3GPP TSG CN Plenary Meeting #16 Marco Island, USA, $5^{th} - 7^{th}$ June 2002

Source:TSG CN WG2Title:CRs on R97 Work Item CAMEL2, Pack 1Agenda item:7.1Document for:APPROVAL

Introduction:

This document contains a CR on R97 WI CAMEL2 and mirror CRs for R98, R99 and Rel-4. These CRs have been agreed by TSG CN WG2 and are forwarded to TSG CN Plenary meeting #16 for approval.

Spec	CR	Rev	Doc-2nd-Level	Phase	Subject	Cat	Ver_C
03.78	A170	2	N2-020441	R97	Clarification in the case multiple RRBs are sent for a DP	F	6.10.0
03.78	A171	1	N2-020451	R98	Clarification in the case multiple RRBs are sent for a DP	A	7.7.0
23.078	398	1	N2-020452	R99	Clarification in the case multiple RRBs are sent for a DP	A	3.12.0
23.078	399	1	N2-020453	Rel-4	Clarification in the case multiple RRBs are sent for a DP	A	4.4.0

	r, o April – 12 April 2002 CR-Form-v5.1									
	CHANGE REQUEST									
ж	03.78 CR A170 # rev 2 ^{# Current version:} 6.A.0 [#]									
For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols.										
Proposed change a	ffects: 第 (U)SIM ME/UE Radio Access Network Core Network X									
Title: #	Clarification in the case multiple RRBs are sent for a DP.									
Source: #	Siemens AG									
Work item code: Ж	CAMEL2 Date: # 11 April 2002									
Reason for change	Request Report BCSM Event IF before this event occurs is not mentioned in the specification. One gsmSSF may return error, and the other may accept and overwrite the current setting by the new RRB. Various interpretation would cause interworking problem in the multivendor environment.									
Summary of chang	e: # In general, the lastest RRB overwrites the previous RRB for this DP. A health warning is proposed that, if a RRB contaied Application Timer IE for No_Answer DP, overwriting by a new RRB leads an unpredictable behaviour of the gsmSSF.									
Consequences if not approved:	# Interworking problem may occur, especially in the multi-vendor environment.									
Clauses affected:	¥ 5, 9									
Other specs affected:	# Other core specifications # Test specifications O&M Specifications									
Other comments:	X									

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5 Detection Points (DPs)

5.1 Definition and description

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5.1.1 Arming/disarming mechanism

The mechanism by which the DP is armed. A DP may be statically armed or dynamically armed.

The following arming rules apply:

- DP for mobile terminating call handling is statically armed in GMSC as result of T-CSI delivery from HLR. DP for forwarding leg handling is statically armed in GMSC as result of O-CSI delivery from HLR. DP for mobile originating call or forwarded leg handling is statically armed in VMSC as result of O-CSI delivery from VLR.
- A DP is dynamically armed by the gsmSCF within the context of a CAMEL control relationship (between the gsmSSF and the gsmSCF).
- A Request Report BCSM Event information flow for a detection point for a leg overwrites any previous Request Report BCSM Event information flow for that detection point for that leg.

The following disarming rules apply:

- A statically armed DP is disarmed when a O/T-CSI is withdrawn in the HLR. Only TDP-Rs can be disarmed using this mechanism.
- If an armed EDP is met, then it is disarmed.
- If an EDP is met that causes the release of the related leg, then all EDPs related to that leg are disarmed.
- If a call is released, then all EDPs related to that call are disarmed.
- If an EDP is met, then other EDPS are disarmed, in accordance with the implicit disarming rule table (see section 7.4).
- If an EDP is armed, it can be explicitly disarmed by the gsmSCF by means of the RequestReportBCSMEvent information flow.

*** First modified part ***

9.2.12 Request Report BCSM Event

9.2.12.1 Description

This IF is used to request the gsmSSF to monitor for a call-related event, then send a notification back to the gsmSCF when the event is detected (see Event Report BCSM).

