**Title:** RAN4 Workload Management

**Document for:** Discussion

# Introduction

In this document, the comments on the RAN4 workload management WF are gathered. These will be further input to the WF in RP-101258

# Topics for discussions

## Agenda and time allocations

* Agenda/topics should be reduced to focus the discussion and make it easier to reach agreements
  + Rapporteurs/moderators could be tasked to identify key topics for each meeting and the focus of the meeting should be on those
  + A work plan for multiple meetings with topics to be discussed in each meeting could be followed
* RAN4 discussions should be strictly technical and should be escalated to the Plenary when they are not:
  + Technical issues should be brought to the plenary only as a last resort

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| **Company** | **Views** |
| MTK | In principle, we agree to have some downscoping on the issues to be discussed in order to allow RAN4 to focus on the essential issues. But reducing the agenda item may not work because companies will try to bring one long TDoc with dozens of issues (already the case in RAN1). The more efficient way is still to rely on rapporteur and moderator to downselect the key topics. E.g., some topics may even not be discussed during the meeting. To achieve this, a workplan for multiple meetings could help.  On top of an agreed workplan, we should still allow companies to bring new issues that were not discussed in previous meeting but are critical to the completion of the WI. Whether the issue is critical can be decided by session chair/rapporteur/moderator. |
| Apple | Since different companies have different prioritization orders, it is difficult to rely on voluntary based downscoping in working group level. We think the best way is to officially reduce the scope in RAN plenary. Unfortunately, there is only one email thread limited to RRM and CSI-RS WI downscoping discussion. We think all RAN4 remaining work in the exceptional sheet should be visited in the plenary. |
| Qualcomm | We agree with the moderator’s observations/proposals. In addition, we would like to note the following:  Some of the most controversial topics consuming much meeting time are still on Rel-15 items despite the uptake of 5G networks worldwide and the fact that there are millions of UE devices in the field   * RAN4 should only discuss **\*critical\*** Rel-15 **\*corrections\*** * The following items should not be discussed under the Rel-15 agenda items: TxDiv, UE power class ambiguity, … |
| ZTE | We support to have each RAN4 e-meeting more focused. And the proposal of multiple meeting planning is worth to try. In this way each RAN4 meeting can focus on one or a limited number of “pieces” with better chances to make some progress, while the same scope can remain as it is now, if good progress is made. |
| Nokia | We agree with the moderator’s proposals and support Qualcomm’s additions as lots of time in RAN4 is still consumed for Rel-15 topics although Rel-15 has been frozen for long time and these Rel-15 topics are not related to any critical Rel-15 CRs. |
| Intel | Overall agree that some prioritization of topics can be helpful. Same time reducing agenda/topics before the meeting can be quite controversial. RAN4 already did a try to down-scope some of the WIs before one of the previous RAN4 meetings, but there were diverse views on this and no conclusions reached. We think that appropriate way is to perform downscoping in plenary.  Moderators are encouraged to provide the prioritization of issues for online discussion during F2F meetings or during GTW during e-meetings.  Agree that technical issues should be brought to the plenary only as a last resort. |
| China Telecom | We also agree that down-scoping of agenda/topics should happen in RAN plenary.  For the work plan for multiple meetings with topics to be discussed, we think this needs to be discussed case by case, i.e., moderator can do this but may not mandate to do this.  Moreover, we think it is important to allow moderator to propose a timeline for completing each of the issue, especailly for issues that have been discussed for several meetings with no new technical analsyis. |
| CMCC | Downscoping has already been discussed for some WIs in this plenary meeting. RAN4 had tried to do some downscoping on the agenda items before the meeting, but unfortunately, it failed to reach consensus. I assume that if moderators provide some prioritizations, the same situation will happen again. So downscoping in plenary level is highly appreciated and important, and can facilitate the RAN4 discussion. If it is not possible to discuss every WIs in this week, maybe RAN can task RAN4 to do this in August meeting. Then the discussion would be more focused. |
| T-Mobile USA | We support the Moderator’s proposals and the addtions proposed above by Qualcomm. |
| Samsung | RAN-P would be more proper place to discuss on the down-scoping of remaining open issues under Rel-16 WIs based on the exception list as WGs should strictly follow WID and try to complete all the work in time.  Regarding the meeting agenda and topics for each WI/topic areas, RAN4 should strive to complete all the remaining open issues on Rel-16 WIs in Q3, no way to down-scope on topics for Rel-16 WIs in August RAN4 meeting as well as these topics still be included in the scope of Rel-16 WIs.  For long term Rel-17 handling, per the guild-line in RP-200571 from RAN leadership, RAN4 could consider to have cap on number of email threads and number of topics each email threads considering TU assignment per WI. And  rapporteur could provide some recommendations for the priority list. |
| vivo | We generally welcome the principle from the moderator.  For the detailed selection of Agenda, it is still upon Chairman’s guidance and companies’ preference. |

