[94e-32-ITU-AH] ITU discussion - Version 0.0.5
RAN

3GPP TSG RAN#94e

RP-213609

Electronic Meeting, December 6 – 17, 2021

Agenda items 8/8.1/8.2/8.3/8.5

Source: RAN ITU-R AH convener (Telecom Italia)

Document for: Information & Decision

The discussion in this thread covers topic #32 [94e-32-ITU-AH].

Please note that since documents have to be submitted to SA for their approval, **I plan to finalize the discussion by Wednesday 15th, 11:30 UTC**.

As a consequence, the timeplan for E-mail discussion is the following:

- **Initial discussion**: from Monday 13th 08:00 UTC to Tuesday 14th 11:30 UTC
- **Final discussion**: from Tuesday 14th 16:00 UTC to Wednesday 15th 11:30 UTC

The Chair indicated the following documents falls under this mail discussion: RP-212693, 2694, 2698, 2699, 2738, 2739, 2741, 3477, 3512, 2655, 3509, 3510.

1 Initial round

1.1 Discussion and proposals

1.1.1 Status report

It is proposed to note the status report

Companies are encouraged to provide feedbacks on the moderator's proposal

Feedback Form 1:

1 – Ericsson LM OK
2 – Qualcomm Incorporated OK

3 – ZTE Corporation OK
4 – NTT DOCOMO INC. Fine with the proposal
5 – Huawei Technologies Sweden AB ok with Moderator's proposal. SR in RP-212655 can be Noted.
6 – Beijing Xiaomi Mobile Software yes, this is okay to us
7 – Intel Corporation (UK) Ltd We are fine with moderator's proposal

1.1.2 Unwanted emissions (IMT-2020)

Relevant documents are RP-212699, 2694 and 2739.

It is proposed to note 2699 (LS in from ITU-R WP5D).

Two actions are to be decided at RAN#94e:

Prepare an answer to 2699, based on the inputs from RAN4 and RAN5

RAN4 and RAN5 indicated in 2694 and 2739 that they are not able to provide an answer to WP5D by the requested deadline (January 31st, 2022).

The proposal is to indicate to WP5D that 3GPP will provide an answer by their meeting in June (deadline for submissions June 6th, 2022). A draft LTI can be found in the Inbox/drafts/[94e-32-ITU-AH]/draft RP□213509

Companies are encouraged to provide feedbacks to finalize the answer to ITU-R WP5D

Feedback Form 2:

1 – Ericsson LM OK with moderator's draft.
2 – Qualcomm Incorporated OK
3 – NTT DOCOMO INC. Fine with the proposed draft

4 – TELECOM ITALIA S.p.A.

on behalf of Telecom Italia - we propose some revisions (see draft RP-213509 rev2 in inbox/drafts/[94e-32-ITU-AH]) mainly to:

- indicate that also the 36 series is part of this new Recommendation (therefore adding to the overall complexity)

5 – Huawei Technologies Sweden AB

Proposed draft reply on IMT-2020 unwanted emissions looks ok. Based on RAN4 and RAN5 LS' to RAN, it is also suggested to reflect in the LS the following information, which reflects the risk of possibly significant RAN4/RAN5 workload related to this task:

"Due to the complexity of the task, 3GPP is considering a possible simplified approach by submitting a list of references to 3GPP specifications instead of complete text for the recommendation.".

6 – TELECOM ITALIA S.p.A.

moderator to Huawei:

I would prefer not to add the sentence since it is an internal matter to 3GPP, and could cause confusion in ITU.

7 – Intel Corporation (UK) Ltd

We are fine with moderator's proposal

8 – Huawei Technologies Sweden AB

to Moderator: lets then proceed as suggested by Moderator.

Define a simplified approach on how to provide the answer to ITU-R WP5D

The moderator would like to propose one of the following approaches to simplify the new Recommendations:

- Opt 1: indicate a table with the bands supported by 3GPP 5G, specifying which bands have special requirements and then indicate the relevant specs already provided in M.2150
- Opt 2 (more work but preferred by the moderator): have the same Sections titles as in M.2070 and M.2071 for IMT-Advanced. Each Section should consist on a reference to the relevant specifications. In such a way it should be easier for Administrations to quickly identify the relevant aspects, rather than having to navigate all the 3GPP specs

Companies are encouraged to provide feedbacks on opt. 1, 2 or propose other approaches on how to simplify the new Recommendations.

