3GPP TSG-CN Meeting #24   **NP-040234**
2nd - 4th June 2004. Seoul, Korea.

Source:	**Chairman CN3** (norbert.klehn@siemens.com)
Title:	**CN3 Status Report to CN Plenary**
Agenda item:	**6.3.1**
Document for:	**INFORMATION**

1. General

1.1 Last Meetings

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

- CN3#31bis: 30th March – 2nd April 2004, Sophia Antipolis, France, hosted by ETSI
- CN#32: 10th – 14th May 2004, Zagreb, Croatia, hosted by the European Friends of 3GPP

The CN3#31bis meeting has only handled Rel-6 topics.

The detailed meeting reports are contained in **NP-040235** (Sophia Antipolis) and **NP-040236** (Zagreb). This status report **[NP-040234]** summarises the results from these meetings and presents the current status of work in CN3.

1.2 Administrative Work

CN3 have not reviewed the 3GPP work plan in detail, but has determined the status of work for every Rel-6 work item.

CN3 have reviewed the list of specifications that are under its responsibility. New rapporteurs are assigned for some specifications.

1.3 New Officials in CN3

CN3 have elected Dr. Ragnar Huslende, Ericsson, as new chairman. Dr. Thomas Belling, Siemens, has been elected as second vice chairman, beside the existing vice chairman Juha Räsänen, Nokia.

2. Work Items Rel-4 and earlier

2.1 Technical Enhancements and Improvements

An essential correction for a 3GPP specific parameter for the Radius protocol via the Gi interface is necessary back to Rel-4. The Subattribute "GPRS Negotiated QoS Profile" has different sizes depending on the Release. The corrections for TS 29.061 are contained in document **NP-040238** (N3-040305 – 307).

CN1 have aligned the description of the network initiated in-call modification in TS 24.008 from R99 onwards. With this, it was identified that corresponding descriptions were missing in TS 27.001 and TS 29.007. Document **NP-040239** (N3-040363 – 368) provides the missing descriptions from R99 onwards.

3. Work Items Rel-5

3.1 End-to-end Quality of Service: Go interface

Some corrections for the Go interface are still necessary. Document **NP-040240** contains 3 CRs for Rel-5 for TS 29.207 and 29.208, respectively:

- to correct the Media Component removal call flow in TS 29.208 that provides an alignment with TS 29.207 (N3-040395);

- to correct the Reason code values for the Delete Request State (DRQ) message (N3-040398) and

- to allow PDP context modification without binding information, e.g. to enable a modification of the maximum bitrate to 0 kbit/s due to loss of radio coverage where no binding information can be provided and where consequently, the PDP context modification request would not be accepted by the GGSN (N3-040399).

4. Work Items Rel-6

4.1 Interworking between the IM Subsystem and IP networks

There were no contributions for this work item. CN3 are still waiting for stage 2 work in SA2 regarding IPv4 and IPv6 interworking.

4.2 Interworking between the IM Subsystem and CS networks

CN3 have agreed several CRs against TS 29.163 that are contained in document **NP-040241**:

- to correct the message sequence for CS originated sessions that provides also an alignement with ITU-T Q.1912.5 (N3-040207);

- to correct the use of the terminology "IM CN subsystem originating session" and "IM CN subsystem terminated session" (N3-040208);

- to align TS 29.163 with TS 23.205 regarding the "Notify IMS RTP Tel Event" since CN3 decided that this procedure should be identical to the "Report DTMF" (N3-040286) and

- to correct a value for Backward call indicators in order to align it with ITU Q.763 (N3-040308).

Document **NP-040242** contains CRs providing

- IM-MGW interworking procedures between the Mb and Nb interfaces which are required for TrFO (N3-040234) and providing

- a normative annex that describes optional procedures for interworking of codec negotiation between a BICC CS network and the IM CN subsystem (N3-040349, N3-040350, N3-040352, N3-040396 and N3-040397).

CN3 consider this work item as complete.

4.3 Mn Interface

There were no contributions for this work item. CN3 consider this work item as complete.

4.4 End-to-end Quality of Service, Gq interface

In the last two meetings, CN3 has agreed 37 CRs for the Gq interface.

These CRs are implemented in TS 29.209 that is not yet under change control or in the unofficial versions of TS 29.207 and 29.208 for Rel-6.

The version 1.0.0 of TS 29.209 is presented to CN#24 for information in **NP-040243** (N3-040424).

CN3 think that the work on Gq interface will be mature enough at CN#25 to bring TS 29.209 for approval and also to withdraw the unofficial versions of TS 29.207 and 29.208 and replace them by CRs implementing all the changes in these specifications necessary for the Gq interface.

CN3 consider this work item as 60% complete.