## GTW Sesssions

* GTW sessions were useful in reaching more agreements
* Agenda for online sessions should be rotating so that we do not end up always discussing only the first topic on the agenda. Also, there should be rotation of topics for GTW avoiding always treating the same items.
  + If there are more than one topics to be discussed in GTW in particular day, time allocation shall be provided for each topic and shall be strictly followed
  + Handling of FR1/FR2 topics order could be rotated
  + No single item should take more than ~90 minutes
  + Session chair should make sure that this is implemented
* Online sessions should adhere to the scheduled slot
  + ~30minutes extension could be acceptable but not more

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| **Company** | **Views** |
| MTK | Regarding the 2nd bullet, we prefer to let session chair to decide which Agenda to be treated first because the urgency of different topics could be different. Taking a round-robin approach may not good in some cases. A time cap of a single item is OK to us  < 30min extension is Ok, although the preference is no extention. |
| Apple | 1. We should make sure GTW session within 5:30am-12:30am anywhere on earth. 2. It is a bit hard to agree on the principle of order/agenda in GTW since situations vary. Based on moderators’ inputs, topics should be fairly treated. We agree the importance to follow the pre-defined agenda and time allocation. Meanwhile, chairmen should be left with enough flexibility to handle the discussion as what we have done in f2f meeting. |
| Qualcomm | We agree with the moderator’s proposals/obervations. |
| ZTE | Agree.  GTW is important to drive discussions for consensus/agreements in each e-meeting. Improving GTW is helpful for making progress. GTW session chairs may have a more clear whole picture on the ongoing discussions within the group, though some flexibility might be necessary, need to make sure each planned topic can be treated. |
| Nokia | We agree with the moderator’s proposals |
| CMCC | We feel that it is difficult to set some hard rules on choosing topics and how to treat the topics for GTW session. GTW is quite important for making progress on controvertial topics, and better to be treated based on moderator’s input and session chair’s organization.  Regarding the ~30minutes extension for online session, we support this proposal |
| T-Mobile USA | We agree with the moderator’s proposals. |
| Intel | In general, the principle adopted in RAN4 is that session chairs asks moderators for the set of topics to be treated and also their priorities. Based on these inputs, the final agenda is decided. Putting a hard constraints on time allocation may reduce the flexibility of topic handling and is not preferred. Some topics can be decided fast, while other topics may require more time for discussion. This depends on the particular set of issues recommended for GTW discussion. Of course, from session chair perspective I’ll aim to follow the agenda as much as possible.  Topic rotation can be implemented but should be judged on a case by case basis.  Agree with no more than 30min extension. |
| China Telecom | Genearlly we also agree the importance to follow the pre-defined agenda and time allocation.  But usually it would be difficlut to strictly follow that. This is also the situation in the f2f meeting. In many cases, the Chairmen may not accurately know how controvisal one topic will be. |
| Samsung | For August RAN4 meeting, the principles in previous RAN4 E-meeting still can be followed :  . Selected topics treated in GTW session which focused on critical and urgent topics on this on-line meeting i.e. 1) topics have cross-WG impact,  ASN.1 frozen  ; 2)  topics impact Rel-16 core finalization  ; 3) controversial  topics without progress for more than 1 meetings  . The GTW agenda need to be shared at least 16 hours before GTW session  For long-term, the treatment on GTW session need to be aligned with TU request, meanwhile we also need to allow the flexibility that RAN4 leadership can make some adjustment based on the overall progress status.   Agree to adhere to the scheduled slot and no extension over than 30 minutes with well-planned/controlled GTW schedule. |

## Moderators and allocations of WFs

* Rapporteurs should be consulted on moderator selection
* Moderators should be given more authority to drive the discussions
  + Comments going against prior documented agreements should be discarded (moderator should ignore them), if the prior agreement is still contested by someone, chairman should intervene
    - Moderator (preferably) or even other delegates should notify the chairmen, it cannot be expected that session chairmen monitor all threads
    - As usual, newly identified errors in previous agreements can be addressed in Tdocs together with technical justification
* Feedback for moderators is more than welcome
  + Moderators with negative feedback should be swapped out
  + Good feedback should also be given – moderators doing a good job should be recognized

