3GPP TSG CN Plenary Meeting #21 **NP-030377**
17th – 19th September 2003 Frankfurt, GERMANY.

Source: TSG CN WG4

Title: LSs after CN#20

Agenda item: 6.4.1

Document for: Information

Introduction:

This document contains 6 LSs that have been agreed by TSG CN WG4 after CN#20, and are forwarded to TSG CN Plenary meeting for information.

Tdoc	Tdoc Title	LS to	LS cc	LS Attachment
N4-031013	LS on sending the SGSNs MNC and MCC to the GGSN and service node	SA5, SA2	SA1, CN3, T2, GSMA BARG CPWP	
N4-031020	LS to SA1 on GUP work in CN4	SA1	SA2	
N4-031039	Reply to LS on Emergency Services Routing Based on Interim Position	SA2, T1P1	SA1	N4-031038
N4-031061	LS Response on Stage 3 level specification directions for support for subscriber certificate work item	SA3, CN1		
N4-031062	LS on Clarification on Presence Service Matters	SA1, SA2	CN2	
N4-031063	Reply LS on P-TMSI signature validation functionality in R99	SA2	CN1	

3GPP TSG CN WG4 Meeting #20 ***N4-031013***
Sophia Antipolis, FRANCE, 25th – 29th August 2003

Title:	LS on sending the SGSNs MNC and MCC to the GGSN and service node
Response to:	LS (S5-034449) on sending the SGSNs MNC and MCC to the GGSN and service node from WG SA5.
Release:	R97 and onwards.
Work Item:	OAM-CH
Source:	CN4
To:	SA5, SA2
Cc:	SA1, CN3, T2, GSMA BARG CPWP

Contact Person:
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E-mail Address: dlwarren@nortelnetworks.com

Attachments: none

CN4 thanks SA5 for their LS (S5-034449) detailing the requirements for the inclusion of the RAI (to carry MNC and MCC of the SGSN) in GTP. As noted in this LS and the previous LS sent by CN4 to SA5 on this subject, it is not possible to make the RAI a mandatory parameter within GTP because of the problems that this would cause with backwards compatibility.

The request from SA5 in S5-034449 to CN4 was to;

'…to define the addition of this information in the relevant GTP and RADIUS messages so that while the information parameters are not mandatory in the protocol message descriptions, the accompanying behaviour description for the parameter makes it clear under what conditions they shall be included'.

The understanding of CN4 is that the requirement from SA5 is to make it clear that, whilst the protocol definition describes the parameter as optional (for compatibility reasons), there should be text included somewhere within specifications that states that really this parameter should always be included. To that end, CN4 has two distinct proposals:

1. CN4 could change the description of the inclusion of RAI in 29.060 from text that reads 'The SGSN may include the Routeing Area Identity (RAI) of the SGSN where the MS is registered' to 'The SGSN **should** include the Routeing Area Identity (RAI) of the SGSN where the MS is registered'.

2. SA2 change the text within the stage 2 document (23.060) to describe the conditions under which the RAI is included in Create PDP Context Request and Update PDP Context Request.

When considering these two options, CN4 noted that it would be difficult to approve the changes described in option 1 for any release earlier that Release 6 since this would not imply a functional correction and so, whilst strengthening the requirement, it would probably be viewed as an editorial change. Option 2 however would be something closer to a correction since there is no mention of the conditions on the inclusion of RAI in 23.060 with relation to Create or Update PDP Context Request and so this could be viewed as essential clarification to help implementers understand the true requirements for inclusion. It was also noted in CN4 that the conditions for inclusion or not of parameters under certain conditions is really a service related consideration and so the stage 2 document would be a better place for such a recommendation.

2. Actions:

To SA5 and SA2 group.

ACTION: CN4 asks SA2 and SA5 group to consider the two solutions that CN4 has proposed and decide which would be preferred. If SA2 and SA5 agree with CN4 that the second option is the most appropriate way of addressing SA5's requirement, SA2 are further asked to draft and approve the appropriate CR's to 23.060.

3. Date of Next CN4 Meeting:

CN4 #21 27th October – 31st October 2003

3GPP TSG CN WG4 Meeting #20 ***N4-031062***
Sophia Antipolis, FRANCE, 25th – 29th August 2003

Title: LS on Clarification on Presence Service Matters
Response to:
Release: Rel-6
Work Item: Presence

Source: CN4
To: SA1, SA2
Cc: CN2

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Attachments: none

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1. Overall Description:

In the CN2/CN4 joint meeting in Sophia Antipolis 27th Aug 2003, the following issues were raised in the discussion of Presence service:

- Relationship between the CAMEL feature and the non-IMS Presence Service

CN4 would like to inform SA1 and SA2 that certain mechanisms defined for CAMEL could be reused for the non-IMS Presence service. For example, AnyTimeInterrogation mechanism is available for the fetching procedure in the Presence service.

If CAMEL features are definitely needed for PLMN operators to realise the Presence service in Release 6, CAMEL phase 4 becomes a mandatory feature for operators wishing to provide the service. CN4 asks SA1 and SA2 whether the non-IMS Presence service should be independent of CAMEL or is it acceptable that certain mechanisms defined for CAMEL shall be used to realise the Presence service?

- Presence Network Agent (PNA)

CN4 asks SA2 for guidance on how the signalling messages are routed in the PLMN for the Presence service. More specifically, CN4 asks SA2 whether the Presence Network Agent is defined as a totally separate logical entity in its own physical node, or it is defined as a logical entity which can be collocated with another logical entity in the same physical node and share the same MAP interface. CN4 asks this question as CN4 is currently debating whether or not a new Sub-System Number (SSN) should be allocated to the PNA or whether it can share the same SSN as the gsmSCF.

- Reference point HSS/HLR – Presence Network Agent (Ph)

The reference point between HSS/HLR and Presence Network Agent (Ph) is defined as follows in 3GPP TS23.141 : “This reference point uses capabilities defined for the Sh reference point as defined in 3GPP TS 23.002 [14] as well as the MAP interface.” CN4 asks SA2 if the understanding that the Ph interface is defined for both MAP and the Sh reference point is correct and clarify the stage 2 in this respect?

2. Actions:

To SA1 and SA2 group.

ACTION:

SA1 :

CN2 and CN4 kindly ask SA1 to clarify the relationship between CAMEL and the Presence service as described in the first bullet above.

