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**Agenda item:** 6.3.1  
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# 1. General

## 1.1 Last Meetings

Two CN3 meetings have taken place since the last TSG-CN plenary:

?? CN3#25: 23<sup>rd</sup> – 27<sup>th</sup> September 2002, Miami, USA, hosted by the North American Friends of 3GPP

?? CN3#26: 11<sup>th</sup> – 15<sup>th</sup> November 2002, Bangkok, Thailand, hosted by the Japanese Friends of 3GPP.

The detailed CN3 meeting reports are contained in **NP-020608** (CN3#25) and **NP-020609** (CN3#26).

This status report [**NP-020606**] summarises the results from these meetings and presents the current status of work in CN3.

## 1.2 Administrative Work

CN3 has reviewed the 3GPP work plan. Comments have been provided to MCC.

CN3 has also reviewed the list of specifications that under it's responsibility and ensured that rapporteurs are allocated to each specification.

# 2. Work Items Rel-4 and earlier

## 2.1 GPRS

Some corrections and additions for the interworking between a GGSN and an application server by means of the RADIUS protocol are still necessary. CRs for TS 09.61 and 29.061 back to R97 are included in document **NP-020613** (N3-020769 – 771, 920 – 922, 1005 and 1006). These CRs correct the figure for the Radius Accounting Update message exchange and enhance the RADIUS capabilities in the GGSN for the identification of the visited PLMN.

Another set of CRs in document **NP-020614** (N3-020902 and 903) provides corrections related to IPv6 in TS 29.061 for R99 and Rel4.

## 2.2 Circuit switched Data services

CRs for TS 29.007 correct the signalling of the 64 kbit/s circuit switched multimedia service towards the ISDN. The CRs back to R99 are contained in the document **NP-020615** (N3-020811, 841 and 842).

## 2.3 Bearer Independent Circuit switched Core Network

Not all of the nodes in the core network are able to discriminate between transparent and non-transparent CS data services, since this information is only contained within the PLMN BC. Thus, it is not possible to discriminate between Iu UP transparent and support mode at the Nb interface, since intermediates nodes are not able to configure the attached MGWs accordingly. Therefore, it is necessary to use always Iu UP support mode for transparent Cs data services at Nb interface, also at access side of IWF. This was clarified by CRs for TS 29.007 and TR 23.910 that are contained in the document **NP-020616** (N3-020844 – 847).

## 3. Work Items Rel-5

### 3.1 *Circuit switched Data services*

The concept for CS data services for GERAN Iu mode provided by CN3 has been endorsed by SA2. The related CRs for TS 43.010, TR 23.910, TS 24.022, TS 29.007, TS 27.001, TS 44.021 and TS 48.020 are now complete and contained in the document **NP-020617** (N3-020800 – 805 and 950).

### 3.2 *Service Change and UDI fall back for CS multimedia (SCUDIF)*

A CR to TS 23.172 on Service Change and UDI fall back for CS multimedia clarified that lawful interception is identical to the same functions already defined for CS data services. The CR is contained in **NP-020618** (N3-020816).

Another set of Change Requests clarifies the call handling for mobile originated calls in the case where BCs are returned in reverse order. This was not described for the originating side, although it is described for the terminating side. Further, a detailed description of the codec modification procedure for the service change was added. The CRs to TS 23.172, TS 27.001 and TS 29.007 are contained in document **NP-020619** (N3-020998 – 1001).

### 3.3 *End-to-end QoS: Go interface*

Although, the Go interface functionality seems to be stable in general, there were a lot of contributions correcting minor errors and solving open issues.

CN3 identified that different understandings exist within 3GPP WGs regarding the determination of the bandwidth that has to be supported. The bandwidth can be derived from the SDP bandwidth parameter, but it remains unclear from the relevant specifications whether this SDP bandwidth includes the overhead coming from RTCP or not. SA4, CN1 and CN3 were involved in the discussions. Because of their contradicting statements it was felt necessary to have a joint session between CN1 and CN3 on this issue. During this session a common understanding of the use of the SDP bandwidth parameter within 3GPP was reached. CN1 and CN3 accepted SA4's interpretation that the b=AS parameter does not include bandwidth coming from RTCP. Document **NP-020620** (N3-021025 and 932) provides CRs to TS 29.207 and TS 29.208 that implement this understanding in the CN3 specifications. Furthermore, CN1 and CN3 welcome the adoption of the RFC titled "SDP bandwidth modifiers for RTCP" considered by SA4 for Rel-5 and will study the issue in detail and produce relevant Rel-5 CRs if SA4 decides to adopt this solution. The LS in N3-021012 contained in **NP-020607** informs SA4 (and SA2) about this agreement.

