

**Source:** TSG CN WG3  
**Title:** All LSs sent from CN3 since NP#16  
**Agenda item:** 6.3.1  
**Document for:** Information

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**Introduction:**

Contains all LSs approved and sent by CN3 since NP#16 meeting. The LSs are presented to CN plenary for information only.

<b>TDoc #</b>	<b>Tdoc Title</b>	<b>LS to</b>	<b>LS cc</b>	<b>LS Attachment</b>
N3-020660	Re. LS on "Requested QoS in case of Streaming and Conversational"	SA2	-	N3-020657, N3-020658, N3-020659
N3-020666	Re. LS on Multiple Codecs	SA5, CN1, SA2	-	N3-020564
N3-020733	LS on RTCP overhead in SDP bandwidth parameter	SA4	CN1, SA2	-
N3-020738	LS on Proposed solutions for the identification of source IP address information over the Go interface	SA2, CN1	-	Potential CRv2, and N3-020731
N3-020740	Re. LS on CS data services in GERAN iu Mode	SA2, GERAN2, CN1	-	N3-020641
N3-020741	LS on RTP / RTCP split for release 5	SA2	-	-

**Title:** Response to LS "Statement on Requested QoS in case of Streaming and Conversational [S2-022061]"

**Source:** CN3

**To:** SA2

**Cc:** -

**Contact Person:**

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**Attachments:** N3-020657 ["QoS attributes requested in case of real-time QoS", R99] ,  
N3-020658 ["QoS attributes requested in case of real-time QoS", Rel-4] and  
N3-020659 ["QoS attributes requested in case of real-time QoS", Rel-5]

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**1. Overall Description:**

CN3 thanks SA2 for their liaison statement N3-020561 (S2-022061) regarding requested QoS in case of Streaming or Conversational.

This LS is sent to inform SA2 that CN3 endorse the mentioned arguments for changing the standards to

- overcome the problems that may occur if 'subscribed' is requested for the Traffic Class and
- ensure that the requested Guaranteed and Maximum Bit Rate are explicitly set when Traffic Class Streaming or Conversational is chosen.

Attached are the corresponding Change Requests to TS 27.060 for R99, Rel-4 and Rel-5.

**2. Actions:**

None.

**3. Date of Next CN3 Meetings:**

CN3\_25                      23<sup>rd</sup> - 28<sup>th</sup> September 2002      USA.

**Title:** Response Liaison Statement on Multiple Codecs  
**Response to:** LS (N3-020564/ S5-024171) on Multiple Codecs from SA5

**Source:** CN3  
**To:** SA5, CN1, SA2

**Contact Person:**  
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**Attachments:** N3-020564 - [Original LS on Multiple Codecs / S5-024171].

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### 1. Overall Description:

CN3 would like to thank SA5 for their Liaison Statement on Multiple Codecs [S5-024171].

CN3 would like to comment the questions of SA5 as follows:

1. *Is it a limitation of the resource reservation mechanism being used (e.g. an IETF protocol), that makes it unable to provide to the P-CSCF information on the codec and bit-rate chosen by the UE and the actual selected bandwidth allocated?*

CN3 assumes that this question refers to the signalling at the Go interface. Whilst CN3 does not see any possibility to provide information on the codec because the GGSN does not have any detailed information on the payload of the IP flows, CN3 does see that signalling at the Go interface may be used to identify the actual allocated bitrate. The Go interface would in principle be able to transport the desired information but additional functionality and information elements in the Go PIB would be required. However, CN3 has not received direction for this function from SA2. Since CN3 follows directions from SA2, CN3 kindly requests SA2 to analyse and reply to the LS from SA5, and determine appropriate actions/response.

2. *Could the secondary offer/answer interaction (which would reduce the codecs per media component to one) be made outright mandatory (or at least mandatory – operator configurable), thus avoiding the resulting implications identified by CN3?*

This question relates to SIP signalling in the responsibility of CN1 and SA2, and therefore CN3 would like to ask these WGs to answer this question.

