

3GPP TSG_CN
Plenary Meeting #8, Düsseldorf Germany
21st – 23rd June 2000

Tdoc NP-000283

3GPP TSG CN Working Group 4 Meeting#02
 Rotenburg, Germany
 22 - 26 May 2000

N4-000xxx

Source: MCC
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Title: CN4#02 meeting report
Agenda item: 1
Document for: Approval

Agenda item	Agenda item title	Tdoc 3GPP N4-00	Title	Source	Result
1	Opening, approval of agenda	0201	Proposed meeting agenda	N4 Convenor	Peter Schmitt welcomed participants on behalf of Siemens, providing the necessary logistic information. The agenda was approved.
2	Document allocation	0202	Proposed allocation of documents to agenda items	N4 Convenor	Revised, according to requests from the floor.
3	Reports of previous meetings				
3.1	N4 Meetings	0203	N4#01, Charleston, USA	MCC	No further comments raised. Meeting report approved.
3.2	Email approved CRs, LS	0205	(Draft) Response to LS on Number Portability Harmonisation CRs Results of Email approval	Ericsson N4 Convenor	The document was sent to T1P1 who have seen it. 044 was withdrawn, 069 resubmitted to this meeting (Tdoc 0247), 100 was approved.
3.3	Other Meetings	3GPP 0204	3GPP TrFO Workshop, Stockholm, Sweden	MCC	Report noted

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4	Input liaison statements	0238	Response to LS (S2-000604) on Clarification on Transfer Delay value for the streaming class	N3	Noted (only addressed to S2)
		0239	LS on Service Modification without Pre-notification	N3	Introduced by NEC. Companies interested in the topic were encouraged to contribute. An LS will be drafted by NEC (Tdoc 319) to inform N3 that N4 are considering the issue.
		0319	LS Response on Service Modification without Pre-notification	NEC	Revised to 0331
		0331	LS Response on Service Modification without Pre-notification	NEC	Approved
		0240	Response LS to N4 on new specification 29.108 "Application of the Radio Access Network Application Part (RANAP) on the E-interface"	R3	See section 7.4
		0241	Proposed LS To TSG-N SS ad-hoc on Service Requirements for Long Forwarded-to Numbers	S1	See section 7.6
		0242	Liaison statement on Global "Cause of no ID"	S1	See section 7.7.6
		0243	Liaison statement on hexadecimal IMEI format	S1	See section 7.7.2
		0244	LS on GPRS Charging Enhancements	S5	See section 7.3.2
		0298	LS on GPRS Charging Characteristics	S5	See section 7.3.2
		0308	Evaluation of the impact on positive authentication reporting on network performance	S3	See section 9.1
		0309	LS on Service Modification without Pre-notification	T2	For information. Noted
		0310	LS on Address Translation in MMS R'00	T2	Sent in copy to N4. Noted.

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5	Work management item	0302	Work Item Management	CN4 Convenor	<p>Highlighted that evolution of <i>CN transport and bearers in the Core Network</i> and <i>Layer 3 segmentation</i> were assigned to N4: companies interested were urged to provide work item description. All other items of relevance to N4 were briefly commented by the Chairman. It was noted that OoBTC was incorrectly assigned to N2 instead of N4.</p> <p>The Chairman reminded that a set of companies should prepare the WI description. The expectation is that WI description comes from the group indicated as primarily interested.</p> <p>For the Evolution of transport and bearers in the CN there was no volunteer (off line discussion needed).</p> <p>For Layer 3 segmentation there was no volunteer as well. However, T-Mobil observed that this might be relevant only to the radio interface and that White Book SCCP should be applicable to CN signalling.</p>
6	Election of Chairman	0284	Candidate for the position of 3GPP TSG CN WG4 Chairman	Ericsson	<p>Only one nomination (Yun Chao Hu, Ericsson) was received before the meeting. Vodafone however reminded that valid nominations can still be submitted before the agenda point is discussed. This part of the meeting was chaired by Ian Park, Vice Chairman of CN.</p> <p>Yun Chao Hu was elected by acclamation.</p>
7	Release 99				
7.1	CAMEL Phase 3	0206	CR 29.002-127 on Optionality of parameters in d-csi and in sms-csi	Nokia	<p>Briefly explained that all data types in D-CSI and in SMS-CSI should be marked as optional because of segmentation. Rogier Noldus seemed satisfied with the CR, so no consolidation with N2 seems necessary (the N2 Chairman agreed as well). Vodafone highlighted that, although there are no problems with the CR principles, the mechanism opens the door to a generalised application. More CRs will consequently be needed for a complete solution package.</p> <p>Siemens observed that tagging is needed since all parameters in D-CSI are now optional.</p> <p>Revised to 0320</p>
		0320	CR 29.002-127r1 on Optionality of parameters in d-csi and in sms-csi	Nokia	Agreed

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		0247	CR 29.002-124r2 on CAMEL Subscription Info	Siemens	Substance already discussed in Charleston. Revisions provided by Vodafone, mainly. Only a minor modification in sect 8.1.1.3 was necessary (text split). Category should be C, as agreed in Charleston. Small concern about current wording expressed by Vodafone. Revised to 0321
		0321	CR 29.002-124r3 on CAMEL Subscription Info	Siemens	
7.2	Mobile Number Portability	0250	CR 02.66-xxx on North American Service Provider Number Portability impacts for Mobile Number Portability	T1P1.5	Revised to 0313
		0251	CR 03.18-A061 on North American Service Provider Number Portability impacts for Mobile Number Portability	T1P1.5	Revised to 0314
		0252	CR 03.66-A019 on North American Service Provider Number Portability impacts for Mobile Number Portability	T1P1.5	Revised to 0315
		0253	CR 22.066-xxx on North American Service Provider Number Portability impacts for Mobile Number Portability	T1P1.5	Revised to 0316
		0254	CR 23.018-052 on North American Service Provider Number Portability impacts for Mobile Number Portability	T1P1.5	Revised to 0317
		0255	CR 23.066-019 on North American Service Provider Number Portability impacts for Mobile Number Portability	T1P1.5	Revised to 0318
		0228	CR 09.02-A294 on SC access control based on NPLR	Ericsson	Rejected.
		0229	CR 03.66-A018 on SC access control based on NPLR	Ericsson	Ericsson intends to change the category from C3 to C1, with no changes to the CR text. Same concerns as for 0335: the change is considered to be a late addition of a feature for R'99 and must not be a part of R'98. Based on the category, the CR was rejected.
		0230	CR 29.002-136 on SC access control based on NPLR	Ericsson	Superseded by 0335