The Go PIB uses objects that are already specified in other PIBs, e.g. the Framework PIB. It was requested to use the import mechanism instead of copying the needed parts. The CR to TS 29.207 in **NP-020621** implements the re-use of IP filter objects from the Framework PIB for the Go PIB (N3-020985). This document contains some further CRs that revise and update the Go PIB (N3-020776, 877, 989 and 1022). The IANA number for the Go PIB was also included (N3-020987).

CN3 agreed with the deletion of any DiffServ specific terminology from the specification). For the Go interface the new term "QoS class" was introduced which is now also used in the stage 2 specifications. The related CRs to TS 29.207 and TS 29.208 are contained in document **NP-020622** (N3-021014 and 1026).

Another set of CRs to TS 29.207 and TS 29.061 in **NP-020623** (N3-021004, 935, 983, 980, 988, 995) clarifies and extends the error handling at the GGSN.

TSG CN has requested to change the term PCF into PDF as result of the outcome of the CN harmonisation workshop between 3GPP and 3GPP2. CN3 provides such CRs in document **NP-020624** (N3-020948 and 1010).

Document **NP-020625** contains some further CRs for TS 29.207 that: -

?? clarify the validation of the binding information against the UE (N3-020867);

?? clarify the flow identifier coding (N3-020876);

- ?? clarify which COPS messages are used to initiate PDP context modification/deactivation (N3-020826);
- ?? declare that the user may underuse the available bandwidth in case of multiple codecs (N3-020848);
- ?? clarify that the QoS class (authorised via the Go interface) is identical for UL and DL direction (N3-020953);
- ?? clarify the possibility of a secondary non IMS PDP context in parallel to IMS PDP contexts and that update the GGSN behaviour when no binding information is received accordingly (N3-020990);
- ?? update the device capabilities and limitations section and add a new section on conformance to a 3GPP Go PIB (N3-021023);
- ?? bring charging information clarifications (N3-020993);
- ?? correct the message description section (N3-020946);
- ?? add or correct references (N3-020905 and 978); and that
- ?? clarify the handling of Early Media (N3-021024).

Document **NP-020626** contains some further CRs for TS 29.208 that: -

- ?? align 29.208 with 29.207 (N3-020866);
- ?? improve the text for QoS mapping in the case of forking (N3-020852).

Document **NP-020627** contains some further CRs for TS 27.060 that: -

- ?? correct the specification of IMS related functions in the UE (N3-020843);
- ?? update and extend the TS regarding the multiplexing of media components to PDP contexts (N3-020929);
- ?? implement the policy control rejection of a PDP context (N3-021017); and that
- ?? provide editorial improvements and error corrections (N3-021016).

The open issues for the Go interface that were reported to last CN#17 plenary meeting have been solved. However, some new ones have been identified. They are listed in document **NP-020611** for TS 29.207 and in **NP-020612** for TS 29.208.

## 4. Work Items Rel-6

### 4.1 *Interworking between the IM Subsystem and CS networks*

No significant progress on TS 29.163 was made. SA2's decision to rename the former IMS-Mc interface to Mn interface (N3-020856) will be implemented. There is no CR to CN#18 because this TS is not yet under change control.

First contributions on Mn signalling interactions and procedures have been discussed in the meeting. The discussion will continue via e-mail. Final solutions can be expected to the next meeting.

A status report on the work on SIP to BICC/ISUP interworking in ITU-T SG11 was given to CN3. It alarms CN3 that the work progress in ITU-T is so slow that a finalisation for Rel-6 is uncertain. An LS (**NP-020517** or N3-020878 in **NP-020607**) was sent by CN3 to CN and ITU-T ad hoc group in order to communicate CN3's concerns to ITU-T SG11. CN3 asks for a specification that can easily be referenced by 3GPP. An answer is already received and presented to CN#18 in **NP-020632**. CN3 has not yet seen this response. However, CN is asked to provide guidance for CN3 on how to proceed.

