3GPP TSG CN Plenary Meeting #27 **NP-050025**

9th – 11th March 2005 Tokyo, JAPAN.

Source: **CN4 Chairman**

Title: **Status report from CN4 to TSG-CN Plenary Meeting #27**

Agenda item: **6.1.4**

Document for: **INFORMATION**

1 Introduction

CN4 have had one meeting since the last CN plenary meeting. CN4#25 was held in Sydney, Australia, on 14th – 18th February 2005, kindly hosted by NTT DoCoMo, Vodafone group, Fujitsu and NEC. Due to the high number of contributions we had to have parallel sessions again. This gives the vice chairs Toshiyuki Tamura (NEC) the opportunity to chair sessions on CAMEL and LCS. The other vice chair Peter Wild (Vodafone) had the opertunity to chair the sessions on MBMS and a drafting session on GUP. Kimmo Kymäläinen (MCC) was there as usual, making sure we did things properly. We have handled **482** documents, agreed **168** change requests, **1** specification for approval and **9** output liaison statements. **2** revised work item descriptions with workitem leadership by CN1 are endorsed by CN4. There were **51** participants representing **31**companies, plus Kimmo for the MCC.

The draft meeting report of CN4#26 was distributed to the CN4 email list; it is still under review and is provided in Tdoc NP-050026 for information. The CN4 outgoing liaison statements are provided in Tdoc NP-050027 for information.

2 Management summary

2.1 Release 7

CAMEL

We have started the discussion on draft version of CRs (Rel-7) on CAMEL Procedures for Trunk Originated Services

2.2 Release 6

Generic User Profile

TS 29.240 1.1.0 it is seen as approximately 85% completed. It is approved via email is send to plenary for approval (NP-050043). The new version of the specification is enhanced by:

- A definition on Data Services Template Checklist tables in annex A
- Clarifications on the relationship between GUP resource identifiers and the Liberty Alliance ResourceId
- Add explanatory text how LAP security mechanism shall be used in 3GPP.
- Some editorials and clean ups

The major open issue is the XML schema, in more detail:

- Schema design framework.
- Schema alignment with Liberty Alliance (common attributes).
- Concrete schema for subset of GUP profile schema (final version of HSS component)

Status

85% completed.
CN4 ask for an exception for GUP, GUP should be a release 6 feature

Wireless LAN interworking

SA2 have only recently introduced the Pr (AAA server to PNA) and Pp (PDG to PNA) presence interfaces in their Presence Stage 2. CN4 should therefore either include or exclude this work in Rel 6 and inform SA2 so they can align their architecture accordingly. CN4 also notes that specification of Pp may not be straightforward. Current understanding is that Pp is supposed to be based on the Wi reference point i.e. TS 29.061, see the Presence Stage 2 TS23.141. However, offline discussions indicate that this understanding may need to be re-examined i.e. whether this is better done as a Diameter interface and so best done in CN4, or an adapted Radius interface done by CN3 in TS29.061. A similar issue also exists for the Pr interface - since this interface provides for retrieval of events i.e. tunnel establishment/removal, allocation of the remote IP address for the WLAN UE, this may be done better by a Diameter like Wx interface (Px').

Authorization information update procedure in Wa, Wm reference points are not currently being addressed in CN. CN4 should either include or exclude this work in Rel 6. SA2 has introduced this function in Stage 2 TS 23.234.

We agreed on some corrections the related CRs can be found inNP-050047.

Open issue:

- Presence Information that is related to WLAN access will not be provided.
- Authorization information update procedure that is related to Wa, Wm reference points will not be provided.

Status

CN4 ask for an exception for WLAN regarding these functionalities to introduce them in Release 6**.**

HSS – CSCF (Cx) & SLF - CSCF (Dx) & HSS - SIP AS (Sh) interfaces

Release 6 introduced the ability for multiple Private User Identities to share a single Public User Identity. With this association the behaviour of altering the registration state for the Public User Identity stored in the HSS and S-CSCF should be clarified for the case of Registration and Deregistration.

CN4 inform SA5 that given the current relationships between IMS Public and Private Identities, it will not be possible to keep a different set of charging function addresses for Private User IDs that share a common Public User ID. Since Private User IDs are not always available public user IDs have to be used in these cases. If this Public User ID is linked to two or more Private User IDs with different sets of charging addresses, the HSS will not know which charging addresses should be selected and sent to the AS.

Further more we agreed on sets of CRs for release 5 and 6 which can be found in NP-050031, NP-050032, NP-050037and NP-050038.

Status

No outstanding issues.

