

Source: TSG CN WG 2
Title: All LSs sent from CN2 since TSG#9 meeting
Agenda item: 6.2.1
Document for: Information

Introduction:

This document contains **2** LSs sent from **TSG CN WG2**, and are forwarded to TSG CN Plenary meeting #10.

Doc-2nd-Level	Subject
N2-000640	Support of CAMEL Phase 1 and/or CAMEL Phase 2 To:SA1, CC:CN
N2-000659	Introduction of GGSN number in CAMEL Phase 3 GPRS Operations To:SA1

CHANGE REQUEST

GSM 02.78 CR ???

rev **-**

Current version: **6.4.0**

Proposed change affects: (U)SIM ME/UE Radio Access Network Core Network

Title:	Support of CAMEL Phase 1 and 2		
Source:	Vodafone		
Work item code:	CAMEL2	Date:	13 th November 2000
Category:	F	Release:	R97
	Use <u>one</u> of the following categories: F (essential 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 <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	It is unclear in the specifications whether a VPLMN or IPLMN can support CAMEL phase 2 without supporting CAMEL phase 1. The specifications do not explain the behaviour of entities if the IPLMN or VPLMN supports CAMEL phase 2 only and the HPLMN supports CAMEL phase 1 only.
Summary of change:	A VPLMN or IPLMN supporting CAMEL phase 2 shall also support CAMEL phase 1.
Consequences if not approved:	A CAMEL phase 1 service (e.g. prepay roaming) cannot be offered to a subscriber roaming in a VPLMN which supports CAMEL phase 2 but not CAMEL phase 1.

Clauses affected:	1	
Other specs affected:	<input checked="" type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	GSM 02.78 R98 and 3G TS 22.078 R99
Other comments:		

***** Modified Section *****

1 Scope

The present document specifies the stage 1 description for the first and the second phase of the CAMEL feature (Customised Applications for Mobile network Enhanced Logic) which provides the mechanisms to support services consistently independently of the serving network. The CAMEL features shall facilitate service control of operator specific services external from the serving PLMN. The CAMEL feature is a network feature and not a supplementary service. It is a tool to help the network operator to provide the subscribers with the operator specific services even when roaming outside the HPLMN.

CAMEL is developed in phases. The following phases exist:

- CAMEL phase 1. This is the default phase in the present document. Sections that are only applicable to phase 1 are characterised with the formal designator - \$(CAMEL1\$);
- CAMEL phase 2. It is characterised where necessary with the formal designation - \$(CAMEL2\$) and sometimes with an indication of CAMEL phase 2. - \$(CAMEL2\$).

A VPLMN or IPLMN supporting CAMEL phase 2 shall also support CAMEL phase 1. -\$(CAMEL2\$).

The CAMEL feature is applicable:

- to mobile originated and mobile terminated call related activities; and
- as a CAMEL phase 2 function, to supplementary service invocations - \$(CAMEL2\$).

The mechanism described addresses especially the need for information exchange among the VPLMN, HPLMN and the CAMEL Service Environment (CSE) for support of such operator specific services. Any user procedures for operator specific services are outside the scope of the present document.

The present document describes the interactions between the functions of the VPLMN, HPLMN, IPLMN and the CSE.

The second phase of CAMEL enhance the capabilities of phase 1 and are included in the present document. Following new topics are added:

- new event detection points were defined;
- it is possible to interact with a user using announcements, voice prompting and information collection via in band interaction or USSD interaction;
- it is possible to control the call duration and to transfer e-values from a serving node to the mobile station;
- the CSE can be informed about the invocation of GSM supplementary services (ECT, CD, MPTY);
- for easy post processing, charging information from a serving node can be integrated in normal call records.

Detailed information can be found in the respective sections.