## 4.2 Interworking between the IM Subsystem and IP networks

CN3 presents a TR 29.962 on interworking between the 3GPP profile of SIP, which mandates the SIP extensions “preconditions”, “update” and “100rel”, and SIP clients not supporting these extensions. It has been under discussion for a long time in CN1 and CN3 whether such an interworking needs to be specified in 3GPP, especially since the required extensions are IETF RFCs. IETF does not see interworking issues because SIP terminals can reduce their functionality to the common set of capabilities. This is not acceptable to 3GPP because the 3GPP related extensions have to be supported in the IMS to allow IMS-based charging. The TR identifies interworking issues and suggests solutions. A joint CN1 and CN3 session agreed that the existing version is the basis for further contributions. This version 1.0.0 is presented in **NP-020610** to CN#18 for information. Further steps that have been identified are:

- ?? CN1 will review this TR and make further contributions.
- ?? CN3 has still some pending contributions that could not agreed in last CN3 meeting.
- ?? The TR will be presented to CN#19 + x for approval.
- ?? SA2 will be asked to provide solutions to the issues identified in the TR on stage 2 level.
- ?? CN1 and CN3 will implement stage 3 changes in their specifications depending on SA2’s decisions.

## 4.3 Preferred Framing Protocol

The work on the negotiation on the preferred framing protocol was continued. The handling of CS data services and related requirements were clarified. However, the work could not be completed at that meeting.

## 4.4 End-to-End Quality of Service

Although the functions for SBLP control of DiffServ were finally not included in Rel-5, there were a lot of contributions and discussion on this topic in CN3. CN3 has summarised the results in an LS to SA2 asking for consideration and provision of answers on stage 2 level. SA2 has identified three key issues will study them during Rel-6. CN3 can expect clarification on these key issues in “due course”. Because of this and because of missing stage 2 requirements, a related WID on the Release 6 version of dynamic control of DiffServ Edge Function was postponed to later meetings.

# 5. Output Documents

## 5.1 Change Request

CN Doc #	CN3 Doc #	Tdoc Title	Spec	CR #	Rev	CAT	Rel	Vers	WI
NP-020613	N3-020769	Correction of Radius Accounting Update figure	29.061	064		F	R99	3.10.0	TEI [GPRS]
NP-020613	N3-020770	Correction of Radius Accounting Update figure	29.061	065		A	Rel-4	4.5.0	TEI [GPRS]
NP-020613	N3-020771	Correction of Radius Accounting Update figure	29.061	066		A	Rel-5	5.2.1	TEI [GPRS]
NP-020613	N3-021005	RADIUS enhancement for identification of VPLMN	09.61	A039	1	F	R97		TEI [GPRS]
NP-020613	N3-021006	RADIUS enhancement for identification of VPLMN	09.61	A040	1	A	R98		TEI [GPRS]
NP-020613	N3-020920	RADIUS enhancement for identification of VPLMN	29.061	070		A	R99	3.10.0	TEI [GPRS]
NP-020613	N3-020921	RADIUS enhancement for identification of VPLMN	29.061	071		A	Rel-4	4.5.0	TEI [GPRS]

