3GPP TSG CN Plenary Meeting #18 **NP-020521**
4th - 6th December 2002. New Orleans, USA.

Source:	MCC
Title:	TSG CN WG2 meeting reports after CN#17
Agenda item:	6.2.1
Document for:	INFORMATION

Introduction:

This document contains 2 TSG CN WG2 meeting reports after CN#17: TSG CN WG2 #26 Meeting Report and TSG CN WG2 #17 Draft Meeting Report. The documents are forwarded to TSG CN Plenary meeting #16 for information.

Meeting Report, version 2.0.0

TSG CN WG2#26
Miami, USA

23rd – 27th September, 2002

Chairman: Keijo Palviainen (Nokia)

MCC support: Andrijana Jurisic(ETSI)

Hosts: North American Friends of 3GPP

List of participants:	Annex A
Output documents	Annex B
Tdoc list (incl. the status)	Annex C

Documents could be found on the 3GPP-server:

ftp://ftp.3gpp.org/TSG_CN/WG2_camel/Plenary/TSGN2_26/Docs

1 Opening of the meeting and approval of the agenda

N2-020803 : CN2 chairman, Title: Proposed meeting agenda

Discussion:

Conclusion: approved

2 Allocation of documents to agenda items

N2-020804 : CN2 chairman, Title: Allocation of documents to agenda items

Discussion: Wednesday afternoon is reserved for joint meeting with CN4. Documents N2-020860 and N2-020861 are withdrawn, but the topic related to N2-020860 needs to be discussed.

Conclusion: approved as a basis for the meeting, will be revised during the meeting with the same document number

3 Reports

N2-020805: MCC, Title: CN2#25 Draft Meeting Report

Discussion :

Conclusion: approved

N2-020806: MCC, Title: CN#17 Draft Meeting Report

Discussion:

- All the CR packages sent from CN2 are approved in the CN#18 plenary, except the NP-020346 ("Playing of Warning Tone") which is refferred back to CN2 for further study.
- TS 23.278 and TS 29.278 (CAMEL-IMS Interworking) are approved and raised to version 5.0.0
- Update of CAMEL4 WID is approved
- Update of CN2 Terms of refference is approved
- CN plenary decided that editorial CRs are allowed for Rel-5 for the next plenary. In December 2002 CN plenary will decide about whether editorial CRs are allowed for March 2003.
- CN plenary asked companies to try to avoid sending CRs direct to plenary. Issues should be handled in working groups first, and only WGs should send CRs to CN plenary for approval.
- CN plenary asked CN2 to discuss the possibility of merging with CN4 or taking over part of CN4 work.

Conclusion: noted

4 Input Liaison Statements

N2-020813 : CN4, Type: LS IN , Title: Latest Version of CAMEL IREG Test Specification

Discussion : Ericsson supports closer interaction between GSMA CAMEL IREG WG and 3GPP CN2. Vodafone will convey the message to CAMEL IREG WG that CAMEL IREG WG is welcome to ask CN2 for any clarification regarding CAMEL specifications.

Conclusion: noted

N2-020821 : Type: LS IN ,From: SA2, Title: Liaison statement on the CAMEL_PS_Notification procedure

Discussion: The CAMEL_PS_notification procedure informs the gsmSCF about Mobility Management events such as attach, detach, routing area update of an MS. In SA2 meeting there were discussions on two issues.

The first issue was on the trigger points for the CAMEL_PS_Notification procedure in case of an inter SGSN change. The CR proposes that only the new SGSN performs the CAMEL_PS_Notification procedure. But the new SGSN may be not capable of CAMEL phase 4 (e.g. the new SGSN is an R99 SGSN). In this case the CAMEL_PS_Notification is not performed and the gsmSCF has an invalid information about the location of the MS. Therefore SA2 proposes that the old SGSN also performs the CAMEL_PS_Notification. Then the gsmSCF would be informed that the MS is no longer located in the old SGSN.

The second issue was on the returned result of the CAMEL_PS_Notification. The CR describes that the CAMEL_PS_Notification procedure returns as result "Continue". There were comments that this is not the case.

Therefore SA2 kindly asks CN2 whether the CAMEL_PS_Notification procedure returns a result or not? And if yes, which result?

SA2 kindly asks CN2 to discuss the issues mentioned in section 2 of this LS and to advice on the necessary changes against TS 23.060.

In inter-SGSN Routeing Area Update (RAU) SA2 wants to notify SCP also from source SGSN. In N2-020833 trigger by old SGSN is added. Does this needs updates in 22.078? Tdoc N2-020833 includes new enhancement. In case of inter SGSN Routing Area Update, there are 2 updates, one sent by new SGSN explicitely and one is sent by the old SGSN. Stage 3 CR is in N2-020890.

Conclusion: noted

N2-020904 : Type: LS OUT , To: SA2, Title: Response to Liaison statement on the CAMEL_PS_Notification procedure

Discussion: 23.078 and 29.002 CRs will be inserted in the zip file with liaison statement. CN4 approved changes will also be mentioned in the LS. "CN2 should have noticed" will be deleted from the first sentence of the CR.

Missing word "could"will be added in Actions section.

Conclusion: revised to N2-020936

N2-020936 : Type: LS OUT ,To: SA2, Title: Response to Liaison statement on the CAMEL_PS_Notification procedure

Discussion:

Conclusion: approved without presentation, will be sent to SA2 by MCC

N2-020822 : Type: LS IN, From: SA2, Title: Correction to Emergency call handling in IMS

Discussion: A decision was made some time ago that there shall be no support for emergency calls in the IM CN subsystem for Release 5. The UE should in that case for voice telephony use the CS domain to place emergency calls. The Vodafone discussion paper S1-021670 and the SA1 CR S1-021776 propose an additional mechanism. Because of the importance for handling emergency calls in good order, SA1 would like to state this requirement for Release 5 and Release 6.

- SA2 does support extensions to the current emergency call solutions and believes that passing emergency numbers to the UE in MM/GMM messages is technically feasible.
- SA2 recommends having the requirement for GMM/MM transmitted emergency number information for Release 4 onwards.
- At this point in time SA2 has not changed the current TS 23.228 emergency call handling because further study of all call cases is needed (e.g pre R4 SGSN and VPLMN based P-CSCF).

CN1 has to decide how to specify special numbers defined by different operators.

No action has been required from CN2. CN2 waits for further input.

Conclusion: noted

N2-020823 : Type: LS IN, From: Chairs, SIP, SIPPING, and SIMPLE Working Groups of the Internet Engineering Task Force, Title: Liaison Statement on Interoperability Issues and SIP in IMS

Discussion: The originators state that dangerous to deploy subsets in SIP, internet & SIP are intended to be open. Inter-connectivity remains as an issue.

- 3GPP specific changes are hard to avoid, e.g. due to speech codecs.
- According to LS, 3GPP uses user agents and modifies SIP headers in a wrong manner. This causes problems with security features.

CAMEL-IMS specifications do not have any refferences to IETF documents. TS 23.278 and TS 29.278 rapporteur reffered to 3GPP specs directly as 3GPP may have introduced SIP modifications. CAMEL-IMS changes the *destination* URL address. *To* and *From* parameters are not changed.

IM-SSF is complient to 3GPP specifications for IMS. CN1, CN4 and SA2 should change the way 3GPP is using IEITF specifications if needed and CN2 should align if necessary.

Any operator should be able to buy SIP package and IMS package independetly and they have to interwork, without modifying the SIP.

Conclusion: noted, CN2 waits for the input from CN1 or SA2 (Requirements are coming from SA1 to CN2, therefore possible requirements should come from SA1))

N2-020900 : Type: LS IN, From: TSG SA, Title: Response to IETF Liaison on interoperability issues and SIP in IMS

Discussion: Companies have to follow in CN1 and CN4 if there are any changes concernig original LS sent by IETF and inform CN2.

Conclusion: noted

5 Work item management & miscellaneous

Status of CN2 specifications

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	3.14.0	N2	HOMANN, Christian
TS	23.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3 - Stage 2	Rel-4	4.6.0	N2	HOMANN, Christian
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3; CAMEL Application Part (CAP) specification	R1999	3.13.0	N2	NOLDUS, Rogier
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3; CAMEL Application Part (CAP) specification	Rel-4	4.6.0	N2	NOLDUS, Rogier
TS	23.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 4 - Stage 2	Rel-5	5.1.0	N2	SUMIO, Myagava
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase; CAMEL Application Part (CAP) specification	Rel-5	5.1.0	N2	NOLDUS, Rogier
TS	23.278	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 4 - Stage 2; IM CN Interworking	Rel-5	5.0.0	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	5.0.0	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.

An IPR declaration was announced by the chairman. 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

Merging of CN2 with CN4 – discussion

- Ericsson: Is there a WI for Rel-6. No, there are no Rel-6 requirements yet.
- Lucent: CN1 and CN4 have some WI for Rel-6 which may inpact CN2 work. CN2 may get new features in additon to correcting CAMEL 4 specs and CAMEL-IMS specs.
- Alcatel: Alcatel see an advantage to take some work from CN4, e.g. MAP specification and GTP protocol. In that case editors of those specifications should become CN2 delegates. If there is no WI split, there is an opinion in CN2 that it should not be a problem for companies to move their delegates who are rapporteurs to another group. Regarding requirements for CAMEL in Rel-6, discussions are needed in SA1.
- In this meeting Ericsson has a proposal for enhancements in CAMEL4 (in Release 6) and SK Telecom has a proposal for reintroducing of enhancements of dialled services in CAMEL4 possibly in Release 5 and alternatively in Release 6.
- CN2 is still occupied with CAMEL 4 and CAMEL-IMS and behind that there are requests for new enhancements in CAMEL phase 4, therefore merging with CN4 would not be the best solution, since CN2 has a full schedule in every meeting and is foreseen that it will remain so in the next year.

IMS related mirror CRs – discussion

Who is responsible for IMS related mirror CR, if an IMS non-related CR is done?

The originator of the CR should study if there are impacts on IMS and at least bring a discussion paper to the CN2 meeting. This must be discussed case by case.

6 Maintenance of earlier CAMEL phases

6.1 CAMEL phase 1

6.2 CAMEL phase 2

No contributions received.

7 CAMEL3, Resolution of outstanding issues for Release 99

7.1 CAMEL3, Miscellaneous

N2-020843:, Source: Ericsson, Type: LS IN, Title: Draft LS on “Packet switched SMS handling in UMTS network”

Discussion : This is a proposed LS statement from Ericsson which should be sent to SA2 and T2 as source CN2:

“CN2 would like to ask SA2 and T2 to provide guidance on the implementation of CAMEL control of SMS in a UMTS network. The current versions of the specifications, TS 23.060 and TS 23.040, are ambiguous in this regard and may need to be corrected (TS 23.060 refers to TS 23.040, but in TS 23.040 there is no adequate part for SMS handling in UMTS network as it was defined for GSM)
CN2 would like to leave it over to SA2 and T2 to decide whether TS 23.060 and TS 23.040 respectively should be corrected for R99 or for Rel-5.”

Working assumption: CN2 recommends that TS 23.060 should be corrected. LS statement will be revised to specify more clearly CN2 recommendation. CN2 expects companies to bring a CR directly to SA2. The CR is not seen in CN2.

Conclusion: revised to N2-020898

N2-020898:, Source: Ericsson, Type: LS OUT, Title: Draft LS on "Packet switched SMS handling in UMTS network"

Discussion: Changes will be accepted by MCC and spelling errors will be corrected off-line.

Conclusion :approved, will be sent by MCC

N2-020877: TS 29.078, Rel-99, Alcatel, Type: CR, CR#281, Title: ASN.1 syntax basic corrections

Discussion: Syntax errors in ASN.1 and spelling errors which vendors must manually fix -should be mentioned in consequences if not approved. Category of the CR is marked as essential correction, but plenary may not find it so. Category should be F, agreed by consensus.

There is the small difference (one letter) between word document and text file. Text file will be corrected offline when the next version of the TS 29.078 comes.

Conclusion: revised to N2-020908

N2-020908: TS 29.078, Rel-99, Alcatel, Type: CR, CR#281r1, Title: ASN.1 syntax basic corrections

Discussion: If the category of the CR is "agreed by consensus", Vodafone objects the CR. If CN2 decides to accept this CR as non critical correction agreed by consensus, it may be rejected in the plenary.

Conclusion: rejected

N2-020878: TS 29.078, Rel-4, Alcatel, Type: CR, CR#282, Title: ASN.1 syntax basic corrections

Discussion : Category is A(mirror CR), consequences if not approved should be aligned with the R99 CR.

Conclusion : revised to N2-020909

N2-020909: TS 29.078, Rel-4, Alcatel, Type: CR, CR#282r1, Title: ASN.1 syntax basic corrections

Discussion: The same assumption as for R99 CR applies.

Conclusion :rejected

N2-020879: TS 29.078, Rel-5, Alcatel, Type: CR, CR#283, Title: ASN.1 syntax basic corrections

Discussion: We cancel deletion of extra "r". Category is not A. Consequences if not approved should be enhanced.

Conclusion : revised to 910

N2-020910: TS 29.078, Rel-5, Alcatel, Type: CR, CR#283r1, Title: ASN.1 syntax basic corrections

Discussion:

Conclusion : approved without presentation

N2-020844: TS 23.078, R99, Ericsson, Type: CR, CR#462, Title: Correction to "forwardedCall" parameter in T_Answer and O_Answer

Discussion: The current description of the "forwardedCall" parameter in T_Answer and O_Answer is not clear enough for MSC/gsmSSF designers, leading to inconsistent implementations of this parameter in the MSC of different vendors. The CR modifies in section 4.6.1.4 (Event Report BCSM), the description of the "forwardedCall" parameter for the O_Answer and T_Answer event.

It is not clear when this parameter shall be present in the event report.

Item number 3 in the description of the parameter should be deleted. The item number 2 shall be enhanced with CAMEL call forwarding in VMSC.

In "Forwarded call" for MF column, "M" is deleted. Ericsson proposes not to inform SCP about forwarded call in O-BCSM for a forwarded call. InitialDP already indicates that this is a forwarded call, thus this parameter does not convey new information. Nokia would like to check this. Vodafone finds that deletion of "M" shall be cancelled. According to Ericsson, if "M" is left then the textual part should be modified.

Title of the document should be changed.

Conclusion : revised to N2-020911

N2-020911: TS 23.078, R99, Ericsson, Type: CR, CR#462r1, Title: Correction of description of "forwardedCall" parameter in T_Answer and O_Answer

Discussion: CN2 agreed that there is some ambiguity in the wording, but couldn't reach the agreement on this contribution.

Conclusion: withdrawn

N2-020845: TS 23.078, R99, Ericsson, Type: CR, CR#463, Title: Correction to "destinationAddress" parameter in T_Answer and O_Answer

Discussion: If the Event Type BCSM IE contains either O_Answer or T_Answer, then the Event Specific Information BCSM IE contains the Destination address. Ericsson proposes in this change the following change in the description of the Destination address: For the MO, MF and MT call cases, refer to TS 23.018 [3] for the value of this IE. For the VT call case, the following applies:

- If the Provide Roaming Number (PRN) MAP Message from the HLR contains an MSISDN, then the VMSC shall report the MSISDN from PRN.
- If the PRN MAP Message does not contain a MSISDN, then the VMSC shall report the MSISDN contained in the VLR.

Comments:

- From GMSC (MT) point of view should be important to know if it's FTN or roaming number.

- Vodafone does not find this correction as essential correction.

- If "Connect" changes B number, would we report DestinationAddress of "Connect"?

- Ericsson: In Multiple Subscriber Profile service (MSP) subscriber can have 2 MSDNs registered in the HLR. The MSISDN is reported in InitialDP. MSP requires that MSISDN which came from the HLR should be used.

Working assumption:

- It's not specified what shall be reported for pure VT case without any CF. Ericsson will consider to report MSISDN for pure VT case for the next meeting.

- CN2 concluded that in VT case without call forwarding , MSISDN of the called subscriber should be reported.

- For GSM Call Forwarding, CAMEL call forwarding and GSM Call Deflection we do not have any conclusion jet.

Conclusion: withdrawn

N2-020846: TS 23.078, R99, Ericsson, Type: CR, CR#464, Title: Correction to Dialled Services criteria

Discussion: The CR specifies that the HLR shall store the numbers of D-CSI in the order in which they need to be checked by the MSC and GMSC. It includes a note concerning the overlap of number criteria and specifies that the MSC and GMSC shall check the numbers contained in D-CSI in the order in which they were received from the HLR or VMSC.

Comments:

- No reguirement for VLR to keept the order.

- Vodafone think the proposed change is unnecessary, as operators would have to implement an overlapping numbering plan for the fault to occur.
- Siemens: The only concern is how to handle overlapping numbers. Siemens supports Vodafone's opinion.

- Lucent is in favour of Ericsson proposal.

- Alcatel: This CR could be revised in order to delete the note about the ordering.

- An HLR implementor would not like to be mandated on internal implementation. We are just mandating the behaviour of SSF. Operator is free to have any sorting within D-CSI, but all service numbers starting with the same sequence of numbers should be checked.

We remove any mandate how HLR should store numbers, we only specify the SSF behaviour in respect of checking numbers. There are 3 choices:

1. To introduce health warning in R99, Rel-4 and Rel-5.

2. The original proposal (numbers should be stored in the way operators would like them to be checked).

3. Mandate MSC/VLR.SSP to use the order. If we mandate MSC/VLR to check in certain order (no mandate on HLR) this impacts TS 23.016 as well.

Vodafone prefers to include a health warning for R99, Rel-4 and Rel-5.

JOINT MEETING DISCUSSION:

- Contraversial discussion in CN2 was: Is the HLR mandated to send the triggering criteria in the certain order to MSC/VLR?

- CN2 needs CN4 guidance on MAP segmentation. Do we expect MAP level segmenation to be used? White Book SCCP for R99 is expected, therefore no segmanetation.

Decision: CN2 decided to include health warning in R99, Rel-4 and Rel-5. Corresponding MAP CR was rejected

Conclusion: revised to N2-020929

N2-020929: TS 23.078, R99, Ericsson, Type: CR, CR#464r1, Title: Correction to Dialled Services criteria

Discussion:

Conclusion: postponed, not available during the meeting

N2-020847: TS 29.002, R99, Ericsson, Type: CR, Title: Correction to Dialled Services criteria

Discussion: The document is presented in the joint meeting and is the result of the discussion on the previous document. CR proposes to specify that, if D-SCI is segmented:

- the HLR shall send (in MAP ISD and MAP SRI-Res) the individual numbers of D-CSI in the order in which they shall be checked by the MSC or GMSC and

- to specify that the MSC shall send (in MAP RCH) the individual numbers in the order in which they were received from the HLR (in MAP ISD).

- This can be left in stage 2. It was proposed to have a health warning in TS 23.078.

- For the second bullet it does not matter whether segmentation is used.

- Wording MSC/VLR would be better to use instead of MSC.

Siemens supports to introduce the health warning for R99and Rel-4. Nortel accepts this proposal. Health warning will be introduced in the Rel-5 as well.

Conclusion: rejected

N2-020848: TS 29.002, Rel-5, Ericsson, Type: CR, Title: Correction to segmentation of O-CSI and T-CSI

Discussion : The CR aligns CSI segmentation rules. TDPs should not be divided in separate segments.

CR should be revised to state that O-CSI shall not be segmented and T-CSI shall not be segmented, and not to describe what happens if O-CSI and T-CSI are segmented. CN4 delegates are invited to give advice to CN2 whether O-CSI can fit to one MSU (the same for T-CSI). Siemens volunteered to do a calculation.

Conclusion: revised to N2-020919

N2-020919: TS 29.002, R99, Ericsson, Type: CR, Title: Correction to segmentation of O-CSI and T-CSI

Discussion :

Conclusion: endorsed without presentation, CN4 waits for calculation

N2-020920: TS 29.002, Rel-4, Ericsson, Type: CR, Title: Correction to segmentation of O-CSI and T-CSI

Discussion :

Conclusion: endorsed without presentation, CN4 waits for calculation

N2-020921: TS 29.002, Rel-5, Ericsson, Type: CR, Title: Correction to segmentation of O-CSI and T-CSI

Discussion:

Conclusion: endorsed without presentation, CN4 waits for calculation

N2-020856: TS 23.079, R99, Ericsson, Type: CR, Title: Correction to CRN and GMSCA handling in HLR

Discussion: In case HLRB does not support optimal routing, CR proposes to clarify : If HLRB does not support OR, it may omit the relaying of the GMSC address and the call reference number which it received in the SRI(B), so VMSCB cannot send the RCH to the GMSC. Instead, the call will be forwarded at VMSCB.

T-Mobil suggests just to specify following: If the HLRB does not support OR, the call will be forwarded to the VMSCB.

Alcatel: Is VMSC required to send RCH to the GMSC or is allowed not to send RCH? Will the availability of GMSC address give the choice of OR?

The current spec for OR : IF HLR does not support OR, those IEs does not need to be send.

Question for CN4: What shall VLR does when it receives GMSC address and call reference number, but optimal routing is not supported by the HLR?

Vodafone's view is that this change is not necessary. In 5.1.6, descriptive text should be removed and the current change should be cancelled. Decision is that this change will be applied to Rel-5 only (this document will not have CN2 number, just CN4 document number N4-021297 which is approved)

Conclusion: withdrawn (due to CR from HP)

N2-020857: TS 23.079-022, R99, Ericsson, Type: CR, Title: Correction to figure 7a (handling of RCH in GMSC)

Discussion: The CR proposes that GMSC checks presence of O-CSI/D-CSI. If CAMEL is not supported, then RCH shall be rejected by the GMSC.

It should be checked as well whether GMSC supports appropriate CAMEL phase required by O-CSI and D-CSI. CAMEL is supported as indicated in O-CSI/D-CSI. CN4 accepted in the joint meeting to revise the CR to include this specific check.

WI should be CAMEL3.

Conclusion: revised to N2-020922 (revised to N4-021291)

N2-020922 TS 23.079, R99, Ericsson, Type: CR, Title: Correction to figure 7a (handling of RCH in GMSC)

Discussion:

Conclusion: endorsed by CN2, approved by CN4 in N4-021291

N2-020923 TS 23.079, Rel-4, Ericsson, Type: CR, Title: Correction to figure 7a (handling of RCH in GMSC)

Discussion:

Conclusion: endorsed by CN2, approved by CN4 in N4-021292

N2-020924 TS 23.079, Rel-5, Ericsson, Type: CR, Title: Correction to figure 7a (handling of RCH in GMSC)

Discussion:

Conclusion: endorsed by CN2, approved by CN4 in N4-021923

N2-020871: TS 23.078, R99, Alcatel, Type: CR, CR#468 Title: Alignment between 23.078 and 29.002 about RCH

Discussion:

Conclusion: revised to N2-020896 before the presentation

N2-020896: TS 23.078, R99, Alcatel, Type: CR, CR#468r1, Title: Alignment between 23.078 and 29.002 about RCH

Discussion: The CR proposes that VMSC-B sends triggers to GMSC without criteria, since ASN does not support criteria (for unsuccessful DPs). The contribution intends to give a warning to the designers that there is the problem with DP Route_Select_Failure. The proper solution would be to change ASN.1, but it's too late for R99.

Ericsson is proposing the health warning for R99 without changing the SDLs. We could use the same SDLs in R99 and Rel-5 but we could clarify for R99.

We can just state for O-CSI that the trigger criteria is not present for DP Route Select Failure.

Vodafone finds this SDL change as relevant change.

Alcatel and Nokia are hesitant to change R99 ASN.

Questions and conclusions:

1. Shall we change the SDL as proposed by Alcatel? Vodafone, Ericsson, Nokia and Alcatel are in favour of modifying the SDL. Ericsson and T-Mobile have not strong objection of changing the SDL. Conclusion is that SDLs will be changed.
2. ASN.1 for R99 will not be changed.
3. Ericsson has a comment: In 4.2.1.2.3 it is not necessary to specify GMSC functionality. Alcatel agreed to modify the CR according to this conclusion. The same comment applies for the information flow.
4. "Any trigger criteria" should be changed " the trigger criteria"
5. In IE table it will be specified that "is not present in this 3GPP release"

Conclusion: revised to N2-020901

N2-020901: TS 23.078, R99, Alcatel, Type: CR, CR#468r2, Title: Alignment between 23.078 and 29.002 about RCH

Discussion: 4.6.11.1.2 in description of O-CSI the word "failure" is missing in the name of the DP Route Select Failure (this was unintentionally introduced by Alcatel with the creation of the document N2-020901). Trigger criteria for DP Route Select Failure is not present in this 3GPP release, but it's present in Release 5. Vodafone may want to cancel the approval in next CN2 meeting. If nothing is indicated during the next meeting, the CR remains approved.

Conclusion: revised to N2-020937

N2-020937: TS 23.078, R99, Alcatel, Type: CR, CR#468r3, Title: Alignment between 23.078 and 29.002 about RCH

Discussion:

Conclusion: approved without presentation

N2-020872: TS 23.078, Rel-4, Alcatel, Type: CR, CR#469, Title: Alignment between 23.078 and 29.002 about RCH

Discussion :

Conclusion :revised to N2-020897 before the presentation

N2-020897: TS 23.078, Rel-4, Alcatel, Type: CR, CR#469r1, Title: Alignment between 23.078 and 29.002 about RCH

Discussion :It is category A. Must be revised as R99 CR.

Conclusion: revised to N2-020938

N2-020938: TS 23.078, Rel-4, Alcatel, Type: CR, CR#469r2, Title: Alignment between 23.078 and 29.002 about RCH

Discussion: The same Vodafone reservation as for R99 CR applies.

Conclusion: approved without presentation

N2-020873: TS 29.002, Rel-5, Alcatel, Type: CR, Title: Alignment between 23.078 and 29.002 about RCH

Discussion :The category should be F.

Conclusion: withdrawn

N2-020858: TS 29.002, Rel-5, Ericsson and Alcatel, Type: CR, Title: Correction to RCH - adding O-CSI trigger criteria

Discussion: This document proposes the same as Alcatel CR in N2-020873. The document N2-020858 is presented in Joint meeting with CN4 as joint Ericsson – Alcatel contribution.

Conclusion: endorsed by CN2, approved by CN4 during the CN2-CN4 Joint meeting

7.2 CAMEL3/ATM&ATSI

7.3 CAMEL3/GPRS

N2-020817: Nortel, Type: Discussion document, Title: Definition of LocationInformationGPRS in 29.078

Discussion: R99 specification defines LocationInformationGPRS. LocationINformationGPRS is different in R99/Rel-4 compared to Rel-5. Encoding of type and length tags is the issue. R99 encoding is claimed to be unclear. According to Siemens there is clear definition of encoding.

There is possible encoding difference between R99 and Rel-5 which has to be resolved.

Nortel proposes as one of the solutions to clarify the existing encoding of LocationInformationGPRS in Release 99 and Release 4. Also change Release 5 so that the encoding of LocationInformationGPRS is not modified.

The same problem applies to CAMEL3 SMS. Ericsson's proposal is to align Rel-5 with R99. Siemens, Vodafone and Nokia support this view.

