3GPP TSG_CN#7 **NP-000080**
ETSI SMG3 Plenary Meeting #7,
Madrid, Spain
13th – 15th March 2000

Agenda item: **5.2.1**
Source: **TSG_N2B**
Title: **Approved Liaison Statements from TSG N2 Subgroup B**

LIST OF APPROVED LIAISON STATEMENTS
from the N2B group

Tdoc N2	Destination group	Subject
-000012	RAN3	Out of Band Transcoder Control
-000014	S1	Multicall
-000016	N1	Access signalling and mobile station behaviour for multicall
B000118	S5 (cc S2)	Trace specification for UMTS
B000126	S2	Usage of RANAP over MAP/E at intra UMTS inter MSC handover/relocation
B000127	RAN3	Interworking between RANAP and MAP
B000133	S2	Transcoder Free Operation
B000134	S3	Reporting authentication failures
B000136	T1P1	Correction of SS codes for LCS
B000138	N1	Emergency calls using IMEI as UE identifier
B000139	S2	CDR creation for non-charging liable subscriptions
B000141	T2	5 or 6 digits IMSI HPLMN
B000145	S2	Transfer of architectural information from TS 29.002
B000146	R3, S2, R2	Definition of SAI
B000151	S2	Hard handover
B000321	N1	Functional requirements for RANAP for inclusion in 3G TS 23.009
B000325	R3	Procedure for TrFO break
B000373	R3	Reply to LS on usage of NSAPI, RB identity, RAB ID and TEID
B000386	S2	Response to LS on Working plan for OoBTC R99
B000387	R3	TrFO break descriptions
B000388	S3	Comments to Enhanced User Identity Confidentiality
B000445	S3	GTP signalling security
B000457	S2	Clarification of the Usage of Stream Identity

3GPP TSG CN Working Group 2 Tdoc N2-000012
Kyoto, Japan
17-21 January, 2000

Liaison Statement

TO: R3

CC: S4, S2, and N1

Source: N2[1]

Subject: Procedure for TrFO break

The ongoing work on Out of Band Transcoder Control has identified the need to define procedures that enable the inclusion of transcoders in a communication path that is operating in the TrFO mode. This situation is referred to as a "TrFO break" and may be invoked in a number of scenarios like:

- for the interaction with Multiparty SS. See Figure A1 in Annex A.
- changes of mode or configuration in the case of multi-rate codecs.

The following provides a summary of the identified open issue and proposed solution. N2 kindly asks R3 to study the procedure and the protocol for TrFO break to finalize TrFO/OoBTC work item as Release 99.

Open issue to be solved

N2 identified an open issue on TrFO (Transcoder Free Operation)/OoBTC (Out of band transcoder control).

Iu UP procedure is applied for TrFO. At the receipt of the RAB assignment request from CN, RNC1(DHO) selects the set of permitted rates (RFCI set 1) and send them to the peer Iu UP entity. In TrFO case, since there is no transcoder in CN, the control frame from RNC passes through CN and reaches the peer DHO. Thus the permitted rate is not notified to CN. (See figure 1) RNC2 also select and send the set of permitted rate by itself independently of RNC1. RNC1 controls the sending user frame with the set of permitted rates sent from RNC2. During TrFO, the Iu UP is controlled with the rates selected by RNCs, which is not known to CN.

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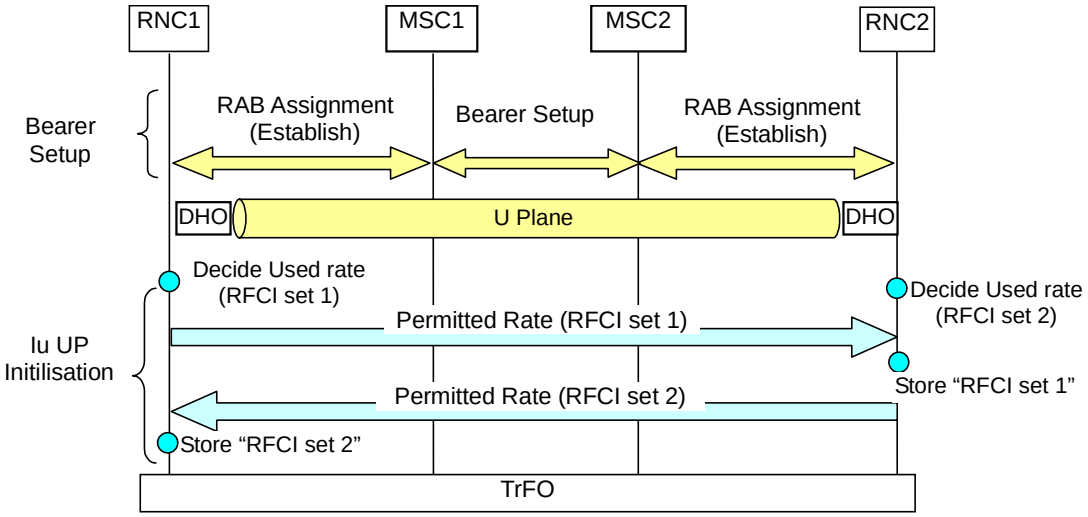

Figure 1.. Iu UP action at TrFO

When CN needs the transocders and allocates them, it must use the rate which has been exchanged between RNCs at the initialization phase. If the transcoder allocated in the link sends the user frame with the rate which is not permitted by RNCs, RNC would not recognize it. Similary the transcoder cannot understand the frame from RNC because the transcoder does not know the used rates. It leads to the break of the call.
However the rates selected by RNC1 and RNC2 are exchanged and used in Iu UP for both direction and it is only RNC that knows them. Therefore the transcoder does not work and continue to a call well after TrFO break.