3. *Would SA5 be correct in the understanding that, as a result, an IMS user would be charged for a higher QoS (albeit, as authorized) than what the user received?*

This question needs to be answered taking into account the question 1 and 2, and also an overall architectural perspective. CN3 would therefore like to ask SA2 to provide an answer.

### 2. Actions:

**To SA2, CN1 group.**

**ACTION:** CN3 asks **CN1 and SA2** to answer those of the above questions which fall in the responsibilities of these groups.

### 3. Date of Next CN3 Meetings:

CN3\_25                      23<sup>rd</sup> - 27<sup>th</sup> September 2002,                      Miami, USA.

**Title:** [DRAFT] LS on RTCP overhead in SDP bandwidth parameter

**Response to:**

**Source:** CN3

**To:** SA4

**Cc:** CN1, SA2

**Contact Person:**

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**Attachments:**

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### **1. Overall Description:**

CN3 would like to inform SA4 that there were some discussions within CN3 about the usage of the SDP bandwidth parameter. It could not be clarified whether the SDP bandwidth parameter contains the overhead coming from RTCP.

SA4 assume in their specifications that the RTCP overhead is not included in the SDP bandwidth parameter according to the LS S4 (02)0486 (Updated response to LS (N3-020119, S4-020198) on Procedure for specifying UMTS QoS Parameters per Application (R2-020793)).

However, in CN3 some companies expressed another view on the usage of the SDP bandwidth parameter. According to their understanding the SDP bandwidth parameter describes the entire bandwidth, which is needed for the media component. Therefore, the overhead coming from RTCP should be included. RFC 2327 specifying SDP seems to support this understanding. CN3 did not reach an agreement on this issue.

Since the RFC 2327 does not describe the usage of the SDP bandwidth parameter sufficiently, it is necessary to come to an agreement about the understanding inside 3GPP. This is very important because some mechanisms are based on the SDP bandwidth parameter like:

- The IMS applies the SDP bandwidth parameter for the control of services, e.g. the S-CSCF controls if the SDP bandwidth parameters fits to the highest codec of a media component.
- The P-CSCF/PCF applies the SDP bandwidth parameter as basis for the authorization.
- Endpoints might use the SDP bandwidth parameter to indicate the desired bandwidth for an application.
- According to SA4's specifications, an UE will deduce some UMTS QoS parameters from the SDP bandwidth.

Since several entities make use of or interpret the SDP bandwidth parameter they have to have a common understanding about the value specified by this parameter, i.e. if a potential RTCP overhead is included. This is of importance:

- to avoid an allocation of resources for RTCP by the endpoints in case RTCP is not intended to be used,
- to avoid an over-allocation of resources in case the resources for RTCP are already included in the SDP bandwidth parameter,
- to pass the S-CSCF policies which control and calculate the maximum bandwidth for a media component out of the codec(s),
- to prevent an insufficient authorisation over Go, if the PCF allows a lower bandwidth than the UE is recommended to allocate, and
- to reduce the need to perform RTCP overhead calculation at several points in the network which reduces performance and complicates updates of overhead calculation rules once necessary.

Because of the insufficient description of the usage of the SDP bandwidth parameter CN3 feel that it is necessary to come to an agreement about the understanding inside 3GPP.

**2. Actions:**

To SA4 group.

**ACTION:** CN3 kindly ask SA4 to provide background information on SA4's understanding on the usage of the SDP bandwidth parameter.

**3. Date of Next CN3 Meetings:**

CN3 #25                      23<sup>rd</sup> Sep. – 27<sup>th</sup> Sep. 2002                      USA

**Title:** Proposed solutions for the identification of source IP address information over the Go interface

**Response to:** Liaison statement on the wildcarding of source IP addresses and port numbers in the PCF for the packet classifier:  
Tdoc S2-022045/N3-020560 and N1-021757/N3-020684.

**Source:** CN3

**To:** SA2, CN1

**Cc:**

**Contact Person:**

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**Attachments:** Potential CR for SA2v2, N3-020731

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CN3 thanks both SA2 and CN1 for their liaison statements (S2-022045/N3-020560 and N1-021757/N3-020684 respectively) concerning the identification of source IP address information available in the PCF in order to apply as a packet classifier over the Go interface.

