

**3GPP TSG CN Plenary Meeting #13  
Beijing, China, 19<sup>th</sup>-21<sup>st</sup> September 2001**

**NP-010449**

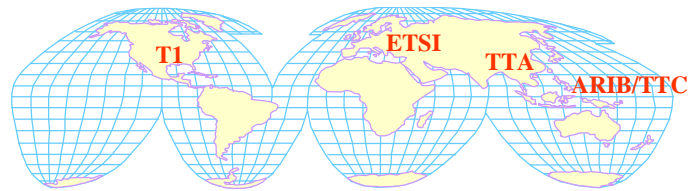
**Source:** TSG CN WG4  
**Title:** Meeting reports after CN#12  
**Agenda item:** 6.4.1  
**Document for:** Information

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**Introduction:**

This document contains TSG CN WG4 meeting reports after CN#12, and are forwarded to TSG CN Plenary meeting #12 for information.

TSG CN WG4 #09 meeting report, Dresden, GERMANY  
TSG CN WG4 #09bis handover ad hoc meeting report, Helsinki, FINLAND



## Third Generation Partnership Project

### Draft Meeting REPORT v2.0.0 3GPP TSG\_CN\_WG4#09

Dresden, GERMANY  
09<sup>th</sup> July – 13<sup>th</sup> July 2001



Hosted by D2 Vodafone

Chairman: Mr. Ian Park, Vodafone  
Vice-Chairmen: Mr. Peter Schmitt, Siemens  
Mr. Toshiyuki Tamura, NEC  
MCC Support: Mr. Kimmo Kymäläinen, ETSI MCC.

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# 1 Opening of the meeting & Approval of Agenda

Mr. Ian Park, CN4 chairman opened the meeting. Mr. Peter Wild gave a welcome introduction on behalf of D2 Vodafone. Additional support was provided by Mr. Kimmo Kymäläinen (CN4 Secretary, MCC).

## 1.1 Make calls for IPRs

The document is included in Annex C.

The agenda was presented and approved (N4-010801rev). Location Services was moved from Tuesday 1<sup>st</sup> quarter to Tuesday 3<sup>rd</sup> quarter.

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# 2 Document Allocation

The document allocation (N4-010802) was **approved**

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# 3 Meeting Reports

## 3.1 Approval of the report of CN4 #8, Rio Grande, Puerto Rico

The Sophia Antipolis meeting report (N4-010803) was **approved**. The document was raised to version 3.0.0. and will be uploaded to the server.

## 3.2 Report back from CN #12, Stockholm

The chairman presented a CN#12 status report (N4-010804);

- Lucent: IP Multimedia Service Control will be handled in joint meetings, not only in CN4.
- NEC: It was previously agreed by CN that CN4 produce AMR-WB Rel-5 WID for CN#13 meeting.
  1. WI discussion will start in Dresden and if necessary continue in Helsinki ad hoc at the end of August 2001.
- Ericsson: CN1 is also interested in the WI issue so it would be good to discuss it in the Helsinki ad hoc.
- Document **noted**.

CN#11 meeting report ( N4-010882) **noted**.

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# 4 Liaison Statements

**Document:** N4-010814  
**Title:** Response to Liaison Statement on the IM Call Transfer Service N1-010890 (S3-010249)  
**Source:** SA3  
**Presented:**  
**Discussion:**

**Decision:** Noted

**Document:** N4-010815  
**Title:** Introduction of AMR-WB  
**Source:** CN1  
**Presented:**  
**Discussion:**

**Decision:** Noted

**Document:** N4-010816

**Title:** Response to LS N1-010504 (S2-010798r2)  
**Source:** CN1  
**Presented:**  
**Discussion:**

**Decision:** **Noted**

**Document:** **N4-010817**  
**Title:** Liaison Statement on the IM Call Transfer service  
**Source:** CN1  
**Presented:**  
**Discussion:**

**Decision:** **Noted**

**Document:** **N4-010818**  
**Title:** Liaison Statement on " Protocol Stack for an IP based lu-cs "  
**Source:** CN3  
**Presented:**  
**Discussion:**

**Decision:** **Noted**

**Document:** **N4-010824**  
**Title:** LS reply to SA1 LS "regarding User Profile"  
**Source:** SA5  
**Presented:**  
**Discussion:**

**Decision:** **Noted**

**Document:** **N4-010825**  
**Title:** Reply to N1-010890 "Liaison Statement on the IM Call Transfer service"  
**Source:** SA5  
**Presented:**  
**Discussion:**

**Decision:** **Noted**

**Document:** **N4-010826**  
**Title:** Acknowledgement of "Replies to 'LS on consistent description regarding the use of Charging Characteristics'"  
**Source:** SA5  
**Presented:**  
**Discussion:**

**Decision:** **Noted**

**Document:** **N4-010827**  
**Title:** Reply to N4-010677 "Liaison Statement on "Updating Subscriber and equipment trace (GSM 12.08)"  
**Source:** SA5  
**Presented:**  
**Discussion:**

**Decision:** **Noted**

**Document:** **N4-010903**  
**Title:** Liaison statement should be sent to CN4 to request a subsystem number  
**Source:** RAN3  
**Presented:**  
**Discussion:**

- All the changes done and 23.003 CR approved in CN#12.

**Decision:** Noted

**Document:** N4-010904

**Title:** Response LS to S1 LS Regarding User Profiles

**Source:** SA2

**Presented:**

**Discussion:**

- Chairman to look at calendars in conjunction with other WG chairmen & MCC experts to pick a date.
- Chairman will draft a response LS (N4-010917)

**Decision:** Noted

**Document:** N4-010905

**Title:** Forwarding GERAN's LS on Legacy Transceivers support

**Source:** SA2

**Presented:**

**Discussion:**

- Response LS (N4-010918)

**Decision:** Noted

**Document:** N4-010906

**Title:** LS on consistent description regarding the use of Charging Characteristics

**Source:** SA5

**Presented:**

**Discussion:**

- CN4 have already replied to SA5 saying that this is being done
- Hutchison 3G will draft CRs against 29.060 R99 & Rel-4

**Decision:** Noted

**Document:** N4-010907

**Title:** LS on Subscription Management Requirements and Model

**Source:** SA5

**Presented:**

**Discussion:**

- Offline discussion
  - o CN4 delegates will send comments to SA5 colleagues

**Decision:** Noted

**Document:** N4-010908

**Title:** LS on basic and advanced services examples (Original number S1-IMS-010028 – comment)

**Source:** SA1

**Presented:**

**Discussion:**

**Decision:** Noted

**Document:** N4-010909

**Title:** Request for information from GSM Europe on 3 digit MNC

**Source:** CN1

**Presented:**

**Discussion:**

**Decision:** Noted

**Document:** N4-010910

**Title:** Response to LS R3-010988

**Source:** SA2

**Presented:**

**Discussion:**

**Decision:** Noted

**Document:** N4-010912

**Title:** LS on inter-BSC/RAN Network Assisted Cell Change

**Source:** GERAN2

**Presented:**

**Discussion:**

- Hutchison 3G: CN4 should encapsulate System Info IEs rather than mapping directly.
- Ericsson believes that we may need a new message.
  - o new message can still carry encapsulated access signalling IE(s).
- Response LS (N4-010919) to GERAN2 and SA2.

**Decision:** Noted

**Document:** N4-010914

**Title:** LS on ISC

**Source:** SA2

**Presented:**

**Discussion:**

- Handled at joint session Wednesday 11<sup>th</sup> July

**Decision:** Noted

**Document:** N4-010915

**Title:** LS on Cell ID in SIP messages

**Source:** SA2

**Presented:**

**Discussion:**

**Decision:** Noted

**Document:** N4-010916

**Title:** Liaison statement to ETSI EP M-COMM and 3GPP on Mobile and Electronic Commerce

**Source:** SA2

**Presented:**

**Discussion:**

- This should be handled in SA1 because of the commercial implications

**Decision:** Noted

**Document:** N4-010936

**Title:** LS on terminology clarifications

**Source:** GERAN

**Presented:**

**Discussion:**

- 21.905 needs to be updated to define the new terms

**Decision:** Noted

**Document:** N4-010940

**Title:** LS on "Direct SCCP connection for TrFO intra-PLMN relocation"

**Source:** RAN3

**Presented:**

**Discussion:**

**Decision:** Noted

**Document:** N4-010941

**Title:** Liaison Statement on "Answer to LS on Iu UP version negotiation"

**Source:** RAN3



**Presented:**  
**Discussion:**

**Decision:** **Noted**

**Document:** **N4-010944**

**Title:** Liaison Statement on "Progressing the work in SA3 and CN1 on the IP Multimedia core network subsystem"

**Source:** SA3

**Presented:**  
**Discussion:**

**Decision:** **Noted**

**Document:** **N4-010947**

**Title:** Liaison Statement on "Progressing the work in SA3 and CN1 on the IP Multimedia core network subsystem"

**Source:** SA3

**Presented:**  
**Discussion:**

- Looks like the updated version of N4-010944

**Decision:** **Noted**

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## 5 Work Item Management

### 6 Release 4

#### 6.1 Location services

**Document:** **N4-010929**

**CR:** 29.002-291r1

**Title:** Corrections for Deferred MT-LR

**Source:** Ericsson, Fujitsu

**Presented:** Mr. Pompeo Santoro

**Discussion:**

**Decision:** **Agreed**

**Document:** **N4-010930**

**CR:** 29.002-292r1

**Title:** Clarifications on SupportedLCS-CapabilitySets

**Source:** Ericsson, Fujitsu

**Presented:** Mr. Pompeo Santoro

**Discussion:**

- Siemens: 17.7.1 SupportedLCS-CapabilitySets have to be: "send by a VLR..."

**Decision:** **Revised N4-010937**

**Document:** **N4-010937**

**CR:** 29.002-292r2

**Title:** Clarifications on SupportedLCS-CapabilitySets

**Source:** Ericsson, Fujitsu

**Presented:** Mr. Pompeo Santoro

**Discussion:**

**Decision:** **Agreed**

**Document:** N4-010866  
**CR:** 24.010-003  
**Title:** Clarification on the signalling connection for PS domain  
**Source:** Fujitsu  
**Presented:** Mr. Shinichiro Aikawa  
**Discussion:**

**Decision:** Agreed

**Document:** N4-010867  
**CR:** 29.002-295  
**Title:** Corrections on the introduction of LCS for PS domain  
**Source:** Fujitsu  
**Presented:** Mr. Shinichiro Aikawa  
**Discussion:**

- Siemens: Wording at the end of 8.8.1.3 – it sets conflicting requirements for the SGSN (echo an unsupported SS or ignore it?). Since the SGSN has already indicated its LCS capability at location update, there's no need to echo the SS code.

**Decision:** Revised N4-010938

**Document:** N4-010938  
**CR:** 29.002-295r1  
**Title:** Corrections on the introduction of LCS for PS domain  
**Source:** Fujitsu  
**Presented:** Mr. Shinichiro Aikawa  
**Discussion:**

**Decision:** Revised N4-010958

**Document:** N4-010958  
**CR:** 29.002-295r2  
**Title:** Corrections on the introduction of LCS for PS domain  
**Source:** Fujitsu  
**Presented:** Mr. Shinichiro Aikawa  
**Discussion:**

**Decision:** Agreed

## 6.2 Core Network Security

**Document:** N4-010881  
**CR:** 29.002-302  
**Title:** Additional SGSN related values to Access Type  
**Source:** Nokia  
**Presented:** Mr. Jari Jansson  
**Discussion:**

- Chairman: "attach" should be "GPRS attach"
- Concern over whether new access types should be after the ellipsis
- Ericsson: "deactivation" should be "PDP context deactivation".
- Fujitsu: Further access type is needed in the future.

**Decision:** Revised to Tdoc N4-010920

**Document:** N4-010920  
**CR:** 29.002-302r1  
**Title:** Additional SGSN related values to Access Type  
**Source:** Nokia  
**Presented:** Mr. Jari Jansson  
**Discussion:**

- [The Fujitsu's identified access types shall be included in a revised version.](#)

**Decision:** Revised N4-010970

**Document:** N4-010970  
**CR:** 29.002-302r2  
**Title:** Additional SGSN related values to Access Type  
**Source:** Nokia  
**Presented:** Mr. Jari Jansson  
**Discussion:**  
**Decision:** Agreed

## 6.3 Bearer Independent Architecture

**Document:** N4-010834  
**CR:**  
**Title:** ITU contribution on Iu FP in BNC Characteristics IE  
**Source:** Ericsson L.M.  
**Presented:** Mr. Alf Heidermark  
**Discussion:**

- CN4 endorsed contribution and gave mandate to present it in ITU meeting.