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		0335	CR 29.002-136r1 on SC access control based on NPLR	Ericsson	Ericsson remarked that the CR is a correction since the existing mechanism does not suitably fit (in terms of fraud prevention) the Operators requirements. Siemens (with Nokia and Alcatel) observed that the second modification proposed cannot be considered a correction, but a functional modification of a feature. Alcatel highlighted that it is a new screening function in the network.
		0231	CR 23.066-018 on SC access control based on NPLR	Ericsson	Superseded by 0336
		0336	CR 23.066-018r1 on SC access control based on NPLR	Ericsson	<p>New functionality added to correct a currently wrong situation. Delivery should be changed into Submission to be consistent with SMG4 terminology.</p> <p>Nokia expressed concern on the value of the delay resulting from the proposed implementation, which would reflect on a rather high resource usage (due to resource reservation, while waiting for the second segment). Alcatel expressed reservation on termination of TC dialogues. Still the opinion of a functionality not strictly related to MNP, but consisting in a filtering of information seemed to prevail.</p> <p>Since it was not possible to finalise discussion during the meeting, the document will be sent for e-mail discussion.</p> <p>Ericsson accepted the point of the addition of a feature and proposed to submit it, after technical acceptance, to the CN plenary to get also a political endorsement. Nokia clarified that their concern remains on a technical basis.</p>
		0313	CR 02.66-xxx on North American Service Provider Number Portability impacts for Mobile Number Portability	VoiceStream/Nokia	Withdrawn
		0314	CR 03.18-A061r1 on North American Service Provider Number Portability impacts for Mobile Number Portability	VoiceStream/Nokia	Withdrawn
		0315	CR 03.66-A019r1 on North American Service Provider Number Portability impacts for Mobile Number Portability	VoiceStream/Nokia	Withdrawn

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		0316	CR 22.066-xxx on North American Service Provider Number Portability impacts for Mobile Number Portability	VoiceStream/Nokia	<p>Takes into account the discussion held during the meeting in Milan. Alcatel expressed concern about the proposed definition of Number Portability and proposed the addition of some word. North American GSM Number Portability (NAGNP) was proposed and agreed. Ericsson noted a contradiction in sect.1. Vodafone proposed the addition of "outside the North American region" to solve the conflict.</p> <p>NTT DoCoMo noted that this Spec is not under N4 remit, and hence must be sent, after endorsement, to S1. The proposers accepted to forward the endorsed CR to S1, seeking for their approval (possibly by e-mail since S1 is not meeting any more before July).</p> <p>MCC clarified that, because of a numbering mismatch, v. 3.2.0 was expected although the correct numbering is 3.1.0. The latter is then to be considered the reference version.</p> <p>Revised To 0333</p>
		0333	CR 22.066-xxx on North American Service Provider Number Portability impacts for Mobile Number Portability	VoiceStream/Nokia	Endorsed
		0317	CR 23.018-052r1 on North American Service Provider Number Portability impacts for Mobile Number Portability	VoiceStream/Nokia	Vodafone proposed to implement in the CR the agreed terminology change (see 0316). Other changes were proposed and agreed. Revised to 0334
		0334	CR 23.018-052r2 on North American Service Provider Number Portability impacts for Mobile Number Portability	VoiceStream/Nokia	Agreed.

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		0318	CR 23.066-019r1 on North American Service Provider Number Portability impacts for Mobile Number Portability	VoiceStream/Nokia	<p>Changes to the references were further corrected. Lengthy discussion on introduction of new functionality or functional enhancements in R99 and whether some changes are to be considered new functionality's. Ericsson stressed their position of considering harmonisation between PCS and GSM as the highest priority: consequently, any agreement reached about MNP, although technically correct, must not compromise this requirement. The Chairman, in order to speed up the discussion, recommended to stick to the technical content, since a wider scope agreement seemed difficult to reach.</p> <p>Reference [14] will be removed (duplication of [9]). Definition section: Mobile Number Portability and North American GSM Number Portability are defined. <i>Portability domain</i>: Ericsson had problems with the definition because the concept does not exist in ANSI specifications.</p> <p>Some abbreviations seem to be missing (CNP, CNAP, CNDP), according to Alcatel. They will be added by VoiceStream.</p> <p>Subscription network should be detailed: PLMN, PSTN, ISDN, ... networks. Vodafone proposed the introduction of Portability Network, with a definition which differentiates the concept for North America. To be implemented throughout all the document.</p> <p>Vodafone recommended to look at references to ETSI specs with the objective of updating 3GPP Specs with ITU-T Recommendations, wherever applicable. However, cases of a particular feature, specified in a regional standard, should be taken into account with a regional specification. Alcatel suggested the introduction of a reference to the ITU-T Spec on Enhancements to Number Portability. ANSI Specification should remain whenever they contain deviations from the ITU-T Specs. which in general are the preferential reference).</p> <p>Section B.2.3: the addition was deleted as well as the Table in Sect. B.3. The additional SDL diagram is changed into the original one.</p> <p>Ericsson disagreed with all the changes in Annex C since they do not relate to harmonisation (according to Ericsson, the changes of Annex C are not supported by ANSI Specification and should be handled in a separate Spec).</p> <p>Annex C: additions to sect. 2.2 were agreed. Fig. C.2.2: a change was agreed. Sect. C.2: some amendments were agreed. Sect. C.6.4: changes agreed. Eventually, the concern of Ericsson about portability domain was withdrawn as well as the concerns</p>

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		0338	CR 23.066-019r2 on North American Service Provider Number Portability impacts for Mobile Number Portability	VoiceStream/Nokia	Agreed
7.3	GPRS				
7.3.1	Port Numbers	0208	CR 29.060-100 on Introduction of a different port number for GTP-C and GTP-U	Lucent	Withdrawn (replaced by 323 and 324)
		0324	CR 29.060-100r1 on Introduction of a different port number for GTP-C and GTP-U	Lucent	This CR provides a mechanism to fall back to version 0. Agreed.
		0323	CR 29.060-120 on Removal of the PT flag from GTP-C and GTP-U	Lucent	Nokia expressed disagreement, but before rejecting it, the Chairman proposed the CR be discussed between Nokia and Lucent. Fujitsu also opposed to the CR, which was then rejected. Lucent was encouraged to contact S5 and ask them to provide requirements that might support the CR in a future occasion.
		0256	CR 29.060-103 on UDP port usage for GTP-C	Lucent	According to Nokia, the proposed optimisation seems to limit implementation. The CR was rejected.
7.3.2	Charging	0224	CR 23.008-029 on Addition of charging characteristics per PDP context	France Telecom	A minor editorial mistake was discovered by Ericsson and corrected by MCC. Agreed.
		0225	CR 23.016-015 on Addition of charging characteristics per PDP context	France Telecom	Addition to the PDP context tree (last line). Agreed.
		0226	CR 29.002-135 on Addition of charging characteristics per PDP context	France Telecom	PDP charging characteristic has been added to sect 7 and 17. The length of the parameter (charging characteristic) was not changed, (1 octet). Nokia observed some inconsistency in the reason for change and Vodafone proposed to delete the sentence. Charging characteristic size was corrected and reference to the charging specification was recommended by Ericsson. Revised to 0326.
		0326	CR 29.002-135r1 on Addition of charging characteristics per PDP context	France Telecom	Agreed.
		0227	CR 29.060-101 on Addition of charging characteristics per PDP context	France Telecom	Revised to 0327.

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7.3.3	TEID	0327	CR 29.060-101r1 on Addition of charging characteristics per PDP context	France Telecom	Agreed.
		0244	LS on GPRS Charging Enhancement	S5	Introduced by FT. NTT DoCoMo and probably other operators would support the LS requirements, but current implementations seem to be at a rather advanced stage. Nokia observed that this seems to be the addition of a feature for R99. CRs related to this topic are also presented in the meeting (23.060 will be presented in Berlin). The CRs will be analysed and reviewed by N4, forwarding the approved ones to CN, indicating that they are generated by an S5 requirement.
		0298	LS on GPRS Charging Characteristics	S5	Vodafone noted that several definitions of GPRS charging characteristics are spread over different specifications, which might lead to inconsistencies. Specific reference to 32.015 should be given, avoiding other semantics. N4 should reply indicating that changes to specs under N4 remit will be duly performed (Tdoc 325, drafted by Vodafone)
		0257	CR 29.060-104 on TEID usage clarification in GTP-C	Lucent	Vodafone suggested minor wording corrections, to be performed off line by Lucent. NTT Software did not agree to state that the TEID is a mandatory parameter: <ul style="list-style-type: none"> - Mandatory parameter will require bandwidth to transfer but will not require additional signalling load on the platform - Optional parameter will save bandwidth but requires additional signalling load to identify if the TEID is required. - Referred to Tdoc 101 as agreed at N4#01.
		0280	CR 29.060-115 on Clarification of the TEID for Signalling	NTT Software	Rejected based on agreed principle for Tdoc 0101. Agreed.

