2020 Q3 (Jul, Aug, Sep)

2020 08 26

Recording: TOC-weeekly-20200826.mp4

Agenda

1. Call for Scribe (minutes owner): Jinri Huang, China Mobile
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	X	Ondej Hudousek	
Ericsson	John-Paul Lane	X	John Keeney	
NTT DOCOMO	Masafumi Masuda	X	Anil Umesh	
Nokia	Juha Oravainen	X	Thoralf Czichy	
Orange	William Diego	X	Vincent Danno	
Radisys	Ganesh Shenbagaraman	X	Sachin Srivastava	
Verizon	Viswa Kumar		Kristen Young	

   *Quorum: 50% or more of total TOC 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. There is no comment raised on the 0819 meeting minute.

      i. **Decision: Moved by David Streibl and seconded by Juha Oravainen, without objection and abstention, the 20200819 meeting minute is approved.**
4. Review of Today's Agenda

   1. No new items added;
5. Release Votes and Approval.

   1. None.
6. Copyright update.
   1. JInri explained the background again (see previous meeting minute). Recent progress: There is araft proposal in which EC is requesting Board to authorize EC to grant the usage of the copyright in the draft specification to OSC, during the 60-day period of review window. The proposal will be sent to Board for approval. Time is not decided yet. However, there is a potential risk here. If some company withdraws the IPR during the review period which results in the modification on the specification, it may impact OSC work. The possibility is very minor.
   2. Question is asked on why the IPR claim is not made in the CR time but after the spec. is finished? Answer is that it is specified in the Consititution. Changing the IPR policy will take too much time and all the member companies have to review.
7. O-RAN-related business (marketing, WG interaction, TSC/EC update etc.)

   1. a lot of discussion happend regarding the ONF articles concern raised by John-Paul. Here is the link.
      1. https://www.sdxcentral.com/articles/news/onf-picks-up-where-o-ran-alliance-falls-short/2020/08/
      2. https://www.prnewswire.com/news-releases/onf-announces-new-5g-sd-ran-project-301117481.html
   2. Basically, the feeling from the team is surprise and confusion, including: wording is negative to the work OSC is doing; what is the relationship with O-RAN Alliance? Has anyone been contacted in O-RAN? Does OSC need to respond?
   3. Jinri will bring this to EC and TSC next week.
   4. As for MVP, discussion ongoing. Jinri will follow this.
8. Status of Open Action Items (Old Business).

   a. O-CU PTL to organize a meeting and invite all the relevant projects (O-DU-HIGH, OAM, RIC etc.) and discuss the cooperation/requirements b/w O-CU and the other projects
      i. see below. discussion combined with item 8b.

b. O-CU PTL to prioritize the items shown on the presentation slide (https://wiki.o-ran-sc.org/download/attachments/10715432/OSC%20O-CU%20RelC%20-ICT-8.12.pptx?api=v2) to make sure some key features such as handoff could be supported for traffic steering use case.

c. The team to arrange an offline meeting to further discuss the challenges. Gu Su from China Mobile can help.

    i. Ganesh: Call has been held to discuss the O-CU dependency with other projects. Key point raised: copyright issue for the 3GPP-defined yang model. Not have permission to use 3GPP yang model in OSC. Any development of the node, esp. CU and DU has to be on hold. The definition is from 3GPP; work can not move forward coz of this.

    ii. Rittwik: possible to write the code with STUB. With STUB, people could download the code. We do not inject to the repo. Just like ASN.1 issue. We do not get permission from 3GPP. However it did not stopping us from contribution. When permission coming through, we can open it up. Suggest to continue the work on health check. Not to defer to dawn.

    iii. Ganesh: Refer to model, generate the code, not to store the yang files in the repo?

    iv. Martin: Exactly how we do so far. We implement the code, save it in privie repo (a bit strange in open source community). Not have this code in any nexus, jenkin, whatever internal tool chain for OAM and SIM project. Can do domenstation to be functional. However, avoid generated code from YANG files at the time of being since somebody may think code generation is viewed as modification.

    v. Ganesh: Any common code generation tool across projects?

    vi. Martin: No. Netconf servers or clients have their own code gernation for their purpose. Generate code from YANG for API. Avoid put it in nexus, or else where public.

    vii. Ganesh agree.

    viii. Rittwik: 2nd comment: Currently getting permission from 3GPP is stalled. Who is the LS/coordinator from O-RAN to 3GPP. Can OSC have direct line of comuicationw tiht 3GPP. Is that possible? Suggest Jinri to surface this up to the EC/TSC.

    ix. Jinri: Has the copyright issue been setnt o SDFG before? Old or new issue? Martin answered that it is an old issue. (half an year ago)

    x. Jinri: Later on, we need clear record (of the copyright request/issue in the meeting minute. 2nd, some email from SDFG indictes that ETSI officers are on vacation. Will be back recently and speed up the process. 3rd, Jinri will surface this up to EC/TSC; 4th, we need to push SDFG.

    xi. **AP: Jinri will bring the copyright issue to TSC/EC (to push the process)**

    xii. Rittwik: could we have direct line of communication with 3GPP? Jinr: difficult.

    For follow-up,

    xiii. **AP: Martin will send the written copyright issue description to Jinri and Jack so that Jinri could follow up. Ganesh will also elaborate the copyright issue regarding O-CU and O-DU.**

    xiv. Ganesh: WG5 also asking t how to handle the YANG model for ODU. Will check with them in the background.

d. Lusheng to create a wiki page with a template for PTL to fill in the Cherry deliverable summary

    i. Thoralf helped to create the page already. Here is the link: Cherry Release (Dec 2020)

    ii. **AP: PTL to fill in the goal and the scope first. Will have update once a month.**

e. SMO Project PTL Nominations

    i. voting email has been sent out to TOC. No specific deadline for this. 3 votes already right now.

    ii. Q: if Jack could not make it, can the alternate vote it by email? A: yes.

    iii. Trishan will add the invitation to Lusheng.

    iv. Jinri: expect to get this done by next TOC.

f. Trishan to send Jinri the voting process.

    i. done. AP closed.

g. PTL to provide informaion regarding O-RAN-related open source communities

    i. Jinri emphasized the importance of this request, not because of the AP from TSC/EC, but also beneficial to the whole community. Deadline is set by next TOC meeting. Format is flexbile: slides or simple text in the mail.

h. Mailing list issue (stop "main" for discussion, use "discussion" list)

    i. Recommendation from LF. It is the best practice not to use "main" list for discussion. Suggest to use a dedicated "discussion" list while using "main" for major announcement in the community. The LF staff could help with the transition and no action is requried from the members.

    ii. No opposion to this. No fee is invovled. LF could get this done within one day.

    iii. **Decision: the OSC will use a dedicated "discussion" list for topic discussion.**

9. Standing Agenda Items (Brief Status of Ongoing Activities)

a. Release Manager Trishan de Lanerolle /Release Planning: Weekly TOC Scheduling

    i. Bronze Maintenance Release

    ii. CherryTimeline

b. user-59b16 Requirements Software Architecture Committee

c. user-d3360 Integration and Test

d. Report out from PTL: Stand-Up & Report Out on Blockers

    i. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)

    ii. Matti Hiltunen RIC Applications (RICAPP)

    iii. Thoralf Czichy RIC Platform (RIC)

    iv. user-a934b O-RAN Centralized Unit (OCU)

    v. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)

    vi. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)

    vii. Martin Skorupski Operations and Maintenance (OAM)

    viii. Alex Stancu Simulations (SIM)

    ix. Xiaohua Zhang Infrastructure (INF)

    x. weichen ni Documentation (DOC)

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

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. **Decision: Moved by David Streibl and seconded by Juha Oravainen, without objection and abstention, the 20200819 meeting minute is approved.**
b. **AP: Jinri will bring the copyright issue to TSC/EC (to push the process)**
c. **AP: Martin will send the written copyright issue description to Jinri and Jack so that Jinri could follow up. Ganesh will also elaborate the copyright issue regarding O-CU and O-DU.**
d. **AP: PTL to fill in the goal and the scope first. Will have update once a month.**
e. **Decision: the OSC will use a dedicated "discussion" list for topic discussion.**

