2020 Q1 (Jan, Feb, Mar)

- 2020 03 25
- 2020 03 25
- 2020 03 18
- 2020 03 04
- 2020 02 26
- 2020 02 26
- 2020 02 19
- 2020 02 12
- 2020 02 05
- 2020 01 22
- 2020 01 15
- 2020 01 08

2020 03 25

Audio Recording: 020-03-25-toc-audio_only.m4a

Agenda

1. Call for Scribe (minutes owner) Farheen Cefalu
2. Roll Call & Quorum Check

Company	Contact Name	Attendance	Alternate Contact	Attendance
AT&T	Jack Murray Co-Chair	x	Lusheng Ji	
China Mobile	Jinri Huang Co-Chair	x	Weichen Ni	
Deutsche Telekom	David Streibl	x	Ondej Hudousek	
NTT DOCOMO	Masafumi Masuda	x	Anil Umesh	
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Verizon	Viswa Kumar		Skand Priya	

*Quorum: 50% or more of total TSC voting members unless excluded due to attendance. We have a quorum and can vote on activities.

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    a. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
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        ii. Vote to approve minutes for 18 Mar 2020
        iii. On motion made by Jinri Huang
        iv. Seconded by user-2057e
        v. **VOTE:** Vote taken, item passed
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    1. Jack - Next week will be our first meeting of April. We will cross over completion of our first year as our open source community. Thank you to everyone who supported the projects and contributed. We will be transitioning to add 3 additional members to the TOC. We will move to a 9 members of the TOC. They will be introduced next week.
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iv. Next week we will spend more time with each PTL. Be prepared to inform us on what the projects have completed in sprint 2.
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      2. Demo activities are important and required to keep the overall project and stakeholders in synch.

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        ii. Vote to approve minutes for 04 Mar 2020
        iii. On motion made by Jinri Huang
        iv. Seconded by user-2057e
        v. **VOTE:** Vote taken, item passed
    b. The minutes of the prior meetings were reviewed, and there was a comment on updating 7, questions or corrections.
        i. Jinri found typos and will discuss with Farheen offline.
        ii. Vote to approve minutes for 11 Mar 2020
        iii. On motion made by Jinri Huang
        iv. Seconded by user-2057e
        v. **VOTE:** Vote taken, item passed
4. Review of Today's Agenda
5. Release Votes and Approval
    1. Jinri - OC-U needs a new repo.
6. Marketing of the Amber release (WG, LF, PR)
    1. ONES = LF Networking Conference tentatively August/ September (Los Angeles). Open Networking & Edge Summit Event
7. Status of Open Action Items (Old Business)Jack - How does the OSC evolve from where we're at. Every piece is under construction. O-DU Emulation will help with that.
    a. ~~**Action**~~ Ken Trudgeon from Viavi will report back on O-1 capabilities for an end to end full stack capability for the OAM team John Keeney.
    b. ~~**Action**~~/ ENGWEI KOO will set up a meeting with Tracy Van Brakle , Martin Skorupski John Keeney , and Alex Stanc to discuss O-1 interface options with Viavi
    c. ~~**Action**~~/ Jinri Huang will share slides to set up projects using the O-RAN SC regarding the Open Data Set project from O-RAN TSC.

i. Shared slides with the team and the slides are being updated. We have a policy update and it is under the clearance process. Jinri will update the community once it's finalized.

d. **Action /** Jinri Huang work with Farheen to add the MWC demos and presentations to the O-RAN SC wiki once posted to the O-RAN Alliance.
   i. Demos were moved to virtual. O-RAN Alliance is working on this. Jinri will work with Farheen to add the link.
   ii. **Action/** Farheen Cefalu work with Tracy Van Brakle to update the events page with plugfests. OTIC will be voting on the moving the Plugfest to September.

e. **Action/** user-59b16 update TSC with the short/long term UE emulator support.
   i. We have to make decisions about what simulator and emulator support we need and can attain.
   ii. Rittwik - We've built a technical plan to build out the O-RAN Lab in T-lab. Viavi has proposed emulator and simulator. You will also get a business proposal from Viavi today. You will have all the plans. The technical plan is in the RSAC space.
   iii. Action / Tracy Van Brakle clarify OTIC North America

f. ~~**Action**~~/ David (DT) we need a test coordinator with the O-RAN test group so we can come up with a common plan between the test groups.
   i. Spoke to colleague but didn't reach a conclusion.

g. ~~**Action**~~/William DIEGO will talk to the focus group regarding test coordinator for the O-RAN SC.
   i. William spoke to companies needs to have ETE framework. Viavi is providing contributions to this focus group.
      1. Jack is looking for OSC interacting with the focus group and how we are doing that.
   ii. William - it is important to wait until we have the ETE framework is established. Once it's documented I can present that and position us with this group.

h. ~~**Action**~~/ Lusheng follow up with Zhimin offline to set up target architecture for O-DU Low.
   i. Lusheng - we understand what O-DU Low means for setting up an environment for unit testing and building. We have a path forward. It was presented last night to the RSAC and will be on the Integration Test plan. Side note for technical proposal of the integration lab is subject to EC approval.
      1. Jack - It will continue to evolve. I have been contacted by other peoples interest in O-DU as well.

i. **Action/** Jack will update the O-RAN SC release timeline with Cherry and D release.
   i. We are getting close to D release naming poll. We can move forward with the D release naming poll.

j. **Action/** Jinri Huang will provide Jack with the WG2 and WG3 adjusted timeline for Cherry and D release.
   i. Getting the WGs to understand what are their cut-off dates for their specifications. Want to put the specifications for Cherry from WG2 and WG3 in our timeline.
   ii. Rittwik - We need to align what use cases can be done. Specs won't be out in time. We need to tell them these. are our times but the WG2 and WG3 can't meet the dates. Either wait for specs come out in Q3 because Cherry dev will be ending. Or pre-spec but then you have to wait to D release to test it. Any use case will require an E2 service model. If the E2 service model is the key. Timing alignment and communicating priorities so they can work it to meet our timeline. Can we bring this issue to EC for discussion? It is informally discussed.
   iii. Jack - There's a use case that is part of WG1. Have they accepted this as one of their use cases?
      1. Yes. Traffic steering use case.
   iv. Jinri - During virtual F2F with WG3 they have adjusted their timeline to meet our Bronze release. For Cherry release they have not provided a design date. They agreed to the timing adjustment method.
      1. Rittwik - At the F2F they will be publishing 3 versions of E2 v.1 will com out in August v. 3 will come out in December. Thoralf provided guidance when it should start and finish.
         a. Jinri - Meeting Cherry release is in synch.
         b. **Action/** Thoralf Czichy share the OSC Alignment Aspects slides with Jack. We have means to align with WG3.
         c. Rittwik - We need a timeline chart for C and D. We need to know our timelines of what is at stake. We need this for all WGs.

k. ~~**Action**~~/ user-a934b work with Lusheng to create the test cases for O-CU.
   i. Lusheng - Yingying brought a contact for integration and test. We will work together.

l. ~~**Action**~~/ user-a934b update the Bronze Release (Jun 2020) page with Bronze release epics, user stories, and issues.

m. **Action/** Tracy Van Brakle Trishan de Lanerolle set up a call with Jack and David because the Community asked for a release manager.
   i. Tracy will take the action item.

n. ~~**Action**~~/ Sachin Srivastava update ODU-High Bronze Release (Jun 2020) page with Bronze release epics, user stories, and issues.

o. ~~**Action**~~/ PTLs assign someone to lead the integration and test.
   i. If you go to Integration and Test there the table is in the Bronze release

p. ~~**Action/**~~ Farheen Cefalu request to escalate the calendar issue with LF or add it to agenda for TOC call.
   i. Home time zone for the calendar.
   ii. Difficult to coordinate the calendars with Outlook. There are errors with the format of the calendars. Does OSC have a home time zone? What is it and what time zone should be used.
   iii. Thoralf - For Confluence raise a ticket with help at LF. For local time zones use UTC.
   iv. Lusheng - We have two calendar applications one is a part of Confluence and the other is from Groups.io. The mailing list is triggered by Groups.io. Groups.io takes care of the time change but the Confluence does not seem to work.
   v. Jack will work with Trishan de Lanerolle to address the items above.
   vi. **Action/** John Keeney open a trouble ticket with LF for the Confluence calendar issue.

8. Standing Agenda Items (Brief Status of Ongoing Activities)
   a. Release Manager Trishan de Lanerolle /Release Planning: Weekly TOC Scheduling
      i. Project Bronze Release
   b. Report out from PTL: Stand-Up & Report Out on Blockers
      i. Matti Hiltunen RIC Applications (RICAPP)
      ii. Thoralf Czichy RIC Platform (RIC)
         1. note I updated the committer change process as per discussion last week: How to request committer changes
      iii. user-a934b O-RAN Centralized Unit (OCU)
      iv. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
      v. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
      vi. Martin Skorupski Operations and Maintenance (OAM)
      vii. Alex Stancu Simulations (SIM)
      viii. Xiaohua Zhang Infrastructure (INF)
      ix. weichen ni Documentation (DOC)
      x. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)

xi. (TBD) O-RAN Radio Unit (ORU)
c. user-59b16 Requirements Software Architecture Committee
d. user-d3360 Integration and Test
9. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items
10. Planning for Next Meeting
11. Any Other Business (AOB)
12. Meeting Summary (resolutions, new action items, etc.)

2020 03 04

Recording: 2020-03-04_toc.m4a

Agenda

1. Call for Scribe (minutes owner) Farheen Cefalu
2. Roll Call & Quorum Check

Company	Contact Name	Attendance	Alternate Contact	Attendance
AT&T	Jack Murray Co-Chair	x	Lusheng Ji	
China Mobile	Jinri Huang Co-Chair	x	Weichen Ni	
Deutsche Telekom	David Streibl	x	Ondej Hudousek	
NTT DOCOMO	Masafumi Masuda	x	Anil Umesh	
Orange	William Diego	x	Vincent Danno	
Verizon	Viswa Kumar		Skand Priya	

*Quorum: 50% or more of total TSC voting members unless excluded due to attendance. We have a quorum and can vote on activities.

3. Review and Agree to Minutes of Previous Meeting
    a. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
        i. Jinri found typos and will discuss with Farheen offline.
        ii. Vote to approve minutes for 26 Feb 2020
        iii. On motion made by Jinri Huang
        iv. Seconded by user-2057e
        v. **VOTE:** Vote taken, item passed
4. Review of Today's Agenda
5. Release **Votes** and Approval
    a. Repo request for RICAPP - 4th reminder - Matti Hiltunen

        1. Dear O-RAN SC TOC members,

           I would like to request the following new repos to accommodate the new xApps required for the O-RAN SC Bronze release use cases (traffic steering and health check).

           Jinri and Jack have already approved this - waiting for one more.

           TS xAPP:

           - Proposed repository name: ric-app/ts
           - License: Apache 2
           - A brief description: This repo will host the source code for the TS (Traffic Steering) xApp. Written in C++.
           - A list of committers:
               1. Ron Shacham, rshacham@...
               2. Shraboni Jana, sj492a@...
               3. Scott Daniels, daniels@...

           QP xApp:

           - Proposed repository name: ric-app/qp
           - License: Apache 2
           - A brief description: This repo will host the source code for the QP (QuE Predictor) xApp that uses a machine learning model to predict the QoE of a UE if it is handed over to a new cell. Written in Python.
           - A list of committers:
               1. Manoop Talasila, talasila@...
               2. Guy Jacobson, guy@...
               3. Gueyoung Jung, gjung@....com
           - QP Driver xApp:
           - Proposed repository name: ric-app/qp-driver
           - License: Apache 2
           - A brief description: This repo will host the source code for the QP Driver xApp that pulls the features used in the QP ML model out of the SDL layer for the UEs whose QoE we want to improve. Written in go.
           - A list of committers:
               1. Tommy Carpenter, tommy@...
               2. Scott Daniels, daniels@...

