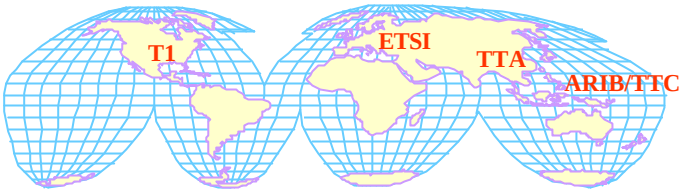
# *DRAFT*




# Third Generation Partnership Project

## DRAFT REPORT v1.1.0

## 3GPP TSG-CN3 / ETSI SMG3 WPD

Meeting # 8

28th Feb – 3rd March 2000
Sophia Antipolis, France

Hosted by ETSI

**Chairman:** **Norbert Klehn, Siemens AG.** norbert.klehn@icn.siemens.de

**Vice Chairman:** **Graham Heaton, Brand Communications.** grahamh@brandcomms.com

**Vice Chairman:** **Achim Braun, Alcatel.** achim.braun@alcatel.de

**Secretary:** **David Boswarthick, ETSI MCC.** david.boswarthick@etsi.fr

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# 1 Opening of the Meeting

The 8th CN3 meeting took place from 28th February to 3rd of March in Sophia Antipolis hosted by ETSI. David Boswarthick welcomed the N3 delegates to Sophia Antipolis on behalf of ETSI, and explained the logistical details for the week. The meeting took place at the ETSI Einstein building, which is the new home of the MCC since the end of 1999. The meeting room was equipped with a LAN and internet access that allowed documents to be distributed electronically as well as permitting the retrieval of related documents from the 3GPPand ETSI web sites.

The N3 Chairman Mr. Norbert Klehn, opened the meeting at 09:30 on Monday 28th February. He set the objectives for the meetings as follows:

- Finalize R99 work items
- Kick-off for Release 2000

# 2 Approval of the Agenda

**N3-000001:** **Draft Meeting Agenda.** Presented by the N3 Chairman.

**Content:** Contains the draft Agenda for CN3#8 Meeting.

**DISCUSSION:** Norbert introduce the agenda document and outlined the schedule of the meeting for the rest of the week.

Day 1 N3 Plenary session

Day 2-4 the meeting split into the PS and CS sub-groups

Day 5 closing N3 plenary session, and agreement of the output documents.

**RESULT:** The Agenda was **AGREED.**

# 3 Registration of documents

The meeting documents are available on the 3GPP server at:
ftp://ftp.3gpp.org/TSG_CN/WG3_interworking/TSGN3_08/tdocs/

The input documents were assigned to the draft agenda by the N3 chairman.

**N3-000001:** **Draft Meeting Agenda.** Presented by the N3 Chairman.

**DISCUSSION:** The draft agenda also shows the allocation of the temporary documents to the agenda items. The initial allocation was discussed at the beginning of the meeting, and the allocations agreed and/or modified. This exercise is reflected in the structure of this meeting report and the original Agenda document is not revised.

**RESULT:** The document was **AGREED.**

# 4 Approval of the meeting report of TSG-CN3 # 7

## 4.1 CN3#7 Meeting Report

The meeting report can be found at: ftp://ftp.3gpp.org/TSG_CN/WG3_interworking/TSGN3_07/Report/

**N3-000002:** **CN3#7 Draft Meeting Report.** Presented by David Boswarthick, MCC.

**CONTENT:** Contains the latest version of the draft meeting report for the CN3#7 meeting held in Sophia December 1999.

**DISCUSSION:** The CN3#7 report was completed and distributed at the end of the meeting. There was the usual 2-week deadline for comments by e-mail, and these comments have been integrated in the revised meeting report presented in this document.

Some additional comments were made to the text, for clarification and these were incorporated into a revised version of the report.

**RESULT:** The document was **REVISED to 0069**

**ß REVISED ß**

**N3-000069:** **Rev. CN3#7 Meeting Report.**

**DISCUSSION:** The meeting report was approved and was placed to the meeting server as the final CN3#7 meeting report, (v3.0.1)

**RESULT:** The document was **AGREED**

## 4.2 TSG_N#6 Meeting Report

**N3-000004:** **CN#6 Draft Meeting Report.** Presented by David Boswarthick, MCC.

**CONTENT:** Contains the latest version of the draft meeting report for the TSG_N#6 meeting held in Nice, December 1999.

**DISCUSSION:** The CN#6 meeting report was completed and distributed by the secretary at the end of the meeting. It has been open for comments by e-mail, and these comments have been integrated in the revised meeting report presented in this document.

**RESULT:** The document was **NOTED**

**N3-000003:** **N3 Status Report to TSG_N#6.** Presented by CN3 Chairman

**CONTENT:** Contains the status report presented by N3 Chairman to the TSG_N#6 meeting held in Nice, December 1999. Provided for information only to N3.

**DISCUSSION:** **Presentation of Multimedia:** during the plenary it was agreed to split Multimedia into two parts one for R99 and the other R00. However some comments in the presentation of the W.I for R00 Multimedia. CN plenary requested more information on the content of the work item the original W.I sheet was updated during the CN plenary meeting and is presented to CN3 in a later document.

**Removal of 29.006 and 23.070:** CN followed the proposal of CN3 to propose the removal of 29.006 and 23.070 because the interworking towards PSPDNs by circuit switched services was deleted by S1. Originally the Bearer service BS 30 NT was designed only for this interworking towards PSPDNs. However, in the recent years the spectrum was extended. It is also applicable for V.120 interworking towards ISDN and also for CAPI applications. As consequence, S1has **NOT** deleted Bearer service 30 NT, only the interworking to PSPDNs. CN3 has to check whether information from the removed specifications are still necessary and have to be moved to any of the specifications of the 27-series.

**RESULT:** The document was **NOTED**

**N3-000006:** **Notice from TSG_N#6 to N3.** Presented by CN3 Chairman.

**CONTENT:** Contains the email sent to N3 by Norbert summarizing the outcome of the CN Plenary meeting #6.

**DISCUSSION:** The N3 delegates agreed that the chairman's e-mail to the group after a TSG_N plenary is useful, and they welcome this for future meetings.

**RESULT:** The document was **NOTED**

## 4.3 Reports from R00 Tutorial and CN Ad hoc in Mexico

**N3-000007:** **Draft Report from S2 tutorial on R00.**

**CONTENT:** Contains the latest version of the draft meeting report for the S2 tutorial on R00 issues held in Mexico, January 2000.

**DISCUSSION:** **Comments should be addressed to Alain Sultan, the S2 secretary (alain.sultan@etsi.fr)**

**RESULT:** The document was **NOTED**

**N3-000008:** **Draft Report from CN R00 ad Hoc Meeting.**

**CONTENT:** Contains the latest version of the draft meeting report for the CN R00 Ad Hoc meeting held in Mexico, January 2000.

**DISCUSSION:** N3 delegates asked several questions on individual areas of the document. However these areas are covered in individual documents elsewhere in this section.

**RESULT:** The document was **NOTED**

**N3-000009:** **R00 ARCHITECTURE. Source S2,** Presented by Norbert.

**CONTENT:** Contains the R00 architecture developed by S2 and presented by Ericsson during the S2 tutorial on All IP. Identifies the two major steps for R00.

- ⊗ **Call/bearer separation for the CS domain.** The R99 CS domain architecture evolves by separation of transport and control towards an bearer independent CS domain architecture allowing for IP, and other transport, means internal in the PLMN. (The terminals need no IP capabilities for using services of the CS domain).
- ⊗ **Addition of IP based Multimedia services as an overlay to the PS domain** An IP based multimedia (IM) service control architecture is introduced into the R00 architecture in parallel to the CS domain architecture. The multimedia service control architecture offers services similar, but not the same, to that of the CS domain (e.g. pure voice calls) and in addition services comprising multiple different bearers. The separation of transport and control is inherent. This approach evolves IP based multimedia control standards to support the application services of the mobile network. The service control architecture uses the IP bearer services of the PS domain between the terminal and the network for IP transport. The terminals have to support IP bearer of the PS domain to use IM domain services. The IM domain and the PS domain are architecturally separated allowing any other IP access network.

Also identifies the different domains for R00, (PS/ C and IM [IP Multimedia] domains.

**DISCUSSION:** **Note:** The **GM** interface is missing from the architecture diagram. GM is between the CSCF and TE.

Mapping between the identified domains and external standardization bodies. ie. Mc Interface H.248, CSCF H.323. we need information on the stability of these external elements.

**RESULT:** The document was **DISCUSSED**

**N3-000010:** **QoS ARCHITECTURE**

**CONTENT:** Presented for information only to N3.

**RESULT:** The document was **NOTED**

**N3-000011:** **22.976 VERSION 0.5.0, Study on PS domain services and capabilities.**

**CONTENT:** Note: this document is not yet approved within S1 and is presented for information only to N3. Delegates are invited to read this off-line

**RESULT:** The document was **NOTED**

**N3-000012:** **23.821 VERSION 0.1.0, Architecture Principles for Release 2000**

**CONTENT:** Contains the first draft of the stage 2 work for this area.

**RESULT:** The document was **NOTED**

**N3-00013:** **LS on Nc Nb and Mc reference points in Release ´00 architecture.**

**CONTENT:** Contains a LS from S2 to CN on the R00 architecture. It has been input to this meeting for information only.

SA2 has been working on the R'00 reference architecture, and would like to inform the CN R00 Ad Hoc of the progress on three of the interfaces in the architecture. The latest proposed R´00 reference architecture is reproduced below in Figure 2 below, with the reference points further discussed in this document (Mc, Nc and Nb) highlighted. The latest technical report (TR 23.821 v 0.1.0) is included in document N3-000012.

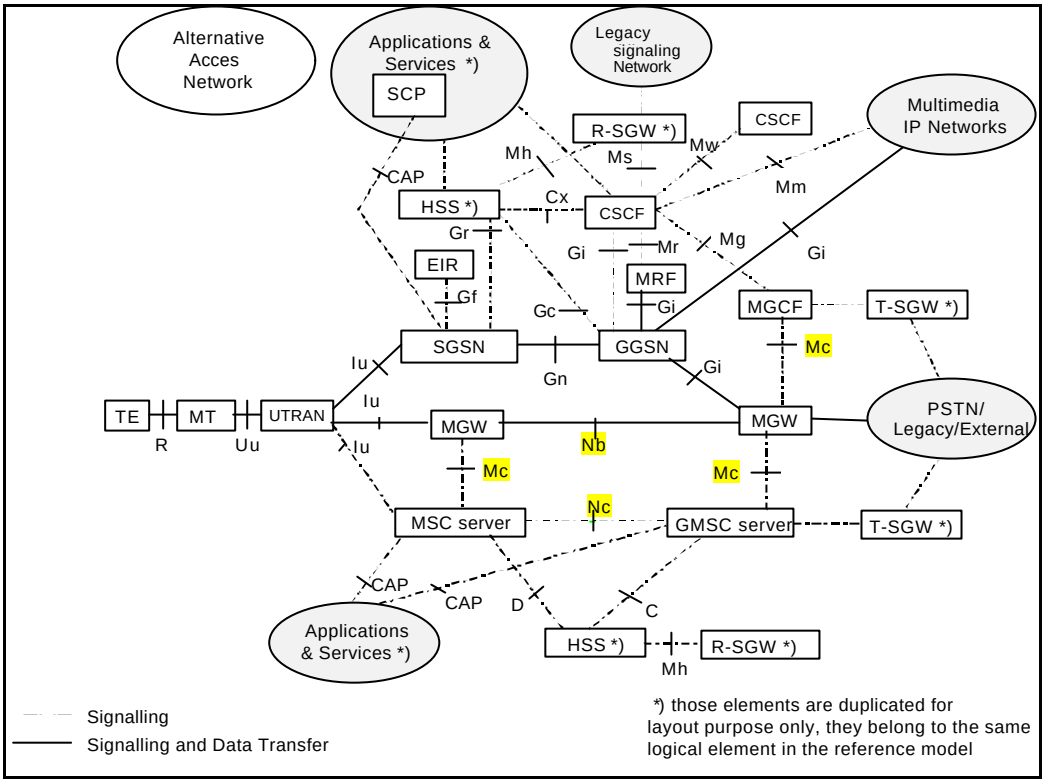


**Figure 1 Proposal for R'00 reference architecture**

**DISCUSSION:** The CN R00 treated this document and replied with a list of OPEN ISSUES, that may be found in **N3-000015.**

**RESULT:** The document was **NOTED**

**N3-000014:** **CN Interface Allocation, source Ericsson.** Presented to N3 by Norbert.

**CONTENT:** Initial allocation of R00 interfaces to TSG_N working groups. Provided for information only to N3.

**DISCUSSION:** In addition to those already identified, N3 should also have responsibility for **GI**, **Nc** and **Mc** as well as the MGW element. However the definition of the corresponding CODECs should be under the responsibility of S3.

It is noted that the '**R**' reference point will be lost from N3 to T2, which will result in the transfer of 27.060 and 07.60 to the T2 group.

The scope and ownership of the Gm reference point between MT and CSCF is unclear.

**Note:** N3 have requested to be responsible for all of the Gi interfaces, including the internal Gi between the GGSN and MGW.

Note ISDN - PTSN interworking of GPRS has been deleted from R99, and it is shown in the R00 architecture. **Will it be resurrected for R00?**

**Note:** It was agreed in Mexico that S2 would be responsible for the creation of Work Items for R00, and these work items will be developed by CN and its working groups.

