**3GPP TSG-CN Meeting #23**                                                       **NP-040079**
**10th - 12th March 2004. Phoenix, USA.**

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|---|---|
| **Source:** | **MCC** |
| **Title:** | **All LSs sent from CN3 since TSG CN#22 meeting** |
| **Agenda item:** | **6.1.3** |
| **Document for:** | **INFORMATION** |

**Introduction:**

This document contains **3 approved** LSs sent from **TSG CN WG3** , and are forwarded to TSG CN Plenary for information only.

| Tdoc # | Tdoc Title | LS to | LS cc | Attachment |
|---|---|---|---|---|
| N3-040106 | LS on MGCF requesting sequential forking | SA2 | CN1 | |
| N3-040111 | LS reply to RTP / RTCP split | SA2 | CN1 | |
| N3-040112 | LS on early media and IMS/CS interworking | CN1, SA2 | | |

**3GPP TSG-CN WG3 Meeting #31**                                              **N3-040106**
**Atlanta, USA. 16<sup>th</sup> - 20<sup>th</sup> February 2004.**

| Title: | [DRAFT] LS on MGCF requesting sequential forking |
|---|---|
| Release: | Rel. 6 |

| Source: | CN3 |
|---|---|
| To: | SA2 |
| Cc: | CN1 |

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## 1. Overall Description:

CN3 is studying measures required for IMS/CS interworking in Rel-6 to support forking in IMS in a CS originated case. The CS originated case seems to be particularly problematic, if early media streams (announcements, etc.) are expected to be received simultaneously from multiple early IMS sessions.

The handling of early media would become simpler, and adverse effects such as possible speech clipping for a certain duration after the callee answers could be avoided, if only sequential forking was performed by the IMS for PSTN originating calls.

"draft-ietf-sip-callerprefs" offers an SIP client the possibility to request that SIP proxies perform only sequential forking. Using this draft, the MGCF could request sequential forking for PSTN originated calls.

However, as this would limit the possibilities for handling the call by CSCFs to a certain extent, CN3 seeks guidance if such a limitation would be acceptable.

## 2. Actions:

**To SA2 group.**

**ACTION:**  CN3 seeks guidance if it is acceptable that the MGCF request sequential forking using "draft-ietf-sip-callerprefs".

## 3. Date of Next CN3 Meetings:

CN3#31bis (tentative) 29<sup>th</sup> March – 02<sup>nd</sup> April 2004     Sophia Antipolis, France.

CN3#32             10<sup>th</sup> – 14<sup>th</sup> May 2004        Zagreb, Croatia.

| | |
|---|---|
| **Title:** | [DRAFT] **LS reply to RTP / RTCP split** |
| **Response to:** | **LS CN3-040014 (S2-040442) on RTP / RTCP split from SA2** |

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|---|---|
| **Source:** | **CN3** |
| **To:** | **SA2** |
| **Cc:** | **CN1** |

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**Attachments:**        None

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**1. Overall Description:**

CN3 thanks SA2 for its LS on RTP RTCP split, and want to communicate the result of the debate on the actions proposed there.

**Action 1**: <u>To verify the following SA2 understanding of the Stage 3 IMS specifications</u>

- *"The Flow Identifiers supplied by the UE are capable of indicating RTP and RTCP flows separately"*

    Yes. This capability is available since the beginning of the Go interface, and so it was stated in LS N3-020741 to SA2.

- *"The algorithm for deriving the authorised bandwidth at the PDF considers RTP and RTCP separately"*

    Yes. The algorithms were revised in CN3#29 in that sense.

- *"Current description of the 'policing' of the UE's choice of IP Flow to PDP Context mapping at the PDF in 29.208 is only based on the 'Keep It Separate' indicator"*

    Policy on the grouping of media components in PDP contexts is not described in 29.208 (except in Annex A), but in 29.207.

    Accordingly to RFC3524 and TS 24.229, the attribute used for media component grouping is not a KIS indicator but an optional SRF attribute. During the discussions in CN3 it was questioned how, when several media components are grouped in the same PDP context using the SRF indicator, the RTP and the RTCP can be separated. The optional SRF attribute applies on media component basis, not IP flow basis, so how can the P-CSCF indicate to the PDF and the UE that some media components are grouped in the same SRF but the RTCP flows are in another SRF. CN3 would like to ask SA2 an opinion on that.