3. Jack Lucas, jflucas@...

HW xApp:

- Proposed repository name: ric-app/hw
- License: Apache 2
- A brief description: This repo will host the source code for the HW (HellowWorld) demo xApp that demonstrates how to utilize the different RIC capabilities from a C++-based xApp (HelloWorld A1 policy, HelloWorld E2 SM, RMR, SDL, O-1 config). This demo xApp will also implement the A1 health check.
- A list of committers:

ii. Ron Shacham, rshacham@...
iii. Shraboni Jana, sj492a@...
iv. Scott Daniels, daniels@...
v. **VOTE:** On motion made by Matti Hiltunen
   1. Seconded by user-2057e
   2. **VOTE:** Vote taken, item passed

b. Repo Request - portal/nonrtric-controlpanel - 2nd reminder John Keeney

i. Hi TOC members,

Please prioritise the request below. Thanks Jack for your previous reply.

Thanks,

John

Sent: Wednesday 26 February 2020 13:25
Subject: Repo Request - portal/nonrtric-controlpanel

Hi TOC members

We agreed at last week's TOC meeting to permit creation of a GUI for the NONRTRIC function. Thank you.

But we also decided that it would be ok to change the name, however LF will very likely require the name to be included in the official approval.

So I am re-submitting the request with a new name "**portal/nonrtric-controlpanel**"

I would like to request the following new repo:

1. Proposed repository name: "**portal/nonrtric-controlpanel**"
2. License: Apache 2
3. A brief description: This repo will be used for the NONRTRIC GUI – for visualising and manipulating NONRTRIC concepts such as A1 Policies/PolicyTypes supported in RAN, R-APPs, etc.
4. A list of initial committers:
   a) John Keeney, John.Keeney@... , lfid: JohnKeeney
   b) Patrik Buhr, patrik.buhr@... , lfid: PatrikBuhr

Note: NONRTRIC GUI functionality already exists in nonrtric repo. This new repo will be the new home for this.

Thank you in advance

John Keeney

ii. **VOTE:** On motion made by John Keeney
   1. Seconded by user-2057e
   2. **VOTE:** Vote taken, item passed

c. New committers in SIM project - E2 and A1 repos request from Alex Stancu

1. Dear ToC members,

I would like to request approval for some committer changes under the SIM project:

1. **sim/e2-interface** repository
   - Add new committer, because we want to move the E2 Simulator from INT project to SIM project. Harry is the main E2 Simulator developer, so we need to add him as a committer to the SIM project.
     a. First new committer
        - name: Harry Tran
        - email: tuyen@...
        - company: AT&T
        - Linux Foundation id: harrytran
        - timezone: America/New York (GMT -5)
2. **sim/a1-interface** repository
   - Add new committers, because we want to move the A1 stub simulator from NONRTRIC project to SIM project.
     a. First new committer
        - name: 'John Keeney'
        - email: 'John.Keeney@...'
        - id: 'johnkeeney'
        - company: 'Ericsson Software Technology'
        - timezone: 'Europe/Dublin'

b. Second new committer
- name: 'Maxime Bonneau'
- email: ' maxime.bonneau@...'
- company: 'Ericsson Software Technology'
- id: 'maximesson'
- timezone: 'Sweden/Stockholm'

Many thanks in advance!

Kind Regards,
Alex
O-RAN-SC SIM project PTL

--
Alexandru Stancu, PhD
Senior Software and Telecommunications Engineer

Skype: stancu.liviualex
E-Mail: alexandru.stancu@...
Web: https://www.highstreet-technologies.com

highstreet technologies GmbH
Hähnelstraße 6
12159 Berlin

ii. **VOTE:** On motion made by Alex Stancu
1. Seconded by Jinri Huang
2. **VOTE:** Vote taken, item passed

6. Marketing of the Amber release (WG, LF, PR)
1. O-RAN Alliance Feb 17-21 (Paris) F2F canceled and now virtual meeting schedule published
2. ONES = LF Networking Conference in April (Los Angeles). Open Networking & Edge Summit Event
3. Jinri is plannng the virtual O-RAN demo at the end of this month.

7. Status of Open Action Items (Old Business)
a. ~~**Action**~~/ user-59b16 Start an email chain with Viavi regarding how much will it cost and value are we getting?
i. Viavi is putting together a proposal.
ii. Jack - I'd like to see it hosted in the cloud so different teams can use it. It will easier and open access. Were they OK with that plan?
1. Yes, but there may be a cost associated with it. Viavi will reach out to Jack and discuss offline.
b. **Action**/ Jinri Huang will share slides to set up projects using the O-RAN SC regarding the Open Data Set project from O-RAN TSC.
c. **Action** / Jinri Huang work with Farheen to add the MWC demos and presentations to the O-RAN SC wiki once posted to the O-RAN Alliance.
d. **Action**/ user-59b16 update TSC with the short/long term UE emulator support.
e. **Action**/ David (DT) we need a test coordinator with the O-RAN test group so we can come up with a common plan between the test groups.
f. **Action**/William DIEGO will talk to the focus group regarding test coordinator for the O-RAN SC.
i. William - Participated last Monday and will provide more information in the coming meetings.
ii. Jack - David and William touch base with Rittwik regarding the Viavi emulator.
g. **Action**/ Lusheng follow up with Zhimin offline to set up target architecture for ODU Low.
h. **Action**/ Jack will update the O-RAN SC release timeline with Cherry and D release. Jinri will provide Jack with the WG2 and WG3 adjusted timeline for Cherry and D release.
i. **Action**/ user-a934b work with Lusheng to create the test cases for O-CU.
j. **Action**/ Trishan de Lanerolle set up a call with Jack and David because the Community asked for a release manager.

8. Standing Agenda Items (Brief Status of Ongoing Activities)
a. Release Manager Trishan de Lanerolle /Release Planning: Weekly TOC Scheduling
i. Project Bronze Release
b. Report out from PTL: Stand-Up & Report Out on Blockers
i. Matti Hiltunen RIC Applications (RICAPP)
1. There are about 17 epics where one is listed as done.
a. Jinri - there is an issue for the RICApp project. Jinri will communicate with Matti offline. Thoralf will respond to Jinri's request regarding the issue. Matti Hiltunen document the copyrite issues as a part of your ongoing summary of the project. There is a recording of the RSAC presentation.
ii. Thoralf Czichy RIC Platform (RIC)
iii. user-a934b O-RAN Centralized Unit (OCU)
1. **Action**/ user-a934b update the Bronze Release (Jun 2020) page with Bronze release epics, user stories, and issues.
iv. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
v. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
1. Have a discussion with Jack regarding the
vi. Martin Skorupski Operations and Maintenance (OAM)
1. Will update the pie for non real time RIC.
2. For OAM we are focusing on Bronze release.
3. For NetConf is challenging and we spoke at the F2F client.
4. Development and deployment for SMO Bronze. We need better documentation. In addition we are having public URLs and public service available.
5. Jinri - Defining SMO functions.
a. Martin I am not defining them I am looking at deploying them.
vii. Alex Stancu Simulations (SIM)
viii. Xiaohua Zhang Infrastructure (INF)
ix. weichen ni Documentation (DOC)
x. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)

1. 148 issues and tasks. Large number of subtasks have been closed for test coverage and sonar scores. Jira workflows are different across different projects such as O-RAN. Our epics span releases. Upcoming sprint we are focusing on use case and design and architecture around rApp. We will be defining what the rApp is.
    a. Jack - Across the board we need a metric on how many issues tasks are targeted in Bronze. Suggestions?
    b. John - Trust the feedback from the PTLs that user stories and tasks are being delivered on time.
    c. Tracy is late with setting up the meeting with David Mc Bride.

xi. (TBD) O-RAN Radio Unit (ORU)

c. user-59b16 Requirements Software Architecture Committee

9. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items
10. Planning for Next Meeting
11. Any Other Business (AOB)
12. Meeting Summary (resolutions, new action items, etc.)
    a. Actions
        i. **Action**/ Jinri Huang will share slides to set up projects using the O-RAN SC regarding the Open Data Set project from O-RAN TSC.
        ii. **Action** / Jinri Huang work with Farheen to add the MWC demos and presentations to the O-RAN SC wiki once posted to the O-RAN Alliance.
        iii. **Action**/ user-59b16 update TSC with the short/long term UE emulator support.
        iv. **Action**/ David (DT) we need a test coordinator with the O-RAN test group so we can come up with a common plan between the test groups.
        v. **Action**/William DIEGO will talk to the focus group regarding test coordinator for the O-RAN SC.
        vi. **Action**/ Lusheng follow up with Zhimin offline to set up target architecture for ODU Low.
        vii. **Action**/ Jack will update the O-RAN SC release timeline with Cherry and D release. Jinri will provide Jack with the WG2 and WG3 adjusted timeline for Cherry and D release.
        viii. **Action**/ user-a934b work with Lusheng to create the test cases for O-CU.
        ix. **Action**/ Trishan de Lanerolle set up a call with Jack and David because the Community asked for a release manager.
        x. **Action**/ user-a934b update the Bronze Release (Jun 2020) page with Bronze release epics, user stories, and issues.

2020 02 26

Recording: 2020-02-26_audio_only.m4a

Agenda

1. Call for Scribe (minutes owner) Farheen Cefalu
2. Roll Call & Quorum Check

Company	Contact Name	Attendance	Alternate Contact	Attendance
AT&T	Jack Murray Co-Chair	x	Lusheng Ji	
China Mobile	Jinri Huang Co-Chair	x	Weichen Ni	
Deutsche Telekom	David Streibl		Ondej Hudousek	
NTT DOCOMO	Masafumi Masuda	x	Anil Umesh	
Orange	William Diego	x	Vincent Danno	
Verizon	Viswa Kumar		Skand Priya	

*Quorum: 50% or more of total TSC voting members unless excluded due to attendance. We have a quorum and can vote on activities.

3. Review and Agree to Minutes of Previous Meeting
    a. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
        i. Jinri found typos and will discuss with Farheen offline.
        ii. Vote to approve minutes for 19 Feb 2020
        iii. On motion made by Jinri Huang
        iv. Seconded by William DIEGO
        v. **VOTE:** Vote taken, item passed
4. Review of Today's Agenda
    1. Rittwik add Viavi
5. Release Votes and Approval
    1. John Keeney wants to rename his repo.
        1. https://wiki.o-ran-sc.org/display/TOC/Outstanding+Resource+Requests+for+Linux+Foundation
        2. Repo requests:
           https://lists.o-ran-sc.org/g/toc/message/184
           https://lists.o-ran-sc.org/g/toc/message/194
           https://lists.o-ran-sc.org/g/toc/message/191
    2. RIC App approval need to be made.
        1. 4 repos of office steering xApps, qp driver, and a hello world xapp. Posting in the chat.
        2. https://lists.o-ran-sc.org/g/toc/topic/repo_requests_for_ricapp/71539539?p=,,,100,0,0,0::recentpostdate%2Fsticky,,,100,2,0,71539539
    3. Portal Non Real time RIC Control panel rename from John Keeney.
6. Marketing of the Amber release (WG, LF, PR)
    1. MWC (Barcelona)
    2. O-RAN Alliance Feb 17-21 (Paris) F2F canceled and now virtual meeting schedule published
    3. ONES = LF Networking Conference in April (Los Angeles). Open Networking & Edge Summit Event

1. We put in a request for a talk.
2. Tracy: unofficial: Ericsson, Nokia, Samsung and Comscope submitted a request with AT&T person as a moderator. We submitted a request for a panel discussion. Will discuss lessons learned and cross activities. Proposal references O-RAN SC.
3. John K has also submitted a talk.
    1. Jinri - Companies who are had demonstrations MWC can submit their demos to the website. Action / Jinri Huang work with Farheen to add to events.
    2. Jinri - We had planned lots of items for discussion. We only scheduled two days plus one joint session with WG1. We have a lot of items to discuss. the original plan is to do this week. We want to hold it off until next week.
        1. project report from each PTL lasting 10 - 20 minutes.
        2. Collaboration discussion with OAI.
    3. Can we take next Tuesday, Thursday, and Friday the same time as TOC? We don't expect too much participation with O-RAN WGs. Suggest we use the 8AM - 9:30 EST, T, W, R,F.
    4. If we have our regular meeting on a Wednesday we will have to use 4 days in a row. Instead let's dedicate this time slot.
        a. Lusheng - Demonstrations have to be scheduled. Planning to start next week.
        b. Jack - Let's use this time slot next week to address the critical items. We will skip the TOC for one meeting. Let's get the most productive items in the time frame rather than have too many meetings in one week. Let us figure out the most effective way.
        c. Rittwik - You can use the RSAC timeslot.
4. John Keeney is considering an Ericsson for a brief non real time RIC demo. Tracy will share the details.

