3GPP TSG CN Plenary Meeting #12   **Tdoc NP-010282**
Stockholm, Sweden, 13th - 15th June 2001

Source: TSG CN WG4

Title: LSs after CN#11

Agenda item: 6.4.1

Document for: Information

<u>**Introduction:**</u>

This document contains LSs that have been agreed by TSG CN WG4 after CN#11, and are forwarded to TSG CN Plenary meeting #12 for information.

TDOC N4-00xxxx	Subject	To	Cc	Attachment	Sent
N4-010669	Map Security	SA3			28 May 2001
N4-010677	Liaison Statement on " Updating Subscriber and equipment trace (GSM 12.08)"	SA5			28 May 2001
N4-010695	Liaison Statement on "Iu UP version negotiation"	RAN3, CN3			28 May 2001
N4-010696	Liaison Statement reply to RAN3 on on Highlighting Requirements to RAN3 for SRNS relocation with TrFO	RAN3, SA	CN, RAN	S2-002000, 3GPP TS 23.153 v 4.1.0	28 May 2001 Re-sent 30 May
N4-010702	Liaison Statement reply to CN1 on Introduction of AMR-WB	CN, CN1	SA4, GERAN		28 May 2001
N4-010705	Liaison Statement reply to " LS on consistent description regarding the use of Charging Characteristics"	SA5	SA, SA2		28 May 2001
N4-010788	Liaison Statement reply to SA4 on Introduction of Codec Type UMTS_AMR_2	SA4	CN, CN1	N4-010644	28 May 2001 Re-sent 30 May

3GPP TSG-CN WG4 Meeting #08

Rio Grande, Puerto Rico, 14-18 May 2001

Tdoc N4-010669

Source:	**TSG-CN WG4**
Title:	**MAP security**
To:	**TSG-SA WG3**

Contact Person:

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TSG-CN WG4 thank TSG-SA WG3 for the LS on MAPSec [S3z010033] from the TSG-SA WG3 ad hoc on network domain security and provide the following comments and information, although concerns have been raised within CN4 that the LS may not have received agreement from all companies within SA3:

- **IPsec**
  It is CN4's understanding that protection of MAP messages at the application level is not needed when MAP is transported over IP and IPsec is used for protection. However as long as the end points cannot be sure that MAP is transported over IP with IPsec protection for all the links in the connection, the use of MAPsec is necessary.

- **Granularity of protection**
  The technical concept for MAPsec as specified in 29.002 has been designed in a way which allows for protection of MAP payloads (invoke components, result components, error components and dialogue user info) independently with different protection modes. CN4 strongly recommends that 3GPP make use of this flexibility in order to minimise processing load, and to allow for compatibility with later releases which may require granularity of protection at the component level.
  CN4 consider that component level granularity of protection would not impose a major increase of implementation and administration effort compared with operation level granularity of protection. Therefore CN4 ask SA3 to change their working assumption, and to choose a granularity of protection at the component level.

- **Length of the Integrity Check Value**
  CN4 would like to minimise the overhead in message length imposed by MAPsec and thus avoid segmentation. Therefore we have chosen the minimum length acceptable from a security point of view for the Integrity Check Value: 32 bits.

- **Structure of the Security Header**
  CN4 have noted that among other issues to be resolved, the structure of the security header is still under discussion within SA3. Details of the length of the IV, requirements with impact on the IV-structure and the TVP structure need to be agreed by SA3 before CN4 can finalise the protocol details.

- **MAPsec shift to Rel-5**
  CN4 see the possibility that MAPsec cannot be finalised before the next TSG plenary meetings, and that MAPsec may therefore be shifted to Rel-5. CN4 therefore have prepared a CR to the Rel-4 version of 29.002, which undoes the changes done so far for MAPsec. This CR will be presented to CN plenary if the open issues cannot be resolved in time.

SA3 are asked to note that the next regular CN4 meeting is scheduled July 9 to 13. However an ad hoc meeting may be held on May 29 to 31, to complete MAPsec for Rel-4, if open issues can be resolved in due time.

Title:	Liaison Statement on " Updating Subscriber and equipment trace (GSM 12.08)"
Source:	TSG_CN WG4
To:	TSG_SA WG5
cc:	

Contact Person:
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1. Overall Description:

CN4 considers it important to have trace functionality in Rel-4 and Rel-5 Bearer Independent Circuit Switched Networks. Our workgroup is not able to indroduce this functionality to Rel-4 and Rel-5 Core Network stage 2 (23.205) and stage 3 (29.232) standards because the current trace standard "Subscriber and equipment trace" (GSM 12.08) is out of date.

2. Actions:

To SA WG5 group.

ACTION: CN4 asks **SA5** group to update "Subscriber and equipment trace" (GSM 12.08) to define this functionality in Rel-4 and Rel-5 networks.

3. Date of Next CN4 Meetings:

CN4 #09   9th – 13th July 2001   Dresden, Germany.

4. Attachments:

None.