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7.3.4	GTP	0281	CR 29.060-116 on Clarification on the TEID for Signalling of the PDU Notification Reject Request	NTT Software	Vodafone asked whether the change in the table had been performed all over the document. Open Action Point for MCC: see Charleston meeting report. <u>The Action Point is to be implemented after CN#08.</u> Vodafone observed that 0257 and 0281 seem to go in opposite directions. Consequently it is necessary to agree on a principle and then reject either CR. The scenario in which TEID has or does not have to be sent must be clearly defined. The principle of having conditional parameters was approved, hence Tdoc 0257 was rejected and this CR was agreed.
		0295	CR 29.060-118 on Presence condition of the TEID for signalling	Fujitsu	Withdrawn
		0258	CR 29.060-105 on Race conditions avoidance	Lucent	Agreed. As indicated in the front page, Lucent will draft an LS (328). Action Point MCC: Ask Alessio the revised text with the footnote changed into a normal Note.
		0328	Proposed LS on Race conditions avoidance	Lucent	Revised to 340, to broaden the scope.
		0340	LS on Race conditions avoidance	Lucent	Approved
		0259	CR 29.060-106 on Removal of Connection oriented paths	Lucent	Mostly editorial. Agreed.
		0260	CR 29.060-107 on GTP flow definition removal	Lucent	Withdrawn
		0261	CR 29.060-108 on use of the Sequence number in GTP-C	Lucent	Agreed.
		0262	CR 29.060-109 on the N-PDU number in GTP-C	Lucent	Editorial change. Agreed.
		0270	CR 29.060-112 on Introducing Supported Extension Headers Notification to GTP-U	Ericsson	Extension Headers can be included in the table. Agreed.
0271	CR 29.060-113 on Missing IEs in GTP-C Error Indication	Ericsson	Agreed.		

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7.3.5	Editorials	0272	CR 29.060-087r1 on Reliable delivery of signalling messages	Ericsson	The original CR was presented in Charleston, to allow time for consideration. Reliable signalling was achieved through addition of an ack. A CR against 23.060 has been submitted as well. Cover sheet must be updated with this information. Action Point MCC: Ask Stefan Toth to provide the updated document. Agreed.
		0282	CR 29.060-117 on Clarification of the conditional information elements	NTT Software	Revised to 0330.
		0330	CR 29.060-117r1 on Clarification of the conditional information elements	NTT Software	Recommended, in this case, to stick to the original text of the reference version (3.4.0). <i>One or more</i> instead of <i>single or plural number</i> . Revised to 0347.
		0347	CR 29.060-117r2 on Clarification of the conditional information elements	NTT Software	Agreed
		0246	CR 29.060-102 on Alignment of text with tables	Siemens	Agreed
		0268	CR 29.060-110 on Editorial modifications	Ericsson	Revised to 0329.
		0329	CR 29.060-110r1 on Editorial modifications	Ericsson	Agreed.
		0269	CR 29.060-111 on Editorial modifications concerning GTP-U and GTP-C	Ericsson	<i>Control</i> instead of <i>signalling</i> and <i>User plane</i> instead of <i>Transmission plane</i> . Action Point MCC: Ask Stefan Toth for the revised document. Lucent also proposed some changes to sect. 10.1.1 and 10.1.2 Terminology agreed: Tunnel Endpoint Identifier for Control Plane. Sect 11.1.1 - 6: changes were agreed. Revised to 0341.
7.3.6	Stage 2	0341	CR 29.060-111r1 on Editorial modifications concerning GTP-U and GTP-C	Ericsson	Agreed.
		0296	CR 29.060-119 on Clarification on the use of SGSN address at PDU notification procedure	Fujitsu	Small change in wording recommended by Vodafone. It will be performed by Fujitsu and the amended document will be forwarded to MCC. Agreed
7.3.7	IP Security	0285	CR 23.060-xxx on Compatibility GTPv0/GTPv1 in case of SGSN change	Siemens	Withdrawn
		0297	Use IPSec to secure GTP messages	Motorola	Noted. Vodafone observed a duplication with activity already undertaken on GTP security in N2B and N4.

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7.3.8	Subscriber Data	0303	CR 29.002-147 on Confirmation of deletion of GPRS subscription data.	Vodafone AirTouch	Siemens expressed some concern and requested to check internally. Nokia supported the CR. It was eventually agreed to send it for e-mail approval.
7.4	Handover	0209	CR 29.002-130 on Version 3 Tags for handover messages for R99	Siemens	V3 Tags introduction was justified by Siemens. Agreed without comments
		0278	CR 29.002-143 on editorial correction to MSC-A handover SDLs	NTT Comware	Agreed.
		0240	Response LS to N4 on new specification 29.108 "Application of the Radio Access Network Application Part (RANAP) on the E-interface"	R3	No attachment provided. A. Vesely will be contacted for providing it. Noted, for the time being.
7.6	Call Forwarding Enhancements	0241	Proposed LS To TSG-N SS ad-hoc on Service Requirements for Long Forwarded-to Numbers	S1	Noted.
		0291	CR 23.082-007 on Inclusion of service requirements from TSG-S1	Vodafone AirTouch	A comment from Lucent was got from Vodafone. Revised to 0348
		0348	CR 23.082-007r1 on Inclusion of service requirements from TSG-S1	Vodafone AirTouch	Agreed
7.7	AoB				
7.7.1	Multi Call	0221	CR 23.135-001 on Cleanup and corrections for Multicall Stage 2	Ericsson	Fig. 10 and the part dedicated to Call Confirm will be subject to e-mail approval. Tdoc to be revised
		0222	CR 24.135-001 on Clarifications of the Multicall procedures	Ericsson	To be revised and sent to e-mail discussions
		0223	CR 22.004-004 on Definition of Multicall supplementary services	Ericsson	Withdrawn
		0277	CR 29.002-142 on addition of a parameter in the subsequent Handover from UMTS to GSM with Multicall	NTT Comware, Ericsson	Sect 17: A and B should be in capital letters. Subsequent inter-MSC handover to be used in order to avoid confusion wit the existing terminology. Siemens raised the point of possibly needing to change also the SDL diagrams. Revised to 349
		0349	CR 29.002-142r1 on Addition of a parameter in the subsequent Handover from UMTS to GSM with Multicall	NTT Comware, Ericsson	Agreed