7. Status of Open Action Items (Old Business)
    a. Action/ Rittwik wants to discuss Viavi Emulators.
        i. Viavi is discussing contributions for the test and emulator lab. After checking internally with the team they will report back next week. Send Rittwik questions around Viavi contributions. Licensing and cost. Jack or Jinri viewpoints?
        ii. Jack - Funding is an option but we'll have to ask for additional funding. The question is how much and whats the value to us. Whatever we invest in is effectively used by the community. They want it set up in a community friendly cloud. Could it be a yearly agreement hosted in the cloud and managed by the integration and test team. Let's see what the best terms and conditions we can get for the software community to accomplish our goals. We should ask everyone to comment. Action/ user-59b16 start an email chain .
        iii. Rittwik - slides are on the RSAC meetings page.
        iv. Tracy - Not sure if O-RAN SC and O-RAN testing labs will share lab facilities.
    b. Jinri wants to discuss F2F.
    c. ~~**Action**~~ / Farheen Cefalu update the Events page with the updated virtual meetings.
    d. **Action** / Jinri Huang wants to discuss the Open Data Set .
        i. Big data will be useful for Ai/ML and test. O-RAN TSC set up a project to open data set. LF open data set has 3 projects set up regarding opening of data. What is the mechanism to open data? LF has already developed an agreement specifying the regulations that we need to comply. Community data license agreement has been created.
        ii. This CDLA has been written into our SC charter. We can open projects using the CDLA in the O-RAN SC.
        iii. China Mobile wants to propose opening the CDLA. This is a brief introduction. Action/ Jinri Huang will shared slides to set up projects using the SC.
            1. Jack - we need to form a working activity to spend time talking and thinking it through. The data is always a rich place for discussions. The TOC doesn't have enough time to work it out. We need to report back to TSC what our plans and goals are starting this new effort. We should go through a process and talk to people and we're doing it right.
            2. Jinri will provide materials and seek comments.
            3. We should form a spot here of where to put the materials and have the discussion. Create the TOC on the left side of the tree to give the community a time to participate.
            4. Jinri will use RSAC time to review.
    e. **Action/** user-59b16 update TSC with the short/long term UE emulator support.
    f. **Action/** TOC we need a test coordinator with the O-RAN test group so we can come up with a common plan between the test groups.
        i. David (DT) will reach out to someone he knows and let the TOC know next week.
        ii. William DIEGO will talk to the focus group.
            1. 4 timeslots for this focus group and they are working on different documentations. I didn't have time last week to introduce myself. This afternoon I will introduce myself and be part of a link.
            2. Lusheng - we have software called OTF open test framework. We are using it for the ETE flows for the health-check.
            3. Jack - Let us figure out how to collaborate. We'll leave it to you and David.
            4. Zhimin Yuan raised a concern about the ODU Low and test. Jack instructed Zhimin to work with Lusheng to address their hardware requirements needs.
            5. Lusheng - Zhimin's ask is beyond test but also the building on the platform.
                a. Actually it is software.
                b. Action/ Lusheng follow up with Zhimin offline to set up target architecture for ODU Low.
    g. ~~**Action**~~/ user-a934b provide a list of functionality that O-CU plans on targeting of where the O-CU is going in the coming releases.
        i. Raised issue with aligning.
        ii. Jinri - we conveyed this information twice during WG and TSC sessions. The WG co-chairs have taken this message. One is WG2 and WG3 we adjusted the timeline with Cherry and D release.
        iii. Action/ Jack update the timeline and capturing the information. Jack will start generating Cherry for his release.
        iv. Action/ user-a934b work with Lusheng to create the test cases.
    h. Community asked for a release manager.
        i. We have a request out to the LF for some support on this. Trishan - will have a discussion with David Mc Bride. **Action/** Trishan de Lanerolle set up a call with Jack and David.
    i. ~~**Action/**~~ PTLs be prepared to discuss Bronze development sprint 1 demos.
        i. Lusheng will organize the end of sprint demos.
        ii. Jack after ever sprint we have demos to reflect the items completed.
        iii. Lusheng - We have a review process and only the committers can merge to master. In open source community we are having contributors who are committers and merging. Contributors should not merge.

iv. Trishan - There is a +2 process.
v. Lusheng we want to have the +2 process an not allow the contributor to merge.
vi. Action/ Trishan de Lanerolle provide status of the

8. Standing Agenda Items (Brief Status of Ongoing Activities)
    a. Release Manager/Release Planning: Weekly TOC Scheduling
        i. Project Bronze Release
    b. Report out from PTL: Stand-Up & Report Out on Blockers
        i. Matti Hiltunen RIC Applications (RICAPP)
        ii. Thoralf Czichy RIC Platform (RIC)
        iii. user-a934b O-RAN Centralized Unit (OCU)
        iv. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
        v. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
        vi. Martin Skorupski Operations and Maintenance (OAM)
        vii. Alex Stancu Simulations (SIM)
        viii. Xiaohua Zhang Infrastructure (INF)
        ix. weichen ni Documentation (DOC)
        x. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)
        xi. (TBD) O-RAN Radio Unit (ORU)
    c. user-59b16 Requirements Software Architecture Committee
9. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items
    a. (proposed by Thoralf): Any update (compared to last week) on ASN.1 availability from O-RAN (for E2AP) and from 3GPP?
    b. Jack most projects are under Apache but the documentation is under Creative Common 4. As part of the charter we are an LLC under a series of LLC. Jack will respond to them.
    c. Thoralf E2AP is the most needed.
    d. Jinri - tomorrow there will be an E2 call. We can bring this there.
10. Planning for Next Meeting
11. Any Other Business (AOB)
12. Meeting Summary (resolutions, new action items, etc.)

2020 02 26

Recording: 2020-02-26_audio_only.m4a

Agenda

1. Call for Scribe (minutes owner) Farheen Cefalu
2. Roll Call & Quorum Check

Company	Contact Name	Attendance	Alternate Contact	Attendance
AT&T	Jack Murray Co-Chair	x	Lusheng Ji	
China Mobile	Jinri Huang Co-Chair	x	Weichen Ni	
Deutsche Telekom	David Streibl		Ondej Hudousek	
NTT DOCOMO	Masafumi Masuda	x	Anil Umesh	
Orange	William Diego	x	Vincent Danno	
Verizon	Viswa Kumar		Skand Priya	

*Quorum: 50% or more of total TSC voting members unless excluded due to attendance. We have a quorum and can vote on activities.

3. Review and Agree to Minutes of Previous Meeting
    a. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
        i. Jinri found typos and will discuss with Farheen offline.
        ii. Vote to approve minutes for 19 Feb 2020
        iii. On motion made by Jinri Huang
        iv. Seconded by Vincent Danno
        v. **VOTE:** Vote taken, item passed
4. Review of Today's Agenda
    1. Rittwik add Beave
5. Release Votes and Approval
    1. John Keeney wants to rename his repo.
        1. https://wiki.o-ran-sc.org/display/TOC/Outstanding+Resource+Requests+for+Linux+Foundation
        2. Repo requests:
           https://lists.o-ran-sc.org/g/toc/message/184
           https://lists.o-ran-sc.org/g/toc/message/194
           https://lists.o-ran-sc.org/g/toc/message/191
    2. RIC App approval need to be made.
        1. 4 repos of office steering xApps, qp driver, and a hello world xapp. Posting in the chat.
        2. https://lists.o-ran-sc.org/g/toc/topic/repo_requests_for_ricapp/71539539?p=,,,100,0,0,0::recentpostdate%2Fsticky,,,100,2,0,71539539
    3. Portal Non Real time RIC Control panel rename from John Keeney.
6. Marketing of the Amber release (WG, LF, PR)
    1. MWC (Barcelona)
    2. O-RAN Alliance Feb 17-21 (Paris) F2F canceled and now virtual meeting schedule published
    3. ONES = LF Networking Conference in April (Los Angeles). Open Networking & Edge Summit Event

1. We put in a request for a talk.
2. Tracy: Ericsson, Nokia, Samsung and Comscope with AT&T person as a moderator. We submitted a request for a panel discussion. Will discuss lessons learned and cross activities. Proposal references O-RAN SC.
    1. Jinri - Companies who are had demonstrations MWC can submit their demos to the website. Action / Jinri Huang work with Farheen to add to events.
    2. Jinri - We had planned lots of items for discussion. We only scheduled two days plus one joint session with WG1. We have a lot of items to discuss. the original plan is to do this week. We want to hold it off until next week.
        1. project report from each PTL lasting 10 - 20 minutes.
        2. Collaboration discussion from OAI.
    3. Can we take next Tuesday, Thursday, and Friday the same time as TOC? We don't expect too much participation with O-RAN WGs. 8:30 - 9 EST.
    4. If we have our regular meeting on a Wednesday we will have to use 4 days in a row. Instead let's dedicate this time slot.
        a. Lusheng - Demonstrations have to be scheduled.
        b. Jack - Let's use next week to address the critical items. We will skip the TOC for one meeting. Let's get the most productive items in the time frame rather than have too many meetings in one week. Let us figure out the most effective way.
        c. Rittwik - You can use the RSAC timeslot.
3. John Keeney is considering an Ericsson for a brief non real time RIC demo. Tracy will share the details.

7. Status of Open Action Items (Old Business)
    a. Action/ Rittwik and Viavi.
        i. contributions for the test and emulator lab. After checking internally with the team they will report back next week. Licensing and cost. Jack or Jinri viewpoints?
        ii. Jack - Funding is an option but we'll have to ask for additional funding. The question is how much and whats the value to us. Whatever we invest in is effectively used by the community. They want it set up in a community friendly cloud. Could it be a yearly agreement hosted in the cloud and managed by the integration and test team. Let's see what the best terms and conditions we can get for the software community to accomplish our goals. We should ask everyone to comment. Action/ user-59b16 start an email chain .
        iii. Rittwik - slides are on the RSAC meetings page.
        iv. Tracy - Not sure if O-RAN SC and O-RAN testing labs will share lab facilities.
    b. Jinri wants to discuss F2F.
    c. ~~**Action**~~ / Farheen Cefalu update the Events page with the updated virtual meetings.
    d. **Action** / Jinri Huang wants to discuss the Open Data Set .
        i. Big data will be useful for Ai/ML and test. O-RAN TSC set up a project to open data set. LF open data set has 3 projects set up regarding opening of data. What is the mechanism to open data? LF has already developed an agreement specifying the regulations that we need to comply. Community data license agreement has been created.
        ii. This CDLA has been written into our SC charter. We can open projects using the CDLA in the O-RAN SC.
        iii. China Mobile wants to propose opening the CDLA. This is a brief introduction. Action/ Jinri Huang will shared slides to set up projects using the SC.
            1. Jack - we need to form a working activity to spend time talking and thinking it through. The data is always a rich place for discussions. The TOC doesn't have enough time to work it out. We need to report back to TSC what our plans and goals are starting this new effort. We should go through a process and talk to people and we're doing it right.
            2. Jinri will provide materials and seek comments.
            3. We should form a spot here of where to put the materials and have the discussion. Create the TOC on the left side of the tree to give the community a time to participate.
            4. Jinri will use RSAC time to review.
    e. **Action**/ user-59b16 update TSC with the short/long term UE emulator support.
    f. **Action**/ TOC we need a test coordinator with the O-RAN test group so we can come up with a common plan between the test groups.
        i. David (DT) will reach out to someone he knows and let the TOC know next week.
        ii. William DIEGO will talk to the focus group.
            1. 4 timeslots for this focus group and they are working on different documentations. I didn't have time last week to introduce myself. This afternoon I will introduce myself and be part of a link.
            2. Lusheng - we have software called OTF open test framework. We are using it for the ETE flows for the health-check.
            3. Jack - Let us figure out how to collaborate. We'll leave it to you and David.
            4. Zhimin Yuan raised a concern about the ODU Low and test. Jack instructed Zhimin to work with Lusheng to address their hardware requirements needs.
            5. Lusheng - Zhimin's ask is beyond test but also the building on the platform.
                a. Actually it is software.
                b. Action/ Lusheng follow up with Zhimin offline to set up target architecture for ODU Low.
    g. ~~**Action**~~/ user-a934b provide a list of functionality that O-CU plans on targeting of where the O-CU is going in the coming releases.
        i. Raised issue with aligning.
        ii. Jinri - we conveyed this information twice during WG and TSC sessions. The WG co-chairs have taken this message. One is WG2 and WG3 we adjusted the timeline with Cherry and D release.
        iii. Action/ Jack update the timeline and capturing the information. Jack will start generating Cherry for his release.
        iv. Action/ user-a934b work with Lusheng to create the test cases.
    h. Community asked for a release manager.
        i. We have a request out to the LF for some support on this. Trishan - will have a discussion with David Mc Bride. **Action**/ Trishan de Lanerolle set up a call with Jack and David.
    i. ~~**Action**~~/ PTLs be prepared to discuss Bronze development sprint 1 demos.
        i. Lusheng will organize the end of sprint demos.
        ii. Jack after ever sprint we have demos to reflect the items completed.
        iii. Lusheng - We have a review process and only the committers can merge to master. In open source community we are having contributors who are committers and merging. Contributors should not merge.
        iv. Trishan - There is a +2 process.
        v. Lusheng we want to have the +2 process an not allow the contributor to merge.

