3GPP TSG CN Plenary Meeting #19
12th - 14th March 2003. Birmingham, U.K.

NP-030083

Source:	**MCC**
Title:	**TSG CN WG2#28 Draft Meeting Report v1.1.0**
Agenda item:	**6.2.1**
Document for:	**INFORMATION**

DRAFT Meeting Report, version 1.~~0~~1.~~1~~0

TSG CN WG2#28
Ireland, Dublin

10 February – 15 February, 2003

Chairman: Keijo Palviainen (Nokia)

MCC support: Andrijana Jurisic(ETSI)

Host: "The European friends of 3GPP"

CN2/CN4 Joint meeting minutes	Annex A
List of participants:	Annex B
Output documents	Annex C
Tdoc list (incl. the status)	Annex D

Documents could be found on the 3GPP-server:

ftp://ftp.3gpp.org/TSG_CN/WG2_camel/Plenary/TSGN2_28_Dublin/Docs

1 Opening of the meeting and approval of the agenda

N2-030001 : CN2 chairman, Title: Proposed meeting agenda

Discussion:

Conclusion: approved

2 Allocation of documents to agenda items

N2-030002: CN2 chairman, Title: Allocation of documents to agenda items

Discussion:

Conclusion: noted

N2-030003: CN2 chairman, Title: CN2-CN4 Joint meeting Tdoc list

Discussion:

Conclusion: noted

3 Reports

N2-030005: MCC, Title: CN2#27 Draft Meeting Report

Discussion :

Conclusion: approved

N2-030006: MCC, Title: CN#18 Draft Meeting Report

Discussion: Concluded following:

- No editorial CRs allowed for Rel-5 anymore.
- ASN.1 CRs which correct errors preventing proper compilation are considered essential corrections and allowable.
- Although not formally approved, CN endorsed work on "Enhanced dialled services for CAMEL". CN2 should agree the WIDs for presentation at CN#19. SA1 WID was approved at SA#18.
- The CN2 and CN4 feedback that a merge will probably not be possible in 2003 was reported to CN plenary and this will be conveyed to PCG. WG chairs are requested to compile statistics on the overlap of delegates between IMS and non-IMS work.

Conclusion: noted

4 Input Liaison Statements

N2-030008: Source: SA1, Type: LS IN, Title: LS on Enhanced Dialled Services

Discussion: Outdated document since the SA plenary has approved the service requirement for Enhanced Dialled Services in Release 6.

Conclusion: noted

N2-030009: Source: SA2, Type: LS IN , Title: LS on SMS over PS in Iu mode

Discussion: SA2 is pleased to inform CN2 and T2 that a CR to 23.060 has been approved to solve the lack of specification of the CAMEL procedure calls in relation to SMS over the PS domain in Iu mode, as identified by CN2 in a previous LS (N2-020898). The approved CR 418 to 23.060 is attached for information (S2-023321).

SA2 would also like to point out that the changes have been approved for Release 5 onwards. Given the similarity of the handling of point-to-point SMS over the PS domain in GSM and UMTS, despite the incompleteness of the specification for UMTS in R'99 and R4, it is likely that a proper implementation of the CAMEL procedure calls in UMTS can be achieved by reading the description for GSM; hence the correction was not considered essential for releases earlier than Release 5.

Conclusion: noted

N2-030010: Source: SA2, Type: LS IN, Title: Response on CN2 conclusion on CAMEL_PS_Notification procedure

Discussion: SA2 kindly asks CN2 group to verify whether the changes to TS 23.060 are in line with their specifications, especially with regard to the sequence of the procedure calls, and inform SA2 when CN2 identify any problems.

CN2 will send a response to SA2 in LS in Tdoc N2-030099 indicating that there is no problem in the specification.

Conclusion: noted

N2-030099: Source: SA2, Type: LS OUT, Title: LS on CAMEL_PS_Notification procedure

Discussion: CN2 is pleased to inform SA2 that the changes to TS 23.060 in the CR are in line with the related CAMEL specification TS 23.078, including their concerned issue with regard to the sequence of the procedure calls.

Conclusion: approved, will be sent to SA2 as source CN2

5 Work item management & miscellaneous

Status of CN2 specifications and drafts

Type	Number	Title	Rel	curent vers	WG	rapporteur
TS	03.78	CAMEL Phase 1; Stage 2	R1996	5.8.0	N2	LANTELME, Isabelle
TS	03.78	CAMEL Phase 2; Stage 2	R1997	6.11.1	N2	LANTELME, Isabelle
TS	03.78	CAMEL Phase 2; Stage 2	R1998	7.8.1	N2	LANTELME, Isabelle
TS	09.78	CAMEL Application Part phase 1 (stage 3)	R1996	5.7.0	N2	NOLDUS, Rogier
TS	09.78	CAMEL Application Part phase 2 (stage 3)	R1997	6.5.0	N2	NOLDUS, Rogier
TS	09.78	CAMEL Application Part phase 2 (stage 3)	R1998	7.1.0	N2	NOLDUS, Rogier
TR	21.978	Feasibility Technical Report – CAMEL Control of VoIP Services	R1999	3.0.0	N2	SMITH, David
TS	23.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3 - Stage 2	R1999	3.15.0	N2	HOMANN, Christian
TS	23.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3 - Stage 2	Rel-4	4.7.0	N2	HOMANN, Christian
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3; CAMEL Application Part (CAP) specification	R1999	3.14.0	N2	NOLDUS, Rogier
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3; CAMEL Application Part (CAP) specification	Rel-4	4.7.0	N2	NOLDUS, Rogier
TS	23.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 4 - Stage 2	Rel-5	5.2.0	N2	SUMIO, Myagava
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase; CAMEL Application Part (CAP) specification	Rel-5	5.2.0	N2	NOLDUS, Rogier
TS	23.278	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 4 - Stage 2; IM CN Interworking	Rel-5	5.1.0	N2	Angelica Remoquillo
TS	29.278	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 4;CAMEL Application Part (CAP) specification for IP Multimedia Subsystems (IMS)	Rel-5	5.1.0	N2	Angelica Remoquillo

5.1 IPR call reminder

Reminder to Individuals Members and the persons making the technical proposals about their obligations under their respective Organizational Partners IPR Policy.

The chairman announced an IPR declaration. IPRs do not need to be declared at the WG meeting but should go to the respective organization.

5.2 Work Item (WI) status review

N2-030007: Source: MCC, Type: WP, Title: Latest version of the work plan

Discussion: Enhanced dialled services for CAMEL in Release 6 will be included in the next version of the work plan.

Conclusion: noted

N2-030004: Source: CN2 chairman, Type: Discussion document, Title: Query on interest area of delegates

Discussion: The CN#18 decided to collect information about over-lap in interest areas. The collected information will be used when discussing the structure of CN work, especially CN2 and CN4. If there is no overlapping then IMS work and non-IMS work may be distributed into different working groups or IMS work may be in parallel sessions.

IMS CAMEL work is work regarding to 3GPP TS 23.278 and 29.278, and non-IMS work is any work regarding to 23.078 and 29.078 (CAMEL phases 1-4 except IMS).

A new editor will be needed for TS 23.278 and TS 29.278. Later on, it was found acceptable that the editor does not participate in CN2 meetings but does the editing based on approved documents. Thus Angelica Remoquillo (Lucent) can continue.

The result of the questionary is following:

- 10 delegates follow non-IMS pre-Rel-6 CAMEL work.
- 7 delegates follow IMS CAMEL work (all releases).
- 6 delegates follow both non-IMS and IMS work.
- 14 delegates follow and will follow Rel-6 and onwards CAMEL development.

Half of the group follows both topic IMS and non-IMS CAMEL.

6 Maintenance of earlier CAMEL phases

6.1 CAMEL phase 1

6.2 CAMEL phase 2

7 CAMEL3, Resolution of outstanding issues for Release 99

7.1 CAMEL3, Miscellaneous

N2-030034: TS.078, R99, Source: Alcatel, Type: CR, CR#299, Title: ASN.1 syntax basic corrections

***Discussion*:** Subcategory is “essential corrections”. Reference in “other comments” field is incorrect (should be TS 29.278 instead of TS 23.278).

CAP modules still use CCITT instead of ITU , therefore 3 changes needed to correct this (ASN.1 compiler reports warning during compilation)

Conclusion: revised to N2-030100

N2-030100: TS.078, R99, Source: Alcatel, Type: CR, CR#299, Title: ASN.1 syntax basic corrections

***Discussion*:**

Conclusion: approved without presentation

N2-030035: TS.078, Rel-4, Source: Alcatel, Type: CR, CR#300, Title: ASN.1 syntax basic corrections

***Discussion*:**

Conclusion: approved

N2-030025: TS 23.078, R99, Source: Ericsson, Type: CR, CR#521, Title: Correction to SRI Information Flow

***Discussion*:** In the Information Flow table of SRI ACk, it is proposed add to the T-CSI Information Element the DP Criteria. Specific conditions should be described in the table. "C1" should specify the condition "the HLR shall send only the criteria associated with DP T_Busy or DP T_No_Answer, if available".

- S is correct specifier for Rel-5 CR.

- The reference will be corrected from 4.3.3 to 4.3.4.

- Subcategory should be marked as "essential correction".

- Rel4 and Rel5 mirror CRs are needed.

Conclusion: revised to N2-030115

N2-030115: TS 23.078, R99, Source: Ericsson, Type: CR, CR#521r1, Title: Correction to SRI Information Flow

***Discussion*:**

Conclusion: approved without presentation

N2-030116: TS 23.078, Rel-4, Source: Ericsson, Type: CR, CR#543, Title: Correction to SRI Information Flow

***Discussion*:** mirror CR

Conclusion: approved without presentation

N2-030117: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#544, Title: Correction to SRI Information Flow

***Discussion*:** mirror CR

Conclusion: approved without presentation

N2-030127/N4-030182: TS 23.018, R99, Orange, Type: CR, Title: Correction to wrong implementation of approved CR 089r2 and 096

Discussion: This CR has the same content as originally approved CRs (N4-011412 and N4-021033). Potentially mirror CRs for Rel-4 and Rel-5 are needed. This has to be checked. WI could be checked as well (could be CAMEL3).

"Clauses affected" and "Other specifications affected" boxes should be filled.

Conclusion: CN2 noted, CN4 e-mail approval (result of e-mail approval will be noted after deadline)

N2-030136/N4-030134: TS 29.002, R99, Ericsson L.M., Type: CR, Title: Incorrect handling of TDP-Criteria for VT-CSI

Discussion: When the VLR receives TDP-Criteria for VT-CSI, it shall check if VT-CSI is available for that subscriber. If not, VLR shall send the error "Data Missing". The definition under "VLR CAMEL Subscription Info" is changed in order to cover this situation.

This CR covers the case when the HLR sends data that are not correct or not expected.

Vodafone finds that this is not essential correction for R99. Nortel, Nokia, Siemens object this CR for all releases.

Conclusion: withdrawn

N2-030137/N4-030135: TS 29.002, Rel-4, Ericsson L.M., Type: CR, Title: Incorrect handling of TDP-Criteria for VT-CSI

Discussion:

Conclusion: withdrawn

N2-030138/N4-030136: TS 29.002, Rel-5, Ericsson L.M., Type: CR, Title: Incorrect handling of TDP-Criteria for VT-CSI

Discussion:

Conclusion: withdrawn

N2-030139/N4-030137: TS 29.002, Rel-6, Ericsson L.M., Type: CR, Title: Incorrect handling of TDP-Criteria for VT-CSI

Discussion:

Conclusion: withdrawn

7.2 CAMEL3/ATM&ATSI

7.3 CAMEL3/GPRS

N2-030011: Source: Vodafone, Type: Discussion document, Title: Handling of AC and ACR in GPRS (revision of N2-021032)

Discussion: At the previous meeting, Vodafone presented Tdoc N2-021022 containing questions on the handling of AC and ACR in GPRS. CN2 answered the questions listed in this document, but agreement was not reached on the example information flow. The paper has been revised, and is presented again for discussion and agreement

Ericsson: Clarification should be included, that the reported value may be higher than the threshold that has been sent by SCP.

CN2 agreed that the concept is correct in this document. A CR to Rel-5 will be introduced with informative text. Vodafone will try to includeEricsson's comment in the CR in document N2-030101.

Conclusion: noted

N2-030101: TS 23.078, Source: Vodafone, Type: CR, CR#542, Title: Handling of AC and ACR for GPRS

Discussion: This CR is a result of N2-030011. The threshold could also exceed due to packet size and this shall be an example. CR number should be corrected.

Conclusion: revised to N2-030152

N2-030152: TS 23.078, Source: Vodafone, Type: CR, CR#542r1, Title: Handling of AC and ACR for GPRS

Discussion:

Conclusion: approved without presentation

N2-030063: TS 23.078, Rel-5, Type: CR, CR#533, Source: Nokia, Title: Buffering of TC messages in the SGSN while waiting for the first SCP response

Discussion: Message box, output "all saved signals" from gprsSSF should be removed from SDL sheet 1(3) of Process GPRS_Dialogue_Handler before going to state "active". All saved messages are always checked in the active state anyway.

Ericsson finds that the principle in this document is correct. Alcatel does not like the principle presented in this CR (the external behaviour towards SCP is correct, but internal behaviour is not).

Vodafone: Active and opening state name should be in separate boxes? Nokia will change this and introduce an extension box.

In the cover sheet, under item 10, correct behaviour will be described.

Conclusion: revised to N2-030102

N2-030102: TS 23.078, Rel-5, Type: CR, CR#533r1, Source: Nokia, Title: Buffering of TC messages in the SGSN while waiting for the first SCP response

Discussion: When we receive TC_Abort and TC_End messages from SCP, we discard saved messages (GPRS dialogue handler sheet 2(3).

Conclusion: revised to N2-030154

N2-030154: TS 23.078, Rel-5, Type: CR, CR#533r2, Source: Nokia, Title: Buffering of TC messages in the SGSN while waiting for the first SCP response

Discussion:

Conclusion: approved without presentation

7.4 CAMEL3/MO SMS

N2-030049: TS 29.002, R99, Source: Vodafone, Type: CR, Title: Correction to interactions between CAMEL control of MO SMS and barring

Discussion:
Ericsson commented on e-mail exploder: How is it in Tdoc N2-030049 reflected that MSC/VLR shall check the unconditional barring checks before CAMEL invocation and the conditional barring checks after CAMEL invocation? (refer TS 23.078, sect. 7.4.2.1.1). According to Ericsson, the parameter "Suppress O-CSI" in MAP SEND_INFO_FOR_MO_SMS would be used for that purpose.
Should that be reflected in the SDL (Process MOSM_VLR)?
Vodafone: The sequence of processing is modeled as following:
- CAMEL handling, which can lead to change of the service center address, then
- check of barring (at the moment, only ODB), which takes in both BAOC and BOIC/BOIC-exHC

On the processing in the SGSN (see 29.002 chapter 23.2.4), it is less than optimal to have the CAMEL dialogue and then block the submission because of BAOC, but it is also important that the user's perception is consistent between PS and CS transport. If it is seen as really important to do the BAOC check (both SS barring and ODB) *before* the CAMEL dialogue, then we should do it for both PS and CS.