**Decision:** Endorsed

**Document:** N4-010851  
**CR:**  
**Title:** Report: Lucent Technologies recommendation regarding issue of checksums and CRCs for SCTP  
**Source:** Lucent Technologies  
**Presented:** Mr. Nigel Berry  
**Discussion:**

- ITU-T has rejected Q.2150.3 because of the checksum problem. It's not clear where the things will go from here.
- Ericsson: We should not modify any CN4 specification (29.205 & 29.202) until the need for replacement of RFC 2960 is established. It's not clear that protocol described in RFC 2960 is not good enough.
- CN4 will monitor developments on RFC 2960 and [its](#) possible successor [and any decisions to be taken in the ITU-T](#).
- Motorola wants this document to be noted, not endorsed by CN4.
- [Ericsson proposes a health warning in the specification. See resultant CR in N4-010957.](#)

**Decision:** Noted

### 6.3.1 Stage 2

**Document:** N4-010899  
**CR:** 23.205-008  
**Title:** Slight Misalignment of Continuity Message Handling  
**Source:** Ericsson L.M.  
**Presented:** Ms. Elena Garcia-Mendive  
**Discussion:**

- Section 13.4.2.2, GMSC server has to be MSC server.
- ['The GMSC server will not select an MGW' shall be replaced by 'MGW selection is not required for this call'.](#)

**Decision:** Revised N4-010971

**Document:** N4-010971  
**CR:** 23.205-008r1  
**Title:** Slight Misalignment of Continuity Message Handling  
**Source:** Ericsson L.M.  
**Presented:** Ms. Elena Garcia-Mendive  
**Discussion:**

-

**Decision:** **Agreed**

**Document:** **N4-010900**  
**CR:** 23.205-009  
**Title:** Updates to Chapter 9.1  
**Source:** Ericsson L.M.  
**Presented:** Ms. Elena Garcia-Mendive  
**Discussion:**

**Decision:** **Agreed**

### 6.3.2 Stage 3 Nc-interface

### 6.3.3 Stage 3 Mc-interface

**Document:** **N4-010812**  
**CR:** 29.232-009  
**Title:** Addition of package numbers allocated by IANA  
**Source:** Vodafone  
**Presented:** Mr. Ian Park  
**Discussion:**

**Decision:** **Agreed**

## 6.4 IP signalling in the Core Network

**Document:** **N4-010833**  
**CR:** 29.205-003  
**Title:** BICC signalling transport in IP environment  
**Source:** Ericsson LM  
**Presented:** Mr. Alf Heidermark  
**Discussion:**

- Remove M3UA from the protocol stack in the background info

**Decision:** **Revised Tdoc N4-010925**

**Document:** **N4-010925**  
**CR:** 29.205-003r1  
**Title:** BICC signalling transport in IP environment  
**Source:** Ericsson LM  
**Presented:**  
**Discussion:**

**Decision:** **Agreed without presentation**

**Document:** **N4-010831**  
**CR:** 29.232-010  
**Title:** Mc signalling transport in IP environment  
**Source:** Ericsson LM  
**Presented:** Mr. Alf Heidermark  
**Discussion:**

- Hutchison 3G: Additional text should be in bullet 1 rather than bullet 3.
  - o Change accepted
- Cover page has to be updated

**Decision:** **Revised Tdoc N4-010926**

**Document:** **N4-010926**  
**CR:** 29.232-010r1  
**Title:** Mc signalling transport in IP environment  
**Source:** Ericsson LM  
**Presented:**  
**Discussion:**

**Decision:** Agreed without presentation

**Document:** N4-010832  
**CR:** 29.232-010  
**Title:** Mc signalling transport in IP environment  
**Source:** Ericsson LM  
**Presented:** Mr. Alf Heidermark  
**Discussion:**  
- Cover page has to be updated

**Decision:** Agreed

**Document:** N4-010956  
**CR:** 29.202-001  
**Title:** Change of M3UA version  
**Source:** Ericsson LM  
**Presented:** Mr. Alf Heidermark  
**Discussion:**  
- Lucent: The change of M3UA is not backwards compatible.

**Decision:** Agreed

**Document:** N4-010957  
**CR:** 29.205-004  
**Title:** Status of ITU recommendation Q.2150.3  
**Source:** Ericsson LM  
**Presented:** Mr. Alf Heidermark  
**Discussion:**

**Decision:** Agreed

## 6.5 TrFO

**Document:** N4-010863  
**CR:** 23.153-026  
**Title:** Optional FRCl value Correction  
**Source:** Siemens  
**Presented:** Mr. Peter Schmitt  
**Discussion:**

**Decision:** Agreed

## 6.6 GPRS

**Document:** N4-010820  
**CR:**  
**Title:** Response LS on Charging Characteristics  
**Source:** SA2  
**Presented:**  
**Discussion:**  
- Hutchison 3G will draft CRs against 29.060 R99 & Rel-4 (N4-010964 & N4-010965)  
- Also LS will be sent to SA5 & SA2

**Decision:** Noted

**Document:** N4-010954  
**CR:**  
**Title:** Background information on the introduction of the suspend resume functionality in GTP  
**Source:** Lucent  
**Presented:** Mr. Alessio Casati  
**Discussion:**

- The option of CR in N4-010811 falls because of rejection of CR N4-010808

**Decision:** **Noted**

**Document:** **N4-010810**

**CR:** 29.060-230

**Title:** Introduction of the Suspend-resume functionality in Rel-4 GTP specification

**Source:** Lucent

**Presented:** Mr. Alessio Casati

**Discussion:**

- Ericsson: The extension header drastically modifies the behaviour of the entities which receive the message with the extension header; the solution is therefore less than ideal.
- Motorola needs time (till Friday) to consult back home
- Names of Suspend & Suspend ack will be aligned with names in stage 2

**Decision:** **Revised Tdoc N4-010974**

**Document:** **N4-010974**

**CR:** 29.060-230r1

**Title:** Introduction of the Suspend-resume functionality in Rel-4 GTP specification

**Source:** Lucent

**Presented:** Mr. Alessio Casati

**Discussion:**

**Decision:** **Agreed**

**Document:** **N4-010811**

**CR:** 29.060-231

**Title:** Introduction of the Suspend-resume functionality in Rel-4 GTP specification

**Source:** Lucent

**Presented:**

**Discussion:**

- This CR falls because of the rejection of the linked CR on N4-010808

**Decision:** **Withdrawn**

**Document:** **N4-010892**

**CR:** 29.060-243

**Title:** RANAP Cause in Relocation Cancel Request

**Source:** Motorola

**Presented:** Mr. Michael Young

**Discussion:**

- SA2 have agreed changes to the stage 2 for both R99 and Rel-4
- This CR has no counterpart for Release 99; the cross-release compatibility issue has not been resolved
- NEC objected to the possibility of including the change for R99
- The chairman will draft an LS (N4-010967) to SA2 to ask them to reconsider their changes to the stage 2

**Decision:** **Withdrawn**

**Document:** **N4-010967**

**Title:** Draft LS to SA2 on RANAP Cause in Relocation Cancel Request

**Source:** Vodafone

**Presented:** Mr Ian Park

**Discussion:**

- Reflect the withdrawal of the Rel-4 CR to 29.060 for study of the cross-release compatibility issue
- Ask SA2 to review their decision for the stage 2 CRs for both R99 and Rel-4

**Decision:** **Revised Tdoc N4-010982**

**Document:** **N4-010982**

**Title:** Draft LS to SA2 on RANAP Cause in Relocation Cancel Request

**Source:** Vodafone

**Presented:** Mr Ian Park  
**Discussion:**

**Decision:** **Approved**

## 6.7 AOB

### 6.7.1 Call forwarding

**Document:** N4-010841  
**CR:** 29.002-290  
**Title:** Clarifications on long forwarded-to numbers  
**Source:** Ericsson LM  
**Presented:** Mr. Miguel Pallares  
**Discussion:**

**Decision:** **Agreed**

**Document:** N4-010840  
**CR:** 23.082-012  
**Title:** Clarifications on long forwarded-to numbers  
**Source:** Ericsson LM  
**Presented:** Mr. Miguel Pallares  
**Discussion:**

**Decision:** **Agreed**

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## 7 Release 5

### 7.1 HSS-CSCF Cx interface

**Document:** N4-010852  
**CR:**  
**Title:** Document Structure for the Cx Interface Protocol Standards  
**Source:** Lucent Technologies  
**Presented:** Mr. Nigel Berry  
**Discussion:**

- **Proposal:**

- TS 24.228 is the relevant specification where complete call control flows for IMS are to be documented including the Cx interface flows. TS 24.228 is still being worked in the Joint CN meetings as the flows affect all of CN and their individual working group output. They should therefore be contributed to by all of CN until the flows are stable enough to allow the complete detailed stage 3s to be fully defined.
  - Endorsed by CN4
- TS 29.228 is somewhat superfluous but it could be used as a kind of subroutine or macro expansion of sub-flows for the Cx interface where these sub-flow boxes are shown in TS 24.228.
  - [TS 29.228 defines the logical messages and procedures relating to the Cx interface.](#) Endorsed by CN4
- For every addition to 29.228, CN4 shall provide contributions to 24.228 or link it to an existing section in 24.228.
  - Endorsed by CN4
- TS 29.229 should define in detail the 3GPP relevant subset of the Diameter Base protocol and any extensions necessary to allow a complete definition of stage 3 for the Cx interface. As such the information that is currently in Section 7 of TS 29.228 should be moved to TS 29.229 as part of the detailed definition.
  - Siemens: There are no reasons to remove this information

- All of the above standards would need to comply and be consistent with TS 23.228. This TS remains under SA WG2's control.
  - Endorsed by CN4
- Chairman: We should avoid overlap between 24.228 & 29.228
- Document was discussed together with N4-010836.

**Decision:** Noted

**Document:** N4-010836

**CR:**

**Title:** Cx documentation approach

**Source:** Ericsson, Motorola, Nokia and Siemens

**Presented:** Mrs. Johanna Wild

**Discussion:**

- Discussed together with document N4-010852
- Siemens: Lucent 24.228 is joint session document. There should be contributions from CN1 & CN4, not only from CN1.
- [From CN4's understanding the](#)The hierarchy ~~seems to be~~is:
  - 23.228-24.228-24.229 for SIP
  - 23.228-24.228-29.228-29.229 for the non-SIP protocols.
- Lucent: CN4 should make the documentation approach we use clearly visible to all the WGs in CN. The boundary between 29.228 and 29.229 needs to be clearly defined.
- Siemens: 29.229 is a definition of the profile (subset) of the DIAMETER multimedia protocol extensions which we want to use in 3GPP.
- Chairman will give summary of notes based on documents N4-010852 & N4-010836 at joint session

**Decision:** Noted

**Document:** N4-010837

**CR:**

**Title:** Mapping of Cx operations and terminology to Diameter

**Source:** Ericsson/Motorola/Nokia and Siemens

**Presented:** Mr. Balazs Czoma

**Discussion:**

- **Proposal:**
  - It is proposed to add a normative annex in TS 29.228 that describes the above mapping and makes it available for reference for other WGs such as 3GPP CN1.
- Principles of contribution agreed by CN4

**Decision:** Approved

**Document:** N4-010838

**CR:**

**Title:** Use of sessions in Diameter

**Source:** Ericsson/Motorola/Nokia and Siemens

**Presented:** Mr. Miguel Pallares

**Discussion:**

- **Proposal:**
- To use the implicit termination of sessions both for the interface between I-CSCF and HSS.
- To adopt as a working assumption the use of implicit termination of sessions between S-CSCF and HSS. (This would require the addition of the Authorization-Lifetime AVP to all the requests).
- To include this proposal and the description of implicit sessions as described in this contribution in a section in TS 29.229 (N4-010839; Chapter 2, 4<sup>th</sup> paragraph)
- CN4 agreed the principals of the document

**Decision:** Approved

**Document:** N4-010839

**Spec:** 29.229 v.0.0.1



**Title:** Cx interface based on Diameter - protocol details  
**Source:** Ericsson/Motorola/Nokia and Siemens  
**Presented:** Mr. Miguel Pallares  
**Discussion:**

- Ericsson: The statement that Cx interface is intra-PLMN is not intended to imply no need for standardization. However the change of version of the protocol for the peer entities will be much more likely to keep in step.
- IETF are not expected to be mean with the allocation of extension identifiers.
- Siemens: text in the section 8 should be removed to informative annex.
- Chairman: Specification will raised to version 0.1.0 for future development. N needs to send it information for CN#13
- Cx-Select-Pull and Cx-select-Pull-response will be removed from the document

**Decision:** **Revised N4-010932**

**Document:** **N4-010932**  
**Spec:** 29.229 v.0.1.0  
**Title:** Cx interface based on Diameter - protocol details  
**Source:** Ericsson/Motorola/Nokia and Siemens  
**Presented:** Mr. Miguel Pallares  
**Discussion:**

**Decision:** **Agreed**

**Document:** **N4-010913**  
**Spec:**  
**Title:** LS on Subscription Updating Procedure  
**Source:** SA2  
**Presented:** Mr. Miguel Pallares  
**Discussion:**

**Decision:** **Noted**

**Document:** **N4-010872**  
**Spec:**  
**Title:** Subscription Profile Updating  
**Source:** Nokia  
**Presented:** Mr. Jaakko Rajaniemi