T-Mobil supports Nortel proposal to change R99 to have consistency across CAMEL phases/releases.

Working assumption:

- There is a incompatibility between R99 and Rel-5 which needs to be resolved.
- Companies are aware of this incompatibility and are welcome to bring contributions to next meeting.
- CR should be only to 29.078, if we decide to change only Rel-5.
- SMS incompatibility between releases should be checked.

Conclusion: noted

N2-020818: TS 29.078, R99,Nortel, Type: CR, CR#271, Title: Definition of LocationInformationGPRS in 29.078

Discussion:

Conclusion: withdrawn

N2-020819: TS 29.078, Rel-4, Nortel, Type: CR, CR#272, Title: Definition of LocationInformationGPRS in 29.078

Discussion:

Conclusion: withdrawn

N2-020834: TS 23.078, R99, Ericsson, Type: CR, CR#458, Title: Correction to handling when Delta is greater than received maximum threshold

Discussion: The CR proposes that if AC-GPRS has a smaller threshold for time or volume, than it shall generate ACR-GPRS.

- Internal signal indicates that the threshold is reached and another timer reports encountered duration and encountered volume. Siemens view is that textual part should be omitted, and that the SDL change is enough. Textual description specifies why we check the threshold
- Ericsson: Text explained why the check is done in SDLs. Another question is what shall be reported.
- Alcatel's opinion that introducing the internal signal will not be clear for designers and that the note should be included in order to explain it. If the volume expires (Vc has expired) it is not clear that we send out Tcp which is Time counter.
- Siemens supports this CR as essential correction.

Decisions:

- SDL for the PDP context duration and the volume will be approved.
- We do not address the session duration threshold in this CR.
- Reason for change needs correction ("smaller" instead of "larger")
- The text description in clause 6.5.3.3 will be kept in this CR.

Conclusion: revised to N2-020912

N2-020912: TS 23.078, R99, Ericsson, Type: CR, CR#458r1, Title: Correction to handling when Delta is greater than received maximum threshold

Discussion: This CR will be merged with N2-020835 in the new document N2-020931.

Conclusion: withdrawn

N2-020913: TS 23.078, Rel-4, Ericsson, Type: CR, CR#476, Title: Correction to handling when Delta is greater than received maximum threshold

Discussion:

Conclusion: withdrawn

N2-020914: TS 23.078, Rel-5, Ericsson, Type: CR, CR#477, Title: Correction to handling when Delta is greater than received maximum threshold

Discussion:

Conclusion: withdrawn

N2-020835: TS 23.078, R99, Ericsson, Type: CR, CR#459, Title: Deferral of QoS induced ACR-GPRS when waiting for ACH-GPRS

Discussion: The CR proposes a correction to situation in which QoS change occurs after ACR-GPRS but prior to new SC-GPRS from the SCP. CR proposes to memorize the last QoS and report it immediately.

Questions and conclusions:

- Is this essential correction?
  - Due to charging impacts CN2 finds that this error is very critical and essential error and frequent enough to be corrected in R99.
- Just in case if QoS is changing back and forth frequently, the latest QoS will be reported and the total amount of data transmitted will be counted.
  - We will add a note that the latest QoS is reported.
- On page 9, at the bottom of the sheet 2(2) in the procedure Handle_AC_GPRS, there is a check if QoS pending flag is true . Alcatel proposes to use another Signal which indicate to SSF that QoS has changed (QoS signal).
  - There is interworking between Ericsson's CRs, so the chairman's proposal is to combine the CRs. The reason for merging the CRs will be described in the cover page (interaction within SDLs). Both

existing CRs are withdrawn and new CR (N2-020931) is allocated for the CR that covers both issues with changed title. Stage 3 CR does not change the title (different than the stage 2 CR), but the cover page should show linked CR.

- In the section 6.6.1.2.1 (Description of Apply Charging Report GPRS) is duplication of information given in SDLs according to Alcatel.
    - It has been decided to cancel introduction of this text.

Conclusion: withdrawn

N2-020931: TS 23.078, R99, Ericsson, Type: CR, CR#478, Title: Correction to QoS reporting and delta timer overflow

Discussion: This document is based on working assumption on documents N2-020912 and N2-020835 which are merged in this document. The old CR cover page is used in this CR. Other specs affected and linked CR has to be mentioned, but in the new CR cover page.

Conclusion: approved

N2-020939: TS 23.078, Rel-4, Ericsson, Type: CR, CR#479, Title: Correction to QoS reporting and delta timer overflow

Discussion:

Conclusion: approved

N2-020940: TS 23.078, Rel-5, Ericsson, Type: CR, CR#480, Title: Correction to QoS reporting and delta timer overflow

Discussion:

Conclusion: approved

N2-020836: TS 29.078, R99, Ericsson, Type: CR, CR#274, Title: Deferral of QoS induced ACR-GPRS when waiting for ACH-GPRS

Discussion: The CR requests SGSN to synchronize volume and duration reports. Alcatel is concerned about requirement to synchronize AC/ACR operations.

Marked as an essential correction. Vodafone does not find this as essential correction.

Conclusion: withdrawn

N2-020837: TS 23.078, R99, Ericsson, Type: CR, CR#460, Title: Correction to reporting of subscribed QoS at PDPc Establishment

Discussion: The CR specifies for Initial DP GPRS that the subscribed QoS may be absent, if IDP GPRS is sent at DP PDP Context Establishment and for Event Report GPRS that the subscribed QoS may be absent, if Event Report GPRS is sent at DP PDP Context Establishment.

Since the meeting find this as not critical correction, the CR is rejected.

Conclusion: rejected

N2-020838: TS 29.078, R99, Ericsson, Type: CR, CR#275, Title: Correction to reporting of subscribed QoS at PDPc Establishment

Discussion:

Conclusion: withdrawn

7.4 CAMEL3/MO SMS

N2-020842: TS 29.078, Rel-5, Ericsson, Type: CR, CR#277, Title: Correction to SMS dialogue termination

Discussion: The same problem is present in R99, but proposal is to change only Rel-5.

Conclusion: approved

7.5 CAMEL3/Call Related

8 CAMEL for Release 4

8.1 General and miscellaneous Rel-4 issues

8.2 CAP over IP

9 CAMEL4, Release 5

9.1 CAMEL 4 / Stage 1

N2-020888: CN2 Vice Chairman, Document for action, Title: Disappearance of endorsed CR

Discussion: At CN2 #23 (April 2002, Helsinki), Alcatel presented Tdoc N2-020419, a CR to 22.078 on Change "CAMEL-connected" to "CAMEL-PDP context active" state. This was linked to CRs to 23.078 and 29.002. CN2 endorsed the CRs to 22.078 and 29.002 and the CR to 23.078 was incorporated in the CAMEL Phase 4 draft of 23.078. The CR to 22.078 never got submitted to SA1 so has not yet been incorporated in the CR for 22.078. CN2 will send an LS to SA1 to inform SA1 about the history of the endorsed CR. Cover page shall list linked CRs which were approved.

Conclusion: noted

N2-020895: TS 22.078, Alcatel, Type: CR, CR#, Title: Change "CAMEL-connected" to "CAMEL-PDP context active" state (CR which was endorsed in CN2#23 meeting in Helsinki)

Discussion :

Conclusion: endorsed by CN2 (will be sent to SA1 as attachment to the LS in N2-020932)

N2-020932: Alcatel, Type:LS OUT, Title: LS on Disappearance of CN2 endorsed CAMEL4 22.078 CR

Discussion :

Conclusion: approved, will be sent to SA1 as source CN2

9.2 Miscellaneous CAMEL 4 issues

N2-020862: Source: CN2 Chairman, Title: CAMEL4 open issue list

Discussion : Open issues from 1 to 7 will be deleted from the CAMEL4 open issues list.

Regarding open issues no.3, it's up to companies to submit contributions to 29.078 Section 11.13.1 if necessary.

The description of the gapTreatment parameter needs improvement in 29.078, section 11.5.1.1. The issue is deleted from the list (open issue no 5) and Ericsson will submit the contribution for the next meeting.

Conclusion: noted

N2-020859: Ericsson, Type: Discussion document, Title: Interaction between ORLCF and SCP-induced late call forwarding

Discussion: (N4-021253) According to Ericsson, if the SCP induces call forwarding, the forwarding reason can not be one of the available reason codes. Proposal is to introduce forwarding reason "SCP induced call forwarding" into RCH operation from VMSC to GMSC.

Another alternative is to use one of the existing reason codes (NoAnswer, Busy, NotReachable, or Unconditional (CD)). Nokia: "Connect" operation may or may not include redirecting reason. If included, shouldn't it to be used?

Alcatel proposes to use "Unconditional" always.

Vodafone has concerns that this is relatively late for Rel-5.

Alcatel: Is it specified in stage 1 that a call which is subject of CAMEL CF will be given to GMSC? SDLs would involve OR (check 23.018).

- One idea is to take the redirecting reason from "Connect" operation , if present. If not present, "Unconditional" could be used.
- Other proposal is always to use certain code, i.e. always to use "Unconditional".
- Ericsson proposes in this contribution to enhance MAP and to introduce new forwarding reason.

JOINT MEETING WITH CN4:

CN4 is asked for opinion whether it is correct to use the code "Unconditional" always.

ORLCF is invoked in GMSC. If we have CAMEL induced CF which we want to route optimally and destination no. is sent in RCH, we have option either to accept the request in RCH or reject it (optimal routing not possible). Most "Connect" parameters are not conveyed in RCH (Suppress-O-CSI, redirection info etc). On further discussion, the meeting came to the conclusion that it is difficult to handle the SCP-induced forwarding with ORLCF.

CN4 proposal is not to invoke ORLCF of SCF-induced redirection at the VMSC. The CR will be drafted for Rel-5 only.

Conclusion: noted

N2-020814: TS 23.078, Rel-5, Vodafone, Type: CR, CR#454, Title: Correction of IDPs in new section 4.5.1

Discussion: Incorrect TDPs identified in description of SDL architecture; this CR removes irrelevant TDPs of the SDL description. Siemens will introduce corresponding table to TS 23.278.

Conclusion: approved

N2-020820: TS 23.078, Rel-5, Nokia, Type: CR, CR#455, Title: Playing of warning tone

Discussion: The document was presented in CN2. The document is sent to CN2-CN4 Joint meeting. The CR proposes to play tone for the CAMEL served party of the BCSM. According to proposal, tone is played in the same BCSM as the ApplyCharging was sent to, addressed by legID.

To whom the warning is played if multiple parties were created with ICA. Identified by LegID. Ericsson finds that it may not be possible to address Leg1 in MO call, since AC timing applies to Leg2.

In order to play warning tone to leg1, Nokia want to send AC to leg1. According to Alcatel this is misuse of AC. Play Tone may have to be used for Leg1.

Conclusion: postponed to next meeting

N2-020876: TS 23.078, Rel-5, Alcatel, Type: CR, CR#418r3Title: Playing of Warning Tone

Discussion: The document was presented. The CR proposes that in NC case the first party created hears the warning tone, otherwise CAMEL party. No tone for the redirecting party.

Nokia uses in their proposal Leg ID to indicate to which party a warning tone should be played. The issue is only the playing warning tone (to whom to play and how to address), but not a call duration control . In Nokia's proposal the tone is always played in the same call state model.

Alcatel's proposal: Call duration control for all legs and getting the warning tone.

Lucent and Vodafone are in favour of Nokia's proposal. Siemens and Ericsson are in favour of Alcatel's proposal:

The main question is whether the whole call is cleared at once when the credit runs out, or the individual legs are cleared when the credit for particular leg runs out.

One of the main questions was also if the AC is used to indicate to which party to play the tone or if it is used for Call/Leg duration control.

Conclusion: postponed to next meeting

N2-020839: TS 29.078, Rel-5, Ericsson Type: CR, CR#276, Title: Correction to GPRS dialogue abortion

Discussion: The CR specifies in section 14.1.4.2.1 that the gprsSSF shall apply the Default GPRS Handling of the valid CSI to the PDP Context or GPRS Session.

Conclusion: postponed to the next meeting

N2-020840: Ericsson, Type: Discussion paper, Title: Suppression of GPRS QoS reporting

Discussion: The present CR proposes a mechanism whereby the gsmSCF has the capability to suppress the sending of charging reports, as a result of changes in PDP QoS. The suppression of these reports may be achieved through an additional, optional parameter in the Apply Charging GPRS operation. When the gsmSCF sends Apply Charging GPRS to the gprsSSF and the operation includes the "QoS-Reports-Suppression" flag, then the gprsSSF shall not generate an Apply Charging Report GPRS operation when a change in QoS occurs. In the case of scenario 1 GPRS control, the suppression of the Apply Charging Report GPRS operations for changes in QoS shall apply to the indicated PDP Context only.

Since the proposed feature is a functional enhancement to CAMEL Phase 4, it can not be included in 3GPP Rel-5. Therefore, it is proposed for 3GPP Rel-6. It is not foreseen that 3GPP Rel-6 will contain a new CAMEL Phase. Hence, the feature would form part of CAMEL Phase 4 in Rel-6.

Comments:

- The Suppression of GPRS QoS reporting shall be done per PDP context.
- Nokia has no objections to introduce this enhancement into Release 6.
- Vodafone expressed the concern whether or not should be CAMEL 4 in Release 6, but not concern about the feature as such. Nokia will check the final view on this proposal.

If the requirement is approved in SA1 for Release 6, CN2 will proceed with the work. In Rel-6 we may have the case that we have to document interworking with some other Release 6 features as well.

MCC will check the procedure of introducing CAMEL enhancements in Release 6.

Conclusion: noted

N2-020841: TS 23.078, Rel-5, Ericsson Type: CR, CR#461, Title: Correction to interaction between MO-SMS and CB / ODB

Discussion: Vodafone would like to have this corrected in the R99; CAMEL IREG group raised a problem as well.

Conclusion: postponed to next meeting

N2-020849: TS 23.078, Rel-5, Ericsson Type: CR, CR#465, Title: Allowing backwards SII2 in ETC and CTR

Discussion: The CR specifies in the Information Flow for CTR and ETC that "Service Interaction Indicators Two" Information Element may also be used to carry service interaction indicators in the backwards direction. If the CR is not approvved, the SCP can not prevent the invocation of supplementary services during user interaction;

CR# is missing in the covers sheet. Linked CR of TS 29.078 is missing in “Other specs affected” field.

Vodafone doubts whether this CR should be approved as this is category “C” CR, i.e. enhancement or new feature. Ericsson asks the meeting to consider the reason for change and rational behind the introducing this enhancement. Alcatel is ready to accept this CR for Release 5, even if it is category “C”.

The real scenario was not clear in the meeting. The real scenario could be when the user puts the announcement on hold, and gets a new call.

Conclusion: revised to the next meeting

N2-020850: TS 29.078, Rel-5, Ericsson Type: CR, CR#278, Title: Allowing backwards SII2 in ETC and CTR

Discussion: CR#278 is missing in the cover sheet.

Conclusion: postponed to next meeting

N2-020851: TS 23.078, Rel-5, Ericsson Type: CR, CR#466, Title: Correction to VLR Address in Location Information

Discussion: CR#466 is missing in the cover sheet.

Conclusion: postponed to the next meeting

N2-020852: TS 29.078, Rel-5, Ericsson Type: CR, CR#279, Title: Correction to SCF Id and Correlation Id in ETC

Discussion:

Conclusion: postponed to the next meeting

N2-020853: Ericsson Type: Discussion document, Title: Introduction of "CAP version indicator" in ETC

Discussion:

Conclusion: postponed to the next meeting

N2-020854: TS 23.078, Rel-5, Ericsson Type: CR, CR#467, Title: Introduction of "CAP version indicator" in ETC

Discussion:

Conclusion: postponed to the next meeting

N2-020855: TS 29.078, Rel-5, Ericsson Type: CR, CR#280, Title: Introduction of "CAP version indicator" in ETC

Discussion:

Conclusion: postponed to the next meeting

N2-020894: TS 29.002, Rel-5, Ericsson Type: CR, CR#280, Title: Clarification of the use of Requested CAMEL Subscription Info parameters

Discussion: In CAMEL Phase 4 there has been introduced new CSIs which can be modified; because of that there has been defined a new optional parameter Additional Requested CAMEL Subscription Info containing the new CSIs. However for the Any Time Modification operation the old parameter Requested CAMEL Subscription Info is mandatory. At the moment there is no instructions what to do with the old parameter in case the new parameter is used. It is proposed that the receiving entity shall discard the old parameter if the new parameter is present.

If receiving entity does not support the extension, SCP must know if HLR supports CAMEL4.

Siemens finds that no CR is needed for TS 23.078, and TS 23.078 is removed from “other specs affected field”.

Conclusion: endorsed by CN2, approved by CN4 in N4-021194

9.3 CAMEL4 / Interactions with Optimal Routing

9.4 CAMEl4 / Call Party Handling

N2-020815: Rel-5, Vodafone, Type: Discussion document, Title: CPH: Open Issues & Decisions

Discussion: The only remaining open issue is solved by document N2-020816. Open issue number 3 will be deleted from the list.

Conclusion: revised to the next meeting

N2-020863: TS 23.205, Rel-5, Nokia, Type: CR, Title: CAMEL4 Call Party Handling interworking with Bearer independent CS core

Discussion: The document was discussed in CN2-CN4 Joint meeting. 3GPP TS 23.205 (CN4 specification) needs to be enhanced according to 3GPP TS 23.078 (Rel5) to support Call party handling of CAMEL phase 4. Call party handling is added to the CAMEL chapter 14.1.

- Alcatel: How MTPY and CPH relate each to other?

- Instead of **"** Call parties in a different call segment do not have a voice connection.", shouldn't we reference TS 23.078 instead?.

- Instead of multiple ICAs, we should talk about the additional legs. "Managing multiple ICAs" section needs rewording.

Proposal is to resolve open issues during the telephone conference within CN4, before the next meeting in November (Nokia, Ericsson, Siemens, Vodafone).

Conclusion: postponed to next meeting

N2-020816: TS 23.078, Rel-5, Vodafone, Type: CR, CR#427r1, Title: Use of Release Call & Release Call Segment in gsmSSF processes

Discussion: An unnecessary signal exists in the SDLs, and confusion exists between use of Int_Release_Call_Segment and Int_Release_Call. SDLs will not use anymore Int_Release_Call_Segment, and CS goes to IDLE automatically if no legs in CS. Int_release_Call is used everywhere.

In this proposal FCI record is not completed when leg disappears. ApplyChargingReport shall be generated. At least FCI must be closed.

In which cases we sent IntReleaseCallSegment?

Vodafone: If the Int_Release_Call is received in CS, it moves to idle. When ACR is received, CSA is already in IDLE. This was adopted from the original last version of the specification. The CR is repeating an existing error. This will be corrected in the next meeting.

Working assumption: - We use one signal (Int_Release_Call), close FCI record, and ACR is sent.

- CR shall be revised to correct the handling of the FCI.

Conclusion: revised to N2-020943

N2-020943: TS 23.078, Rel-5, Vodafone, Type: CR, CR#427r2, Title: Use of Release Call & Release Call Segment in gsmSSF processes

Discussion:

Conclusion: approved without presentation

N2-020860: TS 22.078, Rel-5, Ericsson, Type: CR, Title: Forwarding of DTMF tones to other legs in the call

Discussion:

Conclusion: withdrawn

9.5 CAMEL4 / DTMF Mid-call DP

9.6 CAMEL4/IMS

N2-020869: Rel-5 , Lucent , Type: CR, Title: CAMEL-IMS Open issues

Discussion: The document lists CAMEL-IMS open issues, taking into account CRs submitted for this meeting.

1. The procedure for handling SCP requests for play tone and announcements needs to be completed.
   - The CR that covers this open issue is withdrawn in this meeting. A discussion paper has been submitted instead.
2. Currently, the IMS specification uses DP destination number trigger criteria only. The assumption is that the CAMEL/IMS is to support legacy CAMEL service for ISDN numbers. Additional text can be added to 23.278 to indicate that destination number trigger criteria shall only be for ISDN called/destination numbers.

- There is no CR in this meeting which covers this open issue. We should not use the term legacy services. There is currently no stage 1 requirement to use URL or criteria.
- Open issue no.2 should be modified

3. Update the stage 2 specification 23.278 based on the CRs approved for Rel-99.
   - There is a Siemens CR submitted to this meeting which covers this open issue.
4. Update the ASN.1 (29.278) based on syntax check errors.
   - There is an Alcatel CR introducing Syntax corrections based on syntax check.

Lucent will check whether presentation of calling party is an open issue and put it to open issues list if necessary. Lucent understanding was that we decided that there is no parameter in SIP where we can put modified calling party number.

Since the CAMEL does not allow to change the calling party number, is this a problem for IMS? Lucent will provide this answer and record this as an open issue.

Conclusion : revised to N2-020915

N2-020915: Rel-5 , Lucent , Type: CR, Title: CAMEL-IMS Open issues

Discussion :

Conclusion : postponed to next meeting

N2-020889: Semens , Type: Discussion document, Title: Question on SIP usage in IMS/CAMEL

Discussion : Through the work in TS 23.278 in the relationship with RFC 3261 "SIP: Session Initiation Protocol", several questions have arisen. As the result could affect how detail TS 23.278 should be described, Siemens kindly asks the meeting to provide the guidance: Following question are identified:

1. How detail should IM-SSF check the error condition, in terms of SIP (as signalling protocol) ?

We have to check error responses. There are a lot of SIP responses that would indicate error response. The error codes and their handling are bundled up

Siemens: How an error is initiated? Who issues the error?

Lucent: Error responses are shown in the SDLs. It is specified explicitly which SIP error response was used. IM-SSF should behave like SIP user agent and should handle same basic error handling as other user agent. This is not specified in CAMEL spec, as it was considered that it should behave like the user agent.

Same granularity should be used in SDLs like in TS 23.078. If the call is released because of CAP that should be specified at some level.

2. Is IM-SSF considered as a stateful proxy?

- Stateful proxy would have to do some level of authentication. Lucent believes IM-SSF does not have to do that, but will check this issue.
- Terminating user agent is the final destination and stateful proxy is just a hop on the higher level. User agent creates a new Invite.
  - Working assumption: We consider IM-SSF as a user agent.

3. Should IM-SSF include several check in SIP method before processing the request in the user agent?

IM-SSF has to do the checks (to ensure that we have right encoding of the message), but Lucent opinion is that we can just reference other 3GPP specification).

- Working assumption: There is no need to address this issue in TS 23.278.

4. Max-Forwards is initially set to 70 by the originating side. Do both S-CSCF and IM-SSF decrement this number? If yes and if this number is 0 when SIP reached IM-SSF, will IM-SSF respond 483?

- Working assumption: This an open issue and will be recorded in revised CAMEL-IMS open issues document.

5. Does IM-SSF have to check any UDP related connection?

   - Working assumption: Is TCP used? This is an open issue which will be checked off-line.

6. Will "hanging up" be used instead of BYE, CANCEL or other methods?

   - Working assumption: *Hang up* is not used. This will be recorded in the decision table in CAMEL-IMS Open issues document.

7. Are there security requirements in 3GPP which are too obvious to mention?

   - Working assumption: Lucent finds that CN2 should just follow CN1 policy on security. Currently no action in CN2 is required.

Conclusion: noted

N2-020824: TS 23.278, Rel-5 , Siemens , Type: Info/discussion, Title: CRs which may be needed for TS 23.278

Discussion: 3GPP TS 23.278 which was approved at CN#17 plenary for the Rel-5 specification had been developed based on the past version of TS 23.078 R99.

This document lists CN#17 CRs which are and which are not applicable for IMS. Document raises the question who is responsible of making CRs to IMS, if a company makes an IMS non-related CR

Working assumption: In general, only changes for CAMEL phase 3 should have impact on CAMEL-IMS, since TS 23.278 is based on SDLs in TS23.078 R99. For future meetings, every CR author who submit a CR for CAMEL specification should check the impact on CAMEL-IMS specification (e.g. if the description of ACR operation is changed, that impacts also CAMEL-IMS spec).

CRs for CAMEL phase 3 provided for this meeting will be checked case by case during the meeting. If needed the meeting asks the originator to provide the corresponding CR for CAMEL-IMS specification.

R99 approved CRs that have been approved in previous plenary will be checked by Lucent, and if needed CAMEL-IMS CRs will be provided (Angelica Remoquillo from Lucent volunteers to do this work).

Conclusion: noted

N2-020880 : TS 29.278, Rel-5 , Alcatel , Type: CR, CR#002, Title: ASN.1 syntax basic corrections

Discussion: For MAP modules, “itu-t” is changed to “ccitt”. When we import something from MAP, we should use “ccitt” as used in MAP. But for CAP we can use “itu-t”, for Rel-5.

Lucent proposes to use call gapping in the IMS, but to use referencing to 23.078 as much as possible. This decision will be included in decision table in “CAMEL-IMS open issues and decisions” document.

Summary of change and consequences if not approved should be enhanced. Title should be changed to indicate IMS-CAMEL specification.

CAP object identifiers which are defined in this document (not in MAP) should use “itu-t”.

Conclusion: revised to N2-020916

N2-020916 : TS 29.278, Rel-5 , Alcatel , Type: CR, CR#002r1, Title: ASN.1 syntax basic corrections for IMS CAMEL

Discussion:

Conclusion: approved without presentation

N2-020825 : TS 23.278, Rel-5 , Siemens , Type: CR, CR#001, Title: Correction and improvement in the overall SDL structure

Discussion: Sr interface is not defined in the architecture, therefore should be deleted from pictures describing overall SDL structure.

In the first figure, Sr interface should be deleted as well as CAP interface between gsmSCF and IM-SSF since they are not used for registration. The name “Mr interface (SIP)” should be replaced by “Cx interface (diameter).

Figure 5.1.3 for outgoing case: Meeting does not have understanding about the meaning of MRF. Lucent explains that gsmSRF does not exist in the IMS. MRF is Multimedia Resource Function defined for IMS use. MRFC is MRF Controller, MRFP is MRF processor.

CAP interface is not used with MRF, therefore it should not exist in the picture. The interface with MRF is always over S-CSCF. E.g. IM-SSF will send “Invite” message over S-CSCF to Mr interface asking for playing announcement. MRF is external, and this should be reflected in the figure.

Conclusion: revised to N2-020917

N2-020917: TS 23.278, Rel-5 , Siemens , Type: CR, CR#001r1, Title: Correction and improvement in the overall SDL structure

Discussion: In the figure number 5.1.2, we replace outgoing case by originating case. We add a note that for the registration case imcnSSF –gsmSCF interface is not involved.

Conclusion: revised to N2-020941

N2-020941: TS 23.278, Rel-5 , Siemens , Type: CR, CR#001r2, Title: Correction and improvement in the overall SDL structure

Discussion:

Conclusion: approved without presentation

N2-020865: TS 23.278, Rel-5 , Lucent , Type: CR, CR#008, Title: Remove support of SCI operation from imcnSSF SDL process

Discussion: SendChargingInformation (SCI) operations is removed from SDLs. CAMEL control of Advice Of Charge in not applicable for IMS.