There was an additional discussion on the Friday session, on that the possible work split may be for R00. For the moment no division of work has been agreed. This will be further examined at the TSG_N meeting in Madrid.

**RESULT:** The document was **NOTED**

**N3-000015:** **LS on Open items identified by TSG CN All IP ad-hoc**

**CONTENT:** Contains the output from the R00 CN ad hoc meeting. A LS to S2 on the 00 open issues as seen by CN. The following issues need to be decided upon (TR or Stage 1 and draft Stage 2) before the TSG CN All IP work can be planned in detail:

- *Scope*
  - *Definitions, the vocabulary needs to be stabilized.*
  - *Phases for scheduling the work for R00, R01,...*
  - *How to distinguish between signaling and data in all IP stream?*
- *Interfaces between nodes*
  - *Does All IP cover only PS or can CS also be supported?*
  - *Between which system entities?*
  - *The protocol requirements for the protocols that are run over the R00 interfaces, e.g. Nb, Nc, Mb, Mh, Mr, Mw and Cx*
  - *The impact of IP transport on existing protocols*
  - *Identification of functionality of the functional elements*
- *Scenarios to be supported*
  - *Roaming service scenarios*
  - *Inter-release compatibility (R00 MS in R99 network, R99 MS in R00 network, both PS and CS)*
  - *Handover scenarios (R00 MS in R99 network, R99 MS in R00 network, both PS and CS)*
  - *Non-supporting R00 implementations (CS only, PS only, speech support,...)*
- *VoIP*
  - *CAMEL control of VoIP*
  - *Deciding Basic Call State Model for VoIP*
  - *The use of the mainstream IP standards for VoIP*
- *Numbering and Addressing*
- *Emergency calls in the PS domain, without SIM*
- *Security, Authentication*
- *Call Control*
  - *Deciding which CC protocol(s) to use, e.g. 24.008 CC, H.323, SIP,…*
  - *The location of CC protocols*
  - *Compatibility requirements between different CC protocols*
- *Quality of Service*
  - *QoS enhancements compared with R99*
  - *Mapping of QoS to CC QoS / BC*
  - *Mapping of overall end to end QoS in each new interface*

**RESULT:** The document was **NOTED**

## 5 Reports / Liaisons from other groups

**N3-000021:** **Response to Liaison statement concerning HSCSD specifications.**

**CONTENT:** Contains a LS from N1 to S1 and copied to N3.

**DISCUSSION:** The original LS from S1 was seen by N3 in the last meeting and N3 has already replied to S1.

**RESULT:** The LS was **NOTED.**

**N3-000022:** **Liaison Statement on Maximum size of N-PDU**.

**RESULT:** The LS was **POSTPONED TO PS.** See ANNEX A.

**N3-000023:** **Reply of RAN2 to N1s LS (N3-000022)**.

**RESULT:** The LS was **POSTPONED TO PS.** See ANNEX A.

**N3-000035:** **Reply to LS to S1 on 3G Services**.

**DISCUSSION:** Already seen at CN3#7

**RESULT:** The LS was **NOTED.**

**N3-000036:** **Liaison statement on BEARER MODIFICATION WITHOUT PRE-NOTIFICATION**.

**RESULT:** The LS was **POSTPONED to CS.** See section 7.7.

**N3-000037:** **LS on addition of general bearer services.**

**DISCUSSION:** It was noticed that the LS was missing the attachment.. The original document was retrieved from the 3GPP web site, and the LS document was revised to include the attachment.

**RESULT:** The LS was **REVISED to N3-000072 and POSTPONED to CS.**

**N3-000038:** **LS on Release'99 clean-up**

**RESULT:** The LS was **POSTPONED to CS.** See section 7.7.

**N3-000039:** **LS on Push Services for GPRS**.

**RESULT:** The LS was **POSTPONED to PS.** See ANNEX A.

**N3-000040:** **LS from S1 for clarification of necessity of registration Interworking profile for activation on PS domain**.

**RESULT:** The LS was **POSTPONED to PS.** See ANNEX A

**N3-000041:** **LS from T2 on Rejection on GPRS ATD R97 modification.**

**DISCUSSION:** Already seen at N3#7

**RESULT:** The LS was **NOTED.**

**N3-000042:** **LS from T2 on Confirmation of definition for "active communication" for the PS domain.**

**DISCUSSION:** Already seen at N3#7

**RESULT:** The LS was **NOTED.**

**N3-000043:** **LS from S2 on Deletion of PDP type X.25.**

**CONTENT:** TSG S2 thanks S1 for the LS on 3G Services (Tdoc S1-991001). S2 agrees that PDP type X.25 can be deleted from the specifications. S2 has agreed on 23.060 CR 096 (Tdoc S2-000100) that removes all mention of PDP type X.25 from the release 99 version of this specification.

**DISCUSSION:** N3 have CRs in place to delete X.25 from the specifications.

**RESULT:** The LS was **NOTED.**

**N3-000044:** **Response to the Liaison Statement from S2 on clarification of necessity of registration**.

**RESULT:** The LS was **POSTPONED to PS.** See ANNEX A.

**N3-000045:** **Reply from S2 to Liaison statement on Bearer Modification Without Pre-Notification.**

**RESULT:** The LS was **POSTPONED to CS.** See section 7.7.

**N3-000046:** **S2 Response to Liaison Statement on Maximum size of N-PDU**.

**RESULT:** The LS was **POSTPONED to PS.** See ANNEX A.

**N3-000047:** **S2 Response on Radio Access Bearer attributes.**

**RESULT:** The LS was **POSTPONED to CS.** See Section 7.7.

**N3-000048:** **Response LS from S2 on Session Management QoS parameters**.

**CONTENT:** Contains the response from TSG S2 to TSG N1 on the LS on Session Management QoS parameters (N1-99C93). In this document, S2 provides information and answers to the questions and issues raised by N1.

**DISCUSSION:** QoS is not under the remit of N3.

**RESULT:** The LS was **NOTED.**

**N3-000058:** **Liaison statement from N2 on 3G-H.324M**.

**RESULT:** The LS was **POSTPONED to CS.** See section 7.3.

**N3-000059:** **Answer from S2 to the Liaison statement on PPP Encapsulation (R2-99D16)**.

**DICSUSSION:** N3 have already started work on this area

**RESULT:** The LS was **POSTPONED to PS.** See ANNEX A.

**N3-000060:** **S2 Reply LS to TSG-N3 on RAB requirements for CS data**.

**CONTENT:** S1 agrees to the N3's proposal that the attributes Transfer delay, SDU error ratio and Residual bit error ratio shall be subject to operator tuning.

**DISCUSSION:** N3 have already started work on this area

**RESULT:** The LS was **POSTPONED to CS.** See section 7.1.1.

# 6 Administrative issues

## 6.1 Project Co-ordination

No input documents to this meeting

## 6.2 Vocabulary and Abbreviations

**N3-000063:** **TR 25.990 V3.0.0 VOCABULARY** Presented by Norbert.

**CONTENT:** R5 maintain this document and request all TSGs to provide comments and information to be included in the vocabulary document.

TR 25.990 is a collection of terms, definitions and abbreviations related to the baseline documents defining 3GPP objectives and systems framework. This document provides a tool for further work on 3GPP technical documentation and facilitates their understanding. The terms, definitions and abbreviations as given in this document are either imported from existing documentation (ETSI, ITU or elsewhere) or newly created by 3GPP experts whenever the need for precise vocabulary was identified.

**DISCUSSION:** The chairman encourages delegates to provide comments in order to provide more clarity as well as improving understanding between TSGs and their working groups.

**RESULT:** The document was **NOTED**

**N3-000062:** **TR 21.095 V0.1.0 VOCABULARY** Presented by Norbert.

**CONTENT:** S1 maintain this document and request all TSGs to provide comments and information to be included in the vocabulary document.

**RESULT:** The document was **NOTED**

**N3-000018:** **Definitions, Abbreviations and Symbols used in Specifications under the domain of TSG-CN3** Presented by Rune Werner Wiik of Ericsson.

**CONTENT:** The following contribution lists all Definitions, Abbreviations and Symbols used in the technical Specifications under the domain of TSG CN3 that are listed in document **N3-99410**:

**Observations:**

There seems to be no consistency in how terminology is handled in the 3GPPCN3 specifications.

Several documents contain no sections on these subjects at all, whilst other contain one, two or all three.

Some documents contain a few internal terms as well as referencing external specifications, with or without indicating which terms that applies. This may cause some confusion as e.g., 01.04 for some of the abbreviations contains two or more meanings of the same term.

In a few cases there are some differences between the explanations of the "same term" used in different 3GPPCN3 specifications. This may cause misinterpretation of these specifications.

3GPP is currently working on a UMTS specific document on terminology, TR 21.905. This document will contain Abbreviations as well as Definitions and Equations. However, version 1.0.0 does not list Symbols.

A preliminary check has been made between the terminology used by 3GPPCN3 today towards TR 21.905 Version 1.0.0. See the column 21.905 for the result.

**DISCUSSION:** The document was discussed and the definitions and abbreviations examined in detail.

The result of this discussion was provided in a LS **N3-000081**. The LS includes definitions that need to be common across 3GPP groups.

**ACTION:** Abbreviations – All rapporteurs should examine their specifications and list which abbreviations should be included. This information shall be fed back to Rune, who will write the LS.

**RESULT:** The document was **DISCUSSED and a REVISED to 0090 and be added as an attachment to 0081.**

## ß REVISED ß

**N3-000081:** **LS on .Terminology in 3GPP specifications in Response to S1 and RAN's request for comments/input input to 3GPP TR 21.905 and 3GPP TS 21.990.** Presented by Rune.

**CONTENT:** Contains comments from N3 to S1 on the vocabulary document 21.905, as well as a list of vocabulary that N3.

**DISCUSSION:** Modification to the text. Removal of attachment **0090**

Still require input from rapporteurs to show which abbreviations are really needed.

**RESULT:** The document was **REVISED to 0123**

## ß REVISED ß

**N3-000123:** **REV. LS on .Terminology in 3GPP specifications in Response to S1 and RAN's request for comments/input input to 3GPP TR 21.905 and 3GPP TS 21.990.** Presented by Rune.

**DISCUSSION:** Some modifications were made on line during the meeting.

**RESULT:** The document was **REVISED to 0125**

## ß REVISED ß

**N3-000125:** **Rev. LS on .Terminology in 3GPP specifications in Response to S1 and RAN's request for comments/input input to 3GPP TR 21.905 and 3GPP TS 21.990.** Presented by Rune.

**DISCUSSION:** Revised document to be sent to N3 e-mail exploder and will be reviewed until Thursday

**RESULT:** The document was **AGREED to be sent on e-mail**

## 6.3 Maintenance of Specifications

No Input to this agenda item

## 6.4 Information

**N3-000070:** **Document numbering and FTP directory structure** Presented by David.

**CONTENT:** Contains the document numbering and FTP directory structure of the 3GPP server

**DISCUSSION:** The document is for information.

**RESULT:** The document was **NOTED**

## 6.5 Next meetings, allocation of hosts

**N3-000016:** **Future N3 meetings** Presented by Norbert.

**CONTENT:** Contains the listing of future N3, as well as other CN SWG meetings

**DISCUSSION:** Note the clash with R00 Ad Hoc meeting in April, and also proposed to move the December meeting to allow time for preparation for the TSG_N plenary.

**RESULT:** The document was **NOTED**

| Meeting | Date | Host, Location | Comments |
|---|---|---|---|
| TSG-CN3#9 | 10th – 14th April 2000 | Siemens, Berlin | |
| TSG-CN3#10 | 22 – 26 May 2000 | USA, Hawaii | same location as N1 and N2 |
| TSG-CN3#11 | 3rd – 7th July 2000 | **Host required** | **Host required** |
| TSG-CN3#12 | 11th – 15th Sep 2000 | USA | Same location as N1 and N2 |
| TSG-CN3#13 | 17th – 19th Oct 2000 | **Host required** | **Host required** |
| TSG-CN3#14 | 13th – 17th Nov 2000 | **Host required** | same date as N1 (Lucent) |

# 7 Circuit Switched Work Items:

## 7.1 Circuit switched Bearers in UMTS

### 7.1.1 Concept

**N3-000056:** **23.910 Alignment to RANAP and other clarifications.** Presented by Erik of Ericsson.

**CONTENT:** Contains updates to 3G TR 23.910 V1.0.0 to incorporate RANAP alignment.

**DISCUSSION:** Note v1.0.0 and v0.1.0 different on the Title page.

These changes are also reflected in a CR to 27.001.

**RESULT:** The document was **REVISED to 0071**

**ß REVISED ß**

**N3-000071:** **Rev. 23.910 Alignment to RANAP and other clarifications.** Presented by Achim, Erik and Juha.

**DISCUSSION:** Agreed to become version 2.0.0 and presented to TSG_N#7 for approval. Editorial modification, and accept the revision marks.

**RESULT:** The document was **REVISED to 0128**

**ß REVISED ß**

**N3-000128:** **Rev. 23.910 Alignment to RANAP and other clarifications.**

**DISCUSSION:** To be provided by E-mail before next week

**RESULT:** The document was **AGREED- Once it is provided by e-mail**

**N3-000060:** **Reply LS from S1 to TSG-N3 on RAB requirements for CS data.**

**CONTENT:** With reference to LS from N3 contained in N3-99215, S1 answers each N3s questions

**Q.1** S1 agrees to the N3's proposal that the attributes Transfer delay, SDU error ratio and Residual bit error ratio shall be subject to operator tuning.

