3GPP TSG-RAN WG3 #114bis-e R3-221104

17 - 26 January 2022

Online

Agenda Item: 9.3.5.1

Source: Radisys - Moderator

Title: Summary of Offline Discussion on CB #94 SecondaryRATDataReport

Document for: Approval

# Introduction

This is the summary document for the following come back:

**CB: # 94\_SecondaryRATDataReport**

**- Identify the issue which can not be solved by implementation**

**- Discuss the possible solutions and decide if agreeable**

(RadiSys - moderator)

Summary of offline disc [R3-221104](file:///C:\Users\grajendr\AppData\Local\Temp\Temp1_RAN3_114bis-e_agenda_202201180020.zip\Inbox\R3-221104.zip)

First round deadline - Thursday 20th at 16:00 UTC time

# For the Chairman’s Notes

Propose the following:

Agree TP … .

# First Round

The discussion paper [1] states the issues around un-coordinated Secondary RAT Data Usage Report Procedure.

Currently, Secondary RAT Data Usage Report is OAM configured in both MN and SN. The configuration of Secondary RAT Data Usage Report has different variables and parameters. If there is any mismatch in the configuration between MN and SN, MN may not be able to send the Secondary RAT Data Usage Report to the billing function in the core. Especially in case of Inter vendor deployment scenarios, absence of a common OAM will impact the configuration of Secondary RAT Data Usage Report in MN and SN.

Based on [1] the following observations are made. When MN is unaware of the optional procedure Secondary RAT Data Usage Report, MN may not wait for the Secondary RAT Data Usage Report and send UE Context Release to SN.

**Observation 1: Optional message like SN Status Transfer sent from SN to MN (if configured) is co-ordinated via Xn/Xn procedures between MN and SN and MN excepts SN Status Transfer prior releasing the SN**

**Observation 2: The Configuration of Secondary RAT Data Usage Report (enable/disable, Report Periodicity) at SN is left to OAM and there are no X2 or Xn procedures supporting co-ordination of Secondary RAT Data Usage Report configuration between MN and SN. Hence MN may not be aware of the Secondary RAT Data Usage Report arrival.**

**Observation 3: If MN is unaware of the Secondary RAT Data Usage Report configuration at SN, Secondary RAT Data Usage Report received at MN after UE Context Release is sent, will be dropped at MN and charging function at 5GC/EPC will have incorrect usage data for billing purposes.**

TS37.340 Clause 10.4.1

**MN initiated SN Release**



Figure 10.4.1-1: SN Release procedure – MN initiated

Q1. If MN is unaware of the Secondary RAT Data Usage Report configuration at SN, MN may not wait for Secondary RAT Data Usage Report before releasing the UE Context at SN. Do you agree?

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| --- | --- |
| Company | Comment |
| Radisys | Yes,  Optional procedures like SN Status Transfer are co-ordinated between MN and SN, so that MN is aware that it needs to wait for SN status Transfer before releasing the UE Context at SN. But in case of Secondary RAT Data Usage, if MN is unaware due to mismatch in the configuration or absence of common OAM, or dynamic change of OAM configuration, MN may not wait for Secondary RAT Data Usage and release the UE Context at SN. This will result in Secondary RAT Data Usage report being lost and incorrect information for billing. |
| Nokia | SN Status update or resource status are implementation-dependant, not really up to operator’s policy… So, indeed, we added signalling that helps coordinate the implementations.  However, data volume reporting is not for the MN, it is needed higher up in the network. Historically, we usually assumed two things:   * The MN is aware of the SN’s config; and * The operator configures reporting relevant for charging, so that it is uniform across the network.   If above is considered together, we though the MN knows if it shall wait for the report, or not. But again, we’d be happy to hear opinions on the above from more operators. |
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Q2. For MN to be aware of the Secondary RAT Data Usage Report at SN, MN and SN needs to co-ordinate Secondary RAT Data Usage Report configuration over X2/Xn. Do you agree?

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| --- | --- |
| Company | Comment |
| Radisys | Yes,  Like any other 3GPP procedures, co-ordination is needed over X2/Xn interface for Secondary RAT Data Usage for both MN and SN to be in sync. |
| Nokia | As said above: we agree the MN shall know, but we’ve always assumed it does know it because the operator configures data reporting in uniform way across its network… |
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Q3. Does MN need to support configuration of Secondary RAT Data Usage Report to SN via X2/Xn interface procedures to avoid configuration mismatch between MN and SN and support inter vendor deployments?

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| --- | --- |
| Company | Comment |
| Radisys | Yes,  This is much needed for inter vendor deployment scenarios where common OAM is absent. MN can be configured via OAM, but MN needs to configure SN based on its OAM configuration. |
| Nokia | Well, it depends on the conclusion concerning the way the reporting is configured: is it the ame config in the whole network, or each SN reports data differently and it can’t be configured… |
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**Moderator’s summary:**

Majority of companies think …

**Proposal 1**: TP...

# Second Round

**Moderator’s summary:**

Majority of companies think …

**Proposal 1**: TP...

# Conclusion

The following is proposed:

**Proposal 1**: TP...

# References

1. R3-220180, Discussion on Secondary RAT Data Usage Co-ordination
2. R3-220181, CR on Secondary RAT Data Usage Co-ordination for 36.423 for R16 (revised in R3-221094 for WI update)
3. R3-220182, CR on Secondary RAT Data Usage Co-ordination for 38.423 for R16 (revised in R3-221095 for WI update)