3GPP TSG CT Meeting #28
Quebec, Canada, 01st – 03rd June 2005.

Tdoc ⌘ CP-050223

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.061** **CR** **162** ⌘ **rev** **2** ⌘ Current version: **6.4.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: | UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network **X**

Title:	⌘	Correction to charging information for MBMS
Source:	⌘	Vodafone
Work item code:	⌘	MBMS
Date:	⌘	02/06/2005
Category:	⌘	**F**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
Ph2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*
Rel-7 *(Release 7)*

Reason for change:	⌘	Extra information elements like IMEI-SV, RAT Type, User Location Information, MS Time Zone, were added to be passed on the Gi interface for charging purposes. However, subscriber charging for MBMS is performed in the BM-SC and therefore SA2 decided in CR 23.246-145r1 (S2-050888) that the same information needs to be passed to the BM-SC during the MBMS Authorization procedure. Therefore, in order to properly perform charging for MBMS services in the BM-SC, this information needs also be transferred on the Gmb interface.
Summary of change:	⌘	Adds parameter transfer of IMEI-SV, RAT Type, User Location Information, MS Time Zone from GGSN to BM-SC over the Gmb interface.
Consequences if not approved:	⌘	Specific information will be missing from the BM-SC that is responsible for the service level charging according to the MBMS stage 2.

Clauses affected:	⌘	17.6.1, 17.7			
Other specs affected:	⌘	**Y**	**N**		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

********** FIRST MODIFIED CLAUSE **********

17.6.1 AAR Command

The AAR command, defined in Diameter NASREQ[67], is indicated by the Command-Code field set to 265 and the 'R' bit set in the Command Flags field. It, is sent by the GGSN to the BM-SC to request user authorization (authorize the activating UE to receive Data) or to register the GGSN for a particular multicast MBMS bearer service.

The relevant AVPs that are of use for the Gmb interface are detailed in the ABNF description below. Other valid AVPs for this command are not used for Gmb purposes and should be ignored by the receiver or processed according to the relevant specifications.

The bold marked AVPs in the message format indicate new optional AVPs for Gmb, or modified existing AVPs.

Message Format:

```
<AA-Request> ::= < Diameter Header: 265, REQ, PXY >
                      < Session-Id >
                      { Auth-Application-Id }
                      { Origin-Host }
                      { Origin-Realm }
                      { Destination-Realm }
                      { Auth-Request-Type }
                      [ Destination-Host ]
                      [ Called-Station-Id ]
                      [ Calling-Station-Id ]
                      [ Framed-IP-Address]
                      [ Framed-IPv6-Prefix ]
                      [ Framed-Interface-Id ]
                    * [ Proxy-Info ]
                    * [ Route-Record ]
                      [ 3GPP-GPRS-Negotiated-QoS-Profile ]
                      [ 3GPP-IMSI]

                      [ RAI ]
                      [ 3GPP-IMEISV ]
                      [ 3GPP-RAT-Type ]
                      [ 3GPP-User-Location-Info ]
                      [ 3GPP-MS-TimeZone ]
```

The GGSN shall allocate a new Session-Id for each time an AAR command is sent.

A request for user authorisation for an MBMS bearer service is indicated by the presence of the MSISDN within the Calling-Station-Id AVP and the 3GPP-IMSI. Otherwise the request is for the GGSN to be authorised (i.e. registered) to receive the MBMS bearer service.

The Framed-IPv6-Prefix AVP contains the IPv6 prefix of the multicast address identifying the MBMS bearer service.

The Framed-Interface-Id AVP contains the IPv6 interface identifier of the multicast address identifying the MBMS bearer service.

The Framed-IP-Address AVP contains the IPv4 multicast address identifying the MBMS bearer service.

The Called-Station-Id AVP contains the Access Point Name (APN) on which the MBMS bearer service authorisation request was received.

********** NEXT MODIFIED SECTION **********

17.7 Gmb specific AVPs

Table 10 describes the Gmb specific Diameter AVPs. The Vendor-Id header of all Gmb specific AVPs defined in the present specification shall be set to 3GPP (10415).

The Gmb specific AVPs require to be supported to be compliant to the present specification. All AVPs in table 10 are mandatory within Gmb interface unless otherwise stated.

Table 10: Gmb specific AVPs

				AVP Flag rules				
Attribute Name	**AVP Code**	**Section defined**	**Value Type**	**Must**	**May**	**Should not**	**Must not**	**May Encr.**
TMGI	900	17.7.2	OctectString	M,V	P			Y
Required-MBMS-Bearer-Capabilities	901	17.7.3	UTF8String	M,V	P			Y
MBMS-StartStop-Indication	902	17.7.5	Enumerated	M,V	P			Y
MBMS-Service-Area	903	17.7.6	OctectString	M,V	P			Y
MBMS-Session-Duration	904	17.7.7	Unsigned32	M,V	P			Y
3GPP-GPRS-Negotiated-QoS-Profile	5	16.4.7 (see Note)	UTF8String	M,V	P			Y
3GPP-IMSI	1	16.4.7 (see Note)	UTF8String	M.V	P			Y
Alternative-APN	905	17.7.8	UTF8String	M,V	P			Y
MBMS-Service-Type	906	17.7.9	Enumerated	M,V	P			Y
3GPP-SGSN-Address	6	16.4.7 (see note)	UTF8String	M, V	P			Y
3GPP-SGSN-IPv6-Address	15	16.4.7 (see note)	UTF8String	M, V	P			Y
MBMS-2G-3G-Indicator	907	17.7.10	Enumerated	M, V	P			Y
MBMS-Session-Identity	908	17.7.11	OctetString	M.V	P			Y
RAI	909	17.7.12	UTF8String	M, V	P			Y
3GPP-IMEISV	20	16.4.7 (see Note)	OctetString	M,V	P			Y
3GPP-RAT-Type	21	16.4.7	OctetString	M,V	P			Y

		(see Note)						
3GPP-User-Location-Info	22	16.4.7 (see Note)	OctetString	M,V	P			Y
3GPP-MS-TimeZone	23	16.4.7 (see Note)	OctetString	M,V	P			Y
NOTE: The use of Radius VSA as a Diameter vendor AVP is described in Diameter NASREQ [67] and the P flag may be set.								

Table 11 lists the set of Diameter AVPs that are not Gmb specific, but are reused from other Diameter applications by the Gmb interface. A reference is done to the specifications where the AVPs are specified. This set of AVPs requires to be supported to be compliant to the present specification.

Table 11: Gmb reused AVPs from other Diameter applications.

AVP Name	Reference
Called-Station-Id	draft-ietf-aaa-diameter-nasreq-17.txt [67]
Calling-Station-Id	draft-ietf-aaa-diameter-nasreq-17.txt [67]
Framed-Interface-Id	draft-ietf-aaa-diameter-nasreq-17.txt [67]
Framed-IP-Address	draft-ietf-aaa-diameter-nasreq-17.txt [67]
Framed-IPv6-Prefix	draft-ietf-aaa-diameter-nasreq-17.txt [67]

NOTE: Diameter Base AVPs are not listed as support of them is mandated by IETF RFC 3588 [66].

********** END OF MODIFICATIONS **********