Diameter coordination

We received requests from CN3 and T2 on the usage and request on Allocation of Diameter Command Codes and AVP codes and experimental Result codes. We agreed on CRs (NP-050039) to introduce these codes and informed the groups.

Subscriber Certificates

Currently, the NAF can only implictly discover the actual bootstrapping time. The NAF may need the actual bootstrapping time to discover the freshness of the original GBA session key Ks. Upon discovering the bootstrapping time the NAF can determine whether the original bootstrapping procedure is too old according to its policies and whether it requires the UE re-run the bootstrapping procedure. Therefor we agreed to add the

bootstrapinfo creation time. This gives an operator the opportunity to have subscriber specific bootstrapping lifetimes. SA3 has agreed the related changes to 33.220.

We received application identifiers from IANA and agreed to introduce the m into our specification.

The related CRs are in NP-050041.

Status

No outstanding issues.

Subscriber and Equipment Trace

CN4 has received a response from SA5 on open issues identified at CN4#25. As a consequence CN4 has agreed CRs on Subscriber and equipment trace for signalling and management based trace activation for CS and PS domain. The set of CRs can be found in NP-050057.

Mn interface protocol

We agreed to introduce Profile package as mandatory. The main argument was that the support of a profile was seen as mandatory functionality by TISPAN NGN to reuse 29.332. A discussion on the structure of Mn profile in the specification was started. There was only a principle agreement on the usage of profiles. The related CRs are in NP-050045.

We have agreed a set of CRs for Mc interface It needs to be checked which of the reduced options on Mc interface are also relevant for Mn Interface.

Outstanding issues

- The definition of the Mn profile for release 6 (to fulfil TISPAN NGN requirements)

Status

CN4 ask for an exception for Mn Interface to finalize the definition of the profile.

GPRS

Clarification to error handling of IEs of type TV related to the understanding of unknown TVs. We agreed on a CR that corrects the references to charging specifications in Release 6.

We agreed a CR on subscribed Charging Characteristics. This CR adds the functionality to convey the information from HLR to SGSN that a subscriber's Subscribed Charging Characteristics have been removed from the HLR so that the SGSN can apply its local default value. It was questioned whether the error of not being able to inform the SGSN about the removal of the Subscribed Charging Characteristics results in a frequent and serious mis-operation and therefore SA5 is asked how far back this corrections should be done to the now frozen releases of Rel-5, Rel-4, R99, R98, and R97.

The approved CRs on GPRS can be found in NP-050052. The approved CRs for Rel 5 onwards are in NP-050033.

A question was raised in which cases the address for control plane received in a request should be used to respond and in which cases the originating address of the request should be used to respond. This needs further investigation.

Status

No outstanding issues.

MBMS

According to 3GPP TS 23.246 v6.5.0, an MBMS Session Identifier and a 2G/3G indicator shall be sent from the GGSN to the SGSN in the MBMS Session Start Request message. We agreed on a CR which aligns 29.060 with stage 2.

There are a number of service scenarios where an operator may wish to prevent a user Activating an MBMS service when the user is a large distance outside of the MBMS service area. At MBMS context activation the full Routeing Area Identity is provided to the BM-SC by the SGSN via the GGSN.

We agreed to introduce the enhanced NSAPI to identify the MBMS UE context, this is in alignment with 24.008.

The set of approved Crs is in NP-050044.

Status

No outstanding issues.

Location services

In Release 6 stage 2 was enhanced by a function on reuse of UE's location to avoid heavy unnecessary signalling load caused frequent location requests. We have agreed on CRs incorporating this in stage 3.

Status

No outstanding issues.

MAP security

CN4 agreed a MAP CR (NP-050040) for Rel-6 to introduce TCAP handshaking for SMS MO. The corresponding CR on 33.200 is agreed by SA3 and send for approval to SA plenary.

TrFO/codec control

3GPP TS 28.062 requires that the MGW informs the MSC Server of whether TFO is established or not. We agreed on a set of CRs (NP-050053) which introduces this functionality.

Other release 6 issues (NP-050056)

Explanatory text is agreed to be added 23.067 to clarify that 23.107 should be taken into account if eMLPP priority are mapped to related RANAP information elements.

The introduction of a hop counter for MAP VLR-PVLR and GSN interworking to protect against resource consumption caused by database mis-configuration with respect to IuFlex is agreed as an option for Rel-6.

2.3 Release 5 and earlier

We have no CRs for R99 onwards and only 2 set of CRs for Rel-4 onwards all other CRs starting with Rel-5.