***** End of Document *****

CHANGE REQUEST

GSM 02.78 CR ??? rev - Current version: 7.0.0

Proposed change affects: (U)SIM ME/UE Radio Access Network Core Network

Title:	Support of CAMEL Phase 1 and 2		
Source:	Vodafone		
Work item code:	CAMEL2		Date: 13 th November 2000
Category:	A		Release: R98
	Use <u>one</u> of the following categories: F (essential 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 <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	It is unclear in the specifications whether a VPLMN or IPLMN can support CAMEL phase 2 without supporting CAMEL phase 1. The specifications do not explain the behaviour of entities if the IPLMN or VPLMN supports CAMEL phase 2 only and the HPLMN supports CAMEL phase 1 only.
Summary of change:	A VPLMN or IPLMN supporting CAMEL phase 2 shall also support CAMEL phase 1.
Consequences if not approved:	A CAMEL phase 1 service (e.g. prepay roaming) cannot be offered to a subscriber roaming in a VPLMN which supports CAMEL phase 2 but not CAMEL phase 1.

Clauses affected:	1	
Other specs affected:	<input checked="" type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	GSM 02.78 R97 and 3G TS 22.078 R99
Other comments:		

***** Modified Section *****

1 Scope

The present document specifies the stage 1 description for the first and the second phase of the CAMEL feature (Customised Applications for Mobile network Enhanced Logic) which provides the mechanisms to support services consistently independently of the serving network. The CAMEL features shall facilitate service control of operator specific services external from the serving PLMN. The CAMEL feature is a network feature and not a supplementary service. It is a tool to help the network operator to provide the subscribers with the operator specific services even when roaming outside the HPLMN.

CAMEL is developed in phases. The following phases exist:

- CAMEL phase 1. This is the default phase in the present document. Sections that are only applicable to phase 1 are characterised with the formal designator - \$(CAMEL1\$)
- CAMEL phase 2. It is characterised where necessary with the formal designation - \$(CAMEL2\$) and sometimes with an indication of CAMEL phase 2. - \$(CAMEL2\$)

A VPLMN or IPLMN supporting CAMEL phase 2 shall also support CAMEL phase 1. -\$(CAMEL2\$).

The CAMEL feature is applicable

- to mobile originated and mobile terminated call related activities;
- and, as a CAMEL phase 2 function, to supplementary service invocations - \$(CAMEL2\$)

The mechanism described addresses especially the need for information exchange among the VPLMN, HPLMN and the CAMEL Service Environment (CSE) for support of such operator specific services. Any user procedures for operator specific services are outside the scope of the present document.

The present document describes the interactions between the functions of the VPLMN, HPLMN, IPLMN and the CSE.

The second phase of CAMEL enhance the capabilities of phase 1 and are included in the present document. Following new topics are added:

- New event detection points were defined.
- It is possible to interact with a user using announcements, voice prompting and information collection via in band interaction or USSD interaction.
- It is possible to control the call duration and to transfer e-values from a serving node to the mobile station.
- The CSE can be informed about the invocation of GSM supplementary services (ECT, CD, MPTY).
- For easy post processing, charging information from a serving node can be integrated in normal call records.

Detailed information can be found in the respective sections.

***** End of Document *****

CHANGE REQUEST

3G TS 22.078 CR ??? rev - Current version: 3.5.0

Proposed change affects: (U)SIM ME/UE Radio Access Network Core Network

Title:	Support of CAMEL Phase 1 and 2		
Source:	Vodafone		
Work item code:	CAMEL2	Date:	13 th November 2000
Category:	A	Release:	R99
	Use <u>one</u> of the following categories: F (essential 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 <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	It is unclear in the specifications whether a VPLMN or IPLMN can support CAMEL phase 2 without supporting CAMEL phase 1. The specifications do not explain the behaviour of entities if the IPLMN or VPLMN supports CAMEL phase 2 only and the HPLMN supports CAMEL phase 1 only.
Summary of change:	A VPLMN or IPLMN supporting CAMEL phase 2 shall also support CAMEL phase 1.
Consequences if not approved:	A CAMEL phase 1 service (e.g. prepay roaming) cannot be offered to a subscriber roaming in a VPLMN which supports CAMEL phase 2 but not CAMEL phase 1.

