3GPP TSG-RAN WG2 Meeting #123 R2-230xxxx

Toulouse, France, 21– 25 August 2023

**Agenda item: 7.13.6**

**Source: Nokia (Rapporteur)**

**Title: Summary of 7.13.6 RACH enhancement SONMDT (Nokia)**

**WID/SID: NR\_ENDC\_SON\_MDT\_enh2-Core - Release 18**

**Document for: Discussion and Decision**

# 1 Introduction

This document is the summary of the documents submitted for agenda item 7.13.6.

This summary includes proposals from the following documents:

* [R2-2307285](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307285.zip) Discussion on RACH enhancement for SON Nokia, Nokia Shanghai Bell
* [R2-2307408](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307408.zip) Consideration on the SON enhancements for RACH report Beijing Xiaomi Software Tech
* [R2-2307709](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307709.zip) RACH enhancement for SON CATT
* [R2-2307797](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307797.zip) Discussion on RACH enhancements ZTE Corporation, Sanechips
* [R2-2307825](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307825.zip) RACH enhancements for slicing Apple
* [R2-2308241](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308241.zip) SON/MDT enhancements for RACH Samsung
* [R2-2308291](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308291.zip) Further Considerations on RACH Enhancement CMCC
* [R2-2308427](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308427.zip) RA report enhancement Ericsson
* [R2-2308626](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308626.zip) Discussion on RACH enhancement Huawei, HiSilicon
* [R2-2308654](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308654.zip) Further Discussion on RACH Partitioning for SON China Telecom

# 2 Discussion

## 2.1 NSAG ID(s) in RA reports

There are the following proposals on the addition of NSAG ID(s) into RA reports:

* [R2-2307285](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307285.zip) Discussion on RACH enhancement for SON Nokia, Nokia Shanghai Bell
  + Proposal 1: The UE reports the NSAG ID that triggered the RA attempt and belongs to the NSAG ID of the feature combination used to select the RA configuration. If no NSAG is used to select the RA configuration (e.g., no NSAG associated to the S-NSSAI(s) triggering the RA attempt is included in SIB1), then no NSAG is reported.
* [R2-2307408](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307408.zip) Consideration on the SON enhancements for RACH report Beijing Xiaomi Software Tech
  + Proposal 2: RAN2 agrees to include NSAG IDs which are associated with the S-NSSAI(s) triggering the access attempt and included in SIB1 into RACH report.
* [R2-2307709](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307709.zip) RACH enhancement for SON CATT
  + Proposal 6: It is suggested that NSAG-ID(s) in RA report at least includes the applied NSAG-ID(s) and not applied NSAG-ID(s) which triggered the same random access procedure and has higher priority than applied NSAG-ID(s).
* [R2-2307825](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307825.zip) RACH enhancements for slicing Apple
  + Proposal 2: to discuss the inclusion of S-NSSAI, provided there is no redundancy - we select either NSAG ID or S-NSSAI, but not both.
  + Proposal 3: UE includes the NSAG IDs are associated with the S-NSSAI(s) triggering the RACH attempts and are included in SIB1.
* [R2-2308241](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308241.zip) SON/MDT enhancements for RACH Samsung
  + Proposal 1: The list of NSAGs that triggered feature specific RACH are the NSAG IDs which are associated with the S-NSSAI(s) and that are included in SIB1.
  + Proposal 2: UE reports the NSAG(s) that triggered random access in the order of NAS provided priority.
* [R2-2308291](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308291.zip) Further Considerations on RACH Enhancement CMCC
  + Proposal 1: RAN2 confirms that UE reports all NSAG ID(s) which are associated with the S-NSSAI(s) triggering the random access attempt irrespective if it is included in SIB1 or not.
* [R2-2308654](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308654.zip) Further Discussion on RACH Partitioning for SON China Telecom
  + Proposal 1: The NSAG priority can be included in the RA report when the applicable feature is slicing.
  + Proposal 2: RACH report can include NSAG IDs that are associated with the S-NSSAI(s) triggering the access attempt in SIB1.

**Rapporteur’s summary:** Companies that have proposal on this issue agree that at least the NSAG ID that is assigned to the S-NSSAI triggering the RA attempt and belongs to the NSAG ID of the feature combination used to select the RA configuration should be reported. Some companies also propose to report about additional NSAG IDs:

* NSAG ID(s) that belong to the S-NSSAI(s) triggering the RA attempt and included in SIB1 (even if they were not used to select the RA configuration, e.g., due to belonging to lower priority NSAGs).
* NSAG ID(s) that belong to the S-NSSAI(s) triggering the RA attempt (even if they are not included in SIB1).
* NSAG ID(s) that do not belong to the RA attempt but have higher priority than applied NSAG-ID(s).