Mc Interface

We agreed a set of restriction for Rel5 29.232 related to H248. The agreed restriction does not effect the procedures required for Mc interface. They are agreed basicly for interoperability issues and to remove options from H248 which are not required by 3GPP.

We had a discussion on the usage of topology descriptor in case of rate control. The proposed solution was seen as one solution but it was indicated that other solutions are possible. It is open if one or more of these solutions should be added as an informative annex to 29.232 to have something documented for further discussions in future.

It is agreed to use profiles on Mc interface. As a first step we agreed the profile package as an optional parameter in Release 5. The question was raised if we should mandate the package in Release 6. The question of backward compatibility was raised. After some discussion we postponed a decision to the next meeting to give the companies more time to check.

Depending on how essential and valid for which release a corrections is we agreed it for release 4 (NP-050029), release 5 (NP-050036) or release 6 (NP-050055) onwards.

TrFO/codec control

We agreed on some corrections related to out of band transcoder control for Rel 4 (NP-050028) and Rel 5 (NP-050034) onwards. An example for this is the refrasing of section on TFO in 23.153 because the existing text left some space for interpretation which might lead to different implementations.

2.4 GSM

None.

3 Questions for advice and decision

See section 4.3 Request for exceptions for Release 6

4 Work organisation

4.1 Work Item descriptions

The work item on trace is split in two parts. The IMS part on trace was updated by CN1 and endorsed by CN4 .

A new CN wide work item on improvements of VGCS in public networks for parallel use of services (e.g. SMS and data) is endorsed by CN4. The work item leadership has CN1.

4.2 Review of the work plan

The work plan was updated during the meeting. The updates should be covered in the version of the work plan which is published before CN#27.

4.3 Request for exceptions for Release 6

During the discussion on the different work items on release 6 three work items are identified for which we need more time to finalise the work. The following Forms are agreed by CN4:

- Form for exception on WLAN for Rel-6; (NP-050048)
- Form for exception on GUP for Rel-6; (NP-050042)
- Form for exception on Mn-interface for Rel-6; I (NP-050046)

5 CN4 meeting calendar

The complete list of meetings is shown in the tables below till the end of 2005.

Table 1: CN4 meeting calendar

Date	Meeting	Place	Host
25-29 Apr. 2005	CT4#27	Cancun, Mexico	US Friends of 3GPP

Date	Meeting	Place	Host
17-20 May 2005*	CT#27bis	Sophia Antipolis	
01 – 03 June 2005	CT plenary #28	Quebec; Canada	US Friends of 3GPP
15-19 Aug 2005	CT4#28	London, GB	EF3
21 – 23 Sept. 2005	CT plenary #29	Tallin; ESTONIA	EF3
31 Oct - 4 Nov 2005	CT4#29	Berlin, Germany	EF3
30 Nov – 2 Dec 2005	CT plenary #30	TBD, MALTA	EF3

* reserved date, number of days needs to be decided at the next meeing, the meeting is soposed to be limited to a view topics.

6 Change Requests

CN4 produced 168 Change Requests which are submitted for ratification. An overview of the CR packages is provided in Table 3. Corrective CRs to Release 5 and earlier were agreed as esential corrections.

Table 3: CRs submitted by CN4 for approval at CN #26 (sorted by agenda item)

Tdoc	Agenda	Type	Tdoc Title	WI	Rel
NP-050028	7.7	CR PACK	CRs to Rel-4 on Work Item OoBTC	OoBTC	Rel-4
NP-050029	7.11	CR PACK	CRs to Rel-4 on on Work Item small Technical Enhancements and Improvements	TEI4	Rel-4
NP-050030	8.1	CR PACK	CRs to Rel-5 on Work Item IP-based multimedia services Cx-/Dx-interface	IMS-CCR	Rel-5
NP-050031	8.1	CR PACK	CRs to Rel-5 on Work Item IP-based multimedia services Sh-interface	IMS-CCR	Rel-5
NP-050032	8.3	CR PACK	CRs to Rel-5 on Work Item EDCamel	Camel4	Rel-5
NP-050033	8.8	CR PACK	CRs to Rel-5 on Work Item small Technical Enhancements and Improvements on GPRS	TEI5	Rel-5
NP-050034	8.8	CR PACK	CRs to Rel-5 on Work Item small Technical Enhancements and Improvements on OoBTC	TEI5	Rel-5
NP-050036	8.9	CR PACK	CRs to Rel-5 on Work Item small Technical Enhancements and Improvements on Mc-Interface	TEI5	Rel-5
NP-050037	9.1	CR PACK	CRs to Rel-6 on Work Item IP-based multimedia services Cx-/Dx-interface	IMS2-CCR	Rel-5
NP-050038	9.1	CR PACK	CRs to Rel-6 on Work Item IP-based multimedia services Sh-interface	IMS2-CCR	Rel-5
NP-050039	9.1	CR PACK	CRs to Rel-6 on Work Item IP-based multimedia services on Diameter Coordination	IMS2/TEI6	Rel-6
NP-050040	9.3	CR PACK	CR to Rel-6 on MAP Security	TEI6	Rel-6