**Document:** **N4-010901**  
**Spec:**  
**Title:** User Profile Update procedures  
**Source:** Siemens  
**Presented:** Mr. Balazs Czoma

**Discussion of N4-010872 & N4-010901**

- Siemens: It is proposed that CN4 adopts the PULL model as a working assumption.
- Nokia: It is proposed that CN4 adopts the PUSH model as a working assumption.
- France Telecom: PULL model does not provide for an acknowledgment of the user profile information. In that case HSS doesn't know if subscriber data has been correctly received and it doesn't know if the S-CSCF supports all the services implied in the user's profile.
- Motorola: The HSS is designed as a simple database, unlike the HLR approach of centralised control, and this is in line with the Release 5 architectural requirements of simplified procedures for adding and modifying services.
- Nortel: It hasn't resolved if HSS is a database or something more.
- Ericsson, Nortel, Alcatel, Lucent, Hutchison 3G, Vodafone and France Telecom supports PUSH model because from the saving of signalling and for the security of acknowledgment of profile information.
- Proposal of Nokia contribution was accepted as a working assumption.
- Proposal of Siemens contribution was rejected

**Decision:** Proposal of Nokia contribution (N4-010872) was **accepted as a working assumption**

**Document:** N4-010873  
**Spec:**  
**Title:** Discussion Paper on AVP Data Formats  
**Source:** Nokia  
**Presented:** Mr. Jaakko Rajaniemi  
**Discussion:**

- Postponed to October 2001
- Jakko will distribute this by email for initial discussion before the October CN4 meeting

**Decision:** Postponed

**Document:** N4-010821  
**Spec:**  
**Title:** Using a generic authentication scheme for SIP  
**Source:** SA3  
**Presented:**  
**Discussion:**

**Decision:** Noted

**Document:** N4-010874  
**Spec:**  
**Title:** Authentication  
**Source:** Nokia  
**Presented:** Mr. Jaakko Rajaniemi  
**Discussion:**

- Postponed to October 2001
- Miguel will turn the annex of this into a draft LS (N4-010968) to be reviewed by email.

△ **Approval process to be complete by 31<sup>st</sup> August 2001 12:00 CET**

**Decision:** Noted

**Document:** N4-010886  
**Spec:**  
**Title:** TS 29.228 Signalling flows and message contents v.0.1.1  
**Source:** Siemens  
**Presented:**  
**Discussion:**

- This document will be used as a basis for future developments.

**Decision:** Agreed

**Document:** N4-010942  
**Spec:**  
**Title:** Flows related to Authenticated Registrations and Re-Registrations  
**Source:** SA3  
**Presented:** Mr. Miguel Pallares  
**Discussion:**

- CN4 will response to SA3 that the assumptions are correct

**Decision:** Noted

**Document:** N4-010943  
**Spec:**  
**Title:** Flows related to Authenticated Registrations and Re-Registrations  
**Source:** SA3  
**Presented:** Mr. Miguel Pallares  
**Discussion:**

- LS is almost duplicated with N4-010942

**Decision:** Noted

**Document:** N4-010945  
**Spec:**  
**Title:** Requirements related to private and public identities in IMS  
**Source:** SA3  
**Presented:** Mr. Miguel Pallares  
**Discussion:**  
- Response LS to SA3 (N4-010969)

**Decision:** Noted

**Document:** N4-010969  
**Spec:**  
**Title:** Draft LS to SA3 on signalling for user authentication  
**Source:** Ericsson, Nokia  
**Presented:** Mr. Miguel Pallares  
**Discussion:**

**Decision:** Approved

## 7.2 IP signalling Transport

**Document:** N4-010830  
**CR:**  
**Title:** Signalling transport interworking between PLMNs  
**Source:** Ericsson LM  
**Presented:** Mr. Alf Heidermark  
**Discussion:**

- Summary of presentation: Proposes to mandate the support of SCCP on M3UA for IP transport of MAP/CAP etc. and allow SUA as an optional extra. This will improve the changes of being able to support IP transport.
- Lucent support Ericsson proposal on the condition that the outcome of SUA feasibility study is to create SUA specification in Rel-5.
- Chairman: There is no meaning to prohibit the use of SUA in Ericsson's contribution.
- Motorola casts doubt on whether there will be interworking problem if node A supports IP but only with M3UA and node B supports IP but only with SUA.
- Motorola: Mandate to use M3UA limits the implementation.
- [Rel-4 mandates the use of M3UA for IP signalling. Not mandating the support of M3UA would only benefit those manufacturers not interested in producing equipment compatible with Rel-4. Not to talk about the inability to transport ISUP over SUA](#)
- Motorola has some concerns about the technical issues.
- Hutchison 3G: Some material of this document should be included in the SUA feasibility study document in section interworking.

**Decision:** Noted

**Document:** N4-010862  
**CR:**  
**Title:** Supplementary Explanation to TR 29.903 : SUA Feasibility Study.  
**Source:** Motorola, Cisco  
**Presented:** Mr. Michael Young  
**Discussion:**

**Decision:** Noted

**Document:** N4-010861  
**CR:**  
**Title:** Feasibility Study on SS7 Signalling transport in the core network with SUA  
**Source:** Motorola, Cisco  
**Presented:** Mr. Michael Young  
**Discussion:**

- Ericsson: There seems to be no coverage of the issue of the time taken to do a database lookup for address translation.
  - o Motorola: We agreed in the last meeting that is not needed

- Ericsson: The IETF Minneapolis meeting report indicates that M3UA is more mature than SUA. The judgment of maturity before an IETF protocol spec reaches approved RFC status is very subjective. The milestones of WG last call and IESG last call are clear milestones for maturity before IESG approval. The status at the moment is that the SIGTRAN chairman has proposed to send the M3UA spec for IESG last call, but is not confident that SUA is ready for WG last call.
- NEC: Figure 4. should be updated
- Hutchison 3G: What happens if node A uses M3UA and node B uses SUA? Hutchison 3G would like to see same kind of interworking description between M3UA and SUA as described in section 7.3. interworking between SCCP/M3UA.
- Hutchison 3G asks for more detail on the interworking between SUA-based transport on one side and M3UA-based transport on the other. Who will own and manage the signalling gateway shown in the middle of figure 5?
- Chairman: Motorola & Ericsson will solve the problems during the evening session [at the bar!](#) Vice-chairman (Peter Schmitt) will report back

### Summary ad Hoc 9<sup>th</sup> July 2001 from 6h-8h pm:

#### Open points to discuss:

##### 1) Interworking

- SUA <-> M3UA/SCCP
  - o Editor: Please see updated section 7.3
- SUA <-> SS7
  - o Editor: Please see updated section 7.2.
- Message mapping M3UA<-> SUA missing
  - o Editor: It is not needed. Please see updated section 7.3 for detail.
- Message mapping MTP3 <->SUA missing
  - o Editor: It is not needed. Please see updated section 7.2 for detail.
- chapter mapping of messages must be enhanced
  - o Editor: Yes, done
- Mandating M3UA for usage in PLMN-PLMN cases is proposed to postpone until there is more than 1 option for IP signalling.

##### 2) Possible delay using SUA e.g. if ENUM is used

- o Editor: ENUM is removed from FSY
- SCTP connection always established to minimise the time to send a message. Dynamic establishment of SCTP connection will delay the message. In addition the interrogation to ENUM server will increase the delay.
  - o No agreement was reached.

##### 3) Redundant Network (network configuration)

- Not discussed.

##### 4) Point code equivalent

- e.g. sending of dual messaging, how it is supported with SUA.
- Message compare SUA-M3UA should explain this

##### 5) CCBS

- Further check, adequate information has to be added to the FSY

##### 6) MNP

- Current description seems to be sufficient.

##### 7) M3UA – SUA

- SUA does not provide an interface for MTP3 user like ISUP or BICC.

##### 8) The use of ENUM

- o Editor: ENUM is removed from FSY
- Not discussed

##### 9) Addressing with E.212 numbers & E.214 numbers

- Not discussed

##### 10) status of SUA not agreed

**Decision:** Revised 1<sup>st</sup> N4-010948, later on N4-010978

**Document:** N4-010978

**CR:**

**Title:** Feasibility Study on SS7 Signalling transport in the core network with SUA

**Source:** Motorola, Cisco

**Presented:** Mr. Michael Young

**Discussion:**

- Open issue still remains: Redundant network configuration. There wasn't enough time to discuss this
  - o Ericsson: Conclusions weren't discussed either.
  - o Motorola: It was discussed at Puerto Rico meeting
- Lucent & Ericsson: Wants to time to consult with experts. Report is not ready to go to CN#13 for information
  - o Motorola wants to send it CN#13 for information, because they think that it's more than 50% ready
  - o Nokia doesn't have anything against sending FS for information
- Lucent asks for written record of the open issues, so that the list can be added to or subtracted from as the discussion proceeds.
- Motorola, Hutchison 3G, Vodafone request the written contribution to propose changes also from other companies.
- Ericsson asks for stability of the version of the report to which comments can be addressed.
  - o Rapporteur of SUA feasibility study will send out the final draft version 2 weeks before meeting for comments and for drafting contributions against the FS.
- Vodafone: Could Motorola accept the need for an "open issues" section.
  - o Editor: There is an "open issues" section
  - o Lucent: It isn't complete
- Chairman: All the open issues have to be resolved before FS can present at CN plenary.

- △ **Comments against 0978 to reach Michael Young, Motorola, by 14 September.**
- △ **Updated SUA report to be published by 28 September**
- △ **Contributions to be posted by COB 8 October.**

**Decision:** Noted

**Document:** N4-010985

**CR:**

**Title:** Updated Work Item Description: Feasibility study on SS7 signalling transportation in the core network with SCCP-User Adaptation (SUA)

**Source:** Motorola

**Presented:** Mr. Kimmo Kymäläinen

**Discussion:**

- The only change is that the target delivery date for the FS report is CN #14.

- △ **WID will be sent to CN#13**

**Decision:** Agreed

## 7.3 LCS

## 7.4 AMR-WB

**Document:** N4-010822

**CR:**

**Title:** Reply on Introduction of AMR-WB.

**Source:** SA4

**Presented:** Ms. Elena Garcia-Mendive

**Discussion:**

- CN4 will draft the WI about AMR-WB

- CN1 will be involved in the AMR-WB discussion
- WID will be sent to CN4 mailing list for comments and after that to CN1
- WID will be sent to SA4 for information after approval in CN4



**Deadline for approval is close of business (17:00 CEST) on 3 September**

**Decision:** Noted

**Document:** N4-010823

**CR:**

**Title:** Liaison Reply (Reference: N4-010702 = S4-010337)  
"AMR-WB on TDM networks via TFO" (Tandem Free Operation)

**Source:** SA4

**Presented:** Mr. Peter Schmitt

**Discussion:**

**Decision:** Noted

**Document:** N4-010902

**CR:**

**Title:** Introduction of AMR-WB

**Source:** GERAN

**Presented:** Mr. Jari Jansson

**Discussion:**

**Decision:** Noted

## 7.5 GPRS

## 7.6 AOB

### 7.6.1 Bearer Independent Architecture

#### 7.6.2 GPRS

**Document:** N4-010946

**CR:**

**Title:** Liaison Statement on the use of Network Domain Security for protection of SIP signalling messages

**Source:** SA3

**Presented:**

**Discussion:**

- More study is needed in CN1 and CN4
- [Contributions are encouraged.](#)

**Decision:** Noted

#### 7.6.3 Camel Phase 4

**Document:** N4-010972

**CR:**

**Title:** Liaison Statement on MAP Messages for GPRS Mobility Management event notifications

**Source:** CN2

**Presented:** Mr. Rogier Noldus

**Discussion:**

- Advice from CN4 to CN2 is: re-use the existing MAP message for mobility management event reporting, with enhancements as needed.

**Decision:** Noted

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## 8 Release 99 and earlier

### 8.1 Camel Phase 3

**Document:** N4-010953  
**CR:** 29.002-304  
**Title:** CR 29.002-305 (R99) on Correction on CAMEL3 InsertSubscriberData  
**Source:** [EricssonNokia](#)  
**Presented:** Mr. [Rogier Noldus](#)[Keijo Palviainen](#)  
**Discussion:**

- CN2 have a concern that the behaviour of the VLR in handling CAMEL subscription information should depend on whether the HLR is CAMEL phase 3 or CAMEL phase 2 capable.
- Siemens: the behaviour for CAMEL phase 2 subscription information is the same in both MAP for Release 99 and MAP for Release 97/98; this is specified in the current version of 29.002 for Release 99.

