

**Source: MCC**  
**Title: CN2#24 Draft Meeting Report**  
**Agenda item: 6.2.1**  
**Document for: Information**

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**DRAFT Meeting Report, version 2.0.0**

**TSG CN WG2#24**  
**Budapest, Hungary**

**13 May – 17 May, 2002**

Chairman: Keijo Palviainen (Nokia)

MCC support: Andrijana Jurisic(ETSI)

Hosts: Ericsson

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\\_24\\_Budapest/Docs](ftp://ftp.3gpp.org/TSG_CN/WG2_camel/Plenary/TSGN2_24_Budapest/Docs)

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## 1 Opening of the meeting and approval of the agenda

**N2-020457** : CN2 chairman, Title: Proposed meeting agenda

**Discussion** : Handling of CAMEL4 functional split is moved to Tuesday so that SA1 can handle it prior CN2.

**Conclusion**: *approved*

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## 2 Allocation of documents to agenda items

**N2-020458** : CN2 chairman, Title: Allocation of documents to agenda items

**Discussion** : This is a working document that will be updated during the meeting. N2-020486, N2-020487 and N2-020485 are submitted to CN4 for information and those should be handled before the joint meeting with CN4. Siemens document N2-020553 will be handled as well before the joint meeting.

**Conclusion**: *noted*

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## 3 Reports

**N2-020459**: MCC, Title: Draft Meeting Report from CN2#23, Helsinki

**Discussion**: CN2#23 Meeting Report V3.0.0 will be sent to plenary meeting in June.

**Conclusion**: *approved*

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## 4 Input Liaison Statements

**N2-020492** : CN4, Type: LS IN , Title: Liaison Statement on Immediate Service Termination

**Discussion** TSG-CN WG4 recommend that the IST functionality should be specified to apply equally to GSM access and UTRAN access. TSG-CN WG4 ask TSG-SA and TSG-SA WG3 to take note of TSG-CN WG4's recommendations in deciding whether to:

- Specify non-CAMEL IST functionality for UMTS Rel-4;
- Specify non-CAMEL IST functionality for UMTS Rel-5;
- Specify the applicability of IST to both GSM and UTRAN access.

No action is requested from CN2 in this LS.

**Conclusion**: *noted*

**N2-020493** : CN4, Type: LS IN , Title: LS on availability of MS Radio Access Capability in for MS in Iu-Mode

**Discussion :** From the quoted text in 23.060, CN4 understanding is that MS Radio Access Capabilities are not available to the SGSN if the MS accesses the network via Iu-mode, and as such cannot be present in GPRSMSCClass.

CN4 has addressed this inconsistency by qualifying MS Radio Access Capability as OPTIONAL in GPRSMSCClass for CAMEL4 in a revised version of CR 29.002-408. MS Radio Access Capability is marked as Optional. CN4 is kindly asking CN2 to tackle the spotted inconsistency in the R99 and Rel-4 version of 29.078.

There is not CR available, as we have to decide whether the change is needed only for Rel-5. In Rel-5 we import this from MAP spec where this parameter is changed to optional. ASN in R99 is different.

Vodafone: if the R99 is changed it shall be done in this meeting. According to Siemens, if we can not correct R99, we should not do correction in Rel-5 as well. R99 and Rel-5 use the same application context, therefore this change should be done in both releases. Ericsson will draft the CR against the TS 29.078 for R99 in document N2-020562, CR#525.

**Conclusion: noted**

**N2-020494 :** CN3, Type: LS IN , Title: Liaison Statement on "IPv6 update of stage 3 specifications"

**Discussion :** No impact on CN2.

**Conclusion: noted**

**N2-020531 :** SA2, Type: LS IN , Title: Response to the LS on "IPv6 update of stage 3 specifications"

**Discussion :**

**Conclusion: noted**

## 5 Work item management & miscellaneous

### Status of CN2 specifications and drafts

Type	Number	Title	Rel	curent vers	WG	rappporteur
TS	03.78	CAMEL Phase 1; Stage 2	R1996	5.8.0	N2	LANTELME, Isabelle
TS	03.78	CAMEL Phase 2; Stage 2	R1997	6.10.0	N2	LANTELME, Isabelle
TS	03.78	CAMEL Phase 2; Stage 2	R1998	7.7.0	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	3.12.0	N2	HOMANN, Christian
TS	23.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3 - Stage 2	Rel-4	4.4.0	N2	HOMANN, Christian
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3; CAMEL Application Part (CAP) specification	R1999	3.11.0	N2	NOLDUS, Rogier
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 3; CAMEL Application Part (CAP) specification	Rel-4	4.4.0	N2	NOLDUS, Rogier
Draft	23.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 4 - Stage 2	Rel-5	5D.13.5	N2	SUMIO, Myagava

Draft	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase; CAMEL Application Part (CAP) specification	Rel-5	D5.7.4	N2	NOLDUS, Rogier
Draft	23.278	(CAMEL) Phase 4 - Stage 2 IM CN Interworking	Rel-5	1.2.0	N2	Ingellica 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

**N2-020460** : MCC, Type: Work plan, Title: Latest version of the Work plan

**Discussion:** The Work plan will be updated according the CN2 comments per each feature in the document N2-020563.

**Conclusion:** *noted*

**N2-020563** : CN2 Chairman, Type: CN2 Status report of CAMEL 4

**Discussion :** Completion rate means how much meeting time CN2 has spent on each feature.

Stage 3 TS 29.278 was not presented in CN2, therefore it will not be send to CN#16 plenary for information. The document was available, but not handled due to lack of the time during CN2 meeting.

**Conclusion:** *noted*

## 5.3 Meeting calendar of year 2002

TITLE	TYPE	DATES	LOCATION	CTRY
<a href="#">3GPPCN2#25</a>	WG	29 July-2 August 2002	TBD	Finland
<a href="#">3GPPCN2#26</a>	WG	23-27 September	TBD	USA
<a href="#">3GPPCN2#27</a>	WG	11-15 November	Bankog	Thailand

## 5.4 Terms of reference

## 5.5 CN2 chairman election

**N2-020461** : Nokia, Type: Candidature, Title: Candidature for CN2 chairman position

**Discussion :**

**Conclusion:** *noted*, Mr. Keijo Palviainen was re-elected for the CN2 chairman position.

## 6 Maintenance of earlier CAMEL phases

### 6.1 CAMEL phase 1

### 6.2 CAMEL phase 2

**N2-020555**: TS 03.78, R97, Source: Vodafone, Type: CR, CR#A172, Title: Corrections to Connect To Resource Procedures

**Discussion** : On sheet2 of Procedure CAMEL\_OCH\_CTR, there is now the question box “Answer received” twice . “Answer received” can not be changed if there is no input (between two question boxes).

Ericsson finds that this should be corrected for subsequent versions of specifications. Vodafone will accept to leave the change only for CAMEL3 if CN2 working group has the strong objection for this correction in CAMEL2 (R97 and R98). CN2 agreed not to do this correction for R97 and R98.

**Conclusion: rejected**

**N2-020556**: TS 03.78, R98, Source: Vodafone, Type: CR, CR#A173, Title: Corrections to Connect To Resource Procedures

**Discussion** :

**Conclusion: rejected**

**N2-020557**: TS 23.078, R99, Vodafone, Type: CR,CR#405, Title: Corrections to CTR and ETC Procedures

**Discussion** : The intention of the CR was to clarify the implementation, not to make any technical change. Alcatel would like to postpone the approval of the CR to allow some time for checking.

Chairman’s proposal for improvement of the CR: There is a jump to DP\_O\_Abandon on page 5. If there is a jump to the state from somewhere else, it should be on the beginning of the page.

After additional checking, Alcatel agreed to approve this CR.

**Conclusion: revised to N2-020567**

**N2-020567**: TS 23.078, R99, Vodafone, Type: CR,CR#405r1, Title: Corrections to CTR and ETC Procedures

**Discussion**:

**Conclusion: approved without presentation**

**N2-020558**: TS 23.078, Rel-4, Vodafone, Type: CR,CR#406, Title: Corrections to CTR and ETC Procedures

**Discussion** :

**Conclusion: revised to N2-020568**

**N2-020568**: TS 23.078, Rel-4, Vodafone, Type: CR,CR#406r1, Title: Corrections to CTR and ETC Procedures

**Discussion** :

**Conclusion: approved without presentation**

## 7 CAMEL3, Resolution of outstanding issues for Release 99

### 7.1 CAMEL3, Miscellaneous

**N2-020584** : TS 23.078, R99, Siemens, Type: CR, CR#, Title: Description of specific CSI Withdraw IE

*Discussion* : Late document

*Conclusion* : *postponed to next meeting*

### 7.2 CAMEL3/ATM&ATSI

**N2-020514**: TS 23.078, R99, Nokia, Type: CR, CR#397r1, Title: Clarifications on ATM-req/ATM-ack

*Discussion*: This CR was postponed in the previous meeting. The main changes are in SDLs.

According to Alcatel Notification flag is not modified if other modifications fail, we should not return to positive result (ATM-ack). On page 9, after task box "Set notification-to-CSE flag", next task box will be removed (Set result:="OK"). The same will be removed on page 12.

On page 10, instead of RETURN, there shall be JOIN to "next basic service" (the same for Call Barring on page 13).

Editorial change on page 15: "C" for Conditional will be removed from the first table on the top of the page, as the "C" does not exist in the table. Numbers should be used for labels (connectors) in R99 specification.

*Conclusion*: *revised to N2-020564*

**N2-020564**: TS 23.078, R99, Nokia, Type: CR, CR#397r2, Title: Clarifications on ATM-req/ATM-ack

*Discussion*:

*Conclusion*: *approved without presentation*

**N2-020565**: TS 23.078, Rel-4, Nokia, Type: CR, CR#407, Title: Clarifications on ATM-req/ATM-ack

*Discussion*:

*Conclusion*: *approved without presentation*

### 7.3 CAMEL3/GPRS

**N2-020462**: TS 23.078, Rel-5, Ericsson, Type: CR, Title: Clarification of GPRS relationships

*Discussion*: The term GPRS session refers to attach/detach state model. In CAMEL control of GPRS, a single CAMEL dialogue between the gsmSCF and the gprsSSF may be used to control a GPRS Session and multiple PDP Contexts ("scenario #1"). The SCP has a relationship with the GPRS Session and with the individual PDP Contexts. The type of relationship with the GPRS Session and the individual PDP Contexts depends on the state of the arming of events. During an ongoing GPRS dialogue, the relationship with the GPRS Session and the individual PDP Contexts may change. This may be caused e.g. by the disarming of events or by the release of a PDP Context. The current SDLs do not clearly and fully reflect the relationship that is in effect at any point in time. A correct reflection of the applicable relationship is, however, crucial for the GPRS control in scenario #1. The relationship determines e.g. whether an ApplyChargingGPRS operation is allowed for a particular PDP Context.

The present CR proposes to introduce the mentioned reflection of the relationships in the SDLs for GPRS control.

One of the CRs deals with generic arming of PDP context. There is a control relationship between gsmSCF and GPRS session until there is at least one EDP-R armed for the session. If the SCP changes EDP-R to EDP-N from that moment onwards there is monitoring relationship for the session. Control relationship is dependent on arming of EDPs for the session.

If there is generically armed EDP-R, do we have a control relationship for that PDP context? Generic arming of EDPs does not influence the establishing of control relationship for the PDP context. "A control relationship persists as long as there is one or more EDP-R armed for this instance of the state model."

Alcatel: What is the difference between this document and the document submitted to the last meeting.? Relationship rules for scenario #2 were refined.

In SDLs (in "Session/PDPc"), does the "/" means sometimes "and" and sometimes "or"? According to Ericsson, "/" could be replaced by "or" of "+", as session in most of the cases refers to attach/detach state model, but not in all cases.

Vodafone and Alcatel would not like to change this for R99. According to Ericsson, this contribution contains mainly clarifications and technical modifications were not done. It should be clarified at least for Rel-5. There may be operators who will use scenario#1, therefore it should be stated clearly what does it mean.

Siemens has already implemented Scenario#1 and tests will be run soon, therefore there shouldn't be any change for R99. Vodafone supports this CR, but would like to know whether these clarifications are seen in the same way by every vendor to ensure that there are not technical changes in respect to previous versions. According to Vodafone, this CR clarifies ambiguities, therefore this may contain a technical change within the clarification.

Ericsson: at least for Rel-5 we should have very clear rules. T-Mobil supports the clarification for Rel-5. Nokia finds that changes should be identical in R99 and Rel-5. Alcatel opposes this CR for R99 and Rel-4. Alcatel would like to solve dedicated issues, but this CR is too big change and has also impact on scenario#2.

According to Vodafone, this is not an essential correction. If we are introducing change to R99, it should be clearly indicated what critical issues we are clarifying.

Ericsson: Even CAMEL2 systems are not working commercially, therefore it is not too late to do this clarification for CAMEL3. It is good for the future that we ensure that everybody has the same interpretation of scenario#1 and to make sure that in the future CAMEL3 systems will work. Without being refined it will not work. Reason for very large CR is that we had mix of relationships, therefore we need very clear rules to explain how it works, instead of very few generic rules.

Portugal Telecom supports Ericsson. Siemens finds that there is many duplication. Siemens would like to delete duplicated issues. If it is revised drastically, there is no time to check it during this meeting.

Siemens, Nokia and Orange France would not like to change Rel-5 only.

**Conclusion: rejected**

**N2-020463:** TS 29.078, Rel-5, Ericsson, Type: CR, Title: GPRS relationship rules for procedure descriptions

**Discussion:** In ApplyChargingGPRS in stage 2, PDP id is marked as "conditional" (shall be sent if available). Nokia is of opinion that it would be better to change this in stage 2. According to Nokia, if this is serious issue, we have to clarify both Rel-5 and R99. Having this in stage 3 we can have duplication and the conflict. Changes for Cancel GPRS procedure can stay in stage 3.

Issues are: Usage of PDP id, usage of Cancel GPRS when there is no PDP id is present, usage of PDP id for generic arming.

According to Orange France, this is clarification (except for Cancel GPRS procedure) and it would be acceptable to have it in Rel-5 only. Ericsson will draft a R99 CR to stage 2. It is left to Ericsson how to propose the modification. This CR to stage 3 is formally rejected.

**Conclusion: rejected**

**N2-020569:** TS 23.078, R99, Ericsson, Type: CR, CR#408, Title: Clarification of PDP id for GPRS control

**Discussion:** This CR proposes to specify in the GPRS Information Flow descriptions how the PDP Id shall be used. According to Nokia, we still have a conflict between the description of PDP id in the table and the text that is added. Text in the table is misleading and should be fixed to have one clear statement in the specification. Vodafone agrees with this view and would like to have a generic description.

Ericsson identified that the text in the table is incorrect. Ericsson would like first to agree of functioning of CancelGPRS operation and ReleaseGPRS. According to Ericsson, it is better to specify that PDPid shall not be present in scenario#2, due to lot of questions by designers, what to do if PDP id is present in scenario#2,

The description in the table of CancelGPRS currently specifies that if PDP id is not present, it correspond to GPRS session or the individual PDP context.

Alcatel could accept to change the table for Cancel GPRS. New proposed text should be merged to the table (PDP id conditional for scenario#1 and not applicable for scenario#2). Vodafone's proposal is to have separate columns with the header "Required" for scenario#1 and scenario#2. Orange France and T-Mobil support this idea. Alcatel could support this view if there will be no further doubts. Ericsson supports this idea, but can not support this change for R99. Decision is to have just one column with a header "Required" for R99 and Rel-4, as specified until now.