vi. Action/ Trishan de Lanerolle provide status of the

8. Standing Agenda Items (Brief Status of Ongoing Activities)
    a. Release Manager/Release Planning: Weekly TOC Scheduling
        i. Project Bronze Release
    b. Report out from PTL: Stand-Up & Report Out on Blockers
        i. Matti Hiltunen RIC Applications (RICAPP)
        ii. Thoralf Czichy RIC Platform (RIC)
        iii. user-a934b O-RAN Centralized Unit (OCU)
        iv. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
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        vi. Martin Skorupski Operations and Maintenance (OAM)
        vii. Alex Stancu Simulations (SIM)
        viii. Xiaohua Zhang Infrastructure (INF)
        ix. weichen ni Documentation (DOC)
        x. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)
        xi. (TBD) O-RAN Radio Unit (ORU)
    c. user-59b16 Requirements Software Architecture Committee
9. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items
    a. (proposed by Thoralf): Any update (compared to last week) on ASN.1 availability from O-RAN (for E2AP) and from 3GPP?
    b. Jack most projects are under Apache but the documentation is under Creative Common 4. As part of the charter we are an LLC under a series of LLC. Jack will respond to them.
    c. Thoralf E2AP is the most needed.
    d. Jinri - tomorrow there will be an E2 call. We can bring this there.
10. Planning for Next Meeting
11. Any Other Business (AOB)
12. Meeting Summary (resolutions, new action items, etc.)

2020 02 19

Recording: 2020-02-19-toc-audio_only.m4a

Agenda

1. Call for Scribe (minutes owner) Farheen Cefalu
2. Roll Call & Quorum Check

Company	Contact Name	Attendance	Alternate Contact	Attendance
AT&T	Jack Murray Co-Chair	x	Lusheng Ji	
China Mobile	Jinri Huang Co-Chair	x	Weichen Ni	
Deutsche Telekom	David Streibl	x	Ondej Hudousek	
NTT DOCOMO	Masafumi Masuda		Anil Umesh	
Orange	William Diego	x	Vincent Danno	
Verizon	Viswa Kumar		Skand Priya	

*Quorum: 50% or more of total TSC voting members unless excluded due to attendance. We have a quorum and can vote on activities.

3. Review and Agree to Minutes of Previous Meeting
    a. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
        i. Vote to approve minutes for 12 Feb 2020
        ii. On motion made by Jinri Huang
        iii. Seconded by user-2057e
        iv. **VOTE:** Vote taken, item passed
4. Review of Today's Agenda
    1. Open Data Set
5. Release Votes and Approval
    1. Outstanding request from Thoralf, Matti, and John Keeney for a new repos
    2. John Keeney wants to rename his repo.
        1. https://wiki.o-ran-sc.org/display/TOC/Outstanding+Resource+Requests+for+Linux+Foundation
        2. Repo requests:
           https://lists.o-ran-sc.org/g/toc/message/184
           https://lists.o-ran-sc.org/g/toc/message/194
           https://lists.o-ran-sc.org/g/toc/message/191
6. Marketing of the Amber release (WG, LF, PR)
    1. MWC (Barcelona)
    2. O-RAN Alliance Feb 17-21 (Paris) F2F canceled and now virtual meeting schedule published
    3. ONES = LF Networking Conference in April (Los Angeles). Open Networking & Edge Summit Event
        1. **Action** / Farheen Cefalu update the Events page with the updated virtual meetings.
7. Status of Open Action Items (Old Business)
    a. **Action** / Jinri Huang Open Data Set
    b. O-RAN Alliance spec license restriction for ASN.1 spec (raised by Thoralf)
        i. Jack has been talking to Stephan (O-RAN Alliance lawyer) to address the O-RAN Specification copyright in the O-RAN SC. There are discussions going on an alliance with TIP and with TMC.

1. From 3GPP we have submitted several requests about copyright usage. We've submitted requests twice and they've come back for more clarification. We are working through the standards groups to get done.

c. O-RAN Alliance spec license restriction for Yang model (raised by Martin)
    i. Jack: Is it a copyright issue?
        1. Martin: Yes, not clear how to use 3GPP data models
            a. 3GPP models are broken from syntax and how can we fix them? By working group 1 license statement. Latest ask by 3GPP is still not addressing our needs. Next version coming out in March is not useful and I can'tuse them in the Bronze.
                i. Are you using them as a baseline?
                    1. We have modified once and found we are not allowed to modify.
                    2. We demonstrated at one event but I can not share the modeified ones with the public.
                    3. Likelihood high that all has to be modified and tested.
                    4. Clear statement that O-RAN Alliance should use and influence 3GPP but 3GPP is not used in the software community.
                    5. Any comments or thoughts?
                        a. Tracy: Thinks this topic will be discussed during WG1 modeling discussion at 5PM EST today. The goal is to getting this resolved but it's organizationally complicated across 3GPP and the O-RAN Alliance.
                        b. Martin: I am careful in selecting to avoid future issues.
                    6. Jack: There needs to be an abstraction layer. Once solved every time there is a change to the system doesn't it have to cascade through these layers.
                        a. Martin: The model was supposed to be the abstraction layer you will have a model on a model with a 1:1 relationship.
                            i. Jack: We're running into problems because we're tying to specifications that were never validated.
                                1. Martin: That is why I am selecting young data models. But the RAN specific stuff will be problematic.

d. ~~**Action**~~/ user-d3360 send a reminder to the PTLs to update their projects Architecture page within on their wiki pages (near-RT RIC: done, ...)
    i. Reminder sent. Jack will verify progress.
e. ~~**Action**~~/ PTLs get your F2F slide decks ready. Due 07 Feb 2020
f. ~~**Action**~~/ TOC voting members: Provide an alternate contact on the TOC list above.
    i. Viswa provided
g. ~~**Action**~~/ Jinri Huang Tracy Van Brakle suggested speak with Paul about the demos at ONES.
    i. We will be notified on 03 Mar 2020
h. ~~**Action**~~/ user-59b16 talk to Jack to send out an email to the new TOC members; Nokia, Ericsson, and Radisys
i. ~~**Action**~~/ Rittwik set up a time with Jack and Radisys to discuss Jira and their needs.

    i. closed
j. **Action**/ user-59b16 update TSC with the short/long term UE simulator support.

    i. Rittwik: initial meeting done, waiting on hearing what Viavi can bring to the community. will follow up with Viavi. Need a Packer Core simulator, UE simulator, RAN simulator, Viavi has all. Really need the full suite of simulator to complete simulating UE actions.
    ii. Jack: will pick up in future meetings, May create a track under integration and testing to continue. what to be done here what under TFIG.
k. **Action**/ TOC we need a test coordinator with the O-RAN test group so we can come up with a common plan between the test groups.
    i. Jack: We need to interface with the test group so that we have coordination. Not doing test plans.
        1. David (DT) will reach out to someone he knows and let the TOC know next week.
        2. William DIEGO will talk to the focus group.
            a. Jack: it won't be as extravagant as the test group has.
l. **Action**/ user-a934b provide a list of functionality that O-CU plans on targeting of where the O-CU is going in the coming releases.
    i. Rittwik: KPI Mon xApp requests certain metrics coming form O-CU.
    ii. Yingying: O-CU will focus on U plane. No contribution on RRC part. UE attachment will be a problem in B release. E2 still under discussion with main contributor. E2 will be discussed in following weeks in WG8
    iii. Jung/Rittwik: O-CU not advanced enough to provide enough metrics to support traffic steering. Fallback plan needed, enhancing E2 simulator to provide enough support. Can SIM project support this? Otherwise traffic steer is in jeopardy. O-DU has a plan to support. But need O-CU support as well. Need ToC decision on the fallback plan.
    iv. CoChairs: Construct document for what's missing. Is this possible in Cherry or even further out?
    v. Rittwik: RSAC to provide document on what's current, what's future, suggesting alternatives.
    vi. Jack: It will be a weak message if this cannot be supported.
    vii. Second use case (healthcheck) Non-RT RIC making progress
    viii. **Action**: Allocate a time slot next week to discuss.
        1. Yingying: We will have the GUI meeting in an hour
            a. The challenge is this is around the ETE traffic steering use case and how it will work with O-CU and O-DU development.
m. ~~**Action**~~ / PTLs Update your section of the Bronze Release (Jun 2020). Convey to people outside what we're going to do in this release.
    i. Lusheng: reminder sent. only three projects which have not completed yet.
    ii. Jack: Need to be done by Friday.
n. ~~**Action**~~/ Tracy Van Brakle send the URL of where on the wiki you posted the POC plugfest through lists.o-ransc.org.
    i. Tracy will double check the O-RAN-SC wiki.
o. Community asked for a release manager.
    i. Jack: will keep looking for an option.
        1. Tracy - we'll have a call with David McBride who has served as release manager for many LF projects. He is a part of LF. He works on ONAP and ODL.

8. Standing Agenda Items (Brief Status of Ongoing Activities)
    a. Release Manager/Release Planning: Weekly TOC Scheduling

i. Project Bronze Release
1. Action/ PTLs be prepared to discuss Development sprint 1 demos.
2. Lusheng: For dev sprint 2 we will have a demo. Asking PTLs to prepare for post sprint demos. Lusheng will send out Jira tickets and coordinate.

b. user-d3360 Test & Integration Planning (INT)
c. Report out from PTL: Stand-Up & Report Out on Blockers
i. Matti Hiltunen RIC Applications (RICAPP)
ii. Thoralf Czichy RIC Platform (RIC)
1. list of draft epics: use this JIRA filter as per Jira usage conventions. Seven subteams now analyze this draft.
2. Traffic steering derived JIRA epics: filter (2 of 4 are currently in Bronze) // Health-check derived JIRA epics: filter . Already sure that not all will fit in Bronze.
iii. user-a934b O-RAN Centralized Unit (OCU)
iv. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
v. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
vi. Martin Skorupski Operations and Maintenance (OAM)
vii. Alex Stancu Simulations (SIM)
viii. Xiaohua Zhang Infrastructure (INF)
ix. weichen ni Documentation (DOC)
x. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)
xi. (TBD) O-RAN Radio Unit (ORU)
d. user-59b16 Requirements Software Architecture Committee

9. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items
a. Someone mentioned a TOC meeting. When was that scheduled?
i. Jack: We had Tuesday, Thursday, Thursday. I don't have the time for the Monday meeting.
ii. John Keeney Can someone add some slides to do offline reading? It will be helpful.
iii. Jack will talk to Jinri
10. Planning for Next Meeting
11. Any Other Business (AOB)
12. Meeting Summary (resolutions, new action items, etc.
a. **Votes**:
i. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
1. Vote to approve minutes for 12 Feb 2020
2. On motion made by Jinri Huang
3. Seconded by user-2057e
4. **VOTE:** Vote taken, item passed

b. **Actions:**
i. **Action** / Farheen Cefalu update the Events page with the updated virtual meetings.
ii. **Action** / Jinri Huang wants to discuss the Open Data Set .
iii. **Action**/ user-59b16 update TSC with the short/long term UE simulator support.
iv. **Action**/ TOC we need a test coordinator with the O-RAN test group so we can come up with a common plan between the test groups.
1. David (DT) will reach out to someone he knows and let the TOC know next week.
2. William DIEGO will talk to the focus group.
v. **Action**/ user-a934b provide a list of functionality that O-CU plans on targeting of where the O-CU is going in the coming releases.
vi. Community asked for a release manager.
vii. **Action/** PTLs be prepared to discuss Bronze development sprint 1 demos.