**Decision:** **Withdrawn**

**Document:** N4-010952  
**CR:** 23.078-391  
**Title:** CR 23.078-391 (R99) on Correction on CAMEL3 InsertSubscriberData  
**Source:** [EricssonNokia](#)  
**Presented:** Mr. [Rogier Noldus](#)[Keijo Palviainen](#)  
**Discussion:**

- Presented as background information for N4-010953
- Will be handled in CN2 as a consequence of the withdrawal of N4-010953

**Decision:** **Withdrawn**

**Document:** N4-010973  
**CR:** 29.002-305  
**Title:** CR 29.002-305 (R99) on Addition of data type definitions to EXPORT statements for the usage in CAP  
**Source:** Ericsson  
**Presented:** Mr. Rogier Noldus  
**Discussion:**

**Decision:** **Agreed**

**Document:** N4-010976  
**CR:** 29.002-306  
**Title:** CR 29.002-306 (Rel-4) on Addition of data type definitions to EXPORT statements for the usage in CAP  
**Source:** Ericsson  
**Presented:** Mr. Rogier Noldus  
**Discussion:**

**Decision:** **Agreed**

### 8.2 GPRS & GTP Enhancements

**Document:** N4-010931  
**CR:**  
**Title:** Liaison Statement on "Unique GGSN Addresses"  
**Source:** CN2  
**Presented:** Mr. Christian Homann  
**Discussion:**

- TSG CN WG2 asks TSG CN WG4 group as a matter of urgency to clarify the issue and to answer the following questions:
  - 1) Can the GGSN address for control plane change during an Inter SGSN Routing Area Update Procedure for a particular PDP context? Note: Are there other procedures during which the GGSN address may change?
  - 2) If the GGSN address changes does the new GGSN allocate a new charging ID?
  - 3) If the address changes, does it also mean that the actual GGSN has changed? It may be that the GGSN address changes, but that the charging ID is unique in respect to the single actual GGSN.
- Ericsson: The GGSN address will be stable during the existence of a PDP context, in spite of the theoretical possibility of changing the GGSN address during a PDP context update.
- Why is the GTP-C address rather than the GTP-U address used?
  - o CN2 Chairman: Charging ID is linked to the GTP-C address rather than the GTP-U address.
  - o Ericsson: It would be better to use the GTP-U address, because there is one for each PDP context.
  - o Lucent: There is a unique charging ID for each PDP context, even when coupled with a common GTP-C address.
- Alcatel: How can the CSE link together the multiple GGSN addresses?
  - o Ericsson: The addresses shouldn't be different.
- CN2 chairman: What happens when there is dynamic load sharing?
  - o Ericsson: At the moment there is no load sharing for an existing context.
- NEC: The current protocol specification allows change of GGSN address
- Ericsson: The change of GGSN address will affect processing for post-paid subscribers.
- Motorola: The billing post-processing can handle the correlation.
- CN2 chairman: What assumptions can CN2 make about the number of times a GGSN address can change during the lifetime of a PDP context?
  - o Ericsson: Multiple.
- [Contributions to solve this issue are encouraged.](#)

**Decision:** Noted

**Document:** N4-010806  
**CR:** 29.060-223r1  
**Title:** Supporting multiple IP addressing in the SGSN Context Acknowledge message  
**Source:** NEC  
**Presented:** Mr. Toshiyuki Tamura  
**Discussion:**

- Nokia can't agree the changes for R99
- Ericsson believes that RA update requires the multiple SGSN address supported.
- Vodafone: If we can't fix the problem to R99 there is no reason to correct it in Rel-4 because of backward incompatibility issue.
- NEC will study whether a solution for Rel-4 can be found to maintain compatibility with R99

**Decision:** **Withdrawn** Also mirror CR N4-010807 withdrawn

**Document:** N4-010808  
**CR:** 29.060-228  
**Title:** Introduction of "Message not supported indication"  
**Source:** Lucent  
**Presented:** Mr. Alessio Casati  
**Discussion:**

- NEC can't accept any new messages to GTP version 1. NEC can't accept the CR.
- Vodafone: Version upgrade before Rel-5 is out of order

**Decision:** **Rejected** Also mirror CR N4-010809 withdrawn



**Document:** N4-010813  
**CR:** 29.060-232  
**Title:** Clarification on the use of the teardown indicator IE  
**Source:** Lucent  
**Presented:** Mr. Alessio Casati  
**Discussion:**  
- Motorola can't accept CR. It's not essential or necessary.

**Decision:** Revised 1<sup>st</sup> N4-010975 later on N4-010980

**Document:** N4-010980  
**CR:** 29.060-232r2  
**Title:** Clarification on the use of the teardown indicator IE  
**Source:** Lucent  
**Presented:** Mr. Alessio Casati  
**Discussion:**  
- Motorola, NEC & Nokia reserve the right to challenge the CR in CN plenary after checking at home.

**Decision:** Agreed, also mirror CR for Rel-4 (N4-010979, revised to N4-010981) agreed

**Document:** N4-010828  
**CR:** 29.060-233  
**Title:** Clarification to the usage of the TEID-C  
**Source:** Nokia  
**Presented:**  
**Discussion:**

**Decision:** Revised to N4-010927

**Document:** N4-010927  
**CR:** 29.060-233r1  
**Title:** Clarification to the usage of the TEID-C  
**Source:** Nokia  
**Presented:** Mr. Seppo Kauntola  
**Discussion:**  
- Fujitsu: TEID should be per GSN address  
- [Fujitsu would like to submit alternative CRs that can be acceptable in CR246 \(N4-010961\) & CR247 \(N4-010962\)](#)

**Decision:** Withdrawn

**Document:** N4-010829  
**CR:** 29.060-234  
**Title:** Clarification to the usage of the TEID-C  
**Source:** Nokia  
**Presented:**  
**Discussion:**

**Decision:** Revised to N4-010928

**Document:** N4-010927  
**CR:** 29.060-233r1  
**Title:** Clarification to the usage of the TEID-C  
**Source:** Nokia  
**Presented:**  
**Discussion:**

**Decision:** Withdrawn

**Document:** N4-010893  
**CR:** 9.60-A105

**Title:** Clarification on the term TLLI in SGSN Context Request message  
**Source:** Ericsson  
**Presented:** Mr. Einar Oltedal  
**Discussion:**

- Nokia can't accept these changes for R97 and R98 if CR is F, approved by consensus
  - o Ericsson changed the correction as F critical correction
- Motorola believes TLLI is local; other vendors thinks it's foreign.
- Ericsson: At TS 04.08 it has mentioned that TLLI should be foreign

**Decision:** **Agreed**, as well mirror CRs 09.60-A106 (R98) in N4-[040893010894](#), 29.060-235 (R99) in N4-010849 and 29.060-236 (Rel4) in N4-010850

**Document:** **N4-010864**  
**CR:** 29.060-237  
**Title:** Rewording usage of P-TIMSI and TLLI in "SGSN context request"  
**Source:** Siemens  
**Presented:** Mr. Peter Schmitt  
**Discussion:**

- Vodafone: The change makes the text more confused.
  - o Changes made

**Decision:** **Revised** N4-010959

**Document:** **N4-010959**  
**CR:** 29.060-237r1  
**Title:** Rewording usage of P-TIMSI and TLLI in "SGSN context request"  
**Source:** Siemens  
**Presented:** Mr. Peter Schmitt  
**Discussion:**

- After study of the stage 2, states that exactly one of P-TMSI, TLLI and IMSI shall be present
- LS will be sent to SA2 (N4-010977)

**Decision:** **Agreed**, Also mirror CR 29.060-238 (Rel-4) in N4-010960 (revision of N4-010865) agreed

**Document:** **N4-010870**  
**CR:** 29.060-239  
**Title:** Alignment with 23.060 on the use of SGSN Context Acknowledge message  
**Source:** Fujitsu  
**Presented:** Mr. Shinichiro Aikawa  
**Discussion**

**Decision:** **Agreed**, also mirror CR 29.060-240 (N4-010871) agreed

**Document:** **N4-010887**  
**CR:**  
**Title:** Cause value in Create PDP Context Response message  
**Source:** NTT Software  
**Presented:** Mr. Takeshi Igarashi  
**Discussion**

**Decision:** Noted

**Document:** **N4-010888**  
**CR:** 09.60-A103  
**Title:** Cause value in Create PDP Context Response message  
**Source:** NTT Software  
**Presented:** Mr. Takeshi Igarashi  
**Discussion**

- Vodafone: It's not a critical corrections
- Lucent: It's a good correction, but not critical

**Decision:** **Withdrawn**

**Document:** N4-010889  
**CR:** 09.60-A104  
**Title:** Cause value in Create PDP Context Response message  
**Source:** NTT Software  
**Presented:**  
**Discussion**

**Decision:** Withdrawn

**Document:** N4-010890  
**CR:** 29.060-240  
**Title:** Cause value in Create PDP Context Response message  
**Source:** NTT Software  
**Presented:**  
**Discussion**

**Decision:** Withdrawn

**Document:** N4-010891  
**CR:** 29.060-241  
**Title:** Cause value in Create PDP Context Response message  
**Source:** NTT Software  
**Presented:**  
**Discussion**

**Decision:** Withdrawn

**Document:** N4-010922  
**CR:** 29.060-244  
**Title:** Charging Characteristics Inclusion in Create PDP Context Message  
**Source:** Hutchison 3g  
**Presented:** Mr. Kevan Hobbis  
**Discussion**

- Vodafone: In Table 5: Information Elements in a Create PDP Context Request Charging Characteristics should be conditional
- Vodafone: Explicit definition of requirements for presence of the Charging Characteristics IE should be replaced by a pointer to 23.060

**Decision:** Revised N4-010964

**Document:** N4-010964  
**CR:** 29.060-244r1  
**Title:** Charging Characteristics Inclusion in Create PDP Context Message  
**Source:** Hutchison 3g  
**Presented:** Mr. Kevin Hobbis  
**Discussion**

**Decision:** Agreed, also mirror CR 29.060-245r1 (N4-010965, revision of N4-010923)

**Document:** N4-010924  
**Title:** Draft LS to SA2 & SA5 on consistent description regarding the use of Charging Characteristics  
**Source:** Hutchison 3G  
**Presented:** Mr Kevan Hobbis  
**Discussion:**

- Replace the last paragraph with "The CRs are attached"

**Decision:** Revised to N4-010966

**Document:** N4-010966  
**Title:** Draft LS to SA2 & SA5 on consistent description regarding the use of Charging Characteristics

**Source:** Hutchison 3G  
**Presented:** Mr Kevan Hobbis  
**Discussion:**

**Decision:** **Approved**

**Document:** **N4-010961**  
**CR:** 29.060-246  
**Title:** Clarification to the usage of the TEID-C  
**Source:** Fujitsu  
**Presented:** Mr. Shinichiro Aikawa  
**Discussion**

**Decision:** **Agreed**, also mirror CR 29.060-247 (N4-~~010961~~[010962](#))

## 8.3 Handover

**Document:** **N4-010885**  
**CR:** 29.002-286r2  
**Title:** Minimum MAP application context for intersystem inter-MSC handover  
**Source:** Nortel  
**Presented:** Dr. Nick Allen  
**Discussion:**

- Nortel will create new CR N4-010951 and send it via E-mail.
- **Postponed** to CN1/CN4 meeting in Helsinki in August

**Decision:** **Revised 1<sup>st</sup> N4-010949 and afterwards N4-010951 and Postponed**

**Document:** **N4-010934**  
**CR:** 29.002-303  
**Title:** Minimum MAP application context for intersystem handover to 3G\_MSC  
**Source:** Ericsson  
**Presented:**  
**Discussion:**

- Discussion of handover documents will continue at CN4 mailing list.
- Documents will be handled at CN1 & CN4 joint meeting in Helsinki at the end of August 2001.
- Nokia asks for postponement to allow time for review back home.

**Decision:** **Postponed** to CN1/CN4 meeting in Helsinki in August

**Document:** **N4-010898**  
**CR:**  
**Title:** Problem with handover of a held call / active call configuration  
**Source:** Vodafone  
**Presented:** Mr. Ian Park  
**Discussion:**

- Siemens: If a handover is not successful the call is not necessarily dropped
- The behaviour may actually give a worse service than maintaining the connection on the old MSC.
- Agreed to include the resolution of this issue in the mandate for the joint meeting with [CN4-CN1](#) in August.

**Decision:** **Noted**

## 8.4 Multicall

**Document:** **N4-010895**  
**CR:**  
**Title:** Discussion about the effects on MAP interface because of the Multicall handover problem  
**Source:** Nokia  
**Presented:** Mr. Jari Jansson

**Discussion:**

- Nokia: There are no impacts for MAP.
- Siemens: The premise that there is only one speech call in a multicall configuration won't necessarily hold for future releases, so we shouldn't assume that there is no impact on MAP.
- Siemens: More analysis is needed.
  - o Vodafone agrees with Siemens.
- Chairman: Other CN4 specs which may well be affected: 29.010 and 23.009.
- Document will be postponed to Helsinki joint meeting.

**Decision:** Noted

## 8.5 LCS

## 8.6 AOB

### 8.6.1 MAP Protocol

**Document:** N4-010805

**CR:**

**Title:** SRI segmentation

**Source:** NEC

**Presented:** Mr. Toshiyuki Tamura

**Discussion:**

- Siemens: The MAP provider and MAP user are in the same entity; they can communicate over the internal interface to pass information which isn't defined in the specification. For (e.g.) Insert Subscriber Data, the MAP user already needs to know something about the capabilities of the lower layers.