Feedback Form 3:

1 – Ericsson LM

We have a slight preference for Opt1. Regarding Opt2, we furthermore note that the structure of M.2071 is not optimal. Based on experience from the latest update, we would prefer a slightly different structure

(i.e., with a top level section per specification 36.101, 38.101-1, 38.101-2 and 38.101-3), would this option be considered for IMT-2020. While not identical to those in M.2070 and M.2071, section titles could be *similar*.

2 – Qualcomm Incorporated

We prefer Option1 (simpler)

3 – TELECOM ITALIA S.p.A.

Moderator answer to Ericsson: your proposal for option 2 looks ok

4 – Huawei Technologies Sweden AB

Certainly we do support to aim for simplifications of the new ITU recommendation.

Based on experience gained during M.2070 updated drafting, it may be most efficient to leave the simplification activity to WGs – having RAN agreements without deep-dive into the actual transposition activities may lead to unnecessary constraints at later stage of text drafting.

For option 1: Table with the NR bands would be required anyways. We see risk of extra effort needed for down-selection of band-specific requirements in Option 1. Agree with Ericsson's proposal on sections naming/structure.

For Option 2: reference-based approach seems good candidate to consider. All in all: Option1 plus reference based approach (as in option 2) seems to be good baseline.

1.1.3 LS from ITU-T JCA-IMT2020 in 3512

This is a follow up of a series of LSs received from JCA-IMT2020:

JCA-IMT2020 will keep updating this roadmap, and therefore we solicit your information about updates. If you send us the latest information of your activity related to 5G and beyond as well as Network Function Virtualization (NFV), programmable networks, self-managed networks, autonomous network, slicing (including orchestration and capability exposure), fixed-mobile and satellite convergence (FMC) and Information-Centric Networking (ICN), machine learning and other activities that are strongly related to IMT□2020, we will reflect it in the next roadmap update, which will be performed online soon after the next JCA□IMT2020 meeting.

Since the listed topics are not RAN related, the moderator's proposal is to note 3512.

Companies are encouraged to provide feedbacks on the moderator's proposal

Feedback Form 4:

1 – Ericsson LM

Agree with moderator's proposal.

2 – Qualcomm Incorporated

Ok to note

3 – ZTE Corporation We are fine to only note it.
4 – NTT DOCOMO INC. Fine with the proposal
5 – Huawei Technologies Sweden AB ok with Moderator's proposal. Still, one thought for possible consideration: As JCA-IMT2020 is looking into IMT-2020 roadmap and beyond, it may be worth to inform them on the planned/selected Rel-18 projects, e.g. AI/ML (JCA-IMT2020 is explicitly asking about ML), SON, etc.
6 – Beijing Xiaomi Mobile Software yes RAN can simply note it
7 – Intel Corporation (UK) Ltd We are fine with moderator's proposal

1.1.4 Unwanted Emissions (IMT-Advanced)

RAN4 and RAN5 provided the material required to answer to the request from WP5D to update the two Recommendations on Unwanted Emissions of IMT-Advanced (see 2693 and 2738).

Based on the material provided by RAN4 and RAN5, the moderator prepared a draft LTI that can be found in the Inbox/drafts/[94e-32-ITU-AH]/draft RP□213510.

Companies are encouraged to provide feedbacks to finalize the answer to ITU-R WP5D

Feedback Form 5:

1 – Ericsson LM OK with the draft.
2 – Qualcomm Incorporated OK with draft
3 – NTT DOCOMO INC. Fine with the proposed draft
4 – TELECOM ITALIA S.p.A. on behalf of Telecom Italia - we propose some revisions (see draft RP-213510 rev2 in inbox/drafts/[94e-32-ITU-AH]):

- add the following sentence for both M.2070 and M.2071 "*It has to be noted that these updates are essentially already completely covered by specifications referred to in the URL references in ITU-R M.2012-5*"

Moreover, we should withdraw the LS sent to WP5D in RP-212577. Due to a mistake, it was not submitted in time and now it is an input to WP5D meeting in February.

5 – Huawei Technologies Sweden AB

OK. It is assumed that the related attachments from RAN4 and RAN5 can be directly reused in the RAN LS to ITU.

6 – TELECOM ITALIA S.p.A.

moderator to Huawei: yes, that is the intention (attach, without modifications)

7 – Intel Corporation (UK) Ltd

We are fine with proposed draft

1.1.5 New Report ITU-R M.[IMT.INDUSTRY]

In Tdoc 2698, ITU-R WP5D invites External Organizations to provide information on industrial and enterprise on its usage, applications, required capabilities, technical and operational aspects, and any other related material that would facilitate in completion of the new Report.