2020 02 12

Recording: toc-20200212-audio_only.m4a

Agenda

1. Call for Scribe (minutes owner) Lusheng Ji
2. Roll Call & Quorum Check

Company	Contact Name	Attendance	Alternate Contact	Attendance
AT&T	Jack Murray Co-Chair	Y	Lusheng Ji	
China Mobile	Jinri Huang Co-Chair	Y	Weichen Ni	
Deutsche Telekom	David Streibl		Ondej Hudousek	
NTT DOCOMO	Masafumi Masuda	Y	Anil Umesh	
Orange	William Diego	Y	Vincent Danno	
Verizon	Viswa Kumar			

*Quorum: 50% or more of total TSC voting members unless excluded due to attendance. We have a quorum and can vote on activities.

3. Review and Agree to Minutes of Previous Meeting
1. Moved by Jinri, Seconded by William, passed.

4. Review of Today's Agenda
1. Jung requested item on discrepancy between WG3 and Near RT RIC PLT: added item 9.a
2. Jinri requested item on Open Dataset project: added item 9.b

5. Release Votes and Approval

1. None

6. Marketing of the Amber release (WG, LF, PR)
    1. MWC (Barcelona): AT&T will not attend; China Mobile will not attend; NTT will not attend.
    2. O-RAN Alliance F2F Feb 17-21 (Paris): F2F may be cancelled or changed to virtual.
    3. ONES = LF Networking Conference in April (Los Angeles). Open Networking & Edge Summit Event
7. Status of Open Action Items (Old Business)
    a. **Action/** user-d3360 Ask PTLs to update the Status column on Amber Maintenance (Feb, 2020) page.
        i. Closed
    b. **Action/** user-d3360 send a reminder to the PTLs to update their projects Architecture page within on their wiki pages (near-RT RIC: done, ...)
        i. Reminder sent. Jack will verify progress.
    c. **Action/** PTLs get your F2F slide decks ready. Due 07 Feb 2020
        i. Jinri: alternative plan is work in progress, no decision yet. If virtual, will mimic the schedule of f2f meeting.
    d. **Action /** TOC voting members: Provide an alternate contact on the TOC list above.
        i. Waiting for action by Viswa
    e. **Action/** Jinri Huang Tracy Van Brakle suggested speak with Paul about the demos at ONES.
        i. Tracy: Ericsson et. al. submitted panel discussion proposal for sharing 2019Dec PoC results and plan for 2020Jun PoC.
        ii. Closed (will update community after LF result)
    f. **Action/** user-59b16 talk to Jack to send out an email to the new TOC members; Nokia, Ericsson, and Radisys
    g. **Action/** Rittwik set up a time with Jack and Radisys to discuss Jira and their needs.

        i. closed
    h. **Action/** user-59b16 update TSC with the short/long term UE simulator support.

        i. Rittwik: initial meeting done, waiting on hearing what Viavi can bring to the community. will follow up with Viavi. Need a Packer Core simulator, UE simulator, RAN simulator, Viavi has all. Really need the full suite of simulator to complete simulating UE actions.
        ii. Jack: will pick up in future meetings, May create a track under integration and testing to continue. what to be done here what under TFIG.
    i. **Action/** TOC we need a test coordinator with the O-RAN test group so we can come up with a common plan between the test groups.
        i. CoChairs: Invitation also extended to the 3 upcoming new ToC members as well.
        ii. Jack: The only way to ensure software aligned as intended is through testing. This is important.
    j. **Action/** user-a934b provide a list of functionality that O-CU plans on targeting of where the O-CU is going in the coming releases.
        i. Rittwik: KPI Mon xApp requests certain metrics coming form O-CU.
        ii. Yingying: O-CU will focus on U plane. No contribution on RRC part. UE attachment will be a problem in B release. E2 still under discussion with main contributor. E2 will be discussed in following weeks in WG8
        iii. Jung/Rittwik: O-CU not advanced enough to provide enough metrics to support traffic steering. Fallback plan needed, enhancing E2 simulator to provide enough support. Can SIM project support this? Otherwise traffic steer is in jeopardy. O-DU has a plan to support. But need O-CU support as well. Need ToC decision on the fallback plan.
        iv. CoChairs: Construct document for what's missing. Is this possible in Cherry or even further out?
        v. Rittwik: RSAC to provide document on what's current, what's future, suggesting alternatives.
        vi. Jack: It will be a weak message if this cannot be supported.
        vii. Second use case (healthcheck) Non-RT RIC making progress
        viii. **Action**: Allocate a time slot next week to discuss.
    k. **Action /** PTLs Update your section of the Bronze Release (Jun 2020). Convey to people outside what we're going to do in this release.
        i. Lusheng: reminder sent. only three projects which have not completed yet.
        ii. Jack: Need to be done by Friday.
    l. **Action/** Tracy Van Brakle send the URL of where on the wiki you posted the POC plugfest through lists.o-ransc.org.
    m. Community asked for a release manager.
        i. Jack: will keep looking for an option.
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        i. Project Bronze Release
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    c. Report out from PTL: Stand-Up & Report Out on Blockers
        i. Matti Hiltunen RIC Applications (RICAPP)
            1. Repo requests on mailing list from RICAPP and Non RT RIC
        ii. Thoralf Czichy RIC Platform (RIC)
            1. How to use ASN1 spec from O-RAN Alliance, due to its restrictive licensing requirements.
                a. Martin: same problem for OAM, yang model from O-RAN Alliance is not open.
                b. Jack: on-going with O-RAN Alliance legal on permissions. To add agenda item next week (added as 10. a and 10.b)
        iii. user-a934b O-RAN Centralized Unit (OCU)
        iv. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
        v. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
        vi. Martin Skorupski Operations and Maintenance (OAM)
        vii. Alex Stancu Simulations (SIM)
        viii. Xiaohua Zhang Infrastructure (INF)
        ix. weichen ni Documentation (DOC)
        x. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)
        xi. (TBD) O-RAN Radio Unit (ORU)
    d. user-59b16 Requirements Software Architecture Committee
9. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items
    a. Jung: WG3 co-chairs, discrepancy between Near RT RIC PLT and WG3. WG3 completed E2 spec R1, approval coming this week. R2 work starts immediately after, to be complete by 3Q20. Bronze (end of 2Q20) will be E2 R1 or E2 R2 pre-release? How to support traffic steering because needed features not in R1.

i. Jack: if R2 completes by 3Q, it will not be in Cherry because it misses planning window. Need more structured naming since as minor versioning. Features may be available at minor revisions.
ii. Jung: there should be a regular channel to exchange requirements.
iii. CoChairs: OSC have people attending WG3 regularly. Rarely get feedback from WG3. We need more feedback from WG3
iv. Jung: Need written feature request.
v. Jack: Need a table for communicating the structure, which version of spec / feature to implement. Also need firm dates on when the spec is needed by to be included in an OSC release.

b. Jinri: Open dataset

10. Planning for Next Meeting
    a. O-RAN Alliance spec license restriction for ASN.1 spec (raised by Thoralf)
    b. O-RAN Alliance spec license restriction for Yang model (raised by Martin)
11. Any Other Business (AOB)
12. Meeting Summary (resolutions, new action items, etc.)

2020 02 05

Recording: 2020-02-05-toc.mp4

Agenda

1. Call for Scribe (minutes owner) Farheen Cefalu
2. Roll Call & Quorum Check

Company	Contact Name	Attendance	Alternate Contact	Attendance
AT&T	Jack Murray Co-Chair		Lusheng Ji	x
China Mobile	Jinri Huang Co-Chair	x	Weichen Ni	
Deutsche Telekom	David Streibl			
NTT DOCOMO	Masafumi Masuda	x	Anil Umesh	
Orange	William Diego	x	Vincent Danno	
Verizon	Viswa Kumar			

*Quorum: 50% or more of total TSC voting members unless excluded due to attendance. We have a quorum and can vote on activities.

3. Review and Agree to Minutes of Previous Meeting
    a. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
        i. Vote to approve minutes for 29 Jan 2020
        ii. On motion made by Masafumi Masuda
        iii. Seconded by William DIEGO
        iv. **VOTE:** Vote taken, item passed
4. Review of Today's Agenda
5. Release Votes and Approval
    1. Maintenance window closed last Saturday. Lusheng asked PTLs to update their information.
    2. **Action**/ user-d3360 Ask PTLs to update the Status column on Amber Maintenance (Feb, 2020) page.
    3. Is there a doc meeting required for the maintenance release?
        1. The docs project will automatically update the documentation.
    4. Except for the Amber Maintenance (Feb, 2020) updates the maintenance release is complete?
        1. Bug fixes.
        2. Unfinished features had an opportunity to be completed.
    5. Motion made by user-d3360 to approve the Amber maintenance release on 05 Feb 2020
        1. Seconded by MASAFUMI MASUDA
        - **VOTE:** Vote taken, item passed
6. Marketing of the Amber release (WG, LF, PR)
    1. MWC (Barcelona)
        1. Jinri - More about O-RAN Alliance demo.
            1. for this year O-RAN Alliance will have 23 demos which will be scattered from different sponsors. This is a large number considering O-RAN Alliance opened it's membership 1.5 years ago. It already had 150 members. There are 26 operator members.
            2. O-RAN does not have it's own dedicated booth.
    2. O-RAN Alliance F2F Feb 17-21 (Paris)
        1. Jinri - will have to leave in 10 minutes for an adhoc TSC meeting regarding the current tense situation caused by the Corona virus in China. The F2F may be changed to an online virtual meeting or have the attendees meet remotely.
        2. For the TOC meeting Agenda
            1. Take an opportunity to introduce our Bronze release.
            2. Require the PTLs to bring their project status report for the discussion. PTLs can introduce additional functionality in order to support the Bronze release. What is the current status, challenges, and architecture.
            3. Bring your alignment with the working groups in particular WG3.
            4. Jinri will bring brief TSC reports from TOC.
            5. When and where will we know about the decision about the F2F.
            6. Do we simply point to the Jira tickets or should we have a slide deck?

a. Slide decks are preferred because they will distributed to other O-RAN Alliance WGs. This is a good opportunity to share your accomplishments with the WG. Looking for design, timeframe, challenges, and most importantly WG alignment.
b. Two weeks to go for F2F so we need to prepare.

7. Action/ PTLs get your F2F slide decks ready. That is in 3 days.

3. ONES = LF Networking Conference in April (Los Angeles). Open Networking & Edge Summit Event
    1. Ericsson submitted a proposal for a panel discussion that will discuss the results in Amber plugfest. Confident that the proposal will be accepted. We are trying to get visibility for OSC-Amber and get everybody excited about OSC Bronze.
    2. Jinri Huang Tracy Van Brakle suggested speak with Paul about the demos at ONES.

