# Pre SA2#154AH CC on Rel-18 XRM

Date & Time: 22:00-23:5900 (East Asia Time) 2022.12.8

Meeting venue: Online meeting/Teams

Participants: Around 67 people, see list in Annex

Note: This meeting notes may not record all comments during the CC and is only for information. If you have any comments and concerns, please provide your comments directly to Dan and Lei {Dan Wang [wangdanyjy@chinamobile.com](mailto:wangdanyjy@chinamobile.com), Lei Yixue [yixuelei@tencent.com](mailto:yixuelei@tencent.com)}.

## Meeting Agenda

* Some guidance of CR drafting for TS 23.501/502/503
* LS from RAN side(R1-2212994&R2-2213351&R2-2212989&R3-226885)
* Company contributions
* AoB

## Notes of discussion

### CR drafting guidance

<https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_154AHE_Electronic_2023-01/INBOX/DRAFTS/FS_XRM/0.XRM%20Conference%20Call%20before%20SA2-154%20AH-v2.pptx>

* P3: General descriptions in TS 23.501
  + Lei presented P3. There were comments about the need of 5.X.8.
  + Hui commented that title of each sub-clause need to further discussed e.g. support for multi-modality flows. Lei clarified that exact clause title should be decided in CR, this slide mainly intend to discuss the structure of general descriptions.
  + Nokia commented that existing clause introduced in R17 AIS （5.37） need to be considered/updated. Lei clarified that companies’ CRs have different preferences. People can discuss and consider more on this structure issue.
  + Xiaowan and Hui commented that exposure may not be only for XRM. Lei clarified that we can discuss this more in KI#3 slide.
  + Paul thinks we need to clause for PDU set information in 501.
  + Jinhua commented that prefer to keep 5.X.8. Lei clarified that in 5.X.1 media codec information will be reflected and the only question is whether there is need of a separate clause in 5.x.8.
* P4 KI 1&2
  + Xiaowan commented that 502 CRs can only be discussed after 501 and 503 CRs. Lei in general agrees but there is only two meetings in Q1. So we can prioritize 501 and 503 CRs but companies can still submit 502 CRs. Hui commented that in Jan meeting 501 CRs are of first priority and 502 CRs can be easier.
* P5 KI 3
  + Lei clarified that during XRM WID e-mail approval, companies had discussed this issue and majority view was not to impact 23.548. Hui commented that conclusion of KI#3 need to be more generic about exposure and people need to consider whether exposure is only applicable to XR or not.
  + Mirko commented QoS monitoring related CRs can be discussed after 501 CRs. Zhuoyun commented that exposure related parameters may to be mainly for XRM, not for other services and think people need to further consider. Zhuoyun also commented that QoS monitoring relate changes should be reflected not only in 501 but also 503.
  + Devaki commented that we need a guidance about ToC to avoid conflict before next meeting. Lei replied that that will co-work with Dan to prepare such document to collect companies’ interests/plans for KIs via e-mail after this call.
* P6 KI 4&5
  + Lei commented that QoS related changes in 501. Chunshan commented that QoS control is not only for XRM but also AIS. Lei commented that PDU set based QoS handling may be similar for AIS and XRM, but not completely sure if they are same.
  + Paul asks where to capture PDU set information and Lei replies 5.X.4.
  + Devaki and Hui think PDU set QoS is not extending existing QoS but new concept. Paul comments that new changes can be added in 5.7 and add general descriptions in 5.x.4.
* P7 KI6
  + Dario commented to focus on 501 as previous KIs.
  + Devaki again propose rapporteur to assign pen holders, Hui also supports.
  + Lei replied that will prepare such material together with Dan.
* P8 KI7
  + Mirko asked whether it UPF or PCF which calculate the jitter. Hui and Lei responded that it is PCF.
  + Chunshan wondered if jitter requirements in KI#7 and jitter information in KI#8 should be combined. Lei commented that they are different and should stick to TR solution study & conclusion.
* P9 KI8
  + Hui commented that no need to change UPF service and Lei agrees.
  + Hui, Devaki, Dario, Xiaowan et. al. discussed whether and how to reuse TSCAI, e.g. whether to update the TSCAI table in 501, whether this is stage-2 or not. One way is to add note about which parameters are applicable to XR when adding parameters to TSCAI and also consider that jitter information need to be associated with the periodicity in terms of XRM.
* P10 KI 9
  + Mirko asked whether existing parameters also reflected media codec information. Chunshan also wonders if new parameter is need or not, maybe new scenario?
  + Lei proposed to have more discussion based on CR prepared by Xiaomi if there is time in today’s call.