Ericsson: TS 23.078 specifies already as from R99, in section 7.4.2.1.1, that the unconditional ODB check (and CB SS in Rel-5) shall be done before the MO-SMS CAMEL service. And then after the CAMEL service, the conditional ODB categories (and CB SS in Rel-5) shall be checked.
Depending on the views of the vendors, it may mean adapting the text in TS 23.078 (to be in line with TS 29.002, including the SDL corrections) or adapting the SDL, to be in line with the text in TS 23.078.

Vodafone: We need to think about how to align the descriptions of behavior in 23.078 and 29.002 (to align with the way it's described in 29.002 or the way it's described in 23.078); however we should keep the principle that we should do the same for CS domain (SMS via the MSC/VLR) and PS domain (SMS via the SGSN).
Ericsson: Since we've had the sequence of (1) unconditional barring, (2) CAMEL MO-SMS, (3) conditional barring as from 3GPP R99, we shall align the SDL with that behavior.

Comments:

Alcatel: Shall we align MAP specification to CAMEL stage 2?

Ericsson: We should correct SDLs in alignment what we have in stage 2. User perspective should be the same. The impact to SDL should not be too major and we should retain R99 functionality. Siemens has concern about aligning with CAMEL stage 1.

Alcatel: MSC waits for SMSC response in case of user abandon (“if the MSC receives a Release indication from the A-interface, it aborts the dialogue with the SMS-IWMSC and reports to the gsmSCF that the short message submission has failed, and the process terminates”)

Ericsson: for CS either we use different message name, or we indicate TS in which message has been expected to be received. Will be checked by Vodafone.

Conclusions:

- Unconditional barring should be checked before triggering and conditional barring should be checked after triggering.

- MAP dialoge fallback has to be checked; this issue is left opened.
- The current SDL doesn't show the use of suppress SMS-CSI in VLR. Vodafone will check if this is described in text. O-CSI to be replaced by SMS-CSI.

Conclusion: revised to N2-030103 (N4-030205)

N2-030103: TS 29.002, R99, Source: Vodafone, Type: CR, Title: Correction to interactions between CAMEL control of MO SMS and barring

Discussion: (N4-030205) Ericsson finds that most of the changes are not CAMEL related, therefore that CR should have been handled in CN4 first to agree all the individual changes. The CR will be handled by CN4 e-mail approval. The final version for e-mail approval will be available on 21st February, 12:00 UTC on CN4 list. The deadline for rejection is 28th of February 12:00 UCT.
Conclusion: CN2 endorsed, CN4 e-mail approval process

N2-030050: TS 29.002, Rel-4, Source: Vodafone, Type: CR, Title: Correction to interactions between CAMEL control of MO SMS and barring

Discussion: N4-030100

Conclusion: revised by CN4 and revised document is endorsed by CN2

N2-030051: TS 29.002, Rel-5, Source: Vodafone, Type: CR, Title: Correction to interactions between CAMEL control of MO SMS and barring

Discussion:

Conclusion: revised by CN4 and revised document is endorsed by CN2

N2-030052: TS 29.002, Rel-6, Source: Vodafone, Type: CR, Title: Correction to interactions between CAMEL control of MO SMS and barring

Discussion:

Conclusion: revised by CN4 and revised document is endorsed by CN2

N2-030053: TS 23.078, R99, Source: Vodafone, Type: CR, CR#527, Title: Correction to interactions between CAMEL control of MO SMS and barring

Discussion: What is the meaning of "Set SMS-MO-CSI parameter". It is set to be included in CAMEL Continue message.

For R99 only SMS-CSI should be used instead of MO-SMS-CSI. For Release 5 MO-SMS-CSI is the correct term.

Conclusion: revised to N2-030104

N2-030104: TS 23.078, R99, Source: Vodafone, Type: CR, CR#527r1, Title: Correction to interactions between CAMEL control of MO SMS and barring

Discussion:

Conclusion: conditionally approved (condition is CN4 approval of R99 CR542 for TS 29.002). Since CR 29.002-542r2 was rejected during CN4 e-mail approval procedure, this CR is formally not approved by CN2. The document is sent to CN#19 plenary meeting as company contribution (Source: Vodafone) as well as CN4 linked CRs. The CN2#28 Draft Meeting Report will be updated after CN#19 plenary meeting to reflect the final conclusion.on this document.

N2-030054: TS 23.078, Rel-4, Source: Vodafone, Type: CR, CR#528, Title: Correction to interactions between CAMEL control of MO SMS and barring

Discussion:

Conclusion: revised to N2-030105

N2-030105: TS 23.078, Rel-4, Source: Vodafone, Type: CR, CR#528r1, Title: Correction to interactions between CAMEL control of MO SMS and barring

Discussion:

Conclusion: conditionally approved (condition is approval of R99 CR). The CR is not formally approved by CN2 since the condition is not fullfilled. The document is sent to CN#19 plenary meeting as company contribution (Source: Vodafone) as well as CN4 linked CRs. The CN2#28 Draft Meeting Report will be updated after CN#19 plenary meeting to reflect the final conclusion on this document.

N2-030055: TS 23.078, Rel-5, Source: Vodafone, Type: CR, CR#529, Title: Correction to interactions between CAMEL control of MO SMS and barring

Discussion:

Conclusion: conditionally approved (condition is CN4 approval of Rel-5 29.002-CR544). Since CR 29.002-544r1 was rejected during CN4 e-mail approval procedure, this CR is formally not approved by CN2. The document is sent to CN#19 plenary meeting as company contribution (Source: Vodafone) as well as CN4 linked CR. The CN2#28 Draft Meeting Report will be updated after CN#19 plenary meeting to reflect the final conclusion on this document..

7.5 CAMEL3/Call Related

N2-030091: TS 23.078, R99, Source: Alcatel, Type: CR, CR#539, Title: Inconsistency in Call Information Report in Re-Connect Case

Discussion: What is meaning of “leg1 is available” decision box, sheet 6/33 in gsmSSF? E.g., this check is valid when Connect operation is received at Abandon DP.

In the current specification it is probably a mistake that CWA case CIRp(leg1) is not sent.

Conclusion: revised to N2-030106

N2-030106: TS 23.078, R99, Source: Alcatel, Type: CR, CR#539r1, Title: Inconsistency in Call Information Report in Re-Connect Case

Discussion: On page 6, sheet 6(33) is marked as deleted sheet offline. Other specs affected marked offline by MCC CR039 TS 23.278.

Conclusion: approved

N2-030092: TS 23.078, Rel-4, Source: Alcatel, Type: CR, CR#540, Title: Inconsistency in Call Information Report in Re-Connect Case

Discussion:

Conclusion: revised to N2-030107

N2-030107: TS 23.078, Rel-4, Source: Alcatel, Type: CR, CR#540r1, Title: Inconsistency in Call Information Report in Re-Connect Case

Discussion: Other specs affected marked offline by MCC CR039 TS 23.278.

Conclusion: approved

N2-030093: TS 23.078, Rel-5, Source: Alcatel, Type: CR, CR#541, Title: Inconsistency in Call Information Report in Re-Connect Case

Discussion: Summary of change should be revised.

Vodafone: CIR is always sent when leg1 becomes unavailable, therefore there is no need to check it at the receipt of Connect.

Conclusion: revised to N2-030108

N2-030108: TS 23.078, Rel-5, Source: Alcatel, Type: CR, CR#541r1, Title: Inconsistency in Call Information Report in Re-Connect Case

Discussion: Other specs affected marked offline by MCC CR039 TS 23.278.

Conclusion: approved without presentation

N2-030155: TS 23.278, Rel-5, Source: Alcatel, Type: CR, CR#039, Title: Inconsistency in Call Information Report in Re-Connect Case

Discussion: This CR is a linked CR with 23.078-CR539r1. IMS-CAMEL is the work item for this CR.

Conclusion: approved

N2-030059: TS 23.078, Rel-5, Source: Nokia, Type: CR, CR#532, Title: Introduction of ResetTimer input in state WFI-DS

***Discussion*:** In this CR, the Reset Timer input to the D-CSI WFI state is added.
Ericsson commented on the e-mail exploder: After having studied the CR, Ericsson had the following question. The SDL has the check box "Not Waiting for first response after IDP or first reset Timer"?

Is this "first reset timer":
1. the first ResetTimer in the current CAP dialogue (i.e. the D-CSI dialogue); or
2. the first ResetTimer in this O-BCSM, which includes also the O-CSI dialogue?

Siemens and Lucent would like to have this CR for R99 also. According to Alcatel, this is not a correction, but functional enhancement. Alcatel does not like this CR for R99, but agree for Rel-5. Vodafone supports this CR for Rel-5 as well as for R99.

Next statement should be changed regardless of the release. Same gsmSSF SDL process instance was used for both dialogues. We should specify “first reset timer in this dialogue”.

Conclusion: revised to N2-030121 (it will be R99 CR, WI CAMEL3, subcategory is essential correction, reason for change should be improved to show that interworking problem is possible)

N2-030121: TS 23.078, R99, Source: Nokia, Type: CR, CR#532r1, Title: Introduction of ResetTimer input in state WFI-DS

***Discussion*:** According to Siemens timer interval should be changed to timer value. Not changed because not in scope of this CR.

Question mark missing in question box. The rapporteur will remove quotes and add a question marks in question boxes.

Conclusion: approved

N2-030122: TS 23.078, Rel-4, Source: Nokia, Type: CR, CR#545, Title: Introduction of ResetTimer input in state WFI-DS

***Discussion*:**

Conclusion: approved

N2-030123: TS 23.078, Rel-5, Source: Nokia, Type: CR, CR#546, Title: Introduction of ResetTimer input in state WFI-DS

***Discussion*:**

Conclusion: approved

N2-030060: TS 23.278, Rel-5, Source: Nokia, Type: CR, CR#028, Title: Introduction of ResetTimer input in state WFI-DS (IMS)

***Discussion*:**

Conclusion: revised to N2-030124

N2-030124: TS 23.278, Rel-5, Source: Nokia, Type: CR, CR#028r1, Title: Introduction of ResetTimer input in state WFI-DS (IMS)

***Discussion*:** WI code changed offline to IMS-CAMEL.

Conclusion: approved

8 CAMEL for Release 4

8.1 General and miscellaneous Rel-4 issues

8.2 CAP over IP

8.3 ODB for GPRS

9 CAMEL4, Release 5

9.1 Review of CAMEL 4 Stage 1 specification

9.2 Miscellaneous CAMEL 4 issues

N2-030058: Source: CN2 chairman, Type: Discussion document, Title: Recorded CAMEL4 decisions

***Discussion*:** The document contains recorded CAMEL4 decisions.

Conclusion: noted

N2-030061: Source: CN2 Chairman, Type: Discussion document, Title: CAMEL open issue list

***Discussion*:** There is also IMS open issues and decisions in document N2-030078. Decisions will be copied to the revised version of this document for the next meeting.

Item 2, Use of Connect operation in CPH- open issue should be clarified (Abandon EDP-R has a problem. ISUP events are not taken into account.) . In CAMEL3 this was not an issue since the call was cleared anyway.

Item 3 is for PDP context and should be clarified in the next version.

Item 4 is resolved by an Ericsson CR (Tdoc N2-030077) and this will be updated in the next version of the document.

Conclusion: revised to next meeting

N2-030036: TS 29.078, Rel-5, Source: Alcatel, Type: CR, CR#301, Title: ASN.1 syntax basic corrections

***Discussion*:**

Conclusion: approved

N2-030056: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#530, Title: Using ATI for Mobile Number Portability

***Discussion*:** Siemens has a concern if this is in line with CAMEL stage1. According to Siemens, this is a big change for frozen Release 5. Ericsson would like to propose that if the principle of the CR is agreed, we could update stage 1. According to Vodafone, this is an addition of the feature in Release 5.

Does MNP apply between mobile and fixed network? There is contemplation in Denmark to introduce it.

Vodafone is proposing to have the whole CN4 CRs package related to this topic available for a next meeting in advance. As well, tutorial for MNP is welcome before the next meeting to help understanding the whole issue. The tutorial should specially explain how the CAMEL part would work.

Conclusion: CN2 noted, CN4 noted (CN4 decided to specify the ATI solution and INAP solution. Release not decided.)

N2-030135/N4-030150: TS 23.066, Rel-5, Ericsson L.M., Type: CR, CR#022, Title: Incorrect Charging with MNP

Discussion: Is it an error related to CAMEL4 WI or any other WI (MNP or TEI). When MNP introduced this capability, this error is introduced; therefore the MNP would be appropriate code.

Is there a service requirement for this correction? LS to SA1 could be sent to ask for further guidance whether such correction is needed.

Stage 1 says that no additional charging mechanisms related to calling party are to be standardised (section 12: Charging aspects). Therefore this should be addressed first to SA1 according to Vodafone.

Siemens proposal is to solve this in Rel-6. Siemens finds this as a functional enhancement in Rel-5 CAMEL what is not acceptable at this point of time.

Ericsson is concerned that progress of the work is being delayed without any technical argument. Ericsson will draft a LS to SA1.

Conclusion: open for CN4, CN2 noted

N2-030074: TS 23.081, Rel-5, Source: Ericsson, Type: CR, Title: Correction to the inclusion of Generic Number in SRI

Discussion**:** Conclusion: Refer to TS 23.081 V5.1.0. Section 1.2.3 ("Parameters in Send Routeing Info and Provide Roaming Number for CLI") contains 2 tables that describe the semantics of placing the Calling Party Number and the Generic Number in MAP SRI and MAP PRN. The descriptions refer to the "originating network" only. The description of the Generic number in table 1.2.3.1, should be enhanced to cover the case that the Generic number may also be received from the SCP.

The change should be also applied to the second table. The term "terminating CAMEL service process" is not clear, so it is proposed to delete words "terminating" and "process" from that wording. In "Generic number" it shall be added "additional" in front of calling party number.

We don't need to describe presentation status.

This problem exists in earlier releases but it was not critical enough to correct it in earlier releases. This will be explained in the CR cover page for clarity. CAMEL phase 1 was the first CAMEL phase that could change additional calling party number. "CLIP enhancement" was introduced in 3GPP R98.

The title could be "Correction to interworking between CLIP enhancement and CAMEL".