Rapporteur’s view that the addition of the NSAG ID that is assigned to the S-NSSAI triggering the RA attempt and belongs to the NSAG ID of the feature combination used to select the RA configuration is supported by all companies, and the addition of other NSAG IDs require further discussion.

**Proposal 1.1: At least the NSAG ID that is assigned to the S-NSSAI triggering the RA attempt and belongs to the NSAG ID of the feature combination used to select the RA configuration should be reported.**

**Proposal 1.2: Further discuss whether the additional NSAG IDs to be included in the RA reports:**

1. **NSAG ID(s) that belong to the S-NSSAI(s) triggering the RA attempt and included in SIB1 (even if they were not used to select the RA configuration, e.g., due to belonging to lower priority NSAGs).**
2. **NSAG ID(s) that belong to the S-NSSAI(s) triggering the RA attempt (even if they are not included in SIB1).**
3. **NSAG ID(s) that do not belong to the RA attempt but have higher priority than applied NSAG-ID(s).**

## 2.2 S-NSSAI(s) in RA reports

There are the following proposals on the addition of S-NSSAI(s) into RA reports:

* [R2-2307285](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307285.zip) Discussion on RACH enhancement for SON Nokia, Nokia Shanghai Bell
  + Proposal 2: UE may report the S-NSSAI(s) that triggered the RA attempt and belong to the NSAG ID of the feature combination used to select the RA configuration.
* [R2-2307408](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307408.zip) Consideration on the SON enhancements for RACH report Beijing Xiaomi Software Tech
  + Proposal 3: RAN2 agrees to include S-NSSAI(s) in RA report for the optimization of the mapping between S-NSSAI and NSAG.
* [R2-2307825](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307825.zip) RACH enhancements for slicing Apple
  + Proposal 2: to discuss the inclusion of S-NSSAI, provided there is no redundancy - we select either NSAG ID or S-NSSAI, but not both.
  + Proposal 3: UE includes the NSAG IDs are associated with the S-NSSAI(s) triggering the RACH attempts and are included in SIB1.
* [R2-2308241](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308241.zip) SON/MDT enhancements for RACH Samsung
  + Proposal 5: UE doesn’t report the S-NSSAI(s) that triggered the RACH in RA-Report.
* [R2-2308291](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308291.zip) Further Considerations on RACH Enhancement CMCC
  + Proposal 3: The S-NSSAI(s) is not included in RACH report.
* [R2-2308427](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308427.zip) RA report enhancement Ericsson
  + Proposal 2 UE include slice information, i.e., S-NSSAI(s) that triggered the RACH through a given partition in the RA report.
* [R2-2308654](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308654.zip) Further Discussion on RACH Partitioning for SON China Telecom
  + Proposal 3: The S-NSSAI(s) can be included in the RA report for the optimization of the mapping between S-NSSAI and NSAG.

**Rapporteur’s summary:** Companies’ views on adding the S-NSSAI(s) triggering the RA attempt diverge. At least 4 companies clearly support this, as they think it is useful for the optimization of the mapping between S-NSSAI and NSAG. 2 companies propose not to include them, and a company’s view is that this is redundant if NSAG ID(s) are included in the report (see proposal 1.1 and 1.2).

**Proposal 2: RAN2 to discuss whether to include that S-NSSAI(s) that triggered the RA attempt in the RA report.**

## 2.3 NSAG priorities in RA reports

There are the following proposals on the addition of NSAG priorities in RA reports:

* [R2-2307285](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307285.zip) Discussion on RACH enhancement for SON Nokia, Nokia Shanghai Bell
  + Proposal 3: RAN2 to agree not include NSAG priority information in the RA report.
* [R2-2307408](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307408.zip) Consideration on the SON enhancements for RACH report Beijing Xiaomi Software Tech
  + Proposal 1: RAN2 agrees to include the NSAG priority into the RACH report when the applicable feature is slicing.
* [R2-2307709](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307709.zip) RACH enhancement for SON CATT
  + Proposal 6: It is suggested that NSAG-ID(s) in RA report at least includes the applied NSAG-ID(s) and not applied NSAG-ID(s) which triggered the same random access procedure and has higher priority than applied NSAG-ID(s).
* [R2-2307825](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307825.zip) RACH enhancements for slicing Apple
  + Proposal 1: signalling of the NSAG priority (or “NSAG information” besides NSAG ID) which is only known to UE and AMF (but not to NG-RAN) is not needed.
* [R2-2308241](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308241.zip) SON/MDT enhancements for RACH Samsung
  + Proposal 1: The list of NSAGs that triggered feature specific RACH are the NSAG IDs which are associated with the S-NSSAI(s) and that are included in SIB1.
  + Proposal 2: UE reports the NSAG(s) that triggered random access in the order of NAS provided priority.
* [R2-2308291](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308291.zip) Further Considerations on RACH Enhancement CMCC
  + Proposal 2: UE includes NSAG IDs in the RACH report based on the assigned priorities.

**Rapporteur’s summary:** Companies’ views on adding the NSAG priorities into the RA report diverges. 4 companies propose to add the priorities (one company proposes to add them in an implicit manner via ordered NSAG IDs), while 2 companies clearly against adding them. Rapporteur’s comment is that the feasibility of using the implicit priority reporting (using order NSAG ID list) strongly depends on the agreement which NSAG ID(s) are reported (see Proposal 1.2 above).

**Proposal 3: RAN2 to discuss whether to include the priorities of the NSAG IDs either explicitly or implicitly.**

## 2.4 RACH partitioning related issues

There are the following RACH partitioning configuration related proposals:

* [R2-2307408](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307408.zip) Consideration on the SON enhancements for RACH report Beijing Xiaomi Software Tech
  + Proposal 4: RAN2 considers to enable the addition of RACH partition configuration information in the RACH report.
  + Proposal 5: RAN2 agrees to include the start preamble index and the number of preambles in the partition for which the RACH Report was generated into the RA report.
  + Proposal 6: RAN2 agrees to include the feature priority for the used feature combination into the RACH report.
* [R2-2307709](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307709.zip) RACH enhancement for SON CATT
  + Proposal 4: The UE reports the RACH resource configuration for feature/feature combination for SON.
  + Proposal 5: The UE indicates the featurePriorities information for feature /feature combination for SON.
* [R2-2307797](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307797.zip) Discussion on RACH enhancements ZTE Corporation, Sanechips
  + Proposal 2: RAN2 decides between below two options to allow fetching feature combination configuration in RACH report:
    - Opt1: UE includes the starting preamble index associated to this RA partition and the total number of preambles associated to this RA partition of RA resource used in the RA procedure
    - Opt2: UE includes the time information when RACH procedure is completed
* [R2-2308241](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308241.zip) SON/MDT enhancements for RACH Samsung
  + Proposal 3: UE reports feature priority implicitly e.g. by including the applicable features in the feature combination in the priority order in the RA Report.
  + Proposal 4: UE reports the type of RA prioritization used (slicegroup or AI), to enable network to identify UL coverage issues.
* [R2-2308427](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308427.zip) RA report enhancement Ericsson
  + Proposal 1 UE includes start preamble index and the number of preambles in the partition that triggered the RA procedure in the RA report.
* [R2-2308626](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308626.zip) Discussion on RACH enhancement Huawei, HiSilicon
  + Proposal 1: UE Includes priorities information assigned for features.
  + Proposal 2: UE includes start preamble index and the number of preambles associated to used RACH partitioning in the RA report.

**Rapporteur’s summary:** All companies having proposal in this area agree that UE should report about the RACH partition configuration, and the RACH partition configuration could be reported as the start preamble index and the number of preambles associated to used RACH partition.

Based on the proposals, companies having proposals in this area also agree to include the feature priority for the used feature combination in the RA report. One of the companies proposes to use implicit indication by including the applicable features in the feature combination in the priority order in the RA Report and there is a proposal to include type of RA (slicegroup or RA) in the report.

Rapporteur’s view is that the addition of the RACH partition configuration as the start preamble index and the number of preambles associated to used RACH partition and the addition of the feature priority can be agreed as a starting point in RAN2. However, as the issue how to associate the used RACH configuration is also discussed in RAN3 (there are other solution proposals in RAN3), this could only be agreed as a RAN2 working assumption. It can be left open whether additional information on RACH portioning configuration will be included in the RA at this point.