**Q.2** S1 agrees to the N3's proposal that the attributes Transfer delay, SDU error ratio and Residual bit error ratio shall be subject to operator tuning.

**Q.3** S1 agrees to the proposal that the traffic class also shall be subject to operator tuning.

**Q.4** S1 agrees to the N3's proposal to upgrade the transparent data BS in UMTS in order to provide a common BS that is adequate for multimedia telephony. The transparent data BS for multimedia telephony should have the attribute independently from the Data transparent.

**Q.5** S1 believes it would be beneficial to have the same capability of ISDN if sensible from RAN point of view. However, it should be possible for operators to choose lower capabilities.

**DISCUSSION:** S1's response to **Q.4** is not clear – we will send a mail to the contact person to asking for clarification.

Also the answer to **Q.5** is not clear and we will also for clarification in the mail.

Following the response to their questions by e-mail (see N3-00121), N3 decided to postpone their decision on this LS until CN3#9.

**RESULT:** The document was **NOTED and POSTPONED until CN3#9**

**N3-000121:** **E-mail reply from S1 contact referring to LS in 0060.**

**CONTENT:** Contains the e-mail received from Katsuya Kawamura to questions raised in relation to **N3-000060**.

**For the question 4)**, S1 agreed to upgrade the transparent data BS in order to provide multimedia telephony. S1 had changed TS22.002 accordingly (Multimedia Call was added).

We assumed different types of applications for each bearer services. For example, Video Telephony is one of typical application for Multimedia Call This is conversational type of communication and it's delay sensitive. On the other hand, File Transfer kind of application is for Bit Transparent Mode. This is streaming type of communication and it's error sensitive. Consider above, we think Multimedia Call and Bit Transparent Mode should be able to have different set of attributes. This is the meaning of the second sentence.

**For the question 5)**, we discussed what BER value is suitable for 64kbps UDI. 64kbps UDI is assumed to be used for interworking with ISDN and it would be better if BER is as lower as possible. Our assumption is that 10^-6 is enough for interworking with ISDN, i.e. "same capability of ISDN" we mentioned in the LS means equal to have BER value = 10^-6. On the other hand, this attribute is subject to operator tuning. Therefore, we think the operators can choose BER value for 64kbps UDI (10^-6~10^-4).

**DISCUSSION:** The response to Q.4 shows that N3 are not confirming to the S1 requirements with regards to transparent. Additional problem for handover between UMTS and GSM – the mapping for signaling is unclear. However N3 meets the requirements for Multimedia.

Note S1 have their next meeting at the same time as N3 have their meeting in Berlin.

**N3 postpone their decision on this until N3#9**

**RESULT:** The document was **NOTED**

### 7.1.2 2G – 3G Handover

**N3-000005:** **Comparison of the 3 approaches for handover from 2G to 3G MSC.** Presented by Achim of Alcatel.

**CONTENT:** One of the remaining open items for CS Data for R99 was the handover from 2G to 3G MSC. The purpose of this document is to provide an overview and a rating of the current proposals.

**DISCUSSION:** The Iu UP protocol is terminated in the 3G MSC.

Erik mentioned that HDLC without CRC is possible with commercially available chips where the CRC can be disabled. This was not agreed by all parties.

Agreement could not be made for the values of EFFORT.

FT mentioned that the most desirable solution for an operator is that which has the least impact on the 2G MSC.

Juha mentioned that CPS Packet does have a protection of the user data against the emulation of the CPS header in the user data. The mechanism is similar to that used in the primary rate access G.703.

Note during the meeting Erik and Norbert drew schematics on the board to explain the different elements involved in handover 2G –3G.

It was proposed to re-study the proposals for 2G-3G handover from Alcatel, Nokia and Ericsson. These were provided in the revised documents listed below:-

N3-000073 for Achim rev of 471

N3-000074 for Erik rev of 477

N3-000075 for Juha rev of 389 – **Juha withdrew his document and the NOKIA proposal**

**RESULT:** The document was **DISCUSSED**

**N3-000075:** **2G-3G handover Proposal from Nokia.**

**DISCUSSION:** Juha withdraw the document, and also the NOKIA proposal.

**RESULT:** The document was **WITHDRAWN**

**N3-000073:** **Proposal for A-TRAU' protocol.** Presented by Achim of Alcatel.

**CONTENT:** Contains the modified proposal for A-TRAU' to be used for handover from 2G MSC to 3G.

**DISCUSSION:** **Q. from Erik:** how is jitter handled on the ATM link? **R.** Send and empty SDU/Fill

**RESULT:** The document was **REVISED to 0120**

**ß REVISED ß**

**N3-000120:** **Rev. Proposal for A-TRAU' protocol.** Presented by Achim of Alcatel.

**DISCUSSION:** The content of the A-TRAU' solution was added to the concept paper in **N3-000071.**

- **The A-TRAU' solution has been adopted by N3 for Handover 2G – 3G.**

This concept will result in modifications to specifications that relate to handover. These need to be identified.

Agreed to make a CR to 29.007. This will be made in **N3-000122.**

**RESULT:** The document was **AGREED.**

**N3-000122:** **CR to 29.007 for A-TRAU'.** Presented by Achim of Alcatel.

**COMMENTS:** Some editorial modifications.

**RESULT:** The document was **REVISED to 0124.**

**ß REVISED ß**

**N3-000124:** **REV. CR to 29.007 for A-TRAU'.** Presented by Achim of Alcatel.

**RESULT:** The document was **AGREED.**

**N3-000074:** **2G-3G handover Proposal from Ericsson.** Presented by Erik.

**DISCUSSION:** Ericsson withdrew their proposal, leaving the A-TRAU' solution for handover 2G-3G.

**RESULT:** The document was **WITHDRAWN**

### 7.1.3 Lower User Rates for NT services

No input documents for this Agenda Item, although this still was an open item for R99.

Loeiz also mentioned that it is possible that S1 are not aware of the N3 recommendation NOT to include lower user rates in UMTS. The latest version of 22.002 was reviewed to find out what is the current specification status in S1 (see N3-000076).

The problem with the provision of lower user rates is as follows:

- For transparent services new Radio Access Bearers would be necessary. This should be avoided. So, transparent services will not be provided for lower user rates. This was already confirmed by S1.
- For non-transparent services, the problem is not in the user plane because here for all of the lower user rates the RAB for 14.4 kbit/s can be used. But here we have the problem related to the signaling means: The value of the user rate in the UMTS BC will be overwritten by the FNUR value that is always equal or grater that 9.6 kbit/s.
    - However, in the case of autobauding the modems can negotiate any user rate. So, the support of lower user rates for 3.1 kHz Audio services can be provided for the non-transparent case.
    - For UDI/RDI such negotiation is not possible. But in the case of mobile terminated calls the user rate value of the ISDN-BC can be mapped to 9.6 kbit/s in the UMTS-BC and the different speeds of both links can be handled by flow control. For mobile originated calls this is not possible because of the signaling restrictions mentioned above.

N3 decided to provide a CR considering these different cases and to report the service restrictions to S1 asking for confirmation.
Hence 29.007 needs to be modified to reflect this. This modification is given on N3-000077.

**N3-000077:** **CR to 29.007 for Deletion of lower user rates in UMTS.** Presented by Norbert.

**CONTENT:** *Reason for change:* User rates lower than 9.6 kbit/s are no more supported for CS Data services in UMTS. Support of these user rates only in the scope of autobauding.*:*

**DISCUSSION:** **Table 7b**, note 29: MTC not only for autobauding, but also for UDI/RDI possible. Inclusion of mapping of the lower user rates to FNUR of 9.6Kbps. One condition of this is being in the non-transparent mode.

**Table 7a** user rate field. Note 28, moved to header of user rate, and modified to indicate that for UMTS the User rate must be set to 9.6kbps. Also Note 10 should be modified to remove the reference to UMTS only.

**RESULT:** The document was **REVISED to 00109**

**ß REVISED ß**

**N3-000109:** **Rev. CR to 29.007 for Deletion of lower user rates in UMTS.** Presented by Loeiz Janson of France Telecom.

**DISCUSSION:** Requirement to align 27.001 with these changes for call rejection when the user rate is lower than 9.6kbit/s.

Note 15: In UMTS if FNUR and other modem type is not present, the MSC shall reject the call.

**RESULT:** The document was **REVISED to 00113**

**ß REVISED ß**

**N3-000113:** **Rev. CR to 29.001 for Deletion of lower user rates in UMTS.** Presented by Loeiz.

**DISCUSSION:** Should be changed to a correction (F), and placed on hold until we get confirmation from S1. That we do not need to implement the lower user rates

**RESULT:** The document was **REVISED to 00119**

**ß REVISED ß**

**N3-000119:** **Rev. CR to 29.001 for Deletion of lower user rates in UMTS.** Presented by Loeiz Janson of France Telecom.

**DISCUSSION:** AGREED but PLACED ON HOLD until S1 confirms

**RESULT:** The document was **AGREED BUT ON HOLD**

**N3-000076:** **22.002 v3.2.0.** Presented by Norbert.

**CONTENT:** Contains the latest version of 22.002.

**DISCUSSION:** Related LS sent to S1 in N3-000108, asking whether in UMTS only user rates of 9,6 kbit/s and higher should be supported.

**RESULT:** The document was **NOTED**

**N3-000108:** **LS to S1 on Lower User Rates in UMTS for Circuit Switched Data Services.** Presented by Norbert.

**CONTENT:** Contains a LS asking TSG SA WG1 to consider the proposal, to support user rates less than 9,6 kbit/s as indicated above. In detail this means that the user rates 300, 1200, 2400 and 4800 bit/s towards the fixed network

**DISCUSSION:** Even if they are now required, these user rates cannot be included for R99. The decision has already been taken for transparent services. It is necessary to support these user rates not only for autobauding but also for UDI for non-transparent transmissions.

**RESULT:** The document was **REVISED to 0110**

**ß REVISED ß**

**N3-000110:** **Rev. LS to S1 on Lower User Rates in UMTS for Circuit Switched Data Services.** Presented by Norbert.

**DISCUSSION:** Requirement to include mobile terminated calls.

Notes the potential requirement to standardize new RABs. Lowest rate we have over the air is 14.4kbit/s RAB, which we use also for 9.6kbit/s.

**RESULT:** The document was **REVISED to 0114**

**ß REVISED ß**

**N3-000114:** **Rev. LS to S1 on Lower User Rates in UMTS for Circuit Switched Data Services.** Presented by Norbert.

**RESULT:** The document was **AGREED**

### 7.1.4 Change Requests

**N3-000052:** **CR to 27.001 on Alignment to RANAP semantics and other clarifications.** Presented by Erik.

**CONTENT:** ***Reason for Change:*** The RAB setting parameters need to be aligned to the latest semantic changes of the RANAP protocol (R3-000377). Clarifications related to the QoS parameters guaranteed/maximum bit rate and to maximum SDU size have been made for RAB setting for T and NT data. The setting of the traffic class is made operator changeable, according to N3 agreement, and a corresponding LS issued towards S2. (S2-99A05)

**DISCUSSION:** Some modifications to spelling and cover page

**RESULT:** The document was **REVISED to 0078**

**ß REVISED ß**

**N3-000078:** **Rev. CR to 27.001 on Alignment to RANAP semantics and other clarifications.** Presented by Erik.

**RESULT:** The document was **AGREED**

**N3-000057:** **CR to 27.001 on Bit transparent services RDI and UDI.** Presented by Erik.

**CONTENT:** **Reason for Change:** Addition of bit transparent services using UTRAN

**DISCUSSION:** Delete Note 1 (not required).

**Q.** Why is acc and max number of traffic channel required? **A.** for fall back to GSM.

**RESULT:** The document was **REVISED to 0079**

**ß REVISED ß**

**N3-000079:** **Rev. CR to 27.001 on Bit transparent services RDI and UDI.** Presented by Erik.

**DISCUSSION:** Textual modifications.

**RESULT:** The document was **REVISED to 0111**

**ß REVISED ß**

**N3-000111:** **Rev. CR to 27.001 on Bit transparent services RDI and UDI.** Presented by Erik.

**DISCUSSION:** Modification of 32Kbit/s changed to TCH/F32.

**RESULT:** The document was **REVISED to 0115**

**ß REVISED ß**

**N3-000115:** **Rev. CR to 27.001 on Bit transparent services RDI and UDI. Presented by Erik.**

**RESULT:** The document was **AGREED**

## 7.2 Facsimile

**N3-000020:** **23.146 Normal Scenarios.** Presented by Ryoko Okigi of NTT DoCoMo.

**CONTENT:** Contains a PowerPoint presentation of the call flows for normal scenarios supporting the CR to 23.146.

**DISCUSSION:** The documents on facsimile were not provided at the beginning of February as confirmed by NTT DoCoMo but only after the begin of the meeting on Monday afternoon. Erik requested more time to study the proposal. Also some clarifications to the content of the document.

- **The N3 chairman repeated that documents shall be made available before the meeting start to allow other delegates the time to study them and provide comments.**

**RESULT:** The document was **POSTPONED until THURSDAY**. On Thursday this document was **NOTED** because no further questions raised up and because it was decided to concentrate on the CR provided in N3-000019.

**N3-000019:** **CR to 23.146 .** Presented by Ryoko Okigi of NTT DoCoMo.

**CONTENT:** Contains a CR to 23.146 v1.0.0.

**DISCUSSION:** It should be noted that v1.0.0 is not under TSG change control, and an official CR is not required.

Tandem free issue is not completely resolved, but NTT intend to do this in the future.