NP-050041	9.3	CR PACK	CRs to Rel-6 on Subscriber Certificates	SEC1-SC	Rel-6
NP-050044	9.8	CR PACK	CRs to Rel-6 on Work Item Multimedia Broadcast and Multicast Service	MBMS	Rel-6
NP-050045	9.16	CR PACK	CRs to Rel-6 on Mn-interface	IMS2-Mn	Rel-6
NP-050047	9.17	CR PACK	CRs to Rel-6 on WLAN	WLAN	Rel-6
NP-050049	9.18	CR PACK	CRs to Rel-6 on Location Services	LCS2	Rel-6
NP-050050	9.19	CR PACK	CR to Rel-6 on Network Sharing	NetShar	Rel-6
NP-050051	9.21	CR PACK	CRs to Rel-6 on Work Item small Technical Enhancements and Improvements on Camel	TEI6	Rel-6
NP-050052	9.21	CR PACK	CR to Rel-6 on Work Item small Technical Enhancements and Improvements on GPRS	TEI6	Rel-6
NP-050053	9.21	CR PACK	CR to Rel-6 on Work Item small Technical Enhancements and Improvements on OoBTC	TEI6	Rel-6
NP-050054	9.21	CR PACK	CRs to Rel-6 on Work Item small Technical Enhancements and Improvements on MAP	TEI6	Rel-6
NP-050055	9.21	CR PACK	CR to Rel-6 on Work Item small Technical Enhancements and Improvements on Mc-interface	TEI6	Rel-6
NP-050056	9.21	CR PACK	CR to Rel-6 on Work Item small Technical Enhancements and Improvements on TEI6	TEI6	Rel-6
NP-050057	9.22	CR PACK	CR to Rel-6 on Trace management	OAM-Trace	Rel-6

6.1 Release 5 (and earlier) CRs

Corrective CRs to Release 5 and earlier are agreed as **essential corrections**.

6.1.1 6.1.1 Corrections on OoBTC/TrFO (NP-050028)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050156	23.153	087		Rel-4	Removal of AMR-WB codec	F	4.11.0
N4-050402	29.232	140	1	Rel-4	TFO activation without TFO Codec List	F	4.10.0
N4-050403	29.232	141	1	Rel-5	TFO activation without TFO Codec List	A	5.9.0
N4-050404	29.232	142	1	Rel-6	TFO activation without TFO Codec List	A	6.0.0
N4-050416	29.232	166		Rel-4	TFO procedure clarification	F	4.10.0
N4-050417	29.232	167		Rel-5	TFO procedure clarification	A	5.9.0
N4-050418	29.232	139	1	Rel-6	TFO procedure clarification	A	6.0.0
N4-050405	23.205	57		Rel-4	Solving contradiction for Release Cause in Release Bearer Procedure between stage 2	F	4.11.0

					and stage 3		
N4-050205	23.205	55		Rel-5	Solving contradiction for Release Cause in Release Bearer Procedure between stage 2 and stage 3	A	5.7.0
N4-050206	23.205	56		Rel-6	Solving contradiction for Release Cause in Release Bearer Procedure between stage 2 and stage 3	A	6.0.0