SA2 :

CN4 kindly asks SA2 to clarify the relationship between CAMEL and the Presence service as described in the first bullet, for guidance on the matter raised in the second bullet regarding logical/physical entities, and for guidance on the definition of Ph interface as described in the third bullet.

3. Date of Next CN4 Meeting:

CN4 #21 27th October – 31st October 2003

3GPP TSG CN WG4 Meeting #20 ***N4-031061***
Sophia Antipolis, FRANCE, 25th – 29th August 2003

Title:	**LS Response on Stage 3 level specification directions for support for subscriber certificate work item**
Response to:	Input LS (N4-030926/ S3-030469) Stage 3 level specification directions for support for subscriber certificate work item from SA3
Release:	Rel-6
Work Item:	Support for subscriber certificates (SEC1-SC)
Source:	CN4
To:	SA3, CN1
Cc:	-

Contact Person:
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Attachments: -

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1. Overall Description:

CN4 thanks SA3 for its liaison on subscriber certificates.

CN4 considers that Stage 3 of BSF-HSS and NAF-BSF subscriber certificates interfaces should be developed within CN4 to accomplish the SA3 requirements.

However, CN4 considers that before going into protocols details as Stage 3 requires, clear requirements needs to be provided. CN4 is aware of the SA3 Ad-Hoc meeting in 03 – 04 Sep 2003 in which subscriber certificates will be part of the agenda, so CN4 considers more appropriate to wait for the outcome of this meeting before initiating Stage 3.

2. Actions:

CN4 requests SA3 to provide clear guidance on the Stage 3 requirements.

3. Date of Next TSG-N4 Meetings:

CN4 #21	27 - 31 Oct 2003	Thailand

3GPP TSG CN WG4 Meeting #20 ***N4-031039***
Sophia Antipolis, FRANCE, 25th – 29th August 2003

Title:	Reply to LS on Emergency Services Routing Based on Interim Position
Response to:	LS S1-030832 and S2-033225 on Emergency Services Routing Based on Interim Position.
Release:	6
Source:	CN4
To:	SA2, T1P1
Cc:	SA1

Contact Person:
Name: Dan Warren, Nortel Networks
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Attachments: N4-031038 (CR645r1 to 29.002 on Introduction of North American Interim Location Based Routing of Emergency Call)

1. Overall Description:

CN4 thanks SA1 and SA2 for their Liaison Statements on the introduction of Emergency Services call routing based on Interim Position. In the LS from SA2 the following question was asked;-

> *'Study whether the rel6 mechanism can be provided in pre-rel6 networks or whether there is a reason why the specification change would also be needed in earlier releases.'*

CN4 sees no reason to implement the changes required (and reflected in attached document N4-031038) for any release prior to Release 6.

Further, for T1P1's information, CN4 believe that the attached document completes the standardisation work required on this subject in 3GPP.

2. Actions:

None

3. Date of Next CN4 Meeting:

CN4 #21	27th October – 31st October 2003

3GPP TSG-CN4 Meeting #20
Sophia Antipolis, FRANCE, 25th to 29th August 2003

Tdoc ⌘N4-031038

CR-Form-v7

CHANGE REQUEST

⌘ **29.002** **CR** **645** ⌘ **rev** **1** ⌘ Current version: **6.2.0** ⌘

*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:	⌘	Introduction of North American Interim Location Based Routing of Emergency Call
Source:	⌘	Nortel Networks
Work item code:	⌘	LCS2
Date:	⌘	15/07/2003
Category:	⌘	**B**
Release:	⌘	Rel-6

Use one 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 one of the following releases:
2 (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)

Reason for change:	⌘	At CN4 #19, an LS from T1P1 (N4-030586) was received that identified requirements from North America for emergency calls to be routed to the relevant PSAP based on a subscriber's actual position rather than basing this routing on the cell-Id of the cell that the subscriber was attached to. This new functionality would allow the emergency call to be handled by the PSAP that was physically closest to the subscriber making the call, rather than the PSAP closest to the cell.
Summary of change:	⌘	New functionality is introduced to allow the GMLC to replace the NA-ESRK supplied by the MSC (if the MSC allows for this to take place) by interrogating the LCZTF (a new functional element within the GMLC defined in 23.271). New parameters are introduced for Subscriber Location Report to allow the result of the interrogation to be taken back to the MSC.
Consequences if not approved:	⌘	Emergency calls may be routed to a non-optimal PSAP, resulting ultimately in delays in responses to emergencies.

Clauses affected:	⌘	7.6.11.19, 13A.3, 17.7.13			
Other specs affected:	⌘	**Y** / **N**	Other core specifications	⌘	23.271 CR 198r3
		X /	Other core 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.

7.6 Definition of parameters

Following is an alphabetic list of parameters used in the common MAP-services in clause 7.3:

Application context name	7.3.1	Refuse reason	7.3.1
Destination address	7.3.1	Release method	7.3.2
Destination reference	7.3.1	Responding address	7.3.1
Diagnostic information	7.3.4	Result	7.3.1
Originating address	7.3.1	Source	7.3.5
Originating reference	7.3.1	Specific information	7.3.1/7.3.2/7.3.4
Problem diagnostic	7.3.6	User reason	7.3.4
Provider reason	7.3.5		

Following is an alphabetic list of parameters contained in this clause:

Absent Subscriber Diagnostic SM	7.6.8.9	Location Information for GPRS	7.6.2.30a
Access connection status	7.6.9.3	Location update type	7.6.9.6
Access signalling information	7.6.9.5	Long Forwarded-to Number	7.6.2.22A
Additional Absent Subscriber Diagnostic SM	7.6.8.12	Long FTN Supported	7.6.2.22B
Additional LCS Capability Sets	7.6.11.25		
Additional Location Estimate	7.6.11.21	Lower Layer Compatibility	7.6.3.42
Additional number	7.6.2.46	LSA Information	7.6.3.56
Additional signal info	7.6.9.10	LSA Information Withdraw	7.6.3.58
Additional SM Delivery Outcome	7.6.8.11	MC Information	7.6.4.48
Age Indicator	7.6.3.72	MC Subscription Data	7.6.4.47
Alert Reason	7.6.8.8	Mobile Not Reachable Reason	7.6.3.51
Alert Reason Indicator	7.6.8.10	Modification request for CSI	7.6.3.81
Alerting Pattern	7.6.3.44	Modification request for SS Information	7.6.3.82
All GPRS Data	7.6.3.53	More Messages To Send	7.6.8.7
All Information Sent	7.6.1.5	MS ISDN	7.6.2.17
AN-apdu	7.6.9.1	MSC number	7.6.2.11
APN	7.6.2.42	MSIsdn-Alert	7.6.2.29
Authentication set list	7.6.7.1	Multicall Bearer Information	7.6.2.52
B-subscriber Address	7.6.2.36	Multiple Bearer Requested	7.6.2.53
B subscriber Number	7.6.2.48	Multiple Bearer Not Supported	7.6.2.54
B subscriber subaddress	7.6.2.49	MWD status	7.6.8.3
		NA-ESRK request	7.6.11.19
Basic Service Group	7.6.4.40	NbrUser	7.6.4.45
Bearer service	7.6.4.38	Network Access Mode	7.6.3.50
BSSMAP Service Handover	7.6.6.5	Network node number	7.6.2.43
BSSMAP Service Handover List	7.6.6.5A	Network resources	7.6.10.1
Call Barring Data	7.6.3.83	Network signal information	7.6.9.8
Call barring feature	7.6.4.19	New password	7.6.4.20
Call barring information	7.6.4.18	No reply condition timer	7.6.4.7
Call barring support indicator	7.6.3.92	North American Equal Accesspreferred Carrier Id	7.6.2.34
Call Direction	7.6.5.8	Number Portability Status	7.6.5.14

Call Forwarding Data	7.6.3.84
Call Info	7.6.9.9
Call reference	7.6.5.1
Call Termination Indicator	7.6.3.67
Called number	7.6.2.24
Calling number	7.6.2.25
CAMEL Subscription Info	7.6.3.78
CAMEL Subscription Info Withdraw	7.6.3.38
Cancellation Type	7.6.3.52
Category	7.6.3.1
CCBS Feature	7.6.5.8
CCBS Request State	7.6.4.49
Channel Type	7.6.5.9
Chosen Channel	7.6.5.10
Chosen Radio Resource Information	7.6.6.10B
Ciphering mode	7.6.7.7
Cksn	7.6.7.5
CLI Restriction	7.6.4.5
CM service type	7.6.9.2
Complete Data List Included	7.6.3.54
CS Allocation Retention priority	7.6.3.87
CS LCS Not Supported by UE	7.6.11.9
CUG feature	7.6.3.26
CUG index	7.6.3.25
CUG info	7.6.3.22
CUG interlock	7.6.3.24
CUG Outgoing Access indicator	7.6.3.8
CUG subscription	7.6.3.23
CUG Subscription Flag	7.6.3.37
Current location area Id	7.6.2.6
Current password	7.6.4.21
Deferred MT-LR Data	7.6.11.3
Deferred MT-LR Response Indicator	7.6.11.2
eMLPP Information	7.6.4.41
Encryption Information	7.6.6.9
Equipment status	7.6.3.2
Extensible Basic Service Group	7.6.3.5
Extensible Bearer service	7.6.3.3
Extensible Call barring feature	7.6.3.21
Extensible Call barring information	7.6.3.20
Extensible Call barring information for CSE	7.6.3.79
Extensible Forwarding feature	7.6.3.16
Extensible Forwarding info	7.6.3.15
Extensible Forwarding information for CSE	7.6.3.80
Extensible Forwarding Options	7.6.3.18
Extensible No reply condition timer	7.6.3.19
Extensible QoS-Subscribed	7.6.3.74
Extensible SS-Data	7.6.3.29
Extensible SS-Info	7.6.3.14
Extensible SS-Status	7.6.3.17
Extensible Teleservice	7.6.3.4
External Signal Information	7.6.9.4
Failure Cause	7.6.7.9
Forwarded-to number	7.6.2.22
Forwarded-to subaddress	7.6.2.23
Forwarding feature	7.6.4.16
Forwarding information	7.6.4.15
Forwarding Options	7.6.4.6
GERAN Classmark	7.6.6.4
GGSN address	7.6.2.40
GGSN number	7.6.2.41
GMSC CAMEL Subscription Info	7.6.3.34
GPRS enhancements support indicator	7.6.3.73
ODB Data	7.6.3.85
ODB General Data	7.6.3.9
ODB HPLMN Specific Data	7.6.3.10
OMC Id	7.6.2.18
Originally dialled number	7.6.2.26
Originating entity number	7.6.2.10
Override Category	7.6.4.4
P-TMSI	7.6.2.47
PDP-Address	7.6.2.45
PDP-Context identifier	7.6.3.55
PDP-Type	7.6.2.44
Positioning Data	7.6.11.11A
Pre-paging supported	7.6.5.15
Previous location area Id	7.6.2.4
Protocol Id	7.6.9.7
Provider error	7.6.1.3
PS LCS Not Supported by UE	7.6.11.10
QoS-Subscribed	7.6.3.47
Radio Resource Information	7.6.6.10
Radio Resource List	7.6.6.10A
RANAP Service Handover	7.6.6.6
Rand	7.6.7.2
LCS-Reference Number	7.6.11.23
Regional Subscription Data	7.6.3.11
Regional Subscription Response	7.6.3.12
Relocation Number List	7.6.2.19A
Requested Info	7.6.3.31
Requested Subscription Info	7.6.3.86
Roaming number	7.6.2.19
Roaming Restricted In SGSN Due To Unsupported Feature	7.6.3.49
Roaming Restriction Due To Unsupported Feature	7.6.3.13
Current Security Context	7.6.7.8
Selected RAB ID	7.6.2.56
Service centre address	7.6.2.27
Serving Cell Id	7.6.2.37
SGSN address	7.6.2.39
SGSN CAMEL Subscription Info	7.6.3.75
SGSN number	7.6.2.38
SIWF Number	7.6.2.35
SoLSA Support Indicator	7.6.3.57
SM Delivery Outcome	7.6.8.6
SM-RP-DA	7.6.8.1
SM-RP-MTI	7.6.8.16
SM-RP-OA	7.6.8.2
SM-RP-PRI	7.6.8.5
SM-RP-SMEA	7.6.8.17
SM-RP-UI	7.6.8.4
Sres	7.6.7.3
SS-Code	7.6.4.1
SS-Data	7.6.4.3
SS-Event	7.6.4.42
SS-Event-Data	7.6.4.43
SS-Info	7.6.4.24
SS-Status	7.6.4.2
Stored location area Id	7.6.2.5
Subscriber State	7.6.3.30
Subscriber Status	7.6.3.7
Super-Charger Supported in HLR	7.6.3.70
Super-Charger Supported in Serving Network Entity	7.6.3.71
Offered Camel4 CSIs	7.6.3.36D
Offered Camel4 CSIs in interrogating node	7.6.3.36E
Offered Camel4 CSIs in VMSC	7.6.3.36F