Conclusion: approved

N2-020826 : TS 23.278, Rel-5 , Siemens , Type: CR, CR#002, Title: Correction and improvement in the registration procedures

Discussion: The existing procedure, CAMEL_IMCN_Register_Init, is replaced by the process Register_IM_SSF, as proposed in CR 23.278-001. Small editorial modification also included.

Heading in 5.1.1.1 is not updated, still says Procedure CAMEL_IMCN_Register , but the SDL shows Process Register_IM_SSF.

Conclusion: approved

N2-020827 : TS 23.278, Rel-5 , Siemens , Type: CR, CR#003, Title: Correction and improvement in MO procedures

Discussion: New process, namely "MO_IM_SSF", is proposed as the entry point of INVITE. The procedures called within the process are the existing procedures re-used or improved.

In Process MO_IM_SSF, the notation “Signals to/from the left to/from the originating side of S-CSCF” are not correct according the notation used by now. This change should be cancelled and current notation should be used.

Procedure CAMEL_IMCN_MO_CANCEL; should not be deleted, it still exists. MO Process is needed.

Conclusion: revised to next meeting

N2-020828: TS 23.278, Rel-5 , Siemens , Type: CR, CR#004, Title: Correction and improvement in MT procedures

Discussion: New process, namely "MT_IM_SSF", is proposed as the entry point of INVITE.

Conclusion: revised to next meeting

N2-020868 : TS 23.278, Rel-5 , Lucent , Type: CR, CR#010, Title: Correction of InitialDP MediaType parameter

Discussion: This document renames the IE from "Media Type" to "Media Type Info List" and indicates in the text description that the value for this IE shall use the same value received in the Media Description field(s) of the SIP message from the S-CSCF.

IE name is currently in singular, should be Media Types. This will be changed.

Conclusion: revised to N2-020933

N2-020933 : TS 23.278, Rel-5 , Lucent , Type: CR, CR#010r1, Title: Correction of InitialDP MediaType parameter

Discussion:

Conclusion: approved without presentation

N2-020867: TS 29.278, Rel-5 , Lucent , Type: CR, CR#001, Title: Correction of ASN.1 definition for the InitialDP MediaType parameter

Discussion: The new reference to IETF document is introduced:[12] draft-ietf-mmusic-sdp-new-10 (May 2002): "SDP: Session Description Protocol". Editor's note: The above document cannot be formally referenced until it is published as an RFC.

The Media Type Info List is sent as text strings to the SCP. MediaTypeInfo contains the Media Type data in the first sub field, followed by the port number, transport protocol, and media format sub fields.

How are characters mapped into octet string? IM-SSF just puts to CAP whatever it receives. UTF-8 RFC2279 is used.

Conclusion :revised to N2-020934

N2-020934 TS 29.278, Rel-5 , Lucent , Type: CR, CR#001r1, Title: Correction of ASN.1 definition for the InitialDP MediaType parameter

Discussion:

Conclusion: approved without presentation

N2-020829 : TS 23.278, Rel-5 , Lucent , Type: CR, CR#005, Title: Correction and improvement in CSI update
Discussion: In this contribution HSS/HLR term is used. Siemens deleted HLR in their contribution. In IMS architecture, the functionality of HLR has been now represented by HSS. HSS may include the functionality of HLR, or subset of HLR functionality. For the functionality of MAP interface and downloading of CSIs, HLR functionality is used. This will be recorded in the CAMEL-IMS Open issues and decision paper.

The CR replaces the existing procedure CAMEL_IMCN_HSS_Update by process Update_CSI in the IMS-SSF.

Conclusion: approved

N2-020830: TS 23.278, Rel-5 , Lucent , Type: CR, CR#006, Title: Clarification in the case multiple RRBs are sent for a DP

Discussion :

Conclusion :approved

N2-020831: TS 23.278, Rel-5 , Siemens , Type: CR, CR#007, Title: Inconsistent description on ACR: time information

Discussion: This is the stage 2 correction for ACR information element descriptions. The similar text is already in 23.078.We could have interworking between the CRs. Intermediate version of the TS 23.278 which will contain revision marks will be produced after this meeting for help during creation of CRs for CN2#27.

Temporary Connection should be removed from the description of Time If Tariff Switch. GsmSRF will be replaced by MRFC.

Conclusion: revised to N2-020945

N2-020945: TS 23.278, Rel-5 , Siemens , Type: CR, CR#007r1, Title: Inconsistent description on ACR: time information

Discussion:

Conclusion: approved without presentation

N2-020866: TS 23.278, Rel-5 , Lucent , Type: CR, CR#009, Title: Removal of ETC processing from IM-SSF SDL Procedures

Discussion: Establish Temporary Connection CAP operation is removed from the SDLs.

Conclusion: approved

N2-020891: TS 23.278, Rel-5 , Lucent , Type: CR, CR#012, Title: Description for gsmSRF-related operations for IMS

Discussion:

Conclusion: postponed to next meeting

N2-020892: TS 29.278, Rel-5 , Lucent , Type: CR, CR#003, Title: Correction of ConnectToResource operation procedure for IMS.

Discussion:

Conclusion: postponed to next meeting

N2-020870: TS 23.278, Rel-5 , Lucent , Type: CR, CR#011, Title: SDL Procedure for Connect To Resource

Discussion:

Conclusion: withdrawn

N2-020893: Lucent, Type: Discussion document, Title: Use of MRFC for CAMEL/IMS

Discussion: Late document.

Conclusion: postponed to next meeting

9.7 CAMEL control over MT SMS

N2-020807 : TS 29.002, Rel-5 , Vodafone , Type: CR, Title: Description of MT SM delivery via two serving nodes

Discussion: CR replaces the current SDL description of the SMS-GMSC behaviour to show the possibility of delivery attempts via two serving nodes, and to define the interworking with CAMEL for the case when the SMS-GMSC is integrated with the VMSC.

- There is inconsistent use of SMS GMSC in the document (MSC should be replaced by SMS GMSC in 23.3.4)
- In subclause 23.3.4 that describes procedures in the SMS-GMSC, could be clarified that CAMEL-specific handling is invoked only if the SMS-GMSC is integrated with the VMSC.

Conclusion: revised to N2-020928 (N4-02119 revised to N4-021299)

N2-020928 : TS 29.002, Rel-5 , Vodafone , Type: CR, Title: Description of MT SM delivery via two serving nodes

Discussion:

Conclusion: endorsed by CN2, approved by CN4 in N4-021299

N2-020808 : TS 29.002, Rel-5 , Vodafone , Type: CR, CN4 CR#474r1, Title: Correction of handling of MT-SMS in the SGSN

Discussion:CM service request input branch will be deleted for search procedure and page procedure in SGSN.

The procedure call of procedure CAMEL_MT_SMS_SGSN is introduced in this CR. This procedure is currently not in TS 23.078. CR#449 introduces the procedure CAMEL_MT_SMS_SGSN procedure in TS 23.078 which is equivalent of CAMEL_MT_SMS_VLR which does subscription check.

Vodafone does not wish to show in SDLs that paging or search procedure may fail. The mobiles station may simply not respond to paging. The text about the routing area update will be restored.

In sheet 2(3) of the procedure MT_SM_Transfer_SGSN, “MT supports SMS” should be replaced by “MS supports SMS”.

Conclusion: revised to N2-020925 (N4-021120 revised to N4-021294)

N2-020925 : TS 29.002, Rel-5 , Vodafone , Type: CR,CN4 CR#474r2, Title: Correction of handling of MT-SMS in the SGSN

Discussion:

Conclusion: endorsed by CN2, approved by CN4 in N4-021294

N2-020809: TS 23.078, Rel-5 , Vodafone , Type: CR, CR#449, Title: Correction of handling of MT-SMS in the SGSN

Discussion:

Conclusion: approved

N2-020810: TS 23.078, Rel-5 , Vodafone , Type: CR, CR#452, Title: Clarification of architecture for CAMEL control of MT-SMS

Discussion:

Conclusion: revised to N2-020811 before the meeting

N2-020811: TS 23.078, Rel-5 , Vodafone , Type: CR, CR#452r1, Title: Clarification of architecture for CAMEL control of MT-SMS

Discussion: Ericsson proposal is to mention in the description of the entities that the SMS-GMSC may be physically integrated with the SMSC or with the MSC for the destination subscriber and that the SMS-IWMSC may be physically integrated with the SMSC or with the MSC for the originating subscriber. This description should be added in the description of SMS-IWMSC and SMS-GMSC.

Vodafone accepts to have all the possibilities of integration concentrated in the description of SMS-IWMSC and SMS-GMSC.

- Decision: The text describing possible integrations will be kept in the document, but organised as proposed by Ericsson.

Ericsson: Interrogating network is always the network where the SMSC is located (i.e. HPLMN), but it's called interrogating network because it has interrogating function.

- Decision: If the SMS-GMSC is not integrated with SMSC the protocol to be used between them should be used as described in 23.040 (stage 2). This will be described in the same place where we describe possibilities of integration.

Conclusion: revised to N2-020930

N2-020930: TS 23.078, Rel-5 , Vodafone , Type: CR, CR#452r2, Title: Clarification of architecture for CAMEL control of SMS

Discussion:

Conclusion: approved without presentation

N2-020812: TS 23.078, Rel-5 , Vodafone , Type: CR, CR#453, Title: Correction of handling of MT-SMS in the VLR

Discussion: The CR revises the VLR handling so that if MT-SMS-CSI is not provisioned then CAMEL handling will not occur. The Procedure CAMEL_MT_SMS_CHECK_VLR has been deleted by this CR.

Conclusion: approved

9.8 Inclusion of flexible tone injection

N2-020864: TS 29.232, Rel-5, Nokia , Type: CR, Title: Extending the 3G Expanded Call Progress Tones Generator Package with a new signal to allow a CAMEL4 flexible sequence of tones

Discussion: The CR proposes to *3G Expanded Call Progress Tones Generator Package* to be expanded with a new signal which includes the tone/burst information as parameters.

Questions:

Alcatel: 1. Is this a typical way of defining burst interval and tone duration using enumeration?

2. Is it necessary to repeat the definition of enumerations?

Ericsson: In the last section of the CR, "*should"* will be replaced bye "*shall"*.

ToneID/ToneId capitalization not consistent.

The document will be sent to CN2-CN4 joint meeting and questions will be checked with CN4.

Conclusion: withdrawn during theCN2-CN4 joint meeting

N2-020918 : TS 29.232, Rel-5 , Ericsson , Type: CR, Title: CAMEL4 flexible tone package

Discussion: (N4-021246) Last sentence in the CR will be deleted (In all other cases the standard procedure described in H.248 version 2 chapter 7.1.11 "Signals Descriptor" applies (e.g. Duration parameter is ignored in case of signal types "brief" or "OnOff" are used).

CN2 should check TS 23.078.

Conclusion: revised to N2-020926 (N4-021246 revised to N4-021295)

N2-020926 : TS 29.232, Rel-5 , Ericsson , Type: CR, Title: CAMEL4 flexible tone package

Discussion: N4-021295

Conclusion: endorsed by CN2, approved by CN4

N2-020861 : Ericsson , Type: CR, Title: Draft LS on Enhancement to H.248 for flexible warning tone

Discussion:

Conclusion: withdrawn

9.9 Charging notification to CSE

9.10 Enhancements of dialled services

N2-020899: SK Telecom, Type: Discussion paper, Title: Reconsideration of CAMEL4 dialled services enhancement

Discussion: SK Telecom kindly requests CN2 to reconsider reintroduction of CAMEL dialled services enhancement in Rel-5.

SK telecom has over 50 IN services. In cased of multiple services per subscriber, DP2 is triggered for first IN service, dialog is closed and, at DP3 trigger is done for second IN service. DP3 is needed for control of the charging according SK Telecom. The triggering is based on D-CSI.

Comments:

- Vodafone: Adding of additional functionalities for Rel-5 is closed for Rel-5. SA, as the owner of the work plan, will have to agree on reintroduction of this feature for CAMEL phase 4.

- T-Mobil proposes to consider introduction of this functionality for CAMEL phase 4 in Release 6.

- The most complicated part of this feature was AoC. SK Telecom is not interested in AoC service.

CN2 recommendation: Introduction of the feature is possible in Rel-6 and the work could start in March 2003. SK Telecom should bring the issue to SA1. SA1 chairman can be contacted and the early proposal brought up through e-mail list for the meeting in November. This could be useful for CN2, to know what is SA1 view on this issue in order to organize efficiently the meeting in November. CN2 expects SK Telecom's input in the SA1.

Conclusion: noted

9.11 Provision of location information of called subscriber

9.12 Notification of GPRS mobility management to CSE

N2-020832 : TS 23.078, Rel-5 , Siemens , Type: CR, CR#456,Title: Add result from GPRS mobility management procedure

Discussion : The CR adds return result into CAMEL_PS_Notification procedure for the parent process of 23.060.

Procedure CAMEL_PS_Notification is not in the latest version of 23.060. Alcatel proposes to make this CR independent of SA2 CR.

Conclusion: approved

N2-020833 : TS 23.078, Rel-5 , Siemens , Type: CR, CR#457, Title: Detach report in inter-SGSN routeing area update

Discussion: CR proposes to distinguish Routing Area Update in target SGSN, whether it was a disconnection from old source SGSN, or totally new RA (routeing area update of MS to a different SGSN service area - update from new SGSN). Reason for change will be reworded and category of the CR should be F. In cover page very detailed scenario should be given.

Should this be reflected in the service requirement. In service requirement there is nothing written regarding the notification.

The wording "disconnect by detach" should be used instead of "disconnect from the old SGSN" in section 9.2.2.1. Old SGSN will report "detach" to the SCP (in Event Notification) . That change should be reflected in the SDL.

Conclusion: revised to N2-020902

N2-020902 : TS 23.078, Rel-5 , Siemens , Type: CR, CR#457r1, Title: Detach report in inter-SGSN routeing area update

Discussion:

Conclusion: approved

N2-020890 : TS 29.002, Rel-5 , Siemens , Type: CR, Title: Additional MM-Code for MG-CSI

Discussion : We replace "disconnect" by "detach". Category should be F. Section headers should be introduced in the body of the CR to indicate modified and unmodified section.

Conclusion: revised to N2-020903

N2-020903 : TS 29.002, Rel-5 , Siemens , Type: CR, Title: Additional MM-Code for MG-CSI

Discussion: The document was presented in the CN2-CN4 Joint meeting in N4-021264.

Conclusion: endorsed by CN2, approved by CN4

9.13 CAMEL4/ ODB in HLR-SCP interface

9.14 CAMEL4/ Location Information during ongoing call

9.15 CAMEL4/GPRS AnyTimeInterrogation

9.16 CAMEL4/Partial implementation of CAMEL phase 4

N2-020881: Rel-5, T-Mobil, Type: CR, Title: Partial Implementations of CAMEL Phase 4: Open Issues

Discussion : Alcatel lists all the open issues in their document as well except the open issue no. 1 (error handling). Vodafone lists all the open issues listed in this document and more.

Open issue no.1: Error handling: Item i is covered by decision 1. and ii is left open. When the MSC indicates it does not support MT SMS for CAMEL4, then a test case for that is not needed according to Nokia. Testing should be based on real services used by the SCP. If the operation is sent in the case when it's not supposed to send, this is the matter of the SCP to handle that case. We never specify what the SCP does if the message which is not supposed to be sent is sent. This is a secondary problem (like if the wrong error is received). We concentrate on the primary errors.

Decision on open issue no.1: Generally, we will not specify what the SSF does, if the gsmSCF tries to use a non-offered functionality (irrespective of whether the functionality is implemented in the network element or not). This

implies, that no additional error handling is specified. The gsmSCF shall not try to use functionalities which the SSF does not offer (this shall be stated explicitly in the stage 2).

- Issue ii is still opened, Vodafone wants to check it at home.

- Issue iii : SSF can not do anything.

Open issue no.2: Shall we indicate the offered *functionalities* and *CSIs* in the MM-EventNotification?
Functionalities shall be indicated in the MM-EventNotification, but CSIs shall not be indicated. – Supported by T-Mobile and Vodafone for both PS and CS call. Alcatel wants to indicate CSIs. T-Mobile's view is if the info is needed SCP can get the info in another way by interrogation, therefore not so critical to be included. Vodafone and Ericsson are not in favour to include the CSIs as well.

Decision: CSIs are not part of MM-EventNotification (for PS and CS call). Functionalities are included in MM-EventNotification (Functionalities are only functionalities for CS call only).

3. PSI-Enhancements for CS, indication towards the gsmSCF:
Shall the support of PSI-Enhancements be part of the *functionalities* indicated towards the gsmSCF?

Decision: Support of PSI enhancements for CS are not indicated towards the gsmSCF.

4. PSI-Enhancements for CS, indication towards the HLR: Shall the support of PSI-Enhancements be indicated from the VMSC to the HLR?

Decision: Support of PSI enhancements for CS are not indicated towards the HLR.

5. PSI-Enhancements for PS, indication towards the gsmSCF:
Shall the support of PSI-Enhancements be indicated towards the gsmSCF? Shall this be part of the *functionalities*?

Decision: Support of PSI enhancements for PS are not indicated towards the gsmSCF. Functionalities refer only to the CS domain.

Conclusion: revised to N2-020905 to include decisions made in document N2-020882 (topics 6 and 7)

N2-020905: Rel-5, T-Mobil, Type: CR, Title: Partial Implementations of CAMEL Phase 4: Open Issues

Discussion: In decision 11, the first 2 sentences of the background text should be moved to decision part.

Conclusion: noted

N2-020882: Rel-5, Vodafone, Type: CR, Title: Partial Implementations of CAMEL Phase 4: Discussion of open issues

Discussion: **N**o indication on of supported functionalities or CSIs should be present in the MM Event Notification from an SGSN. This is covered in the CR available in N2-020886. T-Mobile is ready not to include it.

Topic 6: Vodafone believe that the reference to "Enhancements for Continue With Argument" for ICA calls is unnecessary. There is no objection on this opinion, so CN2 accepted that as a conclusion.

- Decision on topic no. 6: Continue With Argument enhancements do not need any further clarification in the specification.

Topic 7: Vodafone proposal is that the Insert Subscriber Data ack IF in clause 4 should only contain CS related IEs (CSIs), others should be in other sections.

T-Mobil supports Alcatel in the following: Proposal is that ISD and Update Location would be in 2 places (specified separately for CS and PS). That means that MT-SMS CSI would be in both places. There is no opposition for that proposal, Alcatel and T-Mobil will draft a CR.

- Decision on topic no. 7: We organize RestoreData, LU and ISD, DSD operations on network element basis (SGSN vs MSC/VLR)

Conclusion: noted

N2-020874: Rel-5, Alcatel, Type: CR, CR#470, Title: Resolving of open issues on "Support of partial implementation of CAMEL"

Discussion: In the SRI to HLR, is it indicated whether GMSC supports T-CSI (is CAMEL support indicated to terminating side)? Alcatel: It is missing, but should be included.

Open issue no. 3 and 4 in the T-Mobile document (3 and 1 in the Vodafone document) are the most controversial issues.

- Alcatel is proposing to have Creating additional parties and Creating a new call as separate two functionalities. This would provide information on what inbound roamers do in the network they are roaming in at more detailed level. T-Mobil and Ericsson do not see particular example for that. .Nokia is not in favour of having those separate functionalities.

  - Decision: There shall be just one indication for the support of ICA in the *functionalities*. We do not introduce two indications for ICA to reflect the NC and NP cases.

Alcatel: T—CSI can not be part of the Offered CAMEL4 CSIs of the VLR (4.6.8.1 Insert Subscriber Data ack; 4.6.8.3 Update Location, 4.6.8.4 Restore Data and 10.3.2.2 Any Time Subscription Interrogation ack).

T-Mobil: T-CSI is not relevant for VMSC/VLR.

Nokia: Each node should be always able to send same set of bits. A node supporting Camel phase 4 shall mark in the bit string all Camel4 functionalities it offers.

CSI bit string: we could have a definition within stage 2 , that the receiving entity should ignore any CSI that is irrelevant for the sending entity.

- Decision: In stage 2, in the IF description, we will document which "supprted CSIs" are relevant on the specific interface. We do not document in stage 2 bits of functionalities.

Receiving entity shall not reject the operation due to irrelevant bit. On update location HLR receives offered CAMEL4 CSI. What should HLR do?

- Decision: We document in TS 29.002 that the receiving entity shall not reject the operation due to irrelevant bit (of CSI support).

Ericsson is of opinion that different wording should be used; HLR should not react in the negative way if it receives irrelevant CSI bits. Lucent support this, HLR shall not use irrelevant bits, i.e. not pass them.

In the HLR: If the SCP asks for the list of CSIs, it can deal with info that HLR has stored and sent even if not relevant.

- We should decide on two different topics: What is stored in the HLR and what is passed through.

  Decision: HLR may or may not store irrelevant bits. HLR may or may not pass-through irrelevant bits.

Vodafone will try also to implement all the decisions in one CR.

Conclusion: revised to N2-020906

N2-020906: TS 23.078, Rel-5, Alcatel, Type: CR, CR#470r1, Title: Resolving of open issues on "Support of partial implementation of CAMEL"

Discussion: Agreements made on the previous version of the document are reflected in the document**.**

- Introduction of the sentence **"**The gsmSCF shall not try to use functionalities which the SSF does not offer." will be cancelled.
- A spelling of "functionalities" shall be corrected.
- Editorial: Long hyphen in O-CSI should be changed to normal "-". The rapporteur will try to fix it off-line. Additional spaces in IE names should be deleted.

Conclusion: revised to N2-020942

N2-020942: TS 23.078, Rel-5, Alcatel, Type: CR, CR#470r2, Title: Resolving of open issues on "Support of partial implementation of CAMEL"

Discussion:

Conclusion: approved without presentation

N2-020875: TS 29.002, Rel-5, Alcatel, Type: CR, Title: Additional handling of partial implementations of CAMEL phase 4

Discussion: CR adds PSI-enhancements and ICA-new-call parameter to OfferedCAMEL4Functionalities. T-Mobil: Receiving entity may or may not ignore any irrelevant bits.

Offered CAMEL4 CSIs are deleted from MAP_NOTE_MM_EVENT parameters. PSI enhancements will be deleted from OfferedCamel4Functionalities. Ica-new-call will be deleted, and Ica-new-party shall be renamed.

Conclusion: revised to N2-020907 which will be sent to CN2-CN4 Joint meeting. Category should be F.

N2-020907: TS 29.002, Rel-5, Alcatel, Type: CR, Title: Additional handling of partial implementations of CAMEL phase 4

Discussion: (N4-021279) The changes related to irrelevant bits should be cancelled. Names of the bit string of CAMEL4 functionalities shall be changed. Category should be changed to reflect that this is editorial change.

Conclusion: revised toN2-020927

N2-020927: TS 29.002, Rel-5, Alcatel, Type: CR, Title: Additional handling of partial implementations of CAMEL phase 4

Discussion:

Conclusion: endorsed by CN2, approved by CN4 in N4-021296

N2-020883: TS 23.078, Rel-5, Vodafone, Type: CR, CR#471, Title: Removal of PSI enhancements in VLR to HLR information flows

Discussion:

Conclusion: withdrawn

N2-020884: TS 23.078, Rel-5, Vodafone, Type: CR, CR#472, Title: No offered functionalities in IDP for PS

Discussion:

Conclusion: withdrawn

N2-020885: TS 23.078, Rel-5, Vodafone, Type: CR, CR#473, Title: No indication of support of PSI enhancements in Initial DP

Discussion:

Conclusion: withdrawn

N2-020886: TS 23.078, Rel-5, Vodafone, Type: CR, CR#474, Title: Removal of 'supported CSIs' I.E. in MM event notification

Discussion:

Conclusion: withdrawn

N2-020887: TS 23.078, Rel-5, Vodafone, Type: CR, CR#475, Title: Removal of note to Identify IEs in CWA purely for NP case

Discussion:

Conclusion: withdrawn

10 Review of dates and hosts for future meetings

N2-020944: CN2 Chairman, Type: CR, Title: Interworking of CRs: Example document

Discussion:

Conclusion: noted

N2-020935: CN2 Chairman, Type: Meeting calendar, Title: Meeting calendar for 2002. and 2003.

Discussion:

Conclusion: noted

Review of the N2 meeting schedule for 2002

TITLE	TYPE	DATES	LOCATION	CTRY
3GPPCN2#27	WG	11-15 November	Bangkok	Thailand

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

- CN2 recommends that meeting directory for the future meetings should contain the meeting place in the name of the directory.
- Since there are 2 CN2 meetings between the plenary, originators of the CRs should check the section they change in order to avoid modifying text which is introduced, deleted or modified by the CR in the previous meeting.
- Deadline for requests for document numbers is of 31st of October 2002,23:59, CET. Deadline for sending of actual documents is 3rd of November 2002, 23:59 CET.
- All CRs that are approved for TS 23.078 Rel-4 will be updated by MCC to indicate the latest version 4.6.1 instead of version 4.6.0 (cover page of the CRs).

CN2 charman thanked delegates for their contributions and efficient work during the meeting as well as to host and MCC for the support during the meeting. The meeting was closed on Friday, 15:30.