**Decision:** Noted

**Document:** N4-010875

**CR:** 29.002-273r1

**Title:** Addition of indication of number of Send Routing Info result segments

**Source:** Nokia

**Presented:** Mr. Jari Jansson

**Discussion:**

- Vodafone proposed to insert segmentCount the first segment, but after discussion with other expert they agreed that it's better to do it as proposed in CR.
- Proposes to add a segment count to the last component of the segmented SRI ack. The last segment is the best place to put it, because it is a TC-RESULT-L, whose loss will be noticed!
- Siemens: We need to define the error handling for the case when the segment count indicates that a segment has been lost.
  - o Nokia: This will be treated as missing data
  - o Ericsson: It could even be seen as mistyped data, if the segments which are received do not make up a valid instance of the SendRoutingInfoRes data type.
- France Telecom, Lucent & Ericsson support the need for a description of the error handling
- Chairman: The description can be text, to indicate that the handling is the same as if the TC-RESULT-L component is lost.
  - o Nokia accepts.
- Siemens: This is a CR for Rel-99, which is shown as a non-critical correction agreed by consensus, so any company has the right of veto.
- [Fujitsu would like to submit alternative CRs that can be acceptable in CR246 \(N4-010961\) & CR247 \(N4-010962\)](#)
- [Vodafone and Ericsson against CR.](#)
- [Vodafone stated also that after all maybe it was not such a big problem.](#)

**Decision:** Withdrawn, also mirror CR 29.002-274r1,N4-010876, withdrawn

**Document:** N4-010846  
**CR:**  
**Title:** Clarification of the SDL diagram for Procedure PROCESS\_COMPONENTS  
**Source:** NTC  
**Presented:** Ms. Miyuki Soejima  
**Discussion:**  
- Vodafone: The handling defined in 29.002 is exactly what is required, so that an unrecognised operation will not cause failure of the dialogue.

**Decision:** Noted

**Document:** N4-010847  
**CR:** 29.002-293  
**Title:** Deletion the branch of the AC version check from the Procedure PROCESS\_COMPONENTS  
**Source:** NTC  
**Presented:** Ms. Miyuki Soejima  
**Discussion:**

**Decision:** Withdrawn, also mirror CR 29.002-294 in N4-010848

### 8.6.2 USSD

**Document:** N4-010844  
**CR:** 29.002-276r1  
**Title:** Correction on the SDL of NW initiated USSD operations  
**Source:** NTC/ NTT COMWARE  
**Presented:** Ms. Miyuki Soejima  
**Discussion:**  
- Vodafone: Why did you go only for R99, why not Releases before  
    o NEC: This not so critical that we need to correct this in earlier releases.  
    o Vodafone: This is not necessary need to correct in R99, Rel-4 is enough.  
        ▪ Lucent agrees with Vodafone  
- R99 CR rejected, but Rel-4 CR approved

**Decision:** Rejected

**Document:** N4-010845  
**CR:** 29.002-277r1  
**Title:** Correction on the SDL of NW initiated USSD operations  
**Source:** NTC/ NTT COMWARE  
**Presented:** Ms. Miyuki Soejima  
**Discussion:**

- Category have to change as F (consensus)

**Decision:** Agreed

### 8.6.3 Basic Call Handling

**Document:** N4-010853  
**CR:** 23.018-075  
**Title:** Addition of missing process Update\_Location\_VLR  
**Source:** Vodafone  
**Presented:** Mr. Nick Russell  
**Discussion:**

**Decision:** Agreed, also mirror CRs 23.018-076 (Rel-4) in N4-010854 & 23.018-077 (Rel-5) in N4-010855 agreed

### 8.6.4 Numbering & Addressing

**Document:** N4-010856  
**CR:** 03.03-A053  
**Title:** Clarification on APN labels that begin with a digit  
**Source:** Vodafone

**Presented:** Mr. Nick Russell

**Discussion:**

- Ericsson: We don't see this is an essential correction.
  - o Vodafone: It is important to remove the ambiguity.
- Ericsson will only accept CR for Rel-4 and newer. They don't accept this for R99.
- NEC: There will be backward compatibility issues if we introduce the change for the first time in Rel-4.
  - o Ericsson: There may be.

**Decision:** **Withdrawn**, also mirror CRs 03.03-A054 (R98), 23.003-030 (R99), **Withdrawn**

**Document:** **N4-010859**

**CR:** 23.003-031

**Title:** Clarification on APN labels that begin with a digit

**Source:** Vodafone

**Presented:** Mr. Nick Russell

**Discussion:**

**Decision:** **Agreed**, also mirror 23.003-032 (Rel-5) **Agreed**

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## 9 AOB

### 10 Update of the Work Plan

The chairman proposed updates to the items on the work plan which involve CN4 activity, as follows:

<u>Unique ID</u>	<u>Description</u>	<u>Updated status</u>
<a href="#">2455</a>	<a href="#">SUA Feasibility Study</a>	<a href="#">50% complete</a>
<a href="#">1280</a>	<a href="#">SIP supplementary services</a>	<a href="#">No activity</a>
<a href="#">1285</a>	<a href="#">Network Capabilities (N4 aspects)</a>	<a href="#">CN4 do not see the need for any work on this item; deletion is requested</a>
<a href="#">2021</a>	<a href="#">CSCF-HSS (Cx) – stage 2 flows</a>	<a href="#">20% complete</a>
<a href="#">2023</a>	<a href="#">CSCF-HSS (Cx) – impacts from CAMEL</a>	<a href="#">No activity</a>
<a href="#">1289</a>	<a href="#">CSCF-HSS (Cx) – impacts on MAP</a>	<a href="#">No activity</a>
<a href="#">2024</a>	<a href="#">CSCF-HSS (Cx) – stage 3 protocol on Cx</a>	<a href="#">5% complete</a>
<a href="#">1292</a>	<a href="#">Call control &amp; Roaming for the IMS; addressing, identities; impact on HSS</a>	<a href="#">No activity; estimated completion end December 2001</a>
<a href="#">1305</a>	<a href="#">Roaming between IMS and CS domain networks</a>	<a href="#">Overall progress depends on individual work tasks</a>
<a href="#">1307</a>	<a href="#">Roaming between IMS and CS domain networks; stage 2 review</a>	<a href="#">Depends on input from SA2 (completion of task 1306)</a>
<a href="#">1732</a>	<a href="#">Number portability in the IMS</a>	<a href="#">We have no visibility of the service requirement; chairman to ask SA1 chairman for more information</a>
<a href="#">1179</a>	<a href="#">Location services enhancements; event based and periodic LCS; impacts on MAP</a>	<a href="#">Depends on input from SA2 (completion of task 1538)</a>
<a href="#">2462</a>	<a href="#">Location services enhancements; LCS support in the PS domain; impacts on MAP</a>	<a href="#">Complete</a>
<a href="#">527</a>	<a href="#">Location services enhancements; LCS support in the PS domain; GTP signalling</a>	<a href="#">Complete</a>
<a href="#">1618</a>	<a href="#">Evolution of GSM PS algorithms; impact on GTP</a>	<a href="#">Complete</a>
<a href="#">1579</a>	<a href="#">Network domain security; control plane protection; integration of GTP signalling security architecture</a>	<a href="#">We await input from SA3; assuming that this comes from the next SA3 meeting, CN4 should complete their work in November 2001</a>
<a href="#">1582</a>	<a href="#">Network domain security; user plane protection; integration of GTP signalling</a>	<a href="#">We await input from SA3; assuming that this comes from the next SA3 meeting, CN4 should</a>

	<a href="#">security architecture</a>	<a href="#">complete their work in November 2001</a>
2028	<a href="#">Enhanced HE control of security; FS on network impacts</a>	<a href="#">We await input from SA3; assuming that this comes from the next SA3 meeting, CN4 should complete their work in November 2001</a>
2249	<a href="#">Intra Domain Connection of RAN Nodes to Multiple CN Nodes; N4 work</a>	<a href="#">We still await input from SA2 on the srchitecture</a>
2232	<a href="#">Advanced Speech Call Items; stage 2</a>	<a href="#">No inputs received</a>

## 11 Review of dates and hosts for future meetings

△ **CN4 WG meeting #09 has given a mandate to ad hoc meeting 29-30 of August to send outputs direct to CN#13. The scope of this meeting is limited to handover.**

△ **Documents should be available for CN4#10 8<sup>th</sup> of October 2001 except SUA feasibility Status Report which has to be available 28<sup>th</sup> of September 2001.**

△ **All the comments against SUA FS have to be sent to Michael Young, Motorola before 14<sup>th</sup> of September 2001.**

The following meeting schedule (based on N4-010897) contains modifications regarding the hosts and dates.

Date	Meeting	Venue	Host
29 – 30 August 2001	CN4 ad hoc on handover (collocated with CN1)	Helsinki, Finland	Nokia
20 – 22 September 2001	TSG-CN #13	Beijing, P.R.C.	Lucent/CWTS
15 – 19 October 2001	CN4 #10	Brighton, UK	BT/Vodafone
26 – 30 November 2001	CN4 #11	Cancun, Mexico	North American Friends of 3GPP
12 – 14 December 2001	TSG-CN #14	Kyoto, Japan	TTC
14 – 18 January 2002	CN4 #12		
6 – 8 March 2002	TSG-CN #15	Korea	TTA
8 – 12 April 2002	CN4 #13		
13 – 17 May 2002	CN4 #14	Sophia Antipolis, FRANCE	ETSI
5 – 7 June 2002	TSG-CN #16	Marco Island, Florida, USA	Motorola
29 July – 2 August 2002	CN4 #15		
4 – 6 September 2002	TSG-CN #17	France	Alcatel
23 – 27 September 2002	CN4 #16		
11 – 15 November 2002	CN4 #17	Japan	Japanese Friends of 3GPP
4 – 6 December 2002	TSG-CN #18	New Orleans, Louisiana, USA	North American Friends of 3GPP

Please note that due to the workload additional Ad Hoc Meetings can be planned on a short notice.



## 12 Output of CN4# Ad Hoc Meeting

### 12.1 Change Requests

Tdoc #	Title	Source
N4-010893	CR 09.60-A105 (R97) on Clarification of the term TLLI in SGSN Context Request message	Ericsson L.M.
N4-010894	CR 09.60-A106 (R98) on Clarification of the term TLLI in SGSN Context Request message	Ericsson L.M.
N4-010859	CR 23.003-031 (Rel-4) on Clarification on APN labels that begin with a digit.	Vodafone Group PLC
N4-010860	CR 23.003-032 (Rel-5) on Clarification on APN labels that begin with a digit.	Vodafone Group PLC
N4-010853	CR 23.018-075 (R99) on Addition of missing process Update_Location_VLR	Vodafone Group PLC
N4-010854	CR 23.018-076 (Rel-4) on Addition of missing process Update_Location_VLR	Vodafone Group PLC
N4-010855	CR 23.018-077 (Rel-5) on Addition of missing process Update_Location_VLR	Vodafone Group PLC
N4-010841	CR 23.082-012 (Rel-4) on Clarifications on long forwarded-to numbers	Ericsson L.M.
N4-010863	CR 23.153-026 (Rel-4) on Optional FRICI value Correction	Siemens
N4-010971	CR 23.205-008r1 on Slight Misalignment of Continuity Message Handling	Ericsson
N4-010900	CR 23.205-009 on Updates to Chapter 9.1	Ericsson
N4-010866	CR 24.010-003 (Rel-4) on Clarification on the signalling connection for PS domain	Fujitsu
N4-010845	CR 29.002-277 (Rel-4) on Correction on the SDL of NW initiated USSD operations	NTC/ NTT COMWARE
N4-010840	CR 29.002-290 (Rel-4) on Clarifications on long forwarded-to numbers	Ericsson L.M.
N4-010929	CR 29.002-291r1 (Rel-4) on Corrections for Deferred MT-LR	Ericsson, Fujitsu
N4-010937	CR 29.002-292r2 (Rel-4) on Clarifications on SupportedLCS-CapabilitySets	Ericsson, Fujitsu
N4-010958	CR 29.002-295r2 (Rel-4) on Corrections on the introduction of LCS for PS domain	Fujitsu
N4-010970	CR 29.002-302r2 (Rel-4) on Additional SGSN related values to Access Type	Nokia
N4-010973	CR 29.002-305 (R99) on Addition of data type definitions to EXPORT statements for the usage in CAP	Ericsson
N4-010976	CR 29.002-306 (Rel-4) on Addition of data type definitions to EXPORT statements for the usage in CAP	Ericsson
N4-010974	CR 29.060-230r1 (Rel-4) on Introduction of the Suspend-resume functionality in Rel-4 GTP specification	Lucent Technologies
N4-010980	CR 29.060-232r2 (R99) on Clarification on the use of the teardown indicator IE	Lucent technologies
N4-010849	CR 29.060-235 (R99) on Clarification of the term TLLI in SGSN Context Request message	Ericsson L.M.
N4-010850	CR 29.060-236 (Rel-4) on Clarification of the term TLLI in SGSN Context Request message	Ericsson L.M.
N4-010959	CR 29.060-237r1 (R99) on Rewording usage of P-TMSI and TLLI in "SGSN context request"	Siemens
N4-010960	CR 29.060-238 (Rel-4) on Rewording usage of P-TMSI and TLLI in "SGSN context request"	Siemens
N4-010870	CR 29.060-239 (R99) on Alignment with 23.060 on the use of SGSN Context Acknowledge message	Fujitsu
N4-010871	CR 29.060-240 (Rel-4) on Alignment with 23.060 on the use of SGSN Context Acknowledge message	Fujitsu
N4-010964	CR 29.060-244r1 (R99) on Charging Characteristics Inclusion in Create PDP Context Message	Hutchison 3G

N4-010965	CR 29.060-245r1 (Rel-4) on Charging Characteristics Inclusion in Create PDP Context Message	Hutchison 3G
N4-010961	CR 29.060-246 (R99) on Clarification to the abnormal usage of the TEID-C	Fujitsu
N4-010962	CR 29.060-247 (Rel-4) on Clarification to the abnormal usage of the TEID-C	Fujitsu
N4-010981	CR 29.060-248r1 (Rel-4) on Clarification on the use of the teardown indicator IE	Lucent technologies
N4-010956	CR 29.202-001 (Rel-4) on Change of M3UA version	Ericsson
N4-010832	CR 29.205-002 (Rel-4) on Mc signalling transport in IP environment	Ericsson L.M.
N4-010925	CR 29.205-003r1 (Rel-4) on BICC signalling transport in IP environment	Ericsson L.M.
N4-010957	CR 29.205-004 (Rel-4) on Status of ITU recommendation Q.2150.3	Ericsson
N4-010812	CR 29.232-009 (Rel-4) on Addition of package numbers allocated by IANA	Vodafone
N4-010926	CR 29.232-010r1 (Rel-4) on Mc signalling transport in IP environment	Ericsson L.M.