Clauses affected:	1	
Other specs affected:	<input checked="" type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	GSM 02.78 R97 and GSM 02.78 R98
Other comments:		

***** Modified Section *****

1 Scope

This standard specifies the stage 1 description for CAMEL feature (Customised Applications for Mobile network Enhanced Logic) which provides the mechanisms to support services consistently independently of the serving network. The CAMEL features shall facilitate service control of operator specific services external from the serving PLMN. The CAMEL feature is a network feature and not a supplementary service. It is a tool to help the network operator to provide the subscribers with the operator specific services even when roaming outside the HPLMN.

CAMEL is developed in phases. The following phases exist:

- CAMEL phase 1. This is the default phase in this specification. Text that are only applicable to phase 1 are characterised with the formal designator - \$(CAMEL1\$)
- CAMEL phase 2. It is characterised where necessary with the formal designation - \$(CAMEL2\$) and sometimes with an indication of CAMEL phase 2. - \$(CAMEL2\$)
- CAMEL phase 3. It is characterised where necessary with the formal designation - \$(CAMEL3\$) and sometimes with an indication of CAMEL phase 2. - \$(CAMEL3\$)

A VPLMN or IPLMN supporting CAMEL phase 2 shall also support CAMEL phase 1. -\$(CAMEL2\$).

The CAMEL feature is applicable

- to mobile originated and mobile terminated call related activities;
- as a CAMEL phase 2 function, to supplementary service invocations - \$(CAMEL2\$);
- as a CAMEL Phase 3 function, to SMS MO, to GPRS sessions and PDP contexts, to the control of HLR subscriber data, to the control of network signalling load - \$(CAMEL3\$).

The mechanism described addresses especially the need for information exchange among the VPLMN, HPLMN and the CAMEL Service Environment (CSE) for support of such operator specific services. Any user procedures for operator specific services are outside the scope of this standard.

This specification describes the interactions between the functions of the VPLMN, HPLMN, IPLMN and the CSE.

The second phase of CAMEL enhance the capabilities of phase 1 and are included in this standard. Following capabilities are added:

- Additional event detection points.
- Interaction between a user and service using announcements, voice prompting and information collection via in band interaction or USSD interaction.
- Control of call duration and transfer of Advice of Charge Information to the mobile station.
- The CSE can be informed about the invocation of supplementary services (e.g ECT, CD, MPTY).
- For easy postprocessing, charging information from a serving node can be integrated in normal call records.

The third phase of CAMEL enhances the capabilities of phase 2. Following capabilities are added :

- Support of facilities to avoid overload situations.
- Capabilities to support Dialed Services.
- Capabilities to handle mobility events, such as (Not-)reachability and roaming.
- Control of GPRS sessions and PDP contexts.
- Control of circuit switched mobile originating SMS and packet switched mobile originating SMS.

- Support of SoLSA. Support of Localised Service Area interworking is an optional feature. - \$(CAMEL3\$)
- The CSE can be informed about the invocation of GSM supplementary services (CCBS) - \$(CAMEL3\$)

Detailed information can be found in the respective sections.

****** End of Document ******

Title: Support of CAMEL phase 1 and/or CAMEL phase 2
Source: TSG-CN2 (Vodafone)
To: TSG-SA1
Cc: TSG-CN

Contact Person:

Name: Ruth Hewson
E-mail Address: ruth.hewson@vf.vodafone.co.uk
Tel. Number: +44 1635 673148

1. Overall Description:

TSG-CN2 have discussed the following scenario:

An HPLMN offers an OSS using CAMEL phase 1. The HPLMN supports only CAMEL phase 1. When the subscriber roams to a network that does not support CAMEL, the service cannot be offered. When the subscriber roams to a network that does support CAMEL, the expectation is that the service can be offered to that subscriber. If the visited network supports CAMEL phase 2 only, then the CAMEL phase 1 service can not be offered to the subscriber.

It is not clear from the specifications whether this scenario can occur, as there is no explicit statement indicating that support of CAMEL phase 2 does or does not imply support of CAMEL phase 1.