Conclusion: revised to N2-030109 (N4-030206)

N2-030109: TS 23.081, Rel-5, Source: Ericsson, Type: CR, Title: Correction to interworking between CLIP enhancement and CAMEL

Discussion: (N4-030206) This change is applicable back to R98. CN2 agreed to this CR if the Title indicates the reason for this change. Title changed offline by MCC in both CN2 and CN4 documents.

Conclusion: approved by CN4, endorsed by CN2

N2-030075: TS 23.018, Rel-5, Source: Ericsson, Type: CR, Title: HLR handling when SRI from gsmSCF is not allowed

Discussion**: (N4-030154)** Ericsson is in favour to have consistent errors when SRI is not accepted. The CR is otherwise not needed.

The SCP behaviour probably is not dependent on the error code. The error code definition was a side effect. R99 HLR would return inconsistent error codes anyway.

Conclusion: withdrawn

N2-030076: TS 23.018, Rel-5, Source: Ericsson, Type: CR, Title: Stopping No_Answer timer in the case of forwarding notification

Discussion**:** (N4-030155) On page 5 (CAMEL_Stop_TNRy) timer should be stopped when Result = "CAMEL FTN" in the most left branch.

AT which point in this scenario the timer has been started. Vodafone: it has been started when early ACM is received, and in that case it hasn't be started in this scenario.

Once CAMEL No reply timer has been started, we should stop that timer if there is a subsequent forwarding activated. In GMSC this change is not needed, timer is not yet running. In VMSC the timer may be needed.

CN2 did not quite understand the impact of this CR.

Conclusion: revised to N2-030145

N2-030145: TS 23.018, Rel-5, Source: Ericsson, Type: CR, Title: Stopping No_Answer timer in the case of forwarding notification

***Discussion*: (N4-030210)** Why timer stopped in GSM forwarding but not when there is Connect/rerouting?

Vodafone: The timer should be stopped when A-interface release/disconnect is received

Conclusion: postponed to next meeting

N2-030077: TS 23.079, Rel-5, Source: Ericsson, Type: CR, Title: Correction to interaction between ORLCF and forwarding notification

Summary: (N4-030156) According to TS 23.079, the T-CSI CAMEL Service should be notified about the call forwarding in the GMSC, before the GMSC has verified that the call forwarding can be performed at the GMSC server due to optimal routeing.If the GMSC denies the optimal routeing request from the VMSC, the optimal routeing will be performed by the VMSC. However, the T-CSI CAMEL Service was already informed about the pending forwarding in the GMSC. Hence, this means that the T-CSI CAMEL Service does not know where the call forwarding takes place. The T-CSI CAMEL Service should be informed after the GMSC has verified that the optimal routeing can apply in the GMSC.

If SCP is given continuation instruction and if after that number is modified - charging problem. The new number may conflict with OR rules. Either case must fail: pre-paid service or OR validity check.

Vodafone proposes: first notify gsmSCF of forwarding, then OR check and report somehow to SCP if OR check fails.

Nokia supports Ericsson's original proposal since it would work in similar manner with all CAMEL phases. Only the basic call handling needs an update regardless of the CAMEL phase. Alcatel proposes first OR check and then notify SCP whether~~only if~~ it was successful.

At the moment we do "Route permitted check" and if it fails, we do not do OR check at all. We always notify SCP with parameter True or False.

In CAMEL phase 3 "Route permitted flag" was introduced when the route is not permitted. Route permitted flag could be indicated to the SCP in the notification. This may not work in all CAMEL phases and requires some logic in the SCP.

Joint Meeting:

In this meeting, the original proposal from Ericsson is presented, not the modified CR that has been presented in CN2.

If SCP sends "Connect", ORLF check is not performed. The CR was discussed further offline.

Conclusion: revised to N2-030146

N2-030146 is not available and postponed to next meeting.

N2-030072: TS 29.078, Rel-5, Source: Ericsson, Type: CR, CR#304, Title: Correction to ASN.1 syntax for CWA

***Discussion*:**

Comments: This CR is not according to CS-2. CS-2 uses different structure; it does not have tag value at all.

Alcatel is not opposing this change, but the CR cover page should be revised to improve reason for change and consequences if not approved. Nokia finds that this change is not needed.

Conclusion: revised to N2-030110

N2-030110: TS 29.078, Rel-5, Source: Ericsson, Type: CR, CR#304r1, Title: Correction to ASN.1 syntax for CWA

***Discussion*:**

Conclusion: approved without presentation

N2-030032: TS 23.078, Rel-5, Source: Alcatel, Type: CR, CR#526, Title: Consistent prefix naming of 23.078 signals

***Discussion*:**

Conclusion: approved

N2-030017: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#515, Title: HLR handling when SRI from gsmSCF is not allowed

***Discussion*:**

Conclusion: withdrawn

N2-030090: TS 29.078, Rel-5, Source: Siemens, Type: CR, CR#306, Title: Missing parameter (Charge Indicator)

***Discussion*:** N2-030090 adds the Charge Indicator in CAP. The parameter definition in section 11.18 reads: "The charge indicator, in the case that the MSC received this parameter in the backward call indicators."

In other words, the charge indicator shall simply be a copy of what the MSC/gsmSSF receives over ISUP.
In TS 23.078, on the IF of ERB, there is still a reference to "the Charge Indicator placed in CDR". In the light of N2-030090, Ericsson finds think we need to modify the text in TS 23.078. It shall only refer to "information received from ISUP".

The text in TS 23.078 reads: "This IE specifies the value which will be stored in the Call Data Record. See ITUT Recommendation Q.763 [40].". But, Q.763 does not specify how information is placed in CDRs.

Rationale is also that it may occur that the MSC/gsmSSF does not receive the charge indicator from ISUP. In that case, the MSC may place an internally generated Charge Indicator in the CDR. However, the gsmSSF will not be aware of such internal Charge Indicator generation by the MSC. The gsmSSF can only be expected to copy the Charge Indicator from ISUP into CAP.

Furthermore, the data types used in the CDR may be different than the one from ISUP. So, it is easier if gsmSSF just copy from ISUP.

Related to the above, two additional questions:

(1) Charge Indicator may be received in ISUP ACM, CON and ANM. If e.g. both ACM and ANM contain Charge Indicator, then the Charge Indicator from ISUP ANM shall be reported.

(2) Why not simplifying the logic. If Charge Indicator is received in ISUP ACM, then gsmSSF places it in ERB[oTermSeizedSpecificInfo]; if it is received in ISUP ANM, then gsmSSF places it in ERB[oAnswer]. Same for MT/VT call case. Then gsmSSF doesn't have to remember anything; it just reports what it gets.

Discussion: SSF may receive ACM and the charge indicator. If MSC does not receive charge indicator, MSC will produce it and put in CDR. Nokia says that the MSC may ignore the received indicators from the ISUP. SSF has no ability to know what MSC will write to CDR (MSC generates charge indicator and put it to CDR) because this is done at later point at the time. The charge indicator is set in MSC after the answer DP.
Proposal is if it doesn't receive charge indicator over ISUP, we don't report it. Ericsson finds that stage 2 has to be aligned to stage 3.
Conclusion: in stage 3 we should give a reference to stage 2. In stage 2 there is already a definition given.
There is not clear at the moment what shall be reported to the SCP as a charge indicator. It shall be specified that charge indicator will be reported as received over ISUP or as set into CDR.
Siemens wants to report to SCP what is stored in CDR as currently described in stage 2 and Ericsson is in favour to report what is received over ISUP. If anyone wants to change the implementation in Stage 2 then that would be a subject for a separate CR.

Alcatel proposes just to mention charge indicator in the bullet without referring to stage 2. Charge indicator is defined as octet string, but only 2 bits are defined. Could we define the rest of the bits, so that we have a full set of bits? We will define 6 upper most bits so that sending side shall set them to 0 and receiving side shall ignore them.

Conclusion: revised to N2-030111

N2-030111: TS 29.078, Rel-5, Source: Siemens, Type: CR, CR#306r1, Title: Missing parameter (Charge Indicator)

***Discussion*:** The word "ignored" has wrong spelling.

Conclusion: revised to N2-030156

N2-030156: TS 29.078, Rel-5, Source: Siemens, Type: CR, CR#306r2, Title: Missing parameter (Charge Indicator)

***Discussion*:**

Conclusion: approved without presentation

N2-030018: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#516, Title: Correction to CAMEL interaction with Line Identification

***Discussion*:** Calling Party Restriction Indicator table says: NP only applicable within an MO or NC case. But in NP is only a dash. Calling Party Number is mandatory in NC case and not applicable for NP case. In NP case it may be marked as restricted.

Information flows shall be improved in future meetings (separate CR).

Conclusion: revised to N2-030112

N2-030112: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#516r1, Title: Correction to CAMEL interaction with Line Identification

***Discussion*:** Proposal is to remove the word "parameter" from Calling Party Restriction Indicator and Calling Party Number in the text.

Conclusion: revised to N2-030157

N2-030157: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#516r2, Title: Correction to CAMEL interaction with Line Identification

***Discussion*:**

Conclusion: approved without presentation

N2-030019: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#517, Title: Correction to implicit disarming of DPs in CS_gsmSSF

***Discussion*:** On sheet 19, the comment is deleted. Implicit disarming table should be cleaned (only a leg at which a DP was received will be disarmed). "Any other leg" is misleading text. Information flow table need to be improved in the future.

Conclusion: revised toN2-030113

N2-030113: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#517r1, Title: Correction to implicit disarming of DPs in CS_gsmSSF

***Discussion*:**

Conclusion: approved

N2-030021: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#519, Title: Stopping No_Answer timer in the case of forwarding notification

***Discussion*:**

Conclusion: withdrawn

N2-030022: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#520, Title: Correction to CTR Information Flow

***Discussion*:** Siemens do not like this CR due to possible inconsistency among the releases. Different releases have different stage 2 description.

Alcatel and Siemens are not in favour of changing releases earlier than Rel-5. Alcatel and Lucent are not in favour of this CR as it is more enhancement than correction, but companies do not strongly object this CR.

Comments on wording: Alcatel proposes to stick to old wording. In the second table in the description of *IP Routing Address* it is not clear when it shall be used. Description of *IP Routing Address* and *None* will be modified.

Conclusion: revised to N2-030114

N2-030114: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#520r1, Title: Correction to CTR Information Flow

Discussion:

Conclusion: approved

N2-030027: TS 29.078, Rel-5, Source: Ericsson, Type: CR, CR#298, Title: Correction to Call Information Request
***Discussion*:** Siemens finds that no change is needed in stage 2, since if default value is defined. In stage 3, we define the parameter as mandatory in stage 2. The current description is very confusing for the ICA case, when we have 3 legs.

The sentence will be deleted as proposed in the CR and we will define the ASN default leg2.

Conclusion: revised to N2-030118

N2-030118: TS 29.078, Rel-5, Source: Ericsson, Type: CR, CR#298, Title: Correction to Call Information Request
***Discussion*:**

Conclusion: approved without presentation

N2-030028: TS 23.078, Rel-5, Source: Alcatel, Type: CR, CR#486r2, Title: Implementing and handling of the Outstanding Request Counter

***Discussion*:** This CR has interworking with Vodafone's CR in N2-030013.

- Text on page 13 should be in description text in appropriate section, not in SDL.

- Page 14, bullet 1: Outstanding request should be aligned with the text (with underscore).

- Editorial comment: bullet 9 on page 14 should say CAMEL phase 3.

- Do we have to specify how CAMEL phase 3 behaves? No.

- Page 35: new abbreviation should not be introduced

- Page 32: task box setting variables to 0 seems to conflict with rule 5 on page 10. This has to be be clarified.

    - Vodafone: When we should send CWA with leg id and when with CS id? Sheet 16 and 17 contradict with rules. Vodafone would like to stick to rules as much as possible and reflect them in SDLs so that service designers have clear specification. Alcatel indicated that the rules are more generic one's and the CAMEL Phase3 cases are not considered there.

    - Vodafone is ready to prepare a discussion paper with some principles to collect comments and to agree principle decisions that will be a base for further changes.

Conclusion: revised to N2-030119

N2-030119: TS 23.078, Rel-5, Source: Alcatel, Type: CR, CR#486r3, Title: Implementing and handling of the Outstanding Request Counter

***Discussion*:**

Conclusion: revised to N2-030153

N2-030153: TS 23.078, Rel-5, Source: Alcatel, Type: CR, CR#486r4, Title: Implementing and handling of the Outstanding Request Counter

***Discussion*:** Delegates are encouraged to study the document and provide comments to Alcatel by e-mail prior to next meeting.

Conclusion: postponed to next meeting

N2-030120: Rel-5, Source: Vodafone, Type: Discussion paper, Title: Handling of Outstanding Requests for Legs and Call Segments

***Discussion*:** During discussions on Alcatel's Tdoc N2-030028 (CR 23.078-486r2 "Implementing and handling of the Outstanding Request Counter"), it became clear that we need to make some principle decisions on how the Outstanding_Requests variable is affected on receipt of a Continue / Continue With Argument / Connect.

Decisions:

- When is each counter incremented? CS is set to one when CPH operation comes. For leg it is incremented when a DP is reported for that leg.

- Connect(none) should reset counter for all legs. The default leg2 has different handling when explicitly indicated.

- Connect(leg) should set counter to zero for that leg.
- Connect(leg) has no impact on CS counter.
- Connect(none) and CWA(none) is not decided.
- Continue is open regarding Call Segment Request Counter.
- CWA(none) shall be identical to Connect(none), i.e. reset counter to all leg ids.
- CWA(leg) decrements the the counter for that leg, other legs not impacted. No impact on CS request counter.
- CWA(CSID) does not impact on the leg counters. Sets CS counter to zero.
- Continue is open. One proposal: (at Disconnect DP decrements the counter by one for that leg, in other DPs sets the counter to zero for all legs.)
- When these operations are allowed without leg/CS?
- Continue, CWA(none) and CON(none) is allowed only in a one call segment case only.
- Continue is allowed in a single CS case when we have only leg1 and leg2, or when we have leg1 only.

Conclusion: revised to N2-030151

N2-030151: Rel-5, Source: Vodafone, Type: Discussion paper, Title: Handling of Outstanding Requests for Legs and Call Segments

***Discussion*:**

Conclusion: revised to N2-030158

N2-030158: Rel-5, Source: Vodafone, Type: Discussion paper, Title: Handling of Outstanding Requests for Legs and Call Segments

***Discussion*:**

Conclusion: noted, discussion will continue on e-mail list and next meeting

N2-030066: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#534, Title: Disallowing ACH-GPRS when PDPc already disconnected

***Discussion*:** If disconnect DP is reported, SCP can send AC, but it will not be reported anymore. Nokia supports this CR.