Annex A Attendees list

Name	Organization represented	Status, partner	Phone	Fax	e-mail	
Member of 3GPP (ETSI)						
Ms. Véronique Belfort	ALCATEL S.A.	3GPPMEMBER (ETSI)	FR	+33 1 30 77 86 11	veronique.belfort@alcatel.fr	YES - NO
Mr. Jean-Jacques Davidian	NTT DoCoMo	3GPPMEMBER (ETSI)	FR	+33 1 5688 3030	davidian@docomo.fr	YES - NO
Mr. Chris Hardy	VODAFONE LTD	3GPPMEMBER (ETSI)	GB	+44 1635 674707	chris.hardy@vf.vodafone.co.uk	YES - NO
Mr. Christian Homann	ALCATEL S.A.	3GPPMEMBER (ETSI)	DE	+49 711 821 45632	c.homann@alcatel.de	YES - NO
Ms. Jane D Humphrey	MARCONI COMMUNICATIONS	3GPPMEMBER (ETSI)	GB	+44 24 76564232	jane.humphrey@marconi.com	YES - NO
Mr. Sumio Miyagawa	SIEMENS AG	3GPPMEMBER (ETSI)	AT	+43 51707 21381	sumio.miyagawa@siemens.com	YES - NO
Mr. Rogier Noldus	ERICSSON L.M.	3GPPMEMBER (ETSI)	NL	+31 161 249 400	rogier.noldus@eln.ericsson.se	YES - NO
Mr. Keijo Palviainen	NOKIA Corporation	3GPPMEMBER (ETSI)	FI		keijo.palviainen@nokia.com	YES - NO
Dr. Daniel Warren	NORTEL NETWORKS (EUROPE)	3GPPMEMBER (ETSI)	GB	+44 1628 431098	dlwarren@nortelnetworks.com	YES - NO
Dr. Georg Wegmann	T-MOBILE DEUTSCHLAND	3GPPMEMBER (ETSI)	DE	+49 228 936 3468	georg.wegmann@t-mobile.de	YES - NO
Member of 3GPP (T1)						
Mr. Stephen Hayes	Ericsson Inc.	3GPPMEMBER (T1)	US	+1 972 583 5773	stephen.hayes@ericsson.com	YES - NO
Mrs. Angelica Remoquillo	Lucent Technologies	3GPPMEMBER (T1)	US	+1 630 713 9548	atr@lucent.com	YES - NO
Member of 3GPP (TTC)						
Mr. noriyuki iwasawa	NEC Corporation	3GPPMEMBER (TTC)	JP	+81 3 3798 5194	iwasawa@ncos.nec.co.jp	YES - NO
Mr. Atsushi Minokuchi	NTT DoCoMo Inc.	3GPPMEMBER (TTC)	JP	+49-89-56824-203	minokuchi@docomolab-euro.com	YES - NO
Organisation partner representative (ETSI)						
Mrs. Andrijana Jurisic	Mobile Competence Centre		FR	+33 4 92 94 43 09	andrijana.jurisic@etsi.fr	YES - NO
Organisation partner representative (TTA)						
Mrs. Soo Jin KIM	TTA	3GPPORG_REP (TTA)	KR	+82-11-740-5632	soojin@sktelecom.com	YES - NO

Annex B Output Documents

Approved Change Requests for CAMEL Phase 3

TDoc #	WI	Rel	Title	Spec	CR	Re	Cat	Version	Conclusio	Source
N2-020931	CAMEL3	R99	Correction to QoS reporting and delta timer overflow	23.078	478		F	3.14.0	approved	Ericsson
N2-020937	CAMEL3	R99	Alignement between 23.078 and 29.002 about RCH	23.078	468	3	F	3.14.0	approved	Alcatel
N2-020938	CAMEL3	Rel-4	Alignement between 23.078 and 29.002 about RCH	23.078	469	2	A	4.6.0	approved	Alcatel
N2-020939	CAMEL3	Rel-4	Correction to QoS reporting and delta timer overflow	23.078	479		A	4.6.0	approved	Ericsson
N2-020940	CAMEL3	Rel-5	Correction to QoS reporting and delta timer overflow	23.078	480		A	5.1.0	approved	Ericsson

Endorsed Change Requests for CAMEL Phase 3

TDoc #	WI	Rel	Title	Spec	Rev	Cat	Version	Conclusion	Source
N2-020919	CAMEL3	R99	Correction to segmentation of O-CSI and T-CSI	29.002		F	3.13.0	endorsed	Ericsson
N2-020920	CAMEL3	Rel-4	Correction to segmentation of O-CSI and T-CSI	29.002		F	4.9.0	endorsed	Ericsson
N2-020921	CAMEL3	Rel-5	Correction to segmentation of O-CSI and T-CSI	29.002		F	5.3.0	endorsed	Ericsson
N2-020922	CAMEL3	R99	Correction to figrue 7a (handling of RCH in GMSC)	23.079	1	F	3.7.0	endorsed	Ericsson
N2-020923	CAMEL3	Rel-4	Correction to figrue 7a (handling of RCH in GMSC)	23.079	1	F	4.1.0	endorsed	Ericsson
N2-020924	CAMEL3	Rel-5	Correction to figrue 7a (handling of RCH in GMSC)	23.079	1	F	5.1.0	endorsed	Ericsson

Approved Output Liaison Statements

TDoc #	Type	Title	Source	Conclusion	To	CC
N2-020898	LS OUT	LS on Packet switched SMS handling in UMTS network	CN2	approved	SA2, T2	
N2-020932	LS OUT	LS on Disappearance of CN2 endorsed CAMEL4 22.078 CR	CN2	approved	SA1	
N2-020936	LS OUT	LS “CN2 conclusion on CAMEL_PS_Notification procedure”	CN2	approved	SA2	

Approved Change Requests for CAMEL Phase 4

TDoc #	WI	Title	Spec	CR	Rev	Vers	Conclusio	Source
N2-020809	CAMEL4	Correction of handling of MT-SMS in the SGSN	23.078	449	1	5.1.0	approved	Vodafone
N2-020812	CAMEL4	Correction of handling of MT-SMS in the VLR	23.078	453		5.1.0	approved	Vodafone
N2-020814	CAMEL4	Correction of IDPs in new section 4.5.1	23.078	454		5.1.0	approved	Vodafone
N2-020832	CAMEL4	Add result from GPRS mobility management procedure	23.078	456		5.1.0	approved	Siemens AG
N2-020842	CAMEL4	Correction to SMS dialogue termination	29.078	277		5.1.0	approved	Ericsson
N2-020902	CAMEL4	Detach report in inter-SGSN routeing area update	23.078	457	1	5.1.0	approved	Siemens AG
N2-020910	CAMEL4	ASN.1 syntax basic corrections	29.078	283	1	5.1.0	approved	Alcatel
N2-020930	CAMEL4	Clarification of architecture for CAMEL control of SMS	23.078	452	2	5.1.0	approved	Vodafone
N2-020942	CAMEL4	Resolving of open issues on "Support of partial implementation of CAMEL"	23.078	470	2	5.1.0	approved	Alcatel
N2-020943	CAMEL4	Use of Release Call & Release Call Segment in gsmSSF processes	23.078	427	2	5.1.0	approved	Vodafone

Endorsed Change Requests for CAMEL Phase 4

TDoc #	WI	Title	Spec	Rev	Versio	Conclusio	Source
N2-020858	CAMEL4	Correction to RCH - adding O-CSI trigger criteria	29.002		5.2.0	endorsed	Ericsson, Alcatel

N2-020894	CAMEL4	Clarification of the use of Requested CAMEL Subscription Info parameters	29.002		5.3.0	endorsed	Nokia
N2-020895	CAMEL4	Change "CAMEL-connected" to "CAMEL-PDP context active" state (rev of N2-020419)	22.078		5.8.0	endorsed	Alcatel
N2-020903	CAMEL4	Additional MM-Code for MG-CSI	29.002		5.3.0	endorsed	Siemens AG
N2-020925	CAMEL4	Correction of handling of MT-SMS in the SGSN	29.002	2	5.3.0	endorsed	Vodafone
N2-020926	CAMEL4	CAMEL4 flexible tone package	29.232		5.3.0	endorsed	Ericsson
N2-020927	CAMEL4	Additional handling of partial implementations of CAMEL phase 4	29.002	2	5.3.0	endorsed	Alcatel
N2-020928	TEI_5	Description of MT SM delivery via two serving nodes	29.002	3	5.3.0	endorsed	Vodafone

Approved Change Requests for WI IMS-CAMEL

TDoc #	WI	Title	Spec	CR	Re	Versio	Conclusion	Source
N2-020826	IMS-CAMEL	Correction and improvement in the registration procedures	23.278	002		5.0.0	approved	Siemens AG
N2-020829	IMS-CAMEL	Correction and improvement in CSI update	23.278	005		5.0.0	approved	Siemens AG
N2-020830	IMS-CAMEL	Clarification in the case multiple RRBs are sent for a DP	23.278	006		5.0.0	approved	Siemens AG
N2-020865	IMS-CAMEL	Remove support of SCI operation from imcnSSF SDL process	23.278	008		5.0.0	approved	Lucent Technologies
N2-020866	IMS-CAMEL	Removal of ETC processing from IM-SSF SDL Procedures	23.278	009		5.0.0	approved	Lucent Technologies
N2-020916	IMS-CAMEL	ASN.1 syntax basic corrections for IMS CAMEL	29.278	002	1	5.0.0	approved	Alcatel
N2-020933	IMS-CAMEL	Correction of InitialDP MediaType parameter	23.278	010	1	5.0.0	approved	Lucent Technologies
N2-020934	IMS-CAMEL	Correction of ASN.1 definition for the InitialDP MediaType parameter	29.278	001	1	5.0.0	approved	Lucent Technologies
N2-020941	IMS-CAMEL	Correction and improvement in the overall SDL structure	23.278	001	2	5.0.0	approved	Siemens AG
N2-020945	IMS-CAMEL	Inconsistent description on ACR: time information	23.278	007	1	5.0.0	approved	Siemens AG

Annex C List of Documents

TDoc #	Title	Source	WI	CR #	Rev	Cat	Rel	Version	Spec	Conclusio
N2-020803	Meeting agenda	CN2 chairman								approved
N2-020804	Allocation of documents to agenda items	CN2 chairman								approved
N2-020805	CN2#25 Draft Meeting Report	MCC								approved
N2-020806	CN#17 Draft Meeting Report	MCC								noted
N2-020807	Description of MT SM delivery via two serving nodes	Vodafone	TEI_5	442 - CN4	2	F	Rel-5	5.3.0	29.002	revised to N2-020928
N2-020808	Correction of handling of MT-SMS in the SGSN	Vodafone	CAMEL 4	474 - CN4	1	F	Rel-5	5.3.0	29.002	revised to N2-020925
N2-020809	Correction of handling of MT-SMS in the SGSN	Vodafone	CAMEL 4	449	1	F	Rel-5	5.1.0	23.078	approved
N2-020810	Clarification of architecture for CAMEL control of MT-SMS	Vodafone	CAMEL 4	452		F	Rel-5	5.1.0	23.078	revised to N2-020811
N2-020811	Clarification of architecture for CAMEL control of MT-SMS	Vodafone	CAMEL 4	452	1	F	Rel-5	5.1.0	23.078	revised to N2-020930
N2-020812	Correction of handling of MT-SMS in the VLR	Vodafone	CAMEL 4	453		F	Rel-5	5.1.0	23.078	approved
N2-020813	Latest Version of CAMEL IREG Test Specification	Vodafone								noted
N2-020814	Correction of IDPs in new section 4.5.1	Vodafone	CAMEL 4	454		F	Rel-5	5.1.0	23.078	approved
N2-020815	CPH: Open issues and decisions	Vodafone	CAMEL 4							noted
N2-020816	Use of Release Call & Release Call Segment in gsmSSF processes	Vodafone	CAMEL 4	427	1	F	Rel-5	5.1.0	23.078	revised to N2-020943
N2-020817	Definition of LocationInformationGPRS in 29.078	Nortel								noted
N2-020818	Correction of LocationInformationGPRS definition	Nortel	CAMEL 3	271		F	R99	3.13.0	29.078	withdrawn
N2-020819	Correction of LocationInformationGPRS definition	Nortel	CAMEL 3	272		A	Rel-4	4.6.0	29.078	withdrawn

N2-020820	Playing of the warning tone	NOKIA	CAMEL 4	455		F	Rel-5	5.1.0	23.078	postponed
N2-020821	Liaison statement on the CAMEL_PS_Notification procedure	SA2								noted
N2-020822	Correction to Emergency call handling in IMS	SA2								noted
N2-020823	Liaison Statement on Interoperability Issues and SIP in IMS	Chairs, SIP, SIPPIN								noted
N2-020824	CRs which may be needed for TS 23.278	Siemens AG	IMS-CAMEL							noted
N2-020825	Correction and improvement in the overall SDL structure	Siemens AG	IMS-CAMEL	001		F	Rel-5	5.0.0	23.278	revised to N2-020917
N2-020826	Correction and improvement in the registration procedures	Siemens AG	IMS-CAMEL	002		F	Rel-5	5.0.0	23.278	approved
N2-020827	Correction and improvement in MO procedures	Siemens AG	IMS-CAMEL	003		F	Rel-5	5.0.0	23.278	revised to next meeting
N2-020828	Correction and improvement in MT procedures	Siemens AG	IMS-CAMEL	004		F	Rel-5	5.0.0	23.278	revised to next meeting
N2-020829	Correction and improvement in CSI update	Siemens AG	IMS-CAMEL	005		F	Rel-5	5.0.0	23.278	approved
N2-020830	Clarification in the case multiple RRBs are sent for a DP	Siemens AG	IMS-CAMEL	006		F	Rel-5	5.0.0	23.278	approved
N2-020831	Inconsistent description on ACR: time information	Siemens AG	IMS-CAMEL	007		F	Rel-5	5.0.0	23.278	revised to N2-020945
N2-020832	Add result from GPRS mobility management procedure	Siemens AG	CAMEL 4	456		F	Rel-5	5.1.0	23.078	approved
N2-020833	Detach report in inter-SGSN routeing area update	Siemens AG	CAMEL 4	457		C	Rel-5	5.1.0	23.078	revised to N2-020902
N2-020834	Correction to handling when Delta is greater than received maximum threshold	Ericsson	CAMEL 3	458		F	R99	3.14.0	23.078	revised to N2-020912
N2-020835	Deferral of QoS induced ACR-GPRS when waiting for ACH-GPRS	Ericsson	CAMEL 3	459		F	R99	3.14.0	23.078	withdrawn
N2-020836	Deferral of QoS induced ACR-GPRS when waiting for ACH-GPRS	Ericsson	CAMEL 3	274		F	R99	3.13.0	29.078	withdrawn
N2-020837	Correction to reporting of subscribed QoS at PDPc Establishment	Ericsson	CAMEL 3	460		F	R99	3.14.0	23.078	rejected
N2-020838	Correction to reporting of subscribed QoS at PDPc Establishment	Ericsson	CAMEL 3	275		F	R99	3.13.0	29.078	withdrawn
N2-020839	Correction to GPRS dialogue abortion	Ericsson	CAMEL 3	276		F	Rel-5	5.1.0	29.078	postponed to next meeting

N2-020840	Suppression of GPRS QoS reporting	Ericsson								noted
N2-020841	Correction to interaction between MO-SMS and CB / ODB	Ericsson	CAMEL 3	461		F	Rel-5	5.1.0	23.078	postponed
N2-020842	Correction to SMS dialogue termination	Ericsson	CAMEL 4	277		F	Rel-5	5.1.0	29.078	approved
N2-020843	Packet switched SMS handling in UMTS network	Ericsson								revised to N2-020898
N2-020844	Correction to "forwardedCall" parameter in T_Answer and O_Answer	Ericsson	CAMEL 3	462		F	R99	3.14.0	23.078	revised to N2-020911
N2-020845	Correction to "destinationAddress" parameter in T_Answer and	Ericsson	CAMEL 3	463		F	R99	3.14.0	23.078	withdrawn
N2-020846	Correction to Dialled Services criteria	Ericsson	CAMEL 3	464		F	R99	3.14.0	23.078	revised to N2-020929
N2-020847	Correction to Dialled Services criteria	Ericsson	CAMEL 3			F	R99	3.13.0	29.002	rejected
N2-020848	Correction to segmentation of O-CSI and T-CSI	Ericsson	CAMEL 3			F	Rel-5	5.2.0	29.002	revised to N2-020919
N2-020849	Allowing backwards SII2 in ETC and CTR	Ericsson	CAMEL 4	465		C	Rel-5	5.1.0	23.078	revised to next meeting
N2-020850	Allowing backwards SII2 in ETC and CTR	Ericsson	CAMEL 4	278		C	Rel-5	5.1.0	29.078	postponed to the next meeting
N2-020851	Correction to VLR Address in Location Information	Ericsson	CAMEL 4	466		F	Rel-5	5.1.0	23.078	postponed to the next meeting
N2-020852	Correction to SCF Id and Correlation Id in ETC	Ericsson	CAMEL 4	279		F	Rel-5	5.1.0	29.078	postponed to the next meeting
N2-020853	Introduction of "CAP version indicator" in ETC	Ericsson	CAMEL 4							postponed to the next meeting
N2-020854	Introduction of "CAP version indicator" in ETC	Ericsson	CAMEL 4	467		B	Rel-5	5.1.0	23.078	postponed to the next meeting
N2-020855	Introduction of "CAP version indicator" in ETC	Ericsson	CAMEL 4	280		B	Rel-5	5.1.0	29.078	postponed to the next meeting
N2-020856	Correction to CRN and GMSCA handling in HLR	Ericsson	CAMEL 3			F	R99	3.7.0	23.079	withdrawn
N2-020857	Correction to figrue 7a (handling of RCH in GMSC)	Ericsson	CAMEL 3			F	R99	3.7.0	23.079	revised to N2-020922
N2-020858	Correction to RCH - adding O-CSI trigger criteria	Ericsson, Alcatel	CAMEL 4			F	Rel-5	5.2.0	29.002	endorsed
N2-020859	Interaction between ORLCF and SCP-induced late call forwarding	Ericsson	CAMEL 4							noted

N2-020860	Fowarding of DTMF tones to other legs in the call	Ericsson	CAMEL 4			F	Rel-5	5.7.0	22.078	withdrawn
N2-020861	Draft LS on Enhancement to H.248 for flexible warning tone	Ericsson	CAMEL 4							withdrawn
N2-020862	CAMEL4 open issue list	CN2 chairman								noted
N2-020863	CAMEL4 Call Party Handling interworking with Bearer independent CS core	Nokia	CSSPLIT			B	Rel-5	5.3.0	23.205	postponed to next meeting
N2-020864	Extending the 3G Expanded Call Progress Tones Generator Package with a new signal to	Nokia	CAMEL 4			C	Rel-5	5.2.0	29.232	withdrawn
N2-020865	Remove support of SCI operation from imcnSSF SDL process	Lucent Technologies	IMS-CAMEL	008		F	Rel-5	5.0.0	23.278	approved
N2-020866	Removal of ETC processing from IM-SSF SDL Procedures	Lucent Technologies	IMS-CAMEL	009		F	Rel-5	5.0.0	23.278	approved
N2-020867	Correction of ASN.1 definition for the InitialDP MediaType parameter	Lucent Technologies	IMS-CAMEL	001		F	Rel-5	5.0.0	29.278	revised to N2-020934
N2-020868	Correction of InitialDP MediaType parameter	Lucent Technologies	IMS-CAMEL	010		F	Rel-5	5.0.0	23.278	revised to N2-020933
N2-020869	CAMEL/IMS Open Issues	Lucent Technologies	IMS-CAMEL				Rel-5	5.0.0		revised to N2-020915
N2-020870	SDL Procedure for Connect To Resource	Lucent Technologies	IMS-CAMEL	011		F	Rel-5	5.0.0	23.278	withdrawn
N2-020871	Alignement between 23.078 and 29.002 about RCH	Alcatel	CAMEL 3	468		F	R99	3.14.0	23.078	revised to N2-020896
N2-020872	Alignement between 23.078 and 29.002 about RCH	Alcatel	CAMEL 3	469		A	Rel-4	4.6.0	23.078	revised to N2-020897
N2-020873	Alignement between 23.078 and 29.002 about RCH	Alcatel	CAMEL 4			A	Rel-5	5.2.0	29.002	withdrawn
N2-020874	Resolving of open issues on "Support of partial implementation of CAMEL"	Alcatel	CAMEL 4	470		C	Rel-5	5.1.0	23.078	revised to N2-020906
N2-020875	Additional handling of partial implementations of CAMEL phase 4	Alcatel	CAMEL 4			C	Rel-5	5.3.0	29.002	revised to N2-020907
N2-020876	Playing of Warning Tones	Alcatel	CAMEL 4	418	3	F	Rel-5	5.1.0	23.078	postponed
N2-020877	ASN.1 syntax basic corrections	Alcatel	CAMEL 3	281		F	R99	3.13.0	29.078	revised to N2-020908
N2-020878	ASN.1 syntax basic corrections	Alcatel	CAMEL 3	282		F	Rel-4	4.6.0	29.078	revised to N2-020909
N2-020879	ASN.1 syntax basic corrections	Alcatel	CAMEL 4	283		F	Rel-5	5.1.0	29.078	revised to N2-020910

N2-020880	ASN.1 syntax basic corrections	Alcatel	IMS-CAMEL	002		F	Rel-5	5.0.0	29.278	revised to N2-020916
N2-020881	Partial Implementations of CAMEL Phase 4: Open Issues	T-Mobile								revised to N2-020905
N2-020882	Partial Implementations of CAMEL Phase 4: Discussion of open issues	Vodafone								noted
N2-020883	Removal of PSI enhancements in VLR to HLR information flows	Vodafone	CAMEL 4	471		F	Rel-5	5.1.0	23.078	withdrawn
N2-020884	No offered functionalities in IDP for PS	Vodafone	CAMEL 4	472		F	Rel-5	5.1.0	23.078	withdrawn
N2-020885	No indication of support of PSI enhancements in Initial DP	Vodafone	CAMEL 4	473		F	Rel-5	5.1.0	23.078	withdrawn
N2-020886	Removal of 'supported CSIs' I.E. in MM event notification	Vodafone	CAMEL 4	474		F	Rel-5	5.1.0	23.078	withdrawn
N2-020887	Removal of note to Identify IEs in CWA purely for NP case	Vodafone	CAMEL 4	475		F	Rel-5	5.1.0	23.078	withdrawn
N2-020888	Disappearance of endorsed CR	CN2 Vice Chairm	CAMEL 4							noted
N2-020889	Question on SIP usage in IMS/CAMEL	Siemens AG	CAMEL 4							noted
N2-020890	Additional MM-Code for MG-CSI	Siemens AG	CAMEL 4			C	Rel-5	5.3.0	29.002	revised to N2-020903
N2-020891	IF Description for gsmSRF-related operations for IMS	Lucent Technologies	IMS-CAMEL	012		F	Rel-5	5.0.0	23.278	postponed to next meeting
N2-020892	Correction of ConnectToResource operation procedure for IMS.	Lucent Technologies	IMS-CAMEL	003		F	Rel-5	5.0.0	29.278	postponed to next meeting
N2-020893	Use of MRFC for CAMEL/IMS	Lucent Technologies	IMS-CAMEL				Rel-5	5.0.0	23.278	postponed to next meeting
N2-020894	Clarification of the use of Requested CAMEL Subscription Info parameters	Nokia	CAMEL 4			F	Rel-5	5.3.0	29.002	endorsed
N2-020895	Change "CAMEL-connected" to "CAMEL-PDP context active" state (rev of N2-	Alcatel	CAMEL 4			D	Rel-5	5.8.0	22.078	endorsed
N2-020896	Alignement between 23.078 and 29.002 about RCH	Alcatel	CAMEL 3	468	1	F	R99	3.14.0	23.078	revised to N2-020901
N2-020897	Alignement between 23.078 and 29.002 about RCH	Alcatel	CAMEL 3	469	1	A	Rel-4	4.6.0	23.078	revised to N2-020938
N2-020898	Packet switched SMS handling in UMTS network	Ericsson								approved
N2-020899	Reconsideration of CAMEL4 Dialled Services enhancements	SK Telecom								noted

N2-020900	Response to IETF LS on Interoperability Issues and SIP in IMS	TSG SA								noted
N2-020901	Alignement between 23.078 and 29.002 about RCH	Alcatel	CAMEL 3	468	2	F	R99	3.14.0	23.078	revised to N2-020937
N2-020902	Detach report in inter-SGSN routeing area update	Siemens AG	CAMEL 4	457	1	F	Rel-5	5.1.0	23.078	approved
N2-020903	Additional MM-Code for MG-CSI	Siemens AG	CAMEL 4			F	Rel-5	5.3.0	29.002	endorsed
N2-020904	Draft Response to LS on the CAMEL PS notification procedure	Siemens								revised to N2-020936
N2-020905	Partial Implementations of CAMEL Phase 4: Open Issues	T-Mobile								noted
N2-020906	Resolving of open issues on "Support of partial implementation of CAMEL"	Alcatel	CAMEL 4	470	1	C	Rel-5	5.1.0	23.078	revised to N2-020942
N2-020907	Additional handling of partial implementations of CAMEL phase 4	Alcatel	CAMEL 4		1	C	Rel-5	5.3.0	29.002	revised to N2-020927
N2-020908	ASN.1 syntax basic corrections	Alcatel	CAMEL 3	281	1	F	R99	3.13.0	29.078	rejected
N2-020909	ASN.1 syntax basic corrections	Alcatel	CAMEL 3	282	1	A	Rel-4	4.6.0	29.078	rejected
N2-020910	ASN.1 syntax basic corrections	Alcatel	CAMEL 4	283	1	F	Rel-5	5.1.0	29.078	approved
N2-020911	Correction of description of "forwardedCall" parameter in T_Answer and O_Answer	Ericsson	CAMEL 3	462	1	F	R99	3.14.0	23.078	withdrawn
N2-020912	Correction to handling when Delta is greater than received maximum threshold	Ericsson	CAMEL 3	458	1	F	R99	3.14.0	23.078	withdrawn
N2-020913	Correction to handling when Delta is greater than received maximum threshold	Ericsson	CAMEL 3	476		A	Rel-4	4.6.0	23.078	withdrawn
N2-020914	Correction to handling when Delta is greater than received maximum threshold	Ericsson	CAMEL 3	477		A	Rel-5	5.1.0	23.078	withdrawn
N2-020915	CAMEL/IMS Open Issues	Lucent Technologies	IMS-CAMEL				Rel-5	5.0.0		postponed to next meeting
N2-020916	ASN.1 syntax basic corrections for IMS CAMEL	Alcatel	IMS-CAMEL	002	1	F	Rel-5	5.0.0	29.278	approved
N2-020917	Correction and improvement in the overall SDL structure	Siemens AG	IMS-CAMEL	001	1	F	Rel-5	5.0.0	23.278	revised to N2-020941
N2-020918	CAMEL4 flexible tone package	Ericsson	CAMEL 4			F	Rel-5	5.3.0	29.232	revised to N2-020926
N2-020919	Correction to segmentation of O-CSI and T-CSI	Ericsson	CAMEL 3			F	R99	3.13.0	29.002	endorsed

N2-020920	Correction to segmentation of O-CSI and T-CSI	Ericsson	CAMEL 3			F	Rel-4	4.9.0	29.002	endorsed
N2-020921	Correction to segmentation of O-CSI and T-CSI	Ericsson	CAMEL 3			F	Rel-5	5.3.0	29.002	endorsed
N2-020922	Correction to figrue 7a (handling of RCH in GMSC)	Ericsson	CAMEL 3		1	F	R99	3.7.0	23.079	endorsed
N2-020923	Correction to figrue 7a (handling of RCH in GMSC)	Ericsson	CAMEL 3		1	F	Rel-4	4.1.0	23.079	endorsed
N2-020924	Correction to figrue 7a (handling of RCH in GMSC)	Ericsson	CAMEL 3		1	F	Rel-5	5.1.0	23.079	endorsed
N2-020925	Correction of handling of MT-SMS in the SGSN	Vodafone	CAMEL 4	474 - CN4	2	F	Rel-5	5.3.0	29.002	endorsed
N2-020926	CAMEL4 flexible tone package	Ericsson	CAMEL 4			F	Rel-5	5.3.0	29.232	endorsed
N2-020927	Additional handling of partial implementations of CAMEL phase 4	Alcatel	CAMEL 4		2	C	Rel-5	5.3.0	29.002	endorsed
N2-020928	Description of MT SM delivery via two serving nodes	Vodafone	TEI_5	442 - CN4	3	F	Rel-5	5.3.0	29.002	endorsed
N2-020929	Correction to Dialled Services criteria	Ericsson	CAMEL 3	464	1	F	R99	3.14.0	23.078	postponed
N2-020930	Clarification of architecture for CAMEL control of SMS	Vodafone	CAMEL 4	452	2	F	Rel-5	5.1.0	23.078	approved
N2-020931	Correction to QoS reporting and delta timer overflow	Ericsson	CAMEL 3	478		F	R99	3.14.0	23.078	approved
N2-020932	Dissapearance of CN2 endorsed CAMEL4 23.078 CR									approved
N2-020933	Correction of InitialDP MediaType parameter	Lucent Technologies	IMS-CAMEL	010	1	F	Rel-5	5.0.0	23.278	approved
N2-020934	Correction of ASN.1 definition for the InitialDP MediaType parameter	Lucent Technologies	IMS-CAMEL	001	1	F	Rel-5	5.0.0	29.278	approved
N2-020935	CN2 Meeting calendar									noted
N2-020936	Response to LS on the CAMEL PS notification procedure	Siemens								approved
N2-020937	Alignement between 23.078 and 29.002 about RCH	Alcatel	CAMEL 3	468	3	F	R99	3.14.0	23.078	approved
N2-020938	Alignement between 23.078 and 29.002 about RCH	Alcatel	CAMEL 3	469	2	A	Rel-4	4.6.0	23.078	approved
N2-020939	Correction to QoS reporting and delta timer overflow	Ericsson	CAMEL 3	479		A	Rel-4	4.6.0	23.078	approved

N2-020940	Correction to QoS reporting and delta timer overflow	Ericsson	CAMEL3	480		A	Rel-5	5.1.0	23.078	approved
N2-020941	Correction and improvement in the overall SDL structure	Siemens AG	IMS-CAMEL	001	2	F	Rel-5	5.0.0	23.278	approved
N2-020942	Resolving of open issues on "Support of partial implementation of CAMEL"	Alcatel	CAMEL4	470	2	C	Rel-5	5.1.0	23.078	approved
N2-020943	Use of Release Call & Release Call Segment in gsmSSF processes	Vodafone	CAMEL4	427	2	F	Rel-5	5.1.0	23.078	approved
N2-020944	Example of the CR in case of overlapping changes									noted
N2-020945	Inconsistent description on ACR: time information	Siemens AG	IMS-CAMEL	007	1	F	Rel-5	5.0.0	23.278	approved

DRAFT Meeting Report, version 1.10.0

TSG CN WG2#27
Thailand, Bangkok

11 November – 15 November, 2002

Chairman: Keijo Palviainen (Nokia)

MCC support: Andrijana Jurisic(ETSI)

Hosts: “Japanese 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_27_Bangkok/Docs

1 Opening of the meeting and approval of the agenda

N2-020946 : CN2 chairman, Title: Proposed meeting agenda

Discussion:

Conclusion: approved

2 Allocation of documents to agenda items

N2-020947: CN2 chairman, Title: Allocation of documents to agenda items

Discussion:

Conclusion: noted

3 Reports

N2-020948: MCC, Title: CN2#26 Draft Meeting Report

Discussion :

Conclusion: approved

4 Input Liaison Statements

N2-020950: Source: CN1, Type: LS IN, Title: Liaison statement on Interoperability Issues and SIP in IMS

Discussion :

Conclusion: noted

N2-021006: Source: SA2, Type: LS IN , Title: Response to "LS on Packet switched SMS handling in UMTS network"

Discussion:

Conclusion: noted

N2-021072: Source: SA3, Type: LS IN, Title: Liaison statement on Interoperability Issues and SIP in IMS

Discussion :

Conclusion: noted

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	3.14.0	N2	HOMANN, Christian
TS	23.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3 - Stage 2	Rel-4	4.6.0	N2	HOMANN, Christian
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3; CAMEL Application Part (CAP) specification	R1999	3.13.0	N2	NOLDUS, Rogier
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3; CAMEL Application Part (CAP) specification	Rel-4	4.6.0	N2	NOLDUS, Rogier
TS	23.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 4 - Stage 2	Rel-5	5.1.0	N2	SUMIO, Myagava
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase; CAMEL Application Part (CAP) specification	Rel-5	5.1.0	N2	NOLDUS, Rogier
TS	23.278	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 4 - Stage 2; IM CN Interworking	Rel-5	5.0.0	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	5.0.0	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.