In N2 Kyoto meeting (17-21 Jan. 2000), the possible solution was proposed and shown in the Annex B and attached document (Annex B of N2B-000096 and Annex of N2B-000140). N2 set the time limit to comment on the solution, by 4th of Feb. 2000. If there will be no objection, the procedure will be included in the TS 23.153, OoBTC stage 2.

Annex A

TrFO break

In TrFO call, the Iu User Plane protocol is used between originating RNC and terminating RNC. After TrFO breaks and transcoders are inserted, the peer entity of Iu User Plane protocol changes from the RNC's point of view.

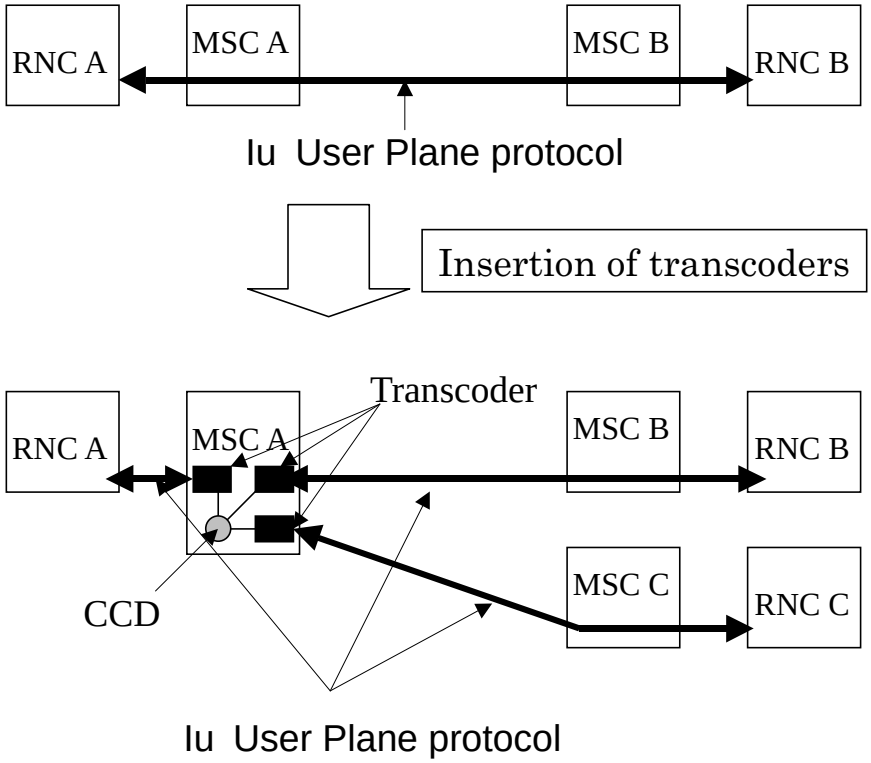

Figure A1: Insertion of transcoders

Annex B

Possible Solution

To solve the problem, it is possible for CN to obtain the used rate set from RNC before the transcoder is inserted between RNCs. The transcoder in which the permitted rate is set is allocated so that the transcoder can works well just after the insertion and the call is not broken momentarily. In addition, the transcoder uses the rate permitted by RNC and DHO can continue to use them regardless of the insertion of the transcoder.