Conclusion: approved

N2-030073: TS 29.078, Rel-5, Source: Ericsson, Type: CR, CR#305, Title: Response to ApplyChargingGPRS at WFI at DP that terminates a relationship

***Discussion*:** This correction is valid when pdp context was reported and gsmSSF is waiting for instructions.

- We should remove third precondition since it is already in SDLs.

- In error handling we could remove the reference to states. “gprsSSF FSM has received AC-GPRS for a PDP context which has been disconnected, or for a session which has been detached”

Conclusion: revised to N2-030147

N2-030147: TS 29.078, Rel-5, Source: Ericsson, Type: CR, CR#305r1, Title: Response to ApplyChargingGPRS at WFI at DP that terminates a relationship

***Discussion*:**

Conclusion: approved without presentation

N2-030067: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#535, Title: Correction of handling O_Abandon when 2 CAMEL dialogues exist

***Discussion*:**

Conclusion: revised to N2-030095

N2-030095: TS 23.078, Rel-5, Ericsson, Type: CR, CR#535, Title: Correction of handling O_Abandon when 2 CAMEL dialogues exist

Discussion: Basic call handling will call the procedure that will report Abandon DP. In that case we don't need this CR.

Waiting for gsmSSF response would be a good improvement. The MSC doesn't send the response, that's why gsmSSF doesn't wait for response.

Conclusion: withdrawn

N2-030068: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#536, Title: Correction to timer expiry handling during call forwarding notification

Discussion**:** This CR adds the Int_Error input signal to the MSC procedures CAMEL_MT_GMSC_Notify_CF and CAMEL_MT_VMSC_Notify_CF.

- In the new input there is no release of resources and no output. As for input Int_Release_Call.
- Result Fail/Release cause different handling in calling process; handling shall be equal to Int_Release_Call.
- Result "pass" is not handled at all in the calling process; it shall be changed to "Continue".

Conclusion: revised to N2-030148

N2-030148: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#536r1, Title: Correction to timer expiry handling during call forwarding notification

Discussion**:**

Conclusion: approved

N2-030069: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#537, Title: Removal of reference to gsmSCF in parameters for PRN

Discussion**:** The SCP does not send offered CAMEL phase 4 subsets to HLR, so it can't forward it to VLR.

Vodafone: We missed adding CAMEL 4 offered CSIs to SRI. The change is needed in the table of SRI to add CAMEL4 offered CSIs to HLR from SCP. In case of Network initiated calls why should SCP inform HLR about CSIs which it supports, and why the HLR should forward it to VLR?

The HLR should be simple. Nokia does not want to introduce any new checks in the HLR. Vodafone does not see why would service need this in HLR. HLR does not have to worry about this parameter, for SCP is easier just to populate it to HLR and the HLR just passes it through. HLR should be transparent

- From CAMEL4 point of view, we sent both CAMEL phases supported and supported CSIs in theSCP. The question is whether SCP has to inform the HLR about CAMEL supported phases and supported CSIs in the SCP in case of network initiated calls. Does the HLR shall do something with these parameters.
- If SRI indicates that there is no CAMEL support, the call may be rejected.
- Instead of this table, we will modify SRI table. SRI table has supported CAMEL phases form gsmSCF to HLR Supported CAMEL

Decision: GsmSCF is allowed to send supported CAMEL phases and offered CSIs to HLR. Given that the name of the parameter is different between SCP and HLR (in SRI) and between HLR and VLR (in PRN, between HLR and VLR we have Supported CAMEL phases in GMSC), mapping between those 2 parameters should be explained somewhere (in TS 23.078).

Conclusion: formally rejected (new document created in N2-030149)

N2-030149: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#547, Title: Adding "Offered CAMEL4 CSIs In GMSC" to SRI from gsmSCF

Discussion**:**

Conclusion: postponed to next meeting

N2-030070: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#538, Title: Correction to Call Information Request

Discussion*:** The wording in the descriptions of CIRq and CIRp, "single ***call" shall be replaced by "single ***call party***", therefore this CR corrects the descriptions of Call Information Request and Call Information Report.

Why not use the word "leg" instead of "party"?

Conclusion: approved

N2-030016: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#514, Title: Handling of events by CS_gsmSSF in state WFI

***Discussion*:**

Conclusion: withdrawn

N2-030026: TS 23.078, Rel-5, Source: Ericsson, Type: CR, CR#522, Title: Correction to SRF and TC disconnection handling

***Discussion*:**

Conclusion: withdrawn

N2-030071: TS 29.078, Rel-5, Source: Ericsson, Type: CR, CR#303, Title: Correction to ERB Answer pre-condition

***Discussion*:**

Conclusion:

9.3 CAMEL4 / Interactions with Optimal Routing

9.4 CAMEL4 / Call Party Handling

N2-030012: TS 23.078, Rel-5, Vodafone, Type: CR, CR#491r1, Title: Handling of a stand alone call segment in CS_gsmSSF (revision of N2-020991)

Discussion: Ericsson commented before the meeting sheet 13 in SDLs of process CSA_gsmSSF: Before sending Int_Release_Call to all Call Segments except CSID1, shouldn't we also send Cancel these Call Segments? Otherwise, the gsmSSF for those Call Segments may attempt to send reports to the gsmSCF. When ReleaseCall is received in state Monitoring, the gsmSSF normally sends the pending reports. Hence, Cancel (all) may need to be sent to all Call Segments in this case.
Cancel (all) should be sent to all the call segments before we send the Release/Continue.

Comments during the meeting: On page 5 of the CR: In the case of 2 or more legs, should we complete the FCI of all legs? Just for the leg being released and for the last leg. If we go to idle state, we can't receive more FCI's, so we can complete it before going to idle state.

3 changes needed:

- We remove the task box stopping the timer Tssf

- In process CS_gsmSCF, sheet 4A(58) we remove the procedure call Complete_FCI_record (leg)

- On page 17 "Cancel (all)" will be sent to all call segments first and then ReleaseCall to all CSs will be sent except to call segment 1.

Conclusion: revised to N2-030125

N2-030125: TS 23.078, Rel-5, Vodafone, Type: CR, CR#491r2, Title: Handling of a stand alone call segment in CS_gsmSSF (revision of N2-020991)

Discussion:

Conclusion: approved without presentation

N2-030013: TS 23.078, Rel-5, Vodafone, Type: CR, CR#513, Title: Handling of Int_Import_Leg in CS_gsmSSF

Discussion: If the CR is approved, Alcatel should cancel state name change in the corresponding CR (N2-030028).

Conclusion: approved

N2-030023: TS 29.078, Rel-5, Ericsson, Type: CR, CR#296, Title: Correction to LegId syntax definition

Discussion:

Conclusion: revised to N2-030126

N2-030126: TS 29.078, Rel-5, Ericsson, Type: CR, CR#296r1, Title: Correction to LegId syntax definition

Discussion:

Conclusion: postponed to next meeting (not available during the meeting)

N2-030024: TS 29.078, Rel-5, Ericsson, Type: CR, CR#297, Title: Correction to description of LegId

Discussion: Two changes are needed in this document:

- The first change is not needed according to Alcatel because the wording is already unconditional. This could be a separate sentence clarifying that ICA can alos create leg2.

- Spelling of InitiateCallAttempt operation will be corrected

- Currently ICA can create any leg number except leg number 1.

Conclusion: revised to N2-030128

N2-030128: TS 29.078, Rel-5, Ericsson, Type: CR, CR#297r1, Title: Correction to description of LegId

Discussion:

Conclusion: postponed to next meeting (not available during the meeting)

N2-030029: TS 23.078, Rel-5, Alcatel, Type: CR, CR#523, Title: Handling of Connect operation with and without LegID

Discussion: The condition for “Leg id to be connected” should be “S” and the condition should be in the table.

Connect may not include leg id. We check if leg id exists and we update the state of the leg id.

CSA sets legID:=2 if parameter is not present. Then it is assumed that it’s for CS of leg2 but the value is not conveyed to CS. The sheet could be modified.

Ericsson proposes to remove words “existing outgoing” for a leg in the description column of Leg To Be Connected.

Conclusion: revised to N2-030129

N2-030129: TS 23.078, Rel-5, Alcatel, Type: CR, CR#523r1, Title: Handling of Connect operation with and without LegID

Discussion:

Conclusion: postponed to next meeting

N2-030030: TS 23.078, Rel-5, Alcatel, Type: CR, CR#524, Title: Handling of Information Flows with absent LegID and CS ID

Discussion: In this CR it is clarified that in a Continue With Argument IF the Leg ID is used to continue EDP-Rs and the Call Segment ID is used to continue CPH and ICA information flows. It is specified that a Leg ID and / or a Call Segment ID may only be absent in a case similar to CAMEL 3 case, i.e. "a single call segment CSA and there is at most one outgoing leg in the call segment.

The condition shall be included in the table itself. ICA leg can not be resumed with CWA(legID), CSID is required according to CR.

Conclusion: postponed to next meeting

N2-030094: TS 29.078, Rel-5, Ericsson, Type: CR, CR#307, Title: Adding unknownCSId Error to Continue With Argument

Discussion: The error "unknownCSID" is missing from the definition of ContinueWithArgument Operation. This CR adds "unknownCSID" to the list of Errors for the ContinueWithArgument Operation definition.

TS number on the cover page is corrected offline.

Conclusion: approved

9.5 CAMEL4 / DTMF Mid call procedure for MO and MT calls

9.6 CAMEL4/IMS

N2-030078: TS 29.278&TS 23.078, Rel-5, Lucent Technologies, Type: Discussion document, Title: CAMEL/IMS open issues

Discussion: This document lists the open issues/questions identified for CAMEL/IMS draft specifications 23.278 and 29.278. The document is updated at end of the meeting based on CN2 discussions/decisions. In the future CN2 chairman will maintain only a general CAMEL4 open issues and decision list.

1. Can IM-SSF initiate a CANCEL before the 100 TRYING is received? 100 Trying is typically immediately sent/received so this may not be likely. Investigate if this needs to be added to SDL.

ANSWER: The IM-SSF shall not send a CANCEL request before the 100 TRYING is received. This is in accordance to the IETF specification for SIP (RFC3261, section 9): *If no provisional response has been received, the CANCEL request MUST NOT be sent; rather, the client MUST wait for the arrival of a provisional response before sending the request*.

First question will be just removed from the list.

Question 2 is still open. Receipt of CAP DisconnectForwardConnection is possible (although unlikely) right after receipt of ConnectToResource from the SCP. This should also be included in the SDL procedure for handling of CTR. Alcatel's Tdoc N2-030033 solves this issue, thus will be removed from the list.

First part of the question 3 is answered in N2-030033. Question 4 is resolved in Lucent's tdoc N2-030083, and this can be removed from next version. Question 5 is~~and~~ answered ~~will be recorded in decisions list~~ and does not have to be added to decision list since this is per IETF specification, not CN2 decision..

Conclusion: noted

N2-030037: TS 29.278, Rel-5, Alcatel, Type: CR, CR#004, Title: ASN.1 syntax basic corrections for IMS CAMEL

Discussion:

Conclusion: approved

N2-030079: TS 23.278, Rel-5, Lucent Technologies, Type: CR, CR#029, Title: Correction of imcnSSF procedure names

Discussion:

Conclusion: approved

N2-030080: TS 23.278, Rel-5, Lucent Technologies, Type: CR, CR#030, Title: Incorrect procedure names used for CAMEL_MT_CTR and CAMEL_MO_CTR

Discussion: Category should be "F" instead of "D" and this will be changed offline by MCC.

Conclusion: approved

N2-030081: TS 23.278, Rel-5, Lucent Technologies, Type: CR, CR#031, Title: Incorrect procedures called in CAMEL_IMCN_MT_ANSWER

Discussion:

Conclusion: approved

N2-030082: TS 23.278, Rel-5, Lucent Technologies, Type: CR, CR#032, Title: Sending of provisional response for the INVITE

Discussion: After "100 TRYING" other responses can be sent. On page 6, sheet 1(5) has to be deleted. The page will be marked as deleted by MCC offline.

Conclusion: approved

N2-030083: TS 23.278, Rel-5, Lucent Technologies, Type: CR, CR#033, Title: Incorrect SIP response when no CAMEL is invoked

Discussion: On page 6, sheet 1(5) has to be deleted. The page will be marked as deleted by MCC offline.

Conclusion: approved

N2-030085: TS 23.278, Rel-5, Lucent Technologies, Type: CR, CR#035, Title: Editorial corrections in CAMEL_IMCN_MO_ANSWER

Discussion: Two last pages of the CR can be cancelled, as this is only editorial change. The title will be changed.

Conclusion: revised to N2-030143

N2-030143: TS 23.278, Rel-5, Lucent Technologies, Type: CR, CR#035r1, Title: Corrections in CAMEL_IMCN_MO_ANSWER

Discussion:

Conclusion: approved without presentation

N2-030086: TS 23.278, Rel-5, Lucent Technologies, Type: CR, CR#036, Title: Corrections in the procedures for handling failure SIP response

Discussion: Is there any mapping from the cause code of ReleaseCall to error message? No

For CAMEL IMS there is no specific mapping for cause code of ReleaseCall to error message. Regardles which error code SCP sends, always will be sent original error code in SIP message.

Conclusion: approved

N2-030033: TS 23.278, Rel-5, Alcatel, Type: CR, CR#027, Title: Implementing of Connect to Resource handling in CAMEL for IMS

Discussion: In the CAMEL_OCH_CTR procedure sheet1 (5) the input "Cancel" should lead to output " Cancel" instead of existing output "Bye".

- Input for timer is needed, for INVITE.

- CTR followed by DFC is not useful but introduced because it is allowed in CAMEL3. Service compatibility is the rationale of this change

- Signal names in brackets to indicate that the MRFC use of these messages is a bit open (SIP).

- ACK will not be received from MS on page 4.

- Input CANCEL to output 487 needs to be added. After 200 OK

Lucent proposal is to have the clarification in procedure description for outband messages. On page 10 we could add a note that these are SIP based messages. The meaning of parenthesis is explained in the text already for in-bound messages, similar description will be added.

Alcatel will take other comments offline into the account.

Conclusion: revised to N2-030150

N2-030150: TS 23.278, Rel-5, Alcatel, Type: CR, CR#027Title: Implementing of Connect to Resource handling in CAMEL for IMS

Discussion: For both "Figure 4.21-1: Procedure CAMEL_OCH_CTR (sheet 1)" and for "Figure 4.33-1: Procedure CAMEL_MT_CTR (sheet 1)" the SDL contains three times the sheets 1(5). The first sheet 1(5) is deleted with revision marks and the second sheet is cut off the document offline before sending to CN#19 for approval.

