TSG-RAN Working Group 3 meeting #6*TSGR3#6(99)940*
Sophia Antipolis, France, 23rd-27th August 1999

Agenda Item: 10

Source: **Ericsson**

Title: Comments to RANAP V1.1.1

Document for: Decision

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1. Introduction

This contribution proposes two sets of comments:

1. Missing updates in [1] coming from agreed contributions of RAN3#5
2. Ericsson additional comments to [1].

2. Missing Updates

(Comments per RAN3#5 meeting contributions)

From R3-99670:

- 'NAS bit string' parameter added per 'CN System information piece' to 'CN Information Broadcast' message. Was this agreed or mentionned as a possible way to turn off the broadcast among other ways?

- replace TMSI with 'Temporary UE ID' also in element description in ch.9.2.2.14

- declare 'Paging Area ID' element in ch.9.2

From R3-99678:

- declare 'Source RNC to Target RNC transparent field' and 'Target RNC to Source RNC transparent field' elements in ch.9.2

From R3-99720:

- declare 'User Plane Mode' element in ch.9.2

From R3-99722:

- 722 proposes 'Paging Area ID' element optional instead of mandatory in 'Paging' message since it is not needed when whole RNC area paged. Thus set 'Paging Area ID' as optional element or leave it mandatory and introduce a Paging Area discriminator that allow the format: ”Whole RNS area”.

- declare 'Target RNC Identification' in ch.9.2 (related comment in another contribution).

3. Ericsson additional comments

General: it should be considered by Iu SWG to indicate consistently for each EP whether the EP uses the connection oriented or connection less services of the signalling bearer.

8.2.1, General on Relocation: The highlighted addition of the editor should not be inserted. The idea with describing elementary procedures is that these should be:

- fully specified atomic operations; the relation between EPs should not be specified, unless really necessary. It also introduces ambiguities when the relation between the EPs is complex or partially specified.

- the EP shall be a request/response procedure, and it is the behaviour of the responding node that is specified.

8.2.2.1: It could also be stated that: “The cause of the relocation preparation initiation, hard handover or SRNS relocation is indicated to the CN nodes. It is used by the CN node to proceed the relocation preparation execution appropriately e.g. considering switching execution timing.”

Should it be also mandatory to provide in RELOCATION REQUIRED a Serving ID, that could be an RNC ID or a cell identity, depending on the case. It is mandatory in GSM to provide Serving Cell Id in Handover Request.

Should we implement the decision made at Warwick (R3-99454) to use Target ID in the RELOCATION REQUIRED. Target ID could be an RNC-ID or Global RNC-ID for UMTS-UMTS handover or a GSM CGI for UMTS to GSM handover.

8.2.2.1: The timer is stopped and not just reset at reception of RELOCATION COMMAND.

8.2.2.1: “…Depending on the case, the source RNC either triggers…”. This could be better stated by “Depending on the cause of the relocation preparation initiation, hard handover or SRNS relocation, the source RNC either triggers the handover procedure on the air interface or commits the execution of the relocation in the target RNS, respectively

8.2.4: "...the target RNC sends a RELOCATION DETECT...". This must be clarified: "...the target RNC shall send a RELOCATION DETECT. Moreover, the figure is in contradiction with the text. The text indicates that the message is sent first and the Target RNC acts as SRNC on.

8.2.5: "new UTRAN identifiers": couldn't we clearly state "SRNC-ID + SRNTI" here? "UTRAN identifiers" is vague.

8.2.6: - It should be clarified when the source RNS may send RELOCATION CANCEL. Is it anytime during the Relocation Preparation, i.e. before receiving RELOCATION COMMAND? What then about colliding signalling (simultaneous RELOCATION COMMAND and RELOCATION CANCEL)? It should probably be possible to send it also after RELOCATION COMMAND - should it then be specified that it must be done before source RNC triggers the target RNC or the air interface handover ?

- It should be stated that the CN shall release any relocation resources allocated in the CN or the target RNS.

8.3: Editorial comments (technical comments in another contribution): Could we shorten message names when no ambiguity is possible: RADIO ACCESS BEARER to RAB and

consistently replace “bearer” by RAB. Is the RANAP in front of the RAB ASSIGNMENT REQUEST/COMPLETE necessary ?

8.4: How often can the IU RELEASE REQUEST be sent by UTRAN? When shall UTRAN stop sending it? This section should be clarified.

8.5.1, General on Iu RELEASE: The reference to Iu RELEASE REQUEST should be removed from this section (is another EP).

8.5.2, 8.5.3, 8.5.4, Iu RELEASE:

- Now that Iu Release Request is a standalone EP, Iu Release could be specified only once, irrespective of the reasons for initiation. CN initiates (by itself or as a result of another EP), and the behaviour of UTRAN shall be specified. The text of 8.5.2 could be taken, removing some references to the triggering of the procedure. Also, UTRAN shall clear the radio interface only if no other Iu connection exists.

8.8, COMMON ID: It seems more future proof to refer to the common identity rather than limiting to IMSI in the descriptive part. We have a "permanent NAS UE identity" which could initially only be of the type IMSI?

8.9, Paging: It is agreed to use Paging Area instead of UE location parameter. The descriptive text shall be aligned accordingly.

8.10, Trace Invocation: the current text only describes CN Invoke trace. Should the section be renamed (and the corresponding entry in the EP classification table). Moreover it indicates that the message is not acknowledged, but this is already part of the EP classification (class 2).

8.11.1, ciphering mode:

- do not refer to explicit Uu messages. The text in the 3rd paragraph shall be rewriten since it has been agredd that Cipher Response mode is no longer a RANAP IE and IMEI is not visible in CIPHER MODE COMPLETE message."

- Also 5th paragraph should only state: "When the ciphering on Uu is started, UTRAN shall send the RANAP CIPHER MODE COMPLETE message to the CN."

8.11.2: This section seems to be "unsuccessful" rather than "abnormal" conidtions.

8.12: Is the CN INFO BROADCAST really limited to only system information broadcast, from a UTRAN point of view? Or could the CN send any information over this service?

8.13: We probably need to clarify the SAPI/priority? issue (at least in the DL direction) in relation with SMS and other NAS messages to be transmitted on different Uu links (must be checked with RAN WG2 how it is modelled).

8.14, initial UE message:

- remove "choosen channel"

- replace cell identifier by location information

8.15.2.1: this seems to be part of the normal operation of the procedure.

8.16.3.1: This seems strange to explicitly specify this particular case of abnormal operation, and put requirements on the CN. Why not rely on some general mechanisms, not particular for this procedure.

Messages & IEs: Some intelligent grouping and sorting could be made as in RRC specification:e.g. NAS related parameters, transport related parameters

4. Proposal

It is proposed to introduce the comments into [1] and agree on requested clarifications during discussion of the contribution in the Iu SWG.

5. References

[1] 25.413, RANAP protocol V1.1.1, Source: Editor (Nokia)