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| **Company** | **Views** |
| MTK | Agree |
| Qualcomm | We agree with the moderator’s observations/proposals. In addition, we would like to note the following:   * There should be attempts to pick moderators from different companies (not always same companies) targeting individuals who are unbiased and drive progress and consensus |
| ZTE | Agree |
| Nokia | We agree with the moderator’s proposals. We would also like to propose the following addition:   * There should be attempts to pick moderators who are unbiased and drive progress and consensus * WF documents should be allocated to companies and individuals, who drive progress and consensus |
| Intel | Agree that comments going against prior agreements should be discarded unless there is a consensus to revert the agreements (which is not encouraged). Encourage moderators to notify the session chairs in case such situations happen. |
| China Telecom | Agree |
| CMCC | Agree |
| T-Mobile USA | We support the moderator’s proposal. We also support Nokia’s proposal above, although it is difficult to find a moderator who both has an interest in a topic and is truly unbiased. The key is having the moderators act fairly to drive progress and consensus. |
| Samsung | In general, rapporteurs are encouraged to take the role as moderators for the relevant email threads. Agree comments going against prior documented agreements should be discarded, and session chair can intervene. |

## Enforcements of deadlines

* Deadlines should be clearly enforced, comments received after the comment deadline should be discarded
* Deadlines for the moderator summaries should be at least 16 hours (preferably 24 or more) after the deadline for comments
* Deadline for final approval should be at least another 16 hours (preferably 24 hours) after all the documents are available
* Any deadline extension should be for at least 16 hours to give people enough time to comment
  + Should be announced also on the dedicated thread as well as on the organizational thread
  + Preference is not to have any deadline extension at all

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| **Company** | **Views** |
| MTK | Agree. |
| Apple | 1. Agree to enforce the deadline. It is suggested Chairman sends an email to the reflector to mark the starting point of slient period. We should discourage any email after that. 2. Agree to give sufficient time for companies to review and comment. The exact schedule can be defined by RAN4 leadership. 3. Enough preparation time should be allowed for the WF preparation in the 2nd round. Otherwise, it is hard to reflect the second round discussion in the WF. For example, if the second round of discussion is planned to last for 72 hours. WF is expected to be provided 48 hours after the 2nd round kick-off. This will also leave enough time for review and further comments. |
| Qualcomm | We agree with the moderator’s proposals. |
| ZTE | Agree |
| Nokia | We agree with the moderator’s proposals |
| Intel | Agree that companies should be allowed sufficient time for review. In the past meeting the respective deadlines were set to ensure that moderators can summarize the materials and that companies can have have sufficient time to check. Additional announcements on timelines were made. If needed, additional announcements can be provided. |
| CMCC | We agree that deadline should be enforced. In last meeting, it happened that companies provide comments on the tentative agreements provided by moderator after the deadline, and this is very inconvienent and unsufficient for the emeeting.  We agree that we should give enough time for companies to check the documents before dinal approval. Then it seems a little bit contradict with the last bullet that not preferred to have any deadline extension.  I think RAN4 leadership can organize the schedule well to facilitate the emeeting discussion considering the feedback from companies. |
| T-Mobile USA | We agree with the moderator’s proposals |
| Samsung | Agree with the proposasl and the proposals aligned with previous RAN4 E-meeting management guild-line and deadline design. Delegates are encouraged to pay more attention on the meeting management guide-line shared by Chair and strictly follow the deadlines.  We can consider to have pre-meeting GTW session to explain the meeting management guild-line and deadlines  by RAN4 chair and have some Q&A. |

## Tdoc Allocations

* New tdocs to be allocated only after the 1st round based on moderator recommendations
  + Tdocs should not be allocated to anyone else, if some tdoc is needed then companies can comment on the moderator summary
* No new tdocs allocated during the 2nd round of discussions (after the 2nd round is opened until it is finalized)
  + New tdocs are very difficult to track and review if not in the moderator summary after 1st round
  + New tdocs can be allocated during GTW, should be formally announced on the “e-meeting management thread”(see last bullet on slide)
* New WFs that are created during the 2nd round should be circulated at least before the second half of the commenting period (separate deadline can be created)
  + Delegates use moderator summary document to provide comments, which can be used for formulating the contents of WFs.
  + Discussion should be based on the WF and enough review time should be given after the final version is uploaded
* Avoid sub-threads under the same thread as it becomes difficult for delegates to keep track of all discussion:
  + All documents are treated under the main thread (i.e. with same email subject) e.g. WFs, TP/CRs are treated under the main thread.