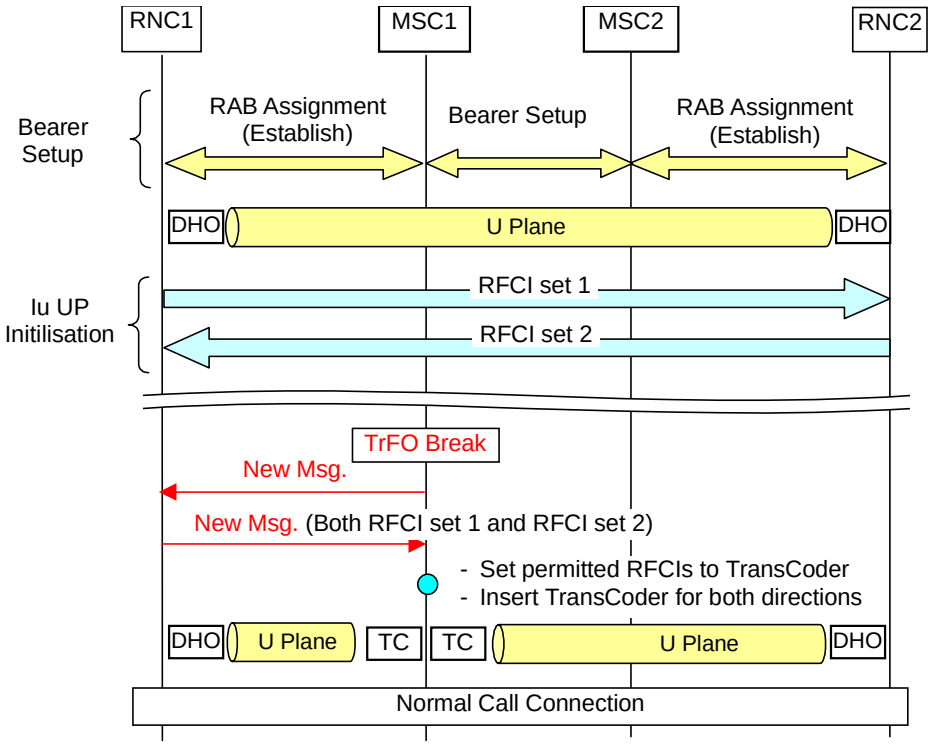

Figure B1. New Procedure

3GPP TSG-CN-WG2, Meeting #13
17 - 21.January. 2000
Kyoto, Japan

Tdoc N2-000014

Title: Draft LS on clarification of Multicall requirement

Source: NTT Communicationware

To: TSG S1

CC: TSG NSS ad hoc

Source: TSG N2

Title: LS on clarification of Multicall requirement

TSG N2 is looking at the stage2 and protocol work for multicall. And, TSG N2 invite S1 to confirm the following assumptios from the requirement point of view.

1. NDUB for speech call

   According to TS 22.135, the value of the maximum number of active speech calls is restricted to 1 in R99. In this case, it is necessary to differentiate for the NDUB definition the scenarios for incoming speech call and incoming calls of any other call type. The network behaviour will be different related to the busy state of the subscriber depending on the type of the incoming call.

   Alternatively, if S1 intend to specify one type of NDUB definition common for speech call and for the other call type, N2 recommend to remove the restriction for speech call (i.e. active speech call is one).

   In either case, N2 ask S1 to clarify it in the stage1 specification in order to avoid misunderstanding.

2. The definition of the maximum number of bearers

   The maximum number of bearers is described in current Busy definition for Multicall. So, the assumption is that the maximum number of bearers shall be defined as subscription option in the TS 22.135.

3. Interaction between Multicall and Call waiting

   Call Waiting can be activated on a per basic service basis. The assumption in Multicall configuration is that if there are several types of ongoing calls, Call Waiting can be offered when it is activate on at least one of basic services.

4. Interaction between Multicall and Emergency call

   The assumption is that it shall be possible to establish an emergency call without the subscription check, as is done in GSM. In GSM, the alignment of capability between the MS, the network capability and the subscription (each allows exactly one active call) means that it is clearly understood that the user must release any active call before an emergency call is set up. However the assumpption of alignment between the capabilities of the MS, the network and the subscription is not valid for UMTS, where multicall may be possible. It means that an emergency call shall be establised even if the maximum number of bearers has been reached.

   In the case that a mobile terminal supporting Multicall is located in the area served by MSC not supporting Multicall, the mobile station may request an emergency call when it has an

ongoing call. In this case, is it necessary that the network shall establish the emergency call even if the network tears down the ongoing call.

N2 ask whether S1 have the above requirement on interaction between Multicall and Emergency call.

3GPP TSG-N WG2 **Tdoc 3GPP N2-000016**
Kyoto, JAPAN
17 – 21 January 2000
Source: **TSG CN WG2**[1]
Title: **Liaison Statement on access signalling and mobile station behaviour for Multicall**
To: **TSG CN WG1**
cc: **TSG CN SS ad hoc**

At its meeting in Kyoto this week, N2 had some extensive discussions on Multicall. We took note of the decisions in the N1 meeting in Abiko the previous week concerning access signalling and mobile station behaviour for Multicall.

Our understanding of these decisions gave rise to some areas of concern:

1. We understand that an MS which can support multicall will send a setup message including a stream identifier greater than 1 if the user requests a new call when there is at least one existing active call, but the MS can support another parallel call. If the MSC/VLR is Release 99 but it does not support multicall, it will reject the setup message because it includes a stream identifier greater than 1. This would mean that an emergency call would be rejected by the network. Have N1 considered the interaction between Multicall and handling of emergency calls?
2. We understand that N1 decided that the MS will not use the classmark to indicate to the network its capability for the number of parallel bearers which it can support. Hence, if a mobile terminated call arrives in the VMSC the MSC/VLR has to rely on the subscription information and the generic capabilities of the MSC/VLR to decide whether the new call should be offered as a parallel call or a waiting call. It is therefore necessary to define the error handling for the case where the network offers the incoming call as a new parallel call but the MS cannot accept the incoming call as a new parallel call. The service requirement appears to indicate that the network should offer the incoming call as a waiting call if it cannot be offered as a new parallel call and call waiting is active and operative (this is straightforward if **the network** has determined that the incoming call cannot be offered as a new parallel call).
3. We understand that the behaviour of the MS in the call case described in point 2 is to return a Call Confirmed message indicating UDUB. So far as we understand the behaviour of the MS, this means that the user will be alerted for the incoming call. The behaviour of the network **could** be defined so that if the MS indicates that it cannot accept the incoming call the network will check whether the incoming call can be offered as a waiting call. This would add substantially to the complexity of the call handling in the network and the signalling procedures between the network and the MS. However it is not **certain** that the incoming call will be offered as a waiting call, so there is a possibility that the user will be alerted for the incoming call but the call will not be offered. It appears to N2 that to allow the MS to reject the offer of the incoming call as a parallel call without alerting the user would need a substantial change to the behaviour of the MS. N2 ask N1 to review their decision not to use the MS classmark to indicate to the network its capability for the number of parallel bearers which it can support. This would simplify the call handling in the network to decide whether an incoming call should be offered as a waiting call or a new parallel call, and would ensure that the possibility of undesirable service behaviour (alerting the user for a call which the network decides afterwards not to offer) can be avoided without the need for a major revision to the call handling behaviour of the MS.