Since the request is not related to technical characteristics of 3GPP 5G or other technologies, but rather to "stage 1" requirements, the moderator proposal is that RAN notes this document. SA could decide if they want to provide an answer on behalf of 3GPP, focusing on stage 1 requirements.

Companies are encouraged to provide feedbacks on the moderator's proposal

Feedback Form 6:

1 – Ericsson LM

Agree with moderator's proposal.

2 – Qualcomm Incorporated

Suggest to fwd to SA (they are not in copy), indicating RAN intention to take no action/note the LS

3 – ZTE Corporation

Agree with both moderator's proposal and Qualcomm's additional suggestion.

4 – NTT DOCOMO INC.

Fine with the proposal

5 – Huawei Technologies Sweden AB For the industrial use cases of 5G NR, it may be better to rely on SA expert (please note that only SA6 and RAN were listed on the To list). Therefore agree with Moderator's proposal and Qualcomm recommendation.
6 – Beijing Xiaomi Mobile Software yes agree with Qualcomm and moderator
7 – Intel Corporation (UK) Ltd We are ok with proposal and Qualcomm recommendation

1.1.6 Test methods for OTA Total Radiated Power

In Tdoc 2741, ITU-R WP1C asks 3GPP to review their understanding of the previous communication from 3GPP.

Since this is a topic related to RAN4, the moderator proposes to task RAN4 to review the LS and provide an answer to RAN#95 or #96.

Companies are encouraged to provide feedbacks on the moderator's proposal, stating if RAN#95 or #96 should be the target for the feedback from RAN4 to RAN

Feedback Form 7:

1 – Ericsson LM We agree with moderator's proposal. Because of the complex nature we think RAN#96 is the more realistic taget.
2 – Qualcomm Incorporated Agree with proposal to fwd to RAN4
3 – ZTE Corporation We are fine to forward to next RAN4 meeting.
4 – NTT DOCOMO INC. Fine with the proposal
5 – Huawei Technologies Sweden AB Agree with Moderator that RAN needs to task RAN4 to provide more analyses. Regarding timeline of the expected feedback, it is felt that RAN#96 is more appropriate, due to busy RAN4 schedule in Q1 2022.
6 – Beijing Xiaomi Mobile Software Agree with moderator's proposal and other analysis above that RAN#96 seems more appropriate for RAN4 to provide a solution

7 – Intel Corporation (UK) Ltd Agree with proposal. With respect to timelines RAN can task RAN4 to provide response by RAN #96

1.1.7 Spoofing using national numbers

In Tdoc 3477 ITU-T SG2 asks 3GPP to provide feedbacks on the proposed solutions to solve the issue of spoofing by using national numbers.

In the moderato's opinion, this is not a RAN topic and therefore 3477 should be simply noted.

Companies are encouraged to provide feedbacks on the moderator's proposal

Feedback Form 8:

1 – Ericsson LM Agree with moderator's proposal.
2 – Qualcomm Incorporated ok to note
3 – ZTE Corporation We are fine to note it.
4 – NTT DOCOMO INC. Fine with the proposal
5 – Huawei Technologies Sweden AB Call spoofing and related security matters are seen as TSG SA area. No other action needed by TSG RAN. We support Moderator's proposal.
6 – Beijing Xiaomi Mobile Software yes it can be noted by RAN
7 – Intel Corporation (UK) Ltd Agree with moderator's recommendation

1.2 Moderator's Summary and Recommendation

The following discussions can be considered finalized with the conclusions indicated in the table below

Table 1:

Item	Related documents	Conclusions

1.1.1	RP-212655	noted
1.1.3	RP-213512	noted
1.1.5	RP-212698	RAN notes the LSin The LS in RP-212698 should be forwarded to SA for their consideration (indicating that RAN took no action)
1.1.6	RP-212741	RAN tasks RAN4 to review the document and in case provide an answer by RAN#96 (note the deadline for submission to WP1C is June 21, 2022)
1.1.7	RP-213477	noted

In the moderator's opinion some more discussion is still needed to finalize the two topics related to unwanted emissions for IMT-2020 and IMT-Advanced

In particular, Telecom Italia proposed some revisions of the two draft answers. The revisions are available in Inbox / Drafts / [94e-32-ITU-AH] - see also the comments during the initial discussion under Sections 1.1.2 and 1.1.4.

The moderator's recommendation is to agree with the revisions provided by Telecom Italia

Moreover, we should withdraw the LS sent to WP5D in RP-212577. Due to a mistake, it was not submitted in time and now it is an input to WP5D meeting in February. Otherwise, 3GPP will have two contradicting inputs to WP5D (the one based on RP-212577 and the one based on RP-213510)

Concerning the simplification of the structure of the 3GPP answer to be considered for inclusion of the new Recommendations on unwanted emissions for IMT-2020, there was a general consensus to simplify it. Comments were made to leave to WGs how to better simplify the documents.