4.5   MBMS, Gmb interface

CN3 is responsible for the standardisation of the Gmb interface for MBMS (Multimedia Broadcast and Multicast Service). The protocol via this interface is Diameter. A set of CRs in **NP-040244** implements Gmb into TS 29.061. The CRs provide

- a Gmb introduction (N3-040393);
- Gmb message flows (N3-040411);
- Gmd commands and AVPs (N3-040410) and
- Commands to indicate session start and stop (N3-040386).

Some open issues still exist, e.g.
- how to re-use of some Radius attributes (already specified in TS 29.061 for the Radius protocol via the Gi interface) in Diameter AVPs,
- the error case handling sill needs to be specified,
- a possibly need for extra Application ID has to be investigated and
- the numbering for AVPs needs to be coordinated with CN4.

CN3 consider their work as 50% complete.

4.6   Support of Presence Capability, Pk interface

CN3 is responsible for the standardisation of the Pk interface for the support of the Presence Capability, but has not seen any contributions so far.

4.7   WLAN

CN3 is responsible for a stage 3 description for the Wi interface that is required in scenario 3 of the WLAN architecture. The TS 29.161 was created for that purpose. The latest version 0.2.0 will be stored on the 3GPP Server under draft specifications. Open issues in this TS have a dependency on the tunnel establishment procedure open in other Working Groups.

CN3 has reviewed the updated Work Item description sheet provided by CN4. A revised version containing CN3's comments was sent back. However, CN3 has not reached any conclusion about the responsibility for the Wg reference point. The purpose of this reference point is to provide information to perform policy enforcement. It seems that further investigations are necessary to allocate the appropriate WG for this work.

CN3 consider their work as 40% complete.

4.8   Gx and Rx Interfaces

CN3 have recently become responsible for the stage 3 specifications of the Gx and Rx interfaces. Although SA2 have tried to teach CN3 that Gx and Rx denote reference points and CN has to specify interfaces and protocol, CN3 still think that the abbreviations Gx and Rx can also be re-used to denote the related interfaces and to identify the related protocol.

However, based on this LS by SA2 and on further discussion documents, the relation between interfaces and reference points was discussed in CN3.

- One approach is to specify a so-called "stand-alone protocol" that comprises the specification of all operations and parameters that are necessary to implement the Gx or Rx interface, respectively.

- Another approach takes into consideration that there are a couple of reference points between functional entities that could be implemented on the same device, so that an interface between two devices has to fulfil the functionality required by several reference points. Since all of the protocols are based on Diameter, this "flexible" approach sees only the need to specify AVPs that fulfil the required functionality and also allows the re-use of already specified AVPs. It was reported that the topic of possible combinations of reference points is an ongoing discussion in SA2.

CN3 have not reached a final conclusion. It was decided to go the following way:

- The AVPs necessary for the provision of the functionality for the Gx reference point has to be defined. The presented proposals have to be aligned. This work is ongoing until next CN3 meeting.

- CN3 continue to specify a protocol that supports a stand-alone Gx interface. CN3 have created a separate TS 29.210 for that purpose.

- The time until the next CN3 meeting should be used to investigate the impacts of possible flexibilities concerning the combination of several reference points into one interface.

CN3 agreed a Work Item Description sheet for the Gx interface in **NP-040245** (N3-040389). CN3 are not able to provide a similar one for the Rx interface. Here it is still necessary to find a work item rapporteur and supporting companies.

4.9   Technical Enhancements and Improvements

4.9.1   Radius at GGSN

There is one CR against TS 29.061 for Rel-6 requesting enhancements on the Gi interface to enable QoS correlations. The CR (N3-040243) was agreed with an objection by one company in CN3 and is presented to CN#24 because several companies requested this CR very actively. The CR is provided in **NP-040246** for Rel-6 only.

4.9.2   IMS

SA2 have added in stage 2 specifications the multiplexing of flows from different IMS sessions in the same PDP context. CN3 provide CRs against TS 27.060 (N3-040412), TS 29.207 (N3-040303) and TS 29.208 (N3-040304) in order to align the stage 3 specifications with stage 2. These CRs are contained in document **NP-040247.**

