti, T2= Juha, T3 = Abdulwahid (was Viktor), T4 = Itamar, T5 = Rajesh, T6=Lusheng, T7=Bharath. All RIC items marked with suggested primary owner of the item. Thoralf to write e-mail to each suggested owner on status for each item. Initial JIRA filter: link.
  - a. need feedback by each PO by end of September to facilitate release B planning.
- 3. RICAPP agenda: RICAPP Meetings

## 2019-08-13

Recording: near\_rt\_ric\_platform\_project\_meeting\_2019\_08\_13.mp4

- 1. Review and agree to minutes of previous meetings
- 2. Any objections to this proposal from RICP and RICA PTL: Meeting moved one hour later to 13:00 UTC. We will handle the meeting for the RICP (near-RT RIC platform) and RICA (RIC xApps) projects together. The respective PTL will handle their part. First 30 minutes with focus on RICP and the last 30 minutes focus on RICA. Note that if RICP takes less than 30 minutes, RICA issues might already be handled before 13:30 UTC. The meeting will be held every uneven week.
- 3. Release name finalized: "Amber" (former "A" release)
- 4. New repos (from the last 2 weeks) see under "completed" Outstanding Resource Requests for Linux Foundation
- 5. NOT: If Thoralf found time to go through them before the meeting: "A" release Epics (focus on Epics that are under development) assignment via JIRA is still missing.
- 6. RICAPP agenda: RICAPP Meetings
- Rittwik mentioned an xApp proposed by Samsung which will be discussed in more detail in another O-RAN meeting later today (Rittwik to send details). Rittwik sent the details: RSAC meetings = https://wiki.o-ran-sc.org/display/RSAC/calendars In any, case the RSAC meetings discuss release A and B planning items Zoom 1 bridge: https://zoom.us/j/9644759813 (Tue 9-10pm Eastern New York time every other week) and (Thu 9-10am Eastern New York time every other week)

#### 2019-07-30

Recording: near\_rt\_ric\_platform\_project\_meeting\_2019\_07\_30.mp4

- 1. Review and agree to minutes of previous meetings
- 2. Notice: non-RT RIC project proposal: https://wiki.o-ran-sc.org/download/attachments/3604819/RICnon-RT\_OSC\_project\_proposal.pdf
- 3. Notice the links/instructions for o-ran-sc's JIRA, e-mail, Gerrit: Tools (mailing list, JIRA, Gerrit)
  - a. user-59b16 mentioned that the Thoralf Czichy need to re-check the user stories/Epics in Jira. We need to assign each item to persons (e. g. subproject leads)
- 4. Any ideas on Election process for new committers for RIC repos.
  - a. Thoralf Czichy to make proposal with user-d3360
  - b. (Update-Jul-31-2019: Jack Murray needs to write down a manual for this (including some ideas how to make it more efficient), ideally by Aug-7. If not, maybe Lusheng can at least write down how it is currently handled)
- 5. Any ideas on Process for new repos (RIC PTL (or person nominated by PTL) suggests to TOC. TOC confirms. Repo can be created)
  - a. Thoralf Czichy to make proposal with user-d3360
  - b. (Update-Jul-31-2019: Jack Murray needs to write down a manual for this (including some ideas how to make it more efficient), ideally by Aug-7. If not, maybe Lusheng can at least write down how it is currently handled)

# 2019-07-23 (no meeting due to holiday period)

# 2019-07-09 (no meeting due to holiday period)

## 2019-06-25

#### Agenda/Notes

- 1. Review and agree to minutes of previous meetings
- Code review practice and bootstrapping of committers. https://wiki.o-ran-sc.org/display/TOC/Tutorials and https://wiki.o-ran-sc.org/display/TOC/Seed+Code+Contribution Contact Lusheng Ji if things are not clear (https://lists.o-ran-sc.org/g/main/message/57).
- 3. General available information: The release calendar: https://wiki.o-ran-sc.org/display/REL/Releases
  - a. Q (Pierre-Henri): are all projects following the calendar. Ritwick: Yes, but only pairwise testing between the project components as per testing strategy and acceptance criteria in EPICs.
- Release A requirements for RIC, but also incl. eNB and O-DU/OFH: https://wiki.o-ran-sc.org/pages/viewpage.action? spaceKey=RSAC&title=Contributions
  - a. comments expected by end of US business day Wednesday, 26.Jun Comment directly to wiki page.
  - b. Note that the document suggest the usage of ONAP's https://wiki.onap.org/display/DW/OTF+-+Open+Test+Framework
- 5. (Any preferences on rocketchat vs IRC?)