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9.2.12.2 Information Elements

The following information elements are used:

Information element name	MO	MF	MT	Description
BCSM Event	М	М	М	This IE specifies the event or events of which a report is
				requested.
				· · ·

M Mandatory (The IE shall always be sent)

BCSM Event contains the following information:

Information element name	MO	MF	МТ	Description
Event type	Μ	Μ	Μ	This IE specifies the type of event of which a report is requested.
Leg ID	С	С	С	This IE indicates the party in the call for which the event shall be
				reported.
Monitor Mode	М	Μ	Μ	This IE indicates how the event shall be reported.
DP Specific Criteria	0	0	0	This IE is described in the next table.

M Mandatory (The IE shall always be sent)

- C Conditional
- O Optional (Service logic dependent)

DP Specific Criteria is defined as:

Information element name	MO	MF	MT	Description
Application Timer	0	0	0	This IE carries additional timer duration information (timer values for No Answer event) required for arming No_Answer EDPs in the gsmSSF. The TNRy timer (value defined between 10s and 40s) shall be shorter than the network no answer timer.

O Optional (Service logic dependent)

<u>NOTE:</u> If a Request Report BCSM Event information flow overwrites previous Request Report BCSM Event information flow which contained Application Timer IE for No_Answer DP, the behaviour of the gsmSSF is unpredictable.

	1, 8 April – 12 April 2002 CR-Form-v5.1									
ж	03.78 CR A171 * rev 1 ^{* Current version:} 7.7.0 [*]									
For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols.										
Proposed change a	affects: 第 (U)SIM ME/UE Radio Access Network Core Network X									
Title: ೫	Clarification in the case multiple RRBs are sent for a DP.									
Source: ೫	Siemens AG									
Work item code: %	CAMEL2 Date: # 12 April 2002									
	A Release: % R98 se one of the following categories: Use one of the following releases: F (correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (addition of feature), R97 (Release 1997) C (functional modification of feature) R98 (Release 1998) D (editorial modification) R99 (Release 1999) etailed explanations of the above categories can REL-4 (Release 4) e found in 3GPP TR 21.900. REL-5 (Release 5) % The handling if a DP is armed, either as EDP-R or EDP-N, several times by the Request Report BCSM Event IF before this event occurs is not mentioned in the specification. One gsmSSF may return error, and the other may accept and overwrite the current setting by the new RRB. Various interpretation would cause interworking problem in the multivendor environment.									
Summary of chang	A health warning is proposed that, if a RRB contained Application Timer IE for No_Answer DP, overwriting by a new RRB leads an unpredictable behaviour of the gsmSSF.									
Consequences if not approved:	# Interworking problem may occur, especially in the multi-vendor environment.									
Clauses affected:	¥ 5,9									
Other specs affected:	% Other core specifications % Test specifications 0&M Specifications									
Other comments:	¥									

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5 Detection Points (DPs)

5.1 Definition and description

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5.1.1 Arming/disarming mechanism

The mechanism by which the DP is armed. A DP may be statically armed or dynamically armed.

The following arming rules apply:

- DP for mobile terminating call handling is statically armed in GMSC as result of T-CSI delivery from HLR. DP for forwarding leg handling is statically armed in GMSC as result of O-CSI delivery from HLR. DP for mobile originating call or forwarded leg handling is statically armed in VMSC as result of O-CSI delivery from VLR.
- A DP is dynamically armed by the gsmSCF within the context of a CAMEL control relationship (between the gsmSSF and the gsmSCF).
- A Request Report BCSM Event information flow for a detection point for a leg overwrites any previous Request Report BCSM Event information flow for that detection point for that leg.

The following disarming rules apply:

- A statically armed DP is disarmed when a O/T-CSI is withdrawn in the HLR. Only TDP-Rs can be disarmed using this mechanism.
- If an armed EDP is met, then it is disarmed.
- If an EDP is met that causes the release of the related leg, then all EDPs related to that leg are disarmed.
- If a call is released, then all EDPs related to that call are disarmed.
- If an EDP is met, then other EDPS are disarmed, in accordance with the implicit disarming rule table (see section 7.4).
- If an EDP is armed, it can be explicitly disarmed by the gsmSCF by means of the RequestReportBCSMEvent information flow.

