3GPP TSG-CN Meeting #25   **NP-040330**
8th - 10th September 2004. Palm Springs, USA.

Source: **Chairman CN3** (ragnar.huslende@ericsson.com)

Title: **CN3 Status Report to CN Plenary**

Agenda item: **6.3.1**

Document for: **INFORMATION**

1. General

1.1 CN3 Officials

•Chairman: Ragnar Huslende (Ericsson LM)
•Vice-chairs: Juha Räsänen, (NOKIA Corp.)

                Thomas Belling (Siemens Ag)

•Secretary: David Boswarthick (MCC)

1.2 CN3 Meeting

One CN3 meeting has taken place since the last TSG-CN plenary:

- CN3#33:   16th August – 20th August 2004, Sophia Antipolis, France, hosted by ETSI

The detailed meeting report is contained in **NP-040331.** This status report **(NP-040330)** summarises the results from the meeting and presents the current status of work in CN3.

1.3 Administrative Work

CN3 has not reviewed the 3GPP work plan in detail, but has determined the status of work for every Rel-6 work item. CN3 has also identified a list of outstanding issues per work item and made a proposal as to which of these issues should be included in Rel-6.

2. Work Items Rel-4 and earlier

2.1 Technical Enhancements and Improvements

None

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-040333** contains 2 CRs for Rel-5 for TS 29.207 and corresponding mirror CRs for Rel-6:

- The correct handling of packet classifiers is clarified for the case that the GGSN receives a solicited authorisation decision from the PDF at a PDP context modification (N3-040587, N3-040588).
- The PDF shall not set the COPS-PR 'Request State' flag in the decision message to the GGSN when an authorization request fails in PDF. This ensures that GGSN will initiate deletion of the state information in the PDF (N3-040589, N3-040590).

4. Work Items Rel-6

4.1 Interworking between the IM CN Subsystem and IP networks

The version 1.1.1 of TS 29.162 is presented to CN#25 for information in **NP-040345** (N3-040610). The TS has been progressed based on recent stage 2 input. In particular, specification for IPv4/v6 interworking has been added.

CN3 consider this work item as 70% complete. Please see table below regarding the outstanding issues.

Outstanding issues		Estimated completion date:	Comments/suggestions from CN3, for CN plenary decision
1	Refinement of IPv4/v6 interworking	CN#26 (December 2004)	The WI was previously postponed from Rel-5. *CN3 thinks that this should be included in Rel-6 and asks for an exception to the Rel-6 freeze timescale*

4.2 Interworking between the IM CN Subsystem and CS networks

Document **NP-040334** contains an agreed CR to TS 29.163. It provides modification of the codec parameter translation procedures for AMR and AMR-WB to achieve consistency with OoBTC procedures.

CN3 consider this work item as complete.

4.3 Mn Interface

Document **NP-040346** contains an agreed CR to TS 29.163. It corrects the reference to non call-related procedures and defines the mapping of procedures between TS 29.332 and the stage 2 TS 23.205. The usage of two of the procedures is clarified.

CN3 consider this work item as complete.

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

At the last meeting, CN3 has agreed 16 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 2.0.1 of TS 29.209 is presented to CN#25 for approval in **NP-040342** (N3-040617).

All the agreed CRs to TS 29.207 and TS 29.208 related to the development of the Gq interface have been consolidated into the two CRs (N3-040615 and N3-040616) contained in **NP-040338.** CN3 now thinks that the unofficial versions of TS 29.207 and TS 29.208 can be withdrawn and replaced by the new Rel-6 versions where all the changes in NP-040338 are implemented.

CN3 consider this work item as 85% complete. Please see table below regarding the outstanding issues.

Outstanding issues	Estimated completion date:	Comments/suggestions from CN3, for CN plenary decision

			Minor work, should be included in Rel-6.
1	Possible **minor** impact due to updates of stage 2	CN#26 (December 2004)	*CN3 asks for an exception to the Rel-6 freeze timescale*

4.5   MBMS Gmb interface

CN3 is responsible for the standardisation of the Gmb interface for MBMS (Multimedia Broadcast and Multicast Service). A set of CRs in **NP-040337** has been agreed to progress the work on Gmb in TS 29.061. The CRs provide:

- Update of the Scope section to include Gmb (N3-040592)
- Gmb general corrections (N3-040593)
- New Gmb specific AVPs and result-codes (N3-040594)

CN3 consider this work item as 85% complete. Please see table below regarding the outstanding issues.