According to Vodafone, if the PDP is included in scenario#2, this is not an error, but just waste of signalling. It should not be mandated that PDP id is not included in scenario#2. According to Ericsson, this has been already stated.

Orange France: To state that PDP id may be present in scenario#2 introduces inconsistency in the specification.

Ericsson proposes to state that PDP id is not required for scenario#2. Chairman's proposal is to clarify in a separate CR what happens when we send CancelGPRS without PDP id in scenario#1 and scenario#2. The CR has to be provided before the next meeting to allow enough time for checking.

Subcategory should be marked and consequences if not approved should be improved.

**Conclusion: revised to N2-020604**

**N2-020604**: TS 23.078, R99, Ericsson, Type: CR, CR#408r1, Title: Clarification of PDP id for GPRS control

**Discussion:** The functionality is specified clearly for Cancel GPRS and ReleaseGPRS in stage 2.

Editorial comments: Operation names should not be repeated (e.g. in case of ApplyChargingGPRS). Decision is to leave it for the time being as this is not the only place where it appears.

- "#" should be deleted from "scenario#1" and "scenario#2"
- Consequences if not approved should clearly show the change
- For the ConnectGPRS, the duplication of text will be removed. It will read only "There shall always be a PDP Id present in this IF."
- Vodafone proposes rewording for usage of PDP id in Scenario 2 in a following way: "No PDPid is necessary in scenario 2". Ericsson finds this not acceptable as this should be fundamental change to R99. Stage 2 says currently: "No PDP id is used in the IF" for scenario 2. Vodafone can not agree this CR in this meeting if the wording is not changed. Vodafone proposes to postpone the CR to next meeting to give the time to study whether the current wording proposal is acceptable. Orange France can not accept Vodafone's proposal for wording.

Lucent find this CR as a very useful clarification and not as a change of functionality. Alcatel and Orange France support this CR as well. Nokia: IF table is the place to specify this, but Nokia does not have strong view how should it be specified.

If this CR is approved for R99 and Rel-4, it can be implemented to Rel-5 after the plenary. Editor will replace operation name by IF for Rel-5 off line.

Working assumption: The principle of the scenario 1 usage of PDP id is according to this CR. If no PDP id present, all reports and EDPs for GPRS session and PDP contexts are disarmed.

**Conclusion: revised to N2-020619**

**N2-020619**: TS 23.078, R99, Ericsson, Type: CR, CR#408r1, Title: Clarification of PDP id for GPRS control

**Discussion:**

**Conclusion: e-mail approval, the deadline for rejection is Thursday, 23<sup>rd</sup> of May, 23:59 CET**

*Since no objections received by deadline, N2-020619 is APPROVED.*

**N2-020620**: TS 23.078, Rel-4, Ericsson, Type: CR, CR#410, Title: Clarification of PDP id for GPRS control

**Discussion:** The principle of proposed change for CancelGPRS operation is agreed.

**Conclusion: e-mail approval, the deadline for rejection is Thursday, 23<sup>rd</sup> of May, 23:59 CET**

*Since no objections received by deadline, N2-020620 is APPROVED.*

**N2-020464**: TS 23.078, Rel-5, Ericsson, Type: CR, Title: Corrections to GPRS DP arming rules for scenario #1



**Discussion:** There is no opposition to approve this CR for Rel-5, but Nokia's view is that R99 and Rel-5 have to be identical. Vodafone would like to have enough time to check R99 if it will going to be handled in this meeting. Nokia's view is that overlapping text should be avoided.

If we have generically armed EDP for PDP context disconnection, it is not allowed to send Apply charging.

On page 5, in 5<sup>th</sup> bullet, do we have to have pre-arranged end rules? It should be ensured in wording that this remains high level.

**Decision:** Generic arming of detection point PDP\_Disconnecton is not possible - not allowed.

**Conclusion:** revised to N2-020570

**N2-020570:** TS 23.078, R99, Ericsson, Type: CR, CR#409 Title: Corrections to GPRS DP arming rules for scenario #1

**Discussion:** Chairman's proposal is to postpone the document to next meeting to allow more time for the review.

**Conclusion:** postponed to next meeting

**N2-020465:** TS 29.078, Rel-5, Ericsson, Type: CR, Title: Corrections to GPRS DP arming rules for scenario #1

**Discussion:** Is this independent CR, or the change to stage 2 is also needed? According to Ericsson, CR could be approved independently. According to Alcatel, it is not clear what information is conveyed here?

Vodafone is of opinion that this CR is not essential to be applied to R99. R99 and Rel-5 should be identical..

**Conclusion:** rejected

**N2-020533:** TS 23.078, R99, Vodafone, Type: CR, CR#403, Title: Correction to handling when Delta is greater than received maximum threshold

**Discussion:** If the delta counter is determined to be equal to or higher than the received maximum volume threshold then the procedure Handle\_AC\_GPRS will send an ACR-GPRS immediately containing the value of the delta counter and initialise and restart the delta counter. If the delta counter is determined to be less than the received maximum volume threshold then the procedure Handle\_AC\_GPRS will behave as currently defined (i.e. start Vc).

The SCP should give the new threshold in a very short time and it's a service design problem if delta time exceeds the threshold.

Instead of task box "Initialise Dc (PDP Id)" we should just restart the timer. Wording proposed by Siemens is: "Start delta measurement Dc(PDP ID)".

If the threshold is reached either for duration or volume, both reports are sent always. Vodafone will revise the CR in order to send both reports as SCP will expect to receive both reports..

**Conclusion:** revised to N2-020582

**N2-020582:** TS 23.078, R99, Vodafone, Type: CR, CR#403r1, Title: Correction to handling when Delta is greater than received maximum threshold

**Discussion:** This CR does not propose to send both ACR-GPRS reports. Vodafone's proposal is to send one report. This proposal is supported by Siemens, Ericsson, Alcatel, Orange France, Portugal Telecom support sending of both reports. Vodafone is ready to agree the principle of sending of both ACR-GPRS operations when the delta is greater than the threshold. Both reports are sent from Handle ACR GPRS procedure.

The value of the delta timer can be imported to another variable and then used later. Vodafone should revise the CR taking into account that initialising of delta timer does not cause another side effect.

**Conclusion:** revised to N2-020603

**N2-020603:** TS 23.078, R99, Vodafone, Type: CR, CR#403r2, Title: Correction to handling when Delta is greater than received maximum threshold

**Discussion:** CS "health warning" is removed. In third section SDLs has been changed. Procedure HandleACR GPRS is called directly.

In the SDL only one ACR is sent. The possible one ACR for the time is not sent. We need to clarify that delta is reported. This should be indicated in gprsSSF according to Alcatel. Overflow of this counter will trigger.

Siemens finds that “Vc(PDPid) is pending” has no meaning. Vc is counter.

**Conclusion: revised to next meeting**

**N2-020506:** TS 23.078, R99, Vodafone, Type: CR, CR#400r1, Title: Correction to handling when Delta is greater than received maximum threshold in an AC-GPRS

**Discussion:**

**Conclusion: withdrawn**

**N2-020534:** TS 23.078, Rel-4, Vodafone, Type: CR, CR#404, Title: Correction to handling when Delta is greater than received maximum threshold

**Discussion:**

**Conclusion: postponed**

**N2-020507:** TS 23.078, Rel-4, Vodafone, Type: CR, CR#401r1, Title: Correction to handling when Delta is greater than received maximum threshold in an AC-GPRS

**Discussion:**

**Conclusion: withdrawn**

**N2-020520:** TS 29.078, R99, Alcatel, Type: CR, CR#247r1, Title: Alignement 29.078 with 23.078 for CancelGPRS

**Discussion:** In consequences if not approved, it is not clear whether or not, in scenario#1, at reception of Cancel GPRS without PDP id, we cancel ACR and EDPs that were armed with PDP id.

The reason for change, does not correspond to change in this CR. It is not clear for which instance we disarm the report (for session or individual PDP contexts).

Consequences if not approved say that there is misalignment between stage 2 and stage 3. The change for post condition no. 2 is useful correction.

Vodafone asked for clarification why this is an essential correction. As this is useful correction, but not essential for R99 at this stage, the document will be revised for Rel-5.

**Conclusion: revised to next meeting for Rel-5**

**N2-020521:** TS 29.078, Rel-4, Alcatel, Type: CR, CR#248r1, Title: Alignement 29.078 with 23.078 for CancelGPRS

**Discussion:**

**Conclusion: withdrawn**

**N2-020522:** TS 23.078, R99, Alcatel, Type: CR, CR#402, Title: 23.078 SDL correction of CancelGPRS

**Discussion:** This CR considered 3 cases:

1. scenario1 in case no PDPid is included : all pending reports are cancelled - this includes the reports for the session, including the reports generically armed and the reports per PDP context
2. scenario1 in case a PDPid is included : all pending reports for the given PDP context are cancelled
3. scenario2 : all pending reports for the given PDP context are cancelled

Do we need the check box to check whether PDP id is present? No.

Should we replace “/” by “or”? No, because of consistency. According to drafting rules, “/” should not be used. T-Mobil proposal is to have a note to the SDL and to refer to information flow chapter.

This CR will be part of the Ericsson CR in N2-020569.

**Conclusion: will be incorporated in N2-020569**

**N2-020562:** TS 29.078, R99, Ericsson, Type: CR, CR#252, Title: Correction of GPRS MS Class

**Discussion:** This CR is a result of request in LS in N2-020493. To accomplish equal definitions of GPRSMSCClass in R99, Rel-4 and Rel-5, MsRadioAccessCapability shall be marked OPTIONAL in TS 29.078 R99 and Rel-4.

There is no impact on the stage 2 specification. Subcategory of this CR is essential correction.

**Conclusion:** *approved*

**N2-020586:** TS 29.078, Rel-4, Ericsson, Type: CR, CR#253, Title: Correction of GPRS MS Class

**Discussion:**

**Conclusion:** *approved without presentation*

## 7.4 CAMEL3/MO SMS

## 7.5 CAMEL3/Call Related

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# 8 CAMEL for Release 4

## 8.1 General and miscellaneous Rel-4 issues

## 8.2 CAP over IP

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# 9 CAMEL4, Release 5

## 9.1 CAMEL 4 / Stage 1

## 9.2 Miscellaneous CAMEL 4 issues

**N2-020545:** Draft TS 23.078, Rel-5, Source: Siemens/Rapporteur, Type: TS/INFO, Title: Draft 23.078 Rel-5

**Discussion:**

**Conclusion:** *approved as a basis for further work*

**N2-020525:** TS 29.078, Rel-5, Source: Rapporteur, Type: TS/INFO, Title: Draft 29.078 V5.7.3

**Discussion :**

**Conclusion:** *revised to N2-020583*

**N2-020583:** TS 29.078, Rel-5, Source: Rapporteur, Type: TS/INFO, Title: Draft 29.078 V5.7.4

**Discussion :** There are no technical changes between v5.7.3 and v5.7.4, only editor's notes are added to be presented to CN2. Rapporteur's notes should be removed before sending the document to plenary meeting.

"Section" should be replaced by "subclause".

**Conclusion:** *approved as a basis for further work*

**N2-020513**: CN2 Chairman, Type: Discussion document, Title: CAMEL4 open issue list

*Discussion :*

**Conclusion:** *noted, updated version will be provided for the next meeting*

**N2-020519**: TS 23.008, Rel-5, Source: Alcatel, Type: CR, Title: 23.008 CR for CAMEL phase4

**Discussion:** N2-020407 that was approved in Helsinki is changing the same table as this document. In this document Alcatel should remove the change on the same table.

Vodafone: Why Service Key is changed to one word? Service Key is one word in the table, so Alcatel intention was to use the same wording. CN4 discussed in the last meeting that serviceKey should be one word, therefore Alcatel will leave this as proposed.

Reason for change should be improved.

**Conclusion:** *revised to N2-020566*

**N2-020566**: TS 23.008, Rel-5, Source: Alcatel, Type: CR, Title: 23.008 CR for CAMEL phase4, rev1

**Discussion:** *The document is sent to CN4 to be handled during the CN2/CN4 joint meeting (N4-020701).*

**Conclusion:** *approved in CN2/CN4 Joint meeting, CN4 approved*

**N2-020469**: TS 23.078, Rel-5, Ericsson, Type: CR, Title: Clean-up and correction of Location Information tables

**Discussion :** In many Location information tables, conditions for the presence are missing. For the HLR, the condition is : "shall be transported to SCP if received by VLR". The intention of the originator is to be more precise about the condition for presence in TS 23.078, but Vodafone indicated that they would object having this in TS 23.078.

**Conclusion:** *withdrawn*

**N2-020547**: TS 23.078, Rel-5, Source: Siemens, Type: CR, Title: Location information for MF call

**Discussion:** This CR proposes to include the location information IE also in the MF call. It would be reasonable to note as the same as in the VT case.

Do we like to report the location for forwarded calls? Nokia does not like this. This is a functional modification. IDP MF column is also for O-CSI.

Portugal Telecom, T-Mobil, Vodafone supports this proposal. Alcatel , Ericsson and Ericsson don't support it. Nokia finds that this would require additional implementation work and would like to have more information about the requirement for this. Vodafone does not see as well the service requirement. Lucent hesitate to express the opinion as they don't see all the implications at the moment, therefore for the time being can not agree this CR.

Siemens is asked to provide more information about the purpose of this CR, i.e. about the service requirement. Details about the GMSC case are needed. VLR number should not be mandatory according to Vodafone .

**Conclusion:** *revised for the next meeting*

**N2-020471**: TS 23.078, Rel-5, Ericsson, Type: CR, Title: Refinement to the usage of "cause" for service triggering

**Discussion :** This CR describes the method of triggering criteria check for triggering at a call set up failure DP.

For the purpose of trigger criteria check, the MSC performing the triggering check shall use the "cause value" field of the ISUP "cause indicators" parameter, as defined in ITU-T Recommendation Q.763. Alcatel's concern is that it is sometimes MSC and sometimes GSMC. "cause value" refers to ISUP parameter. "cause code" is used in R99 (for triggering criteria for O-CSI – release cause). Intention is to describe the case when ISUP cause is used.

**Conclusion:** *revised to N2-020587*

**N2-020587**: TS 23.078, Rel-5, Ericsson, Type: CR, Title: Refinement to the usage of "cause" for service triggering

**Discussion :** The whole paragraph about the trigger criteria that includes the change, should be replaced by 2 sentences describing the cases: - if the cause code is received from ISUP and

- if the cause code is received from MAP.

**Conclusion:** revised to N2-020621

**N2-020621:** TS 23.078, Rel-5, Ericsson, Type: CR, Title: Refinement to the usage of "cause" for service triggering

**Discussion :**

**Conclusion:** approved without presentation

**N2-020472:** TS 29.078, Rel-5, Ericsson, Type: CR, Title: Clean-up of section 10

**Discussion :** A number of editor's notes are added. "Assisting SSP" should be replaced by "Assisting gsmSSF".

**Conclusion:** revised to N2-020588

**N2-020588:** TS 29.078, Rel-5, Ericsson, Type: CR, Title: Clean-up of section 10

**Discussion :**

**Conclusion:** approved without presentation

**N2-020473:** TS 29.078, Rel-5, Ericsson, Type: CR, Title: Correction to CAP V4 AC version

**Discussion :**

**Conclusion:** withdrawn

**N2-020474:** TS 29.078, Rel-5, Ericsson, Type: CR, Title: Clarification on the marking of OPTIONAL and MANDATORY for parameters in CAP

**Discussion :** There is ongoing confusion about the CAMEL parameters which are OPTIONAL in CAP, but MANDATORY or CONDITIONAL in TS 23.078. Designers who are not too involved in the structure of TS 23.078 and TS 29.078 often assume that parameters which are marked as OPTIONAL in CAP may be freely omitted from a CAP Operation, by virtue of their syntactical optionality. However, it is 3GPP TS 23.078 which dictates which parameters shall be present under which circumstances. The present CR proposes informative, clarifying text in the Procedure descriptions to remove the above referred ambiguity.