The scope for R99 only includes mobile to fixed, (not mobile to mobile), however this is planned for the future. Comment from Achim that GSM fax supports mobile to mobile and if 23.146 solution cannot do the same this should be hi-lighted to S1. **NTT asked for time to check this.** Section 6.2 specifies mobile-to-mobile calls, but not tandem free.

Erik commented on some confusion of terms between TAF and IWF.

Usually the TAF is within the mobile station, however N3 agree to use the term TAF to refer to the corresponding function within the IWF.

Improvements to figure 2a and alignment with the text.

Erik questioned the reason for dividing Fax adapter and TAF, when they are always shown as being used together in this document. This is very different to the previous version where the separation of these functions was maintained.

Erik: Clarification required on the control of the busy signal using the L2RCOP buffers. – NTT: 23.146 uses L2RCOP to do flow control.

Note NTT DoCoMo has sent clarification information to Ericsson Japan. Also in Japan there are regular meetings with the attendance of NTT and Ericsson. During these meetings the following decision has been taken.

**FA protocol shall terminate in the TAF.**

The N3 chairman emphasized that that bi-literal agreements are no justification for any decision in standardization. Such a fundamental change has to be confirmed by the meeting. However, it was.

Further, he requested that all information needed to implement this service have to be incorporated in the specification. It is not sufficient to have it in b-literal documents. This was confirmed by NTT DoCoMo.

***Another point questioned by Erik was related to T.38. It is unclear what part of T.38 are required.*** – It was originally agreed in the ABIKO meeting, that NTT DoCoMo would study the use of T.38. Deviations to T.38 would be limited.

Suggested by Erik to take this offline as not to hold up the meeting.

It was noted that CR was provided too late and interested companies did not have time to check the content, and thus N3 cannot agree that 23.146 is 80% stable and hence not ready to be presented to TSG_N#7 as a v2.0.0.

NTT mentioned that the delay was due to the production of the SDLs.

If this is not presented to TSG_N#7, it is possible that it will not be included as a part of R99, and therefore reconsidered for R00.

**Hi-lights of main concerns:**

⊗ Architecture on UE side, is not as expected

⊗ Application of T.38 is not complete

⊗ Text is not clear, and many areas require clarification

**NTT DoCoMo will produce a new version of this document, considering the above comments. 0126**

**On next Thursday, it will either be agreed as a v200 for presentation to TSG_N, or if not presented as a v1xx, to be presented to TSG_N.**

**RESULT:** The document was **REVISED to 0126**, will be presented until Tuesday with subsequent approval in N3 electronically.

## 7.3 Multimedia

**N3-000017:** **Revised Work Item Description sheet for Multimedia.** Presented by Norbert.

**CONTENT:** Contains the W.I sheet for Multimedia that was revised during the CN#6 meeting.

**DISCUSSION:** CN3 shall improve the WI description adding those items that cannot be completed in R99.

**RESULT:** The document was **REVISED to 0080**

**ß REVISED ß**

**N3-000080:** **Revised Work Item Description sheet for Multimedia.** Presented by Juha of Nokia.

**CONTENT:** Contains the W.I sheet for Multimedia that was revised during the N3#8 meeting.

**DISCUSSION:** Supporting company was changed to Nokia only, and the original supporting companies (NTT DoCoMo, Lucent and SONERA) requested time to check the modifications to the Work Item.

**RESULT:** The document was **REVISED to 0118**

**ß REVISED ß**

**N3-000118:** **Revised Work Item Description sheet for Multimedia.** Presented by Juha

**COMMENTS:** Lucent NTT and DoCoMo renew their support for this modified work item.

**RESULT:** The document was **REV to 0127**

**ß REVISED ß**

**N3-000127:** **Revised Work Item Description sheet for Multimedia.** Presented by Juha.

**COMMENTS:** Will be provided before the TSG_N#7 meeting

**RESULT:** The document was **AGREED to be provided by e-mail before Thurs.**

**N3-000024:** **Multimedia fallbacks and call retry.** Presented by Juha of Nokia

**CONTENT:** Fallbacks from UDI to speech or 3.1kHz do not seem to be possible due to incompatibilities with ISDN specifications and network implementations. The document contains an e-mail exchange on this topic

**DISCUSSION:** This document shows us why we do not have fallback from UDI to speech, only fallback

**RESULT:** The document was **NOTED.**

**N3-000025:** **Multimedia Telephony (3G TR 23.972 version 0.0.6)**.

**CONTENT:** Contains an N1 TR on Multimedia telephony.

**DISCUSSION:** Presented for information only and delegates are invited to study it off line, and provide comments back to the rapporteur.

Delegates are invited to consider this report, and the latest version of TR 23.976 will be presented at N3#8.

**RESULT:** The document was **NOTED**

**N3-000026:** **DRAFT CR TO TS 24.008 FOR CS MULTIMEDIA CALLS.** Presented by.

**CONTENT:** CR to 24.008 (responsibility of N1) and aligns to CRs being presented in N3 this week.

**DISCUSSION:** Comment to 9.3.23.1.2 and 9.3.23.2.14 removal of in call modification cannot be accepted by N3, as in call modification is required for Alternate (speech) fax.

**Note:** A mail was sent to N1 during the meeting expressing this. No reply was received before the end of the N3 meeting.

**RESULT:** The document was **DISCUSSED**

**N3-000027:** **CR to 29.007 on FALLBACK TO SPEECH IN A CS MULTIMEDIA CALL SETUP.** Presented by Juha of Nokia.

**CONTENT:** *Reason for change:* Increased user friendliness in a multimedia call setup.

**DISCUSSION:** **Juha asks**: Should we consider Fall back during call setup or during the call.

**Achim:** suggested alternative text for the section 9.4.2

Comments made to the use of "shall/can/may". Modifications were may to align with **3GPP Drafting Rules Annex E**. ftp://ftp.3gpp.org/Information/Drafting-rules.pdf

**RESULT:** The document was **REVISED to 0082**

**ß REVISED ß**

**N3-000082:** **Rev. CR to 29.007 on FALLBACK TO SPEECH IN A CS MULTIMEDIA CALL SETUP.** Presented by Juha of Nokia.

**DISCUSSION:** Slight modification of wording /terminology (shall/can/may).

Mention the order of the BC determine the order of the services.

IWF support of V.8 is not clear.

**RESULT:** The document was **REVISED to 0112**

**ß REVISED ß**

**N3-0000112:** **Rev. CR to 29.007 on FALLBACK TO SPEECH IN A CS MULTIMEDIA CALL SETUP.** Presented by Juha of Nokia.

**RESULT:** The document was **AGREED**

**N3-000028:** **CR to 27.001 on FALLBACK TO SPEECH IN A CS MULTIMEDIA CALL SETUP.** Presented by Juha of Nokia.

**CONTENT:** Contains the corresponding CR to 27.001 as that presented in N3-000027.

**DISCUSSION:** Erik proposes a re-wording for by replying with 2 BC-IEs

**RESULT:** The document was **REVISED to 0083**

**ß REVISED ß**

**N3-000083:** **Rev. CR to 27.001 on FALLBACK TO SPEECH IN A CS MULTIMEDIA CALL SETUP.** Presented by Juha of Nokia.

**RESULT:** The document was **AGREED**

**N3-000058:** **LS from N2 on 3G-H.324M.** Presented by Norbert

**CONTENT:** In this LS TSG-N2 thank TSG-N1 & N3 for their liaison statement on 3G-H.324M. We note that 3G-H.324M is defined as Bearer Service in 3GPP. This means that we will need to define a code point for this bearer service in 23.016 and 29.002; we will prepare the necessary CRs. We would also draw the attention of S1 and the NSS ad hoc to the need to consider the applicability of supplementary services to the new bearer service.

**DISCUSSION:** N3 note the LS, we must check the existence of the new point code.

**RESULT:** The document was **NOTED**

## 7.4 Services clean up R99

**N3-000061:** **CR to 22.002 made only applicable to CS Domain.** Presented by Norbert.

**CONTENT:** The document contains a CR to 22.002 made by S1, that makes 22.002 applicable only to the CS domain. It is provided to N3 for information.

**DISCUSSION:** Note the document did not contain the revision marks, and this was resolved by taking the document directly from the S1 meeting server.

N3 notes that this change is not consistent with the 27 series of specifications where BS 30 NT is only used for basic packet.

Erik proposed to Deletion of BS 30 NT from out specification. This was discussed and the following decision taken.

- **N3 agree to the removal of basic packet service but the BS 30 NT remains**

Interested parties are invited to compete the specifications for BS 30 NT, facsimile and CAPI.

N3 must reconsider the removal of 29.006 regarding BS 30 NT. May need to move some of the text to other specifications.

29.007 Is OK but 27.001 requires updates to its tables.

**RESULT:** The document was **DISCUSSED**

## 7.5 UMTS Maintenance

**N3-000049:** **CR to 27.002 on UMTS clean up.** Presented by Rune Werner Wiik of Ericsson.

**CONTENT:** *Reason for change:* GSM references replaced with the corresponding 3G TS specifications where available. Unused references deleted. Some new references included. Changed CCITT references to ITU-T. Replaced several “will” with “shall”. Some minor editorial corrections.

**DISCUSSION:** Question refer to 01.04 or 21.905? Note we cannot refer to a TR that has not yet been approved (21.905). this shall be included at a later date, should it be approved.

Note name of 22.002 has changed to include ***Circuit*** Bearer Services … …

Note name of 24.022 has changed to Radio Link Protocol (RLP) for Circuit Switched Bearer and Teleservices.

**RESULT:** The document was **REVISED to 0084**

**ß REVISED ß**

**N3-000084:** **Rev. CR to 27.002 on UMTS clean up.** Presented by Rune Werner Wiik of Ericsson.

**RESULT:** The document was **AGREED**

**N3-000050:** **CR to 27.003 on UMTS clean up.** Presented by Rune Werner Wiik of Ericsson.

**CONTENT:** *Reason for change:* GSM references replaced with the corresponding 3G TS specifications where available. Unused references deleted. Some new or missing references included. Changed CCITT references to ITU-T. Removal of basic packet service. Replaced several “will” with “shall”. Some minor editorial corrections.

**DISCUSSION:** Suggested to modify the CR to include the removal of X.25 from the specification.

Removal of the header of Section 5, and inclusion of reference to GSM in the titles of 5.1 and 5.2.

**RESULT:** The document was **REVISED to 0085**

## ß REVISED ß

**N3-000085:** **Rev. CR to 27.003 on UMTS clean up.** Presented by Rune Werner Wiik of Ericsson.

**DISCUSSION:** Note: Achim checked that Sections 8 as deleted are not required for Facsimile 03.46 and can be deleted (as shown in this CR)

**RESULT:** The document was **AGREED**

**N3-000051:** **CR to 27.001 - Corrections related to FTM.** Presented by Erik of Ericsson.

**CONTENT:** *Reasons for Change:* The rules for re-negotiation of BC-IE parameters sync/async and rate adaptation need to be broadened.

**DISCUSSION:** Similar change required for Multimedia this is provided in **N3-000086**

**RESULT:** The document was **AGREED**

**N3-000086:** **CR to 27.001 - Corrections related to MULTIMEDIA.** Presented by Erik of Ericsson.

**RESULT:** The document was **AGREED**

**N3-000053:** **Contribution on incompatibilities due to change of references for LLC from ETS 300 102-1 to Q.931.** Presented by Erik of Ericsson.

**CONTENT:** During the last meetings, it was decided to change all references towards ETS 300 102-1 (12/99) into references towards Q.931 (05/98). So far, TSs 27.001 and 29.007 have been updated accordingly.

However, some inconsistencies, mainly backward compatibility problems related to the modem type coding in the LLC, that were already detected in Tdoc N3-99271 still exist and have not been taken into consideration so far.

This document reconsiders these issues and proposes to enhance the description in the above mentioned TSs to avoid backward compatibility problems. To overcome this problem, the following solution is suggested:

1. From release 99 onwards, Q.931 should be followed, i.e. TSs 27.001 and 29.007 shall refer to Q.931 for the coding of the LLC IE. (already covered)

2. For backward compatibility, old ETS 300 102-1 code points for the parameter modem type should be supported for the LLC IE. An appropriate note should be added when referencing Q.931 in 24.008, 27.001 and 29.007.

3. As the network nodes still have to support the ETS coding, it must be made sure that these 'obsolete' values are not assigned to new modem types in the LLC IE in Q.931, i.e. also in future releases, the modem type must be uniquely identified by the code point. This can be ensured by e.g. assigning the meaning 'national use' to all of the old ETS code points of the LLC IE that have been assigned new values in Q.931

The document also includes a LS to TSG_CN ITU-T Ad Hoc Group. Due to the introduction of new services requiring new point codes for the LLC IE, as they are defined in Q.931, N3 has decided to change all its references for the LLC IE and ISDN BC IE from ETS 300 102-1 to Q.931.

Change of these references carries one problem related to the modem type field (octet 5d) of the LLC IE. Different code points are used to define the same modem types.

**DISCUSSION:** Relates to change requests in **N3-000054** and **N3-000055.**

Includes a LS to CN ITU_T Ad Hoc. It is agreed that the change is required, but the issue is an old issue. ITU-T may not be aware of this issue of modem types. It may be better to address the originators of Amendment, that is to say ETSI/TC-SPS.

Most probably the lower values will not be use, hence the risk of conflict is low.

