3GPP TSG-CN Meeting #23 **NP-040089**

10th - 12th March 2004, Phoenix, USA

Source: **3GPP TSG CN2**

Title: **LSs sent from CN2 since TSG CN#22**

Agenda item: **6.2.1**

Document for: **APPROVAL**

This document contains following LSs that are approved by CN2#32 and are forwarded to TSG CN#23 for information:

TDoc #	Type	Title	Source
N2-040110	LS OUT	Reply to LS on IP Flow Based Bearer Level Charging (To: SA2)	CN2
N2-040161	LS OUT	Reply to GSMA IREG on requirement for video telephony (To: GSMA IREG)	CN2
N2-040171	LS OUT	LS to SA5 on the GGSN address to be stored in CDRs (To: SA5)	CN2

3GPP TSG CN WG2 Meeting #32 ***N2-040110***
Atlanta, USA, 16th – 21st February 2004

Title: LS Response on IP Flow Based Bearer Level Charging
Response to: S2-040472
Release: Rel-6
Work Item: CH

Source: CN2
To: SA2
Cc: CN4, CN3, SA5

Contact Person:
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Attachments: none

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1. Overall Description:

CN2 thanks SA2 for their LS (S2-040472) relating to SA2's work on IP Flow Based Charging in TR 23.825.

CN2 has checked the information flows in the associated CR (S2-040488) and has concluded that some of the relevant non-prepay related CAMEL information will be not be provided to the GGSN by this mechanism.

In particular, the Create PDP Context Request is sent before all of the required charging data is present. In the procedure CAMEL_GPRS_PDP_Context_Establishment_Acknowledgement (3GPP TS 23.078) triggering takes place after this request is sent. (see C2 in section 9.2.2.1.1 of 3GPP TS 23.060).

In addition, some S-CDR CAMEL information fields become available during CAP dialogue (e.g. free format charging data, default GPRS handling etc).

CN2 believes that the procedure CAMEL_GPRS_PDP_Context_Disconnection (C1 in section 6.6.1 of 3GPP TS 23.060, MS Initiated Detach Procedure) could provide all of the required information after it has been executed. CN2 does not know if this is feasible from the GTP point of view.

2. Actions:

None

3. Date of Next CN2 Meeting:

CN2 #33	10-14 May 2004	Zagreb, Croatia.

3GPP TSG CN WG2 Meeting #32 ***N2-040161***
Atlanta, USA, 16th – 21st February 2004

Title: Reply to LS on requirement for video telephony
Response to: LS (N2-040087(IREG Doc 46_051)) on requirement for video telephony from 3GPP CN2.

Source: 3GPP CN2
To: GSMA IREG
Cc:

Contact Person:
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Attachments: none.

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1. Overall Description:

CN2 thanks GSMA IREG for the LS provided in N2-040087 (IREG Doc 46_051) and would like to provide the solution of the video telephony interworking issue.

CN2 concluded that the same problem applies also for regular mobile terminating data calls if the gsmSCF tries to order user inter-action.

CN2 agreed to convey Low Layer Compatibility (LLC) in the CAP Initial DP operation of 3GPP Rel-5 and onwards (i.e. CAMEL phase 4).

CAMEL phase 2 (R97 and R98) and phase 3 (R99) specifications have been frozen for a long time and changes to these frozen releases were not agreed in CN2.

It was noted that the problem may exist only when single numbering scheme is used for the called subscriber and the incoming call is either
- an international call, or
- a domestic call from an analogue line.

In the multi-numbering scheme the HLR returns the basic service code to the GMSC and the basic service code is then reported to the gsmSCF. The gsmSCF may use this information.

2. Actions:

To: GSMA IREG group.

ACTION: None

3. Date of Next CN2 Meeting:

CN2 #33	10-14 May	Zagreb, CROATIA

3GPP TSG CN WG2 Meeting #32 ***N2-040171***
Atlanta, USA, 16th – 20th Feb 2004

Title: LS on CAMEL prepay: IP version of the GGSN address
Response to: -
Release: -
Work Item: -

Source: CN2
To: SA5 SWG-B
Cc: CN, CN4

Contact Person:
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Attachments: -

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1. Overall Description:

CAMEL control of GPRS has a requirement to provide a mechanism by means of which operators can correlate a CAMEL service CDR that is produced in the gsmSCF, with the S-CDRs that is produced in the SGSN. This CDR correlation applies per PDP Context. The generation of a CAMEL service CDR is an operator's option.

CDR correlation is achieved by sending relevant information elements from the S-CDR to the gsmSCF. The gsmSCF may place these information elements in a CAMEL service CDR. The CAMEL service CDR and the S-CDR now contain identical information elements to identify a PDP Context.

The information elements used for this purpose are the ***Charging Id*** and the ***GGSN Address***. Refer to table 1 in 3GPP TS 32.215.

The Charging Id is unique per GGSN Address; the GGSN Address is unique within the global IP Address space. Hence, the combination of Charging Id and GGSN Address forms a globally unique identifier for a PDP Context.

The GGSN Address that the SGSN receives from a GGSN and that will be placed in the S-CDR, may be in IP v4 format or in IP v6 format. The GGSN may also return both an IP v4 format address and an IP v6 format address.

The CAMEL protocol between the SGSN and the gsmSCF may transport a IP v4 format GGSN Address or a IP v6 format GGSN Address, but not both at the same time.

The CDR correlation mechanism provided by CAMEL requires that the GGSN Address that is transported to the gsmSCF is identical to the GGSN Address contained in the S-CDR.

2. Question:

CN2 would therefore like to know which format GGSN Address, i.e. IP v4 or IP v6, is placed in the S-CDR in various cases, specifically the following cases:

Case A: Either or both of SGSN and GGSN support IP v4 only. CN2 assumes that in this case, the S-CDR shall contain the IP v4 Address of the GGSN.

Case B: Both SGSN and GGSN support dual IP stack. CN2 is not certain whether the 3GPP charging specifications mandate which IP version GGSN Address shall in this case be placed in the S-CDR.

Case C: Either or both of SGSN and GGSN support IP v6 only.

2. Actions:

To SA5 SWG B group.

ACTION: CN2 kindly asks SA5 SWG B to answer the questions above (cases A-C). If the IP version in the S-CDR is not yet defined, then CN2 encourages SA5 SWG B to clarify this in the charging specifications.

3. Date of Next CN2 Meeting:

CN2 #33	10-14 May	Zagreb, CROATIA