In all 3 clauses, the word "CAP" will be removed.

**Conclusion:** revised to N2-020589

**N2-020589:** TS 29.078, Rel-5, Ericsson, Type: CR, Title: Clarification on the marking of OPTIONAL and MANDATORY for parameters in CAP

**Discussion :**

**Conclusion:** approved without presentation

**N2-020502:** TS 23.078, Rel-5, Vodafone, Type: CR, Title: Removal of references to GSM

**Discussion :** Ericsson's comment is that the term "standardised services" is not clear enough that refers to standardized service for the core network. Ericsson will find a better wording off line together with Vodafone and they may submit the separate CR clarifying this.

**Decisions:** Forwarding Destination Number description is impacted due to GSMForwardingPending name change.

- "CS subscriber" will be replaced by "subscriber"
- "CS functionality" will be replaced by "functionality"
- page 10 and 11: In call forwarded parameter description, we will keep the word "appropriate"
- "Call deflection" will be added to the list for the Forwarding criterion check in subclause 4.2.4.2.1

**Conclusion:** revised to N2-020609

**N2-020609:** TS 23.078, Rel-5, Vodafone, Type: CR, Title: Removal of references to GSM

**Discussion :**

**Conclusion:** approved without presentation

**N2-020503**: TS 29.078, Rel-5, Vodafone, Type: CR, Title: Removal of references to GSM

*Discussion :*

**Conclusion: approved**

**N2-020504**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: IMEI (with software version) replaces IMEISV

*Discussion :* This CR replaces IMEISV with IMEI (with software version) on the only place in stage 2 where it was different than stage 3.

**Conclusion: approved**

**N2-020505**: TS 29.078, Rel-5, Vodafone, Type: CR, Title: Protocol definition for control of MO-SMS in CAMEL phase 4

*Discussion:* This document was presented during the CN2/CN4 Joint meeting N4-020723. There are several places (identified by CR editor's comments) where numeric identifiers allocated for CAP v3 need to be updated for CAP v4. Vodafone asked for the quidance in order to develop the CR to its final form.

An editorial change (CAP0E is replaced by CAPOE) has also been applied. Alcatel contribution proposes to import the object identifier from other specification. Vodafone aims to have this document without refering to previous release of the specification.

In order to understand in which way to go, we need to know what for we need these object identifier. What is significanse of having same or different numbers. Application context will be sent.

Should we define Rel-5 as standalone document or follow the principle that we have definitions only once and if we need those definitions, to refer to them even in earlier releases. If we import something from R99 specification, this specification should be in normative reference (TS 29.078 R99). For IMEISV we should use Rel-5 datatypes.

**Decision:** The definition of the Release 5 should be selfcontained without the normative reference to a previous release. Solution to this will be based on Vodafone's proposal, and Alcatel counter proposal is withdrawn. We have to allocate two new values for object identifiers so that we have defined both CAP version 3 and CAP version 4.

**Conclusion: revised to N2-020601, updated version will be handled in CN2 meeting**

**N2-020601**: TS 29.078, Rel-5, Vodafone, Type: CR, Title: Protocol definition for control of MO-SMS in CAMEL phase 4

*Discussion :* Page 3: we should introduce a new object identifier for CAPv3. Gprs shall not be changed to CAPv4.

**Conclusion: revised to N2-020622**

**N2-020622**: TS 29.078, Rel-5, Vodafone, Type: CR, Title: Protocol definition for control of MO-SMS in CAMEL phase 4

**Discussion : Conclusion: Will be sent for e-mail approval. The document will be available on Monday, 20<sup>th</sup> of May. The deadline for comment is be Thursday, 23<sup>rd</sup> of May, 23:59 CET.**

**Since no objections received by deadline, N2-020622 is APPROVED.**

**N2-020508**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Requesting the MS classmark

*Discussion :* This CR replace the two elements "MS Classmark information for the CS domain" and "GPRS MS classmark information" with the single element "MS classmark information", based on approved change to 29.002.

The wording should be changed to explain the MS classmark of the requested domain. In description section it is stated "MS classmark information for the CS domain and GPRS MS classmark information" and will be changed to "MS classmark information for the requested domain". "IMEI & software" is aligned through the document.

**Conclusion: revised to N2-020610**

**N2-020610**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Requesting the MS classmark

*Discussion :*

**Conclusion: approved without presentation**

**N2-020509**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Change of "CAP" to "Int" in gsmSSF processes

**Discussion :** CAP\_Apply\_Charging\_Report shall be replaced by Int\_apply\_Charging\_Report (page 26).

**Conclusion: revised to N2-020611**

**N2-020611:** TS 23.078, Rel-5, Vodafone, Type: CR, Title: Change of "CAP" to "Int" in gsmSSF processes

**Discussion :**

**Conclusion: approved without presentation**

**N2-020526:** TS 23.078, Rel-5, Source: Ericsson, Type: CR, Title: Handling of e-parameters for VT calls

**Discussion :**

**Conclusion: approved**

**N2-020530:** TS 29.078, Rel-5, Source: Ericsson, Type: CR, Title: Inclusion of "CS Id" in Connect To Resource

**Discussion:** What is the meaning through connection between the call segment and gsmSRF? It should be : "through connection between call parties in the call segment and gsmSRF".

Original meaning of this through connection to connect the calling party to the gsmSRF, therefore Nokia would like to cancel this change, but Ericsson would like to indicate that may not always be the calling party.

**Decisions:** The change will be cancelled in order to specify that calling party is connected to the gsmSRF. Additional clarification will be added. The call segment to which the ConnectToResource applies does not have to contain a leg to the calling party.

Decision is to go with separate parameter for CS id and we use tag value 50.

**Conclusion: revised to N2-010612**

**N2-020612:** TS 29.078, Rel-5, Source: Ericsson, Type: CR, Title: Inclusion of "CS Id" in Connect To Resource

**Discussion:**

**Conclusion: approved without presentation**

**N2-020535:** TS 23.078, Rel-5, Source: Vodafone, Type: CR, Title: Use of \* and - in SDLs

**Discussion:** The CR corrects the usage of the "\*" and "-" in appropriate way in the SDL.

**Conclusion: approved**

**N2-020546:** TS 23.078, Rel-5, Source: Siemens, Type: CR, Title: Clarification of each call case in information flows

**Discussion:**

**Conclusion: revised to N2-020608 before the presentation**

**N2-020608:** TS 23.078, Rel-5, Source: Siemens, Type: CR, Title: Clarification of each call case in information flows

**Discussion:** Bulleted list is proposed to indicate a call case to which CSI is applied.

**Conclusion: revised to next meeting**

**N2-020548:** TS 23.078, Rel-5, Source: Siemens, Type: CR, Title: Additional signal (Release) from the destination exchange

**Discussion:** In some SDLs, it is possible that ISUP Release is received from the destination exchange during processing the release by a subscriber in the CS\_gsmSSF. This CR adds Release received, send Int\_O\_Disconnect to the CS\_gsmSSF.

Signals coming from the right (in SDL) are from gsmSSF. This should be specified in right upper corner. Instead of Int\_O\_Disconnect in O\_Abandon, we could save the input. Alcatel's comment that saving does not solve anything.

We have the input for the Release and then we check the reason code and depending of the reason code, we report the correct DP. It should be checked if CAMEL3 supports reporting of the detection point during the Abandon.

Decision is not to make any change.

**Conclusion: rejected**

**N2-020527**: TS 29.078, Rel-5, Source: Ericsson, Type: CR, Title: Inclusion of abbreviations of CAP operations and ISUP Messages

**Discussion** : Late document.

**Conclusion: postponed to next meeting**

**N2-020528**: TS 23.078, Rel-5, Source: Ericsson, Type: CR, Title: Clarification of Logical Record

**Discussion**: Late document.

**Conclusion: postponed to next meeting**

**N2-020529**: TS 29.078, Rel-5, Source: Ericsson, Type: CR, Title: Correction to ERB pre-conditions

**Discussion**: Late document

**Conclusion: postponed to next meeting**

**N2-020571**: TS 23.078, Rel-5, Source: Nokia, Type: CR, Title: CAMEL4 CSIs in ATSI operation

**Discussion**: This document must replace document N2-020450 which was approved in Helsinki.

**Conclusion: approved**

**N2-020585**: TS 29.078, Rel-5, Source: France Telecom, Type: CR, Title: ASN.1 updates in the 29.078 specification

**Discussion**: Originator's proposal is to use dated references to ASN.1 specification. Ericsson comment is that if we use undated references, automatically the latest published specification is used.

If for some reason ITU-T decide to produce ASN.1 specification which is not backward compatible with the existing version, then new specification number will be used. Therefore, it is safe to use undated reference.

Alcatel is in favour of dated reference. Nokia, Siemens and Ericsson are in favour of undated reference.

In the future, if we decide to freeze the version of specification from which we are importing, undated reference should be changed to dated reference by an CR.

Decisions:

- Undated references will be used.
- In reference 52, dated reference will be changed to undated.
- Ericsson would like to see cover sheet improved .
- "ccitt" is changed to "itu-t" (synonymous)
- Reference x.881 is not needed in the reference list since it is not referenced in the body of the specification. If the reference is needed we can add it later.

**Conclusion: revised to N2-020600**

**N2-020600**: TS 29.078, Rel-5, Source: France Telecom, Type: CRrev1, Title: ASN.1 updates in the 29.078 specification

**Discussion**:

**Conclusion: approved without presentation**

## 9.3 CAMEL4 / Interactions with Optimal Routing

## 9.4 CAMEL4 / Call Party Handling

**N2-020495**: Vodafone, Type: discussion document, Title:CPH: Open Issues & Decisions

**Discussion**:



**Conclusion: revised to N2-020590**

**N2-020590**: Vodafone, Type: discussion document, Title:CPH: Open Issues & Decisions

**Discussion:**

**Conclusion: noted**

**N2-020479**: TS 29.078, Rel-5, Alcatel, Type: CR, Title: Use of Disconnect Leg procedure

**Discussion :** Where, in SDL, is specified when Disconnect Leg is allowed and when it is not allowed? If handling of Disconnect leg is specified then, Disconnect leg is allowed. If it is not specified, it is not allowed. According to Vodafone, in stage 3 should be just general description. We should not specify this again in stage 3 to avoid possibility to have difference between text and SDLs.

Alcatel will discard changes when it is possible and leave just general description.

**Conclusion: revised to N2-020591**

**N2-020591**: TS 29.078, Rel-5, Alcatel, Type: CR, Title: Use of Disconnect Leg procedure

**Discussion:**

**Conclusion: approved without presentation**

**N2-020496**: TS 29.078, Rel-5, Vodafone, Type: CR, Title: Use of Split Leg to create CSID1

**Discussion:** Initial call segment is the same as Call Segment ID1. In order to specify this, precondition 2 will be changed. Proposed wording is: "The initial call segment is either the source call segment or the target call segment." It may be clarified what is the target call segment.

MoveLeg does not create a new Call Segment, therefore can not be used for this purpose.

In post condition 1 there is a term "new associated Call Segment". The same term should be used consistently. New precondition 4 will be cancelled.

**Conclusion: revised to N2-020592**

**N2-020592**: TS 29.078, Rel-5, Vodafone, Type: CR, Title: Use of Split Leg to create CSID1

**Discussion:**

**Conclusion: approved without presentation**

**N2-020577**: TS 23.078, Rel-5, Nokia, Type: CR, Title: ORLCF handling for calls with ICA( MSRN )

**Discussion :** Summary of change:RCH and RCH-nack are added to SCP-HLR information flows in this CR.

RCH and RCH nack are MAP operations between VMSC to gsmSCF.

In 23.078 : If the GMSC does not support optimal routing, the HLR send "OR not supported in GMSC" to VLR. The parameter is "OR Capability" in SRI. In 4.6.14.1 in 23.078 in SRI, in the table, OR Capability is not included. CR is not needed.

**Conclusion: withdrawn**

**N2-020480**: TS 23.078, Rel-5, Alcatel, Type: CR, Title: Playing of Warning Tones

**Discussion:** Party to play warning tone replaces Party to charge. What happens if the party to play the warning tone is in a different call segment than the one the LegID identifies? We could send signal via CSA.

Party to play warning tone is mandatory parameter, but it is not mandatory to play the warning tone if there is no party to play warning tone.

When "leg id" was introduced, Vodafone proposed to use "Party to charge". Ericsson supports Vodafone's view that we should keep "Party to charge". If we are introducing new functionality, we should introduce new parameter "party to play the warning tone" and keep the "party to charge" transparent.

If companies do not like to reuse the existing parameter, Alcatel is prepared to introduce new parameter "Party to play the warning tone". Alcatel will withdraw all the changes to existing parameter "Party to charge", the LegID will be kept as it is, and new LegID to indicate the party to whom the warning tone is played will be introduced.

Vodafone is not convinced that this is introducing a benefit for an operator. Currently AC can be sent to each call Leg of the call segment and the LegID indicates to whom. AC is used for apply charging, but if we want to play warning tone we are not using AC message. Third leg is proposed to play warning tone to the concerned party indicated by LegID.

From the service requirement point of view, if we have 2 outgoing legs and two ACs, to which party we want to play the warning tone. According to Alcatel, SCP can decide to which party the warning tone can be played.

**Conclusion: postponed to next meeting**

**N2-020481**: TS 29.078, Rel-5, Alcatel, Type: CR, Title: Playing of Warning Tones

**Discussion:**

**Conclusion: postponed to next meeting**

**N2-020483**: TS 29.078, Rel-5, Alcatel, Type: CR, Title: Clarification of "primary" and "secondary" dialogues

**Discussion:** This CR proposes to clarify the meaning of the "primary" and "secondary" role of dialogues.

Ericsson: it is not good to change the dialogue dynamically, and according Nokia this case is unlikely to happen. Nokia: The secondary dialogue can be opened at the DP3 only, and while the call processing is suspended at DP3 of secondary dialogue, the primary dialogue is not likely to be closed.

Nokia proposes to delete the last sentence of the note 2: "If the primary dialogue is closed then the secondary dialogue if existing becomes the primary one." Alcatel needs time to check before accepting this proposal.

**Conclusion : revised to N2-020616**

**N2-020616**: TS 29.078, Rel-5, Alcatel, Type: CR, Title: Clarification of "primary" and "secondary" dialogues

**Discussion:** VT TDPs should be listed in Note 1.

**Conclusion :revised to N2-020623**

**N2-020623**: TS 29.078, Rel-5, Alcatel, Type: CR, Title: Clarification of "primary" and "secondary" dialogues

**Discussion:**

**Conclusion : approved without presentation**

**N2-020497**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Initiate Call Attempt cannot create Leg ID 1

**Discussion:** Nokia: On page 4 of the CR, there is no reason to check if LegID=1. Vodafone will cancel this change in the SDL.