The LS should be send to SPS and ITU-T Ad Hoc.

**RESULT:** The report was **NOTED** and the LS was **REVISED to 0088**

## ß REVISED ß

**N3-000088:** **LS to SPS and ITU-T Ad Hoc..** Presented by Erik of Ericsson.

**DISCUSSION:** Modified SPS to SPAN WG5, addition of contact person

**RESULT:** The report was **REVISED to 0104**

## ß REVISED ß

**N3-000104:** **REV. LS to SPS and ITU-T Ad Hoc.** Presented by Erik of Ericsson.

**RESULT:** The report was **AGREED**

**N3-000054:** **CR to 29.007 Clarification of reference to Q.931 for LLC IE.** Presented by Erik of Ericsson.

**CONTENT:** *Reason for change:* Due to backward compatibility problems related to the change of reference from ETS 300 102-1 to Q.931 for the LLC IE, clarifications need to be introduced.

**DISCUSSION:** Incorrect CR Template has been used.

Modify note 12. To include old codes for both BC or for LLC.

Concerns raised on the specific nature of the modifications. This can be resolved by modifying the text to allow for backward compatibility.

**RESULT:** The document was **REVISED to 0087**

## ß REVISED ß

**N3-000087:** **Rev. CR to 29.007 Clarification of reference to Q.931 for LLC IE. Presented by Erik** of Ericsson.

**RESULT:** The document was **AGREED**

**N3-000055:** **CR to 27.001 Clarification of reference to Q.931 for LLC IE.** Presented by Erik of Ericsson.

**CONTENT:** *Reason for change:* Due to backward compatibility problems related to the change of reference from ETS 300 102-1 to Q.931 for the LLC IE, clarifications need to be introduced.

**DISCUSSION:** Incorrect CR Template has been used.

Related document: Amendment in ETS 300 102-1/A2 to ISDN UNI Layer-3, dated October 1993

Note: LLC is an end to end element and generally the network shall not change the LLC, it is transparent.

This CR may therefore not be required to 27.001, and the author wishes to POSTPONE the CR until the next meeting.

**RESULT:** The document was **WITHDRAWN.**

**N3-000065:** **Proposed LS to T2 on the 27 series.** Presented by Erik from Ericsson.

**CONTENT:** N3 would like to draw T2's attention to TSs 27.001, 27.002 and 27.003. Although these specifications deal with protocols between the UE and the CN, which is the reason why N3 is maintaining them, they also contain descriptions that are internal to the UE. Examples of such are references to the UE reference model, references to the classification of TE into TE0, TE1 and TE2 and MT into MT0, MT1 and MT2, and protocols between the TE, TA and MT.

N3 understands that the application of the UE model (23.101) and MS model (04.02), the usage of the terms UE and MS, the interfaces between TA and MT have been discussed in T2. Therefore, N3 requests T2 to verify related issues in the above-

mentioned specifications and to provide comments and propose corrections in order to achieve alignment of the 27 series.

**DISCUSSION:** E-mail discussions have been underway between Erik and Ian Harris on this topic.

The latest versions of 27.001, 27.002 and 27.003 should be added to this LS, once they have been approved at TSG_N#7. It will be done using a link in the document to the FTP web site.

This will be discussed off-line with Ian Harris.

**RESULT:** The document was **REVISED to 0089**

**ß REVISED ß**

**N3-000089:** **Rev Proposed LS to T2 on the 27 series.** Presented by Erik from Ericsson.

**RESULT:** The document was **AGREED**

## 7.6 GSM maintenance

No input to this agenda item.

## 7.7 Other Work Items

**N3-000036:** **LS from S1 on BEARER MODIFICATION WITHOUT PRE-NOTIFICATION.**

**CONTENT:** In this document S1 reply to the LS from N3 (N3-99373) that was sent following the joint N3/S1 session.

**In response to N3s questions:**-

**Q.1** *Regarding the change of bearer during an ongoing call, it is the understanding of CN3 that the destination is not supposed to change upon a swap from speech to data or vice versa. In this understanding correct ?*

**R.1** In any case the terminating application will swap as well. Nevertheless the mobil termination may be the same. It is the same understanding that the calling party can initiate this function regardless of the capability of the destination. If the destination doesn't support this function, it is better to back to previous bearer and to continue communication.

**Q.2** *I s it still reasonable to have an Alternate Speech and Fax Teleservice (TS61) if a bearer modification without pre-notification is specified ?*

**R.2** S1 feels that TS 61 can be replaced by bearer modification without pre-notification., if it can be applied to GSM as well. However S1 has no plans to deleted alternate Speech and Fax teleservice from release 99.

**Q.3** *There is a timing requirement in the modem handshaking which the application/user may have to take into account when swapping from speech to data. It is important for CN3 to know, which applications require the speech-to-data feature, in order to identify and try to circumvent possible problems. Can S1 identify further applications (in addition to the speech-to-emergency-center case) ?*

**R.3** The example of ( C ) which I mentioned above is possible application. Further a general swap which is possible at PSTN (within 3.1kHz audio), i.e. "human negotiation and manual activation of modems / faxes at both ends" would be interesting. It's also seen that this can be also used to provide "single numbering" environment.

**Q.4** *Could the requirement of changing the bearer be satisfied by a multicall or two successive calls controlled on the application level, i.e. by terminating the ongoing call and setting up a new call with the required new bearer ?*

**R.4** Fallback to speech shall be specified for MOC Multimedia call setups. Some requirements can be satisfied with separate calls/multicall. In addition, multicall may not be applicable for the applications such as information delivery that mentioned above.

**Q.5** *Shall the bearer modification be a new general service where the user has to be subscribed to or can anyone with any service subscription try to make a bearer modification?*

**R.5** In general new bearer services is not supported. . There are no additional requirements for subscription checking for release 99.

**DISCUSSION:** A response LS was generated in **N3-000106**

**RESULT:** The document was **DISCUSSED**

**N3-000045:** **LS from S2 on BEARER MODIFICATION WITHOUT PRE-NOTIFICATION.**

**CONTENT:** In this document S2 hi-light the following statement found in chapter 6.1.1 in the report from the TSG SA Meeting #6:

***"It was noted that the Bearer modification without pre-notification given in slide 13) has been deleted by SA WG1 and is no longer required."***

SA WG2 agrees with TSG SA and confirms that the requirement on bearer modification without pre-notification is not included in release 99.

**DISCUSSION:** Note the latest version of the SA Meeting#6 available on the server v003

**The new wording reads:**- *It was decided that SA WG1 should not use the terminology of "Bearer modification without pre-notification" because this specifies the technical solution, which is outside of SA WG1 responsibility (see SA WG1 TD S1-99a34, which contains a liaison statement to CN WG1, CN WG2 and SA WG2).*

- **Before work can be undertaken on this, a Work Item descriptions sheet is required. This shall be provided by S1 and/or interested parties.**

- **In any case it is to late for inclusion in R99, and eventual work will be postponed until R00.**

Technically the functions described in this LS are considered feasible by N3.

A response LS was generated in **N3-000106**

**RESULT:** The document was **DISCUSSED**

**N3-000106:** **LS to S1 and S2 on BEARER MODIFICATION WITHOUT PRE-NOTIFICATION.**

**CONTENT:** Contains a response LS to S1, in which N3 asks S1 and S2 to review the necessity for Bearer Modification without pre-notification in the light of work items such as Multicall. If TSG_S WG1 is of the opinion that Bearer Modification without pre-notification is a requirement for R00, a work item description sheet for R00 should be created.

**DISCUSSION:** Remove the actions, and request work item sheets ONLY if S1 require this service to be developed as a part of R00.

**RESULT:** The document was **REVISED to 0116**

**ß REVISED ß**

**N3-000116:** **Rev. LS to S1 and S2 on BEARER MODIFICATION WITHOUT PRE-NOTIFICATION.**

**DISCUSSION:** Remove the DRAFT, and also the R99 W.I completion paragraph.

**RESULT:** The document was **REVISED to 0117**

**ß REVISED ß**

**N3-000117:** **Rev. LS to S1 and S2 on BEARER MODIFICATION WITHOUT PRE-NOTIFICATION.**

**RESULT:** The document was **AGREED**

**N3-000072:** **LS from S1 on addition of general bearer services.**

**CONTENT:** Revision of N3-00**0037** to include the attachment.

S1 informs N1, N3 and S2 regarding a requirement of additional general bearer services.

This requirement has been already taken into account in S1 and also the relevant WGs. This is for the adjustment of the general bearer services in the specification TS22.002

**DISCUSSION:** **Note** the LS, the attachment was a PDF version of 22.002, that does not include the change marks. In examining the real change request to 22.002 (S1-991046 taken from the server), the change marks are visible.

From these changes N3 notices the introduction of 33.6kbps Non-transparent. Modem rate. This is considered unnecessary by N3.

Modification can be seen in section 3.1.1, where they have added FTM and Multimedia.

Response LS to S1 given in **N3-000107**

**RESULT:** The document was **DISCUSSED**

**N3-000107:** **RE: LS to S1 on addition of general bearer services.**

**CONTENT:** N3 requests the removal of the 33,6 kbit/s row in the 3.1 kHz audio table in 22.002.

**DISCUSSION:** Modification of text. Addition of Contact person.

**RESULT:** The document was **REVISED to 0105**

**ß REVISED ß**

**N3-000105:** **REV. LS to S1 on addition of general bearer services.**

**RESULT:** The document was **AGREED**

**N3-000038:** **LS from S1 on the deletion of CS PAD.** Presented by Norbert.

**CONTENT:** In this document S1 inform N3 that S1 agrees to delete CS PAD and basic packet services and relevant CR to 22.002 has been produced.

**DISCUSSION:** Note this LS already seen in CN3#7 meeting.

The deletion of CS PAS will also result in changes to 03.10, and possibly the 27 series.

However, due to time and limited resources it is not certain that these changes will be ready for R99.

Delegates are invited to produce these changes for the next meeting.

**RESULT:** The document was **DISCUSSED**

**N3-000047:** **LS from S2 on Radio Access Bearer attributes (update of S2-E27).**

**CONTENT:** In this LS S2 reply to a LS from R3, and provide clarification on a number of issues regarding Radio Access Bearer attributes. N3 are copied for information.

**DISCUSSION:** Erik has already updated the concept paper 23.910 in alignment with these comments.

Erik asks that other companies examine the modifications to the concept paper resulting from updates to the QoS Architecture (23.107).

**RESULT:** The document was **DISCUSSED**

## 8 Packet Switched Work Items

The results of the Packet SWG meeting are presented in the PS Chairman's report in **ANNEX A**

# 9 Approval of results

## 9.1 Report of the subgroups

The Report of the Packet SWG was given by Graham Heaton **(N3-000097)**, and the status of documents is reflected in this meeting report.

The Report of the Circuit SWG was given by Norbert Klehn, and the status of documents is reflected in this meeting report.

## 9.2 Work Items

### 9.2.1 State of existing Work Items

### 9.2.2 Work Items

The following Work items were agreed: to be presented to the TSG_N#7 Meeting

| DOC N3-00 | Subject | Release | 1st Respo. | 2nd Respo. | Delivery |
|---|---|---|---|---|---|
| 0127 | Revised W.I for Multimedia | R00 | N3 | | |

## 9.3 Liaison Statements

The following Liaison Statements are agreed by N3:

| DOC N3-00 | Subject | To | Cc | Attachment | Sent |
|---|---|---|---|---|---|
| 0089 | LS requesting verification of 27 series specifications | T2 | | | 3/3/00 |
| 0117 | BEARER MODIFICATION WITHOUT PRE-NOTIFICATION | S1 | S2 | | 3/3/00 |
| 0104 | Additional impacts on Q.931 | CN_ITU-T Ad Hoc, SPAN-5 | TSG_N, N1 | | 3/3/00 |
| 0105 | V.34 modem, user rate 33.6 kbit/s, NT | S1 | | | 3/3/00 |
| 0114 | Lower User Rates in UMTS for Circuit Switched Data Services | S1 | | | 3/3/00 |
| 0091 | Maximum size of N-PDU | N1 | S2<br>R2 | | 3/3/00 |
| 0092 | Push service | S1 | S2 | | 3/3/00 |
| 0093 | Deletion of X.25 and Work Item of Interworking with ISDN / PSTN | S1<br>S2 | T2 | | 3/3/00 |
| 0094 | Answer to the Liaison statement on PPP Encapsulation (S2-99C43) | S2 | R2 | N3-99469, N3-99470 | 3/3/00 |
| 0095 | Clarification of necessity of registration Interworking profile for activation on PS domain" in response to S1-991068 | S1 | S2 | S2-000298 | 3/3/00 |
| 0101 | Vocabulary for 3GPP Specifications (PS) | S1 | R2 | | 3/3/00 |
| 0125 | Vocabulary for 3GPP Specifications (CS) | S1 | R2 | | 9/3/00 |