NP-020613	N3-020922	RADIUS enhancement for identification of VPLMN	29.061	072		A	Rel-5	5.3.0	TEI [GPRS]
NP-020614	N3-020902	Correction related to IPv6	29.061	068		F	R99	3.10.0	TEI [GPRS]
NP-020614	N3-020903	Corrections related to IPv6	29.061	069		F	Rel-4	4.5.0	TEI [GPRS]
NP-020615	N3-020811	Correction on mapping of BC-IE	29.007	059		F	Rel-5	5.3.0	TEI [CS Data]
NP-020615	N3-020841	Correction on mapping of BC-IE	29.007	062		F	R99	3.10.0	TEI [CS Data]
NP-020615	N3-020842	Correction on mapping of BC-IE	29.007	063		A	Rel-4	4.5.0	TEI [CS Data]
NP-020616	N3-020844	Usage of lu UP in support mode in core network	29.007	057	1	F	Rel-4	4.5.0	CSSSPLIT
NP-020616	N3-020845	Usage of lu UP in support mode in core network	29.007	058	1	A	Rel-5	5.3.0	CSSSPLIT
NP-020616	N3-020846	Usage of lu UP in support mode in core network	23.910	043	1	F	Rel-4	4.5.0	CSSSPLIT
NP-020616	N3-020847	Usage of lu UP in support mode in core network	23.910	042	1	A	Rel-5	5.1.0	CSSSPLIT
NP-020617	N3-020800	CS Data Services (including HSCSD and EDGE) for GERAN lu mode	43.010	007	1	B	Rel-5	5.1.0	GERAN lu mode
NP-020617	N3-020801	CS Data Services (including HSCSD and EDGE) for GERAN lu mode	23.910	039	1	B	Rel-5	5.1.0	GERAN lu mode
NP-020617	N3-020802	CS Data Services (including HSCSD and EDGE) for GERAN lu mode	24.022	007	1	B	Rel-5	5.0.0	GERAN lu mode
NP-020617	N3-020803	CS Data Services (including HSCSD and EDGE) for GERAN lu mode	29.007	056	1	B	Rel-5	5.3.0	GERAN lu mode
NP-020617	N3-020804	CS Data Services (including HSCSD and EDGE) for GERAN lu mode	27.001	081	1	B	Rel-5	5.2.0	GERAN lu mode
NP-020617	N3-020805	CS Data Services (including HSCSD and EDGE) for GERAN lu mode	44.021	004	1	B	Rel-5	5.1.0	GERAN lu mode
NP-020617	N3-020950	CS Data Services (including HSCSD and EDGE) for GERAN lu mode	48.020	003	4	B	Rel-5	5.1.0	GERAN lu mode
NP-020618	N3-020816	Lawful Interception For SCUDIF	23.172	001		F	Rel-5	5.0.0	SCUDIF
NP-020619	N3-020998	Mobile originating BC handling for SCUDIF calls	29.007	060	3	F	Rel-5		SCUDIF
NP-020619	N3-020999	Mobile originating BC handling for SCUDIF calls	23.172	003	3	F	Rel-5		SCUDIF
NP-020619	N3-021000	Service Change Procedure	23.172	004	2	F	Rel-5		SCUDIF
NP-020619	N3-021001	Mobile originating BC handling for SCUDIF calls	27.001	082	4	F	Rel-5		SCUDIF
NP-020625	N3-020867	Validating binding information against the UE	29.207	034	1	F	Rel-5	5.1.0	E2EQoS
NP-020625	N3-020876	Clarification on Flow identifier coding	29.207	041	2	F	Rel-5	5.1.0	E2EQoS
NP-020625	N3-020826	Clarifications on GGSN messages	29.207	045		F	Rel5	5.1.0	E2EQoS
NP-020625	N3-020848	Clarification on multiple codecs	29.207	047	1	F	Rel-5	5.1.0	E2EQoS
NP-020625	N3-020953	DiffServ Class definition for UL and DL in the Go interface	29.207	068		F	Rel-5	5.1.0	E2EQoS
NP-020625	N3-020990	Changes to GGSN behavior when no binding information received.	29.207	060	2	F	Rel-5	5.1.0	E2EQoS
NP-020625	N3-021023	Update of Device Capabilities and Limitations section	29.207	065	2	F	Rel-5	5.1.0	E2EQoS
NP-020625	N3-020993	Clarification on use of charging correlation information	29.207	061	1	F	Rel-5	5.1.0	E2EQoS
NP-020625	N3-020946	Corrections in Message Description Section	29.207	066		F	Rel-5	5.1.0	E2EQoS
NP-020625	N3-020905	Added reference to TS29.208	29.207	052		D	Rel-5	5.1.0	E2EQoS
NP-020625	N3-020978	Update reference [11]	29.207	056	1	F	Rel-5	5.1.0	E2EQoS
NP-020625	N3-021024	Clarifications on Early Media	29.207	049	3	F	Rel-5	5.1.0	E2EQoS
NP-020626	N3-020866	Terminology in TS 29.208 in line with TS 29.207 and corrections	29.208	010	2	F	Rel5	5.1.0	E2eQoS
NP-020626	N3-020852	QoS mapping in the case of forking	29.208	009	1	F	Rel5	5.1.0	E2eQoS