Conclusion: approved without presentation

N2-030084: TS 23.278, Rel-5, Lucent Technologies, Type: CR, CR#034, Title: Incorrect references to MSC in the IF descriptions for IMS

Discussion:

Conclusion: withdrawn

N2-030087: TS 29.278, Rel-5, Lucent Technologies, Type: CR, CR#005, Title: Handling of second PlayAnnouncement request

Discussion:

Conclusion: withdrawn

N2-030088: TS 23.278, Rel-5, Lucent Technologies, Type: CR, CR#037, Title: Procedure for DisconnectForwardConnection

Discussion:

Conclusion: withdrawn

N2-030089: TS 23.278, Rel-5, Lucent Technologies, Type: CR, CR#038, Title: Clarification of the use of gsmSRF CAP operations for IM-SSF

Discussion:

Conclusion: withdrawn

9.7 CAMEL control over MT SMS

N2-030014: TS 29.002, Rel-5, Vodafone, Type: CR, CR#523, Title: Clean-up of SMS procedures chapter

Discussion: (N4-030027)

Conclusion: revised to N2-030097

N2-030097: TS 29.002, Rel-5, Vodafone, Type: CR, CR#523r1, Title: Clean-up of SMS procedures chapter

Discussion: N4-030201

On page 39 the release from MS does not impact on the successfulness of the CAMEL procedure.

Conclusion: noted

N2-030015: TS 29.002, Rel-6, Vodafone, Type: CR, CR#524, Title: Clean-up of SMS procedures chapter

Discussion: N4-030011

Conclusion: revised to N2-030098

N2-030098: TS 29.002, Rel-6, Vodafone, Type: CR, CR#524r1, Title: Clean-up of SMS procedures chapter

Discussion: N4-030202

Conclusion: noted

N2-030057: TS 23.078, Rel-5, Vodafone, Type: CR, CR#531, Title: Alignment of signal names with TS 29.002

Discussion:

Conclusion: approved

9.8 Inclusion of flexible tone injection

N2-030031: TS 23.078, Rel-5, Alcatel, Type: CR, CR#525, Title: No concurrent playing of tones to the same leg or call segment

Discussion: During the discussion of N2-021043 "Playing of Warning Tones" it has been agreed that no two warning tones shall be played concurrently. The following text is used: "If the MSC is already playing a tone then the MSC shall ignore the new Int_Apply_Warning_Tone.". A similar situation exists also for the PlayTone operation, where a tone may be played to the call segment or leg. Tones may be due to a warning tone or due to the PlayTone operation.

As the Int_PlayTone signal may provoke to play a tone to a call segment, i.e. to multiple legs, the existing text needs to be clarified as well. That is, "The MSC shall not play a tone on a leg on which another tone is currently played."

The CR clarifies the existing text. Use a similar text also for the Int_Play_Tone signal in the CS_gsmSSF process.

Comments:

If play tone is given to leg2 and while the tone is played, we receive play tone with CS id. The tone is will be played to leg 1. This is not described in the text extension. On page 5: Tone will be played to indicated CS or leg.

Ericsson: If there is any leg that playing tone is in progress; play tone should be played to legs excluding the leg to which the tone is currently being played.

According to Ericsson: Play tone should be ignored and according to Alcatel, playTone should be played to other leg(s).

Vodafone: Either the tone is played to everyone in the conference call, or we have to do queuing of the tones. The service requirement is e.g. to play a tone to a PP subscriber in the conference call who is running out of credit. We do have a requirement to play a tone to everyone in the group.

Alcatel: This was s already decided: If a MSC is already playing a tone, than MSC should ignore the new Int_Apply_Warning_Tone.

Nokia: It should be ok to play to all parties available and to ignore the party to which the tone is already played. Nokia wants to check their view.

Vodafone: How to handle the case when the PP subscriber who is running out of credit is the subscriber to which tone is currently being played? We can't ignore in that case the party to which the tone is being played.

Conclusion is that this is still open issue. If the instruction to play tone to CS has been received while playing tone to one party, we shall differentiate Play tone to CS and to individual legs.

There is a regulatory requirement for some operators to play tone in certain situation; therefore we do have to know whether we can play a tone to a subscriber. If there are two tones to be played to subscriber, in some cases (if this is required) they have to be played on top of each other or second tone shall be played after the first tone has been played.

Alcatel: There is no sense to play the tones on the top of each other because the user doesn't understand them. Nokia supports Alcatel's proposal to ignore the PlayTone for the subscriber to whom the tone is already been played. But there is regulatory requirement and maybe this will be rediscussed in the next meeting.

Do we have a limit of how many tones we can play at the same time?

Conclusion: We can't conclude now if it is possible to play 2 tones at the same time, so the document is ***postponed to the next meeting.***

N2-030062: TS 29.078, Rel-5, Source: Nokia, Type: CR, CR#302, Title: ASN operation package definition for PlayTone

***Discussion*:** PlayTone does not belong to any operation package. Every operation shall belong to an operation package, otherwise it is missing from the application context.The existing *Charging package* can not be used because PlayTone operation is not tied to ApplyCharging operation. New operation package is introduced for CAPv4 PlayTone operation

Conclusion: approved

9.9 Charging notification to CSE (removal of functionality)

9.10 Enhancements of dialled services (removal of functionality)

9.11 Provision of location information of called subscriber

9.12 Notification of GPRS mobility management to CSE

9.13 CAMEL4/ Inclusion of ODB data in the CSE-HLR interface

9.14 CAMEL4/ Location Information during ongoing call

9.15 CAMEL4/GPRS AnyTimeInterrogation

N2-030020: TS 23.078, Rel-5, Ericsson, Type: CR, CR#518, Title: HLR handling when Request Domain is absent from ATI

Discussion: The CR proposes to add a comment in table in section 11.3.3.1.2, that if Requested Domain is absent from ATI request, the HLR shall assume CS domain.

Wouldn't it be better to have ASN.1 default. It is confusing to see mandatory parameter in stage 2 and leaving the option "If the parameter is not present, the HLR shall assume circuit switched domain"

Nokia would like to mark this parameter as conditional and the comment in the table should include the explanation why this IE may not be present ("If gsmSCF of an earlier release does not sent the parameter...) In Rel-5 this parameter is always present.

Siemens, Vodafone and Lucent are in favour of defining ASN.1default, there is no need to define stage 2 change, but we need a CR to 29.002.

Ericsson would like to introduce the explanation in Stage 2. None of the companies want to change the parameter to be conditional in Rel-5.

Decision: We propose ASN default for Requested Domain IE. We will align the table to follow ASN.1.

Conclusion: revised to N2-030142

N2-030142: TS 23.078, Rel-5, Ericsson, Type: CR, CR#518r1, Title: Correction to the ATI Information Flow table structure~~HLR handling when Request Domain is absent from ATI~~

Discussion: According to Nokia, RequestedInfo should be in a separate table.

Conclusion: revised to N2-030159

N2-030159: TS 23.078, Rel-5, Ericsson, Type: CR, CR#518r2, Title: Correction to the ATI Information Flow table structure~~HLR handling when Request Domain is absent from ATI~~

Discussion: Siemens would like to submit the change to 29.002, therefore Requested domain will be in the different place.

Conclusion: revised to N2-030160

N2-030160: TS 23.078, Rel-5, Ericsson, Type: CR, CR#518r3, Title: Correction to the ATI Information Flow table structure~~HLR handling when Request Domain is absent from ATI~~

Discussion:

Conclusion: e-mail approval (deadline for submission of final version of the document is Feb 21st 12:00, CETand deadline for rejection is Feb 28th midday CET). Since no objections received by the deadline, the document is APPROVED.

9.16 CAMEL4 / CAMEL4 partial implementation

9.17 Reporting of IMEI and MSClassMark to SCP

10 Release 6

10.1 Miscellaneous

N2-030096: Ericsson, Type: Discussion document, Title: CAMEL support of concatenated SMS

Discussion: Ericsson would like to propose the following enhancement to CAMEL control of SMS: when a Short Message is part of a concatenated Short Message, then the Initial DP Operation shall contain the following IEs:

- Concatenated short message reference number
- Maximum number of short messages in the concatenated short message
- Sequence number of the current short message

The MSC or SGSN shall copy these parameters from the Short Message TPDU. The copying of these information elements on to CAP should not affect the processing of a Short Message in the MSC or SGSN. The MSC or SGSN is not expected to apply any ordering or re-assembling of concatenated SMS's. Neither is the MSC or SGSN required to perform any validation of the order in which concatenated SMS's would be submitted or delivered and whether the concatenated SMS reference number etc. is valid.

This enhancement should be applied to CAMEL control of MO-SMS and to CAMEL control of MT-SMS.

Ericsson would like 3GPP CN2 to consider the proposal presented in this document for inclusion in CAMEL Phase 4, 3GPP Rel-6

Questions:

1. For MO SMS would it be used CAP v4 or CAP v3? Ericsson proposes to use CAP version 3 to avoid migration to CAPv4 for MO SMS.

2. Concatenated SMS reference number is generated by existing SMS mechanisms.

3. Current stage 1 is not allowing or disallowing concatenated SMS.

4. In Rel-5, CAMEL4 WI is marked as completed and CN2 is working on correcting errors in stage 2 and stage 3 in Rel-5. Therefore there should be a WID for this in Rel-6.

5. Is there a MAP support for concatenated SMSs? Ericsson: from MAP point of view the header may contain concatenated SM, and in MAP we do the same as until now.

Vodafone needs more time to find out whether there is a support for this functionality. Vodafone would like to see the business case for this feature and ensure that there will be enough time for correcting Rel-5 CAMEL and Enhanced dialled services.

Nokia has no opinion yet on this. Siemens has no objection.

SK Telecom and Ericsson support this feature.

Conclusion: noted. No objection in CN2. Ericsson to proceed in SA1 to get approval for service requirement.

10.2 Enhanced dialled services

N2-030041: WID, Rel-6, Samung Electronics, SK Telecom, Type: WID, Title: Enhancement of dialled service for CAMEL4 in Release 6

Discussion: Vodafone finds that the WI should not explicitly mention CAMEL phase 4. CAMEL will replace CAMEL phase 4.

Conclusion: revised to N2-030130 (N4-030207)

N2-030130: WID, Rel-6, Samung Electronics, SK Telecom, Type: WID, Title: Enhancement of dialled service for CAMEL

Discussion:

- If we decide to use new CSI or new CAMEL phase, this will have an impact on TS 23.016.
- Any indication of CAMEL phase 4 should be removed systematically through the document.
- "EDSCAMEL" will be shown as SA1 Parent feature and will be introduced in the Work Plan as a feature level.

Conclusion: revised to N2-030144

N2-030144: WID, Rel-6, Samsung Electronics, SK Telecom, Type: WID, Title: Enhancement of dialled service for CAMEL4 in Release 6

Discussion:

Conclusion: approved without presentation (will be sent to CN#19)

N2-030064: Rel-6, Nokia, Type: Discussion document, Title: Negotiation for enhanced dialled services capabilities

Discussion:

Introduction of new functionality "Enhanced dialled services for CAMEL" (EDS) raises a question, how this new capability is negotiated between HPLMN (HLR) and VPLMN/IPLMN (VMSC/GMSC). Currently VLR/GMSC indicates *Supported CAMEL phases* and *Offered CAMEL 4 CSIs* to HLR. D-CSI has one bit in the latter parameter.

Nokia listed following possibilities to solve the problem:

1. New CAMEL phase (CAMEL5)

Introduction of full new CAMEL phase enables full negotiation of capabilities between HLR and MSC/VLR. Some key points, which can be seen as pros or cons:

- Would require quite many changes in specifications. E.g. not all places state "CAMEL phase 4 or higher".
- If CAMEL4 is not the last CAMEL phase then CAMEL4 bit-strings can not be used to introduce new subsets in the future.
- Opens possibilities to introduce new functionalities in later 3GPP releases.
- A new CAMEL phase just for this one functionality sounds extravagant.
- CAPv5 dialogue would explicitly indicate to SCP what is supported.
- Rel-6 29.078 specifications would probably have CAPv4 (other than EDS) and CAPv5 (EDS) application contexts.

2. New CAMEL4 subset

- VLR/GMSC already indicates support of CAMEL4 D-CSI. EDS would require a separate indication of D-CSI+. The EDS bit would require 3 level functionality (quite complicated):
    - CAMEL4 must be supported by the *Supported CAMEL phases.*
    - D-CSI must be supported by the *Offered CAMEL 4 CSIs* parameter.

- EDS must be supported by a new indication.

- A separate indication is needed to SCP at DP3 whether enhanced dialogue (DP arming) is supported.

This option is not Nokia's favourite because it's complicated.

3. New CAMEL4 CSI for subscribed enhanced dialled services

In this alternative a new CSI would be introduced just for enhanced dialled services. N-CSI is more MSC/VLR internal implementation issue, so N-CSI could be used for EDS as well.

- D-CSI would be limited to CAMEL3 and CAMEL4.

- A separate indication is needed to SCP at DP3 whether enhanced dialogue is supported.

- Probably it would be beneficial to make a restriction that D-CSI and new-CSI can not be used for the same subscriber, i.e. mutually exclusive CSIs.

This option is OK for Nokia if the new CSI and D-CSI are mutually exclusive.

4. No negotiation at all towards HLR

- HLR would not be able to take necessary action if EDS is not supported (set barring/ODB, download CAMEL4 D-CSI etc).

- Easiest to specify in 3GPP.

- SSP could negotiate this capability to SCP. SCP could take necessary action. But then HLR/HPLMN would have to apply different mechanism what we have used so far.

If EDS is part of D-CSI then this option is OK for Nokia, rather than alternative #2.

Discussion:

Alternative no. 4: if we use D-CSI for Enhanced dialled service than this is ok for Nokia, but if we use separate one then it is not.

- Vodafone supports the alternative number 4 proposed in this document.

- Nokia: Regarding alternative 4, if we use D-CSI for Enhanced dialled service than this is ok for Nokia, but if we use separate one then it is not.

- Samsung: They want to introduce the new meaning of D-CSI bit that indicates that Enhanced dialled service is supported. We already have CAPv4 dialogue and Rel-5 Network Element would populate the support for D-CSI in different meaning than Rel-6 Network Element.

- Is there a service requirement that HLR shall know that EDS is supported?

- Ericsson: If EDS is triggered by D-CSI than there is no need for HLR to know whether EDS is supported. We stick to reporting of D-CSI.

- We introduced partial implementation of CAMEL phase 4 bearing in mind to minimize the impact to HLR.

- Samsung & SK Telecom want to have possibility to decide based on VLR/GMSC capability. According to Vodafone, if this is the service requirement, we either have to introduce new CSI in CAMEL phase 4 or to introduce new CAMEL phase.