## 9.4 Change Requests

The following CRs will be sent to TSG CN and / or SMG Plenary for approval:-

| TDoc # | Spec | CR # | Rel | Tdoc Title | CAT | Version | WI |
|---|---|---|---|---|---|---|---|
| N3-000083 | 27.001 | 010 | R99 | FALLBACK TO SPEECH IN A CS MULTIMEDIA CALL SETUP | B | 3.3.0 | Multimedia |
| N3-000115 | 27.001 | 011 | R99 | Bit transparent services RDI and UDI | F | 3.3.0 | CS Data Services |
| N3-000051 | 27.001 | 012 | R99 | CR to 27.001 FTM corrections | F | 3.3.0 | FTM |
| N3-000078 | 27.001 | 013 | R99 | Alignment to RANAP and other clarifications | C | 3.3.0 | CS Data Services |
| N3-000086 | 27.001 | 014 | R99 | Corrections related to MULTIMEDIA | F | 3.3.0 | Multimedia |
| N3-000084 | 27.002 | 003 | R99 | UMTS clean up | F | 3.2.0 | CS Data |
| N3-000085 | 27.003 | 004 | R99 | UMTS clean up | F | 3.2.0 | CS Data |
| N3-000096 | 27.060 | 010 | R99 | Correction of the support for IPv6 for the MS. | F | 3.3.0 | UMTS |
| N3-000031 | 27.060 | 011 | R99 | N1 VOCABULARY ALIGNMENT | F | 3.3.0 | R99 Service Clean up |
| N3-000099 | 27.060 | 012 | R99 | Removal of X.25 from R'99 Packet Domain | F | 3.3.0 | R99 Service Clean up |
| N3-000102 | 27.060 | 013 | R99 | Specification reference section clean-up | F | 3.3.0 | Streamlining |
| N3-000087 | 29.007 | 012 | R99 | Clarification of reference to Q.931 for LLC IE | F | 3.3.0 | CS Data |
| N3-000124 | 29.007 | 013 | R99 | CR to 29.007 for A-TRAU' | B | 3.3.0 | CS Data |
| N3-000112 | 29.007 | 014 | R99 | FALLBACK TO SPEECH IN A CS MULTIMEDIA CALL SETUP | B | 3.3.0 | Multimedia |
| N3-000103 | 29.061 | 009 | R99 | Specification reference section clean-up | F | 3.2.0 | Streamlining |
| N3-000098 | 29.061 | 010 | R99 | Support for the IP-Multicast protocol | F | 3.2.0 | Point to Multipoint |
| N3-000067 | 29.061 | 011 | R99 | Correction for IPv6 support to the Gi reference point, CR to 29.061 | F | 3.2.0 | UMTS |
| N3-000100 | 29.061 | 012 | R99 | Removal of X.25 from R'99 Packet Domain | F | 3.2.0 | R99 Service Clean up |
| N3-000032 | 29.061 | 013 | R99 | N1 VOCABULARY ALIGNMENT | F | 3.2.0 | R99 Service Clean up |
| N3-000019 | | | | | | | |

## 9.5 New TRs / TSs

The following TR/TSs were agreed to be sent to the next TDG_N plenary:

| DOC | Number | Title | Version |
|---|---|---|---|
| 0126 | 23.146 | Technical realization of facsimile group 3 non-transparent | |
| 0128 | 23.910 | Circuit switched data services | |

## 10 Any other business

No other business.

## 11 Close of meeting

The Chairman thanked ETSI for hosting the meeting and for the meeting support given to the CN delegates, which made it possible to make progress in the work.

Also thanked the active participants for all their efforts in completing, he especially thanked Graham Heaton for chairing the Packet SWG and the secretary David Boswarthick.

# Annex A: Report from the Packet SWG.

3GPP CN3#8 / ETSI SMG3WPD
Sophia France
28 Feb - 03 Mar 2000

***CN3#8 N3-000097***

## A.1 Administrative items

### Packet Switched sub-group attendees

| Name | Company |
|---|---|
| HEATON Graham | Brand Communications |
| HOLMSTRÖM Tomas | Ericsson LM |
| JONES Paul | Vodafone |
| TAMURA Toshiyuki | NEC |
| HELGE Johan | Telia |
| ANDRIANTSIFERANA Laurent | Alcatel |
| PEDERSEN Henrik | Dansk Mobiltelefon I/S |
| GILBERTAS Clair | France Telecom |

### Meeting Report - N3-000097.

N3-000097 (this document) is the Meeting Report.

The meeting report was approved in the CN3 Plenary.

## A.2 N3-PS Liaisons Statements

### N3-000022 - N1 LS - "Extension of Maximum N-PDU size (Max SDU size) (formerly N1-99F55) N3-000023 - RAN2 Response to LS (N1-99F55) on Maximum size of N-PDU N3-000046 - SA2 response to Liaison Statement on Maximum size of N-PDU

<Extract: N1-99D74>" *Therefore, in order to avoid PPP packet fragmentation, extension of maximum N-PDU size to be considered. Yet, there is no limitation to send shorter packet than the maximum N-PDU size, a fragmentation will be required only when the PDP PDU size gets larger than the maximum N-PDU size. Consequently, the Maximum N-PDU size should be extend. The value should be at least 1502 byte for PDP type = PPP concerning PPP frame format shown in Figure 1.*"

CN3 drafted a LS statement stating: "CN3 have accepted that SA2 may consider increasing the maximum N-PDU size for release 2000 or later releases and will consider the impact on their specifications 27.060 and 29.061 at that time."

**<outcome> response LS N3000091 Agreed by N3 Plenary**

### N3-000039 – LS regarding "Push services" (NRCAP).

*<Extract>" A number of current and future services require the ability for an external IP network to "push" data to a GPRS terminal. In this context an IP-client at the mobile must have an association with the external IP network to allow the external network to send data whenever the mobile is reachable. S1 feels that it is important that the UMTS packet services can efficiently support push services. IP addresses may be assigned dynamically or statically. The possible solution should cover both cases."*

CN3 drafted a LS statement stating: " In the current specifications, one solution to "push" data to a GPRS terminal is provided through the Network Requested PDP Context Activation procedure described in 23.060. A further example of push services is also available today without IP addressing by deploying WAP over SMS over GPRS.

Nevertheless, the Network Requested PDP Context Activation procedure – as specified today - is only possible with static IP addressing.

CN3 will be happy to investigate technical solutions to allow push service with dynamic IP addressing when the required services are defined. "

**<outcome> response LS N3-000092 Agreed by N3 Plenary**

## N3-000040 - SA1 LS for clarification of necessity of registration Interworking profile for activation on PS domain

## N3-000044 - SA2 LS - response to the LS on clarification of necessity of registration

*<Extract N3-000040>" In TS22.060, it is said that an "interworking profile" is required which is determined per subscription and registration by the user. S1 would like to clarify that it is also required that a user can connect to an external data network without specific registration to that network. The network operator must be able to configure which external networks can be accessed without specific user registration, and which networks do require specific user registration."*

CN3 response references Tdoc N3-000044 (originally Tdoc S2-000298) with a few clarifications

*<Extract N3-000044>" SA2 is happy to confirm that it is possible for the user to activate connections to non-pre-configured external networks by using non-subscribed Access Point Names (APN's). The network operator is able to configure, via O&M actions (e.g. by creating whitelists and blacklists), which external networks can be accessed without specific user registration, and which networks do require specific user registration, e.g. specific subscribed APN's in the user's HLR records. In addition, home network operators are able to control the GGSN's and external networks the users are allowed to access. For example, the home network operator may decide to direct all user traffic via the home network, i.e. a home network GGSN, or to also allow dynamic GGSN and external network selection in the visited environment.*

*The user's HLR record may include pre-registered APN's and/or wildcards allowing the user to access any GGSN and external network interface available either via the visited or home network. In the most restrictive case, the APN may point to a specific GGSN and external network interface in the home network environment, but this is up to the home operator to decide. The APN is tied to a PDP context implying that the access restrictions may vary from one PDP context record to another in the HLR.*

CN3 drafted a LS statement stating: " CN3 would like to agree with the comments made in Liason Statement S2-000298 i.e. It is possible to activate a connection to a special external IP network using an APN without the need to have a user-specific interworking profile pre-registered in PS domain network." (quote from S1-991068).

CN3 would like to take this opportunity (for the sake of clarity) to point out a number of uses of the term "registration", including: "Network Registration", "External Network Registration" and "Specific User Registration" ..... "

**<outcome> response LS N3-000095 agreeing with S2-000298 response and clarifying the term "registration" Agreed by N3 Plenary.**

## N3-000043 – LS S2-000174 agreeing that X.25 will be removed.

*<Extract S2-000174>" S2 thanks S1 for the LS on 3G Services (Tdoc S1-991001). S2 agrees that PDP type X.25 can be deleted from the specifications. S2 has agreed on 23.060 CR 096 (Tdoc S2-000100) that removes all mention of PDP type X.25 from the release 99 version of this specification."*

CN3 drafted a LS statement stating:

"For X.25 - CN3 has raised CR's to delete X.25 from 27.060 and 29.061. These CR's will be presented to CN plenary in Madrid in March.

CN3 would take this opportunity to inform SA1 that CN3 have deleted the work item of Interworking to ISDN / PSTN. It should however be noted that the PDP type OSP was first developed to support both the IHOSS and interworking to ISDN / PSTN services. IHOSS was completed for release '98 but interworking to ISDN / PSTN was not. CN3 has noted that the IHOSS service and PDP type OSP is still supported in 22.060 and 23.060, and therefore CN3 has left the IHOSS service and PDP type OSP in their 27.060 and 29.061 specifications for release '99.

TSG CN3 would kindly ask TSG SA1 whether the IHOSS service and PDP type OSP should be deleted. It is now TSG CN3's view that there are no applications / services requiring the use of IHOSS and OSP, and would therefore recommend these be deleted. "

**<outcome> response LS N3-000093, Agreed by N3 Plenary**

**This LS states that CR's have been raised to remove X.25, and CR's for deletion of IHOSS / OSP will be generated upon confirmation.**

## N3-000059 – LS regarding L2 encapsulation also LS S2-99A62 regards PPP framing and echo request

*<Extract: issue 1>" Our understanding is that the L2 framing described in RFC 1662 will not be transferred on the air interface. L2 framing will only be used between MT \ TE. "*

*<Extract: issue 2>" Regarding further changes to PPP to improve transmission efficiency and handling of header compression this needs to be further study. Removal of echo request will be more complicated to*

*implement because higher layers rely on this function for line supervision. Also, echo request/reply is used to check for unique magic-numbers (defined in RFC 1661).*

CN3 drafted a LS statement stating: " CN3 confirms that the L2 framing, described in RFC 1662, will not be transferred on the air interface.

L2 framing will only be used between MT/TE. This has further been clarified with CRs toward 27.060 and 29.061, CRs 007 (N3-99469) and 003 (N3-99470) attached, which were approved at the CN plenary #6.

Furthermore, we confirm your concerns about the removal of echo request messages. "

**<outcome> response LS N3-000094. Agreed by N3 Plenary**

### LS N3-000101 – LS on "Vocabulary for 3GPP Specifications"

CN3 has reviewed 27.060 and 29.061 for 3GPP specification abbreviations and have included in this liaison statement a list of abbreviations to be included in 29.105. When this is complete CN3 will raise CR's to delete the abbreviations in their specifications of 27.060 and 29.061 and incorporate a reference to 29.105."

**<outcome> LS N3-000101. Agreed by N3 Plenary**

## A.3 N3-PS Change requests

### CR N3-000096 - CR regarding IPv6 references

<source> Nokia

*<Extract>" This CR aligns the 27.060 with the changes made to 23.060 to allow the IPv6 support work correctly with GPRS/UMTS."*

CN3 changed this document to show optionality for IPv6. Since there were no attendees at the CN3 Packet switch sub-group from Nokia, this document will be presented with changes to CN3 Plenary.

**<outcome> NEW CR N3-000096 ACCEPTED**

**<outcome> CR N3-000096 AGREED by CN3 Plenary**

### CR N3-000067 - CR to regarding IPv6 references

<source> Nokia

*<Extract>" The reason is to correct the support for IPv6 and to align 29.061 with the modifications done to 23.060. "*

**<outcome> CR N3-000067 ACCEPTED**

**<outcome> CR N3-000067 AGREED by CN3 Plenary**

### CR N3-000098 - CR to 29.061 for IP Multicast

<source> Ericsson

*<Extract>" To be able to support IP-Multicast the packet Domain must route multicast traffic coming from the internet via the Gi interface, along with the multicast traffic originating from the mobiles and targeted at a multicast group within the PLMN.*

*A multicast destination address is a class D IP address, the GGSN cannot assign it to the PDP context of a mobile.*

*The CR describes a mechanism that maps these class D addresses to PDP addresses assigned to mobiles that are part of a multicast group. "*

<Supporting information from Ericsson contained in original Tdoc S2-99B85>" IP-Multicast, as part of the TCP/IP suite of protocols allows the communication between a single sender and multiple receivers part of a multicast group. Today GPRS is unable to allow mobile subscribers to join multicast groups, and multicast transmissions cannot be routed within the GPRS backbone to reach the mobile subscribers.

The IP-Multicast service was introduced in the 02.60 ETSI document as part of the description about Point-to-Multipoint services. In this white paper we will present a solution to allow the support of IP-Multicast in GPRS. "

CN3 discussed this, suggested some changes

**<outcome> NEW CR N3-000098 ACCEPTED**

**<outcome> NEW CR N3-000098 AGREED by CN3 Plenary**

## CR N3-000029 - removal of IHOSS from 27.060

## CR N3-000030 - removal of IHOSS from 29.061

<source> Ericsson

*<Extract>" SA has deleted the work item 'Modem and ISDN interworking'. In line with this the IHOSS should also be deleted. Doing so removes the need for the OSP in R'99 packet Domain. This CR deletes the OSP and IHOSS from the specification text."*

In discussion CN3 believed they should delete IHOSS, but as IHOSS references remain in the "locked down" version of 23.060 (v3.2.1) it remains until further guidance is received from S1 and S2.