7. Status of Open Action Items (Old Business)
    a. ~~**Action**~~/ Farheen - Get the information from Jack and put it on the events page of the wiki.
    b. **Action** / TOC voting members: Provide an alternate contact on the TOC list above.
    c. ~~**Action**~~/ Thoralf Czichy update the TOC with the new Nokia TOC members.
    d. **Action**/ user-59b16 talk to Jack to send out an email to the new TOC members; Nokia, Ericsson, and Radisys.
    e. **Action**/ Rittwik set up a time with Jack and Radisys to discuss Jira and their needs.
    f. **Action**/ user-59b16 update TSC with the short/long term UE simulator support.
        i. He has been talking to members regarding feasibility but not sure if he has gotten commitment for it.
        ii. ENGWEI KOO - user-59b16 asked Engwei to join. We created a slide to better understand the UE simulator.
        iii. Shared a high-level slides.
            1. We are looking for the O-DU, O-CU generating messages to the real time RIC.
            2. Engwei - Are you looking for OCU simulator that's connected to
            3. We need emulator UE KPIs that represent the RF signal strengths of neighbors so we can predict based on signal strength whether the UE quality of experience from a neighbor or serving cells. We need those measurements and KPIs. Cell utilization metrics are also needed.
            4. Engwei set up a call with user-59b16
    g. **Action**/ TOC we need a test coordinator with the O-RAN test group so we can come up with a common plan between the test groups.
    h. **Action**/ user-a934b provide a list of functionality that O-CU plans on targeting of where the O-CU is going in the coming releases.
    i. ~~**Action**~~/ All PTLs take Martin's alarm template and fill out your own components alarms.Take a look at the template and fill out what you can. If you don't have information then let Martin know.
        i. PTLs provide general or any kind of alarms
    j. **Action** / On the Bronze release page update their table. A few have but I would like everyone to begin filling out their tables. Convey to people outside what we're going to do in this release.
    k. ~~**Action**~~/ Tracy Van Brakle post POC plugfest in June to the wiki events page.
        i. Readout June 25 and as we get closer we'll have a project plan. We are focusing on two first responder scenarios. Tracy posted the slides on the wiki.
        ii. **Action**/ Tracy Van Brakle send the URL for the POC plutfest through lists.o-ransc.org.
    l. **Action**/ PTLs update Architecture pages.
        i. user-d3360 send out a reminder to PTLs.

8. Standing Agenda Items (Brief Status of Ongoing Activities)
    a. Release Manager/Release Planning: Weekly TOC Scheduling
        i. Amber Maintenance Release - is closed
        ii. Project Bronze Release
            1. Working with LF on the CI/CD pipeline. Contact user-d3360 if you have trouble with the CI/CD pipeline. Jenkins server has been acting up.
    b. user-d3360 Test & Integration Planning (INT)
    c. Report out from PTL: Stand-Up & Report Out on Blockers
        i. Matti Hiltunen RIC Applications (RICAPP)
        ii. Thoralf Czichy RIC Platform (RIC)
            1. list of draft epics: use this JIRA filter as per Jira usage conventions. Seven subteams now analyze this draft.
            2. Traffic steering derived JIRA epics: filter (2 of 4 are currently in Bronze) // Health-check derived JIRA epics: filter . Already sure that not all will fit in Bronze.
        iii. user-a934b O-RAN Centralized Unit (OCU)
        iv. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
        v. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
        vi. Martin Skorupski Operations and Maintenance (OAM)
        vii. Alex Stancu Simulations (SIM)
        viii. Xiaohua Zhang Infrastructure (INF)
        ix. weichen ni Documentation (DOC)
        x. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)
        xi. (TBD) O-RAN Radio Unit (ORU)
    d. user-59b16 Requirements Software Architecture Committee

9. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items
    a. Intel contributions - Jack is working with legal issues with binary contributions. C++ compiler to build G++ for Amber. The G++ performance is not as high as Intel.
    b. Formalizing structure for release management.
    c. We need a release manager.
10. Planning for Next Meeting
11. Any Other Business (AOB)
12. Meeting Summary (resolutions, new action items, etc.)
    a. **Votes**
        i. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
            1. Vote to approve minutes for 29 Jan 2020
            2. On motion made by Masafumi Masuda
            3. Seconded by William DIEGO
            4. **VOTE:** Vote taken, item passed

ii. Motion made by user-d3360 to approve the Amber maintenance release on 05 Feb 2020
    1. Seconded by MASAFUMI MASUDA
    - **VOTE:** Vote taken, item passed

b. **Actions**
i. **Action**/ user-d3360 Ask PTLs to update the Status column on Amber Maintenance (Feb, 2020) page.
ii. **Action**/ PTLs get your F2F slide decks ready. Due 07 Feb 2020
iii. **Action** / TOC voting members: Provide an alternate contact on the TOC list above.
iv. **Action**/ Jinri Huang Tracy Van Brakle suggested speak with Paul about the demos at ONES.
v. **Action**/ user-59b16 talk to Jack to send out an email to the new TOC members; Nokia, Ericsson, and Radisys.
vi. **Action**/ Rittwik set up a time with Jack and Radisys to discuss Jira and their needs.
vii. **Action**/ user-59b16 update TSC with the short/long term UE simulator support.
viii. **Action**/ TOC we need a test coordinator with the O-RAN test group so we can come up with a common plan between the test groups.
ix. **Action**/ user-a934b provide a list of functionality that O-CU plans on targeting of where the O-CU is going in the coming releases.
x. **Action** / PTLs Update your section of the Bronze Release (Jun 2020). Convey to people outside what we're going to do in this release.
xi. **Action**/ Tracy Van Brakle send the URL of where on the wiki you posted the POC plugfest through lists.o-ransc.org.
xii. **Action**/ user-d3360 send a reminder to the PTLs to update their projects Architecture page within their spaces on the wiki.
xiii. Community asked for a release manager.

2020 01 22

Recording: 2020-01-22_toc.mp4

Agenda

1. Call for Scribe (minutes owner) Farheen Cefalu
2. Roll Call & Quorum Check

Company	Contact Name	Attendance	Alternate Contact	Attendance
AT&T	Jack Murray Co-Chair	x	Lusheng Ji	
China Mobile	Jinri Huang Co-Chair	x	Weichen Ni	
Deutsche Telekom	David Streibl	x		
NTT DOCOMO	Masafumi Masuda	x	Anil Umesh	
Orange	William Diego	x	Vincent Danno	
Verizon	Viswa Kumar			

*Quorum: 50% or more of total TSC voting members unless excluded due to attendance. We have a quorum and can vote on activities.

3. Review and Agree to Minutes of Previous Meeting

    a. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
        i. Vote to approve minutes for 15 Jan 2020
        ii. On motion made by user-2057e
        iii. Seconded by MASAFUMI MASUDA
        iv. **VOTE:** Vote taken, item passed
4. Review of Today's Agenda
5. Release Votes and Approval
    1. No approvals this week
6. Marketing of the Amber release (WG, LF, PR)
    1. Upon Maintenance release we will do a small notification of Bronze features.
        1. Jinri - PM is preparing PR before MWC. We can enter a few sentences there.
            1. Jack - Agrees
            2. ~~Action~~/ Jinri Huang add a few lines to MWC.
                1. I need assistance.
                2. Paul Smith - we are going to be making additions to the PR. We need changes as soon as possible.
                3. Jack - the maintenance release doesn't have any features.
                    1. Lusheng from integration there is a bug fix.
                        1. Jack - Bugs are not something we want to report.
                        2. Is there anything in doing the plugfest?
                            1. Martin - Not for the Amber release
                            2. Jack - we are not going add a few lines.
    2. MWC (Barcelona)
        i. Gate 2 MWC demos. 16 demos. There are 3 demos that can feature the bronze release elements. I requested sponsors to include the software community demo whenever appropriate.
            1. Jun Hyuk Song wants to see the which demos have the Bronze elements.
                1. Jinri - 2 or 3 demos out of 16 are demonstrating SC. It will be on the o-ran alliance wiki. Paul may be putting this demo on their wiki. If it urgent for you then please reach out to Paul.
                2. David Kinsey - A1 is mis-leading
                    1. We refer to it as O1-A1 functionality. David and Tracy will talk offline.
    3. O-RAN Alliance F2F Feb 17-21 (Paris)
        1. Action/ Farheen - Get the information from Jack and put it on the events page of the wiki.

2. Jinri requested PTLs to report their progress during the F2F meeting.
    1. There is status of what's been established and the plan of what is in Bronze.
        1. Focus on the plans for Bronze. We will arrange 1/2 hour for each project.
            1. Jack encouraging everyone to be engaged in communicating the message of Bronze.
            2. That every element in the stack and be built and deployed by the LF toolbase and the second ETE use case can be exercised the way it is supposed to function. Rittwik has defined what use case will be exercised in the Bronze.
            3. John Keeney and Tracy Van Brakle and Martin Skorupski we want to articulate what we are targeting to release in Bronze. We need to reduce that to a written objective now that we are closing our use cases.
                1. Rittwik as a part of closing this use case we need a clear two paragraph message that articulates what the community can expect out of the use case. This is an executive summary more than technical details. 2 paragraph executive summary. Whatever we've agreed to has to be documented. We have concerns that we won't progress far enough on the use cases but we should agree on what we are going to do in Bronze. Less about negotiation and more about what we have agreed to what the target is.
            4. John Keeney , Martin Skorupski , Xiaohua Zhang , David Kinsey (covering for Rittwik), KJ - Kaustubh Joshi
4. ONES = LF Networking Conference in April (Los Angeles).
    - Open Networking & Edge Summit Event
        - CFP is closing Feb 3, Monday. This is the primary networking event for the Edge group Akraino,
        - Can we recycle the demos in MWC.
            - Is anyone planning to have a booth there?
                - Trishan - Is there interest in doing a stand alone O-RAN booth?
                    - Jinri - We can use our partners booth such as O1-A1 demo by AT&T and Ericsson. Will Hank be there?
                    - We have to decide if we want him to propose a talk. If yes, then Jack will ask Hank. It seems at this time

7. Status of Open Action Items (Old Business)
    a. **Action** / TOC voting members: Provide an alternate contact on the TOC list above.
        i. Jack will share an update next week for the ECs recommendation on the path forward.
    b. **Action/** user-59b16 send Alex Stancu contact for UE simulator support.
        i. Rittwik - Asked Alex to reach out. Martin Skorupski we are in contact VeeAvi (sp?). For UE's we will need hardware which is difficult to acquire.
        ii. We need to find out what is the UE agenda. The O-DU project should see how they are testing the O-DU. We have to see if the actual UE simulators can be used to test O-CUs.
            1. Jack - You will need a UE and a radio emulator.
                a. Yes, I need a server that emulates a UE. You don't need RF equipment for this.
                b. This is an important topic and key issue. Which raises, we need better coordination with the test focus group in O-RAN. I'd like to ask if one of the other TOC members will take on the role of coordination with the test group so we can come up with a common plan in the test group. It will take a commitment from TOC to spend time on the subject. Jinri is doing the PR work. If one of the other TOC can take on the role of coordinating with the test group. It is an important activity that will require coordination between the development and test teams. If we are going to coordinate on a UE simulator then the test group should also come up with someone.
                c. **Action** / Farheen add to next weeks agenda
    c. **Action/** user-a934b provide a list of functionality that O-CU plans on targeting of where the O-CU is going in the coming releases. It is a critical piece and will need a roadmap view.
        i. Jack - Look at negotiating with the working groups about our needs. I let the EC know that it is harder to maintain momentum in the second release due to exhaustion from the first release. We need to keep advancing. The first 3 or 4 releases are critical to the success.
        ii. Jinri - we can remind the working groups at the F2F meeting.
        iii. Rittwik - Reached out to WG8 RCU about supporting hand over for OSC. Their answer is negative. O-Cu feature won't be ready until Cherry release.
            1. Be cautious that for Cherry release it has to be executable. It is too late to plan at the Cherry release.
    d. **Action/** user-d3360 set up a call with John Murray, Trishan de Lanerolle, Jinri Huang regarding license differences from the LF license scans for logging.
        i. Sorting out Intel's contribution for license. Lusheng will look into that. Intel API interfaces and loader are a part of the SC. They allow someone to take their software. Not compatible with SC licenses. Jack will be meeting with Stephan (Intel) that O-RAN can use their software for testing but is not an approved open source software. It is a testing apparatus that we can load. We still have a gap on what constitutes a layer 1 open source contribution.
    e. **Action/** user-d3360 send Trishan de Lanerolle and email with the question regarding the license discrepancy.
    f. **Action/** Martin Skorupski will provide the PTLs a template spreadsheet for alarms. VES collector will display the alarm list.
        i. Martin Skorupski : posted: Bronze use case: Health-Check, https://lists.o-ran-sc.org/g/main/topic/bronze_usecase_heathcheck/69880291?p=,,,20,0,0,0::recentpostdate%2Fsticky,,,20,2,0,69880291
        ii. Any question talk to Martin
    g. **Action**/ All PTLs take Martin's alarm template and fill out your own components alarms.
        i. If there are one or two alarms already known then inform Martin Skorupski
        ii. Martin will be flexible about the alarm formats, etc.
    h. ~~**Action**~~/ PTLs participate in the Bronze planning meetings held twice a week by the RSAC committee. PTLs who are planning to contribute to Bronze must attend.
    i. Rittwik - OAI fell off the list. We had a meeting with OAI.
        i. Christian (Orange) - Drafted the open interface license with Nokia to understand the differences between OAI and
        ii. Christian - OAI across systems to provide something related to E2 service model. Not directly open interface focused but Eurocom (sp?) funded Mosaic 5G within this is a flexran project. Flexran is related to near real time RIC in O-RAN world.

iii. Mohamed (Orange) - As a part of my work on 5G RAN i investigated FLex-RAN. Flexor and controller is an implementation of near real time RIC. If you want to manage the schedule then control or manage the CU or DU. For southbound there is a embedded agent within the source code for enode gnode B. To perform near real time operations on open interface. Available under Apache 2.0 license.
iv. It is a brief description of what we can do with Flex-RAN. If you need it we could organize a presentation for the F2F
v. **Action** / Farheen put this back on the agenda. In terms of licensing we can set up parallel meeting times.
vi. http://mosaic-5g.io/flexran/

j. ~~**Action**~~/ PTLs pull together a summary of each of the projects and what they plan to deliver in Bronze release.
k. **Action**/ Tracy Van Brakle post POC plugfest in June to the wiki events page.
l. **Action**/ PTLs update Architecture pages.

