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:
  Name: Keijo Palviainen, Rogier Noldus
  Tel. Number:
  E-mail Address: **Keijo.Palviainen@nokia.com**, **Rogier.Noldus@Ericsson.com**

Attachments: -

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