1 Contact: Ian Park, Vodafone Airtouch, telephone +44 1635 673 527, email ian.park@vf.vodafone.co.uk

3GPP TSG CN WG2 **Tdoc N2B000118**
Kyoto, Japan
17-21 January, 2000

Liaison Statement

To: TSG SA5

From: TSG CN2

Cc: TSG SA2

Title: LS on Trace Specification for UMTS

Contact: Ahti Muhonen, Nokia
Email: ahti.muhonen@nokia.com

CN2 approved a CR to 29.060 on Trace (Tdoc N2B000110), based on SA2 Trace CR to 23.060 (Tdoc S2-99F51). In the discussions it was concluded that there is no GSM 12.08 equivalent for UMTS.

CN2 believes that it is appropriate to transfer GSM 12.08 to 3GPP and update it with GPRS and UMTS relevant information. We therefore request SA5 to make this transfer.

3GPP TSG-N WG2 **Tdoc 3GPP N2B000126**
Kyoto, JAPAN
17 – 21 January 2000
Source: **TSG CN WG2**[1]
Title: **Liaison statement on the use of RANAP for intra-UMTS inter-MSC Handover/Relocation**
To: **TSG SA WG2**
Cc: **TSG CN WG1, TSG RAN WG 3, SMG2**

TSG CN WG2 thank TSG SA WG2 for their liaison statement (Tdoc S2-99F42). We have noted that N1 believe that RANAP encapsulated in MAP would be a better protocol than BSSAP encapsulated in MAP to use for intra-UMTS inter-MSC handover.

TS 29.002 would require significant enhancement to allow the use of RANAP encapsulated in MAP for inter-MSC handover; a company has volunteered to draft the necessary change request, so that it can be reviewed by email ahead of the next CN WG2 SWGB meeting, 14-16 February. If the CR can be agreed at that meeting then it will be forwarded to the TSG CN plenary meeting, 13 – March, for approval. Some companies had concerns that further work may be needed after the N2B meeting in February, which would require review at the next N2 meeting (27 – 31 March). N2 agreed that the risk of further delay beyond the end of March is very small.

S2 are asked to decide whether it is acceptable that there is a risk that the stable CR to TS 29.002 to support the use of RANAP encapsulated in MAP for intra-UMTS inter-MSC handover may not be available until the end of March.

Drafting work will continue while we await the reply from S2.

[1] Contact: Ian Park, Vodafone Airtouch, telephone +44 1635 673 527, email ian.park@vf.vodafone.co.uk

3GPP TSG-CN-WG2, Meeting #8
17- 21 January 2000
Kyoto, Japan

Tdoc N2B000127

Title: Proposed Liaison Statement on Updates to 3G 29.010 by Introduction of UMTS to GSM Handover

Source: TSG CN WG2

To: TSG-RAN WG3

Contact: Heinz-Peter Keutmann, Ericsson L.M.,
Tel.: +49 2407 575 132
Email: Heinz-Peter.Keutmann@eed.ericsson.se

TSG-CN WG2 have reviewed the attached CR on introduction of UMTS to GSM handover (see Tdoc N2B000089).

Although N2 have identified the need for further revision of the CR, the principle of the change has been accepted.

N2 kindly asks R3 to also review this CR and to provide feedback to N2.

N2 SWG B (as relevant sub-working group) will meet 14-16 February 2000 to finally discuss and agree R99 issues.

N2B000133 rev1

3GPP TSG CN WG2 #13
January 17-21, 2000
Kyoto, Japan

To: S2
From: N2
Cc: S4, R1, R3 and N1

Contact: Toshiyuki Tamura : NEC
Email: tamurato@e1sf.ncos.nec.co.jp
Phone: +81-471-85-6954

Title: Response to LS on location and control of speech codec

N2 thanks S2 for their LS on location and control of speech codec 'S2-99 A02'. This LS answers the questions that raised in their LS 'S2-99 A02'.

1. In order to reduce the capacity required within the UMTS network any mechanism – in-band or out-band – has to fulfil the requirement to locate the speech codec anywhere between the serving switches of a call, this means at the edge of the UMTS-network. By that, transmission capacity can be saved within an UMTS-network, even if the transit or terminating network does not provide all necessary capabilities. SA2 likes to have clarification on this issue within the study of N2.