TSG-CN2 have recognised two possible solutions to this:

- 1) Mandate in the specifications that an IPLMN or VPLMN supporting CAMEL phase 2 shall support CAMEL phase 1.
- 2) State clearly in the specifications that support of CAMEL phase 2 does not necessarily imply support of CAMEL phase 1.

The first option may cause more expense to an operator wishing to support CAMEL phase 2, as they would also need to purchase CAMEL phase 1. However the second option would require an operator wishing to offer CAMEL phase 1 services to subscribers when roaming in CAMEL phase 2 only networks to upgrade to CAMEL phase 2.

TSG-CN2 believes that option 1 is the best solution and the appropriate change requests to GSM 02.78 are attached.

TSG-CN2 realises that this problem strays beyond CAMEL phase 2 and we need to consider the solution for CAMEL phase 3 onwards. The same two options apply:

- 1) Mandate in the specifications that an IPLMN or VPLMN supporting CAMEL phase 'n' shall support all CAMEL phases up to and including 'n'.
- 2) State clearly in the specifications that support of CAMEL phase 'n' does not necessarily imply support of any CAMEL phase lower than 'n'.

The first option would mean that networks supporting CAMEL would always need to maintain CAMEL phase 1 functionality. However the second option could mean that a network supporting CAMEL could not offer their CAMEL services on another network as they have no common CAMEL phase (one network could support phases 1 and 3, the other supporting phases 2 and 4).

2. Actions:

TSG-CN2 asks TSG-SA1 to endorse the decision that an IPLMN or VPLMN supporting CAMEL phase 2 shall also support CAMEL phase 1, and agree the attached change requests.

TSG-CN2 also asks TSG-SA1 for advice on the long-term solution to this problem.

3. Attachments:

N2-000637

N2-000638

N2-000639

CR-Form-v3

CHANGE REQUEST

⌘ **22.078 CR ???** ⌘ rev **-** ⌘ Current version: **3.5.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Introduction of GGSN Address		
Source:	⌘ T-Mobil		
Work item code:	⌘ CAMEL3	Date:	⌘ 14-Nov-00
Category:	⌘ F	Release:	⌘ R99
<p>Use <u>one</u> of the following categories:</p> <p>F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>		<p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)</p>	

Reason for change:	⌘ The Charging ID is only unique together with the Address of the corresponding GGSN. At certain events only the charging ID is reported to the CSE, but not the GGSN Address.
Summary of change:	⌘ The GGSN Address is introduced for Inter Change Of Position PDP Context and PDP Context Establishment Acknowledge.
Consequences if not approved:	⌘ The gsmSCF can not uniquely identify a PDP context by its charging ID. Correlation of PDP contexts with its corresponding CDRs is not possible. ☹

Clauses affected:	⌘ Annex A3		
Other specs affected:	<input checked="" type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	23.078, 29.078, 29.002
Other comments:	⌘		

A.3 GPRS Information provided to the CSE

Table A-3 shows the information that shall be reported to the CSE on various GPRS events. The numbers reflect the applicable CAMEL phase (3).

	Attach	PDP Context Establishment (Initial Service Event)	PDP Context Establishment (Subsequent Service Event)	PDP Context Establishment Ack (Initial Service Event)	PDP Context Establishment Ack (Subsequent Service Event – PDP Context relationship)	PDP Context Establishment Ack (Subsequent Service Event – GPRS Session Relationship I) – note 1	PDP Context Establishment Ack (Subsequent Service Event – GPRS Session relationship II) – note 2
Event met	3	3	3	3	3	3	3
Type of monitoring	-	-	3	-	3	3	3
MSISDN	3	3	-	3	-	-	-
IMSI	3	3	-	3	-	-	-
Service Key	3	3	-	3	-	-	-
Location information, at least to the resolution of Routing Area of the attaching subscriber	3	3	3	3	-	3	-
Time stamp information	3	3	3	3	-	3	-
Time zone information	3	3	3	3	-	3	-
GPRS MS Class (note 3)	3	3	-	3	-	-	-
PDP transport protocol, i.e. IP or X.25	-	3	3	3	-	3	-
Quality of Service (requested)	-	3	3	3	-	3	-
Quality of Service (subscribed)	-	3	3	3	-	3	-
Quality of Service (negotiated)	-	-	-	3	3	3	3
Destination address information	-	3	3	3	-	3	-
GPRS charging ID	-	-	-	3	3	3	3
GGSN Address	-	-	-	3	3	3	3