See LS N3-000093

**<outcome> CR N3-000029 and 30 POSTPONED**
**<outcome> LS N3-000093. AGREED by CN3 Plenary**

## CR N3-000031 to 27.060 N1 vocabulary alignment
## CR N3-000032 to 29.061 N1 vocabulary alignment

<source> Ericsson

*<Extract>" In 3G TS 24.008, section 2.2.2 (Vocabulary), it is stated that: (…)*

*- The label (GSM only) indicates this section or paragraph applies only to GSM system. For multi system case this is determined by the current serving radio access network.*

*- The label (UMTS only) indicates this section or paragraph applies only to UMTS system. For multi system case this is determined by the current serving radio access network.*

*- In GSM,… Indicates this paragraph applies only to GSM System. For multi system case this is determined by the current serving radio access network.*

*- In UMTS,… Indicates this paragraph applies only to UMTS System. For multi system case this is determined by the current serving radio access network."*

*This CR aligns the text in the specification with these rules. In particular it removes the use of the term 'GPRS' for indicating that text is applicable only to systems using the 2G (i.e. GSM) radio access network."*

No disagreement from CN3

**<outcome> CR N3-000031and 32 ACCEPTED**

**<outcome> CR N3-000031and 32 AGREED by CN3 Plenary**

## CR N3-000033 to 27.060 Removal of X.25 from R'99 Packet Domain
## CR N3-000033 to 29.061 Removal of X.25 from R'99 Packet Domain

<source> Ericsson

*<Extract>" Support of X.25 is no longer required for R'99 packet Domain."*

CN3 are instructed by S1 to X.25 from their specifications.

CN3 noted that some references affect other groups (e.g. removal of X.25 specific AT commands). These should be made apparent to the responsible group.

**<outcome> NEW CR N3-000099 for 27.060 - ACCEPTED**
**<outcome> NEW CR N3-000099 for 27.060 – AGREED by N3 Plenary**
**<outcome> NEW CR N3-000100 for 29.061 - ACCEPTED**
**<outcome> NEW CR N3-000100 for 29.061 - AGREED by N3 Plenary**
**<outcome> LS N3-000093 - AGREED by CN3 Plenary**

## CR N3-000102 to 27.060 to update references to 3G TS references

<source> CN3

**<outcome> CR N3-000102 – ACCEPTED**

**<outcome> CR N3-000102 – AGREED by N3 Plenary**

## CR N3-000103 to 29.061 to update references to 3G TS references

<source> CN3

**<outcome> CR N3-000103 – ACCEPTED**

**<outcome> CR N3-000103 – AGREED by CN# Plenary**

## A.4 Other Input Documents (CN3 TDocs)

<none>

## A.5 Output Documents

### Applicability for outstanding CRs

All presently outstanding CRs are based on currently approved versions, as shown in the release column in the following table.

### Output document table:

| N3-000 | Type | Title | Spec. | Ver | Rel. |
|---|---|---|---|---|---|
| **091** | LS | Response to LS (N1-99F55) on Maximum size of N-PDU | - | - | |
| **092** | LS | LS on Push service in Response to S1-(99)1061 | - | - | |
| **093** | LS | GPRS - Deletion of X.25 and Work Item of Interworking with ISDN / PSTN | - | - | |
| **094** | LS | Answer to the Liaison statement on PPP Encapsulation (S2-99C43) | - | - | |
| **095** | LS | LS on "clarification of necessity of registration Interworking profile for activation on PS domain" in response to S1-991068 | - | - | |
| **101** | LS | LS on "Vocabulary for 3GPP Specifications" | - | - | |
| **031** | CR | N1 vocabulary alignment. | 27.060 | 3.3.0 | R99 |
| **032** | CR | N1 vocabulary alignment. | 29.061 | 3.2.0 | R99 |
| **096** | CR | Correction of the support for IPv6 for the MS. | 27.060 | 3.3.0 | R99 |
| **098** | CR | Support for the IP-Multicast protocol | 29.061 | 3.2.0 | R99 |
| **099** | CR | Removal of X.25 from R'99 Packet Domain | 27.060 | 3.3.0 | R99 |
| **100** | CR | Removal of X.25 from R'99 Packet Domain | 29.061 | 3.2.0 | R99 |
| **102** | CR | Specification reference section clean-up | 27.060 | 3.3.0 | R99 |
| **103** | CR | Specification reference section clean-up | 29.061 | 3.2.0 | R99 |

## Annex B: List of N3 Meeting Participants

The following delegates attended the CN3#8 meeting.

| | | | | |
|---|---|---|---|---|
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## Annex C: List of documents

Full details can be found in the file *CN3#8-Tdoclist* on the meeting server.

| Tdoc # | Tdoc Title | Type | To Spec. | Version | Status |
|---|---|---|---|---|---|
| N3-000001 | AGENDA FOR CN3#8 MEETING | AGENDA | | | AGREED |
| N3-000002 | CN3#7 DRAFT REPORT | REPORT | | | REV to 0069 |
| N3-000003 | N3 STATUS REPORT TO TSG_N#6 | REPORT | | | NOTED |
| N3-000004 | DRAFT REPORT OF TSG_N#6 | REPORT | | | NOTED |
| N3-000005 | COMPARISON OF THE 3 APPROACHES FOR HANDOVER FROM 2G TO 3G MSC | | | | DISCUSSED |
| N3-000006 | NOTICE FROM TSG_N#6 TO N3 | E-MAIL | | | NOTED |
| N3-000007 | DRAFT REPORT FROM S2 TUTORIAL ON R00 ISSUES | REPORT | | | NOTED |
| N3-000008 | DRAFT REPORT FROM R00 AD HOC | REPORT | | | NOTED |
| N3-000009 | R00 ARCHITECTURE | | | | DISCUSSED |
| N3-000010 | QOS ARCHITECTURE | | | | NOTED |
| N3-000011 | 22.976 VERSION 0.5.0 | SPEC | [22.976] | | NOTED |
| N3-000012 | 23.821 VERSION 0.1.0 | SPEC | [23.821] | | NOTED |
| N3-000013 | LS on Nc Nb and Mc reference points in Release ´00 architecture. | [LS] | | | NOTED |
| N3-000014 | INTERFACE CONSIDERATION | | | | NOTED |
| N3-000015 | OPEN ISSUES from CN R00 Ad Hoc | | | | NOTED |
| N3-000016 | N3 FUTURE MEETING DATES | | | | NOTED |
| N3-000017 | REVISED WI DESCRIPTION SHEETFOR MULTIMEDIA | W.I SHEET | | | REV to 0080 |
| N3-000018 | CONTRIBUTION ON TERMINOLOGY IN 3GPPCN3'S SPECIFICATIONS | | | | REV to 0090 |
| N3-000019 | ENHANCEMENT OF TS 23.146 | CR | 23.146 | 1.0.0 | REV to 0126 |
| N3-000020 | 23.146 NORMAL SCENARIOS | REPORT | | | DISCUSSED |
| N3-000021 | RESPONSE TO LIAISON STATEMENT CONCERNING HSCSD SPECIFICATIONS | LS IN | | | NOTED |
| N3-000022 | LIAISON STATEMENT ON MAXIMUM SIZE OF N-PDU | LS IN | | | POSTPONED PS |
| N3-000023 | RESPONSE TO LS (N1-99F55) ON MAXIMUM SIZE OF N-PDU | LS IN | | | DISCUSSED |
| N3-000024 | MULTIMEDIA FALLBACKS AND CALL RETRY | | | | NOTED |
| N3-000025 | DRAFT 3G TR 23.972, MULTIMEDIA TELEPHONY | [CR] | [23.972] | | NOTED |
| N3-000026 | DRAFT CR TO TS 24.008 FOR CS MULTIMEDIA CALLS | [CR] | [24.008] | | DISCUSSED |
| N3-000027 | FALLBACK TO SPEECH IN A CS MULTIMEDIA CALL SETUP | CR | 29.007 | 3.3.0 | REV to 0082 |
| N3-000028 | FALLBACK TO SPEECH IN A CS MULTIMEDIA CALL SETUP | CR | 27.001 | 3.3.0 | REV to 0083 |
| N3-000029 | REMOVAL OF IHOSS AND OSP FROM R'99 PACKET DOMAIN | CR | 27.060 | 3.3.0 | POSTPONED |
| N3-000030 | REMOVAL OF IHOSS AND OSP FROM R'99 PACKET DOMAIN | CR | 29.061 | 3.2.0 | POSTPONED |
| N3-000031 | N1 VOCABULARY ALIGNMENT | CR | 27.060 | 3.3.0 | AGREED |
| N3-000032 | N1 VOCABULARY ALIGNMENT | CR | 29.061 | 3.2.0 | AGREED |
| N3-000033 | REMOVAL OF X.25 FROM R'99 PACKET DOMAIN | CR | 27.060 | 3.3.0 | Packet |
| N3-000034 | REMOVAL OF X.25 FROM R'99 PACKET DOMAIN | CR | 29.061 | 3.2.0 | Packet |
| N3-000035 | Reply to LS to S1 on 3G Services | LS IN | | | NOTED |
| N3-000036 | BEARER MODIFICATION WITHOUT PRE-NOTIFICATION | LS IN | | | DISCUSSED |
| N3-000037 | LS on addition of general bearer services | LS IN | | | REV to 0072 |
| N3-000038 | LS on Release'99 clean-up | LS IN | | | DISCUSSED |
| N3-000039 | LS on Push Services for GPRS | LS IN | | | DISCUSSED |
| N3-000040 | Liaison statement for clarification of necessity of registration Interworking profile for activation on PS domain | LS IN | | | DISCUSSED |
| N3-000041 | Rejection on GPRS ATD R97 modification | LS IN | | | NOTED |
| N3-000042 | Confirmation of definition for “active communication” for the PS domain | LS IN | | | NOTED |
| N3-000043 | Deletion of PDP type X.25 | LS IN | | | DISCUSSED |
| N3-000044 | Response to the Liaison Statement on clarification of necessity of registration | LS IN | | | DISCUSSED |
| N3-000045 | Reply to: Liaison statement on Bearer | LS IN | | | DISCUSSED |

| Tdoc # | Tdoc Title | Type | To Spec. | Version | Status |
|---|---|---|---|---|---|
| | Modification Without Pre-Notification | | | | |
| N3-000046 | Response to Liaison Statement on Maximum size of N-PDU | LS IN | | | DISCUSSED |
| N3-000047 | Response liaison on Radio Access Bearer attributes (update of S2-E27) | LS IN | | | DISCUSSED |
| N3-000048 | Response LS on Session Management QoS parameters | LS IN | | | NOTED |
| N3-000049 | CR to 27.002 UMTS clean up | CR | 27.002 | 3.2.0 | REV. to 0084 |
| N3-000050 | CR to 27.003 UMTS clean up | CR | 27.003 | 3.2.0 | REV to 0085 |
| N3-000051 | CR to 27.001 FTM corrections | CR | 27.001 | 3.3.0 | AGREED |
| N3-000052 | 27.001 Alignment to RANAP and other clarifications | CR | 27.001 | 3.3.0 | REV to 0078 |
| N3-000053 | Discussion Contribution on incompatibilities between ETS 302 102-1 and Q.931. | LS OUT | | | REV to 0088 |
| N3-000054 | 29.007 Clarification of reference to Q.931 for LLC IE | CR | 29.007 | 3.3.0 | REV to 0087 |
| N3-000055 | 27.001 Clarification of reference to Q.931 for LLC IE | CR | 27.001 | 3.3.0 | WITHDRAWN |
| N3-000056 | 23.910 Alignment to RANAP and other clarifications | SPEC | 23.910 | 0.1.0 | REV to 0071 |
| N3-000057 | 27.001 Bit transparent services RDI and UDI | CR | 27.001 | 3.3.0 | REV to 0079 |
| N3-000058 | Liaison statement on 3G-H.324M | LS IN | | | NOTED |
| N3-000059 | Answer to the Liaison statement on PPP Encapsulation | LS IN | | | DISCUSSED |
| N3-000060 | Reply LS to TSG-N3 on RAB requirements for CS data | LS IN | | | POSTPONED |
| N3-000061 | CR to 22.002 made only applicable to CS Domain | [CR] | 22.002 | | DISCUSSED |
| N3-000062 | S1 Vocabulary Document | [Spec] | 21.095 | 0.1.0 | NOTED |
| N3-000063 | RAN Vocabulary Document | [Spec] | 25.990 | 3.0.0 | NOTED |
| N3-000064 | Support for the IP-Multicast protocol | CR | 29.061 | 3.2.0 | REV to 0068 |
| N3-000065 | LS to T2: Verification of UE internal matters in 27.001, 27.002, and 27.003 | LS OUT | | | REV to 0089 |
| N3-000066 | Correction of support for IPv6 for the MS, CR to 27.060 | CR | 27.060 | 3.3.0 | |
| N3-000067 | Correction for IPv6 support to the Gi reference point, CR to 29.061 | CR | 27.061 | 3.2.0 | AGREED |
| N3-000068 | Support for the IP-Multicast protocol | CR | 29.061 | 3.2.0 | REV from 0064 |
| N3-000069 | REV Meeting report for TSG_N3#7 | REPORT | | | AGREED |
| N3-000070 | Document on FTP and tdoc numbering for year 2000 | | | | NOTED |
| N3-000071 | 23.910 Alignment to RANAP and other clarifications | SPEC | 23.910 | 0.1.0 | REV to 0128 |
| N3-000072 | LS on addition of general bearer services | LS IN | | | DISCUSSED |
| N3-000073 | 2G-3G handover Proposal with A-TRAU' | | | | REV to 0120 |
| N3-000074 | 2G-3G handover Proposal from Eriksson | | | | WITHDRAWN |
| N3-000075 | 2G-3G handover Proposal from Nokia | | | | WITHDRAWN |
| N3-000076 | 22.002 v3.2.0 | | 22.002 | 3.2.0 | NOTED |
| N3-000077 | Rejection of lower user rates | CR | 29.007 | 3.3.0 | REV to 0109 |
| N3-000078 | Alignment to RANAP and other clarifications | CR | 27.001 | 3.3.0 | AGREED |
| N3-000079 | Bit transparent services RDI and UDI | CR | 27.001 | 3.3.0 | REV to 0111 |
| N3-000080 | REVISED WI DESCRIPTION SHEETFOR MULTIMEDIA | W.I SHEET | | | REV to 0118 |
| N3-000081 | LS to S1 on Vocabulary | LS OUT | | | REV to 0123 |
| N3-000082 | FALLBACK TO SPEECH IN A CS MULTIMEDIA CALL SETUP | CR | 29.007 | 3.3.0 | REV to 112 |
| N3-000083 | FALLBACK TO SPEECH IN A CS MULTIMEDIA CALL SETUP | CR | 27.001 | 3.3.0 | AGREED |
| N3-000084 | UMTS clean up | CR | 27.002 | 3.2.0 | AGREED |
| N3-000085 | UMTS clean up | CR | 27.003 | 3.2.0 | AGREED |
| N3-000086 | Corrections related to MULTIMEDIA | CR | 27.001 | 3.3.0 | AGREED |
| N3-000087 | Clarification of reference to Q.931 for LLC IE | CR | 29.007 | 3.3.0 | AGREED - new template |
| N3-000088 | LS to ITU-T and SPS | LS OUT | | | REV to 0104 |
| N3-000089 | LS to T2: Verification of UE internal matters in 27.001, 27.002, and 27.003 | LS OUT | | | AGREED |
| N3-000090 | CONTRIBUTION ON TERMINOLOGY IN 3GPPCN3'S SPECIFICATIONS | | | | DISCUSSED |
| N3-000091 | Response to LS (N1-99F55) on Maximum size of N-PDU | LS | | | AGREED |
| N3-000092 | LS on Push service in Response to S1-(99)1061 | LS | | | AGREED |
| N3-000093 | GPRS - Deletion of X.25 and Work Item of | LS | | | AGREED |