2020 08 19

Recording: TOC-weekly-20200819-audio-only.mp4

Agenda

1. Call for Scribe (minutes owner): Jinri Huang, CMCC
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	X	Ondej Hudousek	
Ericsson	John-Paul Lane	X	John Keeney	
NTT DOCOMO	Masafumi Masuda	X	Anil Umesh	
Nokia	Juha Oravainen	X	Thoralf Czichy	
Orange	William Diego	X	Vincent Danno	
Radisys	Ganesh Shenbagaraman	X	Sachin Srivastava	
Verizon	Viswa Kumar		Kristen Young	

*Quorum: 50% or more of total TOC 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. There is no comment raised on the 0812 meeting minute.

      a. **Decision: Moved by David Streibl and seconded by Ganesh Shenbagaraman, without objection and abstention, the 20200812 meeting minute is approved.**
4. Review of Today's Agenda

   1. One new items added:

      a. Mailing list issue (stop "main" for discussion, use "discussion" list)
5. Release Votes and Approval.
6. Copyright update.
   1. No update on this. EC is too busy to process the request. Jinri and Jack will continue to follow; Meantime, the written request by John has already been forwarded to EC and the legal team, waiting for response;
   2. John: about A1 spec. the code is already ready, whether waiting for 60 days before releaseing the code needs feedback from O-RAN; JInri understood the issue and will continu to follow;
7. O-RAN-related business (marketing, WG interaction, TSC/EC update etc.)

   1. Jinri mentioned that he noticed there was a TIFG-RSAC call on Monday discussing the MVP and asked for any update.
   2. Rittwik responded that Koo is writing the minutes. This topic is also discussed in RSAC and he has uploaded the material. The goal is to come up with MVP requirement for TIFG.
   3. Jinri asked about the concusion? What MVP should be?
   4. Rittwik responded different people have diffrent Ideas. From OSC perspecitive, it is clear. We focus on 3 use cases. Want to validate them. For example for traffic steering, the minimum requriements include UE attachment, get E2 data, do the hand over. That is min. requiremens.
   5. OSC should provide min. requirement that TIFG can review. And TIFG should come up with test spec.
   6. Jinri invited Rittwik to to attend the call with WG1-UCTG, WG1 co-chairs and TIFG co-chairs to discuss MVP.
   7. JInri asked a question on whether high level requirements are not enough for MVP.
   8. Rittwik: Not high level. We had call flow there.
   9. Question from Jinri: do you expect description of the features on certain interfaces?
   10. Rittwik: call flows dictate what are the components and interface. If a call flow does not show, then not necessary. E.g. in O-CU discussion, the E1 interface is not required, then it is not required for traffic steering use case (as a minimum requirement).
8. Status of Open Action Items (Old Business).

   a. O-CU PTL to organize a meeting and invite all the relevant projects (O-DU-HIGH, OAM, RIC etc.) and discuss the cooperation /requirements b/w O-CU and the other projects
      i. see below. discussion combined with item 8b.
   b. O-CU PTL to prioritize the items shown on the presentation slide (https://wiki.o-ran-sc.org/download/attachments/10715432/OSC%20O-CU%20RelC%20-ICT-8.12.pptx?api=v2) to make sure some key features such as handoff could be supported for traffic steering use case.

          i. Ganesh indicated that there was already some discussion on this topic in RSAC. MVP was discussed. A concern is raised in that now we are running out of time for cherry. What content to agree for traffic steering use case in terms of E2 messages, lelvel of CU-DU functionalities etc.. For this Ganesh followed up DU team. They seemed to be ready with message with some already implemented in Bronze release and the others in this release. Question is about CU: By when to finish the work? Need decision from TOC on how to proceed considering that we do not have enough time to push all the content. How to prioritize?

          ii. Rittwik: There is no enough visibility of CU in the wiki (need weekly meting update. Need weekly meeting with others). It is difficulty to track the features. No idea on aligning or misaligned with planning. Suggest to prioritize some features to ensure traffic steering to be realized.

          iii. JInri indicated that there was a re-org inside CMCC and the O-CU PTL has moved to other position. the O-CU work is not the major obligation. We are discussing with a partner company.

          iv. Q: how many features for O-CU in Cherry release?

          v. A: UE Attach; Hand over action, traffic steering app to provide the control action.

          vi. Q: Did O-CU project promise to support the features?

          vii. A: NO. O-CU is working on other aspects.

              1. **AP: The team to arrange an offline meeting to further discuss the challenges. Gu Su from China Mobile can help.**

c. PTLs to keep Cherry deliverable summary tables up to date

          i. Reminder from Jinri again ont his matter.

          ii. Matti: What is the summary table means? For Bronze release , we hve a wike page. Not one for cherry. Where to update? Or is it excel spreadsheet?

          iii. Lusheng: a wiki page with template, will it help? Farheen do that last time. Lusheng will help this time.

          AP: Lusheng to create a wiki page with a template for PTL to fill in the Cherry deliverable summary

d. SMO Project PTL Nominations

          i. Jack to talk with Trisan offline to make sure the voting process is right.

              1. Jack is out recently. Trishan to send Jinri the voting process.

              2. **AP: Trishan to send Jinri the voting process.**

          ii. Presentation from the two nominees

              1. Presentation by Liam Fallon.

                 a. Q: in addition to ONAP, what other open source communities are you heavily involved and contributed?

                 b. A: Mainly ONAP. Yet also moved around LINUX, internally (inside Ericsson) wrote linux kernel (not contributing);

                 c. Q: Your role in ONAP?

                 d. A: Design the architcure policy framework; involved in control loop committee, lead the development part in Ericsson; is one of the biggest contributors for Ericsson in ONAP;

                 e. Q: What is your view on the relationship b/w SMO and ONAP; i.e. what components should be developed in ONAP and OSC respectively?

                 f. A: Not doing SW in OSC which has been developed in ONAP; The OSC coding would be more about use cse side of thing as user advise. Bringing back to ONAP would be powerful;

              2. Presentation by Mahesh Jethanandani

                 a. Q: If becoming the PTL, how many resources to bring in?

                 b. A: Have contact with OSN, OPENDALYLIGH etc. Could generate enough interest in the group. They would be interest.

              3. For the next step, Trisan will contact JInri and start the voting process. There is a tool for the voting;

e. Repo request from RIC project:

          i. it is clarified that it is for RIC-APP project and the request has already been done;

f. PTL to provide informaion regarding O-RAN-related open source communities

          i. Reminder again from Jinri on this topic. There will be a TSC call in two weeks. need to report the progress there.

9. Standing Agenda Items (Brief Status of Ongoing Activities)

a. Release Manager Trishan de Lanerolle /Release Planning: Weekly TOC Scheduling

          i. Bronze Maintenance Release

          ii. CherryTimeline

b. user-59b16 Requirements Software Architecture Committee

c. user-d3360 Integration and Test

d. Report out from PTL: Stand-Up & Report Out on Blockers

          i. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)

          ii. Matti Hiltunen RIC Applications (RICAPP)

          iii. Thoralf Czichy RIC Platform (RIC)

          iv. user-a934b O-RAN Centralized Unit (OCU)

          v. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)

          vi. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)

          vii. Martin Skorupski Operations and Maintenance (OAM)

          viii. Alex Stancu Simulations (SIM)

          ix. Xiaohua Zhang Infrastructure (INF)

          x. weichen ni Documentation (DOC)

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

10. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items.

a. O-CU OSC plans

b. Mailing list issue (stop "main" for discussion, use "discussion" list)

11. Planning for Next Meeting

12. Any Other Business (AOB)

13. Meeting Summary (resolutions, new action items, etc.

a. **Decision: Moved by David Streibl and seconded by Ganesh Shenbagaraman, without objection and abstention, the 20200812 meeting minute is approved.**
   b. **AP: The team to arrange an offline meeting to further discuss the challenges. Gu Su from China Mobile can help.**
   c. **AP: Lusheng to create a wiki page with a template for PTL to fill in the Cherry deliverable summary**
   d. **AP: Trishan to send Jinri the voting process.**

2020 08 12

Recording: TOC-weekly-20200812.mp4

Agenda

1. Call for Scribe (minutes owner): Jinri Huang from China Mobile
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	
Ericsson	John-Paul Lane	X	John Keeney	
NTT DOCOMO	Masafumi Masuda	X	Anil Umesh	
Nokia	Juha Oravainen	X	Thoralf Czichy	
Orange	William Diego	X	Vincent Danno	
Radisys	Ganesh Shenbagaraman	X	Sachin Srivastava	
Verizon	Viswa Kumar		Kristen Young	

   *Quorum: 50% or more of total TOC 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. There is no comment raised on the 0805 meeting minute.