Table A-3: GPRS Information transferred towards the CSE

Note 1: PDP Context Establishment Ack (Subsequent Service Event – GPRS Session relationship I): The PDP Context Establishment event for this PDP Context has not been reported.

Note 2: PDP Context Establishment Ack (Subsequent Service Event – GPRS Session relationship II): The PDP Context Establishment event for this PDP Context has been reported.

Note 3: GPRS MS Class: Subparameter MS RadioAccessCapability is not supported in UMTS Network.

Table A-4 shows the information that shall be reported to the CSE on the Change of Position events. The numbers reflect the applicable CAMEL phase (3).

Table A-4: GPRS Information reported to the CSE

	Intra Change of Position PDP Context, (Subsequent Service Event)	Intra Change of Position Session (Subsequent Service Event)	Inter Change of Position PDP Context, (Initial Service Event)	Inter Change of Position Session (Initial Service Event)
Event met	3	3	3	3
Type of monitoring	3	3	-	-
MSISDN	-	-	3	3
IMSI	-	-	3	3
Service Key	-	-	3	3
Location information, at least to the resolution of Routing Area of the attached subscriber	3	3	3	3
Time stamp information	-	-	3	3
Time zone information	-	-	3	3
GPRS MS Class (note 1)	-	-	3	3
PDP transport protocol, i.e. IP or X.25	-	-	3	-
Quality of Service (requested)	-	-	3	-
Quality of Service (subscribed)	-	-	3	-
Quality of Service (negotiated)	-	-	3	-
Destination address information	-	-	3	-
GPRS Charging ID	-	-	3	-
GGSN Address	-	-	3	-

Note 1: GPRS MS Class: Subparameter MS RadioAccessCapability is not supported in UMTS Network.

CR-Form-v3

CHANGE REQUEST

⌘ **22.078 CR ???** ⌘ rev **-** ⌘ Current version: **4.0.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Introduction of GGSN Address		
Source:	⌘ T-Mobil		
Work item code:	⌘ CAMEL3	Date:	⌘ 14-Nov-00
Category:	⌘ A	Release:	⌘ REL-4
	<i>Use one of the following categories:</i> F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)		<i>Use one of the following releases:</i> 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900.		

Reason for change:	⌘ The Charging ID is only unique together with the Address of the corresponding GGSN. At certain events only the charging ID is reported to the CSE, but not the GGSN Address.
Summary of change:	⌘ The GGSN Address is introduced for Inter Change Of Position PDP Context and PDP Context Establishment Acknowledge.
Consequences if not approved:	⌘ The gsmSCF can not uniquely identify a PDP context by its charging ID. Correlation of PDP contexts with its corresponding CDRs is not possible. ☹

Clauses affected:	⌘ Annex A3		
Other specs affected:	⌘ <input checked="" type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	23.078, 29.078, 29.002
Other comments:	⌘		

A.3 GPRS Information provided to the CSE

Table A-3 shows the information that shall be reported to the CSE on various GPRS events. The numbers reflect the applicable CAMEL phase (3).