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| **Company** | **Views** |
| MTK | Regarding item 3, since Moderators are from different time zone, we should allow moderator to set a deadline for comments in the 2nd round in order to provide the moderator/volunteer companies sufficient time to prepare the WF.  Regarding item 4, from our experience, sub-threads for individual CR/LS/WF can help moderator easily track whether there is a new comment/response to that specific CR/LS/WF. Of couse, all sub-thread should still share the same common part in the email subject, e.g.,   * Email thread xxx – CR yyy, * Email thread xxx – CR zzz |
| Qualcomm | We agree with the moderator’s proposals. Some of them have already been implemented in the May RAN4 e-meeting. |
| ZTE | Agree. In particular, for the WF/CRs allocated in the second round, enough time for reviewing should be guaranteed before final approval. |
| Nokia | We agree with the moderator’s proposals |
| Intel | For Item 1, agree that tdocs shall be allocated to moderators. In the recent RAN4 meetings dedicated email threads for tdoc request were arranged to make the procedure more transparent. Limiting the tdoc to only after 1st round may not work well. Based on the previous meetings experience sometimes moderators recommend tdocs to be further checked and subject to further discussionin the 2nd round a revision may be asked. In addition, sometimes moderators forget to request some of the tdocs. One way is to encourage to minimize the number of additional requests in the 2nd round.  For Item 3, the meeting arrangements already included a recommendation to share the WFs by certain deadline. Sometimes due to delayed 2nd round comments, the moderators could not prepare the WFs in time. I’d encourage moderators also to clearly plan/announce the discussion timelines and share WFs timely.  For Item 4, sometimes the threads may include multiple documents and handling within a single thread can be challenging. This is one reason to allow moderators to trigger multiple sub-threads. To simplify tracking suggest moderators to provide a clear list of sub-threads in the 2nd round. |
| China Telecom | Regarding item 4, we share the same view as MTK, sub-threads for individual CR/LS/WF can help moderators and delegates easily track whether there is a new comment/response to that specific CR/LS/WF. Of couse, all sub-thread should still share the same common part in the email subject, e.g.,   * Email thread xxx – CR yyy (sub-topic name) * Email thread xxx – CR zzz (sub-topic name) |
| CMCC | For item 1 and 2, it request moderators to request all the possible Tdocs after the 1st round, since different moderators may have different “threshold” on requesting Tdocs. I think maybe chairman can also have the right to allocate Tdoc numbers based on their observations from 1st round discussion. The importance is to make the Tdoc allocation transparent and awared by all companies.  For item 3, in 2nd round discussion, there are different ways to organize the email discssuion. Some moderator use WF for 2nd round discussion. But other moderators use the summary Tdoc to collect 2nd round comments, then the WF is created based on 2nd round comments. For the 1st approach, most likely the WF can be circulated in a early time for companies to check. But for the 2nd approach, it might leave not much time for WF check. Since which approach to go highly depends on the topics. We can leave some flexibility for the moderators, but also leave enough time to check the Tdoc that going to be appoved.  For item 4, we agree with MTK and China Telecom. Sub-threads for individual CR/LS/WF do help moderators and delegates easily track whether there is a new comment/response to that specific CR/LS/WF. Especially for the WIs with multiple independent topics, e.g. RRM enhancement, FR1 and FR2 FR enhancement. |
| T-Mobile USA | We agree with the moderator’s proposal. |
| Samsung | In general, support the ideal to control the t-docs assignment in 2nd round, meanwhile it’s not practical to exclude the possibility of new t-docs assignment in 2nd round considering in Q3 we strive to complete Rel-16 Core.  Same as we did in previous, all the t-doc assignment and request in 2nd round should be announced in the dedicated email thread to ensure all the delegates aware of this.  For T-doc sharing, in previous E-meeting guide-lines, clear deadlines already provided to ensure delegates have enough time to review them (at least 16 hours) .  It’s encouraged Moderators to clear indicate the sub-email thread assignment and discussion plan when moderators triggered 2nd round discussion. |

## Rel.16 Prioritization/Downscoping

* Allow extension of Wis beyond September
  + Option 1: Yes, continue Rel.16 discussion until Q4 2020
  + Option 2: No, what is not finalized should be moved to Rel.17
  + Option 3: Yes only for parts of Wis that are essential for the completion of that WI(features is broken without this part). Handling of parts that can be downscoped(move to Rel.17 or drop altogether) to be discussed in September plenary
  + Option 4: Come back to this discussion in September plenary and discuss based on progress in Q3