- Do we indicate to HLR the Enhanced dialled services capability?

- There is no functional difference between D-CSI CAMEL phase 3 and D-CSI in phase 4. Why so many concern to add new meaning to D-CSI.

- Ericsson: IMEI and MS classmark may be reported in Initial DP. There is therefore functional difference, and we open different protocol dialogue version – there is therefore difference between CAMEL3 and CAMEL4 D-CSI.

Joint Meeting discussion:

DECISION: CN2 decided to take alternative 4 and there will be no indication towards HLR whether EDS is supported.

Conclusion: noted by CN2 and CN4

N2-030043: Rel-6, Samsung Electronics, SK Telecom, Type: Discussion document, Title: Handling of Partial Implementation for Enhanced Dialled Services

Discussion:

Conclusion: noted

N2-030038: TS 23.078, Rel-6, Alcatel, Type: CR, Title: Enhancements for the Partial Implementation for Enhanced Dialled Services

Discussion: This CR introduces a new feature "Enhanced CSE capability for Dialled Services" and new Information Element in “Offered CAMEL4 Functionalities” table.

How shall we indicate to SCP if EDS is supported? We need to indicate whether there is a CAP dialogue. EDS is under umbrella of offered CAMEL 4 functionalities. This list will be sent in IDP regardless of EDS. The same bit string will be indicated in MAP in ICA and ICAack.

Vodafone does not want to introduce nothing in CAMEL4 offered functionalities. Ericsson finds that lower level parameter would be better.

There are in total 3 proposals:

1. Alcatel: to have one new bit in Offered CAMEL4 functionalities

2. Samsung, SK Telecom, Ericsson and Nokia: to have 2 separate indications in Offered CAMEL4 functionalities - indication for ongoing dialogue and indication for EDS support.

3. Vodafone: to have one separate parameter to indicate EDS but not in the offered CAMEL4 functionalities. The presence of this parameter would mean that EDS is supported for this call

Decision#1: Proposal number 2 is accepted by majority of the group. We introduce indication of EDS support (1 bit) in Offered CAMEL4 functionalities and we introduce a separate field in Initial DP.

Clarification of EDS value In Offered CAMEL4 functionalities is needed. If N-CSI and D-CSI are separate what shall we do? Due to N-CSI issue and D-CSI we have to reopen the issue. We haven’t concluded what is indicated to HLR and what is indicated to SCP.

Is it possible that MSC supports EDS for D-CSI, but not for N-CSI and opposite? MSC is allowed to offer EDS for subscribed dialled services and network offered services separately.

Samsung: There is no need to separate N-CSI and D-CSI. From one dialogue we can indicate whether both are supported. We don’t need to distinguish, it is up to network operator to decide to offer both or not.

Do we assume that MSC is capable on differentiating D-CSI and N-CSI in that regards? One dialogue can indicate that EDS is supported in both cases. There is another indication whether EDS is allowed in this call. We don’t have a name fore this parameter yet.

Decision#2: MSC/SSP may support EDS for D-CSI, but not for N-CSI or vice versa. It is independent.

Next question: How do we indicate this to SCP? There is a parameter Offered CAMEL4 functionalities. We need to list N-CSI (visited network) and D-CSI (home network) separately in offered CAMEL4 functionalities bit string.

Vodafone: Operators want to apply EDS in home network, but if we want to allow EDS in visited network, home network should have to know this and home network may want to prevent N-CSI service. There is no way for home network to know the content of N-CSI in the visited network. Therefore it is important to separate indication of support of EDS for N-CSI and D-CSI to SCP.

Siemens supports Vodafone’s proposal.

Ericsson: visited network could start applying control of the call that could cost more that subscriber is allowed to spend (i.e. to route it to international destination).

Decision#3: The SSP indicates EDS support for N-CSI and D-CSI separately in IDP. This applies to dialogues initiated by N-CSI, D-CSI and O-CSI, (IDP operation), and also in ICAack.

SCP does not know if dialogue is due to N-CSI/D-CSI but serviceKey could be used to differentiate.

OPEN ISSUE: The document proposes to have the decision per leg. This is still opened issue.

Conclusion: noted

N2-030040: TS 29.002, Rel-6, Alcatel, Type: CR, Title: Enhancements for the Partial Implementation for Enhanced Dialled Services

Discussion:

Conclusion: noted

N2-030048: TS 29.002, Rel-6, Samsung Electronics, SK Telecom, Type: CR, Title: CR to 29.002 on Handling of partial implementation for enhanced dialled service

Discussion: (N4-030074) CN4 favours collective CRs. Separate CRs are OK in Rel-6.

Conclusion: noted by CN4, noted by CN2

N2-030042: Rel-6, Samsung Electronics, SK Telecom, Type: Discussion document, Title: Implementation for Enhanced Dialled Services

Summary: The main idea of this feature is to have identical capabilities for the following cases:

- Procedure triggered by O-CSI
- Procedure triggered by D-CSI (if no existing relationship with gsmSCF (i.e. triggered by O-CSI) exists)
- Procedure triggered by N-CSI (if no existing relationship with gsmSCF (i.e. triggered by O-CSI or D-CSI) exists)

Without the capability of enhanced dialled services, procedures triggered by D-CSI or N-CSI have a limited capabilities which do not allow to monitor/control a call duration, arm/report BCSM events, nor report a call information at the end of a call. To avoid too much complexity to design the SDL, these enhanced capabilities are only allowed if there is no ongoing existing relationship with gsmSCF.

To meet the requirement, it is proposed to introduce a new variable, CAP_Dialogue in the SDL to inform whether or not a relationship with gsmSCF exists

The impact of SDL regarding on Call Party Handling will be considered

Discussion: Siemens supports the principle of the document except the naming of parameters. CAP dialogue_exist should be better name. Vodafone also supports the principle of modelling in this document. The exact naming of the variable we can comment when we see actual contributions.

Conclusion: noted, principle of the document is understood in CN2 and it will work

N2-030065: Rel-6, Nokia, Type: Discussion document, Title: SDL modelling for enhanced dialled services

In order to decide the best SDL modelling (for the TS 23.078) some key questions need to be answered first. The answers to these key questions will impact to the chosen model. Stage 1 (22.078) does not provide the answers in this level of detail.

1. Shall MSC/SSP support *multiple point of control*? (Multiple CAP dialogues could control same call instance (BCSM) simultaneously.

Decision#1: We shall not support multiple point of control. It is not allowed to use EDS if there is any CAP dialogue open in the same BCSM. However, the existing CAMEL3 functionality remains in which MPC is used for a short time.

2. Is EDS allowed when the DP2 dialogue is a monitoring relationship?

Decision#2: EDS is not allowed. There is no Enhanced dialled services if DP2 dialogue is in a monitoring relationship.

3. Which is more important service: Analyzed_Info (DP3) or Route_Select_Failure?

- 3.1. Will arming of TDP Route_Select_Failure prevent DP3 triggering? SDL is still unclear.

Siemens: TDP-R should not prevent triggering. Even if Route Select Failure is armed as TDP, we can use dialled services, but the question is whether if it is armed EDS is allowed.

Vodafone: It would be better to have option between EDS and route Select failure. According to SK Telecom, priority should be given to DP Route Select Failure.

- 3.2 Shall monitoring relationship of EDS prevent triggering at Route_Select_Failure TDP?

Decision#3: open

Decsion#4: opened.

5. If we use **single gsmSSF instance** for multiple dialogues or we use **separate gsmSSF instances?**

There are maybe a number of gsmSSF instances that are in idle state. If we prioritise Route select failure, then single gsmSSF instance is easier.

Vodafone finds separate gsmSSF instances easier, but they are not strongly supporting separate instances. Siemens finds as well separate instances easier (instance per CSIs).

Decision#5: There is one SSF instance per CSI and one for ICA case. They shall not exist all at the same time.

Conclusion: noted

N2-030039: TS 23.078, Rel-6, Alcatel, Type: CR, Title: Enhanced CS_gsmSSF for Enhanced Dialled Services

Discussion:

Conclusion: noted

N2-030044: TS 23.078, Rel-6, Samsung Electronics, SK Telecom, Type: CR, Title: CR to 23.078 on Implementation of enhanced dialled service

Discussion:

Conclusion: noted

N2-030045: TS 23.078, Rel-6, Samsung Electronics, SK Telecom, Type: CR, Title: CR to 23.078 on Handling of partial implementation for enhanced dialled service

Discussion:

Conclusion: noted

N2-030046: TS 29.078, Rel-6, Samsung Electronics, SK Telecom, Type: CR, Title: CR to 29.078 on Implementation of enhanced dialled service

Discussion: The parameter "cAPDialogue" has tag [60]. According to Ericsson we have to place any new parameters for IDP in the initialDPArgExtension.
Refer to TS 29.078, section 4.1.4.2.1. Tagging in CAP goes up to [59]. After that, we have to revert to the Arg Extension.

From 209.078: Tagging of CAP additions to ITUT Recommendation Q.1228 [51] and ETSI EN 301 140-1 [26] is specified from 50 to 59.
Conclusion: noted

N2-030047: TS 23.018, Rel-6, Samsung Electronics, SK Telecom, Type: CR, Title: CR to 23.018 on Implementation of enhanced dialled service

Discussion:

Conclusion: noted by CN4, noted by CN2

11 Review of dates and hosts for future meetings

CN2 has decided to have an adhoc meeting on Enhanced Dialled Services for CAMEL on 1st and 2nd of April 2003. CN2 gives a mandate to AdHoc meeting to approve CRs for CN2 stage 2 specifications and endorse CRs to CN4 specifications.

- The deadline for Tdoc requests for EDS AdHoc is 26th of March 12:00 CET and deadline for sending of Tdocs is 26th of March end of the day, CET.

- The deadline for Tdoc requests for CN2#29 meeting is 8th of May 16:00 CET, and deadline for sending documents is 8th of May, 23:59 CET.

Review of the N2 meeting schedule for 2002

TITLE	TYPE	DATES	LOCATION	CTRY
3GPPCN2#29	WG	19-23 May	San Diego	USA
3GPPCN2#30	WG	25-29 Aug	Sophia Antipolis	France
3GPPCN2#31	WG	27-31 Oct	TBD	China

11 Closing of the meeting **(15:30 Friday)**

The chairman thanked delegates, host and MCC. The meeting was closed on Friday, 15:00.

Annex B Attendees list

Member of 3GPP (ETSI)					
Ms. Véronique Belfort	ALCATEL S.A.	3GPPMEMBER (ETSI)	FR	+33 1 30 77 86 11	veronique.belfort@alcatel.fr
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Annex C Output Documents

Approved Change Requests for R99 WI CAMEL 3

TDoc #	WI	Rel	Title	Spec	CR	Cat	Rev	Version	Conclusion	Source
N2-030035	CAMEL3	Rel-4	ASN.1 syntax basic corrections	29.078	300	A		4.7.0	approved	Alcatel
N2-030100	CAMEL3	R99	ASN.1 syntax basic corrections	29.078	299	F	1	3.14.0	approved	Alcatel
N2-030106	CAMEL3	R99	Inconsistency in Call Information Report in Re-Connect Case	23.078	539	F	1	3.15.0	approved	Alcatel
N2-030107	CAMEL3	Rel-4	Inconsistency in Call Information Report in Re-Connect Case	23.078	540	A	1	4.7.0	approved	Alcatel
N2-030108	CAMEL3	Rel-5	Inconsistency in Call Information Report in Re-Connect Case	23.078	541	A	1	5.2.0	approved	Alcatel
N2-030115	CAMEL3	R99	Correction to SRI Information Flow	23.078	521	F	1	3.15.0	approved	Ericsson
N2-030116	CAMEL3	Rel-4	Correction to SRI Information Flow	23.078	543	A		4.7.0	approved	Ericsson
N2-030117	CAMEL3	Rel-5	Correction to SRI Information Flow	23.078	544	A		5.2.0	approved	Ericsson
N2-030121	CAMEL3	R99	Introduction of ResetTimer input in state WFI-DS	23.078	532	F	1	3.15.0	approved	Nokia
N2-030122	CAMEL3	Rel-4	Introduction of ResetTimer input in state WFI-DS	23.078	545	A		4.7.0	approved	Nokia
N2-030123	CAMEL3	Rel-5	Introduction of ResetTimer input in state WFI-DS	23.078	546	A		5.2.0	approved	Nokia
~~N2-030154~~	~~CAMEL3~~	~~Rel5~~	~~Buffering of TC messages in the SGSN while waiting for the first SCP response~~	~~23.078~~	~~533~~	~~F~~	~~2~~	~~5.2.0~~	~~approved~~	~~Nokia~~

Approved Output Liaison Statements

TDoc #	Type	Title	Source	Conclusion	To	CC
N2-030099	LS OUT	LS on CAMEL_PS_Notification procedure	CN2	approved	SA2	

Approved Change Requests for Rel-5 WI CAMEL 4

TDoc #	WI	Rel	Title	Spec	CR	Cat	Rev	Versio	Conclusion	Source
N2-030013	CAMEL4	Rel-5	Handling of Int_Import_Leg in CS_gsmSSF	23.078	513	F		5.2.0	approved	Vodafone
N2-030032	CAMEL4	Rel-5	Consistent prefix naming of 23.078 signals.	23.078	526	F		5.2.0	approved	Alcatel
N2-030036	CAMEL4	Rel-5	ASN.1 syntax basic corrections	29.078	301	F		5.2.0	approved	Alcatel
N2-030057	CAMEL4	Rel-5	Alignment of signal names with TS 29.002	23.078	531	F		5.2.0	approved	Vodafone
N2-030062	CAMEL4	Rel5	ASN operation package definition for PlayTone	29.078	302	F		5.2.0	approved	Nokia
N2-030066	CAMEL4	Rel-5	Disallowing ACH-GPRS when PDPc already disconnected	23.078	534	F		5.2.0	approved	Ericsson
N2-030070	CAMEL4	Rel-5	Correction to Call Information Request	23.078	538	F		5.2.0	approved	Ericsson
N2-030094	CAMEL4	Rel-5	Adding unknownCSId Error to Continue With Argument	29.078	307	F		5.2.0	approved	Ericsson
N2-030110	CAMEL4	Rel-5	Correction to ASN.1 syntax for CWA	29.078	304	F	1	5.2.0	approved	Ericsson
N2-030113	CAMEL4	Rel-5	Correction to implicit disarming of DPs in CS_gsmSSF	23.078	517	F	1	5.2.0	approved	Ericsson
N2-030114	CAMEL4	Rel-5	Correction to CTR Information Flow	23.078	520	F	1	5.2.0	approved	Ericsson
N2-030118	CAMEL4	Rel-5	Correction to Call Information Request	29.078	298	F	1	5.2.0	approved	Ericsson
N2-030125	CAMEL4	Rel-5	Handling of a stand alone call segment in CS_gsmSSF (revision of N2-020991)	23.078	491	F	2	5.2.0	approved	Vodafone
N2-030147	CAMEL4	Rel-5	Response to ApplyChargingGPRS at WFI at DP that terminates a relationship	29.078	305	F	1	5.2.0	approved	Ericsson
N2-030148	CAMEL4	Rel-5	Correction to timer expiry handling during call forwarding notification	23.078	536	F	1	5.2.0	approved	Ericsson
N2-030152	CAMEL4	Rel-5	Handling of AC and ACR for GPRS	23.078	542	F	1	5.2.0	approved	Vodafone
N2-030154	CAMEL4	Rel5	Buffering of TC messages in the SGSN while waiting for the first SCP response	23.078	533	F	2	5.2.0	approved	Nokia
N2-030156	CAMEL4	Rel-5	Missing parameter (Charge Indicator)	29.078	306	F	2	5.2.0	approved	Siemens AG
N2-030157	CAMEL4	Rel-5	Correction to CAMEL interaction with Line Identification	23.078	516	F	2	5.2.0	approved	Ericsson