Answer:
N2 has a working assumption that the speech codec is always located in MSC at least for UMTS release 99. Therefore, N2 has not started the study for the requirement to locate the speech codec anywhere between the serving switches of a call. If further service requirement of the location of speech codec will be under consideration in S2, N2 is willing to work for that requirement accordingly as the UMTS release 00 requirement.

2. An important point is the interworking between GSM and UMTS. SA2 likes to have this considered within the study of N2, too.

Answer:
N2 has considered the interworking between GSM and UMTS. In case that an MS is handed over to GSM that configures the transcoder free connection, the speech codec is inserted to a call in the UMTS MSC and treated as a normal speech call in the hand over process.

3. The study performed within N2 is highly dependent on the schedule of ITU where the basis of this work item will be provided. Some members within SA2 raise the concern on the finalization of the work item within ITU in order to have a stable basis for UMTS release 99.

Answer:
It is reported in the CN-Plenary #6 that the BICC related specification has been approved as the determination in the ITU-T in December 1999 and will be most likely published in June 2000. Therefore, N2 believes that the BICC related specifications are stable enough as the basis for UMTS release 99.

4. The choice of an in-band or out-of-band protocol solution has some impacts on the work of other WGs (e.g. SA4). SA2 asks N2 to clarify possible impacts and to notify the relevant groups.

Answer:
N2 has identified other three WGs: R3, N1 and S4. We have started necessary dialogues with each group in order to cover all impact that needed to be considered.

3GPP TSG-N WG2 **Tdoc 3GPP N2B000134**
Kyoto, JAPAN
17 – 21 January 2000
Source: Vodafone Airtouch
Title: Proposed liaison statement on reporting authentication failures
To: TSG SA WG3
Cc: TSG SA WG2

TSG CN WG2 thank TSG SA WG3 for their liaison statement (TSGS-WG3#9(99)537). We have to agree with S3's assessment that this is a very late additional requirement for R99.
CN WG2's first analysis is that the enhancement requested by SA WG3 would have an impact on several specifications: 23.012 (Location Management stage 2); 23.018 (Basic Call stage 2); 23.060 (GPRS stage 2); 23.119 (GLR stage 2); 29.002 (MAP); 29.120 (MAP for the GLR). Of these specifications, 23.060 is in the remit of SA WG2; the others are all in the remit of CN WG2. This means that a substantial amount of editing work would be required in order to specify reporting of authentication failure as requested by S3.
We recognise that this enhancement is seen by S3 as very desirable for inclusion in Release 99, and delegations have volunteered to start the drafting work on most of the specifications which we identified as being affected. However in view of the limited meeting time which is available between now and the CN #7 plenary meeting, several delegations expressed strong doubts about whether we can produce stable CRs for approval by CN #7.
SA WG3 are asked to indicate whether delivery of the necessary CRs for reporting authentication failure reporting after CN #7 would be acceptable. SA WG3 are also asked to draw the attention of SA WG2 to the need for changes to 23.060 in order to support reporting of authentication failure.

3GPP TSG-N WG2 **Tdoc 3GPP N2B000136**
Kyoto, JAPAN
17 – 21 January 2000
Source: **TSG CN WG2**
Title: **Proposed Liaison statement on reporting SS Codes mismatch in GSM 09.02 in release 98 for LCS**
To: **T1 P1**
Contact Person: Peter Schmitt, Siemens
E-mail: peter.schmitt@icn.siemens.de
Tel: +49 6621 169152

TSG CN WG2 found some mismatches between SS-Codes defined in GSM 09.02 and 3GPP 29.002. CN WG 2 decided to modify the SS-Codes in GSM 09.02 according the one defined in 3GPP 29.002.
The following SS-Codes were modified:

-allMOLR-SS
-basicSelfLocation
-autonomousSelfLocation
–transferToThirdParty

3GPP TSG-N WG2 **Tdoc 3GPP N2B000138**
Kyoto, JAPAN
17 – 21 January 2000
Source: **TSG CN WG2**
Title: **Proposed response liaison statement on Emergency calls using IMEI as UE identifier**
To: **TSG CN WG1**
Cc: **TSG SA WG1, TSG SA WG2, TSG RAN WG2, TSG RAN WG3**
Contact: Sean Kendall Schneyer
Email: Sean.Schneyer@ericsson.com
Telephone: +1 972 583 8329

TSG CN WG2 thanks TSG CN WG1 for their liaison statement (***N1-99E68***). CN2 agrees with CN1's assessment in the 3rd bullet item that there is no relation between the IMEI and any HLR or any other location management mechanism in the network. The other concerns addressed in the document are outside the scope of CN2.

3GPP TSG CN Working Group 2 **Tdoc N2B000139**
Kyoto, Japan
17-21 January, 2000

From: TSG CN WG2 [1]
To: TSG SA WG2
CC: TSG SA WG5

Response Liaison Statement on CDR creation for non-charging liable subscriptions

N2 thank S2 for their LS Tdoc S2-99F44. N2 have already taken appropriate actions to introduce in 29.060 (Tdoc N2B000044) and 29.002 (Tdoc N2B000113) the necessary changes to support this feature.

N2, however, urges S2 to undertake more detailed stage 2 description of this feature. For instance, the handling of CDRs for roaming users is not unambiguously defined.