6.1.2 Corrections Corrections on TEI4 (NP-050029)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050040	29.232	096		Rel-4	Corrections to table 14.2	F	4.10.0
N4-050041	29.232	097		Rel-5	Corrections to table 14.2	A	5.9.0
N4-050042	29.232	098		Rel-6	Corrections to table 14.2	A	6.0.0
N4-050046	29.232	102		Rel-4	Completion of specification of UMTS Packages	F	4.10.0
N4-050387	29.232	103	1	Rel-5	Completion of specification of UMTS Packages	F	5.9.0
N4-050388	29.232	104	1	Rel-6	Completion of specification of UMTS Packages	A	6.0.0
N4-050232	29.232	159		Rel-4	VPF Type Removal	F	4.10.0
N4-050233	29.232	160		Rel-5	VPF Type Removal	A	5.9.0
N4-050234	29.232	161		Rel-6	VPF Type Removal	A	6.0.0
N4-050235	29.232	162		Rel-4	Alignment of TFO Activation Procedure	F	4.10.0
N4-050236	29.232	163		Rel-5	Alignment of TFO Activation Procedure	A	5.9.0
N4-050237	29.232	164		Rel-6	Alignment of TFO Activation Procedure	A	6.0.0
N4-050384	29.232	099	1	Rel-4	Requirements for support of H.248 packages	F	4.10.0
N4-050385	29.232	100	1	Rel-5	Requirements for support of H.248 packages	F	5.9.0
N4-050386	29.232	101	1	Rel-6	Requirements for support of H.248 packages	A	6.0.0
N4-050480	29.232	118	2	Rel-4	Requirements for support of procedures	F	4.10.0
N4-050481	29.232	119	2	Rel-5	Requirements for support of procedures	A	5.9.0
N4-050482	29.232	120	2	Rel-6	Requirements for support of procedures	A	6.0.0

6.1.3 Corrections on Cx/Dx-interface Rel-5 (NP-050030)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050147	29.228	165		Rel-5	Avoiding undesired deregistration	F	5.10.0
N4-050148	29.228	166		Rel-6	Avoiding undesired deregistration	A	6.5.0
N4-050331	29.228	177		Rel-5	HSS initiates deregistration	F	5.10.0
N4-050336	29.229	81		Rel-5	Introduction of Failed AVP	F	5.9.0
N4-050337	29.229	82		Rel-6	Introduction of Failed AVP	A	6.3.0
N4-050456	29.229	077	1	Rel-5	Correction of Authentication-related AVPs	F	5.9.0
N4-050457	29.229	078	1	Rel-6	Correction of Authentication-related AVPs	A	6.3.0
N4-050334	29.228	167	1	Rel-5	Correction to authentication procedures in not registered case	F	5.10.0
N4-050335	29.228	168	1	Rel-6	Correction to authentication procedures in not registered case	A	6.5.0

6.1.4 Corrections on Sh-interface Rel-5 (NP-050031)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050119	29.328	112		Rel-5	Align UML Model and the XML schema for Public Identity	F	5.8.0
N4-050120	29.328	113		Rel-6	Align UML Model and the XML schema for Public Identity	A	6.4.0
N4-050121	29.329	65		Rel-5	Removal of material duplicating 23.234 in 29.234	F	5.8.0
N4-050151	29.328	117		Rel-5	Sh Diameter AVP Mapping Correction	F	5.8.0
N4-050152	29.328	118		Rel-6	Sh Diameter AVP Mapping Correction	A	6.4.0
N4-050318	29.329	63		Rel-5	Sh-Update needs to include Data-Reference to be future proof	F	5.8.0
N4-050319	29.329	64		Rel-6	Sh-Update needs to include Data-Reference to be future proof	A	6.3.0
N4-050320	29.328	115	1	Rel-5	Conditional Service indication in Sh-Subs-Notif	F	5.8.0
N4-050321	29.328	116	1	Rel-6	Conditional Service indication in Sh-Subs-Notif	A	6.4.0
N4-050324	29.329	56	1	Rel-5	Introduction of Failed AVP	F	5.8.0
N4-050325	29.329	57	1	Rel-6	Introduction of Failed AVP	A	6.3.0
N4-050458	29.328	098	2	Rel-5	Sh-Update needs to include Data-Reference to be future proof	F	5.8.0
N4-050459	29.328	099	4	Rel-6	Sh-Update needs to include Data-Reference to	A	6.4.0

					be future proof		
N4-050322	29.328	120	2	Rel-5	Clarification of Sh Access Keys	F	5.8.0
N4-050323	29.328	121	2	Rel-6	Clarification of Sh Access Keys	A	6.4.0

6.1.5 Corrections on EDCamel (NP-050032)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050362	29.278	48	1	Rel-5	Correction of IETF Reference in TS 29.278	F	5.3.0
N4-050363	29.278	49	1	Rel-6	Correction of IETF Reference in TS 29.278	A	6.0.0

6.1.6 Corrections on GPRS Rel-5 (NP-050033)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050439	29.060	533	1	Rel-5	Add Source RNC PDCP context info IE in Forward SRNS Context message	F	5.12.0
N4-050440	29.060	534	1	Rel-6	Add Source RNC PDCP context info IE in Forward SRNS Context message	A	6.7.0
N4-050441	29.060	541	1	Rel-5	Clarification of PCO IE in Update PDP context response	F	5.12.0
N4-050442	29.060	540	1	Rel-6	Clarification of PCO IE in Update PDP context response	A	6.7.0