GPRS Node Indicator	7.6.8.14
GPRS Subscription Data	7.6.3.46
GPRS Subscription Data Withdraw	7.6.3.45
GPRS Support Indicator	7.6.8.15
Group Id	7.6.2.33
GSM bearer capability	7.6.3.6
gsmSCF Address	7.6.2.58
gsmSCF Initiated Call	7.6.3.c
Guidance information	7.6.4.22
Handover number	7.6.2.21
High Layer Compatibility	7.6.3.43
HLR Id	7.6.2.15
HLR number	7.6.2.13
HO-Number Not Required	7.6.6.7
IMEI	7.6.2.3
IMSI	7.6.2.1
Integrity Protection Information	7.6.6.8
Inter CUG options	7.6.3.27
Intra CUG restrictions	7.6.3.28
Invoke Id	7.6.1.1
ISDN Bearer Capability	7.6.3.41
IST Alert Timer	7.6.3.66
IST Information Withdrawn	7.6.3.68
IST Support Indicator	7.6.3.69
LCS Codeword	7.6.11.18
LCS Information	7.6.3.60
LCS Service Type Id	7.6.11.15
Kc	7.6.7.4
Linked Id	7.6.1.2
LMSI	7.6.2.16
Location Information	7.6.2.30
Offered Camel4 CSIs in VLR	7.6.3.36B
Offered Camel4 CSIs in SGSN	7.6.3.36C
Offered Camel4 Functionalities	7.6.3.36G
Supported CAMEL Phases	7.6.3.36H
Supported CAMEL Phases in VLR	7.6.3.36
Supported CAMEL Phases in SGSN	7.6.3.36A
Supported CAMEL Phases in interrogating node	7.6.3.36I
Supported GAD Shapes	7.6.11.20
Supported LCS Capability Sets	7.6.11.17
Suppress Incoming Call Barring	7.6.3.b
Suppress T-CSI	7.6.3.33
Suppress VT-CSI	7.6.3.a
Suppression of Announcement	7.6.3.32
Target cell Id	7.6.2.8
Target location area Id	7.6.2.7
Target RNC Id	7.6.2.8A
Target MSC number	7.6.2.12
Teleservice	7.6.4.39
TMSI	7.6.2.2
Trace reference	7.6.10.2
Trace type	7.6.10.3
User error	7.6.1.4
USSD Data Coding Scheme	7.6.4.36
USSD String	7.6.4.37
UU Data	7.6.5.12
UUS CF Interaction	7.6.5.13
VBS Data	7.6.3.40
VGCS Data	7.6.3.39
VLR CAMEL Subscription Info	7.6.3.35
VLR number	7.6.2.14
VPLMN address allowed	7.6.3.48
Zone Code	7.6.2.28

****** *Next Changed section* ******

7.6.11.19 NA-ESRK Request~~Void~~

This parameter allows the MSC to indicate that it requires the GMLC to allocate a NA-ESRK based on the target MS location estimate. This parameter only applies to emergency services calls in North America.

****** *Next Changed section* ******

13A.3 MAP-SUBSCRIBER-LOCATION-REPORT Service

13A.3.1 Definition

This service is used by a VMSC or SGSN to provide the location of a target MS to a GMLC when a request for location is either implicitly administered or made at some earlier time. This is a confirmed service using the primitives from table 13A.3/1.

13A.3.2 Service Primitives

Table 13A.3/1: Subscriber_Location_Report

Parameter name	Request	Indication	Response	Confirm
Invoke id	M	M(=)	M(=)	M(=)
LCS Event	M	M(=)		
LCS Client ID	M	M(=)		
Network Node Number	M	M(=)		
IMSI	C	C(=)		
MSISDN	C	C(=)		
NA-ESRD	C	C(=)		
NA-ESRK	C	C(=)	C	C(=)
IMEI	U	C(=)		
Location Estimate	C	C(=)		
Positioning Data	C	C(=)		
Age of Location Estimate	C	C(=)		
LMSI	U	C(=)		
GPRS Node Indicator	C	C(=)		
Additional Location Estimate	C	C(=)		
Deferred MT-LR Data	C	C(=)		
LCS-Reference Number	C	C(=)		
NA-ESRK Request	C	C(=)		
User error			C	C(=)
Provider error				O

13A.3.3 Parameter Definition and Use

All parameters are defined in clause 7.6. The use of these parameters and the requirements for their presence are specified in. 3GPP TS 23.271

LCS Event

This parameter indicates the event that triggered the Subscriber Location Report.

LCS Client ID

This parameter provides information related to the identity of the recipient LCS client.

Network Node Number

See definition in clause 7.6.2. This parameter provides the address of the sending node.

IMSI

The IMSI shall be provided if available to the VMSC or SGSN.

MSISDN

The MSISDN shall be provided if available to the VMSC or SGSN.

NA-ESRD

If the target MS has originated an emergency service call in North America, the NA-ESRD shall be provided by the VMSC if available.

NA-ESRK

If the target MS has originated an emergency service call in North America, the NA-ESRK shall be provided by the VMSC if assigned.

If the target MS has originated an emergency service call in North America and NA-ESRK Request is included in Subscriber_Location_Report-Arg, NA-ESRK may also be included in the response to the MSC, see 3GPP TS 23.271 [26a].

IMEI

Inclusion of the IMEI is optional.

Location Estimate

This parameter provides the location estimate. The absence of this parameter implies that a location estimate was not available or could not be successfully obtained. If the obtained location estimate is not encoded in one of the supported geographical shapes then this parameter shall consist of one octet, which shall be discarded by the receiving node.

Positioning Data

This parameter indicates the usage of each positioning method that was attempted to determine the location estimate either successfully or unsuccessfully. It may be included in the message only if the access network is GERAN, see 3GPP TS 23.271 [26a].

Age of Location Estimate

This parameter indicates how long ago the location estimate was obtained.

LMSI

The LMSI may be provided if assigned by the VLR.