5. Output Documents

5.1 Change Request

CN tdoc #	CN3 tdoc #	Title	Spec	CR #	Rev	Cat	Rel	Work Item
NP-040238	N3-040305	QoS profile length	29.061	116		F	Rel-4	TEI
NP-040238	N3-040306	QoS profile length	29.061	117		A	Rel-5	TEI
NP-040238	N3-040307	QoS profile length	29.061	118		A	Rel-6	TEI
NP-040239	N3-040363	Addition of network initiated in-call modification	27.001	105	1	F	R99	TEI
NP-040239	N3-040364	Addition of network initiated in-call modification	27.001	106	1	A	Rel-4	TEI
NP-040239	N3-040365	Addition of network initiated in-call modification	27.001	107	1	A	Rel-5	TEI
NP-040239	N3-040366	Addition of network initiated in-call modification	29.007	097	1	F	R99	TEI
NP-040239	N3-040367	Addition of network initiated in-call modification	29.007	098	1	A	Rel-4	TEI
NP-040239	N3-040368	Addition of network initiated in-call modification	29.007	099	1	A	Rel-5	TEI
NP-040240	N3-040395	Media component removal flow	29.208	070	3	F	Rel-5	E2EQoS
NP-040240	N3-040398	DRQ Sub-code	29.207	126	2	F	Rel-5	E2EQoS
NP-040240	N3-040399	PDP context modification without binding information	29.207	130	2	F	Rel-5	E2EQoS
NP-040241	N3-040207	Message sequence correction	29.163	037	1	F	Rel-6	IMS-CCR-IWCS
NP-040241	N3-040208	Notify IMS RTP Tel Event correction	29.163	038	1	F	Rel-6	IMS-CCR-IWCS
NP-040241	N3-040286	Notify IMS RTP Tel Event message sequence	29.163	045		F	Rel-6	IMS-CCR-IWCS
NP-040241	N3-040308	Correction of sub-clause 7.2.3.2.5.1 Backward call indicators	29.163	046		F	Rel-6	IMS-CCR-IWCS
NP-040242	N3-040234	Interworking with Nb user plane procedures	29.163	039	1	B	Rel-6	IMS-CCR-IWCS
NP-040242	N3-040349	Codec Negotiation between BICC CS networks and the IM CN subsystem	29.163	040	1	B	Rel-6	IMS-CCR-IWCS
NP-040242	N3-040350	Codec negotiation incoming call interworking	29.163	041	1	B	Rel-6	IMS-CCR-IWCS
NP-040242	N3-040352	Codec parameter translation between BICC CS network and the IM CN subsystem	29.163	043	1	B	Rel-6	IMS-CCR-IWCS
NP-040242	N3-040396	Codec negotiation Mid call interworking	29.163	042	2	B	Rel-6	IMS-CCR-IWCS
NP-040242	N3-040397	MGCF IM-MGW interaction	29.163	044	2	B	Rel-6	IMS-CCR-IWCS
NP-040244	N3-040393	Gmb Introduction	29.061	114	1	B	Rel-6	MBMS
NP-040244	N3-040386	Command to indicate Session Start/Stop	29.061	113	1	B	Rel-6	MBMS
NP-040244	N3-040411	Gmb Message Flows. Improvements	29.061	112	2	B	Rel-6	MBMS
NP-040244	N3-040410	Gmb Commands and AVPs (II)	29.061	111	2	B	Rel-6	MBMS
NP-040246	N3-040243	Packet Filters on the Gi interface	29.061	109	3	B	Rel-6	TEI
NP-040247	N3-040412	Multiple IMS sessions using the same PDP context	27.060	089	2	B	Rel-6	TEI
NP-040247	N3-040303	Multiple IMS sessions using the same PDP context	29.207	129		B	Rel-6	TEI
NP-040247	N3-040304	Multiple IMS sessions using the same PDP context	29.208	069		B	Rel-6	TEI

5.2 Liaison Statements

The following Liaison Statements are contained in **NP-040237**.

Tdoc #	Tdoc Title	LS to	LS cc	Attachment
N3-040233	Re. LS on "P-CSCF gets informed about signalling IP-CAN bearer was released"	CN1	SA2	
N3-040244	LS on impacts of multiple IMS sessions using the same PDP Context	SA2	CN1	
N3-040375	LS on Assignment of the Diameter codes and identifiers for the Rel-6 Gq interface	CN4	-	29.209 v0.1.0
N3-040405	LS on Generation of multiple authorization tokens	SA2	-	-
N3-040421	LS on Re-use of RADIUS attributes within the 3gpp specific vendor id	CN4	-	-

5.3 Work Items

CN3 provide the following Work Item Description sheet to CN#24 for approval:

Tdoc #	Title	Rapporteur	Company	Status
NP-040245	Gx interface specification for flow based charging	Juha Räsänen	Nokia	new

5.4 Technical Reports and Technical Specifications

CN3 provide the following technical specification to CN#24 for information.

Tdoc #	Number	Version	Rel	Title	Rapporteur	Company
NP-040243	29.209	1.0.0	Rel-6	Policy control over Gq interface	Anna Sillanpää	Nokia

6. Next Meetings

Next CN3 meetings are scheduled as follows:

Meeting	Date	Location
TSG-CN3#33	16th – 20th August 2004	Sophia Antipolis, France
TSG-CN3#34	15th – 19th November 2004	Asia

7. Acknowledgements

I would like to thank the delegates for their contribution to the meetings, ETSI and the European Friends of 3GPP for hosting the meetings. David Boswarthick, MCC, deserves special thanks for the support during and between the meetings.