An IPR declaration was announced by the chairman. 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

N2-020949: Source: MCC, Type: WP, Title: Latest version of the work plan

Discussion:

Conclusion: noted

N2-020952: Source: CN2 and CN4 chairman, Type: Discussion document, Title: Organisation of work in CN2 & CN4 after Release 5

Discussion: As discussed in CN2 meeting in Miami, CN2 has enough work for the whole year 2003. Discussion on Enhancements of dialled services for Release 6 will have impact on this discussion. Lucent expects Rel-6 enhancements for MRFC functionality.

- Alcatel: as soon as there is a lot of work in both groups, there is no sense to run 2 subgroups of one group for the whole meeting (5 days).

- T-Mobil agrees ~~with Alcatel~~ that there will be no sense to merge with CN4 within 2003. CN2 chairman shares this opinion.

Summary of discussion in CN2: CN2 believes that 2003 is to early for merging with CN4.

Conclusion: CN2 and CN4 jointly concluded that merging of CN2 and CN4 is too early in 2003.

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

N2-021010: TS 29.078, R99, Source: Ericsson, Type: CR, CR#290, Title: Correction to CAP Extension Types

Discussion: The CR specifies in section 5 that only value “Global OBJECT IDENTIFIER” is used for &id for the Extension Class and in section 5 that only the value “ignore (0)” is used for &criticality for the Extension Class.

ASN.1 compiler does not recognize example of “xxxxxx”. “xxxxxx” should be replaced by the entire example string.

Conclusion : revised to N2-021033

N2-021033: TS 29.078, R99, Source: Ericsson, Type: CR, CR#290r1, Title: Correction to CAP Extension Types

Discussion: TS 29.278 doesn’t need change as it imports definitions from 29.078.

Conclusion : approved without presentation

N2-021034: TS 29.078, Rel-4, Source: Ericsson, Type: CR, CR#293, Title: Correction to CAP Extension Types

Discussion:

Conclusion : approved without presentation

N2-021035: TS 29.078, Rel-5, Source: Ericsson, Type: CR, CR#294, Title: Correction to CAP Extension Types

Discussion:

Conclusion: approved without presentation

7.2 CAMEL3/ATM&ATSI

N2-021012: TS 23.078, R99, Nokia, Type: CR, CR#498, Title: Clarification on ATM -> NSDC when status of one SS impacts another SS status.

Discussion: It is unclearly specified what shall happen when Any Time Modification (ATM) modifies one supplementary service and status of another SS is therefore modified. On one hand, it is forbidden to send Notify Subscriber Data Change (NSDC) to same SCP/gsmSCF which sent the ATM. On the other hand, ATM-ack can not convey all changes. For example, if ATM(CFU, passivate) is sent, CFB, CFNRc and CFNRy may become "active". ATM-ack can only convey information about CFU.

Summary of change: The ATM-ack conveys the modified SS to requesting gsmSCF. The requesting gsmSCF gets all other modified supplementary services in NSDC. All other gsmSCF to be notified get all changes informed in NSDC.

Consistent terminology shall be used ("subscriber data" instead of "data"). Wording will e approved according to offline comment given by Vodafone.

Conclusion: revised to N2-021029

N2-021029: TS 23.078, R99, Nokia, Type: CR, CR#498r1, Title: Clarification on ATM -> NSDC when status of one SS impacts another SS status.

Discussion: Wording is approved according to offline comment given by Vodafone.

Conclusion: revised to N2-021083

N2-021083: TS 23.078, R99, Nokia, Type: CR, CR#498r2, Title: Clarification on ATM -> NSDC when status of one SS impacts another SS status.

Discussion: Wording of the change on the page 3 is modified.

Conclusion: revised to N2-021087

N2-021087: TS 23.078, R99, Nokia, Type: CR, CR#498r3, Title: Clarification on ATM -> NSDC when status of one SS impacts another SS status.

Discussion: Spelling error in "acknowledgement"

Conclusion: approved without presentation

N2-021030: TS 23.078, Rel-4, Nokia, Type: CR, CR#506, Title: Clarification on ATM -> NSDC when status of one SS impacts another SS status.

Discussion:

Conclusion: revised to N2-021084

N2-021084: TS 23.078, Rel-4, Nokia, Type: CR, CR#506r1, Title: Clarification on ATM -> NSDC when status of one SS impacts another SS status.

Discussion:

Conclusion: revised to N2-021088

N2-021088: TS 23.078, Rel-4, Nokia, Type: CR, CR#506r2, Title: Clarification on ATM -> NSDC when status of one SS impacts another SS status.

Discussion:

Conclusion: approved without presentation

N2-021031: TS 23.078, Rel-5, Nokia, Type: CR, CR#507, Title: Clarification on ATM -> NSDC when status of one SS impacts another SS status.

Discussion:

Conclusion: revised to N2-021085

N2-021085: TS 23.078, Rel-5, Nokia, Type: CR, CR#507r1, Title: Clarification on ATM -> NSDC when status of one SS impacts another SS status.

Discussion:

Conclusion: :revised to N2-021089

N2-021089: TS 23.078, Rel-5, Nokia, Type: CR, CR#507r2, Title: Clarification on ATM -> NSDC when status of one SS impacts another SS status.

Discussion:

Conclusion: approved without presentation

7.3 CAMEL3/GPRS

N2-020956: Source: Nortel Networks, Vodafone, Type: Discussion document, Title: Compatibility of LocationInformationGPRS definition in R99/ Rel-4 and Rel-5

Discussion: CAMEL phase 3 and CAMEL phase 4 use the same application context version for cap3-sms-AC, cap3-gprsssf-scfAC and cap3-gsmscf-gprsssfAC. This means that all parameters used by these ACs (before the ellipsis notation) must be the same in Release 99, Release 4 and Release 5. This rule is violated for the type LocationInformationGPRS. Two possible solutions are identified in this document.

The change should be compatible with R99 implementation. Nokia is in favor to change CAP specification 29.078, rather than MAP specification 29.002 in Rel-5.

Alcatel, T-Mobil, Telecom Italia Mobile, Nortel and Vodafone prefer CHOICE option (N2-020957) since it is cleaner solution.

Lucent, Siemens, Nokia, Ericsson prefers OCTET string option. This option would be compatible with existing R99 implementations.

The document was discussed in the Joint meeting with CN4 in N4-021357 (see Annex A for CN2/CN4 Joint meeting minutes).

Conclusion: noted

N2-020959: TS 29.078, R99, Source: Nortel Networks, Type: CR, CR#286, Title: Correction of LocationInformationGPRS definition (OCTET STRING option)

Discussion: This CR corrects the definition of LocationInformationGPRS in TS 29.078. Siemens finds niether of changes proposed in N2-0210957 and N-0210959 needed, but if one has to be chosen Siemens is in favour of OCTET STRING solution as it is compatible with existing R99 implementation (N2-020959).

The document is discussed during CN2/CN4 Joint meeting in N4-021359.

Siemens: Is this a serious problem/error to accept this incompatible change? The meeting is not in favour of technical change to R99 and Rel-4.

Changing of CAP Rel-5 to align with R99 and Rel-4 CAP proposed by Nokia is supported by Siemens, Vodafone. This can be handled purely in CN2 since there is no change for MAP.

Conclusion: withdrawn (will be replaced by new CR in N2-021071)

N2-020960: TS 29.078, Rel-4, Source: Nortel Networks, Type: CR, CR#287, Title: Correction of LocationInformationGPRS definition (OCTET STRING option)

Discussion:

Conclusion: withdrawn

N2-021071: TS 29.078, Rel-5, Source: Nortel Networks, Type: CR, CR#295, Title: Re-introduction of local definition of LocationInformationGPRS

Discussion: The local definition of LocationInformationGPRS is reintroduced to TS 29.078. At the place where LocationInformationGPRS was deleted ",”should be deleted as well.

Import from MAP in 29.079 clause 8 shall also be removed. We state that no tags and lengths of TS 29.002 are conveyed for this element.

Conclusion: revised to N2-021080

N2-021080: TS 29.078, Rel-5, Source: Nortel Networks, Type: CR, CR#295r1, Title: Re-introduction of local definition of LocationInformationGPRS

Discussion: Ericsson: Following change shall be cancelled:**"**All tags and lengths shall not be included." "`selectedLSAIdentity`" was imported from MAP, therefore it is not necessary to refer to TS 29.002.

Conclusion: revised to N2-021086

N2-021086: TS 29.078, Rel-5, Source: Nortel Networks, Type: CR, CR#295r2, Title: Re-introduction of local definition of LocationInformationGPRS

Discussion:

Conclusion: approved without presentation

N2-020961: TS 29.002, Rel-5, Source: Nortel Networks, Type: CR, Title: Change of LocationInformationGPRS

Discussion: LocationInformationGPRS was introduced in Rel-5 MAP only. This is an incompatible change. Some incompatible changes (ODB changes) were allowed and approved for Release 5 during the plenary in September. The document was rediscussed in CN2/CN4 Joint meeting in N4-021358 (see Annex A).

Conclusion: rejected

N2-020957: TS 29.078, R99, Source: Nortel Networks, Type: CR, CR#284, Title: Correction of LocationInformationGPRS definition (CHOICE option)

Discussion: This change would be incompatible with existing R99 implementation.

Conclusion: rejected

N2-020958: TS 29.078, Rel-4, Source: Nortel Networks, Type: CR, CR#285, Title: Correction of LocationInformationGPRS definition (CHOICE option)

Discussion:

Conclusion: rejected

N2-021022: Source: Vodafone, Type: Discussion and decision document, Title: Handling of AC and ACR in GPRS

Discussion: Vodafone have been studying the Apply Charging / Apply Charging Report functionality for CAMEL Control of GPRS and would like to clarify understanding of the operation with CN2.

- How do we calculate the total volume transferred? How does the gsmSCF recognise that a tariff switch has occurred? Information flow to be corrected – the correction would answer to questions 1 and 2..
- 3rd question: What happens on Change of Position? If the information flow is corrected, the assumption is correct. What will be reported on QoS change? How does this affect the example above? Does the gsmSCF have to respond with an additional AC?
- 4th question: What will be reported on QoS change? How does this affect the example described in the document? Does the gsmSCF have to respond with an additional AC? It would be helpful to have sequence numbering in the information flow.

Should we mention QoS report in AC GPRS? Section 11.6.1 in TS 29.078 R99v3.13.0 says: "A report shall be made either when a PDP context deactivation, Detach event or Change in QoS is detected by the gprsSSF or when the gprsSSF detects that the transferred volume or elapsed time duration indicated in parameter transferredVolume or elapsedTime (received in ApplyChargingGPRS operation) has been reached.

That sending of ApplyChargingReportGPRS shall only be made on chargeable QoS changes." Rel5 29.078 does not mention QoS change as trigger for ACR-GPRS.

Conclusion: revised to N2-021032

N2-021032: Source: Vodafone, Type: Discussion and decision document, Title: Handling of AC and ACR in GPRS

Discussion: Ericsson: Signal number 8 in the figure is incorrect, (VolumeIfNoTariffSwitch shall not be used if any Tsw took place). The meeting didn't have time to check all the details in the document, therefore the source will remain as Vodafone and not CN2 as proposed in the document.

Meeting proposal is to send the revised document on the CN2 e-mail list without CN2 Tdoc number for discussion. After e-mail discussion, new document can be initiated for the next meeting.

Conclusion: noted

N2-021026: Source: Nokia, Type: Discussion document, Title: Buffering of GPRS CAMEL3 messages while waiting 1st response to TC-BEGIN

Discussion: An interworking problem exists in a case when SGSN/gprsSSF opens a TC dialogue, and is waiting for first response from SCP/gsmSCF. During the waiting state an event occurs in SGSN. Shall the gprsSSF process be halted while waiting, or shall the GPRS_Dialogue_Handler process (or TC) buffer the message? Status of the current version of 23.078: The gprsSSF SDL process is not halted to wait for operation results and the GPRS_Dialogue_Handler does not buffer messages.

The problem is highlighted in the example in the document.

Nokia proposes modelling of message buffering into GPRS_Dialogue_Handler SDL process. The other alternative is to model "stateful" SDL procedures into gprsSSF process which halt processing while waiting for SCP response. This would change behaviour also when TC-dialogue is "open".

Q.774 (procedures) and Q.773 and Q.772 (errors) have to be checked.

Conclusion: noted

N2-021054: Source: Ericsson, Type: Discussion document, Title: Buffering CAP operations in the gprsSSF

Discussion: To overcome the dilemma sketched in N2-021026 ("Buffering of GPRS CAMEL3 messages while waiting 1st response to TC-BEGIN"), it is proposed to consider following 3 steps:

- Step 1: Operation buffering
- Step 2: Event buffering 1 (waiting for Operation Result) and
- Step 3: Event buffering 2 (Operations from gsmSCF to be processed)

Conclusion: noted

7.4 CAMEL3/MO SMS

7.5 CAMEL3/Call Related

N2-020983: TS 23.078, R99, Alcatel, Type: CR, CR#487, Title: Number comparison for D-CSI

Discussion: In the TS 23.078 in the procedure performed for the comparison of the destination number triggering criterion and the address information, it is unclear whether the modification of number has to be done on the address information and on destination number triggering criterion or only on the address information.

The modification of number has to be done on the address information and on the destination number triggering criterion as well.

In bullet number 3 of the change, the wording will be changed to "if either or both …" The modification of number has to be done on the address information and on the destination number triggering criterion as well. Vodafone will provide the proposal for the wording off line. In bullet number 5 of the change, words "relative to " will be replaced by "of".

The meeting concluded that this is an essential correction.

Conclusion: revised to N2-021036

N2-021036: TS 23.078, R99, Alcatel, Type: CR, CR#487r1, Title: Number comparison for D-CSI

Discussion:

Conclusion: approved without presentation

N2-020984: TS 23.078, Rel-4, Alcatel, Type: CR, CR#488, Title: Number comparison for D-CSI

Discussion:

Conclusion: revised to N2-021037

N2-021037: TS 23.078, Rel-4, Alcatel, Type: CR, CR#488r1, Title: Number comparison for D-CSI

Discussion:

Conclusion: approved without presentation

N2-020985: TS 23.078, Rel-5, Alcatel, Type: CR, CR#489, Title: Number comparison for D-CSI

Discussion:

Conclusion: revised to N2-021038

N2-021038: TS 23.078, Rel-5, Alcatel, Type: CR, CR#489r1, Title: Number comparison for D-CSI

Discussion:

Conclusion: approved without presentation

N2-021039: TS 23.278, Rel-5, Alcatel, Type: CR, CR#025, Title: Number comparison for D-CSI

Discussion: Category is "F", WI is "IMS-CAMEL".

Conclusion: approved without presentation

N2-020992: TS 23.078, R99, Siemens AG, Type: CR, CR#492, Title: Inconsistent description "Store destination address"

Discussion: Nokia's proposal is to correct this in Release 5 only.

Conclusion: rejected

N2-020993: TS 23.078, Rel-4, Siemens AG, Type: CR, CR#493, Title: Inconsistent description "Store destination address"

Discussion:

Conclusion: rejected

N2-020994: TS 23.078, Rel-5, Siemens AG, Type: CR, CR#494, Title: Inconsistent description "Store destination address"

Discussion: Category is "F", WI is CAMEL4 (corrected by MCC off-line)

Conclusion: approved

N2-021018: TS 23.078, R99, Siemens AG, Type: CR, CR#501, Title: Behaviour if the free format data exceeds 160 octets

Discussion: It is clearly stated in the stage 2 that the total maximum of free format data is 160 octets. However, no clear actions are not specified if, for example, FCI operation appends and appends FFD and reaches more than 160 octets. It would be an erroneous situation, but such situation shall be considered.

Proposal is to discard the free format data which exceeds 160 octets. No indication due to the excess will be indicated to the gsmSCF.

Nokia does not agree with this change. It has been already defined that SCP shall not send more than 160 octets. This CR would impact current MSC implementation. Improved MSC behaviour should be available before SCP is corrected if we accept this correction.

Alcatel is of opinion as well that this change impacts current implementation, and would accept only a health warning.

Ericsson does not agree with introduction of health warning (the conclusion could be that we don't specify anything).

Vodafone finds it clear that 160 octets shall not exceed. Nokia, Lucent and Marconi agree and would not support a change for R99. Rules for SCP exist and we should rely that designers follow that rule.

Conclusion: rejected

N2-021019: TS 23.078, Rel-4, Siemens AG, Type: CR, CR#502, Title: Behaviour if the free format data exceeds 160 octets

Discussion:

Conclusion: rejected

N2-021020: TS 23.078, Rel-5, Siemens AG, Type: CR, CR#503, Title: Behaviour if the free format data exceeds 160 octets

Discussion: Nokia and Vodafone reject this CR.

Conclusion: rejected

N2-021040: TS 23.078, R99, T-Mobil Type: CR, CR#508, Title: Correction to dialled services criteria

11(4646~~46~~)

Discussion: A health warning is introduced concerning overlapping number criteria: “The order in which the destination number criteria are checked in the MSC or GMSC is not determined. Hence, overlapping destination number criteria (e.g. use of "0800" and "0800123" for two different services) should be avoided, because they lead to unpredictable behaviour (i.e. either service might be triggered, depending on MSC or GMSC implementation).”

- Segmenting of SCCP may also change the order of criteria. Also MAP segmentation. However, White book is expected in receiving side, sending side use of it is optional.
- “depending on MSC or GMSC implementation.” will be deleted from the note.

Conclusion: revised to N2-021056

N2-021056: TS 23.078, R99, T-Mobil Type: CR, CR#508r1, Title: Correction to dialled services criteria

Discussion:

Conclusion: approved without presentation

N2-021057: TS 23.078, Rel-4, T-Mobil Type: CR, CR#511, Title: Correction to dialled services criteria

Discussion:

Conclusion: approved without presentation

N2-021058: TS 23.078, Rel-5, T-Mobil Type: CR, CR#512, Title: Correction to dialled services criteria

Discussion:

Conclusion: approved without presentation

N2-021059: TS 23.278, Rel-5, T-Mobil Type: CR, CR#026, Title: Correction to dialled services criteria

Discussion: ”MSC and GMSC” is replaced by “IM-SSF”. Other specifications affected “yes”.

Conclusion: approved without presentation

8 CAMEL for Release 4

8.1 General and miscellaneous Rel-4 issues

8.2 CAP over IP

9 CAMEL4, Release 5

9.1 CAMEL 4 / Stage 1

9.2 Miscellaneous CAMEL 4 issues

N2-021024: Rel-5, Source: CN2 Chairman, Type: Discussion, Title: CAMEL4 open issue list

Discussion: The only existing open issue was Geodetic information which was printing error and ITU-T can correct these fast. It will be solved next week, after CN2#27 (week starting Monday 18-Nov-2002).

Open issues to be added to the list for the next meeting:

- If the SCP sends SRI to the HLR, HLR may return an error code (Ericsson proposes to specify which error code will be returned when HLR does not accept SRI from that SCP). Ericsson proposes to note on the open issue list that there was an e-mail discussion about possible specifying of error code returned by HLR.

- Barring/ODB for GPRS: How this is reported to SCP?

- When the RCH arrives to the GMSC, according 23.079, the terminating service will be notified and validity check performed. GMSC should first do ORLC validity check. TS 23.079 specifies a behaviour which does not give the desired result. The check may fail but SCP service may disappear, which is not right for pre-paid.

- 29.078 is talking about "valid CSI". In NC case there is no CSI.

Conclusion: noted

N2-020975: TS 23.078, Rel-5, Siemens AG, Type: CR, CR#483, Title: Figure and table numbers

Discussion:

Conclusion: approved (to be in the separate package together with the same change for TS 23.278~~IMS in document N2-021065~~)

N2-020973: TS 23.078, Rel-5, Siemens AG, Type: CR, CR#481, Title: Correction on referencing figure number

Discussion: There is "xx" in the text for the burstlist which should refer the specific figure number. The CR changes "xx" to the actual figure number.

- "xx" shall be replaced by 4.93.
- Nokia has the same change but incorrect figure number (N2-021014)

Conclusion: withdrawn (Nokia's CR will be corrected instead)

N2-021007: TS 23.078, Rel-5, Ericsson, Type: CR, CR#495, Title: Correction to ATI handling in HLR

Discussion: SGSN may also indicate that MS is not reachable, but it uses different values.

There would be no objection to defining a new state for packet domain for MS not reachable. Alcatel asks how compatible is this change. At the moment it is till possible to change Rel-5 without changing application context. CN4 didn't object changing the MAP.

- In the procedure Procedure CAMEL_Provide_Subscriber_Info we delete the section break between the sentence about mapping which is deleted and the new change (added text), so that it is clear that it is related to HLR. As a network option, the HLR may use the information received from the VLR, such as Cell Id, Location Area Id or Service Area Id, to derive the Location Number and/or Geographical Information. The HLR may use the information received from the SGSN, such as Cell Id, Location Area Id, Service Area Id or Routeing Area Identity, to derive the Location Number and/or Geographical Information. This mapping is network-specific and outside the scope of the present document.

CN2 discussed open issues mentioned in "other comments" field in the cover page of this CR and concluded that those 4 bullets will be removed from the cover page (due to clarity) and will be solved one by one by future CRs.

Presented during the joint meeting with CN4 inN4-021545 (see Annex A)

Conclusion: CN4 noted,CN2 revised the document to N2-021074

N2-021074: TS 23.078, Rel-5, Ericsson, Type: CR, CR#495r1, Title: Correction to ATI handling in HLR

Discussion:

Conclusion: approved without presentation

N2-021069: Title: Introduction of the CHOICE element "netDetNotReachable" for PS-SubscriberState

Discussion: The document was discussed inCN2/CN4 Joint meeting (see Annex A).

Conclusion: CN2 noted, CN4 approved

N2-021002: TS 23.078, Rel-5, Ericsson, Type: CR, CR#461, Title: Correction to interaction between MO-SMS and CB / ODB

13(4~~6~~4~~6~~4~~6~~)

Discussion: CR proposes to specify that when CB or ODB prevents the submission of an MO-SMS, then the MSC or SGSN shall generate a "O_SMS_Failure" failure event. The cause code to be used in above case shall be "sM-DeliveryFailure".

- Vodafone would like to see this change from R99 onwards. T-Mobil and Siemens support this view.

- Alcatel do not want this change for any of the releases. For R99 there are already different implementations. There are 2 changes in this CR: reporting of certain DP and reporting of certain Error code. Alcatel is against both changes. Handling of SMS should be kept identical in R99 and Rel-5.

- Ericsson believes that we should correct this at least for Rel-5, but if the handling of SMS should be kept identical from R99 onwards, then the change should be done in R99 as well.

- Nokia believes that at least DP should be reported, and therefore is in favour of this change. Nokia does not have objections to change from R99 onwards.

- Category is changed to “A” offline, WI is CAMEL3.

SDLs for MO SMS and MT SMS in TS 29.002 should be checked. When ODB is checked, if there is ODB certain reason code is sent and detection point is required to be sent for the barring case. In TS 29.002 (Process MOSM_MSC, figure 23.2-2) Procedure CAMEL_O_SMS_Failure is called~~reports Event DP for SMS failure~~. If there is no ODB, supplementary service barring is checked.

The fact that we shall report the EDP is intended ~~already~~ in TS 29.002 (clause 23) SDLs , but the error code is not specified anywhere. It would be useful to document this in stage 2.