      1. **Decision: Moved by Jinri and seconded by David, without objection and abstention, the 20200805 meeting minute is approved.**
   2. Jack also mentioned that the history TOC meetings are also archived. The link is at the bottom of the page.
4. Review of Today's Agenda

   1. No new agenda items raised. Some topics, such as some remaining question regarding the Bronze Maintenance Release, the nomination status etc. will be discussed in old business section (e.g. release note etc.)
5. Release Votes and Approval.

   1. Jack mentioned that there were a couple of APs last week regarding the Maintainence Rel.
   2. Lusheng responded: one request is from Jinri which is about a summary of changes. That was done. See https://wiki.o-ran-sc.org/pages/viewpage.action?pageId=14221635. Regarding the licensing, 2 ways. One is to manually went through all the updated files to make sure the licensing is ok. Another check is done by Steve from LF. No problem found. Also clarified that O-CU is not in the scope.
   3. Jack: did that address people's questions to cover the maintenance Release? Any more question? No response.
   4. Motion moved by Lusheng to accept and release the Bronze maintenance release;

      Jinri seconded;

      There was a comment from John-Paul, indicating that he was not on the call last week. Will vote in the dark. Jack indicated that last week John Keeney was the deputy and he did not raised an critical issues. Indeed, he also indicated some updated on NRT RIC in the maintenance release. John is fine with the response.

      ALL the TOC members voted yes. There is no objection/abstaintion.

      Decision: The maintenance release is approved.
6. Copyright update.

- Jack: raised the issue in EC meeting, there was a good discussion. EC members are working together to improve the situation. Right now, the copyright is not available to us until after 60 days;
- Jinri commented that during the EC call, there was a draft proposal which is to provide "draft approval" for the usage of copyright within 60 day window. However, that was just an idea. Still need further confirmation from EC in the future.

1. Marketing of the current release (WG, LF, PR)

   1. Jinri indicated that this item is not just about marketing. It should be related to many other O-RAN issues. Suggest to change the name to O-RAN-related business (EC/TSC/WG/, marketing etc.);

2. Jinri indicated recently O-RAN has initated the work on TSC-level minimum viable product (MVP) which is important to OSC's future planning. Will come back with more information when there is more consolidated result.
3. Jack also indicated that more representation should be in the RSAC from different companies. All the major companies involved should be part of the RSAC committee. PTL have already been there. Operators should also be there too. So people could understand better. Sometime, two lines of items means 2-year coding. Understanding where the SW is from our standpoint to where we can achieve, the goal is important to their process. RSAC should be involved in the discussion. At least some people. It is daunting to steer through the list of spec. and capabilities for any particular release. Always a lot of opportunity there. Yet what to focus with the limited resource? How to do that? Getting more people involved. RSAC is important.
4. Lusheng will be leaving on from the assignment from a couple of weeks later, expecting people to step in and help; will be some big gap (lusheng has been doing a lot); need more participation in that space; ATT will participate yet need someone to take leadership there;
2. Status of Open Action Items (Old Business).

   a. O-CU project to provide O-CU introduction on Cherry planning
      i. O-CU update. See the presentation. https://wiki.o-ran-sc.org/download/attachments/10715432/OSC%20O-CU%20RelC% 20-ICT-8.12.pptx?api=v2
      ii. Questions are raised on e.g. whether the handover procedure could be supported, how/when the O-CU could be integrated with O-DU-HIGH. Some discussion on this. No conclusion. A suggestion from Jack is to request O-CU PTL to organize a meeting and invite all the relevant projects (O-DU-HIGH, OAM, RIC etc.) and discuss the cooperation. Another suggestion from Rittwik is to prioritize the items shown on the slide to make sure some key features such as handoff could be supported for traffic steering use case. It is indicated that if we wait for the 3GPP O-CU features to be finished and then add on the E2 support, it will be two release late.
      iii. **AP: O-CU PTL to organize a meeting and invite all the relevant projects (O-DU-HIGH, OAM, RIC etc.) and discuss the cooperation/requirements b/w O-CU and the other projects**
      iv. **AP: O-CU PTL to prioritize the items shown on the presentation slide (https://wiki.o-ran-sc.org/download /attachments/10715432/OSC%20O-CU%20RelC%20-ICT-8.12.pptx?api=v2) to make sure some key features such as handoff could be supported for traffic steering use case.**
   b. PTLs to keep Cherry deliverable summary tables up to date
      i. A reminder to make sure work is ongoing. Will go throught the table in the upcoming week;
   c. SMO Project PTL Nominations
      i. Currently there are two nomination from Ericsson and VMWare. The nomination will be open until next week TOC call. After that, the voting will be kicked off.
      ii. **AP: Jack will talk with Trisan offline to make sure the voting process is right.**
      iii. Next TOC call, the candidates will be invited to give a short introduction talk.
3. Standing Agenda Items (Brief Status of Ongoing Activities)

   a. Release Manager Trishan de Lanerolle /Release Planning: Weekly TOC Scheduling

      i. Bronze Maintenance Release
      ii. CherryTimeline
   b. user-59b16 Requirements Software Architecture Committee
   c. user-d3360 Integration and Test
   d. Report out from PTL: Stand-Up & Report Out on Blockers

      i. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)
      ii. Matti Hiltunen RIC Applications (RICAPP)
      iii. Thoralf Czichy RIC Platform (RIC)
      iv. user-a934b O-RAN Centralized Unit (OCU)
      v. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
      vi. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
      vii. Martin Skorupski Operations and Maintenance (OAM)

         1. Matin not here. Alex made the presentation which is on https://wiki.o-ran-sc.org/display/OAM/2020-08-12+OAM+report
         2. There was a question out there relevant to OTF team and Alex is suggested to reach David Kinsey for help.
         3. Question from David: If go with DECA microseverice, how much of the DCAE needed up and running in the environment for the OSC to be functional? No conclusion/answer to it. Will be discussed in RSAC. In particular, it is also related to the job division b/w SMO, OAM, ONAP.

            David: RSAC this week not holding meeting, rittwik not available. Suggest to hold this question off and line it up after we have the SMO vote to make sure have right people on; Later there will be two RSAC meetings per week. We are already a little behind for the cherry;
         4. Jack: Regarding how to work with other projects, EC is pushing us to enhance the cooperation; would like to make sure RSAC involved in any requirements we asked for. There is a Jira request on our side document that request and how we can use it. Be careful about how much we build requirement for ONAP. Not all the communities are committed to ONAP. Have to make sure the committeeement we made. That is why we need more participation in RSAC going forward. Need better job of coordination;
         5. Tracy: for some of the requirements that are understood, are you meaning creating corresponding jira ticket in the OSC or coross-referencing? Jack: yes. Not want to duplicate things. There is need to record the process so O-RAN can find out what we are relying on them.
      viii. Alex Stancu Simulations (SIM)
      ix. Xiaohua Zhang Infrastructure (INF)
      x. weichen ni Documentation (DOC)
      xi. (TBD) O-RAN Radio Unit (ORU)
4. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items.
5. Planning for Next Meeting
6. Any Other Business (AOB)

   a. A repo request for approval in the email. TOC should vote offline.
   b. Jinri reminded the request to PTL on the reflector regarding the provision of O-RAN-related open source communities informaiton.