GPRS Node Indicator

See definition in clause 7.6.8. This presence of this parameter is mandatory only if the SGSN number is sent in the Network Node Number.

Additional Location Estimate

This parameter provides the location estimate when not provided by the Location Estimate parameter..

Deferred MT-LR Data

See definition in clause 7.6.11.3.

LCS-Reference Number

This parameter shall be included if the Subscriber Location Report is the reponse to a deferred MT location request.

NA-ESRK Request

If the target MS has originated an emergency service call in North America, NA-ESRK Request may be included to indicate that the MSC is able to accept NA-ESRK in the Response message, see section 7.6.11.19.

User error

This parameter is sent by the responder when the received message contains an error, cannot be forwarded or stored for an LCS client or cannot be accepted for some other reason and if present, takes one of the following values defined in clause 7.6.1.

- System Failure;
- Data Missing;
- Unexpected Data Value;
- Resource Limitation;
- Unknown Subscriber;
- Unauthorised requesting network;
- Unknown or unreachable LCS Client.

Provider error

These are defined in clause 7.6.1.

****** *Next Changed Section* ******

17.7.13 Location service data types

```
MAP-LCS-DataTypes {
   itu-t identified-organization (4) etsi (0) mobileDomain (0)
   gsm-Network (1) modules (3) map-LCS-DataTypes (25) version9 (9)}

DEFINITIONS
IMPLICIT TAGS
::=
BEGIN

EXPORTS
   RoutingInfoForLCS-Arg,
   RoutingInfoForLCS-Res,
   ProvideSubscriberLocation-Arg,
   ProvideSubscriberLocation-Res,
   SubscriberLocationReport-Arg,
   SubscriberLocationReport-Res,
   LocationType,
   LCSClientName,
   LCS-QoS,
   Horizontal-Accuracy,
   ResponseTime,
   Ext-GeographicalInformation,
   SupportedGADShapes,
   Add-GeographicalInformation,
   LCSRequestorID,
   LCSCodeword
;

IMPORTS
   AddressString,
   ISDN-AddressString,
   IMEI,
   IMSI,
   LMSI,
   SubscriberIdentity,
   AgeOfLocationInformation,
   LCSClientExternalID,
   LCSClientInternalID,
   LCSServiceTypeID,
   SupportedLCS-CapabilitySets
FROM MAP-CommonDataTypes {
   itu-t identified-organization (4) etsi (0) mobileDomain (0)
   gsm-Network (1) modules (3) map-CommonDataTypes (18) version9 (9)}

   ExtensionContainer
FROM MAP-ExtensionDataTypes {
   itu-t identified-organization (4) etsi (0) mobileDomain (0)
   gsm-Network (1) modules (3) map-ExtensionDataTypes (21) version9 (9)}

   USSD-DataCodingScheme,
   USSD-String
FROM MAP-SS-DataTypes {
   itu-t identified-organization (4) etsi (0) mobileDomain (0) gsm-Network (1) modules (3)
   map-SS-DataTypes (14) version9 (9)}

   APN,
   GSN-Address
FROM MAP-MS-DataTypes {
   itu-t identified-organization (4) etsi (0) mobileDomain (0)
   gsm-Network (1) modules (3) map-MS-DataTypes (11) version9 (9)}

   Additional-Number
FROM MAP-SM-DataTypes {
   itu-t identified-organization (4) etsi (0) mobileDomain (0)
   gsm-Network (1) modules (3) map-SM-DataTypes (16) version9 (9)}
;


