

3GPP TSG CN Meeting #27
9th - 11th March 2005. Tokyo, Japan.

NP-050084

Source: TSG CN WG1
Title: CRs to Rel-6 WI "OEM-Trace" for TS 29.018
Agenda item: 9.22
Document for: APPROVAL

This document contains a **CR on Rel-6 Work Item "OEM-Trace"**, that has been agreed by TSG CN WG1 CN#37 meeting and forwarded to TSG CN Plenary meeting #27 for approval.

TDoc #	Tdoc Title	Spec	CR #	Rev	CAT	C_Ver	WI	Rel
N1-050396	Management Based Activation Impacts	29.018	43	2	B	6.1.0	OEM-Trace	Rel-6

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.018 CR 043** ⌘ rev **2** ⌘ Current version: **6.1.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Management Based Activation Impacts		
Source:	⌘ Ericsson		
Work item code:	⌘ OEM-Trace	Date:	⌘ 16/02/2005
Category:	⌘ B	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)

Reason for change:	⌘ This CR adds the necessary impacts to enable IMEI(SV) provisioning for Management Based Activation/Deactivation of a Trace Session in an RNC when a combined RAU/LU procedure takes place.
Summary of change:	⌘ Add IMEI(SV) in BSSAP+ LOCATION-UPDATE-REQUEST message
Consequences if not approved:	⌘

Clauses affected:	⌘ 2.1, 6.2.1, 17.1.11						
Other specs	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td></td> </tr> </table> Other core specifications	Y	N	X		⌘	29.002 (749), 23.012 (019), 23.018 (144), 29.060 (543)
Y	N						
X							
Affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">X</td> <td>Test specifications</td> </tr> <tr> <td style="text-align: center;">X</td> <td>O&M Specifications</td> </tr> </table>	X	Test specifications	X	O&M Specifications		
X	Test specifications						
X	O&M Specifications						
Other comments:	⌘						

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <http://www.3gpp.org/specs/CR.htm>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

First modification

2.1 Normative references

- [1] [Void]
- [1a] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] [Void]
- [3] [Void]
- [4] 3GPP TS 22.060: "General Packet Radio Service (GPRS); Service description; Stage 1".
- [5] 3GPP TS 23.003: "Numbering, addressing and identification".

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[xx] [3GPP TS 32.422: "Subscriber and equipment trace; Trace control and Configuration Management \(CM\)"](#).

Second modification

6.2.1 Location Update Initiation

If timer T6-1 is not running, the SGSN shall start the Location Update for non-GPRS service procedure when it receives from the MS:

- an Attach request indicating combined IMSI and GPRS attach;
- an Attach request indicating GPRS attach while IMSI attached;
- a Combined Routing and Location Area Update request indicating IMSI attach;
- a Combined Routing and Location Area Update request indicating that the Location Area has changed;
- a Combined Routing and Location Area Update request, if the state of the association is Gs-NULL; or
- a Combined Routing and Location Area Update request when the SGSN serving the MS has changed.

For networks not supporting the feature 'Intra Domain Connection of RAN Nodes to Multiple CN Nodes' the number of the VLR is derived from the RAI where the MS is camping. For networks supporting the feature 'Intra Domain Connection of RAN Nodes to Multiple CN Nodes', the VLR number is derived as described in 3GPP TS 23.236. The SGSN starts Timer T6-1. The BSSAP+-LOCATION-UPDATE-REQUEST message includes the old Location Area Identifier received from the MS. The SGSN shall also include the new Location Area Identifier where the MS is currently camping. The new LAI is derived from the RAI.

The BSSAP+-LOCATION-UPDATE-REQUEST message includes the type of location update performed by the MS in the GPRS location update type IE. If the MS has performed a combined attach request or a combined routing and location area update request with IMSI attach, the SGSN indicates 'IMSI attach', otherwise the SGSN indicates 'Normal location update'.

The BSSAP+-LOCATION-UPDATE-REQUEST message shall include the TMSI status if received from the MS.