According to Alcatel, it is necessary to do the change in 29.078 as well, otherwise we have a conflict (section 4.1.5.2 in TS 29.078).

**Conclusion: revised to N2-020615**

**N2-020615**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Initiate Call Attempt cannot create Leg ID 1

**Discussion:**

**Conclusion: approved without presentation**

**N2-020498**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Use of Release Call and Release Call Segment in gsmSSF processes

**Discussion:**

**Conclusion: postponed to next meeting**

**N2-020499**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Corrections to Reconnect procedures

**Discussion:** Two changes:

- CAMEL\_OCH\_RECONNECT\_MSC does not handle results of CAMEL\_EXPORT\_LEG\_MSC.
- In CAMEL\_OCH\_RECONNECT\_MSC Procedure, task box that modify call parameters should be removed. This applies to all procedures.

**Conclusion : revised to N2-020617**

**N2-020617**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Corrections to Reconnect procedures

**Discussion:**

**Conclusion : approved without presentation**

**N2-020501**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Removal of DP\_MidCall state from CAMEL\_EXPORT\_LEG\_MSC

**Discussion:**

**Conclusion: postponed to next meeting**

**N2-020510**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: FtN in Perform Call Forwarding ack

**Discussion:**

**Conclusion: postponed to next meeting**

**N2-020511**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Move Leg not allowed before Active phase of "normal" A-B call

**Discussion :** Alcatel does not like exchange of the messages between the processes just to inform one process about the other. Vodafone will try to do something CSA centric. Vodafone will submit the proposal for the next meeting.

**Conclusion: revised to next meeting**

**N2-020536**: TS 29.078, Rel-5, Vodafone, Type: CR, Title: Removal of "Note that" in descriptions of CPH operations

**Discussion:**

**Conclusion: postponed to next meeting**

**N2-020537**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Introduction of CPH definitions

**Discussion:**

**Conclusion: postponed to next meeting**

**N2-020538**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Change Of Position DP and CPH

**Discussion:** Siemens supports this kind of proposal.

**Conclusion: approved**

**N2-020540**: TS 23.078, Rel-5, Nokia, Type: CR, Title: CPH clarification on overall SDL architecture

**Discussion :** This CR intents to help understanding of various SDLs in 23.078 and 23.018.

Vodafone: Are there always two legs per BCSM? According to Nokia, there must not be real calling leg, but sort of surrogate leg.

Vodafone: if there is ICA call, there is only one leg. If the call is initiated by the subscriber there are one or two legs. If this is introduced, it should be introduced on lot of places. We tried to avoid this so far. The rule no 4 should be reformulated that in a normal call there are one or two legs and in ICA call there is only one leg.

Split leg creates new state model. Alcatel: If the leg is splitted, then we have two BCSM's. When the leg is moved back again then we have one BCSM again (the newly created BCSM is deleted again). Alcatel could not agree to have 2 BCSM after split leg and havig moved the leg back again.

Vodafone and Siemens supports in general to have this kind of clarification that is supported in this CR.

Alcatel supports in general this clarification, but does not support the clarification in points 3,4 and 5. Alcatel finds that including the BCSM does not bring the clarification since the understanding of BCSM must be unique. It would be better to discuss SDL procedures, not BCSMs.

**Conclusion: revised to next meeting**

**N2-020541**: TS 23.078, Rel-5, Nokia, Type: CR, Title: Only one AC/ACR per BCSM

**Discussion:**

**Conclusion: revised to next meeting**

**N2-020549**: TS 23.078, Rel-5, Siemens, Type: CR, Title: Application\_Begin sent to CS\_gsmSSF by CSA\_gsmSSF

**Discussion:** Since ICA comes in TC-BEGIN why we need a timer? The timer is not needed and will be deleted.

**Conclusion: revised to N2-020618**

**N2-020618**: TS 23.078, Rel-5, Siemens, Type: CR, Title: Application\_Begin sent to CS\_gsmSSF by CSA\_gsmSSF

**Discussion :**

**Conclusion: approved without presentation**

**N2-020559**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Introduction of Int\_Error at MidCall DP

**Discussion:** Sheet 6(7) on page 53 should replace the one on 52. Sheet 7(7) is missing (change on page 54 should be canceled). The new sheet 6(6) was pasted over 7(7) which should remain in the document. This will be corrected by the rapporteur during the implementation.

**Conclusion: approved**

**N2-020560**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Inclusion of Continue With Argument in SDLs

**Discussion:** This CR adds Int\_Continue\_With\_Argument signal wherever Int\_Continue is received from the gsmSSF in the MSC procedures.

**Conclusion: approved**

**N2-020561**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Move Leg and Split Leg Negative Response

**Discussion:** Move Leg and Split Leg is not be allowed during user interaction. Currently no error is sent back to the gsmSCF to indicate this. This CR gives an Error signal back to the gsmSCF to indicate that it has tried to move or split a leg during user interaction.

Why we are sending CAP\_Split\_Leg Negative Response (task refused) instead CAP error? To inform that user interaction is still ongoing.

Nokia: If we start specifying how we send operation errors (e.g. task refused), it will be complicated to specify so that all the vendors have the same implementation. Nokia believes that service logic knows when the user interaction is running for the service.

If the SCP knows when user interaction is ongoing, we could agree maybe just to add additional text to adjust the text to explain for some operations. There is one case when SCP does not know when the user interaction is ongoing: when we have a temporary connection and the assisting SSP releases the leg.

Do we want to establish a check in the SDL?

Alcatel is proposing to specify sending of CAP\_Error and in brackets a proper error. We don't introduce the information flow. The name of the state in which call segment waits for the response should be improved.

**Conclusion: revised to N2-020624**

**N2-020624**: TS 23.078, Rel-5, Vodafone, Type: CR, Title: Move Leg and Split Leg Negative Response

**Discussion:**

**Conclusion:** will be sent for e-mail approval on Monday, 20<sup>th</sup> of May. The deadline for rejection is 23<sup>rd</sup> of May, 23:59, CET. Since no objections received by deadline, N2-020624 is APPROVED.

**N2-020598:** TS 23.078, Rel-5, Vodafone, Type: CR, Title: Change “Initial Call Segment” to CSID1

**Discussion:**

**Conclusion:** postponed to next meeting

**N2-020599:** TS 29.078, Rel-5, Vodafone, Type: CR, Title: Change “Initial Call Segment” to CSID1

**Discussion:**

**Conclusion:** postponed to next meeting

**N2-020554:** TS 29.078, Rel-5, Ericsson, Type: CR, Title: Introduction of Call Segment ID for ConnectToResource

**Discussion :**

**Conclusion:** postponed to next meeting

## 9.5 CAMEL4 / DTMF Mid-call DP

**N2-020512:** TS 23.078, Rel-5, Vodafone, Type: CR, Title: Contents of CWA at MidCall DP

**Discussion:** Vodafone will bring the revised contribution to next meeting. Task boxes that modify SII2 should be removed. Continue With Argument can not change call parameters at mid call DP.

**Working assumption:** ContinueWithArgument can not change call parameters at O/T\_MidCall DP.

**Conclusion :** revised to next meeting

## 9.6 CAMEL4/IMS

**N2-020484:** TS 23.278, Rel-5 , Lucent , Type: CR, Title: Draft TS 23.278

**Discussion :** Late contribution.

**Conclusion :** withdrawn

**N2-020485:** TS 23.278, Rel-5 , Lucent&MMO2, Type: CR, Title: Si Interface Information Flows for MAP ATSI

**Discussion :** Based on CN4 decision to use MAP for Si interface, this document is a proposal for Si Interface Information Flows for MAP ATSI.

Ericsson: In stage 3 we can not see the parameter “All IM-CSI”. Only the individual CSIs could be requested. In ATI-ack, the sequence of the CSIs can be sent.

The document is postponed to CN2/CN4 Joint Meeting (N4-020654). If CN4 is happy with a stage 3 CR, then this document can be approved during the joint session.

IM-SSF should be changed to gsmSCF address.

**Decision:** Based on conclusion in Joint meeting, “All IM-CSI” should be removed from Additional Requested CAMEL Subscription Info.

**Conclusion:** revised to N2-020580

**N2-020580:** TS 23.278, Rel-5 , Lucent&MMO2, Type: CR, Title: Si Interface Information Flows for MAP ATSI

**Discussion :**

**Conclusion :** approved without presentation

**N2-020553 :** TS 23.278, Rel-5 , Siemens, Type: CR, Title: Subscriber data management in IMS

**Discussion :** T-IM-CSI shall be corrected to D-CSI (e.g. in Additional CAMEL Subscription Info description)

- T-Mobil: This CR specifies that “Any Time Modification ack is specified in 3GPP TS 23.078.”, but in 23.078 refers to HLR not to HSS.
- Clause 10.1 is replaced by reference to corresponding clause in TS 23.078.
- Delete everything except information flow and add the reference TS 23.078 for the HLR procedures with a note that it is applicable for HSS.
- Siemens proposes to have one bit for CSI. SCP may interrogate IMS CAMEL data. There is possibility to have interrogation for All IM-CSI, but per CSI interrogation may be better..
- Alcatel: We should ask for mutually exclusive one IM-CSI at the time or for All IM-CSIs. One at the time enquiry simplifies HLR SDLs. Orange France favours that one ATSI interrogates all of them at once.
- Lucent: IM-SSF has no knowledge of subscribed services and Lucent prefers to use “All IM-CSI” request.
- Siemens: If it’s not feasible to request CSIs one by one, we should use new parameter.

***The decision is to send the CR to CN4 with 4 comments, and 5<sup>th</sup> which is still opened (issue of asking of all CSIs at once or each individually is subject for a separate CR)***

***Conclusion :revised to N2-020572***

**N2-020572** : TS 23.278, Rel-5 , Siemens, Type: CR, Title: Subscriber data management in IMS, rev1

***Discussion*** : The document is handled in CN2/CN4 Joint meeting (N4-020720). When the 23.078 specification is referenced, it should be clarified that although in 23.078 procedures are related to HLR, they are applied to HSS as well.

***Conclusion :revised to N2-020579***

**N2-020579** : TS 23.278, Rel-5 , Siemens, Type: CR, Title: Subscriber data management in IMS, rev1

***Discussion*** :

***Conclusion :approved without presentation***

**N2-020515** : TS 29.002, Rel-5 , Lucent&MMO2, Type: CR, CN4 CR#415r1, Title: R5 CR29.002 for Support of MAP Si interface (N4-020523 & N4-020576)

***Discussion*** :

***Conclusion : revised to N2-020516***

**N2-020516**: TS 29.002, Rel-5 , Lucent&MMO2, Type: CR, CN4 CR#415r2, Title: R5 CR29.002 for support of MAP Si interface (N4-020577)

***Discussion***: - In the ASN.1, on Page 9, a comment is not needed.

- gsmSCF Address should not have “-“ in the name on page 7.
- Reason for change gives the impression tat notification is sent also if SCF is not on the list.
- In 8.11.5.3 the wrong font is used.
- It should be possible to request individual CSIs

The document is presented during the CN2/CN4 Joint meeting in N4-020577.

- Lucent prefers to add 3 IM CSIs in Specific CSI withdraw. In ATSI ack stage 2, Specific CSI Withdraw is not specified. The additional bits for specific CSI Withdraw are used in NSDC, but not in ATSI.
- It’s not clear how we go down to the layers of definition starting from ATSI Res to Specific CSI Withdraw. CSI is contained in ATSI Result.
- “For IMS, if no MSISDN is available, the HLR shall populate this parameter with zero-length (NULL).” Nokia’s comment is that the minimum length of MSISDN is 1 octet.

Is the MSISDN functionally mandatory parameter? Syntactically correct MSISDN has to be included. If MSISDN is not available, the HLR shall populate this parameter with a dummy MSISDN?

- Siemens: Do we need the new subsystem number for IM-SSF? The proposal is that IM-SSF should emulate gsmSCF by using the same subsystem number.
- It should be specified that the subsystem number allocated to gsmSCF can be used by IM-SSF.
- Siemens: Change of name gsmSCF Address to Requesting Entity Address can have impact on the stage 3. In service definition should be a comment that the Requesting Entity is populated with gsmSCF address or IM-SSF address. In CAMEL stage 2 for IMS we should have the same name. If the parameter name in stage 3 is changed, 23.078 and 23.278 should be updated as well.

According to Lucent, it is not necessary to use the same name for the parameter in the stage 2 and stage3.

- Vodafone, Siemens, T-Mobil and Nokia are in favour to keep the same parameter name in stage 2 and stage 3. Decision of the Joint meeting is to have the stage 2 and the stage 3 aligned and to keep the name "gsmSCF Address" in both stage 2 and stage 3.
- S-CSCF is asked for all IM-CSIs and not all of them are available, what is the handling in S-CSCF for partial list of CSIs?
- If the All IM-CSI is left in the proposal, SDLs should be enhanced. If the IM-CSIs are requested one by one, the reference to 23.078 can be in 23.278.
- Siemens proposal is to create new operation if Lucent would like to send all IM-CSIs in one package. Trying to reuse ATSI to request all IM-CSI in one package requires not trivial change in SDLs. If ATSI is used, then individual CSIs should be retrieved. Siemens proposal is to use the same SDLs for CAMEL4 and IMS-CAMEL4.
- Does SDL have possibility to retrieve the multiple CSIs? Existing SDL does not cover the case when asked for multiple CSIs.
- According to Alcatel, introducing of the new operation introduces more enhancements than if we modify the existing operation.
- Lucent: IM-SSF has no knowledge of subscribers subscribed services, therefore Lucent used "All IM-CSI"
- Siemens prefers to retain existing handling of ATSI and to use one ATSI request to retrieve each individual IM-CSI. Orange France prefers to use one ATSI to retrieve all IM-CSI and does not see any intervention needed to SDL. According to Orange France, "All IM-CSI" means all IM-CSI that are available and in that case SDLs are not impacted. Vodafone is of the opinion that even if we clarify the semantic, we have to change the SDL.
- Nokia: If we select the option to request IM-CSIs one by one, there is less impact on SDLs. If the SDLs are done properly, IM-SSF will know which IM-CSI to request. Nokia is slightly in favour of Siemens proposal. SDLs will be kept in 23.078 and SDLs in 23.278 are not needed.
- Alcatel: The impact on SDL is not significant.

***Conclusion of the CN2/CN4 Joint meeting :Requesting of individual IM-CSI will be the base for the further work in this meeting. "All IM-CSI" should be replaced by 3 IM-CSIs: o-IM-CSI, D-IM-CSI and VT-IMCSI.***

***The document is revised to N2-020578 (N4-020696) and the document will be further handled by CN4 only.***

**N2-020578**: TS 29.002, Rel-5 , Lucent&MMO2, Type: CR, CN4 CR#415r3, Title: R5 CR29.002 for support of MAP Si interface (N4-020577)

***Discussion:***

***Conclusion: noted***

**N2-020517** : TS 29.002, Rel-5 , Lucent&MMO2, Type: CR, Title: R5 CR29.002 for IMS-CAMEL ATM(N4-020578)

**Discussion :** The document is sent to CN2/CN4 Joint meeting (N4-020578). The reason for change in the cover page is misleading and should be corrected. The intention of the CR is to use ATM request to modify the IM-CSIs in the HSS. Title is “Extensions to ATM to CAMEL control of IMS”.