	Attach	PDP Context Establishment (Initial Service Event)	PDP Context Establishment (Subsequent Service Event)	PDP Context Establishment Ack (Initial Service Event)	PDP Context Establishment Ack (Subsequent Service Event – PDP Context relationship)	PDP Context Establishment Ack (Subsequent Service Event – GPRS Session Relationship I) – note 1	PDP Context Establishment Ack (Subsequent Service Event – GPRS Session relationship II) – note 2
Event met	3	3	3	3	3	3	3
Type of monitoring	-	-	3	-	3	3	3
MSISDN	3	3	-	3	-	-	-
IMSI	3	3	-	3	-	-	-
Service Key	3	3	-	3	-	-	-
Location information, at least to the resolution of Routing Area of the attaching subscriber	3	3	3	3	-	3	-
Time stamp information	3	3	3	3	-	3	-
Time zone information	3	3	3	3	-	3	-
GPRS MS Class (note 3)	3	3	-	3	-	-	-
PDP transport protocol, i.e. IP or X.25	-	3	3	3	-	3	-
Quality of Service (requested)	-	3	3	3	-	3	-
Quality of Service (subscribed)	-	3	3	3	-	3	-
Quality of Service (negotiated)	-	-	-	3	3	3	3
Destination address information	-	3	3	3	-	3	-
GPRS charging ID	-	-	-	3	3	3	3
GGSN Address	-	-	-	3	3	3	3

Table A-3: GPRS Information transferred towards the CSE

Note 1: PDP Context Establishment Ack (Subsequent Service Event – GPRS Session relationship I): The PDP Context Establishment event for this PDP Context has not been reported.

Note 2: PDP Context Establishment Ack (Subsequent Service Event – GPRS Session relationship II): The PDP Context Establishment event for this PDP Context has been reported.

Note 3: GPRS MS Class: Subparameter MS RadioAccessCapability is not supported in UMTS Network.

Table A-4 shows the information that shall be reported to the CSE on the Change of Position events. The numbers reflect the applicable CAMEL phase (3).

Table A-4: GPRS Information reported to the CSE

	Intra Change of Position PDP Context, (Subsequent Service Event)	Intra Change of Position Session (Subsequent Service Event)	Inter Change of Position PDP Context, (Initial Service Event)	Inter Change of Position <u>Session</u> (Initial Service Event)
Event met	3	3	3	3
Type of monitoring	3	3	-	-
MSISDN	-	-	3	3
IMSI	-	-	3	3
Service Key	-	-	3	3
Location information, at least to the resolution of Routing Area of the attached subscriber	3	3	3	3
Time stamp information	-	-	3	3
Time zone information	-	-	3	3
GPRS MS Class (note 1)	-	-	3	3
PDP transport protocol, i.e. IP or X.25	-	-	3	-
Quality of Service (requested)	-	-	3	-
Quality of Service (subscribed)	-	-	3	-
Quality of Service (negotiated)	-	-	3	-
Destination address information	-	-	3	-
GPRS Charging ID	-	-	3	-
GGSN Address	-	-	3	3

Note 1: GPRS MS Class: Subparameter MS RadioAccessCapability is not supported in UMTS Network.

3GPP TSG-CN2#15
Paris, France
13th – 17th November, 2000

Tdoc N2-000659

Title: Introduction of GGSN number in CAMEL Phase 3 GPRS Operations
Source: TSG CN WG 2
To: TSG SA WG1

Contact Person:

Name: Steffen Habermann
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Tel. Number: [+492289363324](tel:+492289363324)

TSG CN WG2 have recognised during their meeting in Paris 13 – 17 November 2000, that it is currently not possible in CAMEL Phase 3 to uniquely identify a PDP context at the CSE. This prevents operators correlating the CSE processes for one PDP context after Routing Area Update or it prevents correlation of records created in the CSE with the CDRs created by the SGSN.

To enable PDP Context correlation, a charging ID is already available within GPRS as well as at the CSE. However the charging ID is only unique together with the address of the GGSN that allocated it. The corresponding GGSN address is currently not transferred to the CSE.

TSG CN WG2 have agreed CRs against CAMEL specifications introducing the GGSN Address for the PDP Context Establishment Acknowledge and Change Of Position PDP Context event reports.

TSG CN WG2 asks TSG SA WG1 to consider the attached CRs against 3G TS 22.078 (R99 and R4), proposing the introduction of the GGSN Address, for approval at the next SA Plenary.

Attached:



N2-000648.doc



N2-000649.doc