

**Title:** LS on early UE handling  
**From:** SA2  
**Agenda item:** 5.2  
**Document for:** INFORMATION

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**3GPP TSG-SA WG2 meeting #30**  
**Milan, Italy, 24<sup>th</sup> – 28<sup>th</sup> February 2003**

**Tdoc S2-031004**  
**rev of S2-030964**

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**TO:** RAN  
**CC** SA, RAN2, GERAN, CN, CN1, CN4, RAN3

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**Response to:** RPA030014 = S2-030510  
**Attachments:** S2-030510

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SA 2 thanks the RAN ad hoc for informing SA 2 of the “result” of the RAN ad hoc meeting held 29-30/1/03 (namely that no conclusion was reached between Iu transfer of IMEISV or ‘bit map of UE faults’).

As indicated by the RAN ad hoc, this lack of decision does not prevent SA 2 from working further on the architecture (and in fact, SA 2 had already started on this work in SA2 #29 in San Francisco, 20-24/1/03).

However, during their work at SA2 #30 (Milan, 24-28/2/03) the lack of RAN decision did cause some difficulties and delays to the SA 2 work.

SA 2 plans to send the draft TS on ‘Provision of UE Specific Behaviour Information to Network Entities’ to SA#19 for information. Some SA2 decisions (eg Gs interface optimization - impacting sections 5.2.3 to 5.2.6; and inter-MSC/SGSN handover issues in 5.2.11, 5.2.12, 5.2.14a) are difficult to resolve until the “bitmap vs IMEISV” decision is made. In addition work on section 6 (“operational issues of handling fault information”) cannot be usefully started until the decision is made.

If no decision is made, it is expected that these problems will become critical at SA2 #31 (Korea, 7-11/4/03) and delay the approval of the TS and the start of some of the stage 3 work in CN 1 and CN4.

In addition, several delegations commented that the development of the interfaces specified by, say, SA 2, CN 1, CN 4, RAN 3, GERAN 2, etc represented only a small part of the actual work that needs to be done by the infrastructure manufacturers.

SA 2 are concerned at the lack of any RAN timescale for resolution of this issue and believe that continued lack of decision on “bitmap vs IMEISV” will lead to substantial delays in the delivery of this feature.

SA 2 kindly request TSG-RAN to make a decision on this topic before the end of their March meeting (ie before 15/3/03).

**Actions:**

**To TSG-RAN:**

- a) to note the above concerns of SA 2; and
- b) SA 2 kindly request TSG-RAN to make a decision between “bitmap” and IMEISV during their March 2003 TSG meeting.

**Dates of Next SA 2 Meetings:**

<b>Meeting</b>	<b>Date</b>	<b>Location</b>	<b>Host</b>
<b>SA2#31</b>	<b>7 -11 April 2003</b>	<b>Seoul, Korea</b>	<b>Samsung</b>
<b>SA2#32</b>	<b>12 -16 May 2003</b>	<b>USA</b>	<b>NAF3</b>

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**TSG-RAN Early UE ad hoc Meeting**  
**Sophia Antipolis, France, 29 - 30 January 2003**

**RPA030014**

**Title: LS on early UE handling**

**FROM: 3GPP TSG RAN "Early UE" ad-hoc**  
**TO: SA2, CN1, CN4, RAN3**  
**CC RAN2, GERAN**

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**Attachments: None**

During RAN Plenary in Dec 02, it has been agreed that information about UE specific behavior should be made available to the RNC via the lu interface. This information can be either the IMEI-SV or a bitmap indicating specific terminal behavior.

TSG RAN held an ad-hoc meeting in order to discuss which information would be defined on the lu interface for the handling of early UEs i.e. the content of the UESBI (UE Specific Behavior Information) on the lu interface.

A summary of the main alternatives follows:

- For the IMEI-SV solution, the CN would request the IMEI-SV from the UE and would forward it to the UTRAN in an appropriate RANAP message. The RNC would then have to map it into a UE specific behavior from the received IMEI-SV.
- For the bitmap solution, the CN would request the IMEI-SV from the UE, would map it to a bitmap indicating UE specific behavior and would forward the bitmap to the UTRAN in an appropriate RANAP message.

The discussion has been on the respective merits of the two main solutions. However no conclusion could yet be made.

The main difference between the proposals is whether the mapping of IMEISV into

a bitmap of documented behaviors (two RAN TRs have been created for this purpose) takes place in the MSC/VLR and SGSN immediately after IMEISV query, or later in the RNC. As a consequence, it is believed, based on the understanding of SA2 current status, that for all nodes and interfaces between the initial MSC/VLR or SGSN making the IMEISV query, and the Serving RNC receiving the UESBI, the UESBI information is relayed transparently. Therefore, it seems that for all network interfaces, the transport of the UESBI can be specified, and that in order to finalize the specifications, only the definition of the UESBI will be needed.

If the above understanding is correct, and in order to speed up the availability of the early UE handing in CN and network interfaces, the following is proposed to WGs in action as a way forward:

- SA2 finalizes the architecture work on the exchange of UESBI information between network nodes
- CN1, CN4 and RAN3 prepare CRs for the support of the UESBI in the relevant network interfaces. Release 5 is proposed to be the release where it would be applied.
- All CN specifications refer to the RANAP specification (25.413) for the definition of the UESBI semantics. The proposed syntax is proposed to be octet string. 16 octets could be a maximum size for the octet string.

TSG RAN will then decide at a later stage on the semantics of the UESBI e.g. whether it is a IMEISV or a bitmap, add it to the RANAP specification, and inform CN groups. No date is yet foreseen for when this will be done, and it may depend on future problems identified for early UE handling.

The RAN ad-hoc believes that this way forward will allow 3GPP to prepare for the early UE handling and hopes that it will be acceptable to SA2, CN1 and CN4.

#### **Actions:**

SA2, CN1, CN4, RAN3    note the RAN proposal and prepare interfaces for the support of UESBI transport as indicated in the 3 bullets above  
RAN2, GERAN    note the RAN results