```

```
RoutingInfoForLCS-Arg ::= SEQUENCE {
     mlcNumber                          [0] ISDN-AddressString,
     targetMS                           [1] SubscriberIdentity,
     extensionContainer                 [2] ExtensionContainer            OPTIONAL,
     ...}

RoutingInfoForLCS-Res ::= SEQUENCE {
     targetMS                           [0] SubscriberIdentity,
     lcsLocationInfo                    [1] LCSLocationInfo,
     extensionContainer                 [2] ExtensionContainer            OPTIONAL,
     ...,
     v-gmlc-Address                     [3]  GSN-Address                  OPTIONAL,
     h-gmlc-Address                     [4]  GSN-Address                  OPTIONAL,
     ppr-Address                        [5]  GSN-Address                  OPTIONAL }

LCSLocationInfo ::= SEQUENCE {
     networkNode-Number                 ISDN-AddressString,
     -- NetworkNode-number can be either msc-number or sgsn-number
     lmsi                               [0] LMSI                          OPTIONAL,
     extensionContainer                 [1] ExtensionContainer            OPTIONAL,
     ... ,
     gprsNodeIndicator                  [2] NULL                          OPTIONAL,
     -- gprsNodeIndicator is set only if the SGSN number is sent as the Network Node Number
     additional-Number                  [3] Additional-Number             OPTIONAL,
     supportedLCS-CapabilitySets        [4]  SupportedLCS-CapabilitySets  OPTIONAL,
     additional-LCS-CapabilitySets      [5]  SupportedLCS-CapabilitySets  OPTIONAL
     }

ProvideSubscriberLocation-Arg ::= SEQUENCE {
     locationType                       LocationType,
     mlc-Number                         ISDN-AddressString,
     lcs-ClientID                       [0] LCS-ClientID                  OPTIONAL,
     privacyOverride                    [1] NULL                          OPTIONAL,
     imsi                               [2] IMSI                          OPTIONAL,
     msisdn                             [3] ISDN-AddressString            OPTIONAL,
     lmsi                               [4] LMSI                          OPTIONAL,
     imei                               [5] IMEI                          OPTIONAL,
     lcs-Priority                       [6] LCS-Priority                  OPTIONAL,
     lcs-QoS                            [7] LCS-QoS                       OPTIONAL,
     extensionContainer                 [8] ExtensionContainer            OPTIONAL,
     ... ,
     supportedGADShapes                 [9]  SupportedGADShapes           OPTIONAL,
     lcs-ReferenceNumber                [10] LCS-ReferenceNumber          OPTIONAL,
     lcsServiceTypeID                   [11] LCSServiceTypeID             OPTIONAL,
     lcsCodeword                        [12] LCSCodeword                  OPTIONAL,
     lcs-PrivacyCheck                   [13] LCS-PrivacyCheck             OPTIONAL }

     -- one of imsi or msisdn is mandatory
     -- If a location estimate type indicates activate deferred location or cancel deferred
     -- location, a lcs-Reference number shall be included.

LocationType ::= SEQUENCE {
     locationEstimateType               [0] LocationEstimateType,
     ...,
     deferredLocationEventType          [1] DeferredLocationEventType     OPTIONAL }

LocationEstimateType ::= ENUMERATED {
     currentLocation                    (0),
     currentOrLastKnownLocation         (1),
     initialLocation                    (2),
     ...,
     activateDeferredLocation           (3),
     cancelDeferredLocation             (4) }
--   exception handling:
--   a ProvideSubscriberLocation-Arg containing an unrecognized LocationEstimateType
--   shall be rejected by the receiver with a return error cause of unexpected data value

DeferredLocationEventType ::= BIT STRING {
     msAvailable                        (0) } (SIZE (1..16))
-- exception handling
-- a ProvideSubscriberLocation-Arg containing other values than listed above in
-- DeferredLocationEventType shall be rejected by the receiver with a return error cause of
-- unexpected data value.

LCS-ClientID ::= SEQUENCE {
     lcsClientType                      [0] LCSClientType,
     lcsClientExternalID                [1] LCSClientExternalID           OPTIONAL,
     lcsClientDialedByMS                [2] AddressString                 OPTIONAL,
```

```
    lcsClientInternalID                 [3] LCSClientInternalID          OPTIONAL,
    lcsClientName                       [4] LCSClientName                OPTIONAL,
    ...,
    lcsAPN                              [5] APN                          OPTIONAL,
    lcsRequestorID                      [6] LCSRequestorID               OPTIONAL }

LCSClientType ::= ENUMERATED {
    emergencyServices                   (0),
    valueAddedServices                  (1),
    plmnOperatorServices                (2),
    lawfulInterceptServices             (3),
    ... }
    --   exception handling:
    --   unrecognized values may be ignored if the LCS client uses the privacy override
    --   otherwise, an unrecognized value shall be treated as unexpected data by a receiver
    --   a return error shall then be returned if received in a MAP invoke

LCSClientName ::= SEQUENCE {
    dataCodingScheme                    [0] USSD-DataCodingScheme,
    nameString                          [2] NameString,
    ...,
    lcs-FormatIndicator                 [3] LCS-FormatIndicator          OPTIONAL }

-- The USSD-DataCodingScheme shall indicate use of the default alphabet through the
-- following encoding
--   bit  7 6 5 4 3 2 1 0
--        0 0 0 0 1 1 1 1

NameString ::= USSD-String (SIZE (1..maxNameStringLength))

maxNameStringLength  INTEGER ::= 63

LCSRequestorID ::= SEQUENCE {
    dataCodingScheme                    [0] USSD-DataCodingScheme,
    requestorIDString                   [1] RequestorIDString,
    ...,
    lcs-FormatIndicator                 [2] LCS-FormatIndicator          OPTIONAL }

RequestorIDString ::= USSD-String (SIZE (1..maxRequestorIDStringLength))

maxRequestorIDStringLength  INTEGER ::= 127

LCS-FormatIndicator ::= ENUMERATED {
    logicalName                         (0),
    e-mailAddress                       (1),
    msisdn                              (2),
    url                                 (3),
    sipUrl                              (4),
    ... }

LCS-Priority ::= OCTET STRING (SIZE (1))
    -- 0 = highest priority
    -- 1 = normal priority
    -- all other values treated as 1

LCS-QoS ::= SEQUENCE {
    horizontal-accuracy                 [0] Horizontal-Accuracy          OPTIONAL,
    verticalCoordinateRequest           [1] NULL                         OPTIONAL,
    vertical-accuracy                   [2] Vertical-Accuracy            OPTIONAL,
    responseTime                        [3] ResponseTime                 OPTIONAL,
    extensionContainer                  [4] ExtensionContainer           OPTIONAL,
    ...}

Horizontal-Accuracy ::= OCTET STRING (SIZE (1))
    -- bit 8 = 0
    -- bits 7-1 = 7 bit Uncertainty Code defined in 3GPP TS 23.032. The horizontal location
    -- error should be less than the error indicated by the uncertainty code with 67%
    -- confidence.

Vertical-Accuracy ::= OCTET STRING (SIZE (1))
    -- bit 8 = 0
    -- bits 7-1 = 7 bit Vertical Uncertainty Code defined in 3GPP TS 23.032.
    -- The vertical location error should be less than the error indicated
    -- by the uncertainty code with 67% confidence.
```

```
ResponseTime ::= SEQUENCE {
     responseTimeCategory                ResponseTimeCategory,
     ...}
--   note: an expandable SEQUENCE simplifies later addition of a numeric response time.
```

```
ResponseTimeCategory ::= ENUMERATED {
     lowdelay  (0),
     delaytolerant  (1),
     ... }
--   exception handling:
--   an unrecognized value shall be treated the same as value 1 (delaytolerant)
```

```
SupportedGADShapes ::= BIT STRING {
     ellipsoidPoint  (0),
     ellipsoidPointWithUncertaintyCircle (1),
     ellipsoidPointWithUncertaintyEllipse (2),
     polygon (3),
     ellipsoidPointWithAltitude (4),
     ellipsoidPointWithAltitudeAndUncertaintyElipsoid (5),
     ellipsoidArc  (6) } (SIZE (7..16))
-- A node shall mark in the BIT STRING all Shapes defined in 3GPP TS 23.032 it supports.
-- exception handling: bits 7 to 15 shall be ignored if received.
```

```
LCS-ReferenceNumber::= OCTET STRING (SIZE(1))
```

```
LCSCodeword ::= SEQUENCE {
     dataCodingScheme                    [0] USSD-DataCodingScheme,
     lcsCodewordString                   [1] LCSCodewordString,
     ...}
```

```
LCSCodewordString ::= USSD-String (SIZE (1..maxLCSCodewordStringLength))
```

```
maxLCSCodewordStringLength  INTEGER ::= 127
```

```
LCS-PrivacyCheck ::= SEQUENCE {
     callSessionUnrelated                [0] PrivacyCheckRelatedAction,
     callSessionRelated                  [1] PrivacyCheckRelatedAction     OPTIONAL,
     ...}
```

```
PrivacyCheckRelatedAction ::= ENUMERATED {
     allowedWithoutNotification (0),
     allowedWithNotification (1),
     allowedIfNoResponse (2),
     restrictedIfNoResponse (3),
     notAllowed (4),
     ...}
--   exception handling:
--   a ProvideSubscriberLocation-Arg containing an unrecognized PrivacyCheckRelatedAction
--   shall be rejected by the receiver with a return error cause of unexpected data value
```

```
ProvideSubscriberLocation-Res ::= SEQUENCE {
     locationEstimate                    Ext-GeographicalInformation,
     ageOfLocationEstimate               [0] AgeOfLocationInformation      OPTIONAL,
     extensionContainer                  [1] ExtensionContainer            OPTIONAL,
     ... ,
     add-LocationEstimate                [2] Add-GeographicalInformation   OPTIONAL,
     deferredmt-lrResponseIndicator      [3] NULL                          OPTIONAL,
     positioningData                     [4] PositioningDataInformation    OPTIONAL }

--   if deferredmt-lrResponseIndicator is set, locationEstimate is ignored.