**Proposal 4.1: RAN2’s working assumption is that the UE includes the RACH partition configuration as the start preamble index and the number of preambles in the partition for which the RACH Report was generated in the RA report. Wait for RAN3 before the final decision.**

**Proposal 4.2: RAN2’s working assumption is that the UE includes the feature priority for the used feature combination into the RA report. Wait for RAN3 before the final decision.**

**Proposal 4.3: FFS if additional information on RACH partitioning is to be added to the RA report.**

## 2.5 SDT related issues

There are the following SDT related proposals:

* [R2-2307709](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307709.zip) RACH enhancement for SON CATT
  + Proposal 2: Define a flag to indicate whether RA-SDT procedure is successful or not.
  + Proposal 3: RAN2 to down select one of the options to associate SDT and the new flag to indicate whether RA-SDT procedure is successful or not:
    - Associating with feature or feature combination triggering the RACH and or used for RACH;
    - Defining one new RA purpose for RA-SDT.
* [R2-2307797](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307797.zip) Discussion on RACH enhancements ZTE Corporation, Sanechips
  + Proposal 3: When SDT fails, UE includes the data volume buffered at UE side in RA report.
  + Proposal 4: UE includes the failure cause of SDT (e.g., expiry of T319a) when SDT fails.
* [R2-2308241](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308241.zip) SON/MDT enhancements for RACH Samsung
  + Proposal 6: UE reports the data volume used for the SDT operation.
* [R2-2308427](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308427.zip) RA report enhancement Ericsson
  + Proposal 3 UE reports the data volume at the time of attempting for SDT operation, if the data volume is more than sdt-DataVolumeThreshold but less than a data volume reporting threshold (a new threshold), as part of the RA Report. FFS how to report.
  + Proposal 4 RAN2 decide whether to have an explicit threshold sent as part of SDT configuration to UE or hard coded value (e.g., if the data volume is less than 2 x sdt-DataVolumeThreshold).
* [R2-2308626](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308626.zip) Discussion on RACH enhancement Huawei, HiSilicon
  + Proposal 3: A separate indication is introduced to indicate whether RA-SDT procedure is successful or not.
  + Proposal 4: RAN2 clarify that the normal legacy RA procedure for UL transmission should not and never be considered to be SDT failure.

**Rapporteur’s summary:**

At least 4 companies propose an indication in RA report whether RA-SDT procedure is successful or not (this is related to the identified open issue). There are options how this indication can happen (e.g., see Proposal 3 of R2-230797), and there is a proposal to introduce cause values to differentiate among the different failure scenarios. Rapporteur’s view is that the indication may be agreed, it can be left open if it is a single flag or more detailed information is to be added.

There are proposals on including the data buffered/used at UE side in RA report when RA-SDT is triggered. Rapporteur’s view that this requires further discussion as it is not clear if this is in the scope of work, or this is related to SDT optimization.

There are divergent views whether the UE may also report data volume when the UE triggers normal RA due to the pending data is greater than the SDT data volume threshold. Rapporteur’s view that this can only be discussed after the data volume reporting is concluded, therefore it is proposed to postpone the discussion on this issue.

**Proposal 5.1: There is an indication in RA report whether RA-SDT procedure is successful or not. Details of the indication and whether it is a single flag or further differentiation of the failure scenarios are needed are FFS.**

**Proposal 5.2: RAN2 to discuss whether the UE reports the buffered data volume when RA-SDT procedure is triggered.**

**Proposal 5.3: RAN2 to postpone the discussion on whether and in which cases the UE may report about the buffered data volume when normal RA procedure is triggered.**

## 2.6 Other proposals

There are the following additional proposals:

* [R2-2307285](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307285.zip) Discussion on RACH enhancement for SON Nokia, Nokia Shanghai Bell
  + Proposal 4: RAN2 to discuss for allowing the NW to control and indicate to the UE what type of RA report (e.g., related to the last RA configuration and/or all RA reports regardless of the RA configuration) should be sent to the NW.
* [R2-2307408](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307408.zip) Consideration on the SON enhancements for RACH report Beijing Xiaomi Software Tech
  + Proposal 7: To support reporting NR RA report to LTE in single connectivity mode, UE needs to indicate the availability of the NR RA report to serving eNB.
  + Proposal 8: To reduce the loss of stored RA report due to no network interface for forwarding, eNB requests UE to report the RA report associated with the gNB which it has a network interface with.
* [R2-2307709](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307709.zip) RACH enhancement for SON CATT
  + Proposal 1: An additional UE Variable for SgNB RACH information should be introduced in TS36.331 to include a NR format container with RA-ReportList IE structure, a PSCell list and a PLMN list for RPLMN checking.
* [R2-2307797](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307797.zip) Discussion on RACH enhancements ZTE Corporation, Sanechips
  + Proposal 1: UE includes RSRP of downlink pathloss reference in 4-step RACH report.
  + Proposal 5: Introduce in RA report an indication to indicate whether notification of suspending power ramping counter has been received from lower layers per RA attempt.
  + Proposal 6: UE sets raPuspose to SchedulingRequestFailure when the consistent LBT failures in SCells triggers SR and the SR fails or sets the raPurpose to noPUCCHResourceAvailable when consistent LBT failures in SCells triggers SR but there are no available PUCCH resource.
* [R2-2308427](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308427.zip) RA report enhancement Ericsson
  + Proposal 5 Include information in the RA report on whether the random-access procedure was executed towards an MCG cell or an SCG cell.
* [R2-2308626](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308626.zip) Discussion on RACH enhancement Huawei, HiSilicon
  + Proposal 5: The unique PCell IDs corresponding to the PSCell ID, reported by UE, is recommended to enable the SN RA report forwarding in inter-MN handover case.

**Rapporteur’s summary:** These are proposals on areas that are only brought up by a single company. Rapporteur’s view is that this means that other companies do not consider them primarily issues at this point. Therefore, it is proposed to postpone the discussion on these issues, which gives time to other companies to formulate their views in these areas.

**Proposal 6: RAN2 to postpone the discussion on the following proposals**

* [**R2-2307285**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307285.zip) **Proposal 4**
* [**R2-2307408**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307408.zip) **Proposal 7 and 8**
* [**R2-2307709**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307709.zip) **Proposal 1**
* [**R2-2307797**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307797.zip) **Proposal 1, 5 and 6**
* [**R2-2308427**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308427.zip) **Proposal 5**
* [**R2-2308626**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308626.zip) **Proposal 5**

# 3 Conclusion

The following proposals are for agreement:

**Proposal 1.1: At least the NSAG ID that is assigned to the S-NSSAI triggering the RA attempt and belongs to the NSAG ID of the feature combination used to select the RA configuration should be reported.**

**Proposal 4.1: RAN2’s working assumption is that the UE includes the RACH partition configuration as the start preamble index and the number of preambles in the partition for which the RACH Report was generated in the RA report. Wait for RAN3 before the final decision.**

**Proposal 4.2: RAN2’s working assumption is that the UE includes the feature priority for the used feature combination into the RA report. Wait for RAN3 before the final decision.**

**Proposal 5.1: There is an indication in RA report whether RA-SDT procedure is successful or not. Details of the indication and whether it is a single flag or further differentiation of the failure scenarios are needed are FFS.**

The following proposals are for further discussion:

**Proposal 1.2: Further discuss whether the additional NSAG IDs to be included in the RA reports:**

1. **NSAG ID(s) that belong to the S-NSSAI(s) triggering the RA attempt and included in SIB1 (even if they were not used to select the RA configuration, e.g., due to belonging to lower priority NSAGs).**
2. **NSAG ID(s) that belong to the S-NSSAI(s) triggering the RA attempt (even if they are not included in SIB1).**
3. **NSAG ID(s) that do not belong to the RA attempt but have higher priority than applied NSAG-ID(s).**

**Proposal 2: RAN2 to discuss whether to include that S-NSSAI(s) that triggered the RA attempt in the RA report.**

**Proposal 3: RAN2 to discuss whether to include the priorities of the NSAG IDs either explicitly or implicitly.**

**Proposal 4.3: FFS if additional information on RACH partitioning is to be added to the RA report.**

**Proposal 5.2: RAN2 to discuss whether the UE reports the buffered data volume when RA-SDT procedure is triggered.**

The discussion on the following topics to be postponed:

**Proposal 5.3: RAN2 to postpone the discussion on whether and in which cases the UE may report about the buffered data volume when normal RA procedure is triggered.**

**Proposal 6: RAN2 to postpone the discussion on the following proposals**

* [**R2-2307285**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307285.zip) **Proposal 4**
* [**R2-2307408**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307408.zip) **Proposal 7 and 8**
* [**R2-2307709**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307709.zip) **Proposal 1**
* [**R2-2307797**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2307797.zip) **Proposal 1, 5 and 6**
* [**R2-2308427**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308427.zip) **Proposal 5**
* [**R2-2308626**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_123/Docs/R2-2308626.zip) **Proposal 5**