CN3 has discussed the issue on the impacts of Mobile IPv6 and SBLP identified by SA2. CN3 conclude that the support of MobileIPv6 impacts both SBLP and TFT filter settings and is thus seen as a bigger issue to handle than just Mobile Ipv6 to SBLP. Given that Mobile IPv6 is still a draft within IETF with no clear sign when it will reach RFC status and hence there are no MobileIPv6 products in the market CN3 concludes that Mobile IPv6 should be studied as a general complete solution. CN3 therefore do not object to the essence of the CR proposed by SA2 for 23.207 on the grounds of adverse interaction with Mobile IPv6.

CN3 has also discussed the issues that CN1 has identified for the identification of source IP addresses of the non 3GPP end users, the fact that in the case where several UEs are behind a mobile router the IPv6 address prefix does not identify a specific UE and that the solution proposed by SA2 does not completely solve the misuse problem.

CN3 has thus developed on the SA2 solution stating that the mechanism identified by SA2 is an operator option. Furthermore CN3 is of the understanding that the developments in the identification of source address within SDP has just started within the IETF. Whilst it is agreed that it is currently unclear when this SDP feature will be available, CN3 has included the ability for the PCF to use this information in the proposal put forward for CN3 specifications to enable the PCF to use this information when it becomes available.

Currently CN3 faces an administrative issue concerning the support of source address identification over the Go interface. Whilst it is agreed that this is an issue to resolve in the open items for 29.207 the stage 2 specification related to Go currently does not include the mechanism proposed. Thus the CN3 stage 3 CR concerning this issue has only been provisionally agreed within CN3 on the basis that SA2 introduces this feature in its documentation. CN3 includes the provisionally accepted CR for 29.207 and a proposed modification of the CR sent by SA2 for 23.207

## 2. Actions:

### *To SA2:*

CN3 asks SA2 to consider the proposed CR to 23.207 CR 40 rev 2 for Release 5 changes from the original SA2 CR (rev 1) are highlighted in blue. The provisionally accepted CR for CN3 specification 29.207 CR 22rev 1 (N3-020731) is attached for information.

Given the deadlines for the inclusion of this functionality for Release 5 and the need to clarify the solution in the next CN plenary in September, CN3 asks SA2 to give an official response to CN3 of the outcome of the SA2 CR to 23.207.

### *To CN1:*

No actions identified.

## 3. Date of Next SA2 Meetings:

Title	Date	Location
CN3#25	23 – 27 September 2002	USA.

**Title:** LS on CS data services for GERAN Iu-mode  
**Response to:** LS (G2-020684) on CS data services for GERAN Iu-mode from GERAN2 and LS (S2-022043) on CS data services for GERAN Iu-mode from SA2  
**Release:** Rel-5  
**Work Item:** GERAN Iu mode

**Source:** CN3  
**To:** SA2, GERAN2 and CN1  
**Cc:**

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**Attachments:** N3-020641 [Proposal for the User Plane for CS Data Services (including HSCSD and EDGE) in GERAN Iu mode].

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## 1. Overall Description:

CN3 thank GERAN2 and SA2 for their Liaison Statements on CS data services for GERAN Iu-mode. GERAN2 have asked CN3 to help in the completion of the HSCSD support for GERAN Iu-mode.

GERAN2's LS (G2-020684) offers three possible solutions how CS data services could be provided for GERAN Iu mode. Shortly, these options could be characterised as follows:

1. to implement all additional necessary functions in BSS, leave the CN and Iu interface untouched;
2. to adapt the CN to the conditions needed in the GERAN radio interface;
3. to use existing means of the protocols on the Iu-CS (RANAP, Iu User Plane Framing Protocol) without modifications and to re-use HSCSD specific function in the CN.

SA2 recommend in their response LS (S2-022043) option 1. This recommendation is based on the requirement to keep the current UMTS principle architecture and to avoid changes over Iu (RANAP) and in CN. A minimum overall impact on the network and no change in the UMTS network principles is required.

CN3 have investigated possible concepts for the user plane and propose a concept as described in the attached document N3-020641.