6.1.7 Corrections on OoBTC/TrFO (NP-050034)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050157	23.153	088		Rel-5	Correction of the condition for the insertion of a transcoder	F	5.9.0
N4-050158	23.153	089		Rel-6	Correction of the condition for the insertion of a transcoder	A	6.0.0
N4-050472	23.205	051	2	Rel-5	Stage 2 Procedure for Emergency Call Indication	F	5.7.0
N4-050473	23.205	052	2	Rel-6	Stage 2 Procedure for Emergency Call Indication	A	6.0.0
N4-050474	29.232	121	2	Rel-5	Procedure for Emergency Call Indication	F	5.9.0
N4-050475	29.232	122	2	Rel-6	Procedure for Emergency Call Indication	A	6.0.0

6.1.8 Corrections on Mc-Interface (NP-050036)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050049	29.232	105		Rel-5	Correction of implied option for Embedded Signals and Events	F	5.9.0
N4-050050	29.232	106		Rel-6	Correction of implied option for Embedded Signals and Events	A	6.0.0
N4-050056	29.232	112		Rel-5	Removal of the Multiplex descriptor	F	5.9.0
N4-050057	29.232	113		Rel-6	Removal of the Multiplex descriptor	A	6.0.0
N4-050058	29.232	114		Rel-5	Removal of the Modem descriptor	F	5.9.0
N4-050059	29.232	115		Rel-6	Removal of the Modem descriptor	A	6.0.0
N4-050083	29.232	127		Rel-5	Removal of the Error Descriptor usage in NotifyRequest	F	5.9.0
N4-050084	29.232	128		Rel-6	Removal of the Error Descriptor usage in NotifyRequest	A	6.0.0
N4-050085	29.232	129		Rel-5	Use of corresponding Q.1950 Annex C “Call bearer control- BIWF congestion handling procedures” for MGW Resource congestion handling	F	5.9.0
N4-050086	29.232	130		Rel-6	Use of corresponding Q.1950 Annex C “Call bearer control- BIWF congestion handling procedures” for MGW Resource congestion handling	A	6.0.0
N4-050090	29.232	134		Rel-5	Directionality of tones and announcements	F	5.9.0
N4-050091	29.232	135		Rel-6	Directionality of tones and announcements	A	6.0.0
N4-050222	29.232	150		Rel-5	Service Change Reasons	F	5.9.0
N4-050223	29.232	151		Rel-6	Service Change Reasons	A	6.0.0
N4-050230	29.232	87	4	Rel-5	Service Change For Failover	F	5.9.0
N4-050231	29.232	158		Rel-6	Service Change For Failover	A	6.0.0
N4-050376	29.232	110	1	Rel-5	Removal of the usage of ContextAttributeAuditReq	F	5.9.0
N4-050377	29.232	111	1	Rel-6	Removal of the usage of ContextAttributeAuditReq	A	6.0.0
N4-050395	29.232	89	3	Rel-5	Commands on ROOT	F	5.9.0
N4-050396	29.232	148	1	Rel-6	Commands on ROOT	A	6.0.0
N4-050406	29.232	86	5	Rel-5	Use Of Audit Value	F	5.9.0
N4-050407	29.232	149	1	Rel-6	Use Of Audit Value	A	6.0.0
N4-050410	29.232	154	1	Rel-5	Descriptors In Replies	F	5.9.0

N4-050411	29.232	155	1	Rel-6	Descriptors In Replies	A	6.0.0
N4-050412	29.232	156	1	Rel-5	Introduction Of Formal Profile	F	5.9.0
N4-050413	29.232	157	1	Rel-6	Introduction Of Formal Profile	A	6.0.0
N4-050476	29.232	107	2	Rel-5	Removal of the 'Test' ServiceStates value from the TerminationState Descriptor Events	F	5.9.0
N4-050477	29.232	108	2	Rel-6	Removal of the 'Test' ServiceStates value from the TerminationState Descriptor Events	A	6.0.0

6.2 Release 6 CRs

6.2.1 Corrections on IMS2 Cx/Dx-interface (NP-050037)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050154	29.229	079		Rel-6	TEL-URI reference update	F	6.3.0
N4-050197	29.228	172		Rel-6	Distribution of Cipher key and integrity Key	F	6.5.0
N4-050338	23.008	143	1	Rel-6	Add reference to implicitlyregistered public user identities set definition	F	6.4.0
N4-050460	29.228	170	2	Rel-6	Clarification of Behaviour of Shared Public User Identities	F	6.5.0