| Tdoc # | Tdoc Title | Type | To Spec. | Version | Status |
|---|---|---|---|---|---|
| | Interworking with ISDN / PSTN | | | | |
| N3-000094 | Answer to the Liaison statement on PPP Encapsulation (S2-99C43) | LS | | | AGREED |
| N3-000095 | LS on "clarification of necessity of registration Interworking profile for activation on PS domain" in response to S1-991068 | LS | | | AGREED |
| N3-000096 | Correction of the support for IPv6 for the MS. | CR | 27.060 | 3.3.0 | AGREED |
| N3-000097 | N3_PS Meeting Report | REPORT | | | AGREED |
| N3-000098 | Support for the IP-Multicast protocol | CR | 29.061 | | AGREED |
| N3-000099 | Removal of X.25 from R'99 Packet Domain | CR | 27.060 | | AGREED |
| N3-000100 | Removal of X.25 from R'99 Packet Domain | CR | 29.061 | | AGREED |
| N3-000101 | LS on "Vocabulary for 3GPP Specifications" | LS | | | AGREED |
| N3-000102 | Specification reference section clean-up | CR | 27.060 | | AGREED |
| N3-000103 | Specification reference section clean-up | CR | 29.061 | | AGREED |
| N3-000104 | LS to ITU-T and SPS | LS OUT | | | AGREED |
| N3-000105 | Response LS to S1 on addition of general bearer services | LS OUT | | | AGREED |
| N3-000106 | Response LS to S1 on BEARER MODIFICATION WITHOUT PRE-NOTIFICATION | LS OUT | | | REV to 0116 |
| N3-000107 | Response LS to S1 on addition of general bearer services | LS OUT | | | REV to 0105 |
| N3-000108 | LS to S1 on lower user rates | LS OUT | | | REV to 0110 |
| N3-000109 | Rejection of lower user rates | CR | 29.007 | 3.3.0 | REV to 0113 |
| N3-000110 | LS to S1 on lower user rates | LS OUT | | | REV to 0114 |
| N3-000111 | Bit transparent services RDI and UDI | CR | 27.001 | 3.3.0 | REV to 0115 |
| N3-000112 | FALLBACK TO SPEECH IN A CS MULTIMEDIA CALL SETUP | CR | 29.007 | 3.3.0 | AGREED |
| N3-000113 | Rejection of lower user rates | CR | 29.007 | 3.3.0 | REV to 0119 |
| N3-000114 | LS to S1 on lower user rates | LS OUT | | | AGREED |
| N3-000115 | Bit transparent services RDI and UDI | CR | 27.001 | 3.3.0 | AGREED |
| N3-000116 | Response LS to S1 on BEARER MODIFICATION WITHOUT PRE-NOTIFICATION | LS OUT | | | REV to 0117 |
| N3-000117 | Response LS to S1 on BEARER MODIFICATION WITHOUT PRE-NOTIFICATION | LS OUT | | | AGREED |
| N3-000118 | REVISED WI DESCRIPTION SHEETFOR MULTIMEDIA | W.I SHEET | | | REV to 0127 |
| N3-000119 | Rejection of lower user rates | CR | 29.007 | 3.3.0 | AGREED BUT ON HOLD |
| N3-000120 | 2G-3G handover Proposal with A-TRAU' | | | | AGREED |
| N3-000121 | Response Mail from S1 for clarification of 0037 | E-MAIL | | | NOTED |
| N3-000122 | CR to 29.007 for A-TRAU' | CR | 29.007 | 3.3.0 | REVISED to 0124 |
| N3-000123 | LS to S1 on Vocabulary | LS OUT | | | REV to 0125 |
| N3-000124 | CR to 29.007 for A-TRAU' | CR | 29.007 | 3.3.0 | AGREED |
| N3-000125 | LS to S1 on Vocabulary | LS OUT | | | e-mail until Thur |
| N3-000126 | ENHANCEMENT OF TS 23.146 | CR | 23.146 | 1.0.0 | e-mail until thurs |
| N3-000127 | REVISED WI DESCRIPTION SHEETFOR MULTIMEDIA | W.I SHEET | | | e-mail until thur |
| N3-000128 | 23.910 Alignment to RANAP and other clarifications | SPEC | 23.910 | 0.1.0 | AGREED by e-mail |

## Annex D: Status of N3 Specifications after TSG_N#6

| | 2G | TITLE | R96 | R97 | R98 | R99 | Last CR | 3G TR / TS | TITLE | R99 | Last CR | Rapporteur Company |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TS | 03.10 | GSM PLMN Connection Types | 5.4.0 | 6.0.0 | 7.0.1 | 8.1.0 | A011 | 23.910 | Circuit switched data services | 0.1.0 | - | Achim Braun, Alcatel |
| TS | 03.45 | Technical Realization of Fax G.3 Service- transparent | 5.2.1 | 6.0.1 | 7.0.0 | 8.0.0 | A004 r1 | X | X | X | X | |
| TS | 03.46 | Technical Realization of Fax G.3 Service- Non-transparent | 5.0.0 | 6.0.0 | 7.0.0 | 8.0.0 | A012 | 23.146 | Technical realization of facsimile group 3 non-transparent | 1.0.0 | - | J. Hagiwara, NTT |
| TS | 03.54 | Description of the use of a shared inter-working function in a PLMN S2 | 5.2.0 | 6.0.0 | 7.0.0 | X | A007 | 23.054 | Description for the use of a Shared Inter Working Function (SIWF) in a GSM PLMN - Stage 2 | 3.0.0 | - | Tommy Röstö, Telia |
| TS | 03.70 | Routeing of calls to / from Public data Network (PDN) | 5.0.0 | 6.0.0 | 7.0.0 | X | A002 | X | X | X | X | |
| TS | 04.21 | Rate Adaptation on MS-BSS Interface | 5.6.1 | 6.0.1 | 7.0.2 | 8.0.0 | A014 | X | X | X | X | Juha Räsänen, Nokia |
| TS | 04.22 | Radio Link Protocol for Data and Telematic services on MS-BSS and MS-MSC Interfaces | 5.6.0 | 621.0 | 7.1.0 | X | A026 r1 | 24.022 | Radio Link Prototcol for Data and Telematic services on the MS-BSS and the MS-MSC Interfaces | 3.2.0 | 003 | N. Klehn, Siemens |
| TS | 07.01 | General on Terminal Adaptation Functions (TAF) for Mobile Stations | 5.9.1 | 6.1.0 | 7.1.1 | X | A038 | 27.001 | General on Terminal Adaptation Functions (TAF) for Mobile Stations | 3.3.0 | 009 | Erik Colban, Ericsson |
| TS | 07.02 | TAF for services using Asynch bearer capabilities | 5.5.1 | 6.0.0 | 7.0.1 | X | A014 | 27.002 | TAF for services using Asynch bearer capabilities | 3.2.0 | 002 | Erik Colban, Ericsson |
| TS | 07.03 | TAF for services using Synch bearer capabilities | 5.4.1 | 6.0.0 | 7.0.0 | X | A011 | 27.003 | TAF for services using Synch bearer capabilities | 3.2.0 | 003 | Erik Colban, Ericsson |
| TS | 07.60 | Mobile Station (MS) Supporting GPRS | 5.1.0 | 6.5.0 | 7.2.0 | X | A020 | 27.060 | Mobile Station (MS) supporting Packet Switched Services | 3.3.0 | 009 | Graham Heaton, Brand |
| TS | 08.20 | Rate Adaptation on BSS - MSS Interface | 5.3.0 | 6.0.0 | 7.0.1 | 8.1.0 | A007 | X | X | X | X | Juha Räsänen, Nokia |
| TS | 09.03 | Signalling requirements on interworking between (ISDN) or (PSTN) and (PLMN) | 5.0.0 | 6.0.0 | 7.0.0 | X | - | X | X | X | X | |
| TS | 09.04 | Interworking between the PLMN and the CSPDN | 5.0.0 | 6.0.0 | 7.0.0 | X | - | X | X | X | X | |
| TS | 09.05 | Interworking between the PLMN and PSPDN for Packet Assembly / Disassembly (PAD) Access | 5.0.0 | 6.0.0 | 7.0.0 | X | 010 | X | X | X | X | |
| TS | 09.06 | Interworking between PLMN and PSPDN / ISDN for support of packet switched data transmission services | 5.0.2 | 6.0.0 | 7.0.0 | X | A003 | X | X | X | X | |
| TS | 09.07 | General requirements on interworking between PLMN and ISDN or PSTN | 5.10.0 | 6.2.0 | 7.2.0 | X | A056 | 29.007 | General requirements on interworking between PLMN and ISDN or PSTN | 3.3.0 | 011 | N. Klehn, Siemens |
| TS | 09.61 | Interworking between the PLMN supporting GPRS and Packet Data Networks (PDN) | X | 6.4.0 | 7.2.0 | X | A015 | 29.061 | Interworking between the Public Land Mobile Network (PLMN) supporting Packet Based Services and Packet Data Networks (PDN) | 3.2.0 | 008 | G. Heaton, Brand Comms |

## Annex E: Access to 3GPP documents

This document briefly outlines some of the more important locations of information that all TSG_CN WG3 members should be aware of.

### 3GPP email lists:

To receive information about CN3 issues, all delegates and other interested parties MUST register for email list **3GPP_TSG_CN_WG3**. This can be done by sending an email to LISTSERV@LIST.3GPP.ORG with the following single line of text in the body of the message:

**`subscribe 3GPP_TSG_CN_WG3 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 with the following single line of text in the body of the message:

**`QUERY *`**

### 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 was 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_WG3*** list between 1st Jan 1999 and the current date, send the following command to LISTSERV@LIST.3GPP.ORG:

**`search * in 3GPP_TSG_CN_WG3 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 CN3, go to:
http://list.3gpp.org/archives/3gpp_tsg_cn_wg3.html

### 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

### Documents on the server:

All documents submitted to CN3 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/WG3/
e.g. the documents for CN3 meeting #8 can be found at:
ftp://ftp.3gpp.org/TSG_CN/WG3_interworking/TSGN3_08/Tdocs/

## History

| Document History | |
|---|---|
| **3rd March 2000** | Draft **v1.0.x** distributed during the meeting for comments |
| **8th March 2000** | DRAFT **v1.1.0** dispatched by e-mail exploder to the N3 list.<br><br>Comments, if any, to be addressed to:<br><br>**David Boswarthick, 3GPP TSG-CN3 Secretary**<br>MCC - ETSI Secretariat<br>Tel :+33 (0)4 92 94 42 78<br>e-mail: david.boswarthick@ETSI.fr<br><br>A deadline of 2 weeks was given to the N3 delegates for e-mail comments on the draft report.<br><br>**Comments back by 24th March 2000** |
| *24th March 2000* | *Updated DRAFT v2.0.0 distributed by mail and placed to the server* |
| *May 2000* | *N3-000xxx v2.1.0 agreed without comments by N3 at the beginning of CN3#8 meeting, and placed to the server as v3.0.0..* |