NP-020627	N3-020843	IMS related functions for the UE	27.060	028	1	F	Rel-5	5.2.0	E2EQoS
NP-020627	N3-020929	Multiplexing IMS media components to PDP contexts	27.060	077		F	Rel-5	5.2.0	E2EQoS
NP-020627	N3-021017	Policy control rejection of PDP context	27.060	079	1	F	Rel-5	5.2.0	E2EQoS
NP-020627	N3-021016	Editorial improvements and an error correction	27.060	078	1	F	Rel-5	5.2.0	E2EQoS
NP-020620	N3-021025	Clarification on the authorized bandwidth for RTP media streams	29.207	051	2	F	Rel-5	5.1.0	E2EQoS
NP-020620	N3-020932	Removal of editors note regarding calculation of b=AS	29.208	014		F	Rel-5	5.1.0	E2EQoS
NP-020621	N3-020985	Re-Using filters from the IETF Framework PIB	29.207	053	1	F	Rel-5	5.1.0	E2EQoS
NP-020621	N3-020776	Go PIB revision and update	29.207	035		F	Rel-5	5.1.0	E2EQoS
NP-020621	N3-020877	Go PIB revision and update	29.207	050		F	Rel-5	5.1.0	E2EQoS
NP-020621	N3-020989	PIB references and clarifications	29.207	059	1	F	Rel-5	5.1.0	E2EQoS
NP-020621	N3-021022	Go PIB clarifications	29.207	071	2	F	Rel-5	5.1.0	E2EQoS
NP-020621	N3-020987	IANA numbers: COPS client-type and PIB branch number	29.207	057	1	F	Rel-5	5.1.0	E2EQoS
NP-020622	N3-021026	Replacement of DiffServ class with QoS class	29.207	064	3	F	Rel-5	5.1.0	E2EQoS
NP-020622	N3-021014	Replacement of DIFFSERV class by QoS Class	29.208	018		F	Rel-5	5.1.0	E2EQoS
NP-020623	N3-021004	GTP cause code for Go related errors	29.207	063	1	F	Rel-5	5.1.0	E2EQoS
NP-020623	N3-020935	Handling of binding information by GGSN	29.061	067	3	F	Rel-5		E2EQoS
NP-020623	N3-020983	Handling of binding information by GGSN	29.207	039	4	F	Rel-5	5.1.0	E2EQoS
NP-020623	N3-020980	Connection failure between PCF and GGSN	29.207	040	4	F	Rel-5	5.1.0	E2EQoS
NP-020623	N3-020988	Coding for Go related error codes	29.207	072		F	Rel-5	5.1.0	E2EQoS
NP-020623	N3-020995	Go FailDecReason mapping to PCO error codes	29.207	069	1	F	Rel-5	5.1.0	E2EQoS
NP-020624	N3-020948	PCF to PDF Change	29.207	067		F	Rel-5	5.1.0	E2EQoS
NP-020624	N3-021010	PCF by PDF substitution.	29.208	013	1	F	Rel-5	5.1.0	E2EQoS

## 5.2 Liaison Statements

The following Liaison Statements are contained in **NP-020607**.

Tdoc #	Tdoc Title	LS to	LS cc	Attachment
N3-020838	Reply LS on CS data services for GERAN lu-mode	SA2, GERAN2, CN1, CN4	-	N3-020786
N3-020881	LS on Review of TR on 3GPP SIP Profile interworking	CN1	-	N3-020880
N3-020860	LS on SCUDIF and Lawful Interception	SA3-LI	-	N3-020816
N3-020868	LS on SBLP control of DiffServ	SA2	SA5	-
N3-020878	LS on Interworking between SIP/SDP and BICC/ISUP	CN, ITU-T Ad Hoc	-	N3-020813
N3-021012	Reply LS on RTCP overhead in SDP bandwidth parameter	SA4	SA2	

## 5.3 Work Items

There are no new Work Item Description sheets.

## 5.4 Technical Reports and Technical Specifications

CN3 provides the following technical report to CN#18 for information.

Tdoc #	Number	Version	Rel	Title	Rapporteur	Company
NP-020610	29.962	1.0.0	Rel-6	Signalling Interworking between the 3GPP Profile of SIP and non-3GPP SIP Usage	Thomas Belling	Siemens

## 6. Next Meetings

Next CN3 meetings are scheduled as follows:

Meeting	Date	Location, Host
TSG-CN3#27	10th - 14th Feb 2003	Dublin, Ireland, European Friends of 3GPP
TSG-CN3#28	19th – 23rd May 2003	USA
TSG-CN3#29	18th – 22nd Aug 2003	Sophia Antipolis, France, ETSI
TSG-CN3#30	27th – 31st Oct 2003	China, Ericsson

## 7. Acknowledgements

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