**Conclusion :** *revised to N4-020697 and will be handled in CN4 only. N4-020697 is approved without presentation by CN4.*

**N2-020486:** TS 23.278, Rel-5 , Lucent&MMO2, Type: CR, Title: IM-SSF Notification of HSS Update of CSI

**Discussion :** MSISDN may not always be available for IMS subscriber, therefore this is an optional parameter in NSDC information flow proposed by Lucent.

- The last sentence on page 3 “gsmSCF address list is common to all IM CSIs” – is misleading and will be removed.
- We should avoid the notification to IM-SSF that do not have subscriber data. We must modify 23.008 and 23.016. When subscriber registers, the flag is on, when it deregisters, the flag is off.
- gsmSCF address list is updated dynamically. First bullet in 5.1.1a is not needed.
- In section 5.1.1a, the word “basically” should be removed from the following explanation:

“The HSS/HLR procedure for sending the Notify Subscriber Data Change to the IM-SSF is basically the same procedure used for notifying the gsmSCFs in the Circuit Switched CN.”

- MSISDN should be “conditional” rather than “optional”. “Optional” means that parameter is service logic dependent and “Conditional” means that parameter is used if available.
- Alcatel’s comment is that we should indicate the changes in the CR according to numerical order of the sections.
- Joint Meeting: Description in stage 2 should be expanded to indicate that if MSISDN is not functionally available, it will be populated to stage 3 as a dummy number. MSISDN is mandatory in stage 3.
- Decision on not using “All IM-CSI” impacts also this document, therefore should be taken into account in the revised version.

**Conclusion :** *will be sent to CN2/CN4 Joint meeting (N4-020655). Revised to N2-020581 in the joint meeting.*

**N2-020581:** TS 23.278, Rel-5 , Lucent&MMO2, Type: CR, Title: IM-SSF Notification of HSS Update of CSI

**Discussion :**

**Conclusion :** *approved without presentation*

**N2-020487 :** TS 23.278, Rel-5 , Lucent&MMO2, Type: CR, Title: Correction of SDLs for CAMEL\_IMCN\_Register/Deregister

**Discussion :** This document was submitted in the last meeting. SDL source files should be added to this zip file. Sent to CN2/CN4 Joint meeting (N4-020656). CN2 did not have any comments.

**Conclusion:** *approved by CN2*

**N2-020488 :** TS 23.278, Rel-5 , Lucent, Type: CR, Title: Various (misc) corrections/modifications to TS 23.278

**Discussion :**

**Conclusion :** *postponed to next meeting*

**N2-020489 :** TS 29.278, Rel-5 , Lucent, Type: CR, Title: CAP Stage 3 Specification for CAMEL/IMS

**Discussion :** Lucent proposes to use CAPv3 based on R99 TS 29.078 and to use ASN.1 definition and description with intention to import data from CAPv3. Vodafone and Nokia support use of CAP v 3 as a base for CAMEL-IMS interworking, stage 3, as CAMEL 3 SDLs are used.

Lucent proposes to use CAPv3, but new application context names. Ericsson supports the idea to use different application context names as there are certain operations that are not applicable.

Lucent proposes to import data types from R99, TS 29.078.



Decisions:

- CAPv3 will be used as a base for the new stage 3 specification TS 29.278.
- A separate application context names will be used.

Open issue:

- It is proposed to import R99 data types and modules from R99 TS 29.078 and TS 29.002. Only Rel-5 MAP can carry the new information elements, but on the other hand we need R99 data types. CN2 should ask for advice from CN4.
- Lucent proposes to delete not used information elements.

**Conclusion :noted**

**Stage 2 TS 23.278 will be sent to plenary for approval, CN2 has to indicate that stage 3, TS 29.278 is not yet available, but MAP changes have been completed.**

**N2-020490** : TS 23.278, Rel-5 , Lucent, Type: CR, Title: CAP Information Flows for CAMEL/IMS

**Discussion :** Is SCI needed? It should be left out for the time being.

**Conclusion : revised to next meeting**

**N2-020491** : TS 23.278, Rel-5 , Lucent&MMO2, Type: CR, Title: CAMEL SDL procedures for MT for unregistered subscriber

**Discussion :** The document is provided to CN2/CN4 Joint meeting in N4-020657. Spelling of the INVITE should be corrected. **Noted by CN4. The document will be handled further in CN2.**

**Conclusion : postponed to next meeting**

**N2-020532** : TS 23.278, Rel-5 , Lucent, Type: CR, Title: Corrections to SDL Process gsmSSF

**Discussion :**

**Conclusion : postponed to next meeting**

## 9.7 CAMEL control over MT SMS

**N2-020466**: TS 23.078, Rel-5, Ericsson , Type: CR, Title: Introduction of Called Party Number for InitialDPSMS for MT-SMS

**Discussion :** The document was presented in Helsinki and postponed because principle as such was not accepted. Nokia is ready to accept the principle in this meeting.

The inclusion of the MSISDN between in VLR to MSC information flow corrects VLR-MSC interface.

**Conclusion: approved**

**N2-020467**: TS 29.078, Rel-5, Ericsson , Type: CR, Title: Introduction of Called Party Number for InitialDPSMS for MT-SMS

**Discussion :** Parameter "Called Party Number" is added to InitialDPSMS Arg.

CAMEL phase 3 application context is copied to CAMEL phase 4 and it uses the same argument.

In the last change (Called party number), Nokia proposed to remove the last sentence as it is already included in the stage 2.

**Conclusion: revised to N2-020593**

**N2-020593**: TS 29.078, Rel-5, Ericsson , Type: CR, Title: Introduction of Called Party Number for InitialDPSMS for MT-SMS

**Discussion:**

**Conclusion : approved without presentation**

**N2-020482**: TS 29.078, Rel-5, Alcatel, Type: CR, Title: Handling and specification of MO-SMS in CAMEL Phase 4.

**Discussion:** N4-020724

**Conclusion: withdrawn**

**N2-020523**: TS 23.078, Rel-5, Alcatel, Type: CR, Title: Correction of Cg Party Number for InitialDPSMS

**Discussion:** The proposal is to use the term "Address of the submitter of the SM". This is not always ISDN number. In case of sending the SM from internet, there must be encapsulated address of the submitter of the SM to MAP message.

**Conclusion : revised to N2-020613**

**N2-020613**: TS 23.078, Rel-5, Alcatel, Type: CR, Title: Correction of Cg Party Number for InitialDPSMS

**Discussion:**

**Conclusion : approved without presentation**

**N2-020524**: TS 29.078, Rel-5, Alcatel, Type: CR, Title: Correction of Cg Party Number & destination number for InitialDPSMS

**Discussion:** Modified wording in document N2-020593 will be taken as a base text.

**Conclusion: revised to N2-020614**

**N2-020614**: TS 29.078, Rel-5, Alcatel, Type: CR, Title: Correction of Cg Party Number & destination number for InitialDPSMS

**Discussion:**

**Conclusion: approved without presentation**

## 9.8 Inclusion of flexible tone injection

**N2-020470**: TS 23.078, Rel-5, Ericsson , Type: CR, Title: Correction to section on "Audible indicators for call duration control"

**Discussion:** Text about warning tone is not applicable and should be moved. 4.6.2.17.1 the last sentence should be removed from this section. There should be a separate section for fixed tone and variable tone.

**Conclusion: revised to N2-020595**

**N2-020595**: TS 23.078, Rel-5, Ericsson , Type: CR, Title: Correction to section on "Audible indicators for call duration control"

**Discussion :**

**Conclusion: approved without presentation**

## 9.9 Charging notification to CSE

**N2-020596**: LS OUT, Siemens, Title: Liaison Statement on the removal of charging notification from CAMEL Phase 4

**Discussion:** In this LS CN2 recommends to SA1 removal of the feature Charging Notification from CAMEL4. This LS supports the CR on removal of Charging Notification from CAMEL4 submitted by Siemens. Wording is changed on line. Reference to CS specifications should be removed, so the entire sentence will be removed.

*Conclusion: revised to 605*

**N2-020605**: LS OUT, Siemens, Title: Liaison Statement on the removal of charging notification from CAMEL Phase 4

*Discussion:*

*Conclusion: approved without presentation, will be sent to SA1 during this meeting*

**N2-020597**: 22.078, Siemens, Type: CR, Rel-5, Title: Removal of Charging Notification

*Discussion:* Proposal in this CR is to remove all the description concerning the charging notification from the stage 1. Chairman's proposal is to mention in LS that some Charging Notification functionality has been specified in CN2 specifications and if SA1 approves stage 1 CR, CN2 will remove the functionality in CN2 specifications in a future meeting.

There is no need to refer to Enhanced Dialled Services in the cover page, but this is a SA1 issue.

*Conclusion: endorsed by CN2*

**N2-020500**: CN2 Vice Chairman, Type: Discussion document, Title: Open Issues on Charging Notifications

*Discussion:* Vodafone is in favour to remove the charging Notifications from CAMEL4 if there are no active support in CN2 and if there are no contributors to resolve all open issues.

If the charging notification is removed, there is a problem if operators request the vendors to implement it. Siemens proposes to remove a part of the functionality. Nokia and Portugal Telecom do not agree to have partial specification, but if we agree to leave it in the specification, then it has to be fully specified. According to Alcatel: even if it is specified, it is difficult to justify it as there is lot of open issues.

*Decision:* CN2 recommendation to CN#16 plenary will be to remove the Charging notification to CSE from CAMEL4. Although Siemens withdrawn the CR to remove the feature from the stage 1, Siemens can resubmit it during this meeting and CN2 can send a LS to inform SA1.

*Conclusion : noted*

**N2-020542**: Nokia, Type: Disc, Title: Charging Notification principles

*Discussion:*

*Conclusion : withdrawn*

**N2-020543**: TS 23.018, Rel-5, Nokia, Type: CR, Title: Charging Notification for MO call for Basic Call Handling

*Discussion:*

*Conclusion : withdrawn*

**N2-020544**: TS 23.078, Rel-5, Nokia, Type: CR, Title: Charging Notification for MO call, CAMEL Stage 2

*Discussion:*

*Conclusion : withdrawn*

**N2-020550**: TS 23.078, Rel-5, Siemens, Type: CR, Title: Charging Notification: Happiness for All

*Discussion:*

*Conclusion : rejected*

**N2-020551**: TS 29.078, Rel-5, Siemens, Type: CR, Title: Charging Notification: Happiness for All

*Discussion:*

*Conclusion : rejected*

## 9.10 Enhancements of dialled services

## 9.11 Provision of location information of called subscriber

## 9.12 Notification of GPRS mobility management to CSE

**N2-020518**: TS 29.002, Nokia, Type: CR, Title: Addition of Location Information GPRS to Note MM Event operation

**Discussion:** The document was presented in CN2/CN4 Joint meeting in N4-020623. Some table may need an update.

**Conclusion :** *approved by CN4 during CN2/CN4 Joint meeting*

## 9.13 CAMEL4/ ODB in HLR-SCP interface

## 9.14 CAMEL4/ Location Information during ongoing call

**N2-020468**: TS 23.078, Rel-5, Ericsson, Type: CR, Title: Correction to Hand-over notification

**Discussion :** Currently, the SCP does not get hand-over notifications in the case of intra-BSS hand-over. This is due to the fact that the Process "CAMEL\_Change\_of\_Position\_MSC" is not capable of receiving the signal "Handover\_Performed". That signal is required to have the SCP informed about the intra-BSS hand-over. The present CR proposes to add this signal to the mentioned process, to "CAMEL\_O\_Change\_of\_Position\_MSC" and "CAMEL\_T\_Change\_of\_Position\_MSC".

Granularity of the report in 2G and 3G could be different. In 2G very small cell changes are reported, and in 3G very rough changes of the change is reported.

Do we ask for location reporting in 3G and do we get a report if the service area is changed? In 2G every intra BSS handover will be reported, what means every cell change will be reported.

**Assumption:** In 2G we report every cell change as proposed in this CR. The precondition is that event has been armed. On page 8, VT is to be removed

**Conclusion:** *revised to N2-020607*

**N2-020607**: TS 23.078, Rel-5, Ericsson, Type: CR, Title: Correction to Hand-over notification

**Discussion:**

**Conclusion:** *approved without presentation*

**N2-020552**: TS 23.078, Rel-5, Siemens, Type: CR, Title: Handover trigger in the idle state in CS\_gsmSSF

**Discussion :**

**Conclusion:** *approved*

## 9.15 CAMEL4/GPRS AnyTimeInterrogation

## 9.16 Functional split into subsets

**N2-020475**: TS 23.078, Rel-5, Alcatel, Type: CR, Title: Splitting of CAMEL phase 4

**Discussion:**

**Conclusion:** *revised to N2-020539*

**N2-020539**: TS 23.078, Rel-5, Alcatel, Type: CR, Title: Splitting of CAMEL phase 4

**Discussion:** Vodafone was not aware that CR for stage 1 was sent to SA1 for approval. If CPH will be seen as a separate functional subset, there is no time for Vodafone to consider this and will not be in position to approve in this meeting any CR that consider CPH as a separate functional subset.

Vodafone would like to see stage 1 CR before CN2 discusses CPH as a separate functional subset.

The meeting decided to discuss this document; the stage 1 CR will be provided by T-Mobil during the meeting.

This document does not consider CPH as a separate subset and will not be discussed related to this contribution.

Siemens has a proposal to reference TS 22.078 in the scope, instead to have a duplication of the information in stage 2 and stage 1.

In Initiate Call Attempt ack, it would be good to include supported CAMEL phases and for CAMEL4 supported functional subsets.

Supported CAMEL phases indicate one bit per CAMEL phase. If the dialogue is already opened, why Supported CAMEL phases are needed in Initiate Call Attempt ack?

Vodafone: Supported CAMEL phases and supported functional subsets are linked and it's good for the possible future CAMEL phases to keep these 2 parameters included together as a pair. It does not any harm if it's included and it's future proof.

Nokia supports Vodafone that it's easier to carry always the same bits, and would like to change this parameter name to Supported CAMEL phases. Nokia supports to use the same name for Supported CAMEL phases and supported subsets and to use description field to describe.

Alcatel finds that separate names should be used.

According to Vodafone, the concept of ICA ack and IDP should be the same. Vodafone supports to have supported CAMEL phases in ICA ack. Ericsson supports to include Supported CAMEL phases with consistent naming. Alcatel does not see this parameter needed.

#### Decision :

- In ICA ack there is a parameter Supported CAMEL phases.
- Do we include in this parameter always all CAMEL4 capabilities? In ICA ack, the MSC shall always report all supported CAMEL4 subsets (all bits are included). This view is supported by Vodafone, Ericsson and Nokia. Alcatel's view is that only call related subsets should be reported. T-Mobil does not have strong preference. Originator of the CR will resolve the naming of the parameter.
  - ICA ack always have supported CAMEL phases and supported CAMEL 4 subsets (for the NC and NP case).
  - According to Vodafone, ICA ack and IDP should contain the same. IDP operation includes supported CAMEL phases and supported CAMEL4 subsets parameter. The same principle as for ICA ack is followed.
  - Vodafone: why we need "Set UE:=ATI not allowed". This is the same UE that is used in CAMEL provide subscriber info. Proposal is to have result "fail" or "pass", instead of "Set UE:=ATI Not Allowed" and "Set UE:=no Error"

If any subset of CAMEL 4 is supported in the MSC, that means that CAMEL phase 3 is supported as well.