6.2.2 Corrections on IMS2 Sh-interface (NP-050038)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050314	29.328	111	1	Rel-6	Clarification on requested identity set	F	6.4.0
N4-050461	29.328	122	2	Rel-6	Multiple Terminals in Sh	C	6.4.0

6.2.3 Corrections on Diameter coordination (NP-050039)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050204	29.230	43		Rel-6	Allocations for Gx interface	F	6.2.0
N4-050295	29.230	45		Rel-6	Allocations for Gmb	F	6.2.0
N4-050311	29.230	46		Rel-6	Allocation of Diameter Command Codes and AVP codes	F	6.2.0

6.2.4 Corrections on MAP security (NP-050040)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050444	29.002	759	1	Rel-6	Addition of TCAP-Handshake for MO-ForwardSM	C	6.8.0

6.2.5 Corrections on Subscriber Certificates (NP-050041)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050067	29.109	010		Rel-6	GAA Error Codes	C	6.1.1
N4-050094	29.109	011		Rel-6	Only one AV from HSS to BSF	F	6.1.1
N4-050095	29.109	012		Rel-6	Clarification of LifeTime/ExpiryTime terminology	F	6.1.1
N4-050358	29.109	013	1	Rel-6	Application identifiers to Z-interfaces	C	6.1.1
N4-050359	29.109	14	1	Rel-6	Modification of key lifetime material	C	6.1.1

6.2.6 Corrections on MBMS (NP-050044)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050093	23.003	097		Rel 6	Clarification of the TMGI	F	6.5.0
N4-050137	29.060	531		Rel 6	Providing the BM-SC with approximate UE location information at MBMS context activation	F	6.7.0
N4-050340	29.060	547	1	Rel-6	Enhanced NSAPI for MBMS	F	6.7.0
N4-050341	29.060	546	1	Rel-6	Adding missing parameters to the MBMS Session Start Request message	F	6.7.0
N4-050342	29.060	549		Rel-6	Change of newly added Ies in Rel-6 to type TLV	F	6.7.0

6.2.7 Corrections on Mn-interface (NP-050045)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050419	29.332	1	1	Rel-6	Formal Profile Of Mn Interface	F	6.0.0
N4-050465	29.332	2	2	Rel-6	Corrections to Mn Specification	F	6.0.0

6.2.8 Corrections on WLAN (NP-050047)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C

N4-050123	29.234	031		Rel-6	Removal of Wn reference point Definition from the Stage 3	F	6.1.0
N4-050124	29.234	32		Rel-6	Wa Interface RADIUS profile corrections	F	6.1.0
N4-050125	29.234	33		Rel-6	Wd Interface RADIUS profile corrections	F	6.1.0
N4-050127	29.234	35		Rel-6	Information Element corrections on Wd	F	6.1.0
N4-050166	29.234	43		Rel-6	Editorial corrections	D	6.1.0
N4-050279	29.230	40	1	Rel-6	WLAN Diameter AVP and result codes	F	6.2.0
N4-050339	23.003	93	3	Rel-6	CR on WLAN Alternative NAI	B	6.5.0
N4-050345	29.234	30	1	Rel-6	Incorrect AVP Code for Public-Identity in Table 6.3.1	F	6.1.0
N4-050347	29.234	34	1	Rel-6	Removal of unnecessary attributes on Wa	F	6.1.0
N4-050349	29.234	37	1	Rel-6	Editorial corrections	F	6.1.0
N4-050351	29.234	38	1	Rel-6	Description of the RADIUS session termination procedure	F	6.1.0
N4-050352	29.234	39	1	Rel-6	WLAN Diameter AVP and result codes	F	6.1.0
N4-050353	29.234	41	1	Rel-6	WLAN Diameter AVP table and chapters coherence revision	F	6.1.0
N4-050354	29.234	42	1	Rel-6	PDG behaviour on Wm interface	B	6.1.0
N4-050357	29.234	47	1	Rel-6	Wa Interface RADIUS profile Information Element corrections	F	6.1.0

6.2.9 Corrections on Location services (NP-050049)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050364	24.030	022	1	Rel-6	Miss alignment with stage 2 on reuse mechanism	F	6.2.0
N4-050365	24.080	043	1	Rel-6	Miss alignment with stage 2 on reuse mechanism	F	6.2.0
N4-050366	24.030	23	1	Rel-6	Pseudonym indicator support in MO-LR	F	6.2.0
N4-050367	24.080	44	1	Rel-6	Pseudonym indicator support in MO-LR	F	6.2.0
N4-050467	29.002	763	2	Rel-6	Pseudonym indicator support in MO-LR	F	6.8.0