Outstanding issues		Estimated completion date:	Comments/suggestions from CN3, for CN plenary decision
1	AVP codes and error codes to be obtained from CN4	CN#26 (December 2004)	Minor work. *CN3 asks for an exception to the Rel-6 freeze timescale*
2	Include table with AVP used in Gmb but not Gmb specific	CN#26 (December 2004)	*As above*

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.

Please see table below regarding the outstanding issues.

Outstanding issues		Estimated completion date:	Comments/suggestions from CN3, for CN plenary decision
1	CR to TS 29.061 specifying the presence information can be obtained from the existing Radius Gi interface	CN#26 (December 2004)	Limited amount of work required., i.e. the Dec.-04 target date seems realistic if prioritised by the companies. *CN3 asks for an exception to the Rel-6 freeze timescale for Pk to be included in Rel-6*

4.7   WLAN

CN3 is responsible for a stage 3 description for the Wi interface that is required in scenario 3 of the WLAN interworking architecture. The TS 29.161 was created for that purpose. Good progress was made at the last CN3 meeting and TS 29.161 v2.0.1 is submitted for information and conditional approval at CN#25. Please see **NP-040344** (N3-040604). The condition is that TS 24.234 (with scenario 3) from CN1 is approved.

CN3 consider this work item as 95 % complete. Please see table below regarding the outstanding issues.

Outstanding issues	Estimated completion date:	Comments/suggestions from CN3, for CN plenary decision

1	No known outstanding issues	CN#25 (September 2004)	*CN3 thinks that this should be included in Rel-6. Asks for an exception to the Rel-6 freeze timescale only if the related TS 23.234 (scenario 3) by CN1 requires an exception.*

4.8 Flow Based Charging

CN3 is responsible for the stage 3 specifications of the Gx and Rx interfaces for Flow Based Charging.

4.8.1 Gx Interface

The protocol for the Gx reference point is being specified as both as a "stand-alone" interface and a combined Gx/Gy interface. For the latter option, CN3 intends to specify a set of AVPs that can be added to the Gy interface specifications under development by SA5. The exact details for such a combined interface are still to be defined. CN3 delegates have recommended that a coordination on a company level should take place before the next CN3/SA5 meetings.

The Gx specifications are contained in TS29.210 v1.0.1 which is submitted to CN#25 for information. Please see **NP-040343** (N3-040612).

CN3 consider this work item as 50 % complete. Please see table below regarding the outstanding issues.

Outstanding issues		Estimated completion date:	Comments/suggestions from CN3, for CN plenary decision
1	Completion of the Diameter messages	CN#26 (December 2004)	*CN3 thinks that this should be included in Rel-6 and asks for an exception to the Rel-6 freeze timescale*
2	Completion of the Diameter AVPs	CN#26 (December 2004)	*As above*
3	Completion of the error codes and related procedures	CN#26 (December 2004)	*As above*
4	Fulfilment of the possible new stage 2 requirements	CN#26 (December 2004)	*As above*

4.8.2 Rx Interface

CN3 agreed a Work Item Description sheet for the Rx interface in **NP-040339** (N3-040598). CN3 intends to specify the protocol for the Rx reference point both as a "stand-alone" Rx interface and a combined Rx/Gq interface.

Please see table below regarding the outstanding issues.

Outstanding issues		Estimated completion date:	Comments/suggestions from CN3, for CN plenary decision
1	Technical protocol development for the Rx reference point based on the reuse of Gq interface (TS 29.209).	CN#26 (December 2004)	The Rx reference point is considered to be simple in Rel-6. It will reuse Gq capabilities and AVPs, maybe some additions will be needed. It is therefore considered that it can be completed within 2 WG meetings. *CN3 thinks that Rx should be included in Rel-6 and asks for an exception to the Rel-6 freeze timescale* However CN3 has discussed that, if for any reason, Rx cannot be completed by December, the overall FBC feature will not be highly impacted as there is always the possibility of statically configured Charging Rules at the CRF.