Why USSD and Mobility Management are mentioned in CS call handling section and only in this section? Alcatel: If the CAMEL support of MT SMS is supported (independent subset), it is not necessary to support CS call handling.

Nokia: USSD is not call related and "SS Notification" is not changed in CAMEL phase4. "SS Notification" is related to CS call handling. In that case "SS Notification" should be included in "CAMEL control over MT SMS".

According to Alcatel, USSD included in CS call handling is CAMEL phase 4 USSD. Nokia: USSD and Mobility Management has nothing to do with CS call handling. The proposal is to delete it.

T-Mobil, we concluded in previous meetings that everything that does not belong to any specific subset, it is part of general CAMEL 4 requirements. If the CAMEL4 bit is on, that means USSD is always supported independent which subsets are supported. Meeting proposal is to include the section which will cover the general requirements for CAMEL phase 4.

Vodafone: Section 1.1.1 should be renamed to “Supporting subsets of Camel phase 4”.

GsmSCF was not mandated till now to support earlier CAMEL phases than it supports it now. Therefore, the sentence where gsmSCF is mandated to support functional subsets, should be removed. GsmSCF will be removed from “A functional entity (VMSC, GMSC, SGSN or gsmSCF) may support the subsets in any combination applicable for this entity;

The name of the section 1.1.6 has to be reworded. This is left to originator of the CR.

According to Siemens, for Event Notification Charging we should not place the requirement on MSC to support it.

Clause 6 is related to GPRS interworking (CAMEL phase 3), therefore there is no need for any changes. If we need any change for CAMEL phase 4, it should be described in other section. Siemens proposal is to add text for relative sections for MT SMS and MG-CSI. Vodafone supports Siemens.

Siemens: In section 1, it is not correct to mention clause numbers. T-Mobil and Vodafone supports to have the clause numbers, as it gives more clarity. We will keep clause numbers for the time being.

Vodafone page 17, section 4.5.10., new sentence is confusing and should be removed (The handling of the HLR may depend on the supported CAMEL phases and the supported subsets received.)

There is no CSI for a specific subset, therefore T-Mobil would leave out the mentioning of functional subsets in respect to behaviour of the HLR.

**Conclusion: revised to N2-020574**

**N2-020574**: TS 23.078, Rel-5, Alcatel, Type: CR, Title: Splitting of CAMEL phase 4

**Discussion** : The document is sent to CN2/CN4 Joint meeting (N4-020722).

**Conclusion: noted by CN4, to be handled in CN2**

GsmSCF is deleted from the scope as no requirements are identified. From clause 1.1.1, clause 5 and 9 are deleted.

Conclusion: SS notification can be removed from CS call handling.

Do we move CAMEL4 supported subsets from general section to corresponding sections? In general section we could have general description of CAMEL4 supported subsets and in other corresponding chapters (e.g. in chapter 7 for MT-SMS). Siemens proposal is not to have the description in chapter 6 as CAMEL4 supported subsets are related only to CAMEL4.

When CAMEL 4 Initial DP is sent, it is indicated supported CAMEL phase4 and CAMEL4 supported subsets. According to Vodafone, if Supported CAMEL4 Subsets are set to “M” it should be mandatory throughout the document, otherwise it should be marked as “S” and indicate a condition. Siemens is of opinion that it should be mandatory.

Alcatel could accept both ways or only “S” for CAMEL4 subsets. Nokia finds that when it comes to Initial DP, it should be “M”, but it is not the same for all the operations.

**DECISIONS:**

- According to Vodafone “Supported CAMEL phases” and “Supported CAMEL4 subsets” shall have the same status value. It is agreed by the meeting that they will have the same status value for operations that already have supported CAMEL phases.
- In Initial DP and ICAack, supported CAMEL phases is new parameter. The decision of the meeting is to mark “Supported CAMEL phases” and “Supported CAMEL4 subsets” mandatory, where “Supported CAMEL phases” is a new parameter. There will be no condition specified.
- It is proposed, by Siemens and supported by Vodafone, to replace wording “defined by” by “specified in”. Alcatel does not support the new wording. As a compromise, following wording will be accepted: This subset of CAMEL phase 4 define the functionality which is specified in .....
- SS notifications is removed from CS call handling

**Revised to N2-020606.**

*N2-020606 is approved without presentation*

**N2-020573**: TS 22.078, Rel-5, T-Mobil, Type: CR, Title: Splitting of CAMEL phase 4.

*Discussion :*

*Conclusion: revised to N2-020602*

**N2-020602**: TS 22.078, Rel-5, T-Mobil, Type: CR, Title: Functional subsets of CAMEL phase 4

*Discussion :* Newly introduced functional subset is completely contained in the subset that contains CPH.

Lucent, T-Mobil, Alcatel, Orange France and Siemens are in favour of having CPH as a separate subset.

Vodafone, Ericsson and Nokia are not in favour of having a CPH as a separate subset.

Do we want CPH split in general as a separate subset?

T-Mobil: If we want CPH, we have to wait for the complete CS call handling.

Vodafone, Nokia: First we have to specify which operations are part of the CPH and to define what to do with them if CPH is supported or not. To have the subsets was the compromise by Vodafone and Nokia, since we don't go beyond the CSI level. Vodafone's CR contains the same correction, but does not propose any additional subsets. Nokia's view is that CPH should not be a separate subset in CAMEL4.

T-Mobil: any VLR/MSC/GMSC that supports full set of CAMEL phase 4 would set both bits. Subset Reduced CS call handling is included in complete CS call handling. CS call handling subset (1<sup>st</sup> bit) includes full Reduced CS call handling subset (2<sup>nd</sup> bit).

CN2 can not reach the agreement on having a CPH as an separate subset. In SA1 there will be 2 competing proposals: Vodafone's and T-Mobile's and SA1 has to make a decision.

*Conclusion: noted*

**N2-020476**: TS 29.002, Rel-5, Alcatel, Type: CR, Title: Splitting of CAMEL phase 4

*Discussion:* A note shall say that "a node supporting CAMEL4 shall mark all bits it supports".

*Conclusion: revised to N2-020575*

**N2-020575**: TS 29.002, Rel-5, Alcatel, Type: CR, Title: Splitting of CAMEL phase 4

*Discussion :* The document is sent to CN2/CN4 Joint meeting (N4-020569) and presented. Finalisation of this CR is left to CN4 and CN4 will inform CN2 of final version of this CR.

*Conclusion: endorsed by CN2, will be handled further by CN4*

**N2-020477**: TS 29.078, Rel-5, Alcatel, Type: CR, Title: Splitting of CAMEL phase 4

*Discussion :*

*Conclusion: revised to N2-020576*

**N2-020576**: TS 29.078, Rel-5, Alcatel, Type: CR, Title: Splitting of CAMEL phase 4

*Discussion :* Supported CAMEL4 subsets is related to GMSC or VMSC. This is the same as for Supported CAMEL phases. Nokia: We should indicate which switch is indicated in Supported CAMEL4 subsets. In MAP spec it is specified for node. It is proposed as well here to replace "GMSC or VMSC" by "node". A node can have multiple functionalities (e.g. GMSC).

*Assumption:* "GMSC or VMSC" will be replaced by "gsmSSF".

*Conclusion: revised to N2-020625*

**N2-020625**: TS 29.078, Rel-5, Alcatel, Type: CR, Title: Splitting of CAMEL phase 4

*Discussion:* If CPH is not a subset, and Charging Notification is removed , we remove it from IDP.

*Conclusion: approved without presentation*

**N2-020478**: TS 23.008, Rel-5, Alcatel, Type: CR, Title: Splitting of CAMEL phase 4

**Discussion** : The document was seen by CN2 and presented again in the CN2/CN4 Joint meeting (N4-020570, CR#045).

Ericsson does not see the need for the sentence: “The supported CAMEL4 Subsets lists the functional subsets deployed in the network.” Alcatel will remove the sentence.

Vodafone’s proposal is not to change numbering of subsequent subclauses, but to number the new subclause as 2.14.2.3a. This has influence on numbering of tables as well. This will be corrected in the revised version.

**Conclusion**: revised to N4-020730 during the CN2/CN4 Joint meeting. N4-020730 is approved.

**N2-020594**: TS 22.078, Rel-5, Vodafone, Type: CR, Title: Functional subsets

**Discussion** :

**Conclusion**: noted

## 10 Review of dates and hosts for future meetings

CN2 has only one meeting before the September plenary. There is an proposal by Lucent to have and CAMEL-IMS AdHoc Meeting. CN2 will fix the week for an AdHoc in October, and in July meeting final decision of having an AdHoc meeting will be done. IMS-CAMEL Adhoc could potentially be held in the week starting on the 14<sup>th</sup> of October.

Deadlines:

- Deadline for Tdoc requests for the next meeting is Wednesday, 24<sup>th</sup> of July, 12:00 CET.
- Deadline for sending of documents is Wednesday, 24<sup>th</sup> of July, 23:59, CET.
- Deadline for e-mail approval (except for N2-020626, N2-020627 an N2-020628, i.e. for draft technical specifications) is 23<sup>rd</sup> of May, 23:59. CET.

Action points:

1. First version of TS 23.078 for Release 5, with implemented CRs that are approved during this meeting, will be distributed on 23<sup>rd</sup> of May, for e-mail approval by CN2. Comments should be raised by the end of Tuesday, 28<sup>th</sup> of May. Then the revised and clean version which may include the CRs for e-mail approval (N2-020619 and N2-020624) will be handed over to MCC as N2-020626 on 29<sup>th</sup> of May. Already allocated CR number will be raised to revision 1. The document will be sent to CN#16 plenary meeting.
2. First version of TS 29.078 for Release 5, with implemented CRs that are approved during this meeting, will be distributed on 23<sup>rd</sup> of May. Comments should be raised latest by the end of Tuesday, 28<sup>th</sup> May. Revised and clean version which may include the CR for e-mail approval (N2-020622) will be handed over to MCC as N2-020627 on 29<sup>th</sup> of May. Already allocated CR number will be raised to revision 1. The document will be sent to CN#16 plenary meeting.
3. TS 23.278 will be distributed in document N2-020628 on 23<sup>rd</sup> of May. Comments should be raised by the end of Tuesday, 28<sup>th</sup> of May. The document will be sent to CN#16 plenary meeting.
4. CN2 has to indicate to CN2#16 plenary meeting that the stage 3 for CAMEL-IMS interworking is not yet available (new specification TS 29.278), but MAP changes have been completed.
5. MCC will update CAMEL2 SDL source files for the next working group meeting.

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

The meeting was closed at 15:30. Chairman thanked to delegates, host and MCC.



## Annex A Attendees list

Name	Organization represented	Status, partner	Phone	Fax	e-mail	
Mr. Christian Homann	ALCATEL S.A.	3GPPMEMBER (ETSI)	+49 711 821 45632	+49 711 821 40017	c.homann@alcatel.de	
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Mr. Sumio Miyagawa	SIEMENS AG	3GPPMEMBER (ETSI)	+43 51707 21381	+43 51707 51924	sumio.miyagawa@siemens.at	
Mr. Rogier Noldus	ERICSSON L.M.	3GPPMEMBER (ETSI)	+31 161 249 400	+31 161 249 904	rogier.noldus@eln.ericsson.se	
Mr. Keijo Palviainen	NOKIA Corporation	3GPPMEMBER (ETSI)	+358 7180 64284	+358 9 5112 9253	keijo.palviainen@nokia.com	
Mr. Mikhael Said	ORANGE FRANCE	3GPPMEMBER (ETSI)	FR +33145294497		mikhael.said@rd.francetelecom.com	
Dr. Georg Wegmann	T-MOBILE DEUTSCHLAND	3GPPMEMBER (ETSI)	DE +49 228 936 3468		georg.wegmann@t-mobile.de	
Mr. Chris Hardy	VODAFONE LTD	3GPPMEMBER (ETSI)	GB +44 1635 674707		chris.hardy@vf.vodafone.co.uk	
Ms. Ruth Hewson	VODAFONE Group Plc	3GPPMEMBER (ETSI)	GB +44 1635 673 148		ruth.hewson@vf.vodafone.co.uk	
Mr. Olivier Dubuisson	France Telecom	3GPPMEMBER (ETSI)	FR +33 2 96 05 38 50		olivier.dubuisson@francetelecom.com	
Mr. Paulo Pereira	PORTUGAL TELECOM SGPS SA	3GPPMEMBER (ETSI)	PT +351234403631		paulo-s-pereira@ptinovacao.pt	
Mrs. Eliisa Pihonen	SONERA Corporation	3GPPMEMBER (ETSI)	FI +358 2040 64318		eliisa.pihonen@sonera.com	
Mr. Vesa Tiainen	NOKIA Corporation	3GPPMEMBER (ETSI)	FI +358 71806 1897		vesa.tiainen@nokia.com	
<b>Member of 3GPP (T1)</b>						
Mrs. Angelica Remoquillo	Lucent Technologies	3GPPMEMBER (T1)	US +1 630 713 9548		atr@lucent.com	
Mr. Stephen Hayes	Ericsson Inc.	3GPPMEMBER (T1)	US +1 972 583 5773		stephen.hayes@ericsson.com	
<b>Member of 3GPP (TTC)</b>						
Mr. noriyuki iwasawa	NEC Corporation	3GPPMEMBER (TTC)	JP +81 3 3798 5194		iwasawa@ncos.nec.co.jp	YES - NO
<b>Organisation partner representative (ETSI)</b>						
Mrs. Andrijana Jurisic	Mobile Competence Centre		FR +33 4 92 94 43 09		andrijana.jurisc@etsi.fr	YES - NO

## Annex B Output Documents

### Documents for e-mail approval

TDoc #	WI	Rel	Title	Ty	Spec	CR	Re	Versio	Conclusi	Final status	Source
N2-020619	CAM EL3	R99	Correction on the usage of PDP Id for GPRS Control	CR	23.078	408	2	3.12.0	e-mail approval	approved	Ericsson
N2-020620	CAM EL3	Rel-4	Correction on the usage of PDP Id for GPRS Control	R	23.078	410		4.4.0	e-mail approval	approved	Ericsson
N2-020622	CAM EL4	Rel-5	Protocol definition for control of MO-SMS in CAMEL phase 4	CR	29.078		2	d5.7.3	e-mail approval	approved	Vodafone
N2-020624	CAM EL4	Rel-5	Move Leg and Split Leg Negative Response	CR	23.078		1	5d.14.0	e-mail approval	approved	Vodafone
N2-020626	CAM EL4	Rel-5	Draft 23.078 Rel-5/composite changes for CAMEL phase 4	CR	23.078	394	1	v5.0.0	e-mail approval	approved	Rapporteur
N2-020627	CAM EL4	Rel-5	Draft 29.078 Rel-5/ composite changes for CAMEL phase 4	CR	29.078	244	1	v5.0.0	e-mail approval	approved	Rapporteur
N2-020628	CAM EL4	Rel-5	Draft 23.278 Rel-5	TS	23.278			v.1.2.0	e-mail approval	approved	Rapporteur