8. Standing Agenda Items (Brief Status of Ongoing Activities)
    a. Release Manager/Release Planning: Weekly TOC Scheduling
        i. Amber Maintenance Release
        ii. Project Bronze Release
            1. Thoralf Czichy proposes that near-RT RIC platform functionality (content) freeze is Feb-7. This is as there's a near-RT RIC platform contributor planning f-2-f workshop planned Feb-3 to Feb-5. Bronze Timeline doesn't have an exact date (drawing suggest in week of Feb-3 to Feb-8). Preliminary content is here: filter10401.
    b. user-d3360 Test & Integration Planning (INT)
    c. Report out from PTL: Stand-Up & Report Out on Blockers
        i. Matti Hiltunen RIC Applications (RICAPP)
        ii. Thoralf Czichy RIC Platform (RIC)
            1. list of draft epics: use this JIRA filter as per Jira usage conventions. Seven subteams now analyze this draft.
            2. Traffic steering derived JIRA epics: filter (2 of 4 are currently in Bronze) // Health-check derived JIRA epics: filter . Already sure that not all will fit in Bronze.
        iii. user-a934b O-RAN Centralized Unit (OCU)
        iv. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
        v. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
        vi. Martin Skorupski Operations and Maintenance (OAM)
        vii. Alex Stancu Simulations (SIM)
        viii. Xiaohua Zhang Infrastructure (INF)
        ix. weichen ni Documentation (DOC)
        x. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)
        xi. (TBD) O-RAN Radio Unit (ORU)
    d. user-59b16 Requirements Software Architecture Committee
10. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items
11. Planning for Next Meeting
12. Any Other Business (AOB)
13. Meeting Summary (resolutions, new action items, etc.)
    a. Votes:
        i. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
            1. Vote to approve minutes for 15 Jan 2020
            2. On motion made by user-2057e
            3. Seconded by MASAFUMI MASUDA
            4. **VOTE:** Vote taken, item passed
    b. Actions
        i. Action/ Jinri Huang add a few lines to MWC.
        ii. Action/ Farheen - Get the information from Jack and put it on the events page of the wiki.
        iii. **Action** / TOC voting members: Provide an alternate contact on the TOC list above.
        iv. **Action**/ user-59b16 send Alex Stancu contact for UE simulator support.
            1. we need better coordination with the test focus group in O-RAN. I'd like to ask if one of the other TOC members will take on the role of coordination with the test group so we can come up with a common plan in the test group.
        v. **Action**/ user-a934b provide a list of functionality that O-CU plans on targeting of where the O-CU is going in the coming releases.
        vi. **Action**/ user-d3360 set up a call with John Murray, Trishan de Lanerolle, Jinri Huang regarding license differences from the LF license scans for logging.
        vii. **Action**/ user-d3360 send Trishan de Lanerolle and email with the question regarding the license discrepancy.
        viii. **Action**/ Martin Skorupski will provide the PTLs a template spreadsheet for alarms. VES collector will display the alarm list.
        ix. **Action**/ All PTLs take Martin's alarm template and fill out your own components alarms.
        x. **Action**/ Tracy Van Brakle post POC plugfest in June to the wiki events page.
        xi. **Action**/ PTLs update Architecture pages.

2020 01 15

Recording: 2020-01-15-toc.mp4

Agenda

1. Call for Scribe (minutes owner) Farheen Cefalu
2. Roll Call & Quorum Check

Company	Contact Name	Attendance	Alternate Contact	Attendance
AT&T	Jack Murray Co-Chair	x	Lusheng Ji	
China Mobile	Jinri Huang Co-Chair	x	Weichen Ni	
Deutsche Telekom	David Streibl	x		

NTT DOCOMO	Masafumi Masuda	x	Anil Umesh	
Orange	William Diego	x	Vincent Danno	
Verizon	Viswa Kumar	x		

*Quorum: 50% or more of total TSC voting members unless excluded due to attendance. We have a quorum and can vote on activities.

3. Review and Agree to Minutes of Previous Meeting

    a. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
        i. Vote to approve minutes for 08 Jan 2020
        ii. On motion made by Jinri Huang
        iii. Seconded by user-2057e
        iv. **VOTE:** Vote taken, item passed
4. Review of Today's Agenda
5. Release Votes and Approval
    1. No approvals this week
6. Marketing of the Amber release (WG, LF, PR)
    1. MWC (Barcelona)
        - WG1 are correcting a list of demos for MWC compared to last year there were 6 demos. This year we have collected 16 demos.
        - 2 demos are related to SC.
            1. A1 PoC
            2. Edge Cloud Platform (AT&T and Nokia). Release A is demonstrated in this PoC.
            3. Jun Song (Samsung) has a demo to offer for the RIC platform.
                1. Submitted to WG3 video for Network slicing.
            4. For MWC PoC. Next Monday there will be a gate to review the PoC.
        3. Feb 25 9:30 - 10:45 event Dutch Telecom will have a briefing. In an auditorium with 200 seats. Agenda will have the key chair of O-RAN Alliance, Dutch Telecom Executive, China Mobile Co-Chair (Jinri).
    2. O-RAN Alliance F2F Feb 17-21 (Paris)
        1. Do we have the schedule on the web site so people know when our meetings are.
        2. For the TOC will be Tuesday and Thursday evening in Paris. Those are two sessions.
    3. ONES = LF Networking Conference in April (Los Angeles).
        - Open Networking & Edge Summit Event
        2. 2020-02-03 deadline for proposals. Planning on having a small kiosk or booth for demos.
        3. Next weeks meeting is the deadline for raising interest. Talk to you companies and teams and reach out to Jinri and Jack and let them know what your interests are. We have to decide how much we want to participate.
        4. It will have ONES participation. Including Akraino and ONAP. We need EC to be aware of this event to enhance this collaboration. It is a smaller event to have more interaction.
            1. Look for feedback between now and next week.
            2. ~~**Action**~~/ Farheen add this to next weeks agenda.
            3. ~~**Action**~~/ Farheen ONES. Correct the entry for LF Networking event to LF. Networking: Open Networking & Edge Summit (formerly Open Networking Summit).
7. Status of Open Action Items (Old Business)
    - **Action** / TOC voting members: Provide an alternate contact on the TOC list above.
        - ~~Action~~/ Farheen get Masafumi's backup from Jack.
    - ~~**Action**~~/ user-59b16 Alignment and adjust OAI code to be compliant with O-RAN Alliance. This is an architectural review of fitting the code.
        - First meeting with Christian and his counterparts was held last week.
        - E2 traffic steering model needs to be approved by WG3. O-CU and O-DU handoffs won't happen until the Cherry release. Another is healthcheck.
            - Is this advancing the software and moving the community forward?
            - Concern that we may have to add another use case to develop another aspect of the software. How much do we advance in each release. One thing that blocks should not prevent us from moving forward.
                - Hampered by the O-CU O-DU profile timeline alignment with OSC is tricky. They have their timeline already that doesn't align.
                    - Can we enrich the use case around some other functionality that is advancing.
                - O-CU and O-DU have to step up and what value they can add.
                    - Can we develop a better set of detailed and expanded data so we can have a complete set?
                    - How complete of data collection can we do in this release.
                - Steering use case. Cu and DU should implement the E2 interface. There were attributes and KPIs identified for modules. That document needs to be reviewed so that it is clear to CU and DU.
                    - We need to see how we can get the data into CU and DU but we don't have SMO support for that.
                        - Challenge is getting the data out of those devices at performance levels. First step is to acquire it and manage it. The next step is to deliver it to the upstream layers.
                            - We don't have any in 01 or ONAP or SMO to do real time PM. We need to get leverage against ONAP and O-1 team to define those interfaces in support of non-RT RIC. Or we do that work ahead of specs which leads to problems.
                                - Get that proposal.
                    - Rittwik - O-DU and O-CU teams have to get together for the traffic steering use case.
                    - Sachin - Call flow is not listed for a simple traffic steering use case. As a first step we should look at a simulator based approach. Simply simulate the use case and then the CU and DU can adopt that simulators results.
                    - The use case lists KPIs but doesn't list which one is for CU and what is DU. The document we have today is an extensive list of KPIs to use and how training will take place. We don't know how to get it to the SMO. We don't need to use ONAP for now.
                        - Jack asking the team to figure out how best to advance these features in the B release. Expecting O-CU and O-DU to support the other healcheck use

case. Expecting a minimum software element with O1 communication. The team can decide how extensive it is. Second use case know that we've deployed every element in the stack and validate that it is running. This is a necessary first step to deploy all the pieces.

- ~~**Action**~~/ Jinri Huang provide an answer to user-59b16 regarding support for O-CU, O-DU. Without commitments from O-CU and O-DU the end to end use cases are in jeopardy.
    - We had a meeting with CM, Radisys, Intel
    - Rittwik has not heard back about simulator.
        - Call to community: What are we doing about a UE simulator.
            - Action/ user-59b16 send Alex Stancu contact for simulator support.
        - Rittwik - we can have one or two cell phones. But not sure that is possible in bronze release. You have to have many UEs in multiple cells. It's OK to do unit tests but to test in full force we have to do it with a simulator.
            - Martin Skorupski will use cell phones instead of a simulator for Bronze release.
- **Action**/ user-a934b provide a list of functionality that O-CU plans on targeting of where the O-CU is going in the coming releases. It is a critical piece and will need a roadmap view.
- ~~**Action**~~/ O-CU and O-DU PTLs and RSAC to get together regarding the end to end steering use case jeopardy.
- ~~**Action**~~/ Community to address the UE simulator jeopardy on this TOC call.
- ~~**Action**~~/ PTLs enter epics from Contributions into jira.
    - Thoralf - see section 8c below. This will happen next week to discuss. Having trouble with the traffic steering use case. Don't see how the traffic steering use case fits with near RT RIC. Healthcheck of the different interfaces will be entered this week into jira. We will have a list on the meeting after next week.e
    - Matti - Use case details are evolving.
    - Sachin - Expecting Jira stories to be in Jira by next week.
    - Zhimin - Yes we put the O-DU tasks in Jira.
        - Lusheng - discussed at the end of last release. Issue is to compilation in LF. The licensing is different. We will need some legal council on this matter.
        - Jack - Have a meeting. **Action**/ user-d3360 set up a call with John Murray, Trishan de Lanerolle, Jinri Huang. We want to make sure we can do the logging. Take it to another meeting. **Action**/ user-d3360 send Trishan de Lanerolle and email with the question.
    - Martin - Common data models from WG4 and how to make it available for the software community. We want to continue what John Keeney did called an SMO that can be deployed. What the SMO should look like.
        - Focus on what the distribution of an SMO will use for our work in Bronze and then we will update it for Cherry. Lusheng and team for integration and the O-RAN test community. When you listed the alarms, is that the same as all the error messages? Software will generate error messages but we don't gather that info.
            - If they report according to the ONAP standards then VES collector will display the alarm list.
                - Each piece of software needs to gather their alarms and be documented.
                    - Yes. that is in my proposal.
                    - Every PTL come up with a list of alarm names, and document it. That can be translated to VES message formats.
                    - Jack asking people to use spreadsheet.
            - **Action**/ Martin Skorupski will provide the PTLs a template spreadsheet for alarms.
            - Speaking to Chris Lott about portal and dashboard discussion.
    - Alex - Simulator project will have epics.
        - Jack - We need to know what Simulator is focusing on.
    - Xiaohua - Epics are in jira. Trying to finish by the end of next week. Community members can read up.
    - Wei Chen - no epics
    - John K. - Traffic steering functionality at the SMO level is happening. Getting closer to entering but needs more time.
- **Action**/ PTLs participate in the Bronze planning meetings held twice a week by the RSAC committee. PTLs who are planning to contribute to Bronze must attend.
- **Action**/ PTLs pull together a summary of each of the projects and what they plan to deliver in Bronze release.
- **Action**/ Tracy Van Brakle post POC plugfest in June to the wiki events page.
- **Action**/ PTLs update Architecture pages with the Bronze release features they plan to deliver.