7. Meeting Summary (resolutions, new action items, etc.

   a. **Decision: Moved by Jinri and seconded by David, without objection and abstention, the 20200805 meeting minute is approved.**
   b. **Decision: The maintenance release is approved.**
   c. **AP: O-CU PTL to organize a meeting and invite all the relevant projects (O-DU-HIGH, OAM, RIC etc.) and discuss the cooperation/requirements b/w O-CU and the other projects**
   d. **AP: O-CU PTL to prioritize the items shown on the presentation slide (https://wiki.o-ran-sc.org/download/attachments/10715432/OSC%20O-CU%20ReIC%20-ICT-8.12.pptx?api=v2) to make sure some key features such as handoff could be supported for traffic steering use case.**
   e. **AP: Jack will talk with Trisan offline to make sure the voting process is right.**

2020 08 05

Recording: TOC-weekly-20200805.mp4

Agenda

1. Call for Scribe (minutes owner): Lusheng Ji (AT&T)
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	Y	Ondej Hudousek	
Ericsson	John-Paul Lane		John Keeney	Y
NTT DOCOMO	Masafumi Masuda	Y	Anil Umesh	
Nokia	Juha Oravainen	Y	Thoralf Czichy	
Orange	William Diego	Y	Vincent Danno	
Radisys	Ganesh Shenbagaraman	Y	Sachin Srivastava	
Verizon	Viswa Kumar		Kristen Young	

   *Quorum: 50% or more of total TOC 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 Jack, seconded by John (Keeney), no objection, minutes approved.
4. Review of Today's Agenda

   1. No new agenda item requested.
5. Release Votes and Approval

   1. Maintenance release status: NonRTRIC updated to 2.0.1; INT added demo scripts; unmet objectives moved to Cherry;
   2. Q: William: status of O-CU. Jack: source code only for now; testing/build will be in Cherry.
   3. Q: Jinri: summary of changes. Lusheng: Not yet; will provide.
   4. Q: Juha: license scan? Lusheng: Not yet; will do.
   5. Jack: table vote till next week, pending the action items raised by Q's.
6. Copyright updates
   1. Board info received from Zbynek. Not reached full conclusions yet. Have some resolutions, for example EC can grant Copy Right approvals regarding ASN/1 messages, APIs, for OSC to develop. But still some minor issues remaining to be clarified before this is fully concluded and communicated to OSC.
   2. John Keeney: for code developed before CR grant, how to handle copy right owner request (e.g. reassignment), or treat the 60 day cool off period as dev dead zone?
      1. Jack: our permission for dev from O-RAN Alliance is at the end of 60 day cool-off for the copyrighted materials. Clarification will need to bring to the legal team response beyond this point. Need emails from John and Thoralf for framing the specific questions to legal.
7. Marketing of the current release (WG, LF, PR)

   1. Jinri: not marketing, but some "O-RAN Alliance related issues".
      1. Mirror sites for Asia and Europe: O-RAN board requested OSC to investigate.
      2. EC asks us to provide a list of O-RAN related components being dev in ONAP and by whom; Jinri will send email to reflector for details of the request;
      3. TSC asks us to provide list of O-RAN-related open source projects (e.g. ONAP, Acumos etc.).
   2. John Keeney volunteering for providing info from Non RT RIC perspective; Trishan and William offering help for investigating ONAP side.
   3. Tracy: interested in other open source projects than ONAP? Jinri: Yes
8. Status of Open Action Items (Old Business)

   a. No open action items from before. Going forward will add these 2 items: reflectors and inter-relationship with other open source projects.
9. Standing Agenda Items (Brief Status of Ongoing Activities)

a. Release Manager Trishan de Lanerolle /Release Planning: Weekly TOC Scheduling

      i. Bronze Maintenance Release
      ii. CherryTimeline

b. user-59b16 Requirements Software Architecture Committee

      i. Skipped due to Rittwik not able to make it to today's meeting.

c. user-d3360 Integration and Test

      i. Dev sprint demos will start from Dev Sprint 2 (for achievements from Dev Sprint 1)

d. Report out from PTL: Stand-Up & Report Out on Blockers

      i. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)

            1. Maintenance release enhancements: bug fixes, cert management;
            2. For Cherry:Latest of A1 (pending instructions on what to do with the 60-day cool off); SMO scope alignment; Upstream A1 to ONAP
                a. Jinri: EC meeting is next week for getting clarification on the 60-day cool-off. Need specifics on what questions to clarify.

      ii. Matti Hiltunen RIC Applications (RICAPP)

            1. Skipped due to Matti not able to make it to today's meeting.

      iii. Thoralf Czichy RIC Platform (RIC)

            1. Near RT RIC has a demo next week.
            2. E2AP spec update from Alliance. Configuration transfer; fail-over and scalability, we will see if we can fit in Cherry (discussion with Rittwik).
                a. Jack: make sure what's planned captured in NearRT RIC Platform project Cherry summary table.
            3. Welcoming Samsung and HCL participating in NearRT RIC Platform.
            4. Bronze release back log issues in E2 term/E2 mgr, sub mgr: work in progress. 1 under review (hopefully demo next week). RIC-444, RIC-628 in Dev Sprint 2.

      iv. user-a934b O-RAN Centralized Unit (OCU)

            1. Jack: many interests in O-CU. Can Yingying provide a 10~15 min talk on O-CU plan for Cherry next week or the week after? Jinri: okay.

      v. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)

            1. Sphoorthi:
                a. ODUHIGH tried to integration effort with ODULOW during maintenance release, aligned with Intel's FAPI file.
                    i. Code in master branch now, do we need to move to bronze branch? Lusheng: not have to because this does not impact the (reduced) maintenance release objectives.
                b. FAPI file from Intel not fully aligned with spec. O-DU HIGH implementation aligned with Intel file.
                    i. Jack: A gap that needs to be raised in documentation, make sure Intel follow through, put in a JIRA ticket to track.
                c. Cherry features: UE attachment. O1 interface (minimum health-check)
            2. Ganesh: Welcoming HCL to O-DU HIGH participation.

      vi. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
      vii. Martin Skorupski Operations and Maintenance (OAM)
      viii. Alex Stancu Simulations (SIM)
      ix. Xiaohua Zhang Infrastructure (INF)
      x. weichen ni Documentation (DOC)
      xi. (TBD) O-RAN Radio Unit (ORU)

e. Jack: reminding PTLs on keeping Cherry deliverable summary tables up to date. Will continue on remaining projects. Call on SMO project PTL and contributors, will discuss more next week.

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.

2020 07 29

Recording: GMT20200729-120223_Zoom2-O-RA_1920x1020.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		Ondej Hudousek	
Ericsson	John-Paul Lane	x	John Keeney	
NTT DOCOMO	Masafumi Masuda	x	Anil Umesh	

Nokia	Juha Oravainen	x	Thoralf Czichy	
Orange	William Diego	x	Vincent Danno	
Radisys	Ganesh Shenbagaraman		Sachin Srivastava	
Verizon	Viswa Kumar		Kristen Young	

*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. Vote to approve minutes for 22 Jul 2020
   2. On motion made by Jinri Huang
   3. Seconded by Juha Oravainen
   d. **VOTE:** Vote taken, item passed

4. Review of Today's Agenda

   1. We will continue about the SMO and the voting.
   2. Review the maintenance release and schedule.
   3. Discuss Minute taking and scribe. We have to rotate among the TOC members.
   4. Discussion on Cherry