N2-030160	CAMEL4	Rel-4	Correction to the ATI Information Flow table structure	23.078	518	F	3	5.2.0	approved	Ericsson

Approved Change Requests for Rel-5 WI IMS-CAMEL

TDoc #	WI	Rel	Title	Typ	Spec	CR	C	Rev	Version	Conclusio	Sour
N2-030037	IMS-CAMEL	Rel-5	ASN.1 syntax basic corrections for IMS CAMEL	CR	29.278	004	F		5.1.0	approved	Alcatel
N2-030079	IMS-CAMEL	Rel-5	Correction of imcnSSF procedure names	CR	23.278	029	F		5.1.0	approved	Lucent Technolo
N2-030080	IMS-CAMEL	Rel-5	Incorrect procedure names used for CAMEL_MT_CTR and CAMEL_MO_CTR	CR	23.278	030	F		5.1.0	approved	Lucent Technolo
N2-030081	IMS-CAMEL	Rel-5	Incorrect procedures called in CAMEL_IMCN_MT_ANSWER	CR	23.278	031	F		5.1.0	approved	Lucent Technolo
N2-030082	IMS-CAMEL	Rel-5	Sending of provisional response for the INVITE	CR	23.278	032	F		5.1.0	approved	Lucent Technolo
N2-030083	IMS-CAMEL	Rel-5	Incorrect SIP response when no CAMEL is invoked	CR	23.278	033	F		5.1.0	approved	Lucent Technolo
N2-030086	IMS-CAMEL	Rel-5	Corrections in the procedures for handling failure SIP response	CR	23.278	036	F		5.1.0	approved	Lucent Technolo
N2-030124	IMS-CAMEL	Rel5	Introduction of ResetTimer input in state WFI-DS (IMS)	CR	23.278	028	F	1	5.1.0	approved	Nokia
N2-030143	IMS-CAMEL	Rel-5	Corrections in CAMEL_IMCN_MO_ANSWER	CR	23.278	035	~~D~~ F	1	5.1.0	approved	Lucent Technolo
N2-030150	IMS-CAMEL	Rel-5	Implementing of Connect to Resource handling in CAMEL for IMS	CR	23.278	027	F	1	5.1.0	approved	Alcatel
N2-030155	IMS-CAMEL	Rel-5	Inconsistency in Call Information Report in Re-Connect Case	CR	23.278	039	F		5.1.0	approved	Alcatel

Approved Work Item Description for Release 6

TDoc #	Type	Title	Source	WI	Rel	Conclusion
N2-030144	WID	Enhancement of dialled service for CAMEL in Release 6	CN2	EDCAMEL	Rel-6	approved

Annex D List of Documents

TDoc #	Type	Title	Source	WI	Spec	CR #	Rev	Cat	Rel	Versio	Conclus

N2-030001	Agenda	Agenda	CN2 Chair								approved
N2-030002	Agenda	Allocation of documents to agenda item	CN2 Chair								noted
N2-030003	Agenda	CN2-CN4 Joint meeting Tdoc list	CN2 Chair								noted
N2-030004	Disc	Query on interest area of delegates	CN2 Chair								noted
N2-030005	Report	CN2#27 Draft Meeting Report	MCC								approved
N2-030006	Report	CN#18 Draft Meeting Report	MCC								noted
N2-030007	WP	Latest version of the work plan	MCC								noted
N2-030008	LS IN	LS on Enhanced Dialled Services	SA1								noted
N2-030009	LS IN	LS on SMS over PS in Iu mode	SA2								noted
N2-030010	LS IN	Response on CN2 conclusion on CAMEL_PS_Notification procedure	SA2								noted
N2-030011	DISC	Handling of AC and ACR in GPRS (revision of N2-021032)	Vodafone								noted
N2-030012	CR	Handling of a stand alone call segment in CS_gsmSSF (revision of N2-020991)	Vodafone	CAMEL4	23.078	491	1	F	Rel-5	5.2.0	revised to N2-0301
N2-030013	CR	Handling of Int_Import_Leg in CS_gsmSSF	Vodafone	CAMEL4	23.078	513		F	Rel-5	5.2.0	approved
N2-030014	CR	Clean-up of SMS procedures chapter	Vodafone	TEI5	29.002	523		F	Rel-5	5.4.0	revised to N2-0300
N2-030015	CR	Clean-up of SMS procedures chapter	Vodafone	TEI6	29.002	524		A	Rel-6	6.0.0	revised to N2-0300
N2-030016	CR	handling of events by CS_gsmSSF in state WFI	Ericsson	CAMEL4	23.078	514		F	Rel-5	5.2.0	withdraw
N2-030017	CR	HLR handling when SRI from gsmSCF is not allowed	Ericsson	CAMEL4	23.078	515		F	Rel-5	5.2.0	withdraw
N2-030018	CR	Correction to CAMEL interaction with Line Identification	Ericsson	CAMEL4	23.078	516		F	Rel-5	5.2.0	revised to N2-0301
N2-030019	CR	Correction to implicit disarming of DPs in CS_gsmSSF	Ericsson	CAMEL4	23.078	517		F	Rel-5	5.2.0	revised to N2-0301
N2-030020	CR	HLR handling when Requested Domain is absent from ATI	Ericsson	CAMEL4	23.078	518		F	Rel-5	5.2.0	revised to N2-0301

N2-030021	CR	Stopping No_Answer timer in the case of forwarding notification	Ericsson	CAMEL4	23.078	519		F	Rel-5	5.2.0	withdraw
N2-030022	CR	Correction to CTR Information Flow	Ericsson	CAMEL4	23.078	520		F	Rel-5	5.2.0	revised to N2-0301
N2-030023	CR	Correction to LegId syntax definition	Ericsson	CAMEL4	29.078	296		F	Rel-5	5.2.0	revised to N2-0301
N2-030024	CR	Correction to description of LegId	Ericsson	CAMEL4	29.078	297		F	Rel-5	5.2.0	revised to N2-0301
N2-030025	CR	Correction to SRI Information Flow	Ericsson	CAMEL3	23.078	521		F	R99	3.15.0	revised to N2-0301
N2-030026	CR	Correction to SRF and TC disconnection handling	Ericsson	CAMEL4	23.078	522		F	Rel-5	5.2.0	withdraw
N2-030027	CR	Correction to Call Information Request	Ericsson	CAMEL4	29.078	298		F	Rel-5	5.2.0	revised to N2-0301
N2-030028	CR	Implementing and handling of the Outstanding Request Counter	Alcatel	CAMEL4	23.078	486	2	F	Rel-5	5.2.0	revised to N2-0301
N2-030029	CR	Handling of Connect operation with and without LegID	Alcatel	CAMEL4	23.078	523		F	Rel-5	5.2.0	revised to N2-0301
N2-030030	CR	Handling of Information Flows with absent LegID and CS ID	Alcatel	CAMEL4	23.078	524		F	Rel-5	5.2.0	postpone to next meeting
N2-030031	CR	No concurrent playing of tones to the same leg or call segment	Alcatel	CAMEL4	23.078	525		F	Rel-5	5.2.0	postpone to next meeting
N2-030032	CR	Consistent prefix naming of 23.078 signals.	Alcatel	CAMEL4	23.078	526		F	Rel-5	5.2.0	approved
N2-030033	CR	Implementing of Connect to Resource handling in CAMEL for IMS	Alcatel	IMS-CAMEL	23.278	027		F	Rel-5	5.1.0	revised to N2-0301
N2-030034	CR	ASN.1 syntax basic corrections	Alcatel	CAMEL3	29.078	299		F	R99	3.14.0	revised to N2-0301
N2-030035	CR	ASN.1 syntax basic corrections	Alcatel	CAMEL3	29.078	300		A	Rel-4	4.7.0	approved
N2-030036	CR	ASN.1 syntax basic corrections	Alcatel	CAMEL4	29.078	301		F	Rel-5	5.2.0	approved
N2-030037	CR	ASN.1 syntax basic corrections for IMS CAMEL	Alcatel	IMS-CAMEL	29.278	004		F	Rel-5	5.1.0	approved
N2-030038	CR	Enhancements for the Partial Implementation for Enhanced Dialled Services	Alcatel	CAMEL4	23.078			B	Rel-6	5.2.0	noted
N2-030039	CR	Enhanced CS_gsmSSF for Enhanced Dialled Services	Alcatel	CAMEL4	23.078			B	Rel-6	5.2.0	noted
N2-030040	CR	Enhancements for the Partial Implementation for Enhanced Dialled Services	Alcatel	CAMEL4	29.002	525		B	Rel-6	6.0.0	noted

N2-030041	WID	Enhancement of dialled service for CAMEL4 in Release 6	Samung Electronics, SK	EDSE					Rel-6		revised to N2-0301
N2-030042	DISC	Implementation of enhanced dialled service	Samung Electronics, SK	EDSE					Rel-6		noted
N2-030043	DISC	Handling of partial implementation for enhanced dialled service	Samung Electronics, SK	EDSE					Rel-6		noted
N2-030044	CR	CR to 23.078 on Implementation of enhanced dialled service	Samung Electronics, SK	EDSE	23.078			C	Rel-6	5.2.0	noted
N2-030045	CR	CR to 23.078 on Handling of partial implementation for enhanced dialled service	Samung Electronics, SK	EDSE	23.078			C	Rel-6	5.2.0	noted
N2-030046	CR	CR to 29.078 on Implementation of enhanced dialled service	Samung Electronics, SK	EDSE	29.078			C	Rel-6	5.2.0	noted
N2-030047	CR	CR to 23.018 on Implementation of enhanced dialled service	Samung Electronics, SK	EDSE	23.018	113		C	Rel-6	5.5.0	noted
N2-030048	CR	CR to 29.002 on Handling of partial implementation for enhanced dialled service	Samung Electronics, SK	EDSE	29.002	537		C	Rel-6	6.0.0	noted
N2-030049	CR	Correction to interactions between CAMEL control of MO SMS and barring	Vodafone	CAMEL3	29.002			F	R99	3.15.0	revised to N2-0301
N2-030050	CR	Correction to interactions between CAMEL control of MO SMS and barring	Vodafone	CAMEL3	29.002			A	Rel-4	4.10.0	revised version endorsed
N2-030051	CR	Correction to interactions between CAMEL control of MO SMS and barring	Vodafone	CAMEL3	29.002			A	Rel-5	5.4.0	revised version endorsed
N2-030052	CR	Correction to interactions between CAMEL control of MO SMS and barring	Vodafone	CAMEL3	29.002			A	Rel-6	6.0.0	revised version endorsed
N2-030053	CR	Correction to interactions between CAMEL control of MO SMS and barring	Vodafone	CAMEL3	23.078	527		F	R99	3.15.0	revised to N2-0301
N2-030054	CR	Correction to interactions between CAMEL control of MO SMS and barring	Vodafone	CAMEL3	23.078	528		A	Rel-4	4.7.0	revised to N2-0301
N2-030055	CR	Correction to interactions between CAMEL control of MO SMS and barring	Vodafone	CAMEL3	23.078	529		A	Rel-5	5.2.0	conditionly approved
N2-030056	CR	Using ATI for Mobile Number Portability	ERICSSON L.M.	CAMEL4	23.078	530		F	Rel-5	5.2.0	noted
N2-030057	CR	Alignment of signal names with TS 29.002	Vodafone	CAMEL4	23.078	531		F	Rel-5	5.2.0	approved
N2-030058	DISC	Recorded CAMEL4 decisions.	CN2 chairman	CAMEL4							noted
N2-030059	CR	Introduction of ResetTimer input in state WFI-DS	Nokia	CAMEL4	23.078	532		F	Rel5	5.2.0	revised to N2-0301
N2-030060	CR	Introduction of ResetTimer input in state WFI-DS (IMS)	Nokia	CAMEL4	23.278	028		F	Rel5	5.1.0	revised to N2-0301

N2-030061	DISC	CAMEL open issue list	CN2 chairman	CAMEL4							revised to next meeting
N2-030062	CR	ASN operation package definition for PlayTone	Nokia	CAMEL4	29.078	302		F	Rel5	5.2.0	approved
N2-030063	CR	Buffering of TC messages in the SGSN while waiting for the first SCP response	Nokia	CAMEL3	23.078	533		F	Rel5	5.2.0	revised to N2-0301
N2-030064	DISC	Negotiation for enhanced dialled services capabilities	Nokia	CAMEL4							noted
N2-030065	DISC	SDL modelling for enhanced dialled services	Nokia	CAMEL4							noted
N2-030066	CR	Disallowing ACH-GPRS when PDPc already disconnected	Ericsson	CAMEL4	23.078	534		F	Rel-5	5.2.0	approved
N2-030067	CR	Correction of handling O_Abandon when 2 CAMEL dialogues exist	Ericsson	CAMEL4	23.078	535		F	Rel-5	5.2.0	revised to N2-0300
N2-030068	CR	Correction to timer expiry handling during call forwarding notification	Ericsson	CAMEL4	23.078	536		F	Rel-5	5.2.0	revised to N2-0301
N2-030069	CR	Removal of reference to gsmSCF in parameters for PRN	Ericsson	CAMEL4	23.078	537		F	Rel-5	5.2.0	rejected
N2-030070	CR	Correction to Call Information Request	Ericsson	CAMEL4	23.078	538		F	Rel-5	5.2.0	approvec
N2-030071	CR	Correction to ERB Answer pre-condition	Ericsson	CAMEL4	29.078	303		F	Rel-5	5.2.0	withdraw
N2-030072	CR	Correction to ASN.1 syntax for CWA	Ericsson	CAMEL4	29.078	304		F	Rel-5	5.2.0	revised to N2-0301
N2-030073	CR	Response to ApplyChargingGPRS at WFI at DP that terminates a relationship	Ericsson	CAMEL4	29.078	305		F	Rel-5	5.2.0	revised to N2-0301
N2-030074	CR	Correction to the inclusion of Generic Number in SRI	Ericsson	CAMEL4	23.081			F	Rel-5	5.1.0	revised to N2-0301
N2-030075	CR	HLR handling when SRI from gsmSCF is not allowed	Ericsson	CAMEL4	23.018			F	Rel-5	5.5.0	withdraw
N2-030076	CR	Stopping No_Answer timer in the case of forwarding notification	Ericsson	CAMEL4	23.018			F	Rel-5	5.5.0	revised to N2-0301
N2-030077	CR	Correction to interaction between ORLCF and forwarding notification	Ericsson	CAMEL4	23.079			F	Rel-5	5.2.0	revised to N2-0301
N2-030078	DISC	CAMEL/IMS Open Issues	Lucent Technologies	IMS-CAMEL					Rel-5	5.1.0	noted
N2-030079	CR	Correction of imcnSSF procedure names	Lucent Technologies	IMS-CAMEL	23.278	029		F	Rel-5	5.1.0	approved
N2-030080	CR	Incorrect procedure names used for CAMEL_MT_CTR and CAMEL_MO_CTR	Lucent Technologies	IMS-CAMEL	23.278	030		F	Rel-5	5.1.0	approved