-- the add-LocationEstimate parameter shall not be sent to a node that did not indicate the
-- geographic shapes supported in the ProvideSubscriberLocation-Arg
-- The locationEstimate and the add-locationEstimate parameters shall not be sent if
-- the supportedGADShapes parameter has been received in ProvideSubscriberLocation-Arg
-- and the shape encoded in locationEstimate or add-LocationEstimate is not marked
-- as supported in supportedGADShapes. In such a case ProvideSubscriberLocation
-- shall be rejected with error FacilityNotSupported with additional indication
-- shapeOfLocationEstimateNotSupported
```

```
Ext-GeographicalInformation ::= OCTET STRING (SIZE (1..maxExt-GeographicalInformation))
    -- Refers to geographical Information defined in 3GPP TS 23.032.
    -- This is composed of 1 or more octets with an internal structure according to
    -- 3GPP TS 23.032
    -- Octet 1: Type of shape, only the following shapes in 3GPP TS 23.032 are allowed:
    --       (a) Ellipsoid point with uncertainty circle
    --       (b) Ellipsoid point with uncertainty ellipse
    --       (c) Ellipsoid point with altitude and uncertainty ellipsoid
    --       (d) Ellipsoid Arc
    --       (e) Ellipsoid Point
    -- Any other value in octet 1 shall be treated as invalid
    -- Octets 2 to 8 for case (a) – Ellipsoid point with uncertainty circle
    --       Degrees of Latitude                                    3 octets
    --       Degrees of Longitude                                   3 octets
    --       Uncertainty code                                       1 octet
    -- Octets 2 to 11 for case (b) – Ellipsoid point with uncertainty ellipse:
    --       Degrees of Latitude                                    3 octets
    --       Degrees of Longitude                                   3 octets
    --       Uncertainty semi-major axis                            1 octet
    --       Uncertainty semi-minor axis                            1 octet
    --       Angle of major axis                                    1 octet
    --       Confidence                                             1 octet
    -- Octets 2 to 14 for case (c) – Ellipsoid point with altitude and uncertainty ellipsoid
    --       Degrees of Latitude                                    3 octets
    --       Degrees of Longitude                                   3 octets
    --       Altitude                                               2 octets
    --       Uncertainty semi-major axis                            1 octet
    --       Uncertainty semi-minor axis                            1 octet
    --       Angle of major axis                                    1 octet
    --       Uncertainty altitude                                   1 octet
    --       Confidence                                             1 octet
    -- Octets 2 to 13 for case (d) – Ellipsoid Arc
    --       Degrees of Latitude                                    3 octets
    --       Degrees of Longitude                                   3 octets
    --       Inner radius                                           2 octets
    --       Uncertainty radius                                     1 octet
    --       Offset angle                                           1 octet
    --       Included angle                                         1 octet
    --       Confidence                                             1 octet
    -- Octets 2 to 7 for case (e) – Ellipsoid Point
    --       Degrees of Latitude                                    3 octets
    --       Degrees of Longitude                                   3 octets

    --
    -- An Ext-GeographicalInformation parameter comprising more than one octet and
    -- containing any other shape or an incorrect number of octets or coding according
    -- to 3GPP TS 23.032 shall be treated as invalid data by a receiver.
    --
    -- An Ext-GeographicalInformation parameter comprising one octet shall be discarded
    -- by the receiver if an Add-GeographicalInformation parameter is received
    -- in the same message.
    --
    -- An Ext-GeographicalInformation parameter comprising one octet shall be treated as
    -- invalid data by the receiver if an Add-GeographicalInformation parameter is not
    -- received in the same message.

maxExt-GeographicalInformation  INTEGER ::= 20
    -- the maximum length allows for further shapes in 3GPP TS 23.032 to be included in later
    -- versions of 3GPP TS 29.002

PositioningDataInformation ::= OCTET STRING (SIZE (2..maxPositioningDataInformation))
    -- Refers to the Positioning Data defined in 3GPP TS 49.031.
    -- This is composed of 2 or more octets with an internal structure according to
    -- 3GPP TS 49.031.

maxPositioningDataInformation INTEGER ::= 10
    --
```

```
Add-GeographicalInformation ::= OCTET STRING (SIZE (1..maxAdd-GeographicalInformation))
     -- Refers to geographical Information defined in 3GPP TS 23.032.
     -- This is composed of 1 or more octets with an internal structure according to
     -- 3GPP TS 23.032
     -- Octet 1: Type of shape, all the shapes defined in 3GPP TS 23.032 are allowed:
     -- Octets 2 to n (where n is the total number of octets necessary to encode the shape
     -- according to 3GPP TS 23.032) are used to encode the shape itself in accordance with
the
     -- encoding defined in 3GPP TS 23.032
     --
     -- An Add-GeographicalInformation parameter, whether valid or invalid, received
     -- together with a valid Ext-GeographicalInformation parameter in the same message
     -- shall be discarded.
     --
     -- An Add-GeographicalInformation parameter containing any shape not defined in
     -- 3GPP TS 23.032 or an incorrect number of octets or coding according to
     -- 3GPP TS 23.032 shall be treated as invalid data by a receiver if not received
     -- together with a valid Ext-GeographicalInformation parameter in the same message.

maxAdd-GeographicalInformation  INTEGER ::= 91
     -- the maximum length allows support for all the shapes currently defined in 3GPP TS
23.032

SubscriberLocationReport-Arg ::= SEQUENCE {
     lcs-Event                          LCS-Event,
     lcs-ClientID                       LCS-ClientID,
     lcsLocationInfo                    LCSLocationInfo,
     msisdn                             [0] ISDN-AddressString            OPTIONAL,
     imsi                               [1] IMSI                          OPTIONAL,
     imei                               [2] IMEI                          OPTIONAL,
     na-ESRD                            [3] ISDN-AddressString            OPTIONAL,
     na-ESRK                            [4] ISDN-AddressString            OPTIONAL,
     locationEstimate                   [5] Ext-GeographicalInformation   OPTIONAL,
     ageOfLocationEstimate              [6] AgeOfLocationInformation      OPTIONAL,
     extensionContainer                 [7] ExtensionContainer            OPTIONAL,
     ... ,
     add-LocationEstimate               [8] Add-GeographicalInformation   OPTIONAL,
     deferredmt-lrData                  [9] Deferredmt-lrData             OPTIONAL,
     lcs-ReferenceNumber                [10] LCS-ReferenceNumber          OPTIONAL,
     positioningData                    [11] PositioningDataInformation   OPTIONAL,
     na-ESRK-Request                    [12] NULL                         OPTIONAL }

     -- one of msisdn or imsi is mandatory
     -- a location estimate that is valid for the locationEstimate parameter should
     -- be transferred in this parameter in preference to the add-LocationEstimate.
     -- the deferredmt-lrData parameter shall be included if and only if the lcs-Event
     -- indicates a deferredmt-lrResponse.
     -- if the lcs-Event indicates a deferredmt-lrResponse then the locationEstimate
     -- and the add-locationEstimate parameters shall not be sent if the
     -- supportedGADShapes parameter had been received in ProvideSubscriberLocation-Arg
     -- and the shape encoded in locationEstimate or add-LocationEstimate was not marked
     -- as supported in supportedGADShapes. In such a case terminationCause
     -- in deferredmt-lrData shall be present with value
     -- shapeOfLocationEstimateNotSupported.
     -- If a lcs event indicates deferred mt-lr response, the lcs-Reference number shall be
     -- included.

Deferredmt-lrData ::= SEQUENCE {
     deferredLocationEventType          DeferredLocationEventType,
     terminationCause                   [0] TerminationCause              OPTIONAL,
     lcsLocationInfo                    [1] LCSLocationInfo               OPTIONAL,
     ...}
     -- lcsLocationInfo may be included only if a terminationCause is present
     -- indicating mt-lrRestart.

LCS-Event ::= ENUMERATED {
     emergencyCallOrigination  (0),
     emergencyCallRelease  (1),
     mo-lr  (2),
     ...,
     deferredmt-lrResponse  (3) }
     --   exception handling:
     --   a SubscriberLocationReport-Arg containing an unrecognized LCS-Event
     --   shall be rejected by a receiver with a return error cause of unexpected data value
```

```
TerminationCause ::= ENUMERATED {
     normal  (0),
     errorundefined  (1),
     internalTimeout  (2),
     congestion  (3),
     mt-lrRestart  (4),
     privacyViolation  (5),
     ...,
     shapeOfLocationEstimateNotSupported (6) }
-- mt-lrRestart shall be used to trigger the GMLC to restart the location procedure,
-- either because the sending node knows that the terminal has moved under coverage
-- of another MSC or SGSN (e.g. Send Identification received), or because the subscriber
-- has been deregistered due to a Cancel Location received from HLR.
--
-- exception handling
-- an unrecognized value shall be treated the same as value 1 (errorundefined)
```

```
SubscriberLocationReport-Res ::= SEQUENCE {
     extensionContainer                      ExtensionContainer          OPTIONAL,
     ...,
     na-ESRK                            [x] ISDN-AddressString          OPTIONAL }
```

```
END
```