## 2. Results

CN3 want to emphasise that not only HSCSD but also single slot CS data services as well as EDGE need consideration for GERAN Iu mode. The existing principles defined for the user plane for CS data are not applicable for GERAN Iu mode.

CN3 have found a concept for transparent CS data services according option 1.

CN3 have investigated solutions for non-transparent CS data services according to option 1 and 3.

- A solution according to option 1 would require significant effort for the BSS. The BSS has to realise a RLP relay entity that has to adapt the different RLP protocol versions that run on the MS (RLP version for A/Gb mode for HSCSD) and on the MSC/IWF (RLP version for UTRAN Iu mode). The differences of the protocol versions are mainly caused by the requirement to support legacy transcoders for TCH/F9.6 channel codings that need data structures that do not meet the already defined structures for UTRAN Iu mode.



- A solution according to option 3 extends the RLP only. The version for lu mode will be extended by functions that are already implemented for the version for A/Gb mode. This reduces the overall effort because the "RLP relay entity" is not necessary in the BSS. The additional functions to be provided by the RLP in the MSC/IWF in lu mode are already present in A/Gb mode and have to be provided already by any implementation in lu mode whenever a handover to A/Gb mode is supported.

CN3 prefer the second solution according to option 3 dedicated to extensions of the RLP protocol because it reduces the overall effort and impact. There is some impact on the CN for HSCSD in GERAN lu mode, but these additions are in line the UMTS functional split and architecture. Therefore, CN3 have followed SA2's recommendation to keep the overall impact on the network minimal, but this was only possible with a solution according to option 3.

### 3. Actions:

To **GERAN2 and SA2** group:

**ACTION:** CN3 ask GERAN2 and SA2 group to *endorse the concept for the user plane proposed by CN3 in order to keep the overall impact on the existing architecture as minimal as possible.*

*The concept proposes a solution for transparent CS data services according to option 1 as recommended by SA2. However, for non-transparent CS data services a solution according to option 3 is proposed with minimal impact on the RLP protocol in the CN in order to keeps the overall impact on the architecture minimal.*

*CN3 will continue with the provision of the needed Change Requests if GERAN2 or SA2 do not express any concerns until next CN3 meeting.*

To **CN1** group:

**ACTION:** CN3 ask CN1 group to *take into account the solution for the user plane when defining the control plane.*

### 4. Date of Next CN3 Meetings:

CN3#25	23 <sup>rd</sup> - 27 <sup>th</sup> September 2002	USA
CN3#26	11 <sup>th</sup> - 15 <sup>th</sup> November 2002	Thailand

**Title:** RTP / RTCP split for release 5

**Source:** CN3

**To:** SA2

**Cc:** -

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**Attachments:** None

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### **1. Overall Description:**

CN3 have introduced the capability for identifying individual IP flows within the media component on the Go interface.

CN3 now believe that a workable solution for splitting of RTP and RTCP for the Go interface in the release 5 time frame *may* be possible, and request clarification on the statement within TS23.228 v5.5.0 section 4.2.5.1, that

*“All associated IP flows (such as e.g. RTP / RTCP flows) used by the UE to support a single media component are assumed to be carried within the same PDP context.”*

### **2. Actions:**

CN3 request SA2 to inform them whether the statement in TS23.228 quoted above is meant to read:

Interpretation 1) All RTCP flows shall be sent over the same PDP context as the associated RTP flows

Or

Interpretation 2) That although it is assumed that in general RTCP packets will be sent over the same PDP context as the associated RTP flow, the mechanism shall also allow for the RTCP packets to be sent over different PDP contexts to the RTP data stream.

If SA2 agrees with interpretation 2, then CN3 also requests SA2 to identify the impacts and functionalities affected within the stage 3 work, by the removal of this restriction and as to whether any other working groups, apart from CN3, will be impacted by this clarification.

Whichever interpretation SA2 decides on CN3 asks SA2 to clear up this ambiguity within its stage 2 specifications for Release 5.

**3. Date of Next CN3 Meetings:**

CN3\_25                    23<sup>rd</sup> - 27<sup>th</sup> September 2002      USA.