6.2.10 Corrections on Network sharing (NP-050050)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C

N4-050443	29.060	538	1	Rel-6	Addition of Selected PLMN-ID for network sharing	B	6.7.0

6.2.11 Corrections on Camel Rel-6 (NP-050051)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050361	23.078	762	1	Rel-6	CR 693 not implemented	F	6.4.0

6.2.12 Corrections on GPRS (NP-050052)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050132	29.060	530		Rel-6	Update of references to PS charging specification	F	6.7.0
N4-050170	29.060	539		Rel-6	Correction of Type values	F	6.7.0
N4-050184	29.060	544		Rel-6	Addition of RIM Routing Address for GERAN	F	6.7.0
N4-050399	29.060	550		Rel-6	Correction to Radio Priority LCS IE	F	6.7.0
N4-050429	29.060	528	1	Rel-6	Clarification to error handling of IEs of type TV	F	6.7.0
N4-050430	29.002	760	1	Rel-6	Charging Characteristics	F	6.8.0
N4-050432	29.060	535	1	Rel-6	Clarification of IPv4 and IPv6 node addresses in the SRNS Relocation Procedure.	F	6.7.0
N4-050433	29.060	536	1	Rel-6	Support of IPv4 and IPv6 node addresses in Inter-SGSN RAU procedure	F	6.7.0
N4-050434	29.060	537	1	Rel-6	Add the Common Flags IE to GGSN-Initiated Update PDP Context Request message	F	6.7.0

6.2.13 Corrections on OoBTC/TrFO (NP-050053)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050414	29.232	138	1	Rel-6	New ‘TFO status’ event	F	6.0.0
N4-050470	23.153	085	2	Rel-6	New ‘TFO status’ event	F	6.0.0

6.2.14 Corrections on MAP (NP-050054)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050369	29.002	761	1	Rel-6	Addition of LAI to SendIdentification Request	F	6.8.0

6.2.15 Corrections on Mc-interface (NP-050055)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050087	29.232	131		Rel-6	Removal of Signals on ROOT	F	6.0.0
N4-050088	29.232	132		Rel-6	Removal of usage of Stream ID in Topology descriptor	F	6.0.0
N4-050089	29.232	133		Rel-6	H.248.1 version contradiction	F	6.0.0
N4-050471	29.232	165	2	Rel-6	Introduction of COT	F	6.0.0

6.2.16 Corrections on TEI6 (NP-050056)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050128	29.010	112		Rel-6	Correction of partly implemented CR 108	F	6.4.0
N4-050298	23.067	012	1	Rel-6	Clarification on mapping of eMLPP priorities	F	6.0.0
N4-050445	23.012	018	2	Rel-6	Introduction of Hop Counter for Send Identification	B	6.2.0
N4-050446	29.002	745	2	Rel-6	Introduction of Hop Counter for Send Identification	B	6.8.0
N4-050447	29.060	529		Rel-6	Introduction of Hop Counter to Identification Request and SGSN Context Request	B	6.6.0

6.2.17 Corrections on Subscriber and Equipment Trace (NP-050057)

Doc-2nd-Level	Spec	CR	Rev	Phase	Subject	Cat	Ver_C
N4-050211	23.018	144		Rel-6	Management Based Activation Impacts	B	6.3.0
N4-050212	29.002	749		Rel-6	Management Based Activation Impacts	B	6.8.0
N4-050299	23.205	045	7	Rel-6	Addition of the Trace package	B	6.0.0
N4-050304	29.232	060	7	Rel-6	Addition of the Trace package	B	6.0.0
N4-050305	29.060	470	7	Rel-6	Additional Trace information	C	6.7.0
N4-050306	23.008	134	4	Rel-6	Adding trace control and configuration parameters to subscriber data in HSS	B	6.4.0
N4-050308	23.012	19	2	Rel-6	Management Based Activation Impacts	B	6.2.0

N4-050309	29.060	543	1	Rel-6	Management Based Trace Activation Signalling	B	6.7.0
N4-050463	29.002	738	8	Rel-6	Rel-6 trace management additions to trace activation and deactivation procedures	F	6.8.0

7 Draft Technical specifications and reports

Specification for approval

Doc-2nd-Level	Spec	Phase	Subject	Cat	Ver_C
NP-050043	29.040	Rel-6	3GPP TS 29.240 Generic User Profile v2.0.0 for approval		2.0.0

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