*** First modified part ***

9.2.12 Request Report BCSM Event

9.2.12.1 Description

This IF is used to request the gsmSSF to monitor for a call-related event, then send a notification back to the gsmSCF when the event is detected (see Event Report BCSM).

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9.2.12.2 Information Elements

The following information elements are used:

Information element name	MO	MF	MT	Description
BCSM Event	М	М	М	This IE specifies the event or events of which a report is
				requested.
				· · ·

M Mandatory (The IE shall always be sent)

BCSM Event contains the following information:

Information element name	MO	MF	МТ	Description
Event type	Μ	Μ	Μ	This IE specifies the type of event of which a report is requested.
Leg ID	С	С	С	This IE indicates the party in the call for which the event shall be
				reported.
Monitor Mode	М	Μ	М	This IE indicates how the event shall be reported.
DP Specific Criteria	0	0	0	This IE is described in the next table.

M Mandatory (The IE shall always be sent)

- C Conditional
- O Optional (Service logic dependent)

DP Specific Criteria is defined as:

Information element name	MO	MF	MT	Description
Application Timer	0	0	0	This IE carries additional timer duration information (timer values for No Answer event) required for arming No_Answer EDPs in the gsmSSF. The TNRy timer (value defined between 10s and 40s) shall be shorter than the network no answer timer.

O Optional (Service logic dependent)

<u>NOTE:</u> If a Request Report BCSM Event information flow overwrites previous Request Report BCSM Event information flow which contained Application Timer IE for No_Answer DP, the behaviour of the gsmSSF is unpredictable.

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4.2.1.1 Arming/disarming mechanism

The mechanism by which the DP is armed. A DP may be statically armed or dynamically armed.

The following arming rules apply:

- DP for mobile terminating call handling is statically armed in GMSC as result of T-CSI delivery from HLR. DP for mobile terminating call handling is statically armed in VMSC as result of VT-CSI delivery from VLR. DP for forwarding leg handling is statically armed in GMSC as result of O-CSI and/or D-CSI delivery from HLR. DP for mobile originating call or forwarded leg handling is statically armed in VMSC as result of O-CSI and/or D-CSI and/or D-CSI and/or D-CSI delivery from VLR.
- A DP is dynamically armed by the gsmSCF within the context of a CAMEL control relationship (between the gsmSSF and the gsmSCF).
- A Request Report BCSM Event information flow for a detection point for a leg overwrites any previous Request Report BCSM Event information flow for that detection point for that leg.

The following disarming rules apply:

- A statically armed DP is disarmed when a O-CSI, D-CSI, T-CSI or VT-CSI is withdrawn in the HLR. Only TDP-Rs can be disarmed using this mechanism.
- If an armed EDP is met, then it is disarmed.
- If an EDP is met that causes the release of the related leg, then all EDPs related to that leg are disarmed.
- If a call is released, then all EDPs related to that call are disarmed.
- If an EDP is met, then other EDPS are disarmed, in accordance with the implicit disarming rule table (see clause 4.4.4).
- If an EDP is armed, it can be explicitly disarmed by the gsmSCF by means of the RequestReportBCSMEvent information flow.

*** Next modified part ***

4.6.2.14 Request Report BCSM Event

4.6.2.14.1 Description

This IF is used to request the gsmSSF to monitor for a call-related event, then send a notification back to the gsmSCF when the event is detected (see Event Report BCSM).

4.6.2.14.2 Information Elements

The following information elements are used:

Information element name	Information element name MO		MT	VT	Description					
BCSM Event	Μ	Μ	М	М	This IE specifies the event or events of which a report is requested.					
M Mandatory (The IE shall always be sent).										

BCSM Event contains the following information:

Information element name	MO	MF	MT	VT	Description				
Event type	М	М	М	М	This IE specifies the type of event of which a report is requested.				
Leg ID	С	С	С	С					
Monitor Mode	М	М	М	М	When this IE is "interrupted", the event shall be reported as a request, if it is "notifyAndContinue", the event shall be reported as a notification, if the IE is "transparent", the event shall not be reported.				
DP Specific Criteria	0	0	0	0	This IE is described in the next table.				
C Conditional.	Mandatory (The IE shall always be sent).								