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7.7.2	IMEI	0283	Requirement on Network to Tear Down Calls to Accept EC in Multicalls Unnecessary	Ericsson	Proposed to send an LS to S1. Nokia is reluctant since it is not clear which added value can be achieved. It was then agreed that the document can be input to S1 as a company contribution.
		0350	CR to 23.009 on Handover scenario for Multicall	NTT Comware, Ericsson	No need for discussion, since N1 agreed (N4 has second responsibility). Noted. Action Point MCC: to inform Ban that N4 agrees with CR approval.
		0207	CR 29.002-128 on Hexadecimal IMEI format	Nokia	The CR might not be needed, given the discussion on the CR to 23.003. Withdrawn.
		0232	CR 23.003-020 on Hexa IMEI	Nokia	Revised to 0351.
		0351	CR 23.003-020r1 on Hexa IMEI	Nokia	IMEI structure is unchanged, only coding has become hexadecimal. Siemens would like to see a cutover date for introduction of this change, as for White Book implementation. According to Nokia, feasibility must be agreed first. Nokia agreed with the Vodafone requirement to see a paragraph indicating that the support from the network should start at a [date to be specified], in order to have a placeholder in the document. A non consistent reference was noted in 6.2.1 and A.1. Siemens asked whether it is possible to avoid usage of the central F in the IMEI coding, in order to save changes to MAP and allow transmit of IMEI in the Initial Message of the Calling Party Address: F is detected in ISUP as End of number. Nokia agreed to exclude F in the hexa coding, to avoid problems of signalling. Use of spare digits, maintaining decimal codings, was debated by e-mail, but Nokia highlighted that there are not enough spare digits. The revised document will be sent for e-mail approval.

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7.7.3	Editorials clarifications and	0220	CR 23.003-019 on Missing UTRAN identifiers	Ericsson	Missing identifiers have been added in the scope. Two references added. New section 12, taken from 25.401. Vodafone objected with the category definition: given the technical substance, it should be C. Ericsson would have no problem to change it to B, since it is additional text (i.e. addition of a feature). An LS should be sent to R3 asking them to define the new parameters accordingly, but the Chairman preferred to avoid the risk of duplicating specifications. LS will be drafted by Ericsson (Tdoc 0356). The CR was agreed.
		0243	Liaison statement on hexadecimal IMEI format	S1	Siemens highlighted the issue of backwards compatibility in case of approval of the CR to 23.003, where the IMEI structure is described. So the change of structure should be made in a compatible way. N4 noted the requirement expressed in the LS and the Siemens concern. The Chairman suggested to reply to S1 (Tdoc 0355). Nokia accepted the Action Point: N4 agrees to move the information of Annex A to 23.003. Cutover date and the F digit will also be mentioned.
		0355	LS to S1 on hexa digit	Nokia	Revised to 0384.
		0384	LS to S1 on hexa digit	Nokia	Revised to 0386.
		0386	LS to S1 on hexa digit	Nokia	Approved.
		0358	LS from IMEI hexadecimal coding	S3	No security problem identified, but uniqueness of the IMEI must be guaranteed. It supports N4 viewpoint.
		0216	CR 29.002-133 on Various corrections and/or cleanup to 29.002	Ericsson	Formatting in sect. 7.6.1.4 was corrected. Highlighted that There is no definition for MS not Reachable flag: this correction was not performed because of lack of time. Vodafone observed that alignment of text to SDL was OK, but he SDL was wrong. The item will then be removed from the CR. According to Nokia the changes to the MSC address should be reflected in previous versions. Ericsson will solve the issue for 29.002 by replacing the modification with a reference in 7.6.2. Revised to 357.
		0357	CR 29.002-133r1 on Various corrections and/or cleanup to 29.002	Ericsson	Agreed

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7.7.4	ASCI	0264	CR 29.002-138 on Clarification of SAI-ack segmentation procedure	Nortel Networks	<p>Nokia proposed to keep the Number of Requested Vectors optional. The discussion involved the behaviour of the HLR in this case and it was eventually agreed to keep the parameter mandatory.</p> <p>SDLs in section 25.5.5 might be affected by the change, according to Alcatel, who would like some clarification on the issue. Vodafone believes that the issue raised needs further study but is confident that it is decoupled from the Nortel Networks CR. An off line discussion (Vodafone will convene it) will take place with the target of reporting for this meeting .</p> <p>Two editorial changes in the ASN.1 sections will be handled by Nortel Networks. Agreed.</p> <p>Off line, Siemens recognised that there might be an impact on the SDLs, for which e-mail approval of another CR, to submit directly to CN#08, might be necessary.</p>
		0293	CR 29.002-145 on Addition of state attributes in Forward group call signalling	Siemens	Agreed. Vodafone asked whether it is a correction or a functional modification of feature. First option, according to Siemens, who justified the choice accordingly.
		0294	CR 29.002-146 on New user error 'target cell outside group call area' in MAP Prepare Handover message	Siemens	Agreed.
7.7.6	CLI	0299	CR 23.081 on Cause of no CLI indication v.3.0.0. N4000299	Nokia	Revised to 352
		0352	CR 23.081r1 on Cause of no CLI indication v.3.0.0.	Nokia	To be merged with 03.07. Postponed for e-mail discussion.
		0300	CR 24.081 on Cause of no CLI indication v.3.0.0	Nokia	Revised to 0353
		0353	CR 24.081r1 on Cause of no CLI indication v.3.0.0	Nokia	<p>Action Point MCC: to update all the reference list with 3GPP specs in all the specifications inherited by the SS-ad hoc. However, it was clarified that update of references in the text must be done via CRs.</p> <p>The CR needs completion. Postponed to e-mail discussion.</p>

Agenda item	Agenda item title	Tdoc 3GPP N4-00	Title	Source	Result
		0301	Cause of no CLI indication	NTC, Nokia	For information. N1 already endorsed the proposal. Three alternative approaches in the doc: a more general approach to alternative 1.1 seems to be preferable for T-Mobil. Alternative 2 needs additional information. A global standardisation of access signalling is more beneficial than regional variants, purely to cope with the service specificity. NTT DoCoMo, however, noted that the interactions with payphones, which generated the CR, seem to be a requirement of Japan only. N4 agreed that a more global solution for CLI is required and ISUP 2000 capabilities need to be adapted to ensure it. An expansion of ISUP 2000 might be required to meet the TTC requirements.
		0242	Liaison statement on Global "Cause of no ID"	N1	Interactions with other services need better specification. The response LS will mention it. There might be Japanese specific cause values which should be reflected in a global solution: this will take some time. Vodafone highlighted two issues: transport of codepoints for presentation and transport between network and MS. LS noted.
		0354	Liaison statement on Global solution of "Cause of no CLI"	N1	Additional information element in 24.008 to have the Cause value reported back. Response to N1: more global solution or mapping onto ISUP 2000. NTT DoCoMo proposes the N1 solution as acceptable for R99: more global solution to be pursued in the future. NTC will draft the response LS (0369)
		0369	Response LS to N1	NTC	Revised to 0385
		0385	Response LS to N1	NTC	Approved
		0360	Proposed CLI mapping	T-Mobil	Mediation between the Japanese proposal and the globalisation requirements. T-Mobil will assist Nokia in the reformulation of the corresponding CR.
		0307	CR 23.081-xxx on Introduction of ACR support for CLIP according to ISUP 2000	T-Mobil	Covered by the new tabled provided in 0360.