## 12.2 Liaison Statements

The following Liaison Statements were agreed to be sent by CN4 #09 meeting:

TDOC N4-00xxxx	Subject	To	Cc	Attachment	Sent
N4-010917	Liaison Statement on 3GPP User Profiles	SA1, SA2, SA3, T2 T3			17th July 2001
N4-010918	Reply to SA2's Request for CN4 to Comment on GERAN's LS on Legacy Transceivers support	SA2	GERAN		17th July 2001
N4-010919	Liaison Statement response on "Inter-BSC/RAN Network Assisted Cell Change"	G2 SA2	GERAN, RAN2, RAN3, CN1		17th July 2001
N4-010935	LS on Subscription Updating Procedure	SA2			17th July 2001
N4-010966	Reply LS on consistent description regarding the use of Charging Characteristics	SA5, SA2	SA	N4-010964 N4-010965	17th July 2001
N4-010968	LS response to SA3 on "Using a generic authentication scheme for SIP"	SA3	SA2, CN1	<a href="#">Will be approved on CN4 e-mail list before delivery to other WGs.</a>	<a href="#">03<sup>rd</sup> Sep. 2001</a>
N4-010969	LS to SA3 on Signalling for user authentication	SA3	SA2, CN1		17th July 2001
N4-010982	Liaison Statement on adding a RANAP cause to the Relocation Cancel Request	SA2			17th July 2001
N4-010983	On introduction of the inter-SGSN Suspend-Resume functionality in Rel-4	SA2		N4-010974	17th July 2001
N4-010984	Presence of IMSI TLLI or P-TMSI in SGSN context request message	SA2	CN1	N4-010959	17th July 2001

## 12.3 TS/TRs

Tdoc #	Tdoc Title

## 12.4 WIs

Tdoc #	Tdoc Title
N4-010985	Feasibility study on SS7 signalling transportation in the core network with SCCP-User Adaptation (SUA)

## Annex A : Participants

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## Annex B: List of Temporary Documents

Tdoc n° 3GPP	List of Temporary Documents	Source	Status
N4-010801	Agenda	Chairman	Approved
N4-010802	Tdoc allocation	Chairman	Approved
N4-010803	CN4#08 Meeting Report – Sophia Antipolis	MCC	Approved
N4-010804	CN#12 staus report	Chairman	Noted
N4-010805	SRI segmentation	NEC	Noted
N4-010806	Supporting multiple IP addressing in the SGSN Context Acknowledge message	NEC	Withdrawn
N4-010807	Supporting multiple IP addressing in the SGSN Context Acknowledge message	NEC	Withdrawn
N4-010808	Introduction of "Message not supported indication"	Lucent technologies	Rejected
N4-010809	Introduction of "Message not supported indication"	Lucent technologies	Withdrawn
N4-010810	Introduction of the Suspend-resume functionality in Rel-4 GTP specification	Lucent Technologies	Revised N4-010974
N4-010811	Introduction of the Suspend-resume functionality in Rel-4 GTP specification	Lucent Technologies	Withdrawn
N4-010812	Addition of package numbers allocated by IANA	Vodafone	Agreed
N4-010813	Clarification on the use of the teardown indicator IE	Lucent technologies	revised N4-010975
N4-010814	Response to Liaison Statement on the IM Call Transfer Service N1-010890 (S3-010249)	SA3	Noted
N4-010815	Introduction of AMR-WB	CN1	Noted
N4-010816	Response to LS N1-010504 (S2-010798r2)	CN1	Noted
N4-010817	Liaison Statement on the IM Call Transfer service	CN1	Noted
N4-010818	Liaison Statement on " Protocol Stack for an IP based Iu-cs "	CN3	Noted
N4-010819	WI on the End-to-End QoS Architecture for Release 5	SA2	Noted
N4-010820	Response LS on Charging Characteristics	SA2	Noted
N4-010821	Using a generic authentication scheme for SIP	SA3	Noted
N4-010822	Reply on Introduction of AMR-WB	SA4	Noted
N4-010823	Liaison Reply (Reference: N4-010702 = S4-010337) "AMR-WB on TDM networks via TFO" (Tandem Free Operation)	SA4	Noted
N4-010824	LS reply to SA1 LS "regarding User Profile"	SA5	Noted
N4-010825	Reply to N1-010890 "Liaison Statement on the IM Call Transfer service"	SA5	Noted
N4-010826	Acknowledgement of "Replies to 'LS on consistent description regarding the use of Charging Characteristics'"	SA5	Noted
N4-010827	Reply to N4-010677 "Liaison Statement on "Updating Subscriber and equipment trace (GSM 12.08)"	SA5	Noted
N4-010828	Clarification to the abnormal usage of the TEID-C	Nokia	Revised N4-010927
N4-010829	Clarification to the abnormal usage of the TEID-C	Nokia	Revised N4-010928
N4-010830	Signalling transport interworking between PLMNs	Ericsson L.M.	Noted
N4-010831	CR on 29232 Mc signalling transport in IP environment	Ericsson L.M.	Revised Tdoc N4-010926
N4-010832	CR on 29205 Mc signalling transport in IP environment	Ericsson L.M.	Agreed
N4-010833	CR on 29205 BICC signalling transport in IP environment	Ericsson L.M.	Revised
N4-010834	ITU contribution on Iu FP in BNC Characteristics IE	Ericsson L.M.	Endorsed by CN4
N4-010835	Handling of BNC IE IMT2000	Ericsson L.M.	Withdrawn
N4-010836	Cx documentation approach	Ericsson/Motorola/Nokia and Siemens	Noted
N4-010837	Mapping of Cx operations and terminology to Diameter	Ericsson/Motorola/Nokia and Siemens	Approved
N4-010838	Use of sessions in Diameter.	Ericsson/Motorola/Nokia and Siemens	Approved
N4-010839	Cx interface based on Diameter - protocol details.	Ericsson/Motorola/Nokia and Siemens	Revised N4-010932
N4-010840	Clarifications on long forwarded-to numbers	Ericsson L.M.	Agreed
N4-010841	Clarifications on long forwarded-to numbers	Ericsson L.M.	Agreed
N4-010842	Corrections for Deferred MT-LR	Ericsson	Revised N4-010929
N4-010843	Clarifications on SupportedLCS-CapabilitySets	Ericsson	Revised N4-010930
N4-010844	Correction on the SDL of NW initiated USSD operations	NTC/ NTT COMWARE	Rejected
N4-010845	Correction on the SDL of NW initiated USSD operations	NTC/ NTT COMWARE	Agreed
N4-010846	Clarification of the SDL diagram for Procedure PROCESS_COMPONENTS	NTC	Noted

N4-010847	Deletion the branch of the AC version check from the Procedure PROCESS_COMPONENTS	NTC	Withdrawn
N4-010848	Deletion the branch of the AC version check from the Procedure PROCESS_COMPONENTS	NTC	Withdrawn
N4-010849	Clarification of the term TLLI in SGSN Context Request message	Ericsson L.M.	Agreed
N4-010850	Clarification of the term TLLI in SGSN Context Request message	Ericsson L.M/	Agreed
N4-010851	Report: Lucent Technologies recommendation regarding issue of checksums and CRCs for SCTP	Lucent Technologies	Noted
N4-010852	Document Structure for the Cx Interface Protocol Standards	Lucent Technologies	Noted
N4-010853	Addition of missing process Update_Location_VLR	Vodafone Group PLC	Agreed
N4-010854	Addition of missing process Update_Location_VLR	Vodafone Group PLC	Agreed
N4-010855	Addition of missing process Update_Location_VLR	Vodafone Group PLC	Agreed
N4-010856	Clarification on APN labels that begin with a digit.	Vodafone Group PLC	Withdrawn
N4-010857	Clarification on APN labels that begin with a digit.	Vodafone Group PLC	Withdrawn
N4-010858	Clarification on APN labels that begin with a digit.	Vodafone Group PLC	Withdrawn
N4-010859	Clarification on APN labels that begin with a digit.	Vodafone Group PLC	Agreed
N4-010860	Clarification on APN labels that begin with a digit.	Vodafone Group PLC	Agreed
N4-010861	Feasibility Study on SS7 Signalling transport in the core network with SUA	Ciscso, Motorola	Revised N4-010948
N4-010862	Supplementary Explanation to TR 29.903 : SUA Feasibility Study	Ciscso, Motorola	Noted
N4-010863	Optional FRCI value Correction	Siemens	Agreed
N4-010864	Rewording usage of P-TIMSI and TLLI in "SGSN context request"	Siemens	Revised N4-010959
N4-010865	Rewording usage of P-TIMSI and TLLI in "SGSN context request"	Siemens	Revised N4-010960
N4-010866	Clarification on the signalling connection for PS domain	Fujitsu	Agreed
N4-010867	Corrections on the introduction of LCS for PS domain	Fujitsu	Revised N4-010938
N4-010868	Correction on the use of Supported LCS Capability Sets parameter	Fujitsu	Withdrawn
N4-010869	The removal of redundant node address information on the deferred type LCS	Fujitsu	Withdrawn
N4-010870	Alignment with 23.060 on the use of SGSN Context Acknowledge message	Fujitsu	Agreed
N4-010871	Alignment with 23.060 on the use of SGSN Context Acknowledge message	Fujitsu	Agreed
N4-010872	User Profile Updating	Nokia	Agreed
N4-010873	Discussion Paper on AVP Data Formats	Nokia	Postponed to CN4#10
N4-010874	Authentication	Nokia	Noted
N4-010875	Addition of indication of number of Send Routing Info result segments	Nokia	Withdrawn
N4-010876	Addition of indication of number of Send Routing Info result segments	Nokia	Withdrawn
N4-010877	Addition of indication of number of Any Time Subscription Indication result segments	Nokia	Withdrawn
N4-010878	Addition of indication of number of Any Time Subscription Indication result segments	Nokia	Withdrawn
N4-010879	Addition of indication of number of Any Time Modification result segments	Nokia	Withdrawn
N4-010880	Addition of indication of number of Any Time Modification result segments	Nokia	Withdrawn
N4-010881	Additional SGSN related values to Access Type	Nokia	Revised N4-010920
N4-010882	CN#12 meeting report	MCC	Noted
N4-010883	Inclusion of MS based positioning in R4	Nortel	Revised N4-010939
N4-010884	Inclusion of MS based positioning in R4	Nortel	Withdrawn
N4-010885	Minimum MAP application context for intersystem inter-MSC handover	Nortel	Revised N4-010949
N4-010886	Updated TS 29.228	Siemens	Agreed
N4-010887	Cause value in Create PSP Context Response message	NTT Software	Noted
N4-010888	Cause value in Create PSP Context Response message	NTT Software	Withdrawn
N4-010889	Cause value in Create PSP Context Response message	NTT Software	Withdrawn
N4-010890	Cause value in Create PSP Context Response message	NTT Software	Withdrawn
N4-010891	Cause value in Create PSP Context Response message	NTT Software	Withdrawn
N4-010892	RANAP Cause in Relocation Cancel Request	Motorola	Withdrawn
N4-010893	Clarification of the term TLLI in SGSN Context Request message	Ericsson L.M/	Agreed
N4-010894	Clarification of the term TLLI in SGSN Context Request message	Ericsson L.M/	Agreed
N4-010895	Discussion about the effects on MAP interface because of the Multicall handover problem.	Nokia	Noted
N4-010896	List of agreed output documents from CN4 #9	CN4 chairman	Agreed
N4-010897	Calendar of CN and CN4 meetings for 2002	CN4 chairman	Noted
N4-010898	Problem with handover of a held call / active call configuration	Vodafone Group Plc	Noted
N4-010899	Slight Misalignment of Continuity Message Handling	Ericsson	Revised N4-010971
N4-010900	Updates to Chapter 9.1	Ericsson	Agreed
N4-010901	User Profile Update procedures	Siemens	Rejected
N4-010902	Reply to Liaison Statement on Introduction of AMR-WB	Geran Plenary	Noted