8. Standing Agenda Items (Brief Status of Ongoing Activities)
    a. Release Manager/Release Planning: Weekly TOC Scheduling
        i. Amber Maintenance Release
        ii. Project Bronze Release
    b. user-d3360 Test & Integration Planning (INT)
    c. Report out from PTL: Stand-Up & Report Out on Blockers
        i. Matti Hiltunen RIC Applications (RICAPP)
        ii. Thoralf Czichy RIC Platform (RIC)
            1. list of draft epics: use this JIRA filter as per Jira usage conventions. Seven subteams now analyze this draft.
                a. note that from traffic steering epic/use case I did not see any use cases that fit to the near-RT RIC platform
                b. multiple meetings related to health check epic subitems still be created in JIRA related to E2,A1,O1 health check and related to self-monitoring and alarm management.
                c. what is this item about (from Bronze spreadsheet): "RAN NE to support Dynamic Data Collection (DDC) Measurement Intervals"
        iii. user-a934b O-RAN Centralized Unit (OCU)
        iv. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
        v. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
        vi. Martin Skorupski Operations and Maintenance (OAM)
        vii. Alex Stancu Simulations (SIM)
        viii. Xiaohua Zhang Infrastructure (INF)
        ix. weichen ni Documentation (DOC)
        x. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)
        xi. (TBD) O-RAN Radio Unit (ORU)
    d. user-59b16 Requirements Software Architecture Committee
10. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items
11. Planning for Next Meeting

12. Any Other Business (AOB)
13. Meeting Summary (resolutions, new action items, etc.)
    a. **Votes**
        i. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
            1. Vote to approve minutes for 08 Jan 2020
            2. On motion made by Jinri Huang
            3. Seconded by user-2057e
            4. **VOTE:** Vote taken, item passed
    b. **Actions**
        i. **Action** / TOC voting members: Provide an alternate contact on the TOC list above.
        ii. **Action**/ user-59b16 send Alex Stancu contact for UE simulator support.
        iii. **Action**/ user-a934b provide a list of functionality that O-CU plans on targeting of where the O-CU is going in the coming releases. It is a critical piece and will need a roadmap view.
        iv. **Action**/ user-d3360 set up a call with John Murray, Trishan de Lanerolle, Jinri Huang regarding license differences from the LF license scans for logging.
        v. **Action**/ user-d3360 send Trishan de Lanerolle and email with the question regarding the license discrepancy.
        vi. **Action**/ Martin Skorupski will provide the PTLs a template spreadsheet for alarms. VES collector will display the alarm list.
        vii. **Action**/ All PTLs take Martin's alarm template and fill out your own components alarms.
        viii. **Action**/ PTLs participate in the Bronze planning meetings held twice a week by the RSAC committee. PTLs who are planning to contribute to Bronze must attend.
        ix. **Action**/ PTLs pull together a summary of each of the projects and what they plan to deliver in Bronze release.
        x. **Action**/ Tracy Van Brakle post POC plugfest in June to the wiki events page.
        xi. **Action**/ PTLs update Architecture pages.

2020 01 08

Recording: 2020-01-08_toc.mp4

Agenda

1. Call for Scribe (minutes owner) Farheen Cefalu
2. Roll Call & Quorum Check

Company	Contact Name	Attendance	Alternate Contact	Attendance
AT&T	Jack Murray Co-Chair	x	Lusheng Ji	
China Mobile	Jinri Huang Co-Chair		Weichen Ni	x
Deutsche Telekom	David Streibl	x		
NTT DOCOMO	Masafumi Masuda	x		
Orange	William Diego	x	Vincent Danno	
Verizon	Viswa Kumar			

*Quorum: 50% or more of total TSC voting members unless excluded due to attendance. We have a quorum and can vote on activities.

3. Review and Agree to Minutes of Previous Meeting
    a. The minutes of the prior meetings were reviewed, and there were no comments, questions or corrections.
        i. Vote to approve minutes for 18 Dec 2019
        ii. On motion made by weichen ni
        iii. Seconded by MASAFUMI MASUDA
        iv. **VOTE:** Vote taken, item passed
4. Review of Today's Agenda
5. Release Votes and Approval:
6. Marketing of the Amber release (WG, LF, PR)
    1. There is work going on for demos. Jinri is collecting material. This is an O-RAN activity.
    2. LF Networking Conference in April. If people are planning on attending please reach out to Jack or Jinri. This will be in LA. Feb 3rd deadline for proposal. Planning on having a small kiosk or booth for demos.
        1. Tracy - The work we did for the plugfest is on the LFN program this month. That is not a big event. This is for developers.
            1. **Action**/ Tracy Van Brakle will send info on LF Networking to Jack and add the event to our wiki.
7. Status of Open Action Items (Old Business)
    - **Action** / TOC voting members: Provide an alternate contact on the TOC list above.
        - Jinri to send out email.
    - ~~**Action**~~ / Tracy Van Brakle and Martin Skorupski to align and document the plugfest plan for a demo video.
        - There is a press release on O-RAN wiki for this event that went out. They are waiting for the press release. The executive committee will let us know in the next two days. The press release was impressive.
            - We learned a lot captured in Jira tickets.
    - **Action**/ user-59b16 Alignment and adjust OAI code to be compliant with O-RAN Alliance. This is an architectural review of fitting the code.
        - Rittwik will meet this week and report out next week.
    - **Action**/ Jinri Huang provide an answer to user-59b16 regarding support for O-CU, O-DU. Without commitments from O-CU and O-DU the end to end use cases are in jeopardy.
        - One based on O-RAN services and OAM functions that will form tracks that each release will be improving OAM. The end to end use case relies heavily on O-CU and O-DU functionality that we can progress in this release.
        - We need to synch up with the PTLs of O-CU and O-DU and the architecture committee to support these use cases.

- Rittwik - update yesterdays RSAC meeting Ganesh from Radisys this Friday. He is encouraging O-CU and O-DU come together and identify feasible use cases.
- This is a high priority and PTLs must work together. Be modestly aggressive to target this release. Looking forward to an update next week on these discussions.
- Rittwik - Setting expectations: when KPIs come to RIC (measurement page) then you do the analytics and then turn it into a traffic steering action as a simple hand off from one cell to another not a real UE. We need a realy UE simulator component needs to be contributed to understand the hand off.
- **Action/** Farheen Cefalu add to agenda. Call to Community to address the UE simulator as well as the fact that the test community in O-RAN will have a need for this. We have our Simulator team that can identify a UE simulator.

- **Action/** PTLs enter epics from Contributions into jira.
  - Jack will start pulling reports from Jira to see the scope of this release.
- **Action/** PTLs participate in the Bronze planning meetings held twice a week by the RSAC committee. PTLs who are planning to contribute to Bronze must attend.
  - **Action/** PTLs pull together a summary of each of the projects on what they plan to deliver in Bronze release.
  - ETE use case is focused on the lower stack but we don't want to ignore the higher level functions. What use case can drive the work in the non-Realtime RIC.
    - Tracy - O-RAN testing group has a POC plugfest keyed up for the Bronze release. Plugfest will be end of June 2020. It's a dynamic 5G multi-operator with first responders.
    - **Action/** Tracy Van Brakle post POC plugfest in June to the wiki events page.

8. Standing Agenda Items (Brief Status of Ongoing Activities)
   a. Release Manager/Release Planning: Weekly TOC Scheduling
      i. Amber Maintenance Release
         1. Clean up documentation
         2. Close Jira issues
         3. After every release we will have a window where a developer can work on the maintenance items. We're trying to improve what we have done for the Amber release.
         4. Make changes to the Amber branch. If you need help to trigger the jobs for the Amber maintenance release contact user-d3360
      ii. Project Bronze Release
   b. user-d3360 Test & Integration Planning (INT)
   c. Report out from PTL: Stand-Up & Report Out on Blockers
      i. Matti Hiltunen RIC Applications (RICAPP)
      ii. Thoralf Czichy RIC Platform (RIC)
         1. No epics yet. I am having a problem with the healthcheck use case. There is a meeting with John Ng to meet tomorrow.
      iii. user-a934b O-RAN Centralized Unit (OCU)
         1. We have some new committers in the B release.
            a. Is there a roadmap of the O-CU functionality of how you will add functionality?
            b. **Action/** user-a934b provide a list of functionality that you plan on targeting of where the O-CU is going in the coming releases. It is a critical piece and will need a roadmap view.
      iv. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
         1. We are updating the scope for the Bronze release.
      v. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
         1. We will be working closely with the ODUHIGH project.
         2. Our plan is to release the binary. We are reviewing the license. We need to have a license agreement first.
         3. Jack will work with the legal team to address the license.
      vi. Martin Skorupski Operations and Maintenance (OAM)
         1. We are working on the healthcheck use case. We are forming our epics.
      vii. Alex Stancu Simulations (SIM)
         1. Planning to work with OTF team for the Bronze release.
      viii. Xiaohua Zhang Infrastructure (INF)
         1. Working on epics. Planning to deliver epics next week for Bronze release. We need to work with O-DU to provide infrastructure. Please include Xiaohua Zhang for infrastructure.
      ix. weichen ni Documentation (DOC)
         1. Think about best practices area. Read that and give guidance to the team of what your expectations are around the documentation. To make things usable outside of developers to make it work. Both the software detailed documentation and how to use the overall system.
      x. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)
         1. Working on epics. We plan to tidy up our repo. There is functionality that should be in other projects such as simulations, and dashboard (OAM). We will set up sub repos in those repos.
         2. The need for coordination of the SC and O-RAN projects. IBM is duplicating work. We plan to look through our roadmap to see where to push those changes. Whether to O-RAN or O-RAN SC.
            a. Part of the challenge of being new and starting new. People are confused on coordination. This raises another discussion about what an SMO is and should we have a project and space to pull together the SMO owrk. Original agreement was ONAP would be upstream and RAN specific should be here with O-RAN Alliance. As a community how do we sort out this overlap and now that this community has been established how do we structure the needs.
               i. This is a good conversation to start at the plugfes in Prague. If we have a slide that explains the division of labor that would be very useful. I know Vimal worked on something like that. Jack will talk to Vimal to sort it out
               ii. All parties are well aware with Vimal's slides but we want more.
               iii. One suggestion ONAP may need to be happening this conversation rather than here. Trishan de Lanerolle can help get the right people.
                  1. We have the right people. We need to coordinate it better.
      xi. (TBD) O-RAN Radio Unit (ORU)
   d. user-59b16 Requirements Software Architecture Committee
      i. O-CU and O-DU teams look at the steering and healthcheck and simulator use cases.
9. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items
   a. By Jinri: possible contribution to MWC Barcelona

i. Can we see what demos are planned?
    1. Paul - This is out on the wiki.

b. O-ARN Alliance Face to face meeting:
    i. Jinri: on Monday TSC call, we discussed meeting arrangement but no conclusion yet. F2F to be held Feb 17-21, Paris.

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