3GPP TSG-RAN WG3 #116-e R3-223718

Online, 9th - 19th May 2022

Agenda Item: 9.3.7

Source: Ericsson (moderator)

Title: Summary of Offline Discussion on CB: #5\_Protocol\_Support

Document for: Approval

# Introduction

The chair summary is as follows

**CB: # 5\_ProtocolSupport**

**- For approach2, for NG and S1 interface, add a new RACS IE or other forms (e.g., a feature list) with criticality set to “reject” in the source-to-target Transparent container and the Criticality Diagnostics in the target to source node failure transparent container? Huawei, China Unicom, China Telecom**

**- Define a generic toolset for target functionality detection at source side including inclusion of the Criticality Diagnostics IE in the Target NG-RAN Node to Source NG-RAN Node Failure Transparent Container IE, and inclusion of a report on IE presence as received by the target NG-RAN node in the Target NG-RAN Node to Source NG-RAN Node Transparent Container IE? Qualcomm Incorporated, Vodafone**

**- The Source NG-RAN Node to Target NG-RAN Node Transparent Container IE contains a NGAP IE Support Information Request List IE which includes NGAP Protocol IE Ids for which the target NG-RAN node responses within a Response List in either the Target NG-RAN Node to Source NG-RAN Node Transparent Container IE or the Target NG-RAN Node to Source NG-RAN Node Transparent Failure Transparent Container IE its level of support? E///**

**- Down select the solutions, capture agreements**

**- Provide CRs if agreeable**

(E/// - moderator)

Summary of offline disc [R3-223718](Inbox%5CR3-223718.zip)

# For the Chairman’s Notes

to be added

# Discussion first round

## Introducing the *Criticality Diagnostics* IE in a CN transparent HO container

The moderator excuses for the blunt approach in the first topic on Criticality Diagnostics, but looking into the history of the discussion, we have decided very early that we abstain from including *Criticality Diagnostics* IE into any of the CN transparent HO containers. One of the consequences was to not include in any of the CN transparent HO containers (new) IEs with criticality set to "reject".

The moderator asks to confirm the agreement to not include *Criticality Diagnostics* IE in CN transparent HO containers and to not set the criticality of an IEs in those containers to "reject".

Please explain whether you confirm this approach and, in case, explain why you can't.

|  |  |
| --- | --- |
| Company | Comment |
| Ericsson | Staying with the outlined agreements is preferred. |
|  |  |
|  |  |

## Introduce in NGAP an approach to query support of a certain IE from the target NG-RAN node based on the IE's IE-ID.

Two companies suggest to include the possibility to query support of protocol functions related to an IE based on the IE's IE ID on the interface instance via which the NGAP HANDOVER REQUEST message has been received, see R3-223374 and R3-223376.

NOTE: This implies that not only the target NG-RAN node's support is indicated, but also the functional support of the serving CN entities.

Please provided your view whether you can agree to such approach in general, and explain why in case you cannot.

|  |  |
| --- | --- |
| Company | Comment |
| Ericsson | We are happy to see that another company had the same/a similar view on how to provide a general solution. |
|  |  |
|  |  |

## If the "IE ID support" approach is agreeable, is there a need to introduce an explicit support indication for RACS?

Please provide your answer to the question, if possible with some reasoning.

|  |  |
| --- | --- |
| Company | Comment |
| Ericsson | we would assume that the general mechanism would serve the same purpose than an explicit indication. We would not understand why an explicit support indication would be necessary. |
|  |  |
|  |  |

## Details on the "common approach" -

### Agree on R3-223376 as baseline

Would it be possible to take R3-223376 as baseline for the following details:

* The Source NG-RAN Node to Target NG-RAN Node Transparent Container IE contains the new *NGAP IE Support Information Request List* IE
* The Target NG-RAN Node to Source NG-RAN Node Transparent Container IE and the Target NG-RAN Node to Source NG-RAN Node Failure Transparent Container IE contains the new *NGAP IE Support Information Response List* IE.
* The *NGAP IE Support Information Response List* IE contains an *NGAP Protocol IE Support Information* IE.
* The maximum number of IE-IDs exchanged in the new IEs as low as 32.
* No need to include a "remote" criticality diagnostics in the "failure" transparent container as suggested in R3-223374.

Please provide your view.

|  |  |
| --- | --- |
| Company | Comment |
| Ericsson | we would be happy to take the lead on the NGAP CR with the above assumptions. |
|  |  |
|  |  |

### "IE Presence" IE (outside/inside transparent container)

R3-223374 suggests to introduce an *IE Presence* IE to indicated whether the IE-ID refers to an IE which is received outside or inside the transparent container, or both.

Please provide your view whether the suggestion is acceptable/necessary.

|  |  |
| --- | --- |
| Company | Comment |
| Ericsson | So far, TS rapporteurs tried to distinguish re-used IE type definitions by allocating different IE-IDs. We believe that with such protocol design approach the suggested *IE Presence* IE is not necessary. |
|  |  |
|  |  |

### Enumeration "no information available" in *NGAP Protocol IE Support Information*

R3-223376 suggests indicating the NGAP protocol IE support not only by means of 2 codepoints (supported/not supported) but also enable a kind of "don’t know (yet)" response.

NOTE: in R3-223376, the IE description text in §9.3.1.y needs to updated.

Please provide your view whether the suggestion is acceptable/necessary.

|  |  |
| --- | --- |
| Company | Comment |
| Ericsson | We think that such additional codepoint could make the final solution future proof. We agree that for RACS (and similar features) such is definitely not needed.  |
|  |  |
|  |  |

### any other aspect to be discussed

Please provide below any other important aspect which was forgotten by the rapporteur. You can also chose to add a new sub-chapter below.

|  |  |
| --- | --- |
| Company | Comment |
|  |  |
|  |  |
|  |  |

# Conclusion, Recommendations [if needed]

If needed

# References

1. R3-223334 "On node capability detection for non-direct-connected nodes" (Huawei, China Unicom, China Telecom), discussion
2. R3-223335 "On node capability detection for non-direct-connected nodes [Node\_Cap\_Dect]" (Huawei, China Unicom, China Telecom), CR TS 38.413
3. R3-223373 "Further discussion on RACS Capability Detection for NG handover (and generalizing detection of target functionality by source NG-RAN node)" (Qualcomm Incorporated, Vodafone), discussion
4. R3-223374 "Detection of RACS support at target during N2/S1 handover" (Qualcomm Incorporated, Vodafone) CR TS 38.413
5. R3-223375 "Exchange of protocol support at target RAN node for NG handover" (Ericsson), discussion
6. R3-223376 "Exchange of protocol support at target RAN node for NG handover" (Ericsson), CR TS 38.413