N4-010903	Liason statement should be sent to CN4 to request a subsystem number	RAN3	Noted
N4-010904	Response LS to S1 LS Regarding User Profiles	SA2	Noted
N4-010905	Forwarding GERAN's LS on Legacy Transceivers support	SA2	Noted
N4-010906	LS on consistent description regarding the use of Charging Characteristics	SA5	Noted
N4-010907	LS on Subscription Management Requirements and Model	SA5	Noted
N4-010908	LS on basic and advanced services examples (Original number S1-IMS-010028 - comment	SA1	Noted
N4-010909	Request for information from GSM Europe on 3 digit MNC	CN1	Noted
N4-010910	Response to LS R3-010988	SA2	Noted
N4-010911	Response to Liaison Statement on the IM Call Transfer Service N1-010890 (S3-010249)	SA3	Withdrawn (same as N4-010814)
N4-010912	LS on inter-BSC/RAN Network Assisted Cell Change	GERAN2	Noted
N4-010913	LS on Subscription Updating Procedure	SA2	Noted
N4-010914	LS on ISC	SA2	Noted
N4-010915	LS on Cell ID in SIP messages	SA2	Noted
N4-010916	Liaison statement to ETSI EP M-COMM and 3GPP on Mobile and Electronic Commerce	SPAN11 WP NAR	Noted
N4-010917	Liaison Statement on 3GPP User Profiles	CN4	Approved
N4-010918	Reply to SA2's Request for CN4 to Comment on GERAN's LS on Legacy Transceivers support	CN4	Approved
N4-010919	Response to Geran2: LS on inter-BSC/RAN Network Assisted Cell Change (Einar)	CN4	Approved
N4-010920	Additional SGSN related values to Access Type	Nokia	Revised N4-010970
N4-010921	Ls to SA3 (Aikawa)	CN4	Withdrawn
N4-010922	Charging Characteristics Inclusion in Create PDP Context Message	Hutchison 3G UK Limited	Revised N4-010964
N4-010923	Charging Characteristics Inclusion in Create PDP Context Message	Hutchison 3G UK Limited	Revised N4-010965
N4-010924	Reply LS on consistent description regarding the use of Charging Characteristics	CN4	Revised N4-010966
N4-010925	CR on 29205 BICC signalling transport in IP environment	Ericsson L.M.	Agreed
N4-010926	CR on 29232 Mc signalling transport in IP environment	Ericsson L.M.	Agreed
N4-010927	Clarification to the abnormal usage of the TEID-C	Nokia	Withdrawn
N4-010928	Clarification to the abnormal usage of the TEID-C	Nokia	Withdrawn
N4-010929	Corrections for Deferred MT-LR	Ericsson, Fujitsu	Agreed
N4-010930	Clarifications on SupportedLCS-CapabilitySets	Ericsson, Fujitsu	Revised N4-010937
N4-010931	Liaison Statement on "Unique GGSN Addresses"	CN2	Noted
N4-010932	Cx interface based on Diameter - protocol details.	Ericsson/Motorola/Nokia and Siemens	Agreed
N4-010933			withdrawn
N4-010934	Minimum MAP application context for intersystem handover to 3G_MSC	Ericsson	Postponed
N4-010935	LS on Subscription Updating Procedure	CN4	Approved
N4-010936	LS IN, Terminology clarifications	GERAN	Noted
N4-010937	Clarifications on SupportedLCS-CapabilitySets	Ericsson, Fujitsu	Agreed
N4-010938	Corrections on the introduction of LCS for PS domain	Fujitsu	Revised N4-010958
N4-010939	Inclusion of MS based positioning in R4	Nortel	Withdrawn
N4-010940	Liaison statement on "Direct Sccp connection for TrFO intra-PLMN relocation"	RAN3	Noted
N4-010941	Liaison Statement on "Answer to LS on Iu UP version negotiation"	RAN3	Noted
N4-010942	Flows related to Authenticated Registrations and Re-Registrations	S3	Noted
N4-010943	Stage 2 information flows for authenticated registration and re-registration in the IMS	S3	Noted
N4-010944	Liaison Statement on "Progressing the work in SA3 and CN1 on the IP Multimedia core network subsystem"	S3	Noted
N4-010945	Requirements related to private and public identities in IMS	S3	Noted
N4-010946	On the use of Network Domain Security for protection of SIP signalling messages	S3	Noted
N4-010947	Liaison Statement on "Progressing the work in SA3 and CN1 on the IP Multimedia core network subsystem"	S3	Noted
N4-010948	Feasibility Study on SS7 Signalling transport in the core network with SUA	Cisco, Motorola	Revised N4-010978
N4-010949	Minimum MAP application context for intersystem inter-MSC handover	Nortel	Withdrawn
N4-010950	IMSI encoding with two character MNC for GPRS	Nortel	Withdrawn
N4-010951	Nick Allen	Nortel	E-mail distribution
N4-010952	Correction on CAMEL3 InsertSubscriberData	Nokia	Withdrawn
N4-010953	Correction on CAMEL3 InsertSubscriberData	Nokia	Withdrawn
N4-010954	Background information on the introduction of the suspend resume functionality in GTP	Lucent	Noted
N4-010955	3GPP Workplan	Chairman	Noted



<b>N4-010956</b>	Change of M 3UA version	Ericsson	Agreed
<b>N4-010957</b>	Status of ITU recommendation Q.2150.3	Ericsson	Agreed
<b>N4-010958</b>	Corrections on the introduction of LCS for PS domain	Fujitsu	Agreed
<b>N4-010959</b>	Rewording usage of P-TMSI and TLLI in "SGSN context request"	Siemens	Agreed
<b>N4-010960</b>	Rewording usage of P-TMSI and TLLI in "SGSN context request"	Siemens	Agreed
<b>N4-010961</b>	Clarification to the usage of the TEID-C	Fujitsu	Agreed
<b>N4-010962</b>	Clarification to the usage of the TEID-C	Fujitsu	Agreed
<b>N4-010963</b>	Proposal on the work split of "End-to-end QoS Stage 3" among CN working groups	CN3	Noted
<b>N4-010964</b>	Charging Characteristics Inclusion in Create PDP Context Message	Hutchison 3G UK Limited	Agreed
<b>N4-010965</b>	Charging Characteristics Inclusion in Create PDP Context Message	Hutchison 3G UK Limited	Agreed
<b>N4-010966</b>	Reply LS on consistent description regarding the use of Charging Characteristics	CN4	Approved
<b>N4-010967</b>	Liaison Statement on adding a RANAP cause to the Relocation Cancel Request	CN4	Revised N4-010982
<b>N4-010968</b>	LS to SA3 on authentication	CN4	E-mail approval
<b>N4-010969</b>	LS to SA3 on signalling for user authentication	CN4	Approved
<b>N4-010970</b>	Additional SGSN related values to Access Type	Nokia	Agreed
<b>N4-010971</b>	Slight Misalignment of Continuity Message Handling	Ericsson	Agreed
<b>N4-010972</b>	Liaison Statement on MAP Messages for GPRS Mobility Management event notifications	CN2	Noted
<b>N4-010973</b>	Addition of data type definitions to EXPORT statements for the usage in CAP	Ericsson	Agreed
<b>N4-010974</b>	Introduction of the Suspend-resume functionality in Rel-4 GTP specification	Lucent Technologies	Agreed
<b>N4-010975</b>	Clarification on the use of the teardown indicator IE	Lucent technologies	Revised N4-010980
<b>N4-010976</b>	Addition of data type definitions to EXPORT statements for the usage in CAP	Ericsson	Agreed
<b>N4-010977</b>	Presence of IMSI TLLI or P-TMSI in SGSN context request message	LS	Revised N4-010984
<b>N4-010978</b>	Feasibility Study on SS7 Signalling transport in the core network with SUA	Cisco, Motorola	Noted
<b>N4-010979</b>	Clarification on the use of the teardown indicator IE	Lucent technologies	Revised N4-010981
<b>N4-010980</b>	Clarification on the use of the teardown indicator IE	Lucent technologies	Agreed
<b>N4-010981</b>	Clarification on the use of the teardown indicator IE	Lucent technologies	Agreed
<b>N4-010982</b>	Liaison Statement on adding a RANAP cause to the Relocation Cancel Request	CN4	Agreed
<b>N4-010983</b>	LS to SA2 (Alessio)	CN4	Approved
<b>N4-010984</b>	Presence of IMSI TLLI or P-TMSI in SGSN context request message	LS	Approved
<b>N4-010985</b>	UpdatedSUA WID	WI	Approved

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## Annex C: Make calls for IPRs

The attention of the members of this Technical Specification Group is drawn to the fact **that 3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners to **inform their respective Organizational Partners of Essential IPRs they become aware of.**

The members take note that they are hereby invited:

- to investigate in their company whether their company does own IPRs which are, or are likely to become Essential in respect of the work of the Technical Specification Group.
- to notify the Chairman, or the Director-General of their **respective** Organizational Partners, of all potential IPRs that their company may own, by means of the IPR Statement and the Licensing declaration forms.

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## Annex D: Access to 3GPP documents

This document briefly outlines some of the more important locations of information that all TSG\_CN WG4 members should be aware of.

### 2.2 3GPP email lists:

To receive information about CN4 issues, all delegates and other interested parties MUST register for email list **3GPP\_TSG\_CN\_WG4**. This can be done by sending an email to [LISTSERV@LIST.3GPP.ORG](mailto:LISTSERV@LIST.3GPP.ORG) with the following single line of text in the body of the message:

```
subscribe 3GPP_TSG_CN_WG4 YourFirstName YourLastName
```

There are many other 3GPP email lists that may also be of interest. Go to <http://www.3gpp.org/e-mail.htm> for further information.

If at any time you would like to confirm which lists you are currently a member of, just send a message to [LISTSERV@LIST.3GPP.ORG](mailto:LISTSERV@LIST.3GPP.ORG) with the following single line of text in the body of the message:

```
QUERY *
```

### 2.3 Email archives:

All 3GPP lists have an associated archive of every email sent via that list. Information on how to access the archive is sent to you when you subscribe to the list. This means that if you have temporary email problems, or have just joined the group, you can check to see if you have missed any messages. The easiest way to search the archive is first to request a list of all messages sent to the particular group you are interested in. For example, to get a list of messages sent via the **3GPP\_TSG\_CN\_WG4** list between 1<sup>st</sup> Jan 1999 and the current date, send the following command to [LISTSERV@LIST.3GPP.ORG](mailto:LISTSERV@LIST.3GPP.ORG):

```
search * in 3GPP_TSG_CN_WG4 since Jan 1999
```

As well as a list of emails sent, you receive instructions about how to retrieve the emails.

Some 3GPP archives are also available via a new user-friendly WWW interface. For CN4, go to:

[http://list.3gpp.org/archives/3gpp\\_tsg\\_cn\\_wg4.html](http://list.3gpp.org/archives/3gpp_tsg_cn_wg4.html)

### 2.4 Meeting calendar:

The central location for all information relating to the 3GPP meeting calendar and the corresponding meeting invitations can be found at: <http://www.3gpp.org/Meetings.htm>

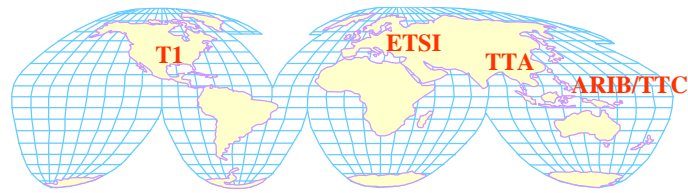
### 2.5 Documents on the server:

All documents submitted to CN4 meetings will be made available on the 3GPP document server in a directory (related to the number of the meeting) under: [ftp://ftp.3gpp.org/TSG\\_CN/WG4\\_protocollars/](ftp://ftp.3gpp.org/TSG_CN/WG4_protocollars/) e.g. the documents for CN4 meeting #4 can be found at:

[ftp://ftp.3gpp.org/TSG\\_CN/WG4\\_protocollars/tsgN4\\_04/Docs/](ftp://ftp.3gpp.org/TSG_CN/WG4_protocollars/tsgN4_04/Docs/)

## ANNEX E: Document history

<b>Document History</b>	
<b>20<sup>th</sup> July 2001</b>	<p>DRAFT v.1.0.0 dispatched to the TSG_CN4 mail exploder for comments.</p> <p>Comments to be addressed to:</p> <p><b>Mr. Kimmo Kymäläinen, 3GPP TSG-CN4 MCC Support</b> MCC - ETSI Secrétariat Tel :+33 (0)4 92 94 42 38 E-mail: kimmo.kymalainen@etsi.fr</p> <p>A deadline of a week was given to the CN4 delegates for e-mail comments on the draft report.</p> <p><b>E-mail comments back by 5<sup>th</sup> August 2001</b></p>
<b>17<sup>th</sup> August 2001</b>	Draft report v2.0.0 placed on the FTP serve
<b>15<sup>th</sup> October 2001</b>	Version 2.0.0 approved at CN4#10 Meeting in Brighton, ENGLAND – Made version 3.0.0. Placed to server as the official meeting report.