N2-030081	CR	Incorrect procedures called in CAMEL_IMCN_MT_ANSWER	Lucent Technologies	IMS-CAMEL	23.278	031		F	Rel-5	5.1.0	approved
N2-030082	CR	Sending of provisional response for the INVITE	Lucent Technologies	IMS-CAMEL	23.278	032		F	Rel-5	5.1.0	approved
N2-030083	CR	Incorrect SIP response when no CAMEL is invoked	Lucent Technologies	IMS-CAMEL	23.278	033		F	Rel-5	5.1.0	approved
N2-030084	CR	Incorrect references to MSC in the IF descriptions for IMS	Lucent Technologies	IMS-CAMEL	23.278	034		F	Rel-5	5.1.0	withdraw
N2-030085	CR	Editorial corrections in CAMEL_IMCN_MO_ANSWER	Lucent Technologies	IMS-CAMEL	23.278	035		D	Rel-5	5.1.0	revised to N2-0301
N2-030086	CR	Corrections in the procedures for handling failure SIP response	Lucent Technologies	IMS-CAMEL	23.278	036		F	Rel-5	5.1.0	approved
N2-030087	CR	Handling of second PlayAnnouncement request	Lucent Technologies	IMS-CAMEL	29.278	005		F	Rel-5	5.1.0	withdraw
N2-030088	CR	Procedure for DisconnectForwardConnection	Lucent Technologies	IMS-CAMEL	23.278	037		F	Rel-5	5.1.0	withdraw
N2-030089	CR	Clarification of the use of gsmSRF CAP operations for IM-SSF	Lucent Technologies	IMS-CAMEL	23.278	038		F	Rel-5	5.1.0	withdraw
N2-030090	CR	Missing parameter (Charge Indicator)	Siemens AG	CAMEL4	29.078	306		F	Rel-5	5.2.0	revised to N2-0301
N2-030091	CR	Inconsistency in Call Information Report in Re-Connect Case	Alcatel	CAMEL3	23.078	539		F	R99	3.15.0	revised to N2-0301
N2-030092	CR	Inconsistency in Call Information Report in Re-Connect Case	Alcatel	CAMEL3	23.078	540		A	Rel-4	4.7.0	revised to N2-0301
N2-030093	CR	Inconsistency in Call Information Report in Re-Connect Case	Alcatel	CAMEL3	23.078	541		A	Rel-5	5.2.0	revised to N2-0301
N2-030094	CR	Adding unknownCSId Error to Continue With Argument	Ericsson	CAMEL4	29.078	307		F	Rel-5	5.2.0	approved
N2-030095	CR	Correction of handling O_Abandon when 2 CAMEL dialogues exist	Ericsson	CAMEL4	23.078	535	1	F	Rel-5	5.2.0	withdraw
N2-030096	DISC	CAMEL support of concatenated SMS	Ericsson	CAMEL4							noted
N2-030097	CR	Clean-up of SMS procedures chapter	Vodafone	TEI5	29.002	523	1	F	Rel-5	5.4.0	noted
N2-030098	CR	Clean-up of SMS procedures chapter	Vodafone	TEI6	29.002	524	1	A	Rel-5	6.0.0	noted
N2-030099	LS OUT	Reponse to SA2 on LS in N2-030010	CN2								approved
N2-030100	CR	ASN.1 syntax basic corrections	Alcatel	CAMEL3	29.078	299	1	F	R99	3.14.0	approved

N2-030101		Handling of AC and ACR for GPRS	Vodafone			542			Rel-5		revised to N2-0301
N2-030102	CR	Buffering of TC messages in the SGSN while waiting for the first SCP response	Nokia	CAMEL3	23.078	533	1	F	Rel5	5.2.0	revised to N2-0301
N2-030103	CR	Correction to interactions between CAMEL control of MO SMS and barring	Vodafone	CAMEL3	29.002			F	R99	3.15.0	endorsed
N2-030104	CR	Correction to interactions between CAMEL control of MO SMS and barring	Vodafone	CAMEL3	23.078	527	1	F	R99	3.15.0	conditionly approved
N2-030105	CR	Correction to interactions between CAMEL control of MO SMS and barring	Vodafone	CAMEL3	23.078	528	1	A	Rel-4	4.7.0	conditionly approved
N2-030106	CR	Inconsistency in Call Information Report in Re-Connect Case	Alcatel	CAMEL3	23.078	539	1	F	R99	3.15.0	approved
N2-030107	CR	Inconsistency in Call Information Report in Re-Connect Case	Alcatel	CAMEL3	23.078	540	1	A	Rel-4	4.7.0	approved
N2-030108	CR	Inconsistency in Call Information Report in Re-Connect Case	Alcatel	CAMEL3	23.078	541	1	A	Rel-5	5.2.0	approved
N2-030109	CR	Correction to interworking between CLIP enhancement and CAMEL	Ericsson	CAMEL4	23.081			F	Rel-5	5.1.0	endorsed
N2-030110	CR	Correction to ASN.1 syntax for CWA	Ericsson	CAMEL4	29.078	304	1	F	Rel-5	5.2.0	approved
N2-030111	CR	Missing parameter (Charge Indicator)	Siemens AG	CAMEL4	29.078	306	1	F	Rel-5	5.2.0	revised to N2-0301
N2-030112	CR	Correction to CAMEL interaction with Line Identification	Ericsson	CAMEL4	23.078	516	1	F	Rel-5	5.2.0	revised to N2-0301
N2-030113	CR	Correction to implicit disarming of DPs in CS_gsmSSF	Ericsson	CAMEL4	23.078	517	1	F	Rel-5	5.2.0	approved
N2-030114	CR	Correction to CTR Information Flow	Ericsson	CAMEL4	23.078	520	1	F	Rel-5	5.2.0	approved
N2-030115	CR	Correction to SRI Information Flow	Ericsson	CAMEL3	23.078	521	1	F	R99	3.15.0	approved
N2-030116	CR	Correction to SRI Information Flow	Ericsson	CAMEL3	23.078	543		A	Rel-4	4.7.0	approved
N2-030117	CR	Correction to SRI Information Flow	Ericsson	CAMEL3	23.078	544		A	Rel-5	5.2.0	approved
N2-030118	CR	Correction to Call Information Request	Ericsson	CAMEL4	29.078	298	1	F	Rel-5	5.2.0	approved
N2-030119	CR	Implementing and handling of the Outstanding Request Counter	Alcatel	CAMEL4	23.078	486	3	F	Rel-5	5.2.0	revised to N2-0301
N2-030120	Disc	Handling of Outstanding Requests for Legs and Call Segments	Vodafone								revised to N2-0301

N2-030121	CR	Introduction of ResetTimer input in state WFI-DS	Nokia	CAMEL3	23.078	532	1	F	R99	3.15.0	approved
N2-030122	CR	Introduction of ResetTimer input in state WFI-DS	Nokia	CAMEL3	23.078	545		A	Rel-4	4.7.0	approved
N2-030123	CR	Introduction of ResetTimer input in state WFI-DS	Nokia	CAMEL3	23.078	546		A	Rel-5	5.2.0	approved
N2-030124	CR	Introduction of ResetTimer input in state WFI-DS (IMS)	Nokia	IMS-CAMEL	23.278	028	1	F	Rel5	5.1.0	approved
N2-030125	CR	Handling of a stand alone call segment in CS_gsmSSF (revision of N2-020991)	Vodafone	CAMEL4	23.078	491	2	F	Rel-5	5.2.0	approved
N2-030126	CR	Correction to LegId syntax definition	Ericsson	CAMEL4	29.078	296	1	F	Rel-5	5.2.0	postpone
N2-030127	CR	Correction to wrong implementation of approved CR 089r2 and 096	Orange	TEI	23.018	116			R99		noted
N2-030128	CR	Correction to description of LegId	Ericsson	CAMEL4	29.078	297	1	F	Rel-5	5.2.0	postpone to next meeting
N2-030129	CR	Handling of Connect operation with and without LegID	Alcatel	CAMEL4	23.078	523	1	F	Rel-5	5.2.0	postpone to next meeting
N2-030130	WID	Enhancement of dialled service for CAMEL4 in Release 6	Samung Electronics, SK	EDSE					Rel-6		revised to N2-030144~~0~~
N2-030131	CR	MNP for prepaid subscriber	Orange						Rel-5		withdraw
N2-030132	CR	IN-based solution for correct charging of calls to ported or non-ported subscribers originated by	Siemens		23.066				Rel-5		withdraw
N2-030133	CR	Incorrect Charging with MNP	Ericsson L.M.		29.002				Rel-5		noted
N2-030134	CR	Incorrect Charging with MNP	Ericsson L.M.		29.002				Rel-6		noted
N2-030135	CR	Incorrect Charging with MNP	Ericsson L.M.		23.066				Rel-5		noted
N2-030136	CR	Incorrect handling of TDP-Criteria for VT-CSI	Ericsson L.M.		29.002				R99		withdraw
N2-030137	CR	Incorrect handling of TDP-Criteria for VT-CSI	Ericsson L.M.		29.002				Rel-4		withdraw
N2-030138	CR	Incorrect handling of TDP-Criteria for VT-CSI	Ericsson L.M.		29.002				Rel-5		withdraw
N2-030139	CR	Incorrect handling of TDP-Criteria for VT-CSI	Ericsson L.M.		29.002				Rel-6		withdraw
N2-030140	CR	Defining default ASN value for requested domain in ATI request	Ericsson	CAMEL4	29.002			F	Rel-5		postpone

N2-030141	CR	Defining default ASN value for requested domain in ATI request	Ericsson	CAMEL4	29.002			F	Rel-6		postpone
N2-030142	CR	Correction to the ATI Information Flow table structure~~HLR handling when Requested Domain is absent~~	Ericsson	CAMEL4	23.078	518	1	F	Rel-5	5.2.0	revised to N2-0301
N2-030143	CR	Corrections in CAMEL_IMCN_MO_ANSWER	Lucent Technologies	IMS-CAMEL	23.278	035	1	~~D~~F	Rel-5	5.1.0	approved
N2-030144	WID	Enhancement of dialled service for CAMEL4 in Release 6	Samung Electronics, SK	EDSE					Rel-6		approved
N2-030145	CR	Stopping No_Answer timer in the case of forwarding notification	Ericsson	CAMEL4	23.018			F	Rel-5	5.5.0	postpone to next meeting
N2-030146	CR	Correction to interaction between ORLCF and forwarding notification	Ericsson	CAMEL4	23.079	025	1	F	Rel-5	5.2.0	postpone to next meeting
N2-030147	CR	Response to ApplyChargingGPRS at WFI at DP that terminates a relationship	Ericsson	CAMEL4	29.078	305	1	F	Rel-5	5.2.0	approved
N2-030148	CR	Correction to timer expiry handling during call forwarding notification	Ericsson	CAMEL4	23.078	536	1	F	Rel-5	5.2.0	approved
N2-030149	CR	Adding “Offered CAMEL4 CSIs In GMSC” to SRI from gsmSCF	Ericsson	CAMEL4	23.078	547		F	Rel-5	5.2.0	postpone to next meeting
N2-030150	CR	Implementing of Connect to Resource handling in CAMEL for IMS	Alcatel	IMS-CAMEL	23.278	027	1	F	Rel-5	5.1.0	approved
N2-030151	Disc	Handling of Outstanding Requests for Legs and Call Segments	Vodafone								revised to N2-0301
N2-030152	CR	Handling of AC and ACR for GPRS	Vodafone	CAMEL4	23.078	542	1	F	Rel-5	5.2.0	approved
N2-030153	CR	Implementing and handling of the Outstanding Request Counter	Alcatel	CAMEL4	23.078	486	3	F	Rel-5	5.2.0	postpone to next meeting
N2-030154	CR	Buffering of TC messages in the SGSN while waiting for the first SCP response	Nokia	CAMEL3	23.078	533	2	F	Rel5	5.2.0	approved
N2-030155	CR	Inconsistency in Call Information Report in Re-Connect Case	Alcatel	IMS-CAMEL	23.278	039		F	Rel-5	5.1.0	~~A~~approve
N2-030156	CR	Missing parameter (Charge Indicator)	Siemens AG	CAMEL4	29.078	306	2	F	Rel-5	5.2.0	approved
N2-030157	CR	Correction to CAMEL interaction with Line Identification	Ericsson	CAMEL4	23.078	516	2	F	Rel-5	5.2.0	approvec
N2-030158	Disc	Handling of Outstanding Requests for Legs and Call Segments	Vodafone								noted
N2-030159	CR	Correction to the ATI Information Flow table structure~~HLR handling when Requested Domain is absent~~	Ericsson	CAMEL4	23.078	518	2	F	Rel-5	5.2.0	revised to N2-0301
N2-030160	CR	Correction to the ATI Information Flow table structure~~HLR handling when Requested Domain is absent~~	Ericsson	CAMEL4	23.078	518	3~~2~~	F	Rel-5	5.2.0	~~e-mail approval~~ proved

* The document is not formally approved by CN2, but sent to CN#19 plenary meeting as company contribution (Source: Vodafone) as well as CN4 linked CRs. The CN2#28 Draft Meeting Report will be updated after CN#19 plenary meeting to reflect the final conclusion