4.9   Technical Enhancements and Improvements

4.9.1   Radius at GGSN

At CN#24 two CRs proposing extensions to the Gi Radius interface were discussed. The CRs proposed to include either the TFT filters or both the TFT filters and SBLP filters in the Radius interface. No agreement was reached at CN#24, therefore the issue was referred back to CN3 for further discussion. At the latest CN3 meeting the two CRs were available together with other CRs proposing a total of 8 parameters to be added to the Gi Radius interface. An LS was sent to SA2 to ask for guidance. Based on guidance in a quick reply LS from SA2, CN3 managed to agree to 4 of the 8 parameters. These are shown in the CR against TS 29.061 Rel-6 contained in **NP-040335** (N3-040469). A conclusion on the other parameters was postponed to the CN3#34 meeting in Seoul.

	Outstanding issues	Estimated completion date:	For CN plenary decision
1	CN3 is still discussing whether to include the following parameters in the Gi Radius interface: • IMS Charging Id • SBLP filters • TFT filters • Negociated DSCP	CN#26 (December 2004)	CN3#33 meeting has not discussed to ask for an exception for the relevant CRs. However, there has been a post-meeting request to do so, and the CRs have been proposed for Rel-6. *Therefore, the CN3 chairman would like to ask for an exception to the Rel-6 freeze timescale for the relevant CRs if they are agreed by CN3#34 in November.*

4.9.2   SCUDIF

CN3 has agreed a CR to TS 23.172 in order to specify the interaction between the Service Change procedure and CAMEL. Please see **NP-040336** (N3-040515). This is aligned with corresponding CAMEL CRs for TS 23.078 and TS 29.078 that were previously approved as part of NP-040095.

4.9.3   Circuit-switched Data Communication

CN3 has developed a document, TR 23.910 that has been used as a stage 2 specification for stage 3 work on circuit-switched data bearer services. For historical reasons this has been kept as a TR. CN3 is now discussing whether to transform this into a proper TS for Rel-6. This involves mainly editorial work, including removing some overlap with existing stage 3 specifications.

For this outstanding issue, please see table below.

	Outstanding issues	Estimated completion date:	For CN plenary decision
1	CN3 is discussing whether to transform TR 23.910 (Circuit Switched Data Bearer Services) to a TS	CN#26 (December 2004)	CN3#33 meeting has not discussed to ask for an exception for this work. However, there has been a post-meeting request to do so. *Therefore, the CN3 chairman would like to ask for an exception to the Rel-6 freeze timescale for this TS if such a TS can be agreed at the CN3#34 meeting in November.*

5. Work Items Rel-7

5.1   Diameter on the PDG Wi interface

This Work Item proposes to introduce support for Diameter on the WLAN Wi interface. In Rel-6 the Wi interface is based on Radius. The agreed Work Item Description sheet is included in **NP-040340** (N3-040601).

Planned approval date: September 2005

5.2   Diameter on the GGSN Gi interface

This Work Item proposes to introduce support for Diameter on the GPRS Gi interface. Currently, the Gi interface is based on Radius. The agreed Work Item Description sheet is included in **NP-040341** (N3-040602).