Title:	Liaison Statement on "Iu UP version negotiation"
Source:	TSG_CN WG4
To:	TSG_RAN WG3, TSG_CN WG3
cc:	

Contact Person:
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1. Overall Description:

CN4 wishes to inform RAN3 and CN3 that CN4 accepted the CRs N4-010683 and N4-010691. The related discussion document N4-010616, which was noted, describes the motivation of these CRs.
These documents address the interaction between the out-of-band service negotiation, the FP UP version indication in RANAP and H.248 (Mc Interface), and the in-band FP UP version negotiation. The documents aim to clarify the interaction of these entities.
CN4 assumes that the list of UP versions passed to the RNC in RAB parameters contains only the versions that provide the services that the MSC requires in the UP. The RNC may use only these UP versions in the version negotiation at UP level.

2. Actions:

To RAN3 group.

ACTION: TSG CN WG4 asks RAN3 to indicate their agreement to this assumption and make any changes to their specifications (TS 25.413 and TS 25.415) where clarification of this behaviour is required.

To CN3 group.

ACTION: TSG CN WG4 asks CN3 group to consider related changes to TS 29.415. In particular, CN4 would like to propose to restrict the in-band Nb UP version negotiation to versions selected by the MSC-server and signalled over Mc.

3. Date of Next CN4 Meeting:

CN4_09   9th – 13th July 2001   Dresden, Germany.

4. Attachments:

N4-010616.doc

N4-010616 [Discussion Paper].

N4-010683.doc

N4-010683 [CR to TS 23.153 v4.1.0].

N4-010691.doc

N4-010691 [CR to TS 29.232 v4.0.0].

Title:	Liaison Statement reply to RAN3 on on Highlighting Requirements to RAN3 for SRNS relocation with TrFO
Source:	TSG_CN WG4
To:	TSG_RAN WG3, TSG SA
cc:	TSG CN, TSG RAN

Contact Person:
       Name: Phil Hodges
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1. Overall Description:

Reply to incoming LS **TSGR3#19(01) 010988** (N4-010508).

CN4 has completed its studies and frozen its scope for the specifications on OoBTC for Release 4. The solution for inter-MSC serving area relocation (specified in 3G TS 23.153, chapter 6.2) is based on the LS from SA2 (Tdoc S2-002000, Makuhari, Japan, 13th – 17th November, 2000) that agreed that SRNS relocation for Inter-MSC serving area relocation would be supported by the Release 4 System Architecture.

It is understood that this decision was conveyed to RAN3. It is also understood that the implementation of this change by RNC manufacturers is optional, the text states:

"*For UMTS to UMTS Inter-MSC Hand-Over / SRNS relocation the MAP E interface transporting RANAP messages shall be used. Alternatively, in the case of intra-PLMN handover, the SRNS reloacation* (sic) *between two MSC-areas may be executed as intra-MSC SRNS relocation. In such a case this will be performed by utilising a direct SCCP connection between the target RNC located in the target MSC-area and the MSC server already involved in the call*".

The impact to the TrFO solutions is that where intra-MSC SRNS relocation is not possible, TrFO will cease and encoding to PCM shall occur.

The alternative solution to use MAP protocol to perform codec negotiation as part of normal inter-MSC relocation was considered in great detail within CN1 and CN4, a number companies were included in these discussions across both WGs, and the conclusions made were that the major impacts to MAP (requires new I.E.s to existing messages and also new messages) would result in a delay to the handover which would have an undesirable impact on the performance.

Further it is understood by CN4 that the advantages of this solution is not confined to TrFO alone; simplification of relocation procedures from a core network point of view is an advantage to all call types.

2. Actions:

To RAN WG3 group.

ACTION: TSG CN WG4 asks TSG RAN WG3 to complete the standardisation tasks agreed by SA2 for Release 4.

To TSG SA

ACTION: TSG CN WG4 asks TSG SA to provide direct guidance to the 3GPP WGs involved how to proceed in this matter. From a CN4 perspective, a solution is required to fulfill the requirements for TRFO. CN4 has a strong preference that the TSG RAN WG3 will complete the required standardization tasks.

3. Date of Next CN4 Meetings:

CN4#9   9th – 13th July 2001   Dresden, Germany.

4. Attachments:

S2-002000 (LS, SRNS relocation based on global title).

3GPP TS 23.153 v 4.1.0 (Out of Band Transcoder Control - Stage 2; (Release 4)).

S2-002000.zip   23153-410.zip

Title:	Liaison Statement reply to CN1 on Introduction of AMR-WB
Source:	TSG_CN WG4
To:	TSG_CN WG1, TSG_CN
cc:	TSG_SA WG4, TSG GERAN

Contact Person:
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1. Overall Description:

Reply to incoming LS *Tdoc N1-010493* (N4-010506).

CN4 kindly thanks CN1 for their LS regarding introduction of Wideband AMR. CN4 believes that there are core network implications due to the introduction of this 'service' as the current network solutions are based around narrow band speech codecs. There are a number of areas such as handover and supplementary services, especially within the TrFO standards that have not been studied and therefore introduction of code-points or other protocol impacts should be delayed until the 'wideband speech service' has been studied as a whole.