It seems to be an error in the message names in the specification. Message names should be corrected in Rel-5 SDLs.

Alcatel would like to leave this opened and rediscuss it in the future meetings.

Conclusion: *e-mail approval. The deadline for rejection is 22nd of November2002 by 23:59 CET. Since no objections received by the deadline, the document is* ***approved.***

N2-021041: TS 23.078, R99, Ericsson, Type: CR, CR#509, Title: Correction to interaction between MO-SMS and CB / ODB

Discussion:

Conclusion: *e-mail approval (bundled with Rel-4 approval). The deadline for rejection is 22nd of November2002 by 23:59 CET.* Since no objections received by the deadline, the document is ***approved.***

N2-021042: TS 23.078, Rel-4, Ericsson, Type: CR, CR#510, Title: Correction to interaction between MO-SMS and CB / ODB

Discussion:

Conclusion: *e-mail approval (bundled with R99 approval). The deadline for rejection is 22nd of November2002 by 23:59 CET.* Since no objections received by the deadline, the document is ***approved.***

N2-020978: TS 23.078, Rel-5, Alcatel, Type: CR, CR#418r3, Title: Playing of Warning Tones

Discussion: Tw (leg ID) and TW (pty) appear in the document. It should be consistently used and it is left to Alcatel to change it. On page 6 as well Tcp (pty) is used, while in the SDL Tcp (legID) is used.

- In Int_Apply_Warning_Tone signal, leg ID will be included.

What should MSC do if there are multiple tones in the same time? Second tone instructions should be just ingnored – exact wording is left to Alcatel. We can specify that MSC or media gateway ignores the tone if there is already one tone to be played. Ericsson is not sure whether we should then make a requirement on media gateway which is under responsibility of CN4. We specify just behaviour of MSC and we expect that MGW behaves in the same way.

Working assumption:

- It will be indicated in this CR that MSC ignores the tone if there is already one warning tone to be played.

- The rapporteur will arrange input signals in alphabetical order.

- On page 15 following wording “does the party who receives warning tone exists and is this leg active?” should be changed in order to remove double check whether the party is active.

Conclusion : revised to N2-021043

N2-021043: TS 23.078, Rel-5, Alcatel, Type: CR, CR#418r4, Title: Playing of Warning Tones

Discussion:

Conclusion :approved without presentation

N2-021000: TS 29.078, Rel-5, Ericsson, Type: CR, CR#276, Title: Correction to GPRS dialogue abortion

Discussion: Section numbers for following sections will be corrected off line by MCC in the next version: 14.1.4.2 Abnormal procedures, 14.1.4.2.1 gsmSCF-to-gprsSSF messages, until 14.1.4.2.3 Default GPRS Handling. Those sections should be renumbered in the word (not using automatic section numbering) in order to indicate correct sections from 14.1.3.2 to 14.1.3.2.3.

Conclusion: approved

N2-021009: TS 29.002, Rel-5, Ericsson, Type: CR, Title: Correction to VMSC Address description for SRI

Discussion: Undated references should be used in this documents. Reference [98] is CAMEL3 23.078. The document was rediscussed in the CN2/CN4 Joint meeting in document N4-021443.

Conclusion : CN4 approved, CN2 endorsed

N2-020953 TS 23.078, Rel-5, Ericsson, Type: CR, CR#466, Title: Correction to VLR Address in Location Information

Discussion: VLR number is not required if CAMEL is not supported. It shall be marked explicitly per operation for which operation it is required.

A proposal is to refer to 23.018 in the description column, to minimize the description as much as possible. In section 4.6.9.9.1., in the table Location Information, first sentence will be removed and replaced by reference to 23.018”. Second sentence replaced by “The HLR should include the internally stored VLR number.”

Nokia supports this CR.

Conclusion : revised to N2-021045

N2-021045 TS 23.078, Rel-5, Ericsson, Type: CR, CR#466r1, Title: Correction to VLR Address in Location Information

Discussion:

Conclusion : approved without presentation

N2-021003: TS 23.078, Rel-5, Ericsson, Type: Discussion document, Title: Introduction of "CAP version indicator" in ETC

Discussion: Can additional parameter be conveyed by ISUP? Generic digits can be used. The operators select the Type of Digits, and if there is no global value then it does not work while roaming. SCP has no ability to select AC version for ETC.

Vodafone: existing SSF should always use the default application context. This application context in the assisting SSF is operators issue (operators can configure it).

T-Mobil, Vodafone and Alcatel have doubts regarding this proposal. There are alternative methods available rather than introducing the new method. ~~T-Mobil proposes that assistingSSF shall use the highest possible CAP version and does not see the problem this CR tries to resolve.~~

Conclusion: noted

N2-021004: TS 23.078, Rel-5, Ericsson, Type:CR, CR#487, Title: Introduction of "CAP version indicator" in ETC

Discussion:

Conclusion: rejected

N2-021005: TS 29.078, Rel-5, Ericsson, Type:CR, CR#280, Title: Introduction of "CAP version indicator" in ETC

Discussion:

Conclusion: rejected

N2-020954: TS 23.078, Rel-5, Ericsson, Type: CR, CR#465, Title: Allowing backwards SII2 in ETC and CTR

Discussion: This CR is marked as category C (functionally modification). This is acceptable for Siemens if the category will be changed to "F".

Vodafone finds that this is not category "F", because it's functional modification. Vodafone would like to know what is the worst case to happen if we don't have this?

Telecom Italia is in favour of this proposal since it introduces an enhancement. Alcatel supports it in general, but it is not clear how does it work. Solution works only if the entire call has the restriction of supplementary services given that they can be changed to more restrictive direction.

According to Nokia the proposed solutions would work only if the particular call is not allowed to use HOLD or MPTY at any phase. This is due to the fact that CAMEL specifications do not allow changing the SII2 back to enabling. The only consequence if not approved would be that some announcements would be skipped (unused announcement resource). The user is not able to avoid the announcement, since the new call would give the same announcement.

If there is no consensus Ericsson is not pushing for this enhancement.

Conclusion: rejected

N2-020955: TS 29.078, Rel-5, Ericsson, Type: CR, CR#278, Title: Allowing backwards SII2 in ETC and CTR

Discussion:

Conclusion : rejected

N2-020980: TS 23.078, Rel-5, Alcatel, Type: CR, CR#486, Title: Implementing and handling of the Outstanding Request Counter

Discussion:

Summary of change: The CS_gsmSSF process is adapted accordingly to the Outstanding Request Counter.The counting and handling on the value of the counter is corrected. Some initial values are given for the new Call Segments / Legs for ICA and Split Leg.

The CS specific counter has the max value 1, that's why it is not incremented in SDLs.

Transfer of information related to a leg is not modelled in SDLs. We could have a general statement in Import/Export that all the counters and charging reports are transferred (ACR, Call Information Report, FCI, timers) to new call segment (target CS)..

Why CS ID has different handling than all leg ID?

This CR corrects the situation with Connect, extra CWA is not needed anymore. Connect should resume only that leg.

Sheet 38: The leg in the call segment has an associated Outstanding request counter. If we are moving the leg to another CS, all the data is moved as well, i.e. value of the outstanding request counter is moved.

For CSID: "Outstanding requests" for the exported or imported leg is not changed.

The processing of a Connect causes the number of resumptions required to be set to 0 and the call processing to be resumed. All stored resumption events are discarded. This is also required to be in-line with CAMEL Phase 3.To be detailed further.

Conclusion: revised to N2-021044

N2-021044: TS 23.078, Rel-5, Alcatel, Type: CR, CR#486r1, Title: Implementing and handling of the Outstanding Request Counter

Discussion: The use of the LegID and CSID has been clarified.

- If we receive "Connect" and if all the counters are set to 0, how is it compatible with CAMEL3?

- Sheet 14 of the Process_CS_gsmSCF: The change has to be done in the separate CR.

- In check box “Outstanding requests=0” comment box should be done with dotted line.

Vodafone provided following comments:

- CS_gsmSSF sheet 2: Reference to CSI_Leg should be removed
- CS_gsmSSF sheet 6: On receipt of Import Leg, Outstanding requests for CSID should be set to 1, or the whole task box should be removed.
- CS_gsmSSF sheet 14: The Outstanding Requests should be set to 0 for the leg to be connected, the other legs should not be affected by this.
- CS_gsmSSF sheet 15: The 'not' about MidCall needs to be removed - we can't add "for further study" notes into the specification at this stage. If the MidCall issue can't be solved in Bangkok, it should be added to the CAMEL4 open issues list and the note should be removed from this CR (could be included on cover page).
- CS_gsmSSF sheet 16: If "no LegID no CSID", then CWA to all MSC processes in this CS should be sent.
- CS_gsmSSF sheet 16: If "no LegID no CSID",it’s not correct to ask "LegID was in DP" as a CPH operation may be continuing (may need to clarify that "ELSE" option includes CPH operations.
- CS_gsmSSF sheet 16: If "LegID" then the 2nd outstanding requests check should be "for this leg ID in this CS and for CSID" not "for all legID in this CS and for CSID in this CS"
- CS_gsmSSF sheet 16: If "LegID" then after the "LegID was in DP" check, Outstanding Requests >0 for any legID or CSID before going to connector 4 should be checked.
- CS_gsmSSF sheet 16: If "CSID" then Int_Continue_With_Argument should be sent to all MSC processes for which the legID has an Outstanding Requests counter of 0 (clarification)
- CS_gsmSSF sheet 16: If "CSID" then "Leg to continue was in DP" decision box should be removed - only CWA with CSID in response to a CPH operation is sent. Int_Leg_Status_Report signal should also be removed.
- CS_gsmSSF sheet 38: New text "Outstanding requests for the disconnected leg do not remain" needs to be clarified
- It needs to be clarified somewhere that after sending an ICA, CWA containing a CSID should follow.

Conclusion: revised to next meeting, Vodafone will provide comments to Alcatel through CN2 e-mail list

N2-021021:TS 23.078, Rel-5, Source: Vodafone, Type: CR, CR#504,, Title: Removal of redundant information elements from Location Information

Discussion:

Conclusion: approved

N2-020974: TS 23.078, Rel-5, Siemens AG, Type: CR, CR#482, Title: Corrlection on DP name

Discussion:

Conclusion: approved

N2-020976: TS 23.078, Rel-5, Siemens AG, Type: CR, CR#484, Title: Better SDL CSA_gsmSSF

Discussion: There is no technical change in this CR. Connect with “5” could be replaced by next state. On sheet 14, there is wrong spelling of the word “segments” – to be corrected. Consequences if not approved should be improved.

Conclusion: revised to N2-021075

N2-021075: TS 23.078, Rel-5, Siemens AG, Type: CR, CR#484r1, Title: Better SDL CSA_gsmSSF

Discussion:

Conclusion: approved without presentation

N2-020981: TS 29.078, Rel-5, Alcatel, Type: CR, CR#288, Title: Use of Continue With Argument operation for call resumption

Discussion:

- In gsmSSF post conditions, in first bullet, it is proposed to remove the word "required" in front of the word "resumptions". Otherwise it is an issue for the future CR.
- "Involved CS" in the same bullet is not the best wording.
- In the first bullet there is a reference to TS 23.078 for resumption counter(s), but in stage 2 there is nothing about resumption counters. We could modify the stage 2 to use the same name "resumption counters" or we can remove the reference to TS 23.078. Ericsson would like to remove the reference as it doesn't serve any purpose. Alcatel agrees to remove the reference and we don't talk about counters in stage 3.
- Wording of bullet 2 will be changed offline.
- The wording "If there are any armed EDPs or pending reports" should be used consistently.

Conclusion: revised to N2-021076

N2-021076: TS 29.078, Rel-5, Alcatel, Type: CR, CR#288r1, Title: Use of Continue With Argument operation for call resumption

Discussion:

Conclusion: approved without presentation

N2-021016: Ericsson, Type: Discussion document, Title: Using ATI for Mobile Number Portability

Discussion: Presented during the CN2/CN4 Joint meeting in N4-021443. The present document proposes the following solution:

- The CAMEL Service Environment, the gsmSCF, shall have the capability to query the MNP information for prepaid services for the served subscriber at any time.
- The MNP functional entity, the MNP SRF, shall have the capability to access the MNP information at any time.
- The interaface between the gsmSCF and the MNP SRF, to allow the gsmSCF to query the MNP data base, shall be the MAP Any Time Interrogation.

Is SRF function included in the HLR; ATI was used by now to interrogate the HLR? No. SRF is able to respond directly to interrogating entity.

Siemens : Have other solutions been considered? IN signalling can be used to get information from data bases. Other way is to use SendIMSI operation, it is only necessary to define existing operation on another interface.This is supported by Nokia. Siemens is of opinion that the case where SRF responds directly to GMSC is an exceptional case. ATI should not be used for this purpose as proposed in this document. Ericsson finds that using of ATI in this case is a better solution (there is increasing number of operators who use CAMEL based PP system in the HPLMN).

According to Siemens, if this is a CAMEL related matter, this discussion should be based on the service requirement in TS 22.078. However, TS 22.078 does not state the interface between the gsmSCF and the MNP-SRF. If ATI is used for non-CAMEL related issue, then it is not necessary to discuss it at the joint meeting.

Orange and T-Mobile is supporting this feature, since it is better to have standardised method. Siemens and Vodafone are not interested (isn't it new service requirement)

PP services should operate correctly in MNP environment. Operators may wish to charge different charge for off net and on net calls. Given the level of definition in TS 22.078, it may be necessary to define CR to 22.078 in order to allow additional information in ATI. It is a service issue rather than technical solution. This should be raised at SA1 to see whether there is clear service requirement.

Ericsson is prepared to do further anasisys in order to use SendIMSI based solution.

Conclusion: postponed (CN2 waits for CN4 decision of selected method)

N2-021011: TS 23.078, Rel-5, Ericsson, Type: CR, CR#497, Title: Using ATI for Mobile Number Portability

Discussion:

Conclusion: postponed

N2-021067: TS 23.066, Rel-5, Ericsson, Type: CR, Title: Incorrect charging with MNP

Discussion:

Conclusion: postponed

N2-021068: TS 29.002, Rel-5, Ericsson, Type: CR, Title: Incorrect charging with MNP

Discussion:

Conclusion: postponed

N2-021008: TS 23.078, Rel-5, Ericsson, Type: CR, CR#496, Title: Correction to DP Abandon handling in MSC

Discussion:

Conclusion : withdrawn, not available during the meeting

N2-021017: TS 29.078, Rel-5, Ericsson, Type: CR, CR#292, Title: ASN.1 corrections

Discussion:

Conclusion : withdrawn

9.3 CAMEL4 / Interactions with Optimal Routing

9.4 CAMEl4 / Call Party Handling

N2-020951: Rel-5, Vodafone, Type: Discussion document, Title: CPH: Open Issues & Decisions

Discussion: This document closes the last open issues. There are no remaining open issues in CPH. New open issues should be part of CAMEL4 open issues list.

Conclusion: noted

N2-020998: TS 23.205, Rel-5, Nokia, Type: CR, CR#035, Title: CAMEL4 Call Party Handling interworking with Bearer independent CS core

Discussion: Vodafone proposes to change “Beginning the Call Party Handling” to “Use of multi-party (conference) bridge” and its content. Also other changes were proposed by Vodafone by e-mail prior to meeting. The document was presented during the Joint meeting with CN4 in N4-021426 (See Annex A).

Conclusion: revised to N2-021070

N2-021070: TS 23.205, Rel-5, Vodafone, Type: CR, CR#035, Title: CAMEL4 Call Party Handling interworking with Bearer independent CS core

Discussion:

Conclusion: endorsed by CN2, approved by CN4 without presentation

N2-020982: TS 29.078, Rel-5, Alcatel, Type: CR, CR#289, Title: Missing Call Segment ID in Continue With Argument operation

Discussion: Would it be useful to give tag number for choice? Ericsson proposes ~~and T-Mobil and Lucent support~~ to use the existing data type “LegOrCallSegment”. Lucent and T-Mobil support this.

Conclusion is that we use data type "LegOrCallSegment" In section 11.12.1.1 (Leg or CS ID) the wording "This parameter consists of following alternatives" should be aligned with current wording . We align the wording as in PlayTone procedure.

Conclusion: revised to N2-021077

N2-021077: TS 29.078, Rel-5, Alcatel, Type: CR, CR#289r1, Title: Missing Call Segment ID in Continue With Argument operation

Discussion:

Conclusion: approved

N2-020990: TS 23.078, Rel-5, Vodafone, Type: CR, CR#490 Title: Move Leg not allowed before Active phase of "normal" A-B call

Discussion: CR corrects incorrect SDL modelling. ACR would not be returned to SCP at ReleaseCall if this CR is not approved.

Handle_CIR on sheet should have similar comment to AC. The text shall be informal comment, i.e. in dotted line. Dotted line is used in many places for mandatory part.

Conclusion: revised to N2-021078

N2-021078: TS 23.078, Rel-5, Vodafone, Type: CR, CR#490 Title: Move Leg not allowed before Active phase of "normal" A-B call

Discussion:

Conclusion: approved without presentation

N2-020991: TS 23.078, Rel-5, Vodafone, Type: CR, CR#491, Title: Clarification on re-connecting held parties in a CPH configuration

Discussion: The proposal is to move closing of FCI record earlier when the dialog is closed.

If we have 3 legs and 2 of them released, how is the call state model of the last leg released? Is the abort the only way to close the dialogue?

Siemens would like that originator consider using TC-END ("Abort" should not be used). There are also other possibilities, i.e. to use "Cancel" or "PrearangedEnd".

Alcatel finds an additional new state ~~page 5~~ not necessary. According to Alcatel it is expected that party releases himself~~,~~ after hearing silence. In IDLE we have no information about amount of legs. We could enhance the state monitoring, i.e. release also the other leg (sheet 4 and 7).

Conclusion: revised to next meeting

N2-021013: TS 23.078, Rel-5, Nokia, Type: CR, CR#499, Title: MSC-number in MAP Location Information

Discussion: The change is in HLR – gsmSCF information flow, in ATI ack. MSC number is E.164 number which identifies the VMSC in whose area the subscriber is currently registered. (see 3GPP TS 23.003). If the HLR receives it from the VLR it shall ignore it.

In SRIack the main level parameter is mandatory and Location Information is lower level parameter (conditional). Location Information will not be required, but not forbidden.

VLR number is not a reliable way and ICA may not be accepted. If the CR is accepted then the ICA can be routed with VMSC number as Global Title in the SCCP layer.

Working assumption:

- It should be clarified how MSC number is used in ICA. Where from HLR gets the MSC number? Only information received in PSI ack shall be ignored.
- VLR number should be clarified
- Reason for change should also take into account to mention already approved CR.

Conclusion : revised to N2-021079

N2-021079: TS 23.078, Rel-5, Nokia, Type: CR, CR#499, Title: MSC-number in MAP Location Information

Discussion: approved without presentation

N2-021023: TS 23.078, Rel-5, Siemens AG, Type: CR, CR#505, Title: CS to Call Segment

Discussion:

Conclusion: withdrawn

9.5 CAMEL4 / DTMF Mid-call DP

9.6 CAMEL4/IMS

N2-020986: Rel-5 , Lucent Technologies, Type: CR, Title: CAMEL/IMS Open Issues

Discussion:

- Open issues no. 1, 2: closed If the CRs are approved

- Open issues no. 3,4: closed

- Open issue no 5: IMS does not have place for additional calling name information in SIP INVITE. In the CAP protocol, we have calling party category, not calling party. This could be part of the decision table: In the CAP protocol we do not have Calling Name. We follow what is going to happen in the release 6. - Issue no. 5 is closed.

- Open issue no. 6: We should not use “hang up”, but we should use “bye” and “cancel”. This will be moved to decision table.

- Open issue no. 7: this item can be closed when the CR is approved.

- Open issue no. 8: The proposal is to use HSS as functionally entity in IMS. The proposal is to introduce a general statement that explains what HSS means. This item will be closed and the decision will be documented in the decision table.

- Open issue no. 9: This item can be closed. This is all described in SIP in “general” for user agent.

Conclusion: revised to N2-021046

N2-021046: Rel-5 , Lucent Technologies, Type: CR, Title: CAMEL/IMS Open Issues

Discussion:

Conclusion: noted

N2-020965: TS 23.278, Rel-5 , Siemens AG , Type: CR, CR#014, Title: Figure and table numbers

Discussion: First number is the number of the main clause and the number followed by the “-“ is referring to e.g. sheet number.

Conclusion: approved

N2-020987: TS 23.278, Rel-5 , Lucent Technologies, Type: CR, CR#022, Title: SDL Procedure for Connect To Resource

Discussion: I The IM-SSF procedures CAMEL_OCH_CTR and CAMEL_MT_CTR for handling of gsmSCF request to Connect To Resource were missing in 23.278.

Is there any reason that SSF sends “Cancel” to SRF? No, play announcement is received and INVITE is sent than.

Handling of INVITE and TRYING should be added to the open issue list.

21(4646~~46~~)

How to handle multiple "Play announcement"? If we want to play multiple announcements, do we have to send multiple INVITE or we can reuse the one? Handling of multiple Play announcement and Connect to Resource could be added to open issue list.

Only new state introduced is state 1 on page 6. Diagram flow is the same as for CS, but the interface is changed

Conclusion: approved

N2-020988: TS 23.278, Rel-5, Lucent Technologies , Type: CR, CR#012, Title: IF Description for gsmSRF-related operations for IMS

Discussion: Change bars shall indicate all the changes in regards to existing latest version of the spec, and the header should indicate latest version of the spec.

Conclusion: revised to N2-021047

N2-021047: TS 23.278, Rel-5, Lucent Technologies , Type: CR, CR#012r1 Title: IF Description for gsmSRF-related operations for IMS

Discussion:

Conclusion: approved without presentation

N2-020989: TS 29.278, Rel-5 , Lucent Technologies , Type: CR, CR#003, Title: Correction of ConnectToResource operation procedure for IMS

Discussion : General description in this proposal is not appropriate according to Alcatel. Alcatel proposes to delete "waits for further instruction from the SCF" from general description (section 9.9.1) – this was agreed. Page header should be changed.

Conclusion :revised to N2-021048

N2-021048: TS 29.278, Rel-5 , Lucent Technologies , Type: CR, CR#003r1, Title: Correction of ConnectToResource operation procedure for IMS

Discussion : gsmSRF to MRFC will be changed of line by the rapporteur as an editorial exercise.

Conclusion: approved without presentation

N2-020966: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#015, Title: For better document structure

Discussion: Alcatel is supporting this CR. Section 4.6 should be restructured off line.

Conclusion : approved

N2-020962: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#003, Title: Correction and improvement in MO procedures

Discussion: INVITE gives SIP call ID parameter. Task box to allocate SIP call ID is not needed.

- On page 4, what "488 not acceptable here" means? Response code 488 has the same meaning as 606. But 488 is not acceptable only at this time (try later or with other data) and 606 is permanently not acceptable. The issue is left open (whether 488 and/or 606 are appropriate messages).

- Lucent: On page 6 (sheet 2), name of the message "Relay" should be changed.

- On page 6, after "Timer expiry", FFS to be added. A BYE message should be sent if the timer expires.

- In page 13 and 20, "600 not acceptable" will be removed.

- On page 5 "100 Trying" and "180 Ringing" should be more generic (i.e. 1xx). Only "180 ringing" will be replaced by "1xx ringing".

- On page 38, spelling in the procedure name should be corrected "DISC" instead of "DISK".

- On page 4 and 6, before "200 OK" is it necessary to send "487 terminated", since "200 OK" is usually sent as a response to "Cancel"? This will be investigated and meanwhile, it will be added to open issues list (how many responses we send to the CANCEL)

Conclusion: revised to N2-021049

22(~~46~~4646)

N2-021049: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#003r2, Title: Correction and improvement in MO procedures

Discussion:

Conclusion :approved without presentation

N2-020963: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#004r1, Title: Correction and improvement in MT procedures

Discussion: Is it necessary to convey messages received from outgoing side to incoming side?

On Page 4 there is a conflict in figure vs. figure title.

Conclusion: revised to N2-021050

N2-021050: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#004r2, Title: Correction and improvement in MT procedures

Discussion:

Conclusion: revised to N2-021091

N2-021091: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#004r3, Title: Correction and improvement in MT procedures

Discussion:

Conclusion: approved without presentation

N2-020996: TS 23.278, Rel-5 , Lucent Technologies, Type: CR, CR#023, Title: Stage 2 specifications for Call Gap for IMS

Discussion: On page 5, decision box which check whether gsmSCF and imcnSSF belong to the same PLMN, should be removed. All the differences from the basic version of the specification should be visible with the revision marks. Page header to be corrected.

Conclusion : revised to N2-021051

N2-021051: TS 23.278, Rel-5 , Lucent Technologies, Type: CR, CR#023r1, Title: Stage 2 specifications for Call Gap for IMS

Discussion:

Conclusion: approved without presentation

N2-020997: TS 23.278, Rel-5 , Lucent Technologies, Type: CR, CR#024, Title: Clarification of DP destination number trigger criteria for IMS

Discussion: "The destination trigger criteria numbers shall represent ISDN numbers." – This sentence will be removed, because MAP ASN.1 doesn't convey anything else than ISDN number. If anything else is dialled but no telephone number, than there is no trigger.

For Criteria at Collected_Info and for Criteria at DP Analysed_Information a following sentence will be added:" If the address information is not an ISDN number, a dialogue with the gsmSCFmay not be established depending on whether the criterion is enabling or inhibiting."

The proposal is to remove the introduction of the word "also" in 2nd sentence of the change.

Conclusion: revised to N2-021052

N2-021052: TS 23.278, Rel-5 , Lucent Technologies, Type: CR, CR#024r1, Title: Clarification of DP destination number trigger criteria for IMS

Discussion: Alcatel***:*** In the new text "Address information" should be replaced by "Destination number".

Changes to DP2 in this document were drafted on line. Similar changes will be done for DP3.

Conclusion: revised to N2-021090

N2-021090: TS 23.278, Rel-5 , Lucent Technologies, Type: CR, CR#024r2, Title: Clarification of DP destination number trigger criteria for IMS

Discussion:

Conclusion: approved without presentation

N2-020967: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#016, Title: Editorial improvement - clause 2

Discussion:

Conclusion: approved

N2-020968: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#017, Title: Editorial improvement - clause 3

Discussion:

Conclusion: approved

N2-020969: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#018, Title: Editorial improvement - clause 4

Discussion:

Conclusion: approved

N2-020970: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#019, Title: Editorial improvement - clause 5

Discussion:

Conclusion: approved

N2-020971: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#020, Title: Editorial improvement - clause 6

Discussion :

Conclusion: approved

N2-020972: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#021, Title: Editorial improvement - clause 7

Discussion:

Conclusion: approved

N2-020964: TS 23.278, Rel-5 , Siemens AG, Type: CR, CR#013, Title: Explanatory text to SDL architecture

Discussion :

Conclusion : withdrawn

9.7 CAMEL control over MT SMS

9.8 Inclusion of flexible tone injection

N2-021014: TS 23.078, Rel-5, Nokia, Type: CR, CR#500, Title: ASN default for Flexible Tone BurstInterval due to MECAGO

Discussion : If the tone interval is present, but there is only one tone, should we specify what is the behaviour of the MSC? Shall the MSC ignore toneInterval if only one tone (and BurstInterval if only one burst)? It wouldn't be correct to specify to ignore mandatory parameter. Conclusion is that this is self evident and it will not be specified in the specification.

