Source:	MCC
Title:	UPDATE TSG WG CN4 Terms of reference
Agenda item:	10.2
Document for:	APPROVAL

3GPP TSG CN WG4 (CN4) is responsible for the standardization of the stage 2 aspects within the Core Network including: Supplementary Services, Basic Call Processing, Mobility Management within the Core Network, Bearer Independent Architecture and CAMEL. CN4 is also responsible for the specification of the mobile specific protocol specifications within the mobile core network.

A number of protocols within the core network are specified by external bodies such as: the ITU-T, IETF and Liberty Alliance Project. In these cases, CN4 are involved in "profiling" (describing how and which part of these "external protocols" are to be used, describing protocol interworking between 3GPP specified protocols and these external protocols).

3GPP CN4's mandate is to specify the protocols within the Core Network including specifications describing the protocol requirements.

CN4 is responsible for the following core network feature specifications:

- Stage 2 and (jointly with CN3) stage 3 specifications of the Bearer Independent Architecture,

- Stage 2 and stage 3 (between Core Network entities) of Mobility Management within the Core Network;

- Stage 2 and stage 3 (between Core Network entities) of Circuit-Switched Call Control within the Core Network (e.g. Basic Call Handling);

- Profiling of Call/Transport Control Protocols defined outside 3GPP to be used within the CN (e.g. BICC, H.248, RTP);

- Stage 3 (between network entities) of GPRS;

- Stage 2 and stage 3 of Supplementary Services;

- Stage 2 and stage 3 of Mobile Number Portability;

- Stage 2 and stage 3 of Subscriber Data Management;

- Stage 2 and stage 3 of Transcoder Free Operation (TrFO) (in conjunction with SA4);

- Stage 2 and stage 3 of CAMEL;

- Stage 3 of Location Services;

- Stage 3 of Security;

- Stage 3 of WLAN – UMTS interworking;

- Stage 3 of Subscriber Certificates

- Stage 2 (jointly with SA2) and stage 3 of Generic User Profile (GUP); and

- Stage 3 (jointly with CN3) descriptions of IP Multimedia Subsystem (IMS).

CN4 is responsible as a "protocol steward" for the following IP related protocols (thisinvolves analyzing, validating, extending if necessary, clarifying how they are used, specifying packages and parameter values):

- AAA protocols;

- security protocols;

- Sigtran;

- SIP-T;

- Subscriber Data Management in HSS and HSS-CSCF Diameter application protocols to support it;

- Subscriber data management in HSS and HSS-CSCF protocols to support it;

- DIAMETER protocol codes;   *Requesting application IDs from IANA*

- AVP result codes; and   *Reserving AVP codes from the 3GPP specific range*

- Experimental result codes.   *Reserving experimental result codes from the 3GPP specific range*

The above list of standardization activities is not exhaustive and activities can be deployed within CN4 as long as they are in line with the mandate given by the CN plenary.

In general, 3GPP CN4 interacts with all 3GPP WGs, but with the following specifically:

- 3GPP TSG SA WG1(SA1);

SA1 defines the requirements for CAMEL in the stage 1 specification.The CAMEL work of CN4 is based on the SA1 requirements.

- 3GPP TSG SA WG2 (SA2);

SA2 is responsible for the high-level architecture specifications of the whole network (including the CN). CN4 is responsible for the detailed description of parts of this architecture related to CN internal functions and protocols.

- 3GPP TSG CN WG1 (CN1);

CN1 is responsible for the call control, mobility management, and session management aspects across the radio interface. These aspects have impacts on the CN4 specifications, such as stage 2 Call Control, Supplementary Services, Handover, etc. On these aspects CN4 will collaborate closely with CN1.

- 3GPP TSG CN WG3 (CN3);

CN3 is responsible for the network interworking aspects and user plane protocols (except GTP). CN3 is responsible for the parameter values of the Media Control Protocols (MCP) and the Bearer Control protocols. These activities have impacts on the activities within CN4 and therefore CN4 will closely collaborate with CN3 on these aspects.

This list of 3GPP WGs is not exhaustive; CN4 will maintain liaison with other 3GPP WGs as needed.

CN2 ToR mentioned CN5 (OSA) and SA5 (charging) as partners. In practise, there has been no cooperation. So this falls to last category.

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3GPP TSG CN WG4 (CN4) is responsible for the standardization of thees stage 2 aspects within the Core Network including: focusing on Supplementary Services, Basic Call Processing, Mobility Management within the Core Network, and Bearer Independent Architecture, and CAMEL. CN4 is also responsible for the specification ofes the mobile specific protocol specifications within the mobile core network.

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- Profiling of Call/Transport Control Protocols defined outside 3GPP to be used within the CN (e.g. BICC, H.248, RTP);

- Stage 3 (between network entities) of GPRS;

- Stage 2 and stage 3 of Supplementary Services;

- Stage 2 and stage 3 of Mobile Number Portability; and

   Stage 2 and stage 3 of Subscriber Data Management; and

- :

- Stage 2 and stage 3 of Transcoder Free Operation (TrFO) (in conjunction with SA4);

- Stage 2 and stage 3 of CAMEL;

- Stage 3 of Location Sservices;

- Stage 3 of Security;

- Stage 3 of WLAN – UMTS interworking;

- Stage 3 of Ssubscriber Ccertificates

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CN4 is responsible as a "protocol steward" for the following IP related protocols (thiswhich involves analyzing it, validating it, extending it if necessary, clarifying how they areit is used, specifying packages and parameter values) for the following IP related protocols:

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- security protocols;

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- SIP-T;

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The above list of standardization activities is not exhaustive and activities can be deployed within CN4 as long as they are in line with the mandate given by the CN plenary.

In general, 3GPP CN4 interacts with all 3GPP WGs, but with the following specifically:

- 3GPP SA WG1 TSG SA WG1(SA1):

  SA1 defines the requirements for CAMEL in the stage 1 specification.The CAMEL work of CN4 is based on the SA1 requirements.

- 3GPP TSG SA WG2 (SA2);

SA2 is responsible for the high-level architecture specifications of the whole network (including the CN). CN4 is responsible for the detailed description of parts of this architecture related to CN internal functions and protocols.

- 3GPP TSG CN WG1 (CN1);

CN1 is responsible for the call control, mobility management, and session management aspects across the radio interface. These aspects have impacts on the CN4 specifications, such as stage 2 Call Control, Supplementary Services, Handover, etc. On these aspects CN4 will collaborate closely with CN1.

- 3GPP CN WG2 (CN2);

CN2 is responsible for the stage 2 and stage 3 specifications for CAMEL. These specifications have impacts on the CN4 specifications, such as stage 2 Call Control, Supplementary Services, Subscriber Data Management, MAP etc. On these aspects CN4 will collaborate closely with CN2; the majority of CN2 meetings will be collocated with CN4 meetings.

- 3GPP TSG CN WG3 (CN3);

CN3 is responsible for the network interworking aspects and user plane protocols (except GTP). CN3 is responsible for the parameter values of the Media Control Protocols (MCP) and the Bearer Control protocols. These activities have impacts on the activities within CN4 and therefore CN4 will closely collaborate with CN3 on these aspects.

This list of 3GPP WGs is not exhaustive; CN4 will maintain liaison with other 3GPP WGs as needed.

last updated 14th January 2002

<CR editor's note: CN2 ToR mentioned CN5 (OSA) and SA5 (charging) as partners. In practise, there has been no cooperation. So this falls to last category.>