CN4 agreed to propose a new work item (associated to the existing Wideband Telephony Service – AMR in SA4) that will be prepared and presented to the next CN4 WG (CN4 #9) meeting for support by interested companies. In order not to delay work in this area, CN4 kindly requests CN1 to agree with the proposed approach.

With regards to the specific questions asked by CN1, the following is a summary of the discussion and answers:

1. *Is explicit signalling of supported codecs needed when end-to-end codec negotiation is used?*

    The benefit to avoiding impacts to the CC protocol was agreed, especially with respect to this service where an introduction of code-points in the CC protocol could indicate network support of the service when that may not be the case. Further it was agreed with the statement in the LS that additions to the BC should probably be avoided when there is an alternative mechanism that avoids CC protocol impacts.

2. *Are the proposed codecs aligned with the ones that have been added to SA4 specs?*

    CN4 believes this question is aimed at SA4. If the supported codecs IE mechanism is used, then alignment will be achieved automatically as only TS 26.103 is used.

3. *What is the network supposed to do during BC negotiation if one of the new code points is proposed by the MS?*

    This is part of the subject for study in the planned WI.

2. Actions:

To CN WG1.

ACTION: TSG CN WG4 kindly asks TSG CN WG1 to take note that CN4 aims to study this service and its implications on existing CS speech services before implementing changes to the protocols. The wideband speech service will be considered as a whole network implementation.

To TSG_CN.

ACTION: TSG CN WG4 asks TSG_CN to take note that CN4 aims to provide a WI description for approval at TSG_CN #13, however it would like to receive some support for this work to begin by informal acceptance from TSG_CN #12.

3. Date of Next CN4 Meetings:

4. Attachments:

None.

3GPP TSG CN WG4 Meeting #08   **Tdoc N4-010705**
Rio Grande, PUERTO RICO, 14th - 18th May 2001

Title:	**Liaison Statement reply to " LS on consistent description regarding the use of Charging Characteristics"**
Source:	**TSG_CN WG4**
To:	**TSG_SA5**
cc:	**TSG_SA, TSG_SA2**

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1. Overall Description:

TSG CN WG4 thank TSG SA WG5 for their liaison statement, S5-010225 "LS on consistent description regarding the use of Charging Characteristics" (N4-010517).

TSG CN WG4 have studied the behaviours stated in S5-010225 (repeated below).

- *The SGSN sends the Charging Characteristics to the GGSN exclusively if it received them itself from the HLR. This means that when no Charging Characteristics is stored in the HLR, the SGSN will not send anything to the GGSN.*
- *The same procedure described above is also applied in the roaming case, when the SGSN itself ignores any HLR supplied Charging Characteristics.*
- *The above implies that no explicit transfer of the Charging Characteristics Selection Mode to the GGSN is necessary, because it is implicitly given as "subscribed" when the GGSN receives them, and "non-subscribed" otherwise.*
- *The Charging Characteristics will not be transferred from the old SGSN to the new SGSN upon inter-SGSN routing area update, as the new SGSN will receive its required information from the HLR.*

TSG CN WG4 can confirm that the stated behaviour is fully in line with the understanding in TSG CN WG4. TSG CN WG4 also recognises that the current text in 29.060 is not explicit in this matter.

2. Actions:

ACTION: TSG CN WG4 take the action to investigate the possibility to clarify the text in 29.060 to reflect this shared understanding.

3. Date of Next CN4Meetings:

CN4 #9	9th – 13th July 2001	Dresden, Germany.
CN4 #10	15th –19th October 2001	Brighton, UK

4. Attachments:

None

Title:	Liaison Statement reply to SA4 on Introduction of Codec Type UMTS_AMR_2
Source:	TSG_CN WG4
To:	TSG_SA WG4
cc:	TSG_CN WG1, TSG_CN

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1. Overall Description:

Reply to incoming LS **Tdoc S4-010243** (N4-010516).

CN4 kindly thanks SA4 for their LS regarding new codec type UMTS_AMR_2. Although there were no explicit actions from SA4, CN4 understood that updates to some specifications were necessary in order to describe the handling of this codec type as preferred, default codec for UMTS and thus take advantage of its introduction.

CN4 would like to inform SA4 that it has approved a CR on 3G TS 23.153 (CR025, Tdoc N4-010644, attached) and highlighted the need for a CR on 3G TS 24.008, which is under the control of TSG_CN WG1. It is understood that such a CR has been prepared but CN4 is not aware of the status of this CR.

2. Actions:

To SA WG4.

ACTION: CN4 kindly asks SA4 to take note of the changes we have made.

3. Date of Next CN4 Meetings:

CN4#9   9th – 13th July 2001   Dresden, Germany.

4. Attachments:

CR on 23.153 – Tdoc N4-010644

N4-010644.zip