3GPP TSG CN WG4 Meeting #20 ***N4-031020***
Sophia Antipolis, FRANCE, 25th – 29th August 2003

Title: LS to SA1 on GUP work in CN4
Release: Rel-6
Work Item: The 3GPP Generic User Profile

Source: CN4
To: SA1
Cc: SA2

Contact Person:
Name: Seppo Kauntola
Tel. Number: +358405569959
E-mail Address: seppo.kauntola@nokia.com

Attachments: None

---

1. Overall Description:

CN4 would like to inform SA1 about the progress of our GUP stage3 work. Rappourteur for the CN4 GUP work is Seppo Kauntola (LS contact person), and our current plan is to present TS 29.240 for information in CN plenary number 22 in December 03 and for approval in CN plenary number 23 in March 04.

2. Actions:

To SA1 group.

ACTION: CN4 asks SA1 group to update the 3GPP Generic User Profile Work Item Description to include the given information.

3. Date of Next CN4 Meeting:

CN4 #21	27th October – 31st October 2003	Bangkok

3GPP TSG CN WG4 Meeting #20 ***N4-031063***
Sophia Antipolis, FRANCE, 25th – 29th August 2003

Title:	Reply LS on P-TMSI signature validation functionality in R99
Response to:	LS (N4-030969/S2-033237) on Reply LS on P-TMSI signature validation functionality in R99 from SA2.
Release:	Release 99
Source:	CN4
To:	SA2
Cc:	CN1

Contact Person:
Name: Anna Jernryd, LM Ericsson
Tel. Number: +46 31 747 2197
E-mail Address: anna.jernryd@ericsson.com

Attachments: None

CN4 would like to thank SA2 for the liaison statement (S2-033237) on "P-TMSI signature validation functionality in R99". CN4 would like to confirm SA2's understanding that TS 29.060 sub clause 7.7.1 lists all "P-TMSI signature mismatch" cases.

The P-TMSI signature is used by the SGSN to verify that the MS (which has identified itself by use of a P-TMSI) obtained that P-TMSI through legitimate means. If the SGSN has no P-TMSI signature, it has no means to validate the P-TMSI, regardless of whether the MS provides a P-TMSI signature or not. Therefore the SGSN can only process the request from the MS as if the P-TMSI cannot be trusted and needs to (re-)authenticate the MS to make sure it is the one it claims to be.

Hence, it is not a mismatch if the MS provides the P-TMSI signature to the new SGSN while the old SGSN has not stored the P-TMSI Signature for that MS.

2. Actions:

None

3. Date of Next CN4 Meetings:

CN4 #21	27th October – 31st October 2003 Bangkok, THAILAND