3GPP TSG-RAN WG3 #108-e R3-223680

Online, 1-11 June 2020

Agenda Item: 9.1.1.2

Source: Huawei (moderator)

Title: Summary of Offline Discussion on SON ASN.1 review

Document for: Approval

# Introduction

**CB: # SONMDT4\_ASN**

**- Check the details**

**- Approve the CRs if agreeable**

(HW - moderator)

Deadline 2nd round – Mon 16th, 12:00 UTC

# For the Chairman’s Notes

Propose to agree the following:

NGAP: R3-223104 – agreed

XnAP: R3-223481 rev in R3-223875 – agreed

F1AP: R3-223876 – agreed

# Discussion – 1st round

This agenda contains four proposals for ASN.1 corrections

* R3-223104 Alignment of ASN.1 and tabular for inter-RAT MLB solution (Nokia, Nokia Shanghai Bell)
* R3-223420 SON SN UHI maximum values correction in ASN.1 (Ericsson)
* R3-223481 ASN.1 corrections (Huawei)
* R3-223621 ASN.1 review to 38.423 for SON features enhancement (CATT)

## R3-223104 Alignment of ASN.1 and tabular for inter-RAT MLB solution

This CR contains the following issues in the reasons for change

1. The solution for inter-RAT load reporting assumes using a set of levels distributed evenly between the low and the high CAC threshold. Therefore, to cover the full scale of the CAC, the thresholds can have values between 0% and 100%. However, in ASN.1 the type is defined as starting from 1%.
2. Also, the number of levels is defined in ASN.1 differently than in the tabular. Considering that having only 1 level is likely wrong, the ASN.1 is assumed to be wrong.
3. Finally, the Inter-system Resource Status Request and Reply use the same IE type for the Reporting System. However, in the tabular, this IE is defined explicitly in each message, which may in future lead to problems when one message is to be enhanced. Therefore, either ASN.1 is corrected to use different IE types (even if defined identically for the time being), or the tabular is corrected to refer to the same IE. Of these two options, in this case, the latter seems better, because indeed the Request and Reply are logically to carry the same information.

*Comment from the moderator*: This CR seems to contain only ASN.1 corrections and could be agreed independently from other CB.

**Q1: Can this CR be agreed?**

|  |  |
| --- | --- |
| Company | Comment |
| Huawei | We are OK with this change |
| Nokia | Yes |
| Ericsson | 1) 2) ok  3) if the goal is easy maintenance, having 2 different IEs in ASN.1 might be more future proof. But no strong opinion between the 2 proposed solutions. Maybe spec rapporteur can decide |
| CATT | Agree |
| ZTE | Fine with this CR |
| CMCC | Ok |

## R3-223420 SON SN UHI maximum values correction in ASN.1

This CR contains the following issues in the reasons for change:

* Maximum values for *timeStay* in *LastVisitedPSCellInformation* and for *maxnoofPSCellsPerPrimaryCellinUEHistoryInfo* are not adequate.
* For SCG UHI, it was agreed that if the *Time Stay* IE is exceeded for a given PSCell entry (Last Visited PSCell Information in Last Visited PSCell List), a new entry for the same PSCell will be added to the *Last Visited PSCell List* IE. However, this will limit the number of logged information for PSCell changes. It is therefore proposed to increase the limit of PSCell entries within a PCell entry, and increase the maximum value of the *Time Stay* IE.

*Comment from the moderator*: This CR seems to contain not only ASN.1 corrections but also tabular and is also related to discussions **in CB: # SONMDT1\_SON**.