5. Release Votes and Approval

   1. SMO Vote: Jack: Last week a few people dropped early. We got 4 in favor 1 abstaining 1 against. We need to get to 5 votes across TOC even though we had majority present I want to make sure the TOC takes time to work through it and get approval. We have a standing motion on creating an SMO project brought by Rittwik on the RSAC committee. Are there further clarifications.
      1. AT&T, Ericsson, NTT DOCOMO, and Nokia voted in favor. Jinri abstained.
      2. Jinri: I would like to change my vote to Yes.
      3. William from Orange votes in favor.
         1. Vote to add the SMO project to O-RAN SC.
         2. On motion made by user-59b16
         3. Seconded by John-Paul Lane
         4. **VOTE:** Vote taken, item passed
      iv. Jack: We need to add the SMO to wiki and create a repo in gerrit. **Action**/ user-59b16 add the SMO project to the wiki and gerrit.
      v. Jack: We will need a PTL. Looking for people to take on a role as a PTL for the new SMO project. We should be following Best Practices. As an interested party anyone can contribute to the project. Requires an LF ID. We prefer you use your company's email. If you want to take a more active role you can offer to be a committer. There are a small number of committers per project, minimum 2, maximum 5. The PTL can also be a committer.
      vi. You also have to sign the CLA agreement for licensing. There are two different licenses
         1. Apache license
         2. O-RAN license
         3. For SMO we expect contributions under the Apache license. We are not under the 3GPP interfaces. One of the questions asked by EC. For RIC Near RT controller we have separate applications. We are going to try to capture these applications as SMO applications and continue to see if that works or we need to separate. R-Apps under the SMO projects. We will create a structure that clearly identifies the people.
      vii. **Action**/ user-59b16 start the Principles we will kick the wiki off with these principles. The RSAC has proposed minimum viable product. Looking at O-RAN Alliance working groups specifications. If we don't find specs there then we try to work with them towards the specification so we are not creating throw away code.
   b. Lusheng: Email voting request was sent to the ML on July 9th. The vote if for 3 procedures and best practices.
      i. All gerrit code submissions to include at least 1 Jira issue. This is for tracking purposes. This creates a Link between gerrit submissions and Jira issues.
         1. We currently have 3 votes. Who wants to vote in favor?
         2. Jinri: I thought I already cast my vote via email. I vote yes.
         3. Jack: I vote yes.
         4. That brings us to 5 votes.
         5. **VOTE:** Vote taken, item passed
         6. Lusheng get clarification from LF how to list multiple issue IDs to gerrit.
         7. Will this be a gerrit pre-check?
         8. Yes, the system will return with a warning message.
      ii. License scans are not done until one or two weeks prior to a release. We require more time. LF does not scan SCP repos. That leaves those repos open. LF does have a tool called nexus iq. People have been using that to do license scans. Because of the language the security vulnerability may not be helpful for Java but for Go C++ is not as helpful. Requesting all the repos to add this nexus iq job. Action item for repo owners is to define a job. There are samples available for you to follow.Any questions?
         1. On motion made by Lusheng to include a license scan to all repos.
         2. Seconded by Jinri Huang
         3. **Vote** taken item passed
      iii. Adopting semantic versioning for the artifacts (libraries and docker images and use it for the artifacts). The action item is for the developers and contributors in the future please use major, minor, and patch versioning. We can write some best practices in the future but this is the format. Another action item is what will be the best way to verify a version.
         1. On motion made by Lusheng to include a semantic versioning process to all repos.
         2. Seconded by Jinri Huang .
         3. **Vote** taken item passed

6. Copyright updates
   1. No updates on copyrights
   2. Jinri: Zbynek sent an official copyright notification to us.
   3. Jack: We have an action item that we have to make a proposal to the EC with Stefan but that is still in process.
   4. John-Paul: Is this the 60 day impacts?

5. Jack: No we were talking about the copyright permission from O-RAN Alliance on any copyrighted material. The 60 day gets approved by us and we're refining the language for that feature. That is an alliance issue when the material can be managed copyright material.
6. John-Paul: Is that resolved?
7. Jack: Has the 60 day copyright IPR issues resolved?
8. Action/ Jinri Huang will check with Zbynek of whether this will imapact.

7. Marketing of the current release (WG, LF, PR)
8. Status of Open Action Items (Old Business)
9. Standing Agenda Items (Brief Status of Ongoing Activities)

a. Release Manager Trishan de Lanerolle /Release Planning: Weekly TOC Scheduling

i. Bronze Maintenance Release
1. August 1st is the close out date. I will look to Lusheng to give us a report but I think the progress is less than hoped for in a few areas.
2. Lusheng: Status: we have a couple deliverables planned.
a. O-DU Low running in the OSC integration lab and completing the O-DU high. This is lagging behind. We've been having system related issues. We had 2 dell servers. For some reason the NIC and FPGA cards do not work right on these two servers. Later we got the wolf pass servers. We're having problems installing OS on this server. It will not make it to this weekend.
3. KPI-MON xApp flow the near real time xApp team have been trying to build the docker image with other xApps to complete this flow. There were some problems with the routing.
a. Matti: The subscription manager is rejecting the request. I reached out to the team but have not gotten the response. The internal communication is working but given the time I am not sure we will deliver.
4. Additional minor improvements in documentation and the integration repo to upload demo scripts for people to run the demo.
5. Rittwik: O-DU High is ready to integrate with O-DU Low.
6. Lusheng: The O-DU High can follow the future enhancement to move feature code in Bronze release, update their release notes.
7. John Keeney We don't see the verification jobs when we release. I assume there will be full integration tests. I want to know if we can help.
8. Lusheng; The issue is the base image that your docker file requires has expired on the staging docker registry. We need to generate that first.
9. Henrik Anderson: Will the staging jobs be ready?
10. Lusheng: The LF has two registrys STAGING and RELEASE. If it's in the staging registry it will live there for 30 days. Jenkins has a job that will regenerate the newest version of the base image. That image gets refreshed. It will exist in the staging repo. The build reference is to the previous version of the base image. We need to figure out to regenerate.
11. Henrik: When we push things to the Bronze branch they don't exist in the staging repo.
12. Lusheng: Let's work offline.
13. Jack: We are looking for people who will be interested in Integration and Test. Lusheng will be reducing his time. We need more participation in the integration and test area beyond their project. We need coordination work to have a few more people involved.
ii. CherryTimeline
b. user-59b16 Requirements Software Architecture Committee

i. Rittwik: EC has reqested a requirements document for the RAN simulator. That allows us to socialized with the EC and TOC for bidding for a RAN simulator.
ii. Jack: Any PTL who wants to leverage the simulator beyond planning and generating data should communicate to your their requests and requirements. Anyone who has needs in that space reach out to user-59b16 for the Cherry release. Since there is a cost associated we want to make sure we're getting everyone's input.
iii. Are all the use cases finalized for Cherry?
iv. Rittwik: Yes, they are in the wiki and lifecycle management for the SMO and the traffic steering and health-check use cases.
v. Matti: I have new teams that want to contribute to xApps. I will reach out to you.
c. user-d3360 Integration and Test
d. Report out from PTL: Stand-Up & Report Out on Blockers

i. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)
ii. Matti Hiltunen RIC Applications (RICAPP)
iii. Thoralf Czichy RIC Platform (RIC)

1. See status notes under "Status 2020-04-29 and 2020-04-30 and 2020-05-06 and 2020-05-12" in Bronze Release (Jun 2020)
iv. user-a934b O-RAN Centralized Unit (OCU)
v. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
vi. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
vii. Martin Skorupski Operations and Maintenance (OAM)
viii. Alex Stancu Simulations (SIM)
ix. Xiaohua Zhang Infrastructure (INF)
x. weichen ni Documentation (DOC)
xi. (TBD) O-RAN Radio Unit (ORU)
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. Actions
i. **Action**/ user-59b16 add the SMO project to the wiki and gerrit.
b. Votes
i. Review and Agree to Minutes of Previous Meeting

1. Vote to approve minutes for 22 Jul 2020
        2. On motion made by Jinri Huang
        3. Seconded by Juha Oravainen
        4. **VOTE:** Vote taken, item passed
    ii. Vote to add the SMO project to O-RAN SC.
        1. On motion made by user-59b16
        2. Seconded by John-Paul Lane
        3. **VOTE:** Vote taken, item passed
    iii. On motion made by Lusheng to include a license scan to all repos.
        1. Seconded by Jinri Huang
        2. **Vote** taken item passed
    iv. On motion made by Lusheng to include a semantic versioning process to all repos.
        1. Seconded by Jinri Huang .
        2. **Vote** taken item passed

2020 07 22

Recording: GMT20200722-120257_Zoom2-O-RA_1920x1080.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		Ondej Hudousek	
Ericsson	John-Paul Lane	x	John Keeney	
NTT DOCOMO	Masafumi Masuda	x	Anil Umesh	
Nokia	Juha Oravainen	x	Thoralf Czichy	
Orange	William Diego	x	Vincent Danno	
Radisys	Ganesh Shenbagaraman	x	Sachin Srivastava	
Verizon	Viswa Kumar		Kristen Young	

   *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 no corrections.
        i. Vote to approve minutes for 15 Jul 2020
        ii. On motion made by Jinri Huang
        iii. Seconded by John Paul Lane
        iv. **VOTE:** Vote taken, item passed
4. Review of Today's Agenda

    a. ~~Action~~ / Farheen Cefalu add it to the top of the agenda next week. Do we create a new project called the SMO as described by the needs of the requirements committee?
    b. ~~Action~~/ user-59b16 bring slides for the SMO project proposal.
5. Release Votes and Approval