On page 5 figure number should be corrected.

Conclusion: revised to N2-021081

N2-021081: TS 23.078, Rel-5, Nokia, Type: CR, CR#500r1, Title: ASN default for Flexible Tone BurstInterval due to MEGACO

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Discussion:

Conclusion: approved without presentation

N2-021015: TS 29.078, Rel-5, Nokia, Type: CR, CR#291, Title: ASN default for Flexible Tone BurstInterval due to MEGACO

Discussion :

Conclusion: approved

9.9 Charging notification to CSE

9.10 Enhancements of dialled services

9.11 Provision of location information of called subscriber

9.12 Notification of GPRS mobility management to CSE

N2-020977: TS 23.060, Rel-5, Siemens AG, Type: CR, Title: Mobility Management for GPRS (CAMEL) Subscriber

Discussion: Summary of change: Addition of the procedure call (CAMEL_PS_Notification in TS 23.078) in Mobility Management procedures and addition of MG-CSI in the information storage of HLR and SGSN.

CN2 will check the ordering of the procedures (Mobility Management) and send a revised CR to SA2 if necessary. Page 7 (MS initiated combined IMSI detach) .

On page 12 it is defined ordering of the procedures within C1.

Conclusion: revised to N2-021053 (the ordering of the procedure calls shall be clear in the revised document which will be sent to SA2 this week)

N2-021053: TS 23.060, Rel-5, Siemens AG, Type: CR, Title: Mobility Management for GPRS (CAMEL) Subscriber

Discussion: We will specify the order of the procedures also in the detach case. Siemens and Ericsson find that we should not specify the error case what happens if the CAMEL_GPRS_Routeing_Area_Update_Session denies Attach .

Conclusion: revised to N2-021060

N2-021060: TS 23.060, Rel-5, Siemens AG, Type: CR, Title: Mobility Management for GPRS (CAMEL) Subscriber

Discussion: Revision number is still 2.

Conclusion: endorsed by CN2 without presentation

9.13 CAMEL4/ ODB in HLR-SCP interface

N2-021064: TS 29.002, R99, Siemens, Type: CR, Title: ODB correction

Discussion: The document was presented in CN2/CN4 Joint meeting in N4-021416 (see CN2/CN4 Joint Meeting report in Annex A). This document was not available for CN2 before the Joint meeting.

Conclusion:CN4 approved, CN2 noted

N2-021065: TS 29.002, Rel-4, Siemens, Type: CR, Title: ODB correction

Discussion: The document was presented in CN2/CN4 Joint meeting in N4-021417 (see CN2/CN4 Joint Meeting report in Annex A). This document was not available for CN2 before the Joint meeting

Conclusion: CN4 approved, CN2 noted

N2-021066: TS 29.002, Rel-5, Siemens, Type: CR, Title: ODB correction

Discussion: The document was presented in CN2/CN4 Joint meeting in N4-021418 (see CN2/CN4 Joint Meeting report in Annex A). This document was not available for CN2 before the Joint meeting

Conclusion: CN4 approved

9.14 CAMEL4/ Location Information during ongoing call

9.15 CAMEL4/GPRS AnyTimeInterrogation

9.16 CAMEL4 / Functional Split into subsets

N2-020999: T-Mobile D, Type: Discussion document, Title: Partial Implementations of CAMEL Phase 4: Open issues

Discussion:

Conclusion: revised to N2-021073 before the presentation

N2-021073: T-Mobile D, Type: Discussion document, Title: Partial Implementations of CAMEL Phase 4: Open issues

Discussion: NE offers the list of offered functionalities to SCP. SCP see the list and if some functionality is marked as not supported it should not be used~~be denied~~. If network element indicates "not supported" but it actually supports the feature, we must define what NE shall do in this case. NE could reject the functionality because it has not been offered it before or it can handle it~~offer it~~.

If the MSC indicates no support of ICA, but if SCP sends ICA to MSC, ~~SCP can see that ICA is supported. What~~ shall ~~SCP~~MSC do? We ~~should specify~~have already specified that if the functionality is not offered, ~~it shall not be handled, i.e.~~ the SCP should not ask for this functionality. The ICA-out-of-the-blue case was seen as a issue since in that case MSC has had no contact to SCP previously and is therefore no able to indicate the support or lack od support to SCP.

Vodafone prefers the option number 4 proposed in this document. Lucent does not prefer to ignore it, they prefer clear indication to SCP about the error that happened (solution number 3).

Telecom Italia is more in favour in option 4 (due to signalling resources saving). Ericsson pays more attention to testing and statistics. Nokia also supports this view (there may be also cross references in protocol).

T-Mobil would like to restrict the ignoring of the functionality on the CAP dialogue. Alcatel is proposing a health warning only.

Working assumption:

- We will introduce a health warning in TS 23.078. We expect a CR in the future meetings.

- The document will be revised to include the decision and the document is closed. New open issues will be added to CAMEL4 open issues list.

Conclusion: revised to N2-021082

N2-021082: T-Mobile D, Type: Discussion document, Title: Partial Implementations of CAMEL Phase 4: Open issues

Discussion: CN2 will consider this document as closed and will refer to this document as relevant regarding decisions for Partial implementations of CAMEL phase 4.

Conclusion: noted, the document is closed

N2-020979: TS 23.078, Rel-5, Source: Alcatel,Type: CR, CR#485, Title: Correction of "Support of partial implementation of CAMEL"

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Discussion:

Conclusion: revised to N2-021027 before the presentation

N2-021027: TS 23.078, Rel-5, Source: Alcatel,Type: CR, CR#4851, Title: Correction of "Support of partial implementation of CAMEL"

Discussion: ISD has been replaced by “Insert Subscriber Data”. Sub-parameter condition (CSIs status) shall be relative to the main level parameter.

Ericsson: If the HLR sends e.g. O-CSI, VLR shall respond with all the bits (all CSIs) supported for that subscriber. All individual parameters shall be set to mandatory.

The text in yellow was introduced in CN#26 by 23.078 CR 470 CN2 TDoc N2-020942 and is not part of official specification.

Conclusion: approved

10 Release 6

10.1 Miscellaneous

N2-021028: TS 22.078, Release 6, Source: Samsung Electronics Co. and SK Telecom, Type: CR, Title: Enhanced CSI capability for dialled services

D*iscussion:* This is a copy of the CR that has already been sent to SA1 in S1-022104 before seen in CN2. Sa 1 did not reach conclusion and final decision will be don in SA plenary in December 2002. Siemens and Vodafone oppose this CR.

Conclusion: revised to N2-021055

N2-021055: TS 22.078, Release 6, Source: Samsung Electronics Co. and SK Telecom, Type: CR, Title: Enhanced CSI capability for dialled services

D*iscussion:* If a relationship exists with a CSE (CAMEL phase 3 equivalent of Dialled Services), this CR removes the capability of sending e-values. SK Telecom does not need AoC service., but would like to focus on original function of dialled services.

T-Mobil: Are there any technical reason to remove sending of e-values? Siemens would also like to have background information about service requirement, i.e. what was the discussion in SA1.

CN2 is concerned why to remove the sending of e-values? In CAMEL phase 3 sending of e-values is possible. CN2 finds that this change shall be cancelled to allow possibility of sending e-values as currently. The note at the end of change should be left in the specification (Due to interworking problems, the service operator shall ensure that sending of e-values and call period control is not used by the other services in the same call of the served subscriber with *Enhanced CSE capability for Dialled Services*.)

Vodafone is oposing this enhancement to CAMEL phase 4 in Release 6 (irrespectible whether e-paremeters are used or not) as this is an enhancement of circuit switched service. Vodafone’s opinion is that operators will be using IMS networks by the time when Release 6 will be available.

Vodafone would accept this kind of enhancement in CAMEL-IMS (TS 23.078). AoC does not apply to CAMEL-IMS, but clauses 7.2 and 5.3 in TS 22.078 are aplicable to IMS. Subscribed dialled services are applicable for CAMEL-IMS. SK Telecom’s intention by now was not imploying Enhanced Dialled Services in IMS itself. SK Telecom’s opinion is that there is no timing limitation to standardise this enhancement in CAMEL4 for Release 6.

Working assumption:

- The existing capability of CAMEL3 to give e-parameters in dialled services should be kept. I.e. CN2 proposes to cancel changes to remove sending of e-parameters for dialled services. CN2 found it useful to keep the proposed warning note about interaction of multiple CAMEL services. I.e. the operator shall ensure that multiple CAMEL triggering will not try to instruct MSC in charging in conflicting ways.

27(~~46~~4646)

- CN2 assumed that dialled services enhancements would not apply to IMS, especially because IMS uses CAMEL3 capabilities and enhanced dialled service would use CAMEL4.

- CN2 will send a LS to SA1 in N2-021062 to explain what was the discussion in CN2 and the revised CR will be attached. CN2 will give the information to SA1 that attached CR is not endorsed by CN2. CN2 leaves to SA1 to decide on the service requirement and ask for clarification about WI approval procedure since SA1 is primary responsible working group for CAMEL.

Conclusion: revised to N2-021061

N2-021061: TS 22.078, Release 6, Source: Samsung Electronics Co. and SK Telecom, Type: CR, Title: Enhanced CSI capability for dialled services

Discussion:

Conclusion: noted, sent to SA1 within the LS in N2-021062 during this meeting

N2-021062: LS OUT to SA1, Source: CN2, Type: CR, Title: LS on Enhanced CSI capability for dialled services

Discussion: CN2 informs SA1 about the discussion in CN2 and asks SA1 group to decide on the service requirement for Rel-6.

Summary report from SA1after handling LS, presented by Samsung: SA1 couldn't reach any conclusion. Vodafone and Siemens were opposing the introduction of this requirement in Release 6 for CAMEL4. Final decision will be made in next SA plenary in December 2002.

Conclusion: approved, sent to SA1 during this meeting

N2-020995: Release 6, Source: SK Telecom, Samsung, Nortel Networks, Type: WID, Title: Enhancement of dialled service for Release 6 CAMEL4 Work Item Description (WID) for TSG-CN

Discussion: Supporting companies for this WI are Samsung Electronics, SK Telecom, Nokia, Nortel Networks. Alcatel is a new supporting company.

Following comment in the table should be deleted: "There will be probably various R99 specifications impacted, yet to be identified."

In item no. 10 there are dates and actions, and Alcatel is proposing to start work already in CN2#28 in February 2003. CN2 should try to make the first version of Release 6 in the same time when other groups create first Release 6 versions according to CN2 chairman~~Alcatel~~. We should do a work straight-forward.

Working assumption:

- Release 6 should be deleted from the title. Specifications should have the full title in the affected existing specifications table.

- In chapter 14b, parent feature is deleted

- In Chapter 5, Service Aspects should be enhanced.

Time scale plan is following:

- in CN#28 discussion papers about principles (SDL modelling)
- in CN2#29 stage 2 work
- in CN2#30 stage 2 and stage 3 work,
- CN#21 – approval of the work

Enhanced dialled services enables long dialogue based on dialling. A sentence about the use of this enhancement should be added in the WID.

Conclusion: revised to N2-021063

N2-021063: Release 6, Source: SK Telecom, Samsung, Nortel Networks, Type: WID, Title: Enhancement of dialled service for Release 6 CAMEL4 Work Item Description (WID) for TSG-CN

D*iscussion:*

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Conclusion: noted, will be sent to SA1 within the LS in N2-021062

N2-021001: Release 6, Ericsson, Type: Discussion document, Title: Suppression of GPRS QoS reporting

Discussion: At Miami meeting it was advised to request the service requirement from SA1.

Conclusion: noted, we wait for service requirement from SA1

11 Review of dates and hosts for future meetings

N2-021025: Source: CN2 chairman, Title:CN2 2003 meeting calendar

Discussion: Plenary in March changed location to Birmingham. Delegates proposed to shift August meeting to one week later.

Conclusion: noted

Review of the N2 meeting schedule for 2002

TITLE	TYPE	DATES	LOCATION	CTRY
3GPPCN2#27	WG	11-15 November	Bangkok	Thailand
3GPPCN2#28	WG	10-14 February	Dublin	Ireland
3GPPCN2#29	WG	19-23 May	TBD	USA

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

Deadline for the next meeting:

- Request for Tdoc numbers requests is end of 30th of January 2003, 23.59 CET (end of Thursday)
- The deadline for meeting documents distribution is 2nd of February, 23:59 CET

Action points:

- All CRs that are approved for TS 23.078 Rel-4 will be updated by MCC to indicate the latest version 4.6.1 instead of version 4.6.0 (cover page of the CRs).
- The TS 23.078 v4.6.1 was published during CN2#27 to correct the editorial error on the cover page of the specification.

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

Annex A CN2/CN4 Joint meeting report (part of the CN4 report)

1.1 CAMEL phase 4

Document: N4-021426/N2-020998

CR: 23.205-035r1 (Rel-5) on

Title: CAMEL4 Call Party Handling interworking with Bearer independent CS core

Source: Nokia

Presented: Mr. Keijo Palviainen, Nokia

Discussion:

- Vodafone proposed a set of changes to CR.
  - Accepted by meeting

Decision: Revised to N4-021544/N2-021070

Document: N4-021544/N2-021070

CR: 23.205-035r1 (Rel-5) on

Title: CAMEL4 Call Party Handling interworking with Bearer independent CS core

Source: Nokia

Presented:

Discussion:

- Endorsed by CN2

Decision: Approved without presentation

Document: N4-021443/N2-021009

CR: 29.002-513 (Rel-5)

Title: Reference to TS 23.078 in TS 29.002 regarding handling of VMSC address is missing

Source: Ericsson

Presented: Mr. Panagiotis Dimitroulas, Ericsson

Discussion:

- Endorsed by CN2

Decision: Approved without presentation

Document: N4-021466/N2-021016

Title: Incorrect Charging with MNP

Source: Ericsson

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Presented: Mr. Panagiotis Dimitroulas, Ericsson

Discussion:

- Proposed solution:
  - The CAMEL Service Environment, the gsmSCF, shall have the capability to query the MNP information for prepaid services for the served subscriber at any time.
  - The MNP functional entity, the MNP SRF, shall have the capability to access the MNP information at any time.
  - The interface between the gsmSCF and the MNP SRF, to allow the gsmSCF to query the MNP data base, shall be the MAP Any Time Interrogation.
- Siemens: Have you considered for another possible solution? Sending an ATI to Signalling Relay Function could be regarded as misuse of the SRF. We should not use ATI, but rather the IN query identified for MNP.
  - Ericsson: yes, we have considered also for another solutions, but we think this is the best one.
- Telia, Orange France and T-Mobil support the proposed feature.
- Siemens & Vodafone: Do we have service requirements in 22.078?
  - CN4 chairman: Yes, this is something that should be handled first in SA1.
- Siemens: We don't use ATI query to the SRF. Instead of that we should use the SendIMSI operation, and define it for use on the gsmSCF HLR interface. The SRF would relay the sendIMSI request to the gaining HLR.
- After offline discussion, Nokia & Siemens indicated that companies can't accept to proposed solution.

Decision: Noted

Document: N4-021464/ N2-021068

CR: 29.002-520 (Rel-5)

Title: Incorrect Charging with MNP

Source: Ericsson

Presented:

Discussion:

Decision: Postponed to CN4#18

Document: N4-021465/ N2-021067

CR: 23.066-020 (Rel-5)

Title: Incorrect Charging with MNP

Source: Ericsson

Presented: Mr. Panagiotis Dimitroulas, Ericsson

Discussion:

- *Document was presented only in CN4 meeting, not during CN2/CN4 joint session*

- Ericsson provided background information about service requirements before CR presentation. The examples from stage 1 and stage 2 specification clarifies that stage 1 requirements are not needed
- Orange France: “FFS” should be added in the new paragraph (4.3).
- Siemens: There is a need for a MATF in the SRF in section 4.3 with the new functionality
- Vodafone D2: The new IE described is not needed; it can be deduced from the combination of IMSI.
    - Siemens: All we need is the IMSI to determine weather the number is ported or not.
        - Ericsson: There is already the number portability status in SRI ack.
- The “ported out” and “ported in” values have full meaning only when coupled to the identity of the responding PLMN.
- Chairman: Further discussion is needed on E-mail explorer.
- Ericsson: Can we accept that this CR is based the technical solution approved by CN4.
    - CN4 couldn’t make this kind of agreement.

Decision: Postponed to CN4#18

Document: N4-021545/N2-021007

CR: 23.078-495

Title: Correction to ATI handling in HLR

Source: Ericsson

Presented: Mr. Rogier Noldus, Ericsson

Discussion:

- The CR was presented for information in CN4

Decision: Noted

Document: N4-021531/N2-021069

CR: 29.002-522 (Rel-5)

Title: Introduction of CHOICE element netDetNotReachable for PS-SubscriberState

Source: Ericsson

Presented: Mr. Rogier Noldus, Ericsson

Discussion:

- The change to Annex B is unnecessary.
    - It will be ignored when the CR is implemented.
        - MCC secretary will reject the changes in Annex B, before the CR is going to CN plenary for approval.

Decision: Approved

1.2 Camel phase 3

Document: **N4-021357/ N2-020956**

Title: Compatibility of LocationInformationGPRS definition in R99/ Rel-4 and Rel-5

Source: Nortel Networks, Vodafone

Presented: Dr. Dan Warren, Nortel Networks

Discussion:

- Vendors had objections to making the incompatible change to R99 & Rel-5.
  - Siemens was concerned with changing Rel-5 MAP.
- Nokia proposed: Local definition as an OCTET STRING in 29.078 but retains the CHOICE type definition in 29.002.
  - CN2/CN4 joint meeting agreed with Nokia's proposal

Decision: Noted

Document: **N4-021358/ N2-020961**

CR: 29.002-501 (Rel-5)

Title: Correction of LocationInformationGPRS definition (OCTET STRING option)

Source: Nortel Networks

Presented:

Discussion:

- The CR was rejected after N4-021357 discussion.

Decision: Rejected

Document: **N4-021359/ N2-020961**

CR: 29.078-286 (R99)

Title: Correction of LocationInformationGPRS definition (OCTET STRING option)

Source: Nortel Networks

Presented: Dr. Dan Warren, Nortel Networks

Discussion:

Decision: Noted

Document: **N4-021416/ N2-021064**

CR: 29.002-506 (R99)

Title: ODB correction

Source: Siemens

Presented: ~~Dr. Dan Warren, Nortel Networks~~Ulrich Wiehe

Discussion:

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Decision: Approved

Document: N4-021417/ N2-021065

CR: 29.002-507 (Rel-4)

Title: ODB correction

Source: ~~Nortel Networks~~Siemens

Presented: Ulrich Wiehe

Discussion:

- Rel-4 mirror of N4-021416

Decision: Approved

Document: N4-021418/ N2-021066

CR: 29.002-508 (Rel-5)

Title: ODB correction

Source: ~~Nortel Networks~~Siemens

Presented: Ulrich Wiehe

Discussion:

- **Rel-5 mirror of N4-021416**

Decision: Approved

1.3 Work organisation

Document: N4-021342

Title: Organisation of work in CN2 & CN4 after Release 5

Source: CN4 & CN2 chairman

Presented:

Discussion:

- CN2 chairman: As discussed in CN2 meeting in Miami, CN2 has enough work for the whole year 2003. Discussion on Enhancements of dialled services for Release 6 will have impact on this discussion as well as Rel-6 enhancements for MRFC functionality. Summary: CN2 believes that 2003 is too early for merging with CN4.
- Alcatel: As soon as there is a lot of work in both groups, there is no sense to merge and run 2 subgroups (as it was at the beginning CN2A & CN2B) of one group for the whole meeting.
    - CN4 chairman: CN4 meetings in 2002 have needed parallel sessions, as we know from experience, the chairman of one of the parallel sessions has to double as secretary. It's not reasonable to go for subgroups because in long term the support from MCC is valuable.
- CN2/CN4 joint meeting concluded that it would be too early to consider a merger during 2003.
    - The chairmen of the both groups will cover the fact in CN#18 status reports.

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Decision: CN2/CN4 joint meeting concluded that it would be too early to consider a merger during 2003.

Annex B Attendees list

Name	Organization represented	Status, partner	Phone	Fax	e-mail	
Member of 3GPP (ETSI)						
Mr. Chris Hardy	VODAFONE Group Plc	3GPPMEMBER (ETSI)	GB	+44 1635 674707	chris.hardy@vf.vodafone.co.uk	~~YES NO~~
Mr. Christian Homann	ALCATEL S.A.	3GPPMEMBER (ETSI)	DE	+49 711 821 45632	c.homann@alcatel.de	~~YES NO~~
Ms. Jane D Humphrey	MARCONI COMMUNICATIONS	3GPPMEMBER (ETSI)	GB	+44 24 76564232	jane.humphrey@marconi.com	~~YES NO~~
Mr. Sumio Miyagawa	SIEMENS AG	3GPPMEMBER (ETSI)	AT	+43 51707 21381	sumio.miyagawa@siemens.com	~~YES NO~~
Mr. Rogier Noldus	ERICSSON L.M.	3GPPMEMBER (ETSI)	NL	+31 161 249 400	rogier.noldus@eln.ericsson.se	~~YES NO~~
Ing. Pierpaolo Palama	TELECOM ITALIA S.p.A.	3GPPMEMBER (ETSI)	IT	+39-0112286820	pierpaolo.palama@tilab.com	~~YES NO~~
Mr. Keijo Palviainen	Nokia Corporation	3GPPMEMBER (ETSI)	FI		Keijo.Palviainen@Nokia.com	
Dr. Georg Wegmann	T-MOBILE DEUTSCHLAND	3GPPMEMBER (ETSI)	DE	+49 228 936 3468	georg.wegmann@t-mobile.de	~~YES NO~~
Member of 3GPP (T1)						
Mrs. Angelica Remoqguillo	Lucent Technologies	3GPPMEMBER (T1)	US	+1 6307139548	atr@lucent.com	~~YES NO~~
Member of 3GPP (TTA)						
~~Miss Sujin Bae~~	~~Samsung Electronics Co., Ltd~~	~~3GPPMEMBER (TTA)~~	~~KR~~	~~+82-31-279-4623~~	~~vivien74@samsung.com~~	~~YES NO~~
Mr. Hyung Joon Cho	SK Telecom	3GPPMEMBER (TTA)	KR	+82-11-293-3812	hjcho@sktelecom.com	~~YES NO~~
Mr. Hyo Chul Bang	Samsung Electronics Co., Ltd	3GPPMEMBER (TTA)	KR	+82-31-279-4670	hcbang@samsung.com	
Mr. Joong gunn Park	SK Telecom	3GPPMEMBER (TTA)	KR	+82 11 293 8607	gaunny@yahoo.com	~~YES NO~~
Member of 3GPP (TTC)						
Mr. Noriyuki Iwasawa	NEC Corporation	3GPPMEMBER (TTC)	JP	+81 3 3798 5194	iwasawa@ncos.nec.co.jp	~~YES NO~~
Organisation partner representative (ETSI)						
Mrs. Andrijana Jurisic	Mobile Competence Centre		FR	+33 4 92 94 43 09	andrijana.jurisic@etsi.fr	~~YES NO~~

Annex C Output Documents

Approved Change Requests for CAMEL Phase 3

TDoc #	WI	Rel	Title	Typ	Spec	CR	Rev	C	Versio	Conclusio	Source
N2-021033	CAMEL 3	R99	Correction to CAP Extension Types	CR	29.078	290	1	F	3.13.0	approved	Ericsson
N2-021034	CAMEL 3	Rel-4	Correction to CAP Extension Types	CR	29.078	293		A	4.6.0	approved	Ericsson
N2-021035	CAMEL 3	Rel-5	Correction to CAP Extension Types	CR	29.078	294		A	5.1.0	approved	Ericsson
N2-021036	CAMEL 3	R99	Number comparison for D-CSI	CR	23.078	487	1	F	3.14.0	approved	Alcatel
N2-021037	CAMEL 3	Rel-4	Number comparison for D-CSI	CR	23.078	488	1	A	4.6.0	approved	Alcatel
N2-021038	CAMEL 3	Rel-5	Number comparison for D-CSI	CR	23.078	489	1	A	5.1.0	approved	Alcatel
N2-021056	CAMEL 3	R99	Correction to dialled services criteria	CR	23.078	508	1	F	3.14.0	approved	T-Mobil
N2-021057	CAMEL 3	Rel-4	Correction to Dialled Services criteria	CR	23.078	511		A	4.6.0	approved	T-Mobil
N2-021058	CAMEL 3	Rel-5	Correction to Dialled Services criteria	CR	23.078	512		A	5.1.0	approved	T-Mobil
N2-021087	CAMEL 3	R99	Clarification on ATM -> NSDC when status of one SS impacts another SS	CR	23.078	498	3	F	3.14.0	approved	Nokia
N2-021088	CAMEL 3	Rel-4	Clarification on ATM -> NSDC when status of one SS impacts another SS	CR	23.078	506	2	A	4.6.0	approved	Nokia
N2-021089	CAMEL 3	Rel-5	Clarification on ATM -> NSDC when status of one SS impacts another SS	CR	23.078	507	2	A	5.1.0	approved	Nokia
N2-021041	CAMEL 3	R99	Correction to interaction between MO-SMS and CB / ODB	CR	23.078	509		F	3.14.0	approved	Ericsson
N2-021042	CAMEL 3	Rel-4	Correction to interaction between MO-SMS and CB / ODB	CR	23.078	510		A	4.6.0	approved	Ericsson
N2-021002	CAMEL 3	Rel-5	Correction to interaction between MO-SMS and CB / ODB	CR	23.078	461		A	5.1.0	approved	Ericsson

Approved Output Liaison Statements

TDoc #	Type	Title	Source	Conclusion	To
N2-021062	LS OUT	LS on Enhanced Dialled Services	CN2	approved	SA1