### Approved Change Requests for CAMEL Phase 3

TDoc #	WI	Rel	Title	Type	Spec	CR #	Rev	Cat	Version	Conclusion	Source
N2-020562	CAMEL3	R99	Correction of GPRS MS class	CR	29.078	252		F	3.11.0	approved	Ericsson
N2-020564	CAMEL3	R99	Clarifications on ATM-req/ATM-ack	CR	23.078	397		2F	3.12.0	approved	Nokia
N2-020565	CAMEL3	Rel-4	Clarifications on ATM-req/ATM-ack	CR	23.078	407		A	4.4.0	approved	Nokia
N2-020567	CAMEL3	R99	Corrections to CTR and ETC Procedures	CR	23.078	405		1F	3.12.0	approved	Vodafone
N2-020568	CAMEL3	Rel-4	Corrections to CTR and ETC Procedures	CR	23.078	406		1A	4.4.0	approved	Vodafone
N2-020586	CAMEL3	Rel-4	Correction of GPRS MS class	CR	29.078	253		A	4.4.0	approved	Ericsson

### Approved Output Liaison Statements

TDoc #	Type	Title	Source	Conclusion	To	CC
N2-020605	LS OUT	Liaison Statement on the removal of charging notification from CAMEL Phase 4	CN2	approved	SA1	

## Approved and endorsed Change Requests for CAMEL Phase 4

TDoc #	WI	Rel	Title	Type	Spec	CR #	Rev	Version	Conclusion	Source
N2-020466	CAMEL4	Rel-5	Introduction of Called Party Number for InitialDPSMS for MT-SMS	CR	23.078			d5.14.0	approved	Ericsson
N2-020487	IMS-CAMEL	Rel-5	Correction of SDLs for CAMEL_IMCN_Register/DeRegister	CR	TS23.278			V1.1.0	approved	Lucent & MMO2
N2-020503	CAMEL4	Rel-5	Removal of references to GSM	CR	29.078			d5.7.3	approved	Vodafone
N2-020504	CAMEL4	Rel-5	IMEI (with software version) replaces IMEISV	CR	23.078			5d.14.0	approved	Vodafone
N2-020518	CAMEL4-NMM	Rel-5	Addition of Location Information GPRS to Note MM Event operation	CR	29.002			5.1.0	endorsed	Nokia
N2-020526	CAMEL4	Rel-5	Handling of e-parameters for VT calls	CR	23.078			d5.14.0	approved	Ericsson
N2-020535	CAMEL4	Rel-5	Use of * and - in SDLs	CR	23.078			5d.14.1	approved	Vodafone
N2-020538	CAMEL4	Rel-5	Change Of Position DP and CPH	CR	23.078			5d.14.1	approved	Vodafone
N2-020552	CAMEL4	Rel-5	Handover trigger in the idle state in CS_gsmSSF	CR	23.078			5d.14.1	approved	Siemens
N2-020559	CAMEL4	Rel-5	Introduction of Int_Error at MidCall DP	CR	23.078			5d.14.1	approved	Vodafone
N2-020560	CAMEL4	Rel-5	Inclusion of Continue With Argument in SDLs	CR	23.078			5d.14.0	approved	Vodafone
N2-020571	CAMEL4	Rel-5	CAMEL4 CSIs in ATSI operation	CR	23.078			5d.13.5	approved	Nokia
N2-020579	CAMEL4	Rel-5	Subscriber data management in IMS	CR	23.278			11.1.0	approved	Siemens
N2-020580	IMS-CAMEL	Rel-5	Si Interface Information Flows for MAP ATSI	CR	TS23.278			V1.1.0	approved	Lucent & MMO2
N2-020581	IMS-CAMEL	Rel-5	IM-SSF Notification of HSS Update of CSI	CR	TS23.278			V1.1.0	approved	Lucent & MMO2
N2-020588	CAMEL4	Rel-5	Clean-up of section 10	CR	29.078			d5.7.3	approved	Ericsson
N2-020589	CAMEL4	Rel-5	Clarification on the marking of OPTIONAL and MANDATORY for parameters in CAP	CR	29.078			1d5.7.3	approved	Ericsson
N2-020591	CAMEL4	Rel-5	Use of Disconnect Leg procedure.	CR	29.078			2d5.7.3	approved	Alcatel
N2-020592	CAMEL4	Rel-5	Use of Split Leg to create CSID1	CR	29.078			2d5.7.3	approved	Vodafone

N2-020593	CAMEL4	Rel-5	Introduction of Called Party Number for InitialDPSMS for MT-SMS	CR	29.078		1d5.7.3	approved	Ericsson
N2-020595	CAMEL4	Rel-5	Correction to section on "Audible indicators for call duration control"	CR	23.078		15d.14.0	approved	Ericsson
N2-020600	CAMEL4	Rel-5	ASN.1 updates in the 29.078 specification	CR	29.078		1	approved	Orange France
N2-020606	CAMEL4	Rel-5	Splitting of CAMEL phase 4	CR	23.078		55d.14.1	approved	Alcatel
N2-020607	CAMEL4	Rel-5	Correction to Hand-over notification	CR	23.078		15d.14.0	approved	Ericsson
N2-020609	CAMEL4	Rel-5	Removal of references to GSM	CR	23.078		5d.14.0	approved	Vodafone
N2-020610	CAMEL4	Rel-5	Requesting the MS classmark	CR	23.078		15d.14.1	approved	Vodafone
N2-020611	CAMEL4	Rel-5	Change of "CAP" to "Int" in gsmSSF processes	CR	23.078		15d.14.1	approved	Vodafone
N2-020612	CAMEL4	Rel-5	Inclusion of "CS Id" in Connect To Resource	CR	29.078		1d5.7.3	approved	Ericsson
N2-020613	CAMEL4	Rel-5	Correction of Cg Party Number for InitialDPSMS	CR	23.078		15D.14.0	approved	Alcatel
N2-020614	CAMEL4	Rel-5	Correction of Cg Party Number & destination number for InitialDPSMS	CR	29.078		1D5.7.2	approved	Alcatel
N2-020615	CAMEL4	Rel-5	Initiate Call Attempt cannot create Leg ID 1	CR	23.078		15d.14.0	approved	Vodafone
N2-020617	CAMEL4	Rel-5	Corrections to Reconnect procedures	CR	23.078		15d.14.1	approved	Vodafone
N2-020618	CAMEL4	Rel-5	Application_Begin sent to CS_gsmSSF by CSA_gsmSSF	CR	23.078		15d.14.1	approved	Siemens
N2-020621	CAMEL4	Rel-5	Refinement to the usage of "cause" for service triggering	CR	23.078		25d.14.0	approved	Ericsson
N2-020623	CAMEL4	Rel-5	Clarification of "primary" and "secondary" dialogues.	CR	23.078		25d.14.1	approved	Alcatel
N2-020625	CAMEL4	Rel-5	Splitting of CAMEL phase 4	CR	29.078		3d5.7.3	approved	Alcatel

## Annex C List of Documents

TDoc #	Type	Title	Source	WI	CR #	Re v	Ca t	Spec	Rel	Version	Conclusion
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N2-020457	Agenda	Agenda	CN2 chairman									approved
N2-020458	Agenda	Allocation of documents to agenda item	CN2 Chairman									noted
N2-020459	Report	CN2#23 Draft meeting report	MCC									approved
N2-020460	WP	Latest version of the work plan	MCC									noted
N2-020461	Candidature	Candidature for CN2 chairman position	Nokia									noted
N2-020462	CR	Clarification of GPRS relationships	Ericsson	CAMEL4		F	23.078	Rel-5	5d.14.0			rejected
N2-020463	CR	GPRS relationship rules for procedure descriptions	Ericsson	CAMEL4		F	29.078	Rel-5	d5.7.3			rejected
N2-020464	CR	Corrections to GPRS DP arming rules for scenario #1	Ericsson	CAMEL4		F	23.078	Rel-5	d5.14.0			revised to N2-020570
N2-020465	CR	Corrections to GPRS DP arming rules for scenario #1	Ericsson	CAMEL4		F	29.078	Rel-5	d5.7.3			rejected
N2-020466	CR	Introduction of Called Party Number for InitialDPSMS for MT-SMS	Ericsson	CAMEL4		F	23.078	Rel-5	d5.14.0			approved
N2-020467	CR	Introduction of Called Party Number for InitialDPSMS for MT-SMS	Ericsson	CAMEL4		F	29.078	Rel-5	d5.7.3			revised to N2-020593
N2-020468	CR	Correction to Hand-over notification	Ericsson	CAMEL4		F	23.078	Rel-5	5d.14.0			revised to N2-020607
N2-020469	CR	Clean-up and correction of Location Information tables	Ericsson	CAMEL4		F	23.078	Rel-5	5d.14.0			withdrawn
N2-020470	CR	Correction to section on "Audible indicators for call duration control"	Ericsson	CAMEL4		F	23.078	Rel-5	5d.14.0			revised to N2-020595
N2-020471	CR	Refinement to the usage of "cause" for service triggering	Ericsson	CAMEL4		F	23.078	Rel-5	5d.14.0			revised to N2-020587
N2-020472	CR	Clean-up of section 10	Ericsson	CAMEL4		F	29.078	Rel-5	d5.7.3			revised to N2-020588
N2-020473	CR	Correction to CAP V4 AC version	Ericsson	CAMEL4		F	29.078	Rel-5	d5.7.3			withdrawn
N2-020474	CR	Clarification on the marking of OPTIONAL and MANDATORY for parameters in CAP	Ericsson	CAMEL4		F	29.078	Rel-5	d5.7.3			revised to N2-020589
N2-020475	CR	Splitting of CAMEL phase 4	Alcatel	CAMEL4		2B	23.078	Rel-5	5d.14.1			revised to N2-020539
N2-020476	CR	Splitting of CAMEL phase 4	Alcatel	CAMEL4		B	29.002	Rel-5	5.1.0			revised to N2-020575
N2-020477	CR	Splitting of CAMEL phase 4	Alcatel	CAMEL4		2B	29.078	Rel-5	d5.7.3			revised to N2-020576

N2-020478	CR	Splitting of CAMEL phase 4	Alcatel	CAMEL4		B	23.008	Rel-5	5.0.0	revised to N4-020730 during Joint meeting and approved
N2-020479	CR	Use of Disconnect Leg procedure.	Alcatel	CAMEL4		1F	29.078	Rel-5	d5.7.3	revised to N2-020591
N2-020480	CR	Playing of Warning Tones	Alcatel	CAMEL4		F	23.078	Rel-5	5d.14.0	postponed to next meeting
N2-020481	CR	Playing of Warning Tones	Alcatel	CAMEL4		F	29.078	Rel-5	d5.7.3	postponed to next meeting
N2-020482	CR	Handling and specification of MO-SMS in CAMEL Phase 4.	Alcatel	CAMEL4		F	29.078	Rel-5	d5.7.3	withdrawn
N2-020483	CR	Clarification of "primary" and "secondary" dialogues.	Alcatel	CAMEL4		D	23.078	Rel-5	5d.14.1	revised to N2-020616
N2-020484	Info	Draft 23.278	Lucent Technologies	IMS-CAMEL			TS23.278	Rel-5	V1.1.0	withdrawn
N2-020485	CR	Si Interface Information Flows for MAP ATSI	Lucent & MMO2	IMS-CAMEL		F	TS23.278	Rel-5	V1.1.0	revised to N2-020580
N2-020486	CR	IM-SSF Notification of HSS Update of CSI	Lucent & MMO2	IMS-CAMEL		F	TS23.278	Rel-5	V1.1.0	revised to N2-020581
N2-020487	CR	Correction of SDLs for CAMEL_IMCN_Register/Deregister	Lucent & MMO2	IMS-CAMEL		F	TS23.278	Rel-5	V1.1.0	approved
N2-020488	CR	Various (misc) corrections/modifications to TS 23.278	Lucent Technologies	IMS-CAMEL		F	TS23.278	Rel-5	V1.1.0	postponed to next meeting
N2-020489	CR	CAP Stage 3 Specification for CAMEL/IMS	Lucent Technologies	IMS-CAMEL		F	TS29.278	Rel-5	(new)	noted
N2-020490	CR	CAP Information Flows for CAMEL/IMS	Lucent Technologies	IMS-CAMEL		F	TS23.278	Rel-5	V1.1.0	postponed to next meeting
N2-020491	CR	CAMEL SDL procedures for MT for unregistered subscriber	Lucent & MMO2	IMS-CAMEL		F	TS23.278	Rel-5	V1.1.0	postponed to next meeting
N2-020492	LS IN	Liaison Statement on Immediate Service Termination	CN4 (Vodafone)	CC: CN2						noted
N2-020493	LS IN	LS on availability of MS Radio Access Capability in for MS in Idle Mode	CN4 (Ericsson)	TO: CN2						noted
N2-020494	LS IN	Liaison Statement on "IPv6 update of stage 3 specifications"	CN3 (Ericsson & CISCO)	CC: CN2						noted



N2-020514	CR	Clarifications on ATM-req/ATM-ack	Nokia	CAMEL3	397	1F	23.078	R99	3.12.0	revised to N2-020564
N2-020515	Info	R5 CR29.002 for Support of MAP Si interface (N4-020523 & N4-020576)	Lucent Technologies	IMS-CAMEL		B	29.002	Rel-5	5.1.0	revised to N2-010516
N2-020516	Info	R5 CR29.002 for support of MAP Si interface (N4-020577)	Lucent & MMO2	IMS-CAMEL		B	29.002	Rel-5	5.1.0	revised to N2-020578
N2-020517	Info	R5 CR29.002 for IMS-CAMEL ATM(N4-020578)	Lucent & MMO2	IMS-CAMEL		B	29.002	Rel-5	5.1.0	revised version approved by CN4
N2-020518	CR	Addition of Location Information GPRS to Note MM Event operation	Nokia	CAMEL4-NMM		F	29.002	Rel-5	5.1.0	approved by CN4
N2-020519	CR	23.008 CR for CAMEL phase4	Alcatel	CAMEL4		F	23.008	Rel-5	5.0.0	revised to N2-020566
N2-020520	CR	Alignement 29.078 with 23.078 for CancelGPRS	Alcatel	CAMEL3	247	1F	29.078	R99	3.11.0	revised to next meeting for Rel-5
N2-020521	CR	Alignement 29.078 with 23.078 for CancelGPRS	Alcatel	CAMEL3	248	1A	29.078	Rel-4	4.4.0	withdrawn
N2-020522	CR	23.078 SDL correction of CancelGPRS	Alcatel	CAMEL3	402	F	23.078	R99	3.12.0	will be part of N2-020569
N2-020523	CR	Correction of Cg Party Number for InitialDPSMS	Alcatel	CAMEL4		F	23.078	Rel-5	5D.14.0	revised to N2-020613
N2-020524	CR	Correction of Cg Party Number & destination number for InitialDPSMS	Alcatel	CAMEL4		F	29.078	Rel-5	D5.7.2	revised to N2-020614
N2-020525		Draft 29.078 V5.7.3	Ericsson	CAMEL4			29.078	Rel-5	d5.7.3	updated to N2-020583
N2-020526	CR	Handling of e-parameters for VT calls	Ericsson	CAMEL4			23.078	Rel-5	d5.14.0	approved
N2-020527	CR	Inclusion of abbreviations of CAP operations and ISUP Messages	Ericsson	CAMEL4			29.078	Rel-5	d5.7.3	postponed to next meeting
N2-020528	CR	Clarification of Logical Record	Ericsson	CAMEL4			23.078	Rel-5	d5.14.0	postponed to next meeting
N2-020529	CR	Correction to ERB pre-conditions	Ericsson	CAMEL4			29.078	Rel-5	d5.7.3	postponed to next meeting
N2-020530	CR	Inclusion of "CS Id" in Connect To Resource	Ericsson	CAMEL4			29.078	Rel-5	d5.7.3	revised to N2-020612
N2-020531	LS IN	Response to the LS on "IPv6 update of stage 3 specifications"	SA2 (Ericsson)							noted