If the SGSN supports the "Provision of UE Specific Behaviour Information to Network Entities" (see 3GPP TS 23.195 [23]), or the "Automatic Device Detection" (see 3GPP TS 22.101 [23A]), or the "Trace for Management Based Activation/Deactivation" (see 3GPP TS 32.422 [xx]), the BSSAP+-LOCATION-UPDATE-REQUEST message shall include the IMEISV.

If timer T6-1 is running:

If the SGSN receives from the MS:

- an Attach request indicating combined IMSI and GPRS attach;
- an Attach request indicating GPRS attach while IMSI attached; or
- a Combined Routing and Location Area Update request with or without IMSI attach.

Then:

- if the new LAI is the same as in the outstanding request, the SGSN shall not process this new request and shall wait for the VLR's response to the ongoing procedure; or
- if the new LAI is different but is in the same VLR as the outstanding request:
 - any response from the VLR to the outstanding request is ignored;
 - Timer T6-1 shall be stopped and reset; and
 - The SGSN shall start the Location Update for non-GPRS service procedure; or
- if the new LAI is different, and is in a different VLR to the outstanding request:
 - any response from the previously addressed VLR to the outstanding request is ignored;
 - Timer T6-1 shall be stopped and reset; and
 - the SGSN shall start the Location Update for non-GPRS service procedure.

When the SGSN receives from the MS a Routing Area Update request and the SGSN serving the MS has changed, the SGSN shall stop and reset timer T6-1.

Third modification

17.1.11 BSSAP+-LOCATION-UPDATE-REQUEST message

This message is sent by the SGSN to the VLR either to request update of its location file (normal update) or to request IMSI attach.

Table 17.1.11/3GPP TS 29.018: BSSAP+-LOCATION-UPDATE-REQUEST message content

Information Element	Type/Reference	Presence	Format	Length
Message type	Message type 18.2	M	V	1
IMSI	IMSI 18.4.10	M	TLV	6-10
SGSN number	SGSN number 18.4.22	M	TLV	5-11
Update type	GPRS location update type 18.4.6	M	TLV	3
New Cell global identity	Cell global identity 18.4.1	M	TLV	10
Mobile station classmark	Mobile station classmark 1 18.4.18	M	TLV	3
Old location area identifier	Location area identifier 18.4.14	O	TLV	7
TMSI status	TMSI status 18.4.24	O	TLV	3
New service area identification	Service area identification 18.4.21b	O	TLV	9
IMEISV	IMEISV 18.4.9	O	TLV	10

17.1.11.1 Old location area identifier

This information element should be included. It is derived from the old routing area identification received in the ROUTING AREA UPDATING REQUEST message defined in 3GPP TS 24.008.

17.1.11.2 New cell global identity

In A/Gb mode, the cell global identity which shall be included is the one where the MS is in the current radio contact.

In Iu mode, the cell global identity which shall be included indicates where the MS is in the current location area. The cell identity part of this information shall be ignored by the VLR.

In a shared network, the PLMN identity contained in the cell global identity shall be the PLMN identity of the selected core network operator (see 3GPP TS 23.251 [24]).

17.1.11.3 TMSI status

This information element shall be included if the TMSI status received in the ATTACH REQUEST or ROUTING AREA UPDATING REQUEST message from the MS indicates, that no valid TMSI is available in the MS.

17.1.11.4 Mobile station classmark

This information element does not serve any useful purpose, but shall be included for reasons of compatibility with earlier versions of the protocol. To ease interworking with old VLR equipment, the SGSN shall encode the contents of this information element as: revision level 'GSM phase 2', 'early classmark sending supported', 'encryption algorithm A5/1 supported', and RF power capability 'class 1'.

17.1.11.5 New service area identification

In Iu mode, the service area identification which should be included is the one where the MS is in the current radio contact.

In a shared network, the PLMN identity contained in the service area identification shall be the PLMN identity of the selected core network operator (see 3GPP TS 23.251 [24]).

17.1.11.6 IMEISV

This information element shall be included, if the SGSN supports the "Provision of UE Specific Behaviour Information to Network Entities", or the "Automatic Device Detection", or the ["Trace for Management Based Activation/Deactivation"](#).

Modification end