DP Specific Criteria is defined as:

Information element name	MO	MF	MT	VT	Description				
Application Timer	0	0	0		This IE carries additional timer duration information (timer values for No Answer event) required for arming No_Answer EDPs in the gsmSSF. The TNRy timer (value defined between 10 s and 40 s) shall be shorter than the network no answer timer.				
O Optional (Service logic	Optional (Service logic dependent).								
NOTE If a Request Report B	If a Request Report BCSM Event information flow overwrites previous Request Report BCSM Event								
information flow which	information flow which contained Application Timer IE for No. Answer DP, the behaviour of the gsmSSF is								
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Clauses affected:	ж	4													
Other specs affected:	Ħ	Te	st spec	e specificification	S	IS	ж								
Other comments:	ж														

4.2.1.1 Arming/disarming mechanism

The mechanism by which the DP is armed. A DP may be statically armed or dynamically armed.

The following arming rules apply:

- DP for mobile terminating call handling is statically armed in GMSC as result of T-CSI delivery from HLR. DP for mobile terminating call handling is statically armed in VMSC as result of VT-CSI delivery from VLR. DP for forwarding leg handling is statically armed in GMSC as result of O-CSI and/or D-CSI delivery from HLR. DP for mobile originating call or forwarded leg handling is statically armed in VMSC as result of O-CSI and/or D-CSI and/or D-CSI and/or D-CSI delivery from VLR.
- A DP is dynamically armed by the gsmSCF within the context of a CAMEL control relationship (between the gsmSSF and the gsmSCF).
- A Request Report BCSM Event information flow for a detection point for a leg overwrites any previous Request Report BCSM Event information flow for that detection point for that leg.

The following disarming rules apply:

- A statically armed DP is disarmed when a O-CSI, D-CSI, T-CSI or VT-CSI is withdrawn in the HLR. Only TDP-Rs can be disarmed using this mechanism.
- If an armed EDP is met, then it is disarmed.
- If an EDP is met that causes the release of the related leg, then all EDPs related to that leg are disarmed.
- If a call is released, then all EDPs related to that call are disarmed.
- If an EDP is met, then other EDPS are disarmed, in accordance with the implicit disarming rule table (see clause 4.4.4).
- If an EDP is armed, it can be explicitly disarmed by the gsmSCF by means of the RequestReportBCSMEvent information flow.

*** Next modified part ***

4.6.2.14 Request Report BCSM Event

4.6.2.14.1 Description

This IF is used to request the gsmSSF to monitor for a call-related event, then send a notification back to the gsmSCF when the event is detected (see Event Report BCSM).

4.6.2.14.2 Information Elements

The following information elements are used:

Information element name	MO	MF	MT	VT	Description			
BCSM Event	Μ	Μ	М	М	This IE specifies the event or events of which a report is requested.			
M Mandatory (The IE shall always be sent).								

BCSM Event contains the following information:

Information element name	MO	MF	MT	VT	Description
Event type	М	М	М	М	This IE specifies the type of event of which a report is requested.
Leg ID	С	С	С	С	This IE indicates the party in the call for which the event shall be reported.
Monitor Mode	М	М	М	М	When this IE is "interrupted", the event shall be reported as a request, if it is "notifyAndContinue", the event shall be reported as a notification, if the IE is "transparent", the event shall not be reported.
DP Specific Criteria	0	0	0	0	This IE is described in the next table.
M Mandatory (The IE sh C Conditional. O Optional (Service logi					

DP Specific Criteria is defined as:

Information element name	MO	MF	MT	VT	Description				
Application Timer	0	0	0		This IE carries additional timer duration information (timer values for No Answer event) required for arming No_Answer EDPs in the gsmSSF. The TNRy timer (value defined between 10 s and 40 s) shall be shorter than the network no answer timer.				
O Optional (Service logi	Optional (Service logic dependent).								
NOTE If a Request Report B	If a Request Report BCSM Event information flow overwrites previous Request Report BCSM Event								
information flow which	information flow which contained Application Timer IE for No Answer DP, the behaviour of the gsmSSF is								
unpredictable.	unpredictable.								