### LS from RAN1/2/3

#### R1-2212994 & [Draft reply from vivo](https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_154AHE_Electronic_2023-01/INBOX/DRAFTS/FS_XRM/S2-230XXXX%20draft%20LS%20reply%20to%20R1-2212994%E3%80%90vivo%E3%80%91.docx)

* Xiaowan presented R1 LS and also draft LS reply
* For answer to Q1-1, Paul has concerns on value of the example and suggests no use specific number. Xiaowan responded that it is just example.
* For answer to Q1-2, Saubhagya asked why duration is related to the combination of data amount and jitter, Xiaowan explained
* For answer to Q2, Paul commented the arrival time is for the first packet. Boren asked which node for the first arrival, Xiaowan answered it is RAN. Hui commented that it is not possible to get the information as Paul said. Dario commented that it is possible similar as the first arrival time in TSN. Chunshan thought that RAN cannot obtain the arrival time of the first packet, but can know the range of arrival time. Hui commented that for TSN, the first arrival time is transmitted under the control of CNC and UPF does not know that. Boren think that in 5.30.7 AR/VR can reuse TSCAI which has been specified for Rel-17 5G\_AIS.

#### R2-2213351 LS, prepared reply [LS](https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_154AHE_Electronic_2023-01/INBOX/DRAFTS/FS_XRM/S2-22xxxxx%20%20Draft%20LS%20on%20PDU%20Set%20Handling%20from%20RAN2%20-%20CATT-R01.docx) and [DP](https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_154AHE_Electronic_2023-01/INBOX/DRAFTS/FS_XRM/Disc%20on%20R2%20LS%20%E3%80%90vivo%E3%80%91.pptx)

* Lei presented the RAN2 LS and commented that SA2 is only asked to reply to questions regarding to mapping.
* Xiaowan presented the DP from vivo. Dario commented that the QoS parameters of PDU Set should be consistent in an XR flow. Xiaowan thought that different PDU sets are divided into different flows. Different flows should have different QoS requirements, but for services, they should have only one QoS. Chunshan commented that SA2 has been agreed that only one flow is used and don’t understand why we talk about different QoS flows. Hui commented that different PDU Sets may have different QoS parameters. The PDU set of different importance use one stream, not all of them have a certain stream.
* Chunshan presented the reply LS
* Regarding to reply LS content, Xiaowan commented that in Q2's answer, the current conclusion is that different PDU sets can be mapped to the same QoS flow but not have to. Chunshan commented that there is no mapped multi flows in the TR conclusion. Michael thinks a service can now map multiple QoS flows. Hui commented that XR traffic steam has not been defined yet thus the answer is not very clear and needs to be discussed.
* Paul: disagree with the last sentence of Q2 answer.
* Mike: no need to reply answer regarding to Q3, Hui agreed.
* Lei proposes to have more discussion offline before next meeting.

#### R2-2212989 & R3-226885

* Seems to no need to further reply as there are no actions required.

### CR

* No time to discuss CRs

## Wrap up & Next Steps

* Companies to have more offline discussions about CRs which are uploaded for the telco but no time to review
* Rapporteurs (Dan & Lei) to prepare a table to list potential impacted clauses of 501/502/503，collect to companies contribution interests & plan, then work with companies to identify pen holders of different clauses, to improve the e-meeting handling efficiency

## Annex: Participant List

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| --- |
| Xiaowan Ke |
| Chunshan-CATT |
| Tencent-Lei |
| Huawei - Ni Hui |
| Vimal Srivastava (vimsriva) |
| Hyunsook (LGE) (게스트) |
| Jinguo-ZTE |
| Paul Russell (Charter) (Guest) |
| Sudeep M Vamanan (Apple) |
| Jaffar, Munira |
| Xinpeng\_Huawei |
| Michael Starsinic |
| Zhuoyun Zhang- Tencent |
| China Telecom-Yinglin Chen |
| LaeYoung – LGE |
| Kaippallimalil John |
| Mengzhen Jian - China Telecom |
| Dan Wang(China Mobile) |
| Bae jaehyeon |
| Kenichi Yamamoto, KDDI |
| LGE - Jaewoo Kim |
| Haiyan HY7 Luo |
| Tianji |
| Tianqi Xing (China Unicom) |
| Joul, Christopher |
| Mukesh Chouhan |
| Abbas Kiani |
| Curt (Meta) |
| Mirko Schramm (Huawei) |
| Paul Schliwa-Bertling |
| Fenqin, Zhu(Huawei) |
| Liyongjing-cmcc |
| Canon, Yacine (Guest) |
| Qi Pan- Huawei |
| youngkyo\_samsung (게스트) |
| Saubhagya Baliarsingh (Nokia) |
| Ellen Liao (Guest) |
| Alnås, Svante |
| Jinhua [Xiaomi] |
| Dimitrios Karampatsis |
| Jicheol Lee (Samsung) |
| Boren Guo |
| Yunjung Yi |
| Quang Ly |
| Qi Pan – Huawei |
| Georgios Gkellas (Nokia) |
| Garcia Morchon O, Oscar |
| Tencent-Yuhang |
| Umut Ugurlu |
| Qing Wei |
| Yunsong Yang |
| Cameron Ross Dunne |
| OPPO-Yali Guo |
| Rocco Di Girolamo |
| Dario Serafino Tonesi (Qualcomm) |
| Achref Methenni |
| Elmira Ramazanirend, Vodafone |
| Sriram |
| Devaki Chandramouli (Nokia) |
| Peng Tan |
| Chris Pudney, Vodafone |
| Achari Kakinada ( Charter ) (Guest) |
| Peng Tan |
| Haitao Liu (Tencent） |
| Fenghui Dou |