    1. John Paul Will we take a vote on the 3rd party technical charter today?
    2. No
    3. There was an ACOP meeting IPOR how soon after a spec can the spec be used? How many days were required from when approved to when it can be used. 60 or 90 days? There is an action has the OSC been engaged.
    4. Not engaged.
    5. There is a question from when the working group approves there is a 3 month delay before it can be exercised.
    6. The company that owns or contributes it is their responsibility. Once it becomes a part of the O-RAN specification it begins after board approval. Is it 60 - 90 days after the board?
    7. Yes, after the board approves there is an 30 day delay. This may impact on the OSC so the OSC should be involved with the conversation.
    8. Jinri: I am aware. Which meeting are you speaking about?
        1. John Paul It was an ACOP meeting.
        2. Jinri: During the board meeting last month after the TSC submits. Before board approves they will request the O-RAN legal review to allow companies to review their IPR status. They will decide on options for royalties. The 60 days allows the companies to review their IPR. After 60 days an additional 30 days to allow O-RAN to publish. For OSC this will not impact us. Even with the specification we can get some approval from EC for copyright.
        3. Jon Paul In he ACOP said that there may be impacts to OSC.
        4. Jinri: There is possibly some risk here. During the 60 days some company claims an IPR. But what if during that period the OSC has implemented the spec with the IPR.
        5. Jack: We will continue that clarification moving forward.
6. Copyright updates

7. Marketing of the current release (WG, LF, PR)
8. Status of Open Action Items (Old Business)

   a. **Action** / Jack get the O-RAN teams perspective on Juha's concern whether Lusheng's 3rd party proposal is in line with the technical charters.
      i. Lusheng sent out an email with multiple requests. He removed the license vote from the most recent
   b. ~~**Action**~~/ Jinri Huang ask Zbynek.   didn't get a formal notification from Zbynek regarding copyright policy approval by the board.
   c. **Action**/ Jinri Huang send Jack and Farheen Zbynek's official O-RAN approval.
   d. **Action**/ Farheen Cefalu post on wiki and oran site.
9. Standing Agenda Items (Brief Status of Ongoing Activities)

   a. Release Manager Trishan de Lanerolle /Release Planning: Weekly TOC Scheduling

      i. Bronze Maintenance Release
      ii. CherryTimeline
   b. user-59b16 Requirements Software Architecture Committee

      i. SMO for Cherry Release: Cherry SMO (with future items in rel D "Dawn" or beyond)
         1. Jack - this is a project. Continue the OSC journey to bring enough code to bring a minimum viable product and position so that companies can take it and commercialize it. The intent is not to make a commercial SMO for people to pull and use instead to make it functional so people can demontrate. We should not want to fork code or duplicate code. We want to recognize during development in case of ONAP it is hard to synchronize with upstream projects. There will be a pull/push of code in order for people to see progress. We are not going to name a PTL today. We will establish a project first with a range of companies to demonstrate of pulling together an O-RAN system that shows functionality and progress.
         2. Jack: Should SMO be ONAP based or other project? The community should decide by where and how it contributes. We are asking for an SMO based project. If we want to create a project that is MANO focused then let the community drive what are the options. We are doing that in the DU LOW. The community should decide and evolve. For today we are talking about an SMO that is ONAP focused. I recommend to create them as two separate projects with two PTLs.
         3. Jinri: Currently OAM project is focused on O1 interface. SMO is focused on O2.
         4. Jack: The Non Real time RIC is 15% of what SMO should be. OAM is larger but combined they are far less than 50% of what the SMO is going to be. There are catalogs and ML that can not be addressed by either OAM or NonReal time RIC. There is a whole series of items that will be pushed into revision control that goes into Life Cycle Management (LCM). If something else becomes a subcomponent we will consider splitting it out to allow ease of development.
         5. Rittwik: Outside of the bounds of the NONRT RIC have to be in scope of another project such as SMO.
         6. John Keeney: We need to be very clear about the scope of the overlapping projects. We can't come to agreement or in the Alliance either. If you look at the scope suggestions for NONRTRIC we will need to change. We need to define what is and what is not in scope of NONRTRIC. I would like to ask for ideas of how we clearly define the scope?
         7. Jack: The process defines that there is another side and define what that boundary. Doing it one sided complicates. That is why we need the SMO project to work through that discussion. SMO will not work overnight. We need to work the project and work down those discussions. The truth is we need to move forward on making and demonstrating a larger working environment and figure out way to do that.   We have been discussing for three weeks. Rittwik has brought a proposal. We need to go through steps to get this resolved through Dawn release. If the SMO becomes a big or small project that is yet to be determined. The intent is not to re-create the code. This is beyond the requirements of the integration and test team. Without the effort of the SMO we won't get a more functional.
         8. John Keeney: If we are agreeing that there needs to have a defined scope.
         9. Jack: Having an upper level in a stack requires a defined scope.
         10. John Keeney: As long as we understand there needs to be time dedicated to scope definition negotiation.
         11. Jack: This is a journey we've been on. I've noticed that multiple people creating different dashboards that will require technical debt to coordinate. That needs to be discussed.
         12. John Paul: I agree with Jack this is a journey.
         13. Gill: Should we agree where the functionality goes?
         14. John Keeney: That should be RSAC.
         15. Jack: There may be a technical change downstream that allows you to make a decision.
         16. John Keeny: You mentioned avoiding code duplication. How do we coordinate that?
         17. David Kinsey: you should have Jira tickets to track what is being planned. Documenting the capabilities and features is needed in order to coordinate through jira.
         18. Jack: We don't steer what ONAP does so we may not agree with their implementation. It has to work through the RSAC to accomplish our goals. It needs to be better coordinated.
      ii. Rittwik is proposing an SMO project for Cherry. On motion made by Rittwik to create and SMO project with an ONAP focus at this time. We are open to other projects in the future.
         1. Seconded by John Paul Lane
         2. Jinri Huang abstains
         3. No negative votes
         4. John Murray votes in favor
         5. Masafumi Masuda votes in favor
         6. Juha Oravainen votes in favor
         7. We will work offline for clarification because Ganesh Shenbagaraman dropped early and Jinri Huang wants time to think about it.
   c. user-d3360 Integration and Test
   d. Report out from PTL: Stand-Up & Report Out on Blockers

      i. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)
      ii. Matti Hiltunen RIC Applications (RICAPP)
      iii. Thoralf Czichy RIC Platform (RIC)

1. See status notes under "Status 2020-04-29 and 2020-04-30 and 2020-05-06 and 2020-05-12" in Bronze Release (Jun 2020)
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   - v. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
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   - x. weichen ni Documentation (DOC)
   - xi. (TBD) O-RAN Radio Unit (ORU)
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. Actions
      - i. **Action** / Jack get the O-RAN teams perspective on Juha's concern whether Lusheng's 3rd party proposal is in line with the technical charters.
      - ii. **Action**/ Jinri Huang send Jack and Farheen Zbynek's official O-RAN approval.
      - iii. **Action**/ Farheen Cefalu post on wiki and oran site.
   b. Votes
      - i. The minutes of the prior meetings were reviewed, and no corrections.
        1. Vote to approve minutes for 15 Jul 2020
        2. On motion made by Jinri Huang
        3. Seconded by John Paul Lane
        4. **VOTE:** Vote taken, item passed
      - ii. Rittwik is proposing an SMO project for Cherry. On motion made by Rittwik to create and SMO project with an ONAP focus at this time. We are open to other projects in the future.
        1. Seconded by John Paul Lane
        2. Jinri Huang abstains
        3. No negative votes
        4. John Murray votes in favor
        5. Masafumi Masuda votes in favor
        6. Juha Oravainen votes in favor
        7. We will work offline for clarification because Ganesh Shenbagaraman dropped early and Jinri Huang wants time to think about it.