[1] Contact acasati@lucent.com

3GPP TSG-N WG2 **Tdoc 3GPP N2B000141**
Kyoto, JAPAN
17 – 21 January 2000
Source: TSG CN WG2[1]
Title: Proposed liaison statement on 5 or 6 digits IMSI HPLMN
To: TSG T WG2

TSG CN WG2 thank TSG T WG2 for their liaison statement (TSGT2#7(99)1029). The concern of TSG T WG2 over the stability of the list of mobile country codes (MCC) for which a 3-digit mobile network code is required has been noted. However TSG CN WG2 would like to reassure TSG T WG2 that the list of MCCs (which is defined in ITU-T recommendation E.212) is very stable. Further, the number of MCCs for which a 3-digit MNC is required is small (currently, only the countries in the North American continent use 3-digit MNCs).

To define a new identifier for the HPLMN operator, as proposed by TSG T WG2 would to a very large extent duplicate the function of the existing combination of MCC and MNC. The values of this identifier would have to be managed by a central authority (the UMTS equivalent of the GSM MoU Association?), but no such central authority currently exists. Bearing in mind that very few MCCs require a 3-digit MNC, TSG CN WG2 believe that an efficient (in storage) mechanism would be to store a list of those MCCs which require 3-digit MNCs; all other MNCs can be assumed to require a 2-digit MNC.

1 Contact: Ian Park, Vodafone Airtouch, telephone +44 1635 673 527, email ian.park@vf.vodafone.co.uk

3GPP TSG-CN-WG2, Meeting #8
17- 21 January 2000
Kyoto, Japan

Tdoc N2B000145

Title: Proposed Liaison Statement on further Maintenance of Architectural Information in 3G TS 29.002

Source: TSG CN WG2

To: TSG-SA WG2

Contact: Heinz-Peter Keutmann, Ericsson L.M.,
Tel.: +49 2407 575 132
Email: Heinz-Peter.Keutmann@eed.ericsson.se

TSG-CN WG2 have sent an LS related to this matter to TSG-SA WG2 last August in Tdoc N2-99A51 (please see attached document). Unfortunately, N2 have not received any feedback from S2 on this issue up until now.

N2 kindly asks S2 to review this LS and to provide feedback to N2.

N2 would appreciate an early answer since we have suspended further enhancement work while waiting for the response from S2. The danger arises that clause 4 in 3G TS 29.002 becomes more and more outdated and the work to bring it up-to-date will increase steadily.

N2 SWG B (as relevant sub-working group) will meet 14-16 February 2000 to finally discuss and agree R99 issues.

3GPP TSG CN Working Group 2 **Tdoc N2B000146**
Kyoto, Japan
14 - 18 January, 2000

Source: **TSG CN WG2**

To: **R3, R2 and S2**

Contact: **Masahiro KIKUCHI, NTT Communicationware**
kikuchi.masahiro@promote.nttcom.co.jp

Title: **Liaison Statement on the definition of the Service Area identification**

N2 has discussed the liaison satement from S2 (S2-99F29) and the usage of Service Area Identity has been accepted.
N2 have concluded Service Area Identification should be defined in TS23.003 because that is some kind of Area Identification like LAI or RAI.
Also, N2 have observed that Service Area Identification is defined in TS25.401 and TS25.413.
For avoiding duplicated definition, N2 would recommend R3 that their specifications only refer the definition in TS23.003 on SAI or maybe other identifications, which are already defined in TS23.003.
The attached document is approved CR to TS23.003 on Service Area Identification definition.

3GPP TSG CN Working Group 2 **Tdoc N2B000151**
Kyoto, Japan
14 - 18 January, 2000

To: **SA WG2**

CC:

Source: **TSG CN WG2**

Title: **LS on description of Hard Handover in 23.060**

TSG CN WG2 has seen the need to introduce a new message, Forward SRNS Context, in 29.060. This message is used to forward the RAB Context from the old SGSN to the new SGSN at Hard Handover.

CN WG2 kindly asks SA WG2 to consider the inclusion of a description of Hard Handover in 23.060.

3GPP TSG CN Working Group 2 Subgroup B **Tdoc N2B000321**
Milan, Italy
14 - 16 February, 2000

To: **CN WG1**

Source: **TSG CN WG2**

Title: **LS on functional requirements for RANAP for inclusion in 3G TS 23.009**

TSG CN WG2 would like to inform TSG CN WG1 that functional requirements were identified while progressing the work on the introduction of RANAP over the E i/f. These requirements were identified while discussing a CR to 29.002 which included these functional requirements. Below is the excerpt from the CR that shows the section that raised concerns:

```
RelocationNumber ::= SEQUENCE {
     handoverNumber                    ISDN-AddressString,
     rABId                             RABId,
     -- RAB Identity is needed to relate the calls with the radio access bearers. The MSC-B
     -- should extract the RAB Identities from the encapsulated RANAP Relocation Request in
     -- the MAP Prepare Handover Request and bind each RAB Id to a handover number.
     ...}
```

The second sentence within the comment is the functional requirement that was identified. Since a protocol specification is not the appropriate place for functional requirements, these requirements should be included in 3G TS 23.009 instead. Attached is the original CR to 29.002 (Tdoc N2B000179) that includes the functional requirements. Also attached is a CR to 3G TS 23.009 (Tdoc N2B000320) which adds this requirement to the appropriate place.