## Third Generation Partnership Project

**Draft Meeting REPORT v1.0.0**  
**3GPP TSG\_CN\_WG4#09bis**

**Helsinki, FINLAND**  
29<sup>th</sup> – 30<sup>th</sup> August 2001



Hosted by Nokia

**Chairman:** Mr. Ian Park, Vodafone  
**MCC Support:** Mr. Kimmo Kymäläinen, ETSI MCC.

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# 1 Opening and welcome

Mr. Ian Park, CN4 chairman opened the meeting. Additional support was provided by Mr. Kimmo Kymäläinen (CN4 Secretary, MCC).

## 1.1 IPR call

The document is included in Annex C.

The agenda was presented and **approved** (N4-010991).

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# 2 Allocation of documents to agenda items

The document allocation (N4-010992) was **approved**

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# 3 Liaison Statements

None

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# 4 Handover of multicall

None

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# 5 Handover of an active call+held call configuration

None

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# 6 The minimum MAP AC version required for inter-MSCHandover

**Document:** N4-011008  
**CR:** 29.002-303r2  
**Title:** Minimum MAP application context for intersystem MSC handover from GSM to UMTS  
**Source:** Ericsson, Nokia  
**Presented:** Mr. Rouzbeh Farhoumand  
**Discussion:**

- Vodafone: MAP AC version 3 is not clearly. Have to be: MAP handover AC version 3.

**Decision:**

Revised as N4-011016 (29.002-303r3) and **approved** without presentation. Also, mirror CR for Rel-4 N4-011017 (29.002-307r2) **approved**.

**Document:** N4-011010  
**CR:** 29.002-308r1  
**Title:** Minimum MAP application context for intersystem MSC handover from GSM to UMTS  
**Source:** Ericsson, Nokia  
**Presented:** Mr. Rouzbeh Farhoumand  
**Discussion:**

- A correction as in document N4-011008. Have to be: MAP handover AC version 2.

**Decision:**

Revised as N4-011018 (29.002-308r2) and **approved** without presentation. Also, mirror CR for Rel-4 N4-011019 (29.002-309r2) **approved**.

**Document:** N4-011012  
**CR:** 23.009-040  
**Title:** GSM to UMTS Handover: Location Reporting in 3G\_MSC-B for no call up case  
**Source:** Lucent Technologies  
**Presented:** Mr. Richard Hemmeter  
**Discussion:**

**Decision:** **Endorsed** by CN4 ad hoc. Also, mirror CR for Rel-4 N4-011013 **endorsed** (29.009-041)

**Document:** N4-011014  
**CR:** 23.009-046  
**Title:** Indication of intra-MSC handover from MSC-A or 3G MSC-A  
**Source:** Nokia  
**Presented:** Mr. Jari Jansson  
**Discussion:**

**Decision:** **Endorsed** by CN4 ad hoc. Also, mirror CR for Rel-4 N4-011015 **endorsed** (29.009-047)

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## 7 Output documents



## 7.1 Change Requests

Tdoc #	Title	Source
N4-011016	CR 29.002-303r3 (R99) on Minimum MAP application context for intersystem MSC handover from GSM to UMTS	Ericsson/Nokia
N4-011017	CR 29.002-307r2 (Rel-4) on Minimum MAP application context for intersystem MSC handover from GSM to UMTS	Ericsson/Nokia
N4-011018	CR 29.002-308r2 (R99) on Minimum MAP application context for intersystem MSC handover from UMTS to GSM	Ericsson/Nokia
N4-011019	CR 29.002-309r2 (Rel-4) on Minimum MAP application context for intersystem MSC handover from UMTS to GSM	Ericsson/Nokia

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## Annex A : Participants

### Member of 3GPP (ETSI)

Mr. Markus Berg	ALCATEL S.A.	3GPPMEMBER (ETSI)	FR +49 711 821 47464	ma.berg@alcatel.de
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### Member of 3GPP (T1)

Mr. Rouzbeh Farhoumand	Ericsson Inc.	3GPPMEMBER (T1)	US +1 972 583 8061	rouzbeh.farhoumand@ericsson.com
Mr. Richard Hemmeter	Lucent Technologies	3GPPMEMBER (T1)	US +1 630 713 7270	hemmeter@lucent.com

### Organisation partner representative (ETSI)

Mr. Kimmo Kymalainen	Mobile Competence Center		FR +33 4 92 94 42 38	kimmo.kymalainen@etsi.
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## Annex B: List of Temporary Documents

Tdoc n° 3GPP	List of Temporary Documents	Source	Status
N4-010991	Agenda	Chairman	Approved
N4-010992	Tdoc allocation	Chairman	Approved
N4-010993	List of agreed output documents	Chairman	Approved
N4-010994	Minimum MAP application context for intersystem MSC handover from GSM to UMTS	Ericsson/ Nokia	Revised Tdoc N4-011008
N4-010995	Minimum MAP application context for intersystem MSC handover from GSM to UMTS	Ericsson/ Nokia	Revised Tdoc N4-011009
N4-010996	Minimum MAP application context for intersystem MSC handover from UMTS to GSM	Ericsson/ Nokia	Revised Tdoc N4-011010
N4-010997	Minimum MAP application context for intersystem MSC handover from UMTS to GSM	Ericsson/ Nokia	Revised Tdoc N4-011011
N4-010998	Subsequent InterSystem Handovers	Nortel Networks	Revised Tdoc N4-011003
N4-010999	Subsequent InterSystem Handovers	Nortel Networks	Revised Tdoc N4-011004
N4-011000	Subsequent InterSystem Handovers	Nortel Networks	Revised Tdoc N4-011005
N4-011001	Minimum MAP application context for intersystem MSC handover from UMTS to GSM	Nortel Networks	Withdrawn
N4-011002	Minimum MAP application context for intersystem MSC handover from UMTS to GSM	Nortel Networks	Withdrawn
N4-011003	Subsequent InterSystem Handovers	Nortel Networks	Revised Tdoc N4-011006
N4-011004	Subsequent InterSystem Handovers	Nortel Networks	Revised Tdoc N4-011007
N4-011005	Subsequent InterSystem Handovers	Nortel Networks	Withdrawn
N4-011006	Subsequent InterSystem Handovers	Nortel Networks	Withdrawn
N4-011007	Subsequent InterSystem Handovers	Nortel Networks	Withdrawn
N4-011008	Minimum MAP application context for intersystem MSC handover from GSM to UMTS	Ericsson/ Nokia	Revised Tdoc N4-011016
N4-011009	Minimum MAP application context for intersystem MSC handover from GSM to UMTS	Ericsson/ Nokia	Revised Tdoc N4-011017
N4-011010	Minimum MAP application context for intersystem MSC handover from UMTS to GSM	Ericsson/ Nokia	Revised Tdoc N4-011018
N4-011011	Minimum MAP application context for intersystem MSC handover from UMTS to GSM	Ericsson/ Nokia	Revised Tdoc N4-011019
N4-011012	GSM to UMTS Handover. Location reporting in 3G_MSC-B for no call up Case	Lucent technologies	Endorsed by CN4 ad hoc
N4-011013	GSM to UMTS Handover. Location reporting in 3G_MSC-B for no call up Case	Lucent technologies	Endorsed by CN4 ad hoc
N4-011014	Indication of Intra MSC handover from 3G_MSC-B to MSC-A/3G_MSC-A	Nokia	Endorsed by CN4 ad hoc
N4-011015	Indication of Intra MSC handover from 3G_MSC-B to MSC-A/3G_MSC-A	Nokia	Endorsed by CN4 ad hoc
N4-011016	Minimum MAP application context for intersystem MSC handover from GSM to UMTS	Ericsson/ Nokia	Agreed
N4-011017	Minimum MAP application context for intersystem MSC handover from GSM to UMTS	Ericsson/ Nokia	Agreed
N4-011018	Minimum MAP application context for intersystem MSC handover from UMTS to GSM	Ericsson/ Nokia	Agreed
N4-011019	Minimum MAP application context for intersystem MSC handover from UMTS to GSM	Ericsson/ Nokia	Agreed

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## Annex C: Make calls for IPRs

The attention of the members of this Technical Specification Group is drawn to the fact **that 3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners to **inform their respective Organizational Partners of Essential IPRs they become aware of.**

The members take note that they are hereby invited:

- to investigate in their company whether their company does own IPRs which are, or are likely to become Essential in respect of the work of the Technical Specification Group.
- to notify the Chairman, or the Director-General of their **respective** Organizational Partners, of all potential IPRs that their company may own, by means of the IPR Statement and the Licensing declaration forms.

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## Annex D: Access to 3GPP documents

This document briefly outlines some of the more important locations of information that all TSG\_CN WG4 members should be aware of.

### 2.2 3GPP email lists:

To receive information about CN4 issues, all delegates and other interested parties **MUST** register for email list **3GPP\_TSG\_CN\_WG4**. This can be done by sending an email to [LISTSERV@LIST.3GPP.ORG](mailto:LISTSERV@LIST.3GPP.ORG) with the following single line of text in the body of the message:

**subscribe 3GPP\_TSG\_CN\_WG4 YourFirstName YourLastName**

There are many other 3GPP email lists that may also be of interest. Go to <http://www.3gpp.org/e-mail.htm> for further information.

If at any time you would like to confirm which lists you are currently a member of, just sent a message to [LISTSERV@LIST.3GPP.ORG](mailto:LISTSERV@LIST.3GPP.ORG) with the following single line of text in the body of the message:

**QUERY \***

### 2.3 Email archives:

All 3GPP lists have an associated archive of every email sent via that list. Information on how to access the archive is sent to you when you subscribe to the list. This means that if you have temporary email problems, or have just joined the group, you can check to see if you have missed any messages. The easiest way to search the archive is first to request a list of all messages sent to the particular group you are interested in. For example, to get a list of messages sent via the **3GPP\_TSG\_CN\_WG4** list between 1<sup>st</sup> Jan 1999 and the current date, send the following command to [LISTSERV@LIST.3GPP.ORG](mailto:LISTSERV@LIST.3GPP.ORG):

**search \* in 3GPP\_TSG\_CN\_WG4 since Jan 1999**

As well as a list of emails sent, you receive instructions about how to retrieve the emails.

Some 3GPP archives are also available via a new user-friendly WWW interface. For CN4, go to: [http://list.3gpp.org/archives/3gpp\\_tsg\\_cn\\_wg4.html](http://list.3gpp.org/archives/3gpp_tsg_cn_wg4.html)

### 2.4 Meeting calendar:

The central location for all information relating to the 3GPP meeting calendar and the corresponding meeting invitations can be found at: <http://www.3gpp.org/Meetings.htm>

### 2.5 Documents on the server:

All documents submitted to CN4 meetings will be made available on the 3GPP document server in a directory (related to the number of the meeting) under: [ftp://ftp.3gpp.org/TSG\\_CN/WG4\\_protocollars/](ftp://ftp.3gpp.org/TSG_CN/WG4_protocollars/) e.g. the documents for CN4 meeting #4 can be found at: [ftp://ftp.3gpp.org/TSG\\_CN/WG4\\_protocollars/tsgN4\\_04/Docs/](ftp://ftp.3gpp.org/TSG_CN/WG4_protocollars/tsgN4_04/Docs/)

## ANNEX E: Document history

<b>Document History</b>	
<b>04<sup>th</sup> September 2001</b>	<p>DRAFT v.1.0.0 dispatched to the TSG_CN4 mail exploder for comments.</p> <p>Comments to be addressed to:</p> <p><b>Mr. Kimmo Kymäläinen, 3GPP TSG-CN4 MCC Support</b> MCC - ETSI Secrétariat Tel :+33 (0)4 92 94 42 38 E-mail: kimmo.kymalainen@etsi.fr</p> <p>A deadline of a week was given to the CN4 delegates for e-mail comments on the draft report.</p> <p><b>E-mail comments back by 14<sup>th</sup> September 2001</b></p>
<b>28<sup>th</sup> September 2001</b>	Draft report v2.0.0 placed on the FTP serve
<b>15<sup>th</sup> October 2001</b>	Version 2.0.0 approved at CN4#10 Meeting in Brighton, ENGLAND – Made version 3.0.0. Placed to server as the official meeting report.