**Q2: Can this CR be discussed in in CB: # SONMDT1\_SON section 3.2 together with other UHI enhancements?**

|  |  |
| --- | --- |
| Company | Comment |
| Huawei | We prefer to discuss this in CB#1 |
| Nokia | Has already been included in SON CB #1 |
| Ericsson | Fine |
| Lenovo | It is discussed in CB: # SONMDT1\_SON |
| CATT | Agree with above compaines |
| ZTE | Yes, it is included in CB: # SONMDT1\_SON |
| CMCC | Ok |

## R3-223481 ASN.1 corrections

This CR contains the following issues in the reasons for change:

* The IE SuitablePSCellCGI is not agreed and not included in tabular.
* The IE name PSCellCGI should be aligned with the tabular

*Comment from the moderator*: This CR only contains ASN.1 corrections. Similar proposals are however expressed in other documents in **CB: # SONMDT1\_SON section 3.1** but since it is pure ASN.1 corrections, it would make sense to handle it in this CB.

**Q3: Are the proposed changes acceptable?**

|  |  |
| --- | --- |
| Company | Comment |
| Huawei | We think these changes are needed. |
| Nokia | Yes |
| Ericsson | Yes |
| Lenovo | Yes |
| CATT | Yes |
| ZTE | Yes |
| CMCC | OK |

## R3-223621 ASN.1 review to 38.423 for SON features enhancement

This CR contains the following issues in the reasons for change:

* id-SCGUEHistoryInformation is not used in 9.3.5

*Comment from the moderator*: This CR only contains ASN.1 corrections that could be agreed independently from other CB.

**Q4: Can this CR be agreed?**

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| --- | --- |
| Company | Comment |
| Huawei | We are OK with this change |
| Nokia | Yes |
| Ericsson | ok |
| Lenovo | Yes |
| CATT | OK |
| ZTE | Yes |
| CMCC | OK |

## Additional ASN.1 corrections needed

**Q4: Any additional ASN.1 corrections needed**

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| --- | --- | --- |
| Company | Spec | Details |
| Lenovo | 38.423 | In R3-223312, it is proposed that:  In section 9.3.7 Constant definitions, remove “id-scgFailureInformationTransfer” since we don’t agree to introduce such a new message for MRO for SN Change Failure. |
| Lenovo | 38.473 | In R3-223313, two F1AP corrections for NR-U are proposed:   1. In 9.2.1.23, change the range bound of *NR-U Channel Item* IE in tabular from “*maxnoofNR-UChannels*” to be “*maxnoofNR-UChannelIDs*” in the RESOURCE STATUS UPDATE message. 2. In 9.4.5, correct the value range of *energyDetectionThreshold* in *NR-U Channel Item* IE to be INTEGER (-100..-50,...) in ASN.1 encoding. |
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# Discussion – 2nd round

### id-scgFailureInformationTransfer

From R3-223312 (38.423): it is proposed that: In section 9.3.7 Constant definitions, remove “id-scgFailureInformationTransfer” since we don’t agree to introduce such a new message for MRO for SN Change Failure.

**Q5: Can this change be agreed?**

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| --- | --- |
| Company | Comment |
| Nokia | Yes for removing the *id-scgFailureInformationTransfer* |
| Lenovo | Yes |
| Ericsson | Ok. But *ProcedureCode* for newly agreed procedures should not be changed. Better to void the field, and ask guidance to XnAP rapporteur |
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### Range bound of *NR-U Channel Item* IE

From R3-223313 (38.473): In 9.2.1.23, change the range bound of *NR-U Channel Item* IE in tabular from “*maxnoofNR-UChannels*” to be “*maxnoofNR-UChannelIDs*” in the RESOURCE STATUS UPDATE message.

**Q6: Can this change be agreed?**

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| --- | --- |
| Company | Comment |
| Nokia | Yes |
| Lenovo | Yes |
| Ericsson | Yes |
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### Range bound of *NR-U Channel Item* IE

From R3-223313 (38.473): In 9.4.5, correct the value range of *energyDetectionThreshold* in *NR-U Channel Item* IE to be INTEGER (-100..-50,...) in ASN.1 encoding.

**Q7: Can this change be agreed?**

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| --- | --- |
| Company | Comment |
| Nokia | Yes |
| Lenovo | Yes |
| Ericsson | Yes |
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