CN2 recognises that these may not be the only changes to 3G TS 23.009 required for the introduction of RANAP over the E i/f and request that CN1 carefully consider all of the work that is needed for 3G TS 23.009. In order to help facilitate this work, the revised and approved version of the CR to 29.002 (Tdoc N2B000377) is also attached.

Attachments:
Tdoc N2B000179
Tdoc N2B000320
Tdoc N2B000377

3GPP TSG CN Working Group 2 Subgroup B **Tdoc N2B000325**
Milan, Italy
14 - 16 February, 2000

Source: **TSG CN2** [1]
Title: **Liaison Statement on Harmonization of TFO and TrFO**
To: **TSG RAN WG3**
Cc: **TSG SA WG2, TSG SA WG 4**

TSG CN WG2 thank TSG RAN WG3 for their liaison statement (Tdoc R3-000402).
We note that RAN WG3 favors a solution for TrFO harmonized with TFO.
According to our understanding, Out-of-Band Transcoder Control (i.e. TrFO) is a R99 work item. TFO for UMTS has not been started yet and is planned to be finalized by June 2000 which makes it a R00 work item.
TSG CN WG2 are not confident that we correctly understand the intended meaning behind the word harmonization in this context. TSG CN WG2 should be grateful if TSG RAN WG3 could provide background information for their preference to have harmonized solutions for TFO and TrFO. In particular, it is not clear to us what the scope of such a harmonization could be and which reasons would require harmonized solutions for both of the work items.
TSG CN WG2 proposes to have a joint meeting with TSG RAN WG3 experts to get clarification on this matter.
The next meeting of TSG CN WG2 is scheduled for 27-31 March 2000.

1 Contact: Heinz-Peter Keutmann, Ericsson L.M., telephone +49 2407 575 132, email heinz-peter.keutmann@eed.ericsson.se

3GPP TSG CN WG2B **Tdoc N2B000373**
Milano, Italy
14 - 16 February, 2000

Source: **TSG CN2** [1]

Title: **Reply to LS on usage of NSAPI, RB identity, RAB ID and TEID**

To: **TSG RAN WG3**

CC: **TSG SA WG2, CN WG1, RAN WG2**

TSG CN WG2 thanks TSG RAN WG3 for their liaison (Tdoc R3#9(99)j88) on usage of NSAPI, RB identity, RAB ID and TEID. CN WG2 discussed and clarified the RAN WG3's assumption within the scope of CN WG2 and the answer is that **"the NAS Binding Information is transmitted between CN nodes during inter CN node relocation of SRNS and during Inter SGSN Routing Area Update for both CS and PS domains"**. Details are as follows.

For CS domain
CN WG2 have implemented the work on the use of RANAP over MAP E i/f for UMTS-UMTS Inter-MSC SRNS relocation. CN WG2 recognizes that RANAP is capable of carrying "NAS Binding Information". Therefore this meets R3's requirement. CN WG2 would like to inform that the work to define the use of RANAP encapsulated in MAP over E i/f in TS 29.002 is now completed and will be sent to TSG CN#7 for approval.

For PS domain
NSAPI is used as "NAS Binding Information" for PS domain. In current GTP specification (TS 29.060 Ver3.3.0) NSAPIs are transmitted from old SGSN to new SGSN as a part of PDP contexts by GTP-C messages (SGSN context response message for Inter SGSN Routing Area Update, Forward Relocation Request message for Inter SGSN relocation of SRNS).

TSG N2 believe these meet the requirement of RAN WG3.

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3GPP TSG CN WG2B
February 14-16, 2000
Milan, Italy

Source: **TSG N2** [1]

To: **S2**
Cc: **S4, N1, R2 and R3**
Title: **Response to LS on the working plan to complete OoBTC in R99**

N2 thank S2 for their LS on working plan to complete OoBTC in R99. (S2-000285)
The following item is specified in S2 LS as an open issue in N2.

- N2 clarify the requirement of the Inter MSC link, which type of bearer can be applied.

This issue was treated in N2 and the OoBTC stage 2 specification 23.153 has been properly updated accordingly.

In the last N2B Milan meeting in 14-16 February, N2B has made an OoBTC Ad Hoc meeting in order to inspect the current stage 2 OoBTC specification. It was found that some more update would be necessary as the result.
Accordingly, it was agreed in N2 that the N2 work on OoBTC stage 2 specification would be updated, reviewed and approved by N2 E-mail with the deadline in 25th of February.

However, N2 cannot report with any confidence on the work in other groups which have to contribute to the OoBTC stage 2 specification.

Therefore, the stage 2 OoBTC in R99 will be ready to submit to the CN#7 meeting at least for information and possibly for approval.

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3GPP TSG CN Working Group 2 SWG B Tdoc N2B000387
Milan, Italy
14-16 February, 2000

Liaison Statement

TO: R3

CC: S4, S2, and N1

Source: N2[1]

Subject: Stage 2 description for TrFO break

N2 thank R3 for their liaison statement (Tdoc R3-000402).