2020 07 15

Recording: GMT20200715-120233_Zoom2-O-RA_2108x1120.mp4

Agenda

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2. Roll Call & Quorum Check

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Ericsson	John-Paul Lane	x	John Keeney	
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Nokia	Juha Oravainen	x	Thoralf Czichy	
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Radisys	Ganesh Shenbagaraman	x	Sachin Srivastava	
Verizon	Viswa Kumar		Kristen Young	

*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 no corrections.
      - i. Vote to approve minutes for 08 Jul 2020
      - ii. On motion made by user-2057e
      - iii. Seconded by Juha Oravainen
      - iv. **VOTE:** Vote taken, item passed
4. Review of Today's Agenda

   1. Farheen put SMO as an open item
   2. Rittwik requesting extending the timeline for the maintenance release.
   3. Lusheng disucss licensing attribution
5. Release Votes and Approval

1. Currently items out in email for voting.
     1. Gerrit submissions to have Jira id reference
     2. All repos to define the Nexus IQ scan for licensing.
     3. Symantec versioning.
         1. Email vote was sent on July 9 and so far we have 3 votes.
         2. Ganesh will respond with 3 votes.
6. Copyright updates
     1. Jack: We got confirmation that the copyright approval is in place. The board gave the EC permission to approve copyright requests from OSC. But the EC wanted clarification on how we want to structure that. If anyone has input send it this week about items they are concerned about so I have everyones input so I can continue to work it with EC. We cover error messages and apis and if someone has particular concerns send me a message so I can get this wrapped up.
7. Marketing of the current release (WG, LF, PR)

     1. OSC Logo status
8. Status of Open Action Items (Old Business)

     a. **Action**/ Jinri Huang ask Zybnek.   didn't get a formal notification from Zbynek regarding copyright policy approval by the board.
     b. **Action**/ Jinri Huang send Jack and Farheen Zbynek's official O-RAN approval.
     c. **Action**/ Farheen Cefalu post on wiki and oran site.
     d. ~~Action~~/ Farheen Cefalu update www.o-ran-sc.org site with Bronze Press Release .
     e. ~~Action~~/ Farheen Cefalu We will post a link to the LF Insights in the Software page.
     f. ~~Action~~/ Farheen Cefalu get link to virtual exhibition from Jinri and post it on the home page of the wiki.
     g. ~~Action~~/ Farheen Cefalu put SMO discussion on the agenda.
     h. **Action**/ user-59b16 bring slides for the SMO project proposal.
9. Standing Agenda Items (Brief Status of Ongoing Activities)

     a. Release Manager Trishan de Lanerolle /Release Planning: Weekly TOC Scheduling

         i. Bronze Maintenance Release
             1. Rittwik - 2 items being tested
                 a. Pipeline - simulator trace file and KPI MON are both back logged. KPIMON is in the repo but subscription is not working correctly. Samsung is investigation. Viavi gave us a schema however trace file needs to be obtained. One week extension at least or two weeks are better.
                 b. Setting up lab with O-DU testing.
                 c. One week is not enough for both items. If possible two week extension.
                 d. Matti - we can not guarantee we can get it working. Subscription manager folks are on vacation this month and we will attempt but no guarantees can be made.
                 e. Lusheng - Yes accurate what Rittwik described. Everything is installed and now we can access the servers and ready to open up to Intel and Wind River for install. It's taking longer than expected so an extension will be nice.
                 f. John-Paul - It will be good to know a definite date. Ongoing extensions we have to make a call.
                 g. Jack - The original Cherry date is July 18. The maintenance release was July 18. The Bronze delayed by one week. This is a concern that we are creeping into the Cherry release development. The Bronze maintenance release will be dead ended on August 1. The maintenance release is scheduled for July 25th. There is a no activity block between June 27 - 31. We will fill up this no activity week and add an additional week to August 1. Maintenance release from July 25 - August 1.
                 h. John-Paul - Acceptable as long as we don't push into the Cherry development.
                 i. Zhimin - Server can be brought up. We need to program the server that will take time to prepare for the setup. It is not possible to finish the O-DU Low and O-DU High by August 1.
                 j. Jack - That will move out of Bronze timeline to Cherry. How will that effect your Cherry development.
                 k. Zhimin - From integration perspective we need to finish the O-DU Low and O-DU High integration. For O-DU Low there is uncertainty. I am not sure what is the overall impact to get into Cherry.
                 l. Rittwik - My understanding was Low, High pairwise testing in Cherry. If we could test the RU test simulator with DU low that will suffice for the bronze maintenance release.
                 m. Zhimin - We are remote programming which is causing delays. Programming the accelerate.
                 n. On motion by Rittwik to extend the maintenance release deadline to August 1 with guidance not to extend that time.
                     i. seconded by John- Paul
                     ii. **Vote** taken, item passed
                 o. Jack - Let's pull together these key items so we can move on to focus on Cherry. Ganesh any concerns from your side? The low to high integration is primarily in Cherry.
                 p. Ganesh - We will work this out with Intel.
         ii. CherryTimeline
     b. user-59b16 Requirements Software Architecture Committee
     c. user-d3360 Integration and Test

         i. Lusheng - Originally it was brought up as an email vote that is going on. There is discussion about this particular item. Also from Sorav there were concerns about original licensing proposal. Sharing slides
             1. OSC License policy. some of the code is not licensed as Apache 2. We used previously an attribution list. We are asking TOC explicit case by case. We are including for example MIT license as source code. Going forward we should adopt a policy that is limiting popular and friendly licenses instead of going on a code case by case basis. There was a misunderstanding mostly on my part of what are the popular open source license. Creativeco mmons.org. has a large variety of licenses. I am now revising this request to a shorter list. The charters are using Apache2 for code. Ask user-d3360 for details.
             2. Requesting TOC to vote on allowing 3rd party code use policy.
             3. Jack this is too complicated to rush to vote. Action participating companies review your corporate legal licensing issues with your company and come back with comments. We have time to get this resolved. We want to clarify the use of software licenses for the development team. Each company needs to go and do their research and come back if things on this list make sense then we need to follow a process. Trishan and Lusheng have run it past the LF team and you are comfortable with this?

4. Trishan, Yes.
5. Juha - Nokia had this original proposal requires approval. This new proposal has to be reviewed. Is this new proposal in line with the technical charters or should the charters be updated first?
6. **Action** / Jack get the O-RAN teams perspective on Juha's concern whether Lusheng's 3rd party proposal is in line with the technical charters.

d. Report out from PTL: Stand-Up & Report Out on Blockers

   i. John Keeney Non-RealTime RIC (RAN Intelligent Controller) (NONRTRIC)
   ii. Matti Hiltunen RIC Applications (RICAPP)
   iii. Thoralf Czichy RIC Platform (RIC)

      1. See status notes under "Status 2020-04-29 and 2020-04-30 and 2020-05-06 and 2020-05-12" in Bronze Release (Jun 2020)
   iv. user-a934b O-RAN Centralized Unit (OCU)
   v. Sachin Srivastava O-RAN Distributed Unit High (ODUHIGH)
   vi. Zhimin Yuan O-RAN Distributed Unit Low (ODULOW)
   vii. Martin Skorupski Operations and Maintenance (OAM)
   viii. Alex Stancu Simulations (SIM)
   ix. Xiaohua Zhang Infrastructure (INF)
   x. weichen ni Documentation (DOC)
   xi. (TBD) O-RAN Radio Unit (ORU)

10. New Agenda Items (New Business): New Items Submitted (+speaker) & Open Call to TOC For Additional Items.

    a. Do we create a new project called the SMO as described by the needs of the requirements committee? **Action** / Farheen Cefalu add it to the top of the agenda next week.
    b. Rittwik - If the need for the SMO is realized next week then can we get the group together quickly in the interest of time for the Cherry impacts.
    c. Jack - Starting a new project takes time to get over the original startup threshold. Gathering the team getting all the repos in place. The expectation whenever we add it will be limited. The second release is when you start to see the team work .