Planned approval date: September 2005

6. Output Documents

6.1   Change Request

CN tdoc #	CN3 tdoc #	Title	Spec	CR #	Rev	Cat	Rel	Ver.	Work Item
NP-040335	N3-040469	New sub-attributes 3GPP VSA passed on the Gi interface for charging purposes	29.061	122	-	B	Rel-6	6.1.0	CH
NP-040336	N3-040515	Interaction of CAMEL with Service Change	23.172	027	-	F	Rel-6	6.0.0	TEI_6
NP-040333	N3-040587	COPS DEC message handling	29.207	131	2	F	Rel-5	5.8.0	E2EQoS
	N3-040588	COPS DEC message handling	29.207	132	2	A	Rel-6	6.0.0	E2EQoS
	N3-040589	COPS-PR "Request State" flag not set for authorization failure decision	29.207	133	2	F	Rel-5	5.8.0	E2EQoS
	N3-040590	COPS-PR "Request State" flag not set for authorization failure decision	29.207	134	2	A	Rel-6	6.0.0	E2EQoS
NP-040334	N3-040591	Corrections to AMR codec parameter translations	29.163	050	3	F	Rel-6	6.3.0	IMS-CCR-IWCS
NP-040337	N3-040592	Scope update to include Gmb	29.061	119	2	B	Rel-6	6.1.0	MBMS
	N3-040593	Gmb general corrections	29.061	120	2	B	Rel-6	6.1.0	MBMS
	N3-040594	New Gmb specific AVPs, and new specific result-codes values.	29.061	121	2	B	Rel-6	6.1.0	MBMS
NP-040338	N3-040615	Accumulated CR to TS 27.207 on Gq impacts	29.207	137	-	B	Rel-6	6.0.0	QoS1
	N3-040616	Accumulated CR to TS 27.208 on Gq impacts	29.208	73	-	B	Rel-6	6.0.0	QoS1
NP-040346	N3-040603	Non call-related Mn procedures	29.163	048	2	F	Rel-6	6.3.0	IMS-CCR-Mn

6.2 Liaison Statements

The following Liaison Statements are contained in **NP-040332.**

Tdoc #	Tdoc Title	LS to	LS cc	Attachment
N3-040531	Allocation of 3GPP specific AVP numbers and Experimental Result Codes for Gq interface	CN4	-	-
N3-040547	LS on sending the GGSN Address on the Gq interface	SA2	SA5	-
N3-040561	Request of Gmb Diameter code Values	CN4	-	-
N3-040573	LS Out to SA2 on the evolution of the Gi Radius interface for AAA purposes	SA2	-	-
N3-040584	LS on Early media session establishment in IMS	SA2	CN1	-

6.3 Work Items

CN3 provides the following Work Item Description sheets to CN#25 for approval:

Tdoc#	Title	Rapporteur	Company	Status
NP-040339	WID for "Rx Reference point specification for flow based charging"	Javier Gonzalez Gallego	Nortel Networks	New
NP-040340	WID for "DIAMETER on the PDG Wi interface"	Stefan Koppenborg	T-Mobile	New
NP-040341	WID for "DIAMETER on the GGSN Gi interface"	Stefan Koppenborg	T-Mobile	New

6.4 Technical Reports and Technical Specifications

6.4.1 Specifications for approval

CN3 provides the following technical specifications to CN#25 for approval:

Tdoc #	Number	Version	Rel	Title	Rapporteur	Company
NP-040342	29.209	2.0.1	Rel-6	Policy control over Gq interface	Anna Sillanpää	Nokia
NP-040344	29.161	2.0.1	Rel-6	Interworking between the Public Land Mobile Network (PLMN) supporting packet based services with WLAN Access and Packet Data Networks (PDN). (For info. and conditional approval)	Juha Räsänen	Nokia

6.4.2 Specifications for information

CN3 provides the following technical specifications to CN#25 for information:

Tdoc #	Number	Version	Rel	Title	Rapporteur	Company
NP-040343	29.210	1.0.1	Rel-6	Charging rule provisioning over Gx interface	Juha Räsänen	Nokia
NP-040345	29.162	1.1.1	Rel-6	Interworking between the IM CN subsystem and IP networks	Nigel Holland	O2

7. Next Meetings

The next CN3 meetings are scheduled as follows:

Meeting	Date	Location
TSG-CN3#33bis	4th – 7th October 2004	Sophia Antipolis, France
TSG-CN3#34	15th – 19th November 2004	Seoul, Korea

The CN3#33bis meeting will focus on the critical WIs for Rel-6. Flow Based Charging (Gx and Rx interfaces) will be the main area. In addition, there will be limited time slots on the Gq interface, the MBMS Gmb interface and on IMS-IP interworking.

8. Acknowledgements

I would like to thank the delegates for their contribution to the meeting and ETSI for hosting the meeting. David Boswarthick, MCC, deserves special thanks for the support before, during and after the meeting.