- *"in Annex A (informative) of 29.208, following sentence can be found "Each pack of IP flow(s) described by a media component must all be carried on the same PDP context" but no enforcement of this policy is described in the document."*

CN3 confirms that no enforcement of this policy is described in their specifications.

- *"SA2 would also like to know CN3 opinion on whether there are procedures that are missing / do not work if RTP and RTCP are sent over different PDP contexts?"*

The actual procedures would allow for RTP and RTCP to be sent over separate PDP context if such separation were possible according to SDP indicators. The only policy in place in R5 is to check the violation of the grouping indicator.

There is however the exception of the removal of media component procedure. In the description of this procedure in 29.207, RTP and RTCP are considered to be in the same PDP context and this procedure does not work if RTP and RTCP are separate in 2 PDP contexts, as only 1PDP context would be removed.

## Action 2: If SA2 understanding is correct, and if felt necessary by CN3, to include a clarification in the relevant specifications

As the RTP/RTCP split involves discussions in several other groups (SA2, RAN2 at least), CN3 decided not to make any changes to its specifications until a final decision is taken in SA2.

## Action 3: To answer to the question(s) in section 1 of the SA2 LS

Done together with action 1.

## 2. Actions:

**To SA2 group:**

**ACTION:** CN3 would like to ask to SA2 how can the P-CSCF indicate to the PDF and the UE that some media components are grouped in the same SRF group but the RTCP flows are in another SRF group.

## 3. Date of Next CN3 Meetings:

| | | |
|---|---|---|
| Tentative CN3#31bis | 29 March- 2 April 2004 | Sophia Antipolis, France |
| CN3#32 | 10-14 May 2004 | Croatia, Zagreb |
| CN3#33 | 16 – 20 Aug 2004 | Sophia Antipolis, France |

| | |
|---|---|
| **Title:** | **LS on early media and IMS/CS interworking** |
| **Response to:** | |
| **Release:** | **Rel-6** |
| **Work Item:** | **IMS-CCR-IWCS** |

| | |
|---|---|
| **Source:** | **CN3** |
| **To:** | **CN1, SA2** |
| **Cc:** | |

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**Attachments:**

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## 1. Overall Description:

CN3 is studying measures required for IMS/CS interworking in Rel-6 to support forking in IMS in a CS originated case. The CS originated case seems to be especially problematic, if early media streams (announcements, etc.) are expected to be received from multiple early IMS sessions.
Problems identified by CN3:

- The MGCF/IM-MGW has no means to know which early session will turn to the final session and, consequently, is unable to connect the corresponding early media stream towards the CS network.
- Connecting multiple early media streams towards the CS network at the same time is also problematic: The capacity/bandwidth limit of the traffic channel probably causes dropping of contents, the receiver (i.e. the calling party) gets mixed and interleaved pieces of early media streams which may be totally incomprehensible.
- Early media streams from IMS, if they exist in an audio/speech session, go on for a while after the final response has been received by the MGCF and block or disturb the media stream of the established session to be sent towards the CS network.

The ringing tone sent by the IM-MGW towards the CS network blocks any possible early media streams from the IMS to be sent to the CS network until the first SIP dialogue becomes final.

CN3 is not aware of real use cases for IMS originated early media in Rel-6 IMS speech/audio calls. If there are no such use cases in Rel-6, there is no need for CN3 to develop measures for handling early media streams in CS originating calls with IMS/CS interworking.

## 2. Actions:

**To CN1 and SA2 group.**

**ACTION:** CN3 asks CN1 and SA2 to clarify, whether there are early media use cases for CS originated audio/speech calls in Rel-6 IMS, and whether CN3 shall define measures for handling early media received from IMS with the IMS/CS interworking. Further, if the early media from the IMS shall be supported, CN3 would like to know, whether CN1 and SA2 are in favour of a certain way to handle the early media in the IM-MGW (refer to the problems described above).

## 3. Date of Next CN3 Meetings:

Tentative CN3#31bis  29<sup>th</sup> March – 02<sup>nd</sup> April 2004     Sophia Antipolis, France.

CN3#32             10<sup>th</sup> – 14<sup>th</sup> May 2004         Zagreb, Croatia.