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| **Company** | **Views** |
| MTK | Support Option 2  Options 1, 3 and 4 are not acceptable to us. They may end up with delay all WIs forever. Actually allowing some uncertainty to be later decided in Sepr is not good for RAN4 to progress in Aug. If companies have different view on whether a certain WI will be further extended or not, it is very difficult to make progress. |
| Apple | We prefer not to further extending R16 core part beyond Q3 plenary. However, we should not automatically move all remaining works to R17. It is desirable to have some downscope discussion in this meeting. |
| Qualcomm | We do not see the sanctity of closing RAN4 core requirements in Sept 2020 vis-à-vis the actual ASN.1 freezing and the fact that RAN4 is very late for some of the items, primarily because of the time spent on Rel-15.  As such, our preferred option would be Option 1 (to allow a better planning of the remaining aspects over two e-meetintgs). Our second choice is Option 3. |
| ZTE | Our preference is Option 3. |
| Nokia | In our view RAN4 should finalize all Rel-16 items impacting signalling in the August meeting to allow true ASN.1 freezing in September. Considering that some of the Rel-16 work items have not gotten enough GTW time etc for resolving difficult topics in the e-meetings, we see that not all Rel-16 core requirements can be fully completed by September and we would expect that the work need to continue until December. |
| Intel | RAN4 should strive to complete all issues in Aug. Further extension is discouraged. However, it is difficult to predict the progress at this point and the parts of WIs that are essential for the completion of that WI (feature is broken without this part) and which could not be concluded in Aug may need to be extended to Q4. But the bar should be very high. All remaining issues which are not essential can be moved to Rel-17 or dropped (subject to further decision).  Recommend to make downscoping of the remaining open issues in this plenary to make sure the work can complete in Aug. |
| China Telecom | 1st preference: Option 2  2nd preference: Option 3  A clear completion date for Rel-16 will make people to be more willingness to give compromise, which is helpful for the progress. |
| CMCC | 1st preference: Option 3  2nd preference: Option 4  We understand the motivation that not further extend R16. So the bar would be very high (essential for completion of WI) for further extention. The further downscope or move to Rel-17 can be discussed in August RAN4 meeting or the email discussion for Rel-17 work areas, not only in September plenary. |
| T-Mobile USA | We agree with Nokia that it would be best to complete issues related to signalling early in the August meeting to give RAN2 time to incorporate any ASN.1 impacts. |
| Samsung | RAN4 should strive to complete all Rel-16 core in August RAN meeting. It’s not proper time to make decision whether allow extension of Wis beyond September.  We can further check the status and the treatment in Sep RAN-P based on August meeting progress in a case by case manner. |
| Vivo | We prefer Option 3; |

## Priorities for RAN4#96-e meeting in August 2020

* Prioritize the Rel-16 items with the approved exception sheet in the RAN4#96-e meeting including GTW sessions and email discussions
  + Especially prioritize topics impacting other working groups like topics requiring RAN2 signaling support in the first GTW session to allow early feedback/information sharing to other WGs like RAN2
  + Ensure that Rel-16 items (with approved exception sheet), which have gotten less GTW time in the previous RAN4 e-meetings, get sufficient GTW time allocation in RAN4#96-e
* Only critical Rel-15 CRs to be discussed in the GTW sessions and e-mail discussions

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| **Company** | **Views** |
| MTK | Fine with the proposals. But a more general concern is that we have some Wis with long exception sheet, which is obviously not possible to be concluded in Aug meeting. We need to have some downscoping discussion in this plenary meeting. |
| Apple | Many exceptional sheet simply includes all remaining issues. It is suggest to revisit all open issues for downscope. Impact on other WG may unnecessarily mean the related RAN4 work is important or should be prioritized. Prioritization discussion should be done in plenary. It is hard to do so in WG level since different companies have different views and priorities. Also, we don’t have time in WG meeting to discuss the prioritiy. |
| Qualcomm | We agree with the moderator’s proposals. |
| ZTE | Agree. We are open to discuss a concrete list for the coming RAN4 meeting. |
| Nokia | We agree with the moderator’s proposals |
| CMCC | Support to do downscope based on existing exceptional sheet. Then after the downscope, we can prioritize the topics impacting other WGs. |
| T-Mobile USA | We agree with the moderator’s proposals. |
| Samsung | RAN4 should prioritize Rel-16 remaining open issues and strive to complete all Rel-16 WIs core part in Q3 August RAN4 meeting including FR2 UE RF, IAB, NR-U etc |