Approved Change Requests for CAMEL Phase 4

TDoc #	WI	Title	Spec	CR	Rev	Version	Conclusion	Source	Rel
N2-020974	CAMEL4	Correction on DP name	23.078	482		5.1.0	approved	Siemens AG	Rel-5
N2-020975	CAMEL4	Figure and table numbers	23.078	483		5.1.0	approved	Siemens AG	Rel-5
N2-020994	CAMEL4	Inconsistent description "Store destination address"	23.078	494		5.1.0	approved	Siemens AG	Rel-5
N2-021000	CAMEL4	Correction to GPRS dialogue abortion	29.078	276		5.1.0	approved	Ericsson	Rel -5
N2-021015	CAMEL4	ASN default for Flexible Tone BurstInterval due to MEGACO	29.078	291		5.1.0	approved	Nokia	Rel-5
N2-021021	CAMEL4	Removal of redundant information elements from Location Information	23.078	504		5.1.0	approved	Vodafone	Rel-5
N2-021027	CAMEL4	Correction of "Support of partial implementation of CAMEL"	23.078	485	1	5.1.0	approved	Alcatel	Rel-5
N2-021043	CAMEL4	Playing of Warning Tones	23.078	418	4	5.1.0	approved	Alcatel	Rel-5
N2-021045	CAMEL4	Correction to VLR Address in Location Information	23.078	466	1	5.1.0	approved	Ericsson	Rel-5
N2-021074	CAMEL4	Correction to ATI handling in HLR	23.078	495	1	5.1.0	approved	Ericsson	Rel-5
N2-021075	CAMEL4	Better SDL CSA_gsmSSF	23.078	484	1	5.1.0	approved	Siemens AG	Rel-5
N2-021076	CAMEL4	Use of Continue With Argument operation for call resumption	29.078	288	1	5.1.0	approved	Alcatel	Rel-5
N2-021077	CAMEL4	Missing Call Segment ID in Continue With Argument operation	29.078	289	1	5.1.0	approved	Alcatel	Rel-5
N2-021078	CAMEL4	Handling of Apply Charging after gsmSCF terminates dialogue or sends 'Release Call'	23.078	490	1	5.1.0	approved	Vodafone	Rel-5
N2-021079	CAMEL4	MSC-number in MAP Location Information	23.078	499	1	5.1.0	approved	Nokia	Rel-5

N2-021081	CAMEL4	ASN default for Flexible Tone BurstInterval due to MECAGO	23.078	500	1	5.1.0	approved	Nokia	Rel-5
N2-021086	CAMEL4	Re-introduction of local definition of LocationInformationGPRS	29.078	295	2	5.1.0	approved	Nortel	Rel-5

Approved Change Requests for IMS-CAMEL

TDoc #	WI	Rel	Title	Type	Spec	CR	Rev	Versi	Conclusio	Source
N2-020965	IMS-CAMEL	Rel-5	Figure and table numbers	CR	23.278	014		5.0.0	approved	Siemens AG
N2-020966	IMS-CAMEL	Rel-5	For better document structure	CR	23.278	015		5.0.0	approved	Siemens AG
N2-020967	IMS-CAMEL	Rel-5	Editorial improvement - clause 2	CR	23.278	016		5.0.0	approved	Siemens AG
N2-020968	IMS-CAMEL	Rel-5	Editorial improvement - clause 3	CR	23.278	017		5.0.0	approved	Siemens AG
N2-020969	IMS-CAMEL	Rel-5	Editorial improvement - clause 4	CR	23.278	018		5.0.0	approved	Siemens AG
N2-020970	IMS-CAMEL	Rel-5	Editorial improvement - clause 5	CR	23.278	019		5.0.0	approved	Siemens AG
N2-020971	IMS-CAMEL	Rel-5	Editorial improvement - clause 6	CR	23.278	020		5.0.0	approved	Siemens AG
N2-020972	IMS-CAMEL	Rel-5	Editorial improvement - clause 7	CR	23.278	021		5.0.0	approved	Siemens AG
N2-020987	IMS-CAMEL	Rel-5	SDL Procedure for Connect To Resource	CR	23.278	022		5.0.0	approved	Lucent Technologies
N2-021039	IMS-CAMEL	Rel-5	Number comparison for D-CSI	CR	23.278	025		5.0.0	approved	Alcatel
N2-021047	IMS-CAMEL	Rel-5	IF Description for gsmSRF-related operations for IMS	CR	23.278	012	1	5.0.0	approved	Lucent Technologies
N2-021048	IMS-CAMEL	Rel-5	Correction of ConnectToResource operation procedure for IMS.	CR	29.278	003	1	5.0.0	approved	Lucent Technologies
N2-021049	IMS-CAMEL	Rel-5	Correction and improvement in MO procedures	CR	23.278	003	2	5.0.0	approved	Siemens AG
N2-021051	IMS-CAMEL	Rel-5	Stage 2 specifications for Call Gap for IMS	CR	23.278	023	1	5.0.0	approved	Lucent Technologies
N2-021059	IMS-CAMEL	Rel-5	Correction to Dialled Services criteria	CR	23.278	026		5.0.0	approved	T-Mobil
N2-021090	IMS-CAMEL	Rel-5	Clarification of DP destination number trigger criteria for IMS	CR	23.278	024	2	5.0.0	approved	Lucent Technologies

N2-021091	IMS-CAMEL	Rel-5	Correction and improvement in MT procedures	CR	23.278	004	3	5.0.0	approved	Siemens AG

Annex D List of Documents

TDoc #	Type	Title	Source	WI	CR	Rev	Cat	Rel	Versio	Spec	Conclusio
N2-020946	Agenda	Agenda	CN2 Chair								approved
N2-020947	Agenda	Allocation of documents to agenda item	CN2 Chair								noted
N2-020948	Report	CN2#26 Draft Meeting Report	MCC								approved
N2-020949	WP	Latest version of the work plan	MCC								noted
N2-020950	LS IN	Liaison statement on Interoperability Issues and SIP in IMS	CN1	IMS-CCR				Rel-5			noted
N2-020951	DISC	CPH: Open Issues & Decisions	Vodafone								noted
N2-020952	DISC	Organisation of work in CN2 & CN4 after Release 5	CN2 & CN4 chairmen								noted
N2-020953	CR	Correction to VLR Address in Location Information	Ericsson	CAMEL 4	466		F	Rel-5	5.1.0	23.078	revised to N2-021045
N2-020954	CR	Allowing backwards SII2 in ETC and CTR	Ericsson	CAMEL 4	465	1	C	Rel-5	5.1.0	23.078	rejected
N2-020955	CR	Allowing backwards SII2 in ETC and CTR	Ericsson	CAMEL 4	278	1	C	Rel-5	5.1.0	29.078	rejected
N2-020956	DISC	Compatibility of LocationInformationGPRS definition in R99/ Rel-4 and	Nortel Networks,								noted
N2-020957	CR	Correction of LocationInformationGPRS definition (CHOICE option)	Nortel Networks	CAMEL 3	284		F	R99	3.13.0	29.078	rejected
N2-020958	CR	Correction of LocationInformationGPRS definition (CHOICE option)	Nortel Networks	CAMEL 3	285		A	Rel-4	4.6.0	29.078	rejected
N2-020959	CR	Correction of LocationInformationGPRS definition (OCTET STRING	Nortel Networks	CAMEL 3	286		F	R99	3.13.0	29.078	withdrawn
N2-020960	CR	Correction of LocationInformationGPRS definition (OCTET STRING	Nortel Networks	CAMEL 3	287		A	Rel-4	4.6.0	29.078	withdrawn

N2-020961	CR	Change of LocationInformationGPRS definition (OCTET STRING	Nortel Networks	CAMEL 4			F	Rel-5	5.3.0	29.002	rejected
N2-020962	CR	Correction and improvement in MO procedures	Siemens AG	IMS-CAMEL	003	1	F	Rel-5	5.0.0	23.278	revised to N2-021049
N2-020963	CR	Correction and improvement in MT procedures	Siemens AG	IMS-CAMEL	004	1	F	Rel-5	5.0.0	23.278	revised to N2-021050
N2-020964	CR	Explanatory text to SDL architecture	Siemens AG	IMS-CAMEL	013		F	Rel-5	5.0.0	23.278	withdrawn
N2-020965	CR	Figure and table numbers	Siemens AG	IMS-CAMEL	014		D	Rel-5	5.0.0	23.278	approved
N2-020966	CR	For better document structure	Siemens AG	IMS-CAMEL	015		D	Rel-5	5.0.0	23.278	approved
N2-020967	CR	Editorial improvement - clause 2	Siemens AG	IMS-CAMEL	016		D	Rel-5	5.0.0	23.278	approved
N2-020968	CR	Editorial improvement - clause 3	Siemens AG	IMS-CAMEL	017		D	Rel-5	5.0.0	23.278	approved
N2-020969	CR	Editorial improvement - clause 4	Siemens AG	IMS-CAMEL	018		D	Rel-5	5.0.0	23.278	approved
N2-020970	CR	Editorial improvement - clause 5	Siemens AG	IMS-CAMEL	019		D	Rel-5	5.0.0	23.278	approved
N2-020971	CR	Editorial improvement - clause 6	Siemens AG	IMS-CAMEL	020		D	Rel-5	5.0.0	23.278	approved
N2-020972	CR	Editorial improvement - clause 7	Siemens AG	IMS-CAMEL	021		D	Rel-5	5.0.0	23.278	approved
N2-020973	CR	Correction on referencing figure number	Siemens AG	CAMEL 4	481		F	Rel-5	5.1.0	23.078	withdrawn
N2-020974	CR	Correction on DP name	Siemens AG	CAMEL 4	482		F	Rel-5	5.1.0	23.078	approved
N2-020975	CR	Figure and table numbers	Siemens AG	CAMEL 4	483		D	Rel-5	5.1.0	23.078	approved
N2-020976	CR	Better SDL CSA_gsmSSF	Siemens AG	CAMEL 4	484		D	Rel-5	5.1.0	23.078	revised to N2-021075
N2-020977	CR/INFO	Mobility Management for GPRS (CAMEL) Subscriber	Siemens AG	CAMEL 4	399	1	F	Rel-5	5.3.0	23.060	revised to N2-021053
N2-020978	CR	Playing of Warning Tones	Alcatel	CAMEL 4	418	3	F	Rel-5	5.1.0	23.078	reivised to N2-021043
N2-020979	CR	Correction of "Support of partial implementation of CAMEL"	Alcatel	CAMEL 4	485		F	Rel-5	5.1.0	23.078	revised to N2-021027
N2-020980	CR	Implementing and handling of the Outstanding Request Counter	Alcatel	CAMEL 4	486		F	Rel-5	5.1.0	23.078	revised to N2-021044

N2-020981	CR	Use of Continue With Argument operation for call resumption	Alcatel	CAMEL 4	288		F	Rel-5	5.1.0	29.078	revised to N2-021076
N2-020982	CR	Missing Call Segment ID in Continue With Argument operation	Alcatel	CAMEL 4	289		F	Rel-5	5.1.0	29.078	revised to N2-021077
N2-020983	CR	Number comparison for D-CSI	Alcatel	CAMEL 3	487		F	R99	3.14.0	23.078	revised to N2-021036
N2-020984	CR	Number comparison for D-CSI	Alcatel	CAMEL 3	488		A	Rel-4	4.6.0	23.078	revised to N2-021037
N2-020985	CR	Number comparison for D-CSI	Alcatel	CAMEL 4	489		A	Rel-5	5.1.0	23.078	revised to N2-021038
N2-020986	DISC	CAMEL/IMS Open Issues	Lucent Technologies	IMS-CAMEL				Rel-5	5.0.0		revised to N2-021046
N2-020987	CR	SDL Procedure for Connect To Resource	Lucent Technologies	IMS-CAMEL	022		F	Rel-5	5.0.0	23.278	approved
N2-020988	CR	IF Description for gsmSRF-related operations for IMS	Lucent Technologies	IMS-CAMEL	012		F	Rel-5	5.0.0	23.278	revised to N2-021047
N2-020989	CR	Correction of ConnectToResource operation procedure for IMS.	Lucent Technologies	IMS-CAMEL	003		F	Rel-5	5.0.0	29.278	revised to N2-021048
N2-020990	CR	Handling of Apply Charging after gsmSCF terminates dialogue or sends 'Release Call'	Vodafone	CAMEL 4	490		F	Rel-5	5.1.0	23.078	revised to N2-021078
N2-020991	CR	Handling of a Stand alone Call Segment in CS_gsmSSF	Vodafone	CAMEL 4	491		F	Rel-5	5.1.0	23.078	revised to next meeeting
N2-020992	CR	Inconsistent description "Store destination address"	Siemens AG	CAMEL 3	492		F	R99	3.14.0	23.078	rejected
N2-020993	CR	Inconsistent description "Store destination address"	Siemens AG	CAMEL 3	493		A	Rel-4	4.6.0	23.078	rejected
N2-020994	CR	Inconsistent description "Store destination address"	Siemens AG	CAMEL 4	494		F	Rel-5	5.1.0	23.078	approved
N2-020995	WID	Enhancement of dialled service for Release 6 CAMEL4 Work Item Description (WID) for	SK Telecom, Samsung								revised to N2-021063
N2-020996	CR	Stage 2 specifications for Call Gap for IMS	Lucent Technologies	IMS-CAMEL	023		F	Rel-5	5.0.0	23.278	revised to N2-021051
N2-020997	CR	Clarification of DP destination number trigger criteria for IMS	Lucent Technologies	IMS-CAMEL	024		F	Rel-5	5.0.0	23.278	revised to N2-021052
N2-020998	CR	CAMEL4 Call Party Handling interworking with Bearer independent CS core	Nokia	CSSPLIT	035	1	F	REL-5	5.3.0	23.205	revised to N2-021070
N2-020999	DISC	Partial Implementations of CAMEL Phase 4: Open Issues	T-Mobile								revised to N2-021073
N2-021000	CR	Correction to GPRS dialogue abortion	Ericsson	CAMEL 4	276		F	Rel -5	5.1.0	29.078	approved

N2-021001	DISC	Suppression of GPRS QoS reporting	Ericsson								noted
N2-021002	CR	Correction to interaction between MO-SMS and CB / ODB	Ericsson	CAMEL 3	461		A	Rel-5	5.1.0	23.078	e-mail approved ~~approval~~
N2-021003	DISC	Introduction of "CAP version indicator" in ETC	Ericsson								noted
N2-021004	CR	Introduction of "CAP version indicator" in ETC	Ericsson	CAMEL 4	467		B	Rel-5	5.1.0	23.078	rejected
N2-021005	CR	Introduction of "CAP version indicator" in ETC	Ericsson	CAMEL 4	280		B	Rel-5	5.1.0	29.078	rejected
N2-021006	LS IN	Response to "LS on Packet switched SMS handling in UMTS network"	SA2								noted
N2-021007	CR	Correction to ATI handling in HLR	Ericsson	CAMEL 4	495		F	Rel-5	5.1.0	23.078	revised to N2-021074
N2-021008	CR	Correction to DP Abandon handling in MSC	Ericsson	CAMEL 4	496		F	Rel-5	5.1.0	23.078	withdrawn
N2-021009	CR	Correction to VMSC Address description for SRI	Ericsson	CAMEL 4			F	Rel-5	5.3.0	29.002	endorsed by CN2
N2-021010	CR	Correction to CAP Extension Types	Ericsson	CAMEL 3	290		F	R99	3.13.0	29.078	revised to N2-021033
N2-021011	CR	Using ATI for Mobile Number Portability	Ericsson	CAMEL 4	497		F	Rel-5	5.1.0	23.078	postponed
N2-021012	CR	Clarification on ATM -> NSDC when status of one SS impacts another SS status.	Nokia	CAMEL 3	498		F	R99	3.14.0	23.078	revised to N2-021029
N2-021013	CR	MSC-number in MAP Location Information	Nokia	CAMEL 4	499		F	Rel-5	5.1.0	23.078	revised to N2-021079
N2-021014	CR	ASN default for Flexible Tone BurstInterval due to MEGACO	Nokia	CAMEL 4	500		F	Rel-5	5.1.0	23.078	revised to N2-021081
N2-021015	CR	ASN default for Flexible Tone BurstInterval due to MEGACO	Nokia	CAMEL 4	291		F	Rel-5	5.1.0	29.078	approved
N2-021016	DISC	Using ATI for Mobile Number Portability	Ericsson	CAMEL 4							postponed
N2-021017	CR	ASN.1 corrections	Ericsson	CAMEL 4	292		F	Rel-5	5.1.0	29.078	withdrawn
N2-021018	CR	Behavior if the free format data exceeds 160 octets	Siemens AG	CAMEL 3	501		F	R99	3.14.0	23.078	rejected
N2-021019	CR	Behavior if the free format data exceeds 160 octets	Siemens AG	CAMEL 3	502		A	Rel-4	4.6.0	23.078	rejected
N2-021020	CR	Behavior if the free format data exceeds 160 octets	Siemens AG	CAMEL 3	503		A	Rel-5	5.1.0	23.078	rejected

N2-021021	CR	Removal of redundant information elements from Location Information	Vodafone	CAMEL 4	504		F	Rel-5	5.1.0	23.078	approved
N2-021022	DISC	Handling of AC and ACR in GPRS	Vodafone								revised to N2-021032
N2-021023	CR	CS to Call Segment	Siemens AG	CAMEL 4	505		D	Rel-5	5.1.0	23.078	withdrawn
N2-021024	DISC	CAMEL4 open issue list	CN2 chairman								noted
N2-021025	DISC	CN2 2003 meeting calendar	CN2 chairman								noted
N2-021026	DISC	Buffering of GPRS CAMEL3 messages while waiting 1st response to TC-BEGIN	Nokia								noted
N2-021027	CR	Correction of "Support of partial implementation of CAMEL"	Alcatel	CAMEL 4	485	1	F	Rel-5	5.1.0	23.078	approved
N2-021028	CR	Enhanced CSE capability for Dialled Services	Samsung Electronics Co.	CAMEL 4			C	Rel-6	5.8.0	22.078	revised to N2-021055
N2-021029	CR	Clarification on ATM -> NSDC when status of one SS impacts another SS status.	Nokia	CAMEL 3	498	1	F	R99	3.14.0	23.078	revised to N2-021083
N2-021030	CR	Clarification on ATM -> NSDC when status of one SS impacts another SS status.	Nokia	CAMEL 3	506		A	Rel-4	4.6.0	23.078	revised to N2-021084
N2-021031	CR	Clarification on ATM -> NSDC when status of one SS impacts another SS status.	Nokia	CAMEL 3	507		A	Rel-5	5.1.0	23.078	revised to N2-021085
N2-021032	DISC	Handling of AC and ACR in GPRS	Vodafone								noted
N2-021033	CR	Correction to CAP Extension Types	Ericsson	CAMEL 3	290	1	F	R99	3.13.0	29.078	approved
N2-021034	CR	Correction to CAP Extension Types	Ericsson	CAMEL 3	293		A	Rel-4	4.6.0	29.078	approved
N2-021035	CR	Correction to CAP Extension Types	Ericsson	CAMEL 3	294		A	Rel-5	5.1.0	29.078	approved
N2-021036	CR	Number comparison for D-CSI	Alcatel	CAMEL 3	487	1	F	R99	3.14.0	23.078	approved
N2-021037	CR	Number comparison for D-CSI	Alcatel	CAMEL 3	488	1	A	Rel-4	4.6.0	23.078	approved
N2-021038	CR	Number comparison for D-CSI	Alcatel	CAMEL 3	489	1	A	Rel-5	5.1.0	23.078	approved
N2-021039	CR	Number comparison for D-CSI	Alcatel	IMS-CAMEL	025		F	Rel-5	5.0.0	23.278	approved
N2-021040	CR	Correction to dialled services criteria	T-Mobil	CAMEL 3	508		F	R99	3.14.0	23.078	revised to N2-021056

N2-021041	CR	Correction to interaction between MO-SMS and CB / ODB	Ericsson	CAMEL 3	509		F	R99	3.14.0	23.078	e-mail approved ~~approval~~
N2-021042	CR	Correction to interaction between MO-SMS and CB / ODB	Ericsson	CAMEL 3	510		A	Rel-4	4.6.0	23.078	e-mail approved ~~approval~~
N2-021043	CR	Playing of Warning Tones	Alcatel	CAMEL 4	418	4	F	Rel-5	5.1.0	23.078	approved
N2-021044	CR	Implementing and handling of the Outstanding Request Counter	Alcatel	CAMEL 4	486	1	F	Rel-5	5.1.0	23.078	revised to next meeting
N2-021045	CR	Correction to VLR Address in Location Information	Ericsson	CAMEL 4	466	1	F	Rel-5	5.1.0	23.078	approved
N2-021046	DISC	CAMEL/IMS Open Issues	Lucent Technologies	IMS-CAMEL				Rel-5	5.0.0		noted
N2-021047	CR	IF Description for gsmSRF-related operations for IMS	Lucent Technologies	IMS-CAMEL	012	1	F	Rel-5	5.0.0	23.278	approved
N2-021048	CR	Correction of ConnectToResource operation procedure for IMS.	Lucent Technologies	IMS-CAMEL	003	1	F	Rel-5	5.0.0	29.278	approved
N2-021049	CR	Correction and improvement in MO procedures	Siemens AG	IMS-CAMEL	003	2	F	Rel-5	5.0.0	23.278	approved
N2-021050	CR	Correction and improvement in MT procedures	Siemens AG	IMS-CAMEL	004	2	F	Rel-5	5.0.0	23.278	revised to N2-021091
N2-021051	CR	Stage 2 specifications for Call Gap for IMS	Lucent Technologies	IMS-CAMEL	023	1	F	Rel-5	5.0.0	23.278	approved
N2-021052	CR	Clarification of DP destination number trigger criteria for IMS	Lucent Technologies	IMS-CAMEL	024	1	F	Rel-5	5.0.0	23.278	revised to N2-021090
N2-021053	CR/INFO	Mobility Management for GPRS (CAMEL) Subscriber	Siemens AG	CAMEL 4	399	2	F	Rel-5	5.3.0	23.060	revised to N2-021060
N2-021054	DISC	Buffering CAP operations in the gprsSSF	Ericsson								noted
N2-021055	CR	Enhanced CSE capability for Dialled Services	Samsung Electronics Co.	CAMEL 4		1	C	Rel-6	5.8.0	22.078	revised to N2-021061
N2-021056	CR	Correction to dialled services criteria	T-Mobil	CAMEL 3	508	1	F	R99	3.14.0	23.078	approved
N2-021057	CR	Correction to Dialled Services criteria	T-Mobil	CAMEL 3	511		A	Rel-4	4.6.0	23.078	approved
N2-021058	CR	Correction to Dialled Services criteria	T-Mobil	CAMEL 3	512		A	Rel-5	5.1.0	23.078	approved
N2-021059	CR	Correction to Dialled Services criteria	T-Mobil	IMS-CAMEL	026		F	Rel-5	5.0.0	23.278	approved
N2-021060	CR/INFO	Mobility Management for GPRS (CAMEL) Subscriber	Siemens AG	CAMEL 4	399	2	F	Rel-5	5.3.0	23.060	Endorsed by CN2

N2-021061	CR	Enhanced CSE capability for Dialled Services	Samsung Electronics Co.	CAMEL 4		1	C	Rel-6	5.8.0	22.078	noted, sent to SA1 with the
N2-021062	LS OUT	LS on Enhanced CSE capability for Dialled Services	CN2								approved
N2-021063	WID	Enhancement of dialled service for Release 6 CAMEL4 Work Item Description (WID) for	SK Telecom, Samsung								noted, sent to SA1with
N2-021064	CR	ODB Correction	Siemens AG	CAMEL 3			F	R99	3.14.0	29.002	CN4 approved, CN2 noted
N2-021065	CR	ODB Correction	Siemens AG	CAMEL 3			A	Rel-4	4.9.0	29.002	CN4 approved, CN2 noted
N2-021066	CR	ODB Correction	Siemens AG	CAMEL 3			A	Rel-5	5.3.0	29.002	CN4 approved, CN2 noted
N2-021067	CR	Incorrect charging with MNP	Ericsson	CAMEL 4			F	Rel-5	5.0.0	23.066	postponed
N2-021068	CR	Incorrect charging with MNP	Ericsson	CAMEL 4			F	Rel-5	5.3.0	29.002	postponed
N2-021069	CR	Introduction of the CHOICE element “netDetNotReachable” for PS-SubscriberState	Ericsson	CAMEL 4			F	Rel-5	5.3.0	29.002	noted
N2-021070	CR	CAMEL4 Call Party Handling interworking with Bearer independent CS core	Nokia	CSSPLIT		2	F	Rel-5	5.3.0	23.205	endorsed by CN2
N2-021071	CR	Re-introduction of local definition of LocationInformationGPRS	Nortel	CAMEL 4	295		F	Rel-5	5.1.0	29.078	revised to N2-021080
N2-021072	LS IN	Liaison statement on Interoperability Issues and SIP in IMS	SA3								noted
N2-021073	DISC	Partial Implementations of CAMEL Phase 4: Open Issues	T-Mobile								revised to N2-021082
N2-021074	CR	Correction to ATI handling in HLR	Ericsson	CAMEL 4	495	1	F	Rel-5	5.1.0	23.078	approved
N2-021075	CR	Better SDL CSA_gsmSSF	Siemens AG	CAMEL 4	484	1	D	Rel-5	5.1.0	23.078	approved
N2-021076	CR	Use of Continue With Argument operation for call resumption	Alcatel	CAMEL 4	288	1	F	Rel-5	5.1.0	29.078	approved
N2-021077	CR	Missing Call Segment ID in Continue With Argument operation	Alcatel	CAMEL 4	289	1	F	Rel-5	5.1.0	29.078	approved
N2-021078	CR	Handling of Apply Charging after gsmSCF terminates dialogue or sends 'Release Call'	Vodafone	CAMEL 4	490	1	F	Rel-5	5.1.0	23.078	approved
N2-021079	CR	MSC-number in MAP Location Information	Nokia	CAMEL 4	499	1	F	Rel-5	5.1.0	23.078	approved
N2-021080	CR	Re-introduction of local definition of LocationInformationGPRS	Nortel	CAMEL 4	295	1	F	Rel-5	5.1.0	29.078	revised to N2-021086

N2-021081	CR	ASN default for Flexible Tone BurstInterval due to MECAGO	Nokia	CAMEL 4	500	1	F	Rel-5	5.1.0	23.078	approved
N2-021082	DISC	Partial Implementations of CAMEL Phase 4: Open Issues	T-Mobile								noted
N2-021083	CR	Clarification on ATM -> NSDC when status of one SS impacts another SS status.	Nokia	CAMEL 3	498	2	F	R99	3.14.0	23.078	revised to N2-021087
N2-021084	CR	Clarification on ATM -> NSDC when status of one SS impacts another SS status.	Nokia	CAMEL 3	506	1	A	Rel-4	4.6.0	23.078	revised to N2-021088
N2-021085	CR	Clarification on ATM -> NSDC when status of one SS impacts another SS status.	Nokia	CAMEL 3	507	1	A	Rel-5	5.1.0	23.078	revised to N2-021089
N2-021086	CR	Re-introduction of local definition of LocationInformationGPRS	Nortel	CAMEL 4	295	2	F	Rel-5	5.1.0	29.078	approved
N2-021087	CR	Clarification on ATM -> NSDC when status of one SS impacts another SS status.	Nokia	CAMEL 3	498	3	F	R99	3.14.0	23.078	approved
N2-021088	CR	Clarification on ATM -> NSDC when status of one SS impacts another SS status.	Nokia	CAMEL 3	506	2	A	Rel-4	4.6.0	23.078	approved
N2-021089	CR	Clarification on ATM -> NSDC when status of one SS impacts another SS status.	Nokia	CAMEL 3	507	2	A	Rel-5	5.1.0	23.078	approved
N2-021090	CR	Clarification of DP destination number trigger criteria for IMS	Lucent Technologies	IMS-CAMEL	024	2	F	Rel-5	5.0.0	23.278	approved
N2-021091	CR	Correction and improvement in MT procedures	Siemens AG	IMS-CAMEL	004	3	F	Rel-5	5.0.0	23.278	approved