N2-020532	CR	Corrections to SDL Process gsmSSF	Lucent Technolo gies	IMS- CAMEL			F	23.278	Rel-5	V1.1.0	postponed to next meeting
N2-020533	CR	Correction to handling when Delta is greater than received maximum threshold	Vodafone	CAMEL3	403		F	23.078	R99	3.12.0	revised to N2-020582
N2-020534	CR	Correction to handling when Delta is greater than received maximum threshold	Vodafone	CAMEL3	404		A	23.078	Rel-4	4.4.0	postponed
N2-020535	CR	Use of * and - in SDLs	Vodafone	CAMEL4			F	23.078	Rel-5	5d.14.1	approved
N2-020536	CR	Removal of "Note that" in descriptions of CPH operations	Vodafone	CAMEL4			F	29.078	Rel-5	d5.7.3	postponed to next meeting
N2-020537	CR	Introduction of CPH definitions	Vodafone	CAMEL4			D	23.078	Rel-5	5d.14.1	postponed to next meeting
N2-020538	CR	Change Of Position DP and CPH	Vodafone	CAMEL4			F	23.078	Rel-5	5d.14.1	approved
N2-020539	CR	Splitting of CAMEL phase 4	Alcatel	CAMEL4			3B	23.078	Rel-5	5d.14.1	Revised to N2-020574
N2-020540	CR	CPH clarification on overall SDL architecture	Nokia	CAMEL4			B	23.078	Rel-5	5d.14.1	revised to next meeting
N2-020541	CR	Only one AC/ACR per BCSM	Nokia	CAMEL4			F	23.078	Rel-5	5d.14.1	revised to next meeting
N2-020542	DISC	Charging Notification principles	Nokia								withdrawn
N2-020543	CR	Charging Notification for MO call for Basic Call Handling	Nokia	CAMEL4			F	23.018	Rel-5	5.3.0	withdrawn
N2-020544	CR	Charging Notification for MO call, CAMEL Stage 2	Nokia	CAMEL4			F	23.078	Rel-5	5d.14.1	withdrawn
N2-020545	TS/INFO	Draft 23.078 Rel-5	Siemens/ Rapporte ur	CAMEL4							approved
N2-020546	CR	Clarification of each call case in information flows	Siemens	CAMEL4				23.078	Rel-5	5d.14.1	revised to N2-020608
N2-020547	CR	Location information for MF call	Siemens	CAMEL4				23.078	Rel-5	5d.14.1	revised for the next meeting
N2-020548	CR	Additional signal (Release) from the destination exchange	Siemens	CAMEL4				23.078	Rel-5	5d.14.1	rejected
N2-020549	CR	Application_Begin sent to CS_gsmSSF by CSA_gsmSSF	Siemens	CAMEL4				23.078	Rel-5	5d.14.1	revised to N2-020618
N2-020550	CR	Charging Notification: Happiness for All	Siemens	CAMEL4				23.078	Rel-5	5d.14.1	rejected
N2-020551	CR	Charging Notification: Happiness for All	Siemens	CAMEL4				29.078	Rel-5	d5.7.3	rejected

N2-020552	CR	Handover trigger in the idle state in CS_gsmSSF	Siemens	CAMEL4				23.078	Rel-5	5d.14.1	approved
N2-020553	CR	Subscriber data management in IMS	Siemens	CAMEL4				23.278	Rel-5	1.1.0	revised to N2-020572
N2-020554	CR	Introduction of Call Segment ID for ConnectToResource	Ericsson	CAMEL4		F	29.078	Rel-5	d5.7.3		postponed to next meeting
N2-020555	CR	Corrections to Connect To Resource Procedures	Vodafone	CAMEL2	A172	F	03.78	R97	6.10.0		rejected
N2-020556	CR	Corrections to Connect To Resource Procedures	Vodafone	CAMEL2	A173	A	03.78	R98	7.7.0		rejected
N2-020557	CR	Corrections to CTR and ETC Procedures	Vodafone	CAMEL3	405	F	23.078	R99	3.12.0		revised to N2-020567
N2-020558	CR	Corrections to CTR and ETC Procedures	Vodafone	CAMEL3	406	A	23.078	Rel-4	4.4.0		revised to N2-020568
N2-020559	CR	Introduction of Int_Error at MidCall DP	Vodafone	CAMEL4		C	23.078	Rel-5	5d.14.1		approved
N2-020560	CR	Inclusion of Continue With Argment in SDLs	Vodafone	CAMEL4		F	23.078	Rel-5	5d.14.0		approved
N2-020561	CR	Move Leg and Split Leg Negative Response	Vodafone	CAMEL4		F	23.078	Rel-5	5d.14.0		revised to N2-020624
N2-020562	CR	Correction of GPRS MS class	Ericsson	CAMEL3	252	F	29.078	R99	3.11.0		approved
N2-020563		CN2 Status report of CAMEL 4	CN2 chairman								noted
N2-020564	CR	Clarifications on ATM-req/ATM-ack	Nokia	CAMEL3	397	2F	23.078	R99	3.12.0		approved without presentation
N2-020565	CR	Clarifications on ATM-req/ATM-ack	Nokia	CAMEL3	407	A	23.078	Rel-4	4.4.0		approved without presentation
N2-020566	CR	23.008 CR for CAMEL phase4	Alcatel	CAMEL4		1F	23.008	Rel-5	5.0.0		approved in CN2/CN4 joint meeting
N2-020567	CR	Corrections to CTR and ETC Procedures	Vodafone	CAMEL3	405	1F	23.078	R99	3.12.0		approved without presentation
N2-020568	CR	Corrections to CTR and ETC Procedures	Vodafone	CAMEL3	406	1A	23.078	Rel-4	4.4.0		approved without presentation
N2-020569	CR	Clarification of PDP id for GPRS control	Ericsson	CAMEL3	408	F	23.078	R99	3.12.0		revised to N2-010604
N2-020570	CR	Corrections to GPRS DP arming rules for scenario #1	Ericsson	CAMEL4	409	F	23.078	R99	3.12.0		postponed to next meeting

N2-020571	CR	CAMEL4 CSIs in ATSI operation	Nokia	CAMEL4			F	23.078	Rel-5	5d.13.5	approved
N2-020572	CR	Subscriber data management in IMS	Siemens	CAMEL4				23.278	Rel-5	1.1.0	revised to N2-020579
N2-020573	CR	Functional subsets of CAMEL phase 4	T-Mobil	CAMEL4				22.078	Rel-5		revised to N2-020602
N2-020574	CR	Splitting of CAMEL phase 4	Alcatel	CAMEL4			4B	23.078	Rel-5	5d.14.1	revised to N2-020606
N2-020575	CR	Splitting of CAMEL phase 4	Alcatel	CAMEL4			B	29.002	Rel-5	5.1.0	CN2 endorsed, will be handled further by CN4
N2-020576	CR	Splitting of CAMEL phase 4	Alcatel	CAMEL4			2B	29.078	Rel-5	d5.7.3	revised to N2-020625
N2-020577	CR	ORLCF handling for calls with ICA( MSRN )	Nokia	CAMEL4			F	23.078	Rel-5	5d.13.0	withdrawn
N2-020578	Info	R5 CR29.002 for support of MAP Si interface (N4-020577)	Lucent & MMO2	IMS-CAMEL			B	29.002	Rel-5	5.1.0	noted, will be handled further in CN4
N2-020579	CR	Subscriber data management in IMS	Siemens	CAMEL4			1	23.278	Rel-5	1.1.0	approved without presentation
N2-020580	CR	Si Interface Information Flows for MAP ATSI	Lucent & MMO2	IMS-CAMEL			F	TS23.278	Rel-5	V1.1.0	approved without presentation
N2-020581	CR	IM-SSF Notification of HSS Update of CSI	Lucent & MMO2	IMS-CAMEL			F	TS23.278	Rel-5	V1.1.0	approved without presentation
N2-020582	CR	Correction to handling when Delta is greater than received maximum threshold	Vodafone	CAMEL3	403		1F	23.078	R99	3.12.0	revised to N2-020603
N2-020583	TS/INFO	Draft TS 29.078 v5.7.4	Rapporteur	CAMEL4							approved as a basis for further work
N2-020584	CR	Description of specific CSI Withdraw IE	Siemens	CAMEL3					R99		postponed to next meeting
N2-020585	CR	ASN.1 updates in the 29.078 specification	Orange France	CAMEL4				29.078	Rel-5		revised to N2-020600
N2-020586	CR	Correction of GPRS MS class	Ericsson	CAMEL3	253		F	29.078	Rel-4	3.11.0	approved without presentation

N2-020587	CR	Refinement to the usage of "cause" for service triggering	Ericsson	CAMEL4			1F	23.078	Rel-5	5d.14.0	revised to N2-020621
N2-020588	CR	Clean-up of section 10	Ericsson	CAMEL4			F	29.078	Rel-5	d5.7.3	approved without presentation
N2-020589	CR	Clarification on the marking of OPTIONAL and MANDATORY for parameters in CAP	Ericsson	CAMEL4			1F	29.078	Rel-5	d5.7.3	approved without presentation
N2-020590	disc	CPH: Open Issues & Decisions	Vodafone	CAMEL4							noted
N2-020591	CR	Use of Disconnect Leg procedure.	Alcatel	CAMEL4			2F	29.078	Rel-5	d5.7.3	approved without presentation
N2-020592	CR	Use of Split Leg to create CSID1	Vodafone	CAMEL4			2F	29.078	Rel-5	d5.7.3	approved without presentation
N2-020593	CR	Introduction of Called Party Number for InitialDPSMS for MT-SMS	Ericsson	CAMEL4			1F	29.078	Rel-5	d5.7.3	approved without presentation
N2-020594	CR	Functional subsets	Vodafone	CAMEL4			F	22.078	Rel-5	5.6.0	noted
N2-020595	CR	Correction to section on "Audible indicators for call duration control"	Ericsson	CAMEL4			1F	23.078	Rel-5	5d.14.0	approved without presentation
N2-020596	LS IN	Liaison Statement on the removal of charging notification from CAMEL Phase 4	Siemens	CAMEL4							revised to N2-020605
N2-020597	CR	Removal of Charging Notification	Siemens	CAMEL4				22.078	Rel-5	5.6.0	endorsed by CN2
N2-020598	CR	Change "Initial Call Segment" to CSID1	Vodafone	CAMEL4				23.078	Rel-5	5d.14.0	postponed to next meeting
N2-020599	CR	Change "Initial Call Segment" to CSID1	Vodafone	CAMEL4				29.078	Rel-5	d5.7.3	postponed to next meeting
N2-020600	CR	ASN.1 updates in the 29.078 specification	Orange France	CAMEL4			1	29.078	Rel-5		approved without presentation
N2-020601	CR	Protocol definition for control of MO-SMS in CAMEL phase 4	Vodafone	CAMEL4			1C	29.078	Rel-5	d5.7.3	revised to N2-020622
N2-020602	CR	Functional subsets of CAMEL phase 4	T-Mobil	CAMEL4			1C	22.078	Rel-5	5.6.0	noted
N2-020603	CR	Correction to handling when Delta is greater than received maximum threshold	Vodafone	CAMEL3	403		2F	23.078	R99	3.12.0	revised to next meeting
N2-020604	CR	Clarification of PDP id for GPRS	Ericsson	CAMEL3	408		1F	23.078	R99	3.12.0	revised to

		control									N2-020619
N2-020605	LS IN	Liaison Statement on the removal of charging notification from CAMEL Phase 4	Siemens	CAMEL4		1					approved without presentation
N2-020606	CR	Splitting of CAMEL phase 4	Alcatel	CAMEL4		5B	23.078	Rel-5	5d.14.1		approved without presentation
N2-020607	CR	Correction to Hand-over notification	Ericsson	CAMEL4		1F	23.078	Rel-5	5d.14.0		approved without presentation
N2-020608	CR	Clarification of each call case in information flows	Siemens	CAMEL4		1	23.078	Rel-5	5d.14.1		revised to next meeting
N2-020609	CR	Removal of references to GSM	Vodafone	CAMEL4		F	23.078	Rel-5	5d.14.0		approved without presentation
N2-020610	CR	Requesting the MS classmark	Vodafone	CAMEL4		1C	23.078	Rel-5	5d.14.1		approved without presentation
N2-020611	CR	Change of "CAP" to "Int" in gsmSSF processes	Vodafone	CAMEL4		1F	23.078	Rel-5	5d.14.1		approved without presentation
N2-020612	CR	Inclusion of "CS Id" in Connect To Resource	Ericsson	CAMEL4		1	29.078	Rel-5	d5.7.3		approved without presentation
N2-020613	CR	Correction of Cg Party Number for InitialDPSMS	Alcatel	CAMEL4		1F	23.078	Rel-5	5D.14.0		approved without presentation
N2-020614	CR	Correction of Cg Party Number & destination number for InitialDPSMS	Alcatel	CAMEL4		1F	29.078	Rel-5	D5.7.2		approved without presentation
N2-020615	CR	Initiate Call Attempt cannot create Leg ID 1	Vodafone	CAMEL4		1C	23.078	Rel-5	5d.14.0		approved without presentation
N2-020616	CR	Clarification of "primary" and "secondary" dialogues.	Alcatel	CAMEL4		1D	23.078	Rel-5	5d.14.1		revised to N2-020623
N2-020617	CR	Corrections to Reconnect procedures	Vodafone	CAMEL4		1B	23.078	Rel-5	5d.14.1		approved without presentation
N2-020618	CR	Application_Begin sent to CS_gsmSSF by CSA_gsmSSF	Siemens	CAMEL4		1	23.078	Rel-5	5d.14.1		approved without presentation

N2-020619	CR	Clarification of PDP id for GPRS control	Ericsson	CAMEL3	408	2F	23.078	R99	3.12.0	Approved by e-mail
N2-020620	CR	Clarification of PDP id for GPRS control	Ericsson	CAMEL3	410	A	23.078	Rel-4	4.4.0	Approved by e-mail
N2-020621	CR	Refinement to the usage of "cause" for service triggering	Ericsson	CAMEL4		2F	23.078	Rel-5	5d.14.0	approved without presentation
N2-020622	CR	Protocol definition for control of MO-SMS in CAMEL phase 4	Vodafone	CAMEL4		2C	29.078	Rel-5	d5.7.3	Approved by e-mail
N2-020623	CR	Clarification of "primary" and "secondary" dialogues.	Alcatel	CAMEL4		2D	23.078	Rel-5	5d.14.1	approved without presentation
N2-020624	CR	Move Leg and Split Leg Negative Response	Vodafone	CAMEL4		1F	23.078	Rel-5	5d.14.0	Approved by e-mail
N2-020625	CR	Splitting of CAMEL phase 4	Alcatel	CAMEL4		3B	29.078	Rel-5	d5.7.3	approved without presentation
N2-020626	CR	Draft 23.078 Rel-5/composite changes for CAMEL phase 4	Rapporteur	CAMEL4	394	1	23.078	Rel-5	v5.0.0	Approved
N2-020627	CR	Draft 29.078 Rel-5/ composite changes for CAMEL phase 4	Rapporteur	CAMEL4	244	1	29.078	Rel-5	v5.0.0	Approved
N2-020628	TS	Draft 23.278 Rel-5	Rapporteur	CAMEL4			23.278	Rel-5	v.1.2.0	Approved