11. Planning for Next Meeting
12. Any Other Business (AOB)
13. Meeting Summary (resolutions, new action items, etc.

    a. **Actions**
       i. **Action** / Farheen Cefalu add it to the top of the agenda next week. Do we create a new project called the SMO as described by the needs of the requirements committee?
       ii. **Action**/ user-59b16 bring slides for the SMO project proposal.
       iii. **Action** / Jack get the O-RAN teams perspective on Juha's concern whether Lusheng's 3rd party proposal is in line with the technical charters.
       iv. **Action/** Requesting TOC to vote on allowing 3rd party code use policy
       v. **Action**/ Jinri Huang ask Zybnek.   didn't get a formal notification from Zbynek regarding copyright policy approval by the board.
       vi. **Action**/ Jinri Huang send Jack and Farheen Zbynek's official O-RAN approval.
       vii. **Action**/ Farheen Cefalu post on wiki and oran site.
    b. **Votes**:
       i. On motion by Rittwik to extend the maintenance release deadline to August 1 with guidance not to extend that time.
          1. seconded by John- Paul
          2. **Vote** taken, item passed
       ii. The minutes of the prior meetings were reviewed, and no corrections.
          1. Vote to approve minutes for 08 Jul 2020
          2. On motion made by user-2057e
          3. Seconded by Juha Oravainen
          4. **VOTE:** Vote taken, item passed

2020 07 08

Recording: 2020_07_01_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		Ondej Hudousek	
Ericsson	John-Paul Lane	x	John Keeney	
NTT DOCOMO	Masafumi Masuda		Anil Umesh	
Nokia	Juha Oravainen	x	Thoralf Czichy	
Orange	William Diego	x	Vincent Danno	
Radisys	Ganesh Shenbagaraman		Sachin Srivastava	x

| Verizon | Viswa Kumar | | Kristen Young | |

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3. Review and Agree to Minutes of Previous Meeting

    i. The minutes of the prior meetings were reviewed, and no corrections.
        1. Vote to approve minutes for 24 Jun 2020
        2. On motion made by Juha Oravainen
        3. Seconded by John Paul
        4. **VOTE:** Vote taken, item passed
    d. Review of Today's Agenda
    e. Release Votes and Approval
    f. Copyright updates
        i. Jack will get the new software specifications posted on the site. The board had a meeting and approved. The leadership was supportive and excited about the progress. Virtual exhibition has some nice demos.
        1.   1.   1. John-Paul are there plans to make the Virtual Exhibition publicly accessible.
                        2. Action/ John Murray will check the progress of making the Virtual Exhibition being made public.
            2. Action/ Farheen Cefalu add a link to the LF analytics Insight on this page.
        2. Marketing of the current release (WG, LF, PR)

            1. Bronze Release PR
            2. Virtual Exhibition.
            3. OSC Logo status.
        iii. Status of Open Action Items (Old Business)

            1. ~~Action~~ / user-d3360 add the topic of license attributions to the agenda. We want to start the pairwise testing.
            2. ~~Action~~/ John Murray get clarification regarding transfer of AT&T Apache code into the new dual license repo
                a. Apache can be copy forward but we do not remove the Apache license. We will move that to an inactive status and the Samsung contributions will be in the new license repo.
        iv. Standing Agenda Items (Brief Status of Ongoing Activities)

            1. Release Manager Trishan de Lanerolle /Release Planning: Weekly TOC Scheduling

                a. Releases Cherry Release Planning

                    i. We should be in the epic and what are the main end to end use cases.
            2. user-59b16 Requirements Software Architecture Committee

                a. Sharing spreadsheet.
                    i. OCU Epics. These are the things we will do with O-CU. WG8 epics for Cherry. No Bronze pairwise testing with O-CU. Still pairwise testing with O-CU High.
                    ii. OTF Epics. Planning resources for OTF.
                        1. Eliza some epics are lower priority for Cherry. Also the deployment of xApps and rApps. That is not here. Eliza Celenti is coming up with a plan.
                        2. Rittwik will catch up David about call flow.
                        3. David Kinsey yes, we have to establish a timeline and xApp deployment. We came up with a simple approach of a flow. We want O-SC to have a Cherry requirement. This will validate O2. The app should be able to join with the RIC.
                        4. user-59b16 will that touch non RTU RIC?
                            a. David Kinsey not really. You will have a piece of the SMO and xApp. The non RT RIC is aware ahead of time and doesn't use A1 to discover. We should have a discussion but may not be able to form epics.
                        5. Non RT RIC is a requirement study.
                            a. You have to have some software. Parts are at risk and others are not. SDK will not be at risk. The thing in the SMO that would manage the LCM would be at risk. We are proposing it can be applied to MANO or ONAP but it would have to be downstream to provide real value.
                            b. ACiton/ David Kinsey set up a meeting with Martin Skorupski to continue discussion.
                    iii. INF Epics
                        1. StarlingX is the commercial apps. Which part is commercialized? I think StarlingX is what is being commercialized. What we have with OSC is a derivative of that.
                    iv. NRT RIC has a lot of epics. The epics come down to many things. Some of it may happen in Cherry and some may not. There is a priority list of High, medium, low.
                        1. The PTL and the people need to manage their epics. The key is to have the E2E use cases working.
                        2. The ETE flows have not chained. There were four health check flows.
                        3. We need to have a checklist of where we are with the end to end flows. They are complex. It is important that you give organization for each use case of where we are in the progress of that use check.
                    v. We had a discussion on O-DU High on flows but because of resources and time we have to have a prioritized, stretched, and agressive plan to demonstrate significant progress to the overall flow.
                    vi. ODU-Low epics
                    vii. Simulator E2 simulator enhancements.
                    viii. Traffic Steering xApp Bronze - Viavi decided to contribute access to some of their tools. Add it to the agenda. Be sure everyone understands what's available from the simulator.
                    ix. What are the major advances that are significant to the E2E use cases.
                        1. Get the pipeline working. For Cherry it is ambitious to get the KPI-MON thru the xApp.

2. Mentality how do you get the data just in time and target a UE. That's the E2E healthcheck validation. See RSAC Cherry Release presentation.
3. E2 service model may not be fully complete before sprint development starts. This is pre-spec. so it will be a challenge.
x. Healthcheck - The healthcheck flows will not change. Components will have to adhere. near RT RIC has not completed their flows. It is up to the PTLs to take a look. We need a score card or else we wont know where people are at.
xi. LCM - David is coming up with call flows.
xii. Jack - Does anyone want to add items to our E2E use case. How do we show A1 functionality? How do we demonstrate more of the A1 controller as part of the E2E use cases?
1. John-Paul Is there something required for OR-Apps?
2. Jack How do we pull cases together like rApps and getting the SDK in place and get rApps. We have the pieces but to pull it all together we need to create 2 projects. 1 for SMO and who wants to contribute a model. I want to open up a discussion to create an SMO project and elect a PTL to make an overall system gradually. I do want people to think about it and who would want to participate in organizing it. We need to start and manage contributions to it to get to the point of getting rApps in place.
3. John-Paul If we had an ORApp.
4. There is a Hello World that can be either rApp or OApp.
5. We can list some of the code for the R1 interface.
6. These need to go into more depth in the RSAC. We can summarize here but the details.
7. I am getting interest in O-DU Low project. The question is how best to manage that. I thought the most effective way is to treat them in parallel. We can see how much code can be used across them. There is interest and people will be joining in the next few weeks to discuss.
8. Rittwik - I will update the spreadsheet. When the planning is done it is up to the PTLs to run with it.
9. Jack - The challenge in Cherry is to develop technology adding the O-1 interface and become more of a functional subsystem. We will get O-CU code that will start to fill out those blocks. Just because people are active in xApps we don't want to lose the focus of developing all the parts of the stack. Each component should advance a certain amount in that release in coming up with an O-RAN system.
10. PTLs think about advancing their modules and making it interoerable with the E2E flows. We must make it a useful system where people can grab parts of the code and move the whole O-RAN community forward. Try to make as much re-usable for the community as they leverage those products. We've gotten through 2 releases and declared the paths we're on. We have to listen to the larger community and grow participation of people using and contributing the code. This will only happen if people and companys participate.
11. Think of how we can improve Cherry. Look for ideas of how to improve how we work. We need to grow and round out. This is a group of small teams. O-RAN Alliance is over 200 members we have to get more people to participate. It is a project for wider participation including service providers not just generating specs but dealing with ramifications of using those specs.
3. user-d3360 Integration and Test

a. user-d3360 discuss general practice.
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b. Any Other Business (AOB)
2. Meeting Summary (resolutions, new action items, etc.)

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    i. **Action**/ John Murray will check the progress of making the Virtual Exhibition being made public.
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        2. On motion made by Juha Oravainen
        3. Seconded by John Paul
        4. **VOTE:** Vote taken, item passed
b. Actions
    i. **Action**/ John Murray will check the progress of making the Virtual Exhibition being made public.
    ii. **Action**/ Farheen Cefalu add a link to the LF analytics Insight on this page.