Note that RAN4 and RAN5 meetings are planned to finish on May 27th, 2022, with deadline for submission to WP5D on June 6, 2022. Therefore, RAN4 and RAN5 should provide an answer to RAN in time to allow the approval process by RAN, (SA) and PCG

The moderator's recommendation is to minute the general agreement to work toward a simplification of the 3GPP answer, and leave to RAN4 and RAN5 how to best manage it. Moreover, RAN4 and RAN5 should be informed on the timeline issue for approval of the final answer to WP5D

2 Final round

Based on the discussion in the initial round, topics 1.1.1, 1.1.3, 1.1.5, 1.1.6 and 1.1.7 are considered completed and no further discussion is needed.

2.1 Discussion and proposals

It is proposed to continue the discussion on the following topics: Unwanted Emissions (IMT-2020) - topic 1.1.2 - and Unwanted Emissions (IMT-Advanced) - topic 1.1.4

Companies are requested to comment on the two moderator's recommendations, **with the aim to finalize the discussion and the LS to SA by Thursday 15, 11:30 UTC.**

Question 1: **do you agree with the revision of 3509 and 3510 provided by Telecom Italia (see Inbox/drafts/[94e-32-ITU-AH]?**

Feedback Form 9:

1 – Ericsson LM rev2 of 3509 and 3510 are ok to us.
2 – Huawei Technologies Sweden AB Revisions of both RP-213509 and RP-213510 look ok. There is just one editorial correction proposed to RP-213509, to put spec series in ascending order; revision uploded in draft RP-213509 rev3.doc.
3 – NTT DOCOMO INC. Agree with 3509rev3 and 3510rev2
4 – Telia Company AB We agree both 3509 (rev3) and 3510 (rev2).

Question 2: **Do you agree with the moderator's recommendation to minute the general agreement to work toward a simplification of the 3GPP answer, and leave to RAN4 and RAN5 how to best manage it? Moreover, RAN4 and RAN5 should be informed on the timeline issue for approval of the final answer to WP5D**

Feedback Form 10:

1 – Ericsson LM OK
2 – Huawei Technologies Sweden AB Agree. Question for clarification: do we need an LS in order to inform RAN4/RAN5 on the above mentioned timeline issue?
3 – NTT DOCOMO INC. Fine with the moderator's recommendation
4 – Telia Company AB Ok for us.

2.2 Moderator's Summary and Recommendation

The comments received indicated consensus with the moderator's proposals. Some offline discussion was also done with RAN secretary on how to manage the interactions with SA.

The conclusions are summarized in the following table (which provides also the results of the initial discussion). Note the underlined text indicates the modifications vs the conclusions of the initial round as discussed with RAN secretariat.

Table 2:

Item	Related documents	Conclusions
1.1.1	RP-212655	Noted
1.1.2	RP-212699, RP-212694, RP-2739, RP-213509, RP-213642	Based on the inputs from RAN4 and RAN5 and the comments from Telecom Italia and Huawei, the answer in RP-213642 is agreed by this thread. The document indicates that 3GPP will provide the required material to ITU-R WP5D by June 6th, 2022. RP-213509 was used as base for RP-213642. RP-213509 is noted. RP-213642 is to be submitted to SA and finally to PCG for their approval in time for the submission deadline to WP5D (January 31st, 2022) There was a general agreement to work toward a simplification of the material to be submitted by 3GPP for inclusion in the new Recommendations, and leave to RAN4 and RAN5 how to best manage it.
1.1.3	RP-213512	Noted
1.1.4	RP-212693, RP-212738, RP-213510, RP-213643	Based on the inputs from RAN4 and RAN5 the answer in RP-213643 is agreed by this thread. RP-213510 was used as base for RP-213643. RP-213510 is noted. RP-213643 is to be submitted to SA and finally to PCG for their approval in time for the submission deadline to WP5D (January 31st, 2022)

1.1.5	RP-212698	RAN notes the LSin The LS in RP-212698 is already available to SA. They can decide whether to provide an answer to ITU or not
1.1.6	RP-212741	RAN tasks RAN4 to review the document and in case provide an answer by RAN#96 (note the deadline for submission to WP1C is June 21, 2022). RP-212741 is forwarded to RAN4 to trigger the discussion.
1.1.7	RP-213477	Noted

This thread can be closed with the recommendation to approve the LSs to SA in RP-213642 and RP-213643