N2 recognized from the LS that R3 is studying the procedure for TrFO break, and there are two possible solutions, which are RANAP solution and User Plane solution. In addition, N2 find another problem to be solved that is related to a potential source for fraud, and also find two possible solutions. However, N2 could not decide the solution, since the problem is related to the solution for the TrFO break procedure. Attachment 1 of this LS includes the problem and the possible solutions.

N2 ask R3 to study the solution for the problem as well.

N2 has the work of completion of TS 23.153, Out of Band Transcoder Control (OoBTC) Stage 2, which should include the stage 2 procedures for TrFO break. In order to finalize our work on OoBTC stage 2, we describe the stage 2 procedure for TrFO break as Attachment 2 of this LS. The descriptions include two possible solutions for TrFO break and two possible solutions for fraud problem with editor's notes such as "Either Alternative 1 or Alternative 2 will remain, which is adopted by R3." Moreover, N2 will send the TS 23.153 that includes the descriptions to CN#7 at least for information and possibly for approval.

N2 asks R3 to contribute to development of TS 23.153 to add the detail stage 2 description for the TrFO break procedure and the solution for the fraud problem.

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3GPP TSG CN WG2 **TDoc N2B000388**
Milan, ITALY
14-16 February 2000

From: **TSG CN WG2** [1)]
To: **TSG SA WG3**

Subject: **LS on comments to Enhanced User Identity Confidentiality**

TSG CN WG2 have further progressed the work on the Security Work Item "Enhanced User Identity Confidentiality". The following comments were collected during the discussion:

1. When reading the current text in 3G TS 33.102 on Enhanced User Identity Confidentiality, it is not clear whether the support of this feature is optional or mandatory for certain network entities. It is TSG CN WG2 working assumption that the support of Enhanced User Identity Confidentiality is mandatory for 3G MSC/VLR and SGSN.

   TSG SA WG3 is asked to confirm this view and to update the description in 3G TS 33.102 accordingly.

2. Based on received contributions and their working assumptions on the content of the stage 2, N2 agreed the changes to introduce the new concept of the Temporarily Encrypted Mobile Subscriber Identity (TEMSI) to core specifications in the responsibility of TSG CN WG2. The introduction of the TEMSI shall prevent paging of a MS with its non-encrypted IMSI. However a case was identified where the IMSI has to be used, mobile terminated call handling if no subscriber data are available in the VLR and mobile terminated call handling after VLR restart.

   There are currently no solutions available to cope with this case. TSG SA WG3 is therefore asked to verify whether this introduces an unexpected large gap in the security concept for Enhanced User Identity Confidentiality.

3. Due to the distributed allocation of TEMSI to 3G subscribers (a VLR is served by several UIDNs) there is a certain probability of a double allocation of TEMSI for subscribers registered in one VLR. This may lead to unsuccessful mobile terminated call handling for those subscribers.

   TSG SA WG3 is asked to consider this disadvantage of the TEMSI concept.

CN2 advise SA3 that if SA3 decide to make changes to the stage 2 which cause it to depart significantly from CN2´s working assumption then there is a risk that stable stage 3 specifications will not be available for the TSG #7 plenaries. Smaller scale changes to the stage 2 could be tracked at an ad hoc meeting which we plan to hold on 2 & 3 March. SA3 are cordially invited to participate in this meeting.

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3GPP TSG CN2 SWGB **Tdoc 3GPP N2B000445**
Kista, SWEDEN
2 – 3 March 2000
Source: N2
Title: Liaison statement to S3 on GTP signalling security

TSG-N2 have drafted and agreed a change request to TS 29.060 to indicate the security mechanism which is used to protect GTP signalling. This change request (Tdoc N2B000446, attached) indicates that IP security is used to protect GTP signalling, and makes normative reference to TS 33.102.

In the discussion of the CR to TS 29.060, it was identified that this CR has to be linked to a CR to TS 33.102 to specify the use of IP security to protect GTP signalling. Although the CR to TS 29.060 was approved by N2, and will be presented to CN #7 for approval, final approval depends on the approval by SA of the corresponding CR to TS 33.102. S3 will therefore need to prepare the CR to TS 33.102 and have it approved by SA in order for the protection of GTP signalling to be regarded as complete.

Another issue which was identified in the discussion in N2 was that GTP signalling between a Release 99 node and a pre-Release 99 node will not be protected, because the pre-Release 99 node will not have implemented IP security. Instead, the communication will be unprotected, as currently specified for pre-Release 99 GTP signalling. S3 are asked to take note of this fact.

3GPP TSG CN2 SWGB **Tdoc 3GPP N2B000457**
Kista, SWEDEN
2 – 3 March 2000
Source: Vodafone Airtouch

Title: Proposed liaison statement to S2 and N1 on Adding the requirement for CN to map the NAS Binding information to RAB ID

N2 have noted the liaison statement (R3-000341) on the above subject, which R3 sent to S2 for action and to N1 and N2 for information. Our first assessment is that there will be an impact on the functionality and protocols for which N2 is responsible, when S2 have done their architectural work. In addition, we understand that N1 are currently working on the use of the Stream Identifier.
In order to allow N2 to start their work on this issue without unnecessary delay, we ask S2 and N1 to keep us informed of the progress of their work, initially by copying to N2 any response which they send to R3.

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