Agenda item	Agenda item title	Tdoc 3GPP N4-00	Title	Source	Result
8	Election of Vice Chairman				None appeared, not even during the meeting. The Chairman urged to contact the respective companies to produce candidates (with the letter of support) for the next July meeting. Action Point MCC: to post again the invitation for the position of Vice Chairman. The letter should highlight that the Chairman stressed the importance of having a Vice Chairman, in particular from the viewpoint of the split of organisational burden.
9	Release 00				
9.1	MAP Security	0210	CR 29.002-131 on Key exchange and distribution for MAP security for R00	Siemens	Simplicity of the proposed solution was commented by Vodafone, who do not see any reason why it should not work. SDL information need to be further reviewed and discussion will be handled by e-mailed. T-Mobil volunteered to draft an LS to inform S3 and S5 of the ongoing activity in N4, attaching the CR for information.
		0304	CR 29.002-148 on Changes to the MAP protocol machine for secure MAP transport	Vodafone AirTouch	Revised various times (0332, 0369) until 0361
		0361	CR 29.002-148r3 on Changes to the MAP protocol machine for secure MAP transport	Vodafone AirTouch	It deals with Layer 3 only. Thorough illustration of the modified SDLs. There will be a detailed review by e-mail.
		0308	Evaluation of the impact on positive authentication reporting on network performance	S3	Duplication. See 0362.
		0311	MAP Signalling Functionality out of service		Withdrawn
		0359	Liaison Statement on Protocol Choice for Layer I of MAP Security	S3	Presented by the Chairman and noted. Nokia observed that the approach of doc 337 makes this LS obsolete.
		0337	Proposed LS on Functions of Key Distribution and Key Administration for MAP security	S5	Key Distribution and Administration for Security is an O&M issue and belongs to S5. Time scale will not allow S5 to consider the N4 response in time for SA#08. Although MAP is under the remit of N4, this does not prevent that S5 design a MAP based solution for security. Vodafone believes that completion of Layer 3 by June should have a higher priority than completion of Layer 1 and 2. The Chairman will draft the response LS.

Agenda item	Agenda item title	Tdoc 3GPP N4-00	Title	Source	Result
		0362	Evaluation of the impact on positive authentication reporting on network performance	S3	According to Nokia, Authentication reporting to the Home Domain seems to be a mandatory feature for R99, but for the Chairman, it is an optional feature. The impact of the proposal on the network seems to be significant, however, and Ericsson proposed to evaluate it carefully, before responding to S3. An LS (Tdoc 364) in response to S3 will be drafted by Ericsson, highlighting that this feature seems to be important for 3GPP2 roamers in a 3GPP network.
		0363	LS to S3 on GTP signalling security	Vodafone	Approved.
		0312	MAP entity restart	Nokia	Withdrawn
9.2	OoBTC	0115	Active Codec Set (ACS) Negotiation and Notification	NTT DoCoMo	Formerly presented in the Stockholm workshop, the document illustrates the NTT DoCoMo understanding of the basic assumption of ACS Negotiation. The Chairman proposed to note the document and to study it carefully, identifying the impact of the proposed assumptions, and discussing it with the delegates of the other WGs. NTT DoCoMo requested to discuss in detail sect. 2.1, which was agreed as a working assumption for N4. For the final decision, the workshop is responsible.
		0117	How to handle Organisation Identifier	NEC	Not discussed in the workshop because of lack of time, but already discussed in Milan N2B. Found as a sensitive political solution to solve the problem that ITU-T does not regard 3GPP Specifications as standards. NTT DoCoMo maintained concerns on the proposal also at the end of the discussion. The Chairman proposed to reject the document. Vodafone observed that this solution does not give any possibility to identify the available codecs in a connection. NTT DoCoMo was then asked whether they can identify a third option, different from the two illustrated in the document.
		0245	How to finalize OoBTC R00 in N4	NEC	LS drafted (0387). Discussion paper. Date of June 2000 seems not feasible. Proposal accepted. The list of issues was found quite useful and could be attached as an informative annex to the Stage 2 Spec. on OoBTC (3G TS 23.153), still in v. 2.0.0.

Agenda item	Agenda item title	Tdoc 3GPP N4-00	Title	Source	Result
		0265	lu UP handling and RFCI allocation procedures in CN	Ericsson	Protocol initialisation along the lu connection when the connection is established. Ericsson proposed to circulate the document for information in view of the forthcoming TRFO workshop.
9.3	Location Services	0273	CR 29.002-140 on Addition of the PS description for LCS to 29.002	NTC/Fujitsu	An extensive CR to 23.171 is currently discussed (Nokia) in Berlin: this makes discussion on 29.002 a bit premature. It affects nearly every section in the Spec, and this makes it difficult to concentrate on specific 29.002 issues. Siemens noted that changes to SDLs are missing, most likely because 29.002 does not have a section for procedural description of Location Services, although it was promised by Stephen Edge. The information is needed for R98 as well. AnyTime Subscription Interrogation and Modification for gsmSCF is not out of scope of MAP, and the description is missing. Rogier Noldus will be contacted to check his availability to contribute on this issue. Postponed to the next meeting.
9.4	IP transport	0292	Introduction of IP as transport for MAP	Nortel Networks	Two options for a protocol stack with MAP on top of IP are presented. Issues identified for MAP over IP signalling <ul style="list-style-type: none"> • Choice of user adaptation layer (SIGTRAN M3UA or SUA, as shown in figure 1). Is SCCP required? • Addressing (E.164 - IP address translations at signalling gateways) • Segmentation (segmentation/reassembly at signalling gateways) Nokia mentioned that S2 chooses the protocol selections. N4 is still mandated to look into the IP signalling for the circuit-switched domain. Noted.
10	GSM Maintenance				
10.1	Version handling at dialogue establishment	0211	CR 29.002-132 on Correction of version handling at dialogue establishment	Ericsson	Agreed

Agenda item	Agenda item title	Tdoc 3GPP N4-00	Title	Source	Result
		0212	CR 09.02-A288 on Correction of version handling at dialogue establishment (phase 2)	Ericsson	There is no MAP_CLOSE_CONFIRM. Vodafone said that it might even be considered an editorial correction. Agreed, as well as Release 96 and Release 97 CRs.
		0213	CR 09.02-A289 on Correction of version handling at dialogue establishment (R96)	Ericsson	Agreed
		0214	CR 09.02-A290 on Correction of version handling at dialogue establishment (R97)	Ericsson	Agreed
		0215	CR 09.02-A291 on Correction of version handling at dialogue establishment (R98)	Ericsson	The implication of the CR is that the version needs to be updated whenever a new AC is introduced. A solution will be the production of a more generic text, not involving Specific AC versions. Ericsson will provide it for sect. 8.2.4.1 for Release 00: the probability of introducing AC v5 in R99 or lower is vanishingly small. Agreed.
10.2	Macro Receive Open Ind	0217	CR 29.002-134 on Correction of errors in SDL for Macro Receive_Open_Ind	Ericsson	Agreed
		0218	CR 09.02-A292 on Correction of errors in SDL for Macro Receive_Open_Ind (R97)	Ericsson	Corrections to figures were duly reported. MCC will be provided with better figures. A connect symbol was correctly replaced with a Macro exit. A concern was expressed by Siemens: if accepted, it would involve changes to Release 96 onwards. The preference for Vodafone is to accept the CR as it is, together with R98 and R99. Interested companies will check whether future corrections are required. Category to be changed to C2 by MCC . Agreed
		0219	CR 09.02-A293 on Correction of errors in SDL for Macro Receive_Open_Ind (R98)	Ericsson	Agreed
10.3	GTP Cause clarification	0286	CR 09.60-A086 on Clarification of the Cause of Create PDP Context Response	NTT Software	Withdrawn
		0287	CR 09.60-A087 on Clarification of the Cause of Create PDP Context Response	NTT Software	Withdrawn
		0279	CR 29.060-114 on Clarification of the Cause of Create PDP Context Response	NTT Software	Agreed
		0288	CR 29.002-144 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN	Nortel Networks	Revised to 378

Agenda item	Agenda item title	Tdoc 3GPP N4-00	Title	Source	Result
		0378	CR 29.002-144r1 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN	Nortel Networks	Agreed
		0289	CR 09.02-A298 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN (R97)	Nortel Networks	Relates to use of Network Access Method parameter. A contradiction between parameter category in text and table was noted by Ericsson. It is only required to VLR/MSC for recovery situation, according to Nortel. Nortel is happy to provide additional text to clarify. Text related to Subscriber Status needs to be cleaned as well: <i>this parameter shall always be sent to the SGSN as part of the Subscriber Data at Location Updating. It shall be sent to the SGSN or VLR as appropriate if it is changed as a result of administrative action.</i>
		0376	CR 09.02-A298r1 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN (R97)	Nortel Networks	Revised to 376 Agreed
		0290	CR 09.02-A299 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN (R98)	Nortel Networks	Revised to 377
		0377	CR 09.02-A299r1 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN (R98)	Nortel Networks	Agreed
10.4	Addressing	0233	CR 03.03-A042 on Editorial Modification of section 6.2.2 (Phase 2)	Nokia	Revised to 342
		0342	CR 03.03-A042r1 on Editorial Modification of section 6.2.2 (Phase 2)	Nokia	Agreed
		0234	CR 03.03-A043 on Editorial Modification of section 6.2.2 (R96)	Nokia	Revised to 343
		0343	CR 03.03-A043r1 on Editorial Modification of section 6.2.2 (R96)	Nokia	Agreed

Agenda item	Agenda item title	Tdoc 3GPP N4-00	Title	Source	Result
		0235	CR 03.03-A044 on Editorial Modification of section 6.2.2 (R97)	Nokia	Revised to 344
		0344	CR 03.03-A044r1 on Editorial Modification of section 6.2.2 (R97)	Nokia	Agreed
		0236	CR 03.03-A045 on Editorial Modification of section 6.2.2 (R98)	Nokia	Revised to 345
		0345	CR 03.03-A045r1 on Editorial Modification of section 6.2.2 (R98)	Nokia	Agreed
		0237	CR 23.003-021 on Editorial Modification of section 6.2.2 (R99)	Nokia	Revised to 346
		0346	CR 23.003-021r1 on Editorial Modification of section 6.2.2 (R99)	Nokia	Agreed
		0263	CR 09.60-A085 on Use of 3 Digit MNCs in GTP for R'97	Nortel Networks	To avoid interworking problems between GPRS R97 and R98. Supported by Vodafone, although a similar CR was discarded in a previous meeting. Siemens agreed as well, although not fully convinced that a CR to 03.03 is needed as well. Vodafone explained that three digits MNCs should be recognised in 03.03 for R97 as well, in order to be able to address them. Agreed
10.5	Positioning	0266	CR 09.02-A295 on Indication of unsupported position method	Nokia	MSC shall be informed of the supported positioning method. To be revised and sent to e-mail approval, with a better clarification of the reason for change.
		0267	CR 29.002-139 on Indication of unsupported position method	Nokia	E-mail approval
		0248	CR 04.30-A002 on Correction of MO-LR procedure for LCS	Siemens	Agreed
		0249	CR 24.030-002 on Correction of MO-LR procedure for LCS	Siemens	Agreed
10.6	SMS	0274	CR 09.02-A296 on Clarification for ReportSM-DeliveryStatus operation	Nokia	Agreed
		0275	CR 09.02-A297 on Clarification for ReportSM-DeliveryStatus operation	Nokia	Agreed

Agenda item	Agenda item title	Tdoc 3GPP N4-00	Title	Source	Result
		0276	CR 29.002-141 on Clarification for ReportSM-DeliveryStatus operation	Nokia	Agreed.
10.7	Deflected-to-Number	0305	CR 04.80-017 on Correction of definition of Deflected-to number	T-Mobil	Agreed.
		0306	CR 24.080-004 on Correction of definition of Deflected-to number	T-Mobil	Agreed.
11	AoB	0383	CR 23.012-006 on Introduction of Mobility Management event notification into 23.012 procedures	N2	Endorsed and sent to N4 for approval. Alcatel was requested to provide a correct copy
12	Output Documents				
12.1	Agreed CRs				See Annex C
12.2	Agreed Specifications				No new one agreed.
12.3	Liaison Statements				See Annex D
12.4	E-mail approval list	367	Proposed e-mail approval procedure		<p>Text was amended indicating that three weeks time is the maximum allowed for closing the loop of e-mail discussion. The Chairman clarified that the telephone conference will be only held as necessary: however, in the end it was agreed to remove the option from the procedure. It was noted that removing the telephone conference limits to one the number of possible cycles in the procedure. Three working days allow for editing.</p> <p>At the end of a lengthy discussion, the document was rejected.</p> <p>Document 0388 contains the list of documents that are going to e-mail discussion.</p> <p>Action Point MCC: Send an e-mail to remind the deadline of June 12th for sending the final documents to MCC.</p>
13	Review of dates and hosts for future meetings				For 2001, the meeting in Australia could be in January. Agreed to have only six meetings throughout the year.

Agenda item	Agenda item title	Tdoc 3GPP N4-00	Title	Source	Result
14	Close				The meeting was closed one day in advance, an event which raised a general satisfaction. The Chairman expressed his deep appreciation to Siemens for the effort provided in organising a successful meeting under all viewpoints.

3GPP TSG CN Working Group 4 Meeting#02
 Rotenburg, Germany
 22 - 26 May 2000

ANNEX A

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ANNEX B

List of Temporary Documents

N4-000115	Active Codec Set (ACS) Negotiation and Notification	NTT DoCoMo	Noted
N4-000117	How to handle Organisation Identifier	NEC	LS drafted (0387)
Tdoc n° 3GPP	Title	Source	Status
N4-000201	Agenda	N4 Convenor	Approved
N4-000202	Tdoc allocation to agenda items	N4 Convenor	Revised
N4-000203	Charleston N4#01 meeting report	MCC	Approved
N4-000204	TFO-TrFO Stockholm workshop report	MCC	Noted
N4-000205	(Draft) Response to LS on Number Portability Harmonization CRs	Ericsson	Noted by T1P1
N4-000206	CR 29.002-127 on Optionality of parameters in d-csi and in sms-csi	Nokia	Revised to 320
N4-000207	CR 29.002-128 on Hexadecimal IMEI format	Nokia	Withdrawn
N4-000208	CR 29.060-100 on Introduction of a different port number for GTP-C and GTP-U	Lucent	Withdrawn
N4-000209	CR 29.002-130 on Version 3 Tags for handover messages for R99	Siemens	Agreed
N4-000210	CR 29.002-131 on Key exchange and distribution for MAP security for R00	Siemens	E-mail discussion
N4-000211	CR 29.002-132 on Correction of version handling at dialogue establishment	Ericsson	Agreed
N4-000212	CR 09.02-A288 on Correction of version handling at dialogue establishment (phase 2)	Ericsson	Agreed
N4-000213	CR 09.02-A289 on Correction of version handling at dialogue establishment (R96)	Ericsson	Agreed
N4-000214	CR 09.02-A290 on Correction of version handling at dialogue establishment (R97)	Ericsson	Agreed
N4-000215	CR 09.02-A291 on Correction of version handling at dialogue establishment (R98)	Ericsson	Agreed
N4-000216	CR 29.002-133 on Various corrections and/or cleanup to 29.002	Ericsson	Revised to 0357
N4-000217	CR 29.002-134 on Correction of errors in SDL for Macro Receive_Open_Ind	Ericsson	Agreed
N4-000218	CR 09.02-A292 on Correction of errors in SDL for Macro Receive_Open_Ind (R97)	Ericsson	Agreed
N4-000219	CR 09.02-A293 on Correction of errors in SDL for Macro Receive_Open_Ind (R98)	Ericsson	Agreed
N4-000220	CR 23.003-019 on Missing UTRAN identifiers	Ericsson	Agreed
N4-000221	CR 23.135-001 on Cleanup and corrections for Multicall Stage 2	Ericsson	E-mail approval
N4-000222	CR 24.135-001 on Clarifications of the Multicall procedures	Ericsson	E-mail approval
N4-000223	CR 22.004-004 on Definition of Multicall supplementary services	Ericsson	Withdrawn
N4-000224	CR 23.008-029 on Addition of charging characteristics per PDP context	France Telecom	Agreed
N4-000225	CR 23.016-015 on Addition of charging characteristics per PDP context	France Telecom	Agreed
N4-000226	CR 29.002-135 on Addition of charging characteristics per PDP context	France Telecom	Revised to 326
N4-000227	CR 29.060-101 on Addition of charging characteristics per PDP context	France Telecom	Revised to 327
N4-000228	CR 09.02-A294 on SC access control based on NPLR	Ericsson	Rejected
N4-000229	CR 03.66-A018 on SC access control based on NPLR	Ericsson	Rejected
N4-000230	CR 29.002-136 on SC access control based on NPLR	Ericsson	Revised to 0335
N4-000231	CR 23.066-018 on SC access control based on NPLR	Ericsson	Revised to 0336
N4-000232	CR 23.003-020 on Hexa IMEI	Nokia	Revised to 0351
N4-000233	CR 03.03-A042 on Editorial Modification of section 6.2.2 (Phase 2)	Nokia	Revised to 342
N4-000234	CR 03.03-A043 on Editorial Modification of section 6.2.2 (R96)	Nokia	Revised to 343
N4-000235	CR 03.03-A044 on Editorial Modification of section 6.2.2 (R97)	Nokia	Revised to 344
N4-000236	CR 03.03-A045 on Editorial Modification of section 6.2.2 (R98)	Nokia	Revised to 345
N4-000237	CR 23.003-021 on Editorial Modification of section 6.2.2 (R99)	Nokia	Revised to 346
N4-000238	Response to LS (S2-000604) on Clarification on Transfer Delay value for the streaming class	N3	Noted

N4-000239	LS on Service Modification without Pre-notification	N3	LS drafted
N4-000240	Response LS to N4 on new specification 29.108 "Application of the Radio Access Network Application Part (RANAP) on the E-interface"	R3	Noted
N4-000241	Proposed LS To TSG-N SS ad-hoc on Service Requirements for Long Forwarded-to Numbers	S1	Noted
N4-000242	Liaison statement on Global "Cause of no ID"	S1	Noted
N4-000243	Liaison statement on hexadecimal IMEI format	S1	LS drafted
N4-000244	LS on GPRS Charging Enhancement	S5	Noted
N4-000245	How to finalize OoBTC R00 in N4	NEC	Accepted
N4-000246	CR 29.060-102 on Alignment of text with tables	Siemens	Agreed
N4-000247	CR 29.002-124r2 on CAMEL Subscription Info	Siemens	Revised to 0321
N4-000248	CR 04.30-A002 on Correction of MO-LR procedure for LCS	Siemens	Agreed
N4-000249	CR 24.030-002 on Correction of MO-LR procedure for LCS	Siemens	Agreed
N4-000250	CR 02.66-xxx on North American Service Provider Number Portability impacts for Mobile Number Portability	Nokia, VoiceStream	Revised to 313
N4-000251	CR 03.18-A061 on North American Service Provider Number Portability impacts for Mobile Number Portability	Nokia, VoiceStream	Revised to 314
N4-000252	CR 03.66-A019 on North American Service Provider Number Portability impacts for Mobile Number Portability	Nokia, VoiceStream	Revised to 315
N4-000253	CR 22.066-xxx on North American Service Provider Number Portability impacts for Mobile Number Portability	Nokia, VoiceStream	Revised to 316
N4-000254	CR 23.018-052 on North American Service Provider Number Portability impacts for Mobile Number Portability	Nokia, VoiceStream	Revised to 317
N4-000255	CR 23.066-019 on North American Service Provider Number Portability impacts for Mobile Number Portability	Nokia, VoiceStream	Revised to 318
N4-000256	CR 29.060-103 on UDP port usage for GTP-C	Lucent	Rejected
N4-000257	CR 29.060-104 on TEID usage clarification in GTP-C	Lucent	Rejected
N4-000258	CR 29.060-105 on Race conditions avoidance	Lucent	Agreed
N4-000259	CR 29.060-106 on Removal of Connection oriented paths	Lucent	Agreed
N4-000260	CR 29.060-107 on GTP flow definition removal	Lucent	Withdrawn
N4-000261	CR 29.060-108 on the use of the Sequence number in GTP-C	Lucent	Agreed
N4-000262	CR 29.060-109 on the N-PDU number in GTP-C	Lucent	Agreed
N4-000263	CR 09.60-A085 on Use of 3 Digit MNCs in GTP for R'97	Nortel Networks	Agreed
N4-000264	CR 29.002-138 on Clarification of SAI-ack segmentation procedure	Nortel Networks	Agreed
N4-000265	Iu UP handling and RFCI allocation procedures in CN	Ericsson	Noted
N4-000266	CR 09.02-A295 on Indication of unsupported position method	Nokia	Revised to 0391
N4-000267	CR 29.002-139 on Indication of unsupported position method	Nokia	Revised to 0392
N4-000268	CR 29.060-110 on Editorial modifications	Ericsson	Revised to 0329
N4-000269	CR 29.060-111 on Editorial modifications concerning GTP-U and GTP-C	Ericsson	Revised to 0341
N4-000270	CR 29.060-112 on Introducing Supported Extension Headers Notification to GTP-U	Ericsson	Agreed
N4-000271	CR 29.060-113 on Missing IEs in GTP-C Error Indication	Ericsson	Agreed
N4-000272	CR 29.060-087r1 on Reliable delivery of signalling messages	Ericsson	Agreed
N4-000273	CR 29.002-140 on Addition of the PS description for LCS to 29.002	NTC/Fujitsu	Postponed
N4-000274	CR 09.02-A296 on Clarification for ReportSM-DeliveryStatus operation	Nokia	Agreed
N4-000275	CR 09.02-A297 on Clarification for ReportSM-DeliveryStatus operation	Nokia	Agreed
N4-000276	CR 29.002-141 on Clarification for ReportSM-DeliveryStatus operation	Nokia	Agreed
N4-000277	CR 29.002-142 on addition of a parameter in the subsequent Handover from UMTS to GSM with Multicall	NTT Comware/ Ericsson	Revised to 349
N4-000278	CR 29.002-143 on editorial correction to MSC-A handover SDLs	NTT Comware	Agreed
N4-000279	CR 29.060-114 on Clarification of the Cause of Create PDP Context Response	NTT Software	Agreed
N4-000280	CR 29.060-115 on Clarification of the TEID for Signalling	NTT Software	Agreed
N4-000281	CR 29.060-116 on Clarification on the TEID for Signalling of the PDU Notification Reject Request	NTT Software	Agreed
N4-000282	CR 29.060-117 on Clarification of the conditional information elements	NTT Software	Revised to 0330
N4-000283	Requirement on Network to Tear Down Calls to Accept EC in Multicalls Unnecessary	Ericsson	Noted
N4-000284	Candidate for the position of 3GPP TSG CN WG4 Chairman	Ericsson	Noted
N4-000285	CR 23.060-xxx on Compatibility GTPv0/GTPv1 in case of SGSN change	Siemens	Withdrawn
N4-000286	CR 09.60-A086 on Clarification of the Cause of Create PDP Context Response	NTT Software	Withdrawn
N4-000287	CR 09.60-A087 on Clarification of the Cause of Create PDP Context Response	NTT Software	Withdrawn
N4-000288	CR 29.002-144 on Use of NAM parameter with MAP-INSERT-	NortelNetworks	Revised to 0378

	SUBSCRIBER-DATA service between HLR and SGSN		
N4-000289	CR 09.02-A298 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN (Release 97)	Nortel Networks	Revised to 0376
N4-000290	CR 09.02-A299 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN (Release 98)	Nortel Networks	Revised to 377
N4-000291	CR 23.082-007 on Inclusion of service requirements from TSG-S1	Vodafone AirTouch	Revised to 0348
N4-000292	'Introduction of IP as transport for MAP	Nortel Networks	Noted
N4-000293	CR 29.002-145 on Addition of state attributes in Forward group call signalling	Siemens	Agreed
N4-000294	CR 29.002-146 on New user error 'target cell outside group call area' in MAP Prepare Handover message	Siemens	Agreed
N4-000295	CR 29.060-118 on Presence condition of the TEID for signalling	Fujitsu	Withdrawn
N4-000296	CR 29.060-119 on Clarification on the use of SGSN address at PDU notification procedure	Fujitsu	Agreed
N4-000297	Use IPSec to secure GTP messages	Motorola	Noted
N4-000298	LS on GPRS Charging Characteristics	S5	LS drafted (325)
N4-000299	CR 23.081-xxx on Cause of no CLI indication	Nokia	Revised to 0352
N4-000300	CR 24.081 on Cause of no CLI indication v.3.0.0	Nokia	Revised to 0353
N4-000301	Cause of no CLI indication	Nokia	
N4-000302	Work Item Management	N4 Convenor	Noted
N4-000303	CR 29.002-147 on Confirmation of deletion of GPRS subscription data.	Vodafone AirTouch	E-mail approval
N4-000304	CR 29.002-148 on Changes to the MAP protocol machine for secure MAP transport	Vodafone AirTouch	Revised to 332
N4-000305	CR 04.80-017 on Correction of definition of Deflected-to number	T-Mobil	Agreed
N4-000306	CR 24.080-004 on Correction of definition of Deflected-to number	T-Mobil	Agreed
N4-000307	CR 23.081-xxx on Introduction of ACR support for CLIP according to ISUP 2000	T-Mobil	Covered elsewhere
N4-000308	Evaluation of the impact on positive authentication reporting on network performance	S3	Duplication of 0362
N4-000309	LS on Service Modification without Pre-notification	T2	Noted
N4-000310	LS on Address Translation in MMS R'00	T2	Noted
N4-000311	MAP Signalling Security Functionality out of service	Nokia	Withdrawn
Na-000312	MAP entity restart	Nokia	Withdrawn
N4-000313	CR 02.66-xxx on North American Service Provider Number Portability impacts for Mobile Number Portability (rev. of 250)	VoiceStream	Withdrawn
N4-000314	CR 03.18-A061r1 on North American Service Provider Number Portability impacts for Mobile Number Portability (rev. of 251)	VoiceStream	Withdrawn
N4-000315	CR 03.66-A019r1 on North American Service Provider Number Portability impacts for Mobile Number Portability (Rev of 252)	VoiceStream	Withdrawn
N4-000316	CR 22.066-xxx on North American Service Provider Number Portability impacts for Mobile Number Portability (Rev. of 253)	VoiceStream	Revised to 0333
N4-000317	CR 23.018-052r1 on North American Service Provider Number Portability impacts for Mobile Number Portability (Rev. of 254)	VoiceStream	Revised to 334
N4-000318	CR 23.066-019r1 on North American Service Provider Number Portability impacts for Mobile Number Portability (Rev. of 255)	VoiceStream	Revised to 338
N4-000319	Proposed LS back on Service Modification without Pre-notification	NEC	Revised to 331
N4-000320	CR 29.002-127r1 on Optionality of parameters in d-csi and in sms-csi (Revision of 206)	Nokia	Agreed
N4-000321	CR 29.002-124r3 on CAMEL Subscription Info	Siemens	Agreed
N4-000322	T1- 713-2000 PCS 1900 Specification	Nokia	
N4-000323	CR 29.060-120 on Removal of the PT flag from GTP-C and GTP-U	Lucent	Rejected
N4-000324	CR 29.060-100r1 on Introduction of a different port number for GTP-C and GTP-U	Lucent	Agreed
N4-000325	LS to S5 on	Vodafone AirTouch	Approved (still to be sent out)
N4-000326	CR 29.002-135r1 on Addition of charging characteristics per PDP context (Revision of 226)	France Telecom	Agreed
N4-000327	CR 29.060-101r1 on Addition of charging characteristics per PDP context (Revision of 227)	France Telecom	Agreed
N4-000328	LS to S1, S2 on Proposed LS on Race conditions avoidance	Lucent	Revised to 340
N4-000329	CR 29.060-110r1 on Editorial modifications (Revision of 0268)	Ericsson	Agreed
N4-000330	CR 29.060-117r1 on Clarification of the conditional information elements (Revision of 0282)	NTT Software	Revised to 0347
N4-000331	Proposed LS back on Service Modification without Pre-notification (Revision of 0319)	NEC	Approved
N4-000332	CR 29.002-148r1 on Changes to the MAP protocol machine for secure MAP	Vodafone AirTouch	Revised to 339

	transport (Rev. of 304)		
N4-000333	CR 22.066-xxx on North American Service Provider Number Portability impacts for Mobile Number Portability (revised)	NorthStream/Nokia	Endorsed (send to S1)
N4-000334	CR 23.018-052r2 on North American Service Provider Number Portability impacts for Mobile Number Portability (revision of 0317)	NorthStream/Nokia	Agreed
N4-000335	CR 29.002-136r1 on SC access control based on NPLR (Rev. of 230)	Ericsson	
N4-000336	CR 23.066-018r1 on SC access control based on NPLR (Rev. of 231)	Ericsson	E-mail discussion
N4-000337	Proposed LS on Functions of Key Distribution and Key Administration for MAP security	S5	LS drafted
N4-000338	CR 23.066-019r2 on North American Service Provider Number Portability impacts for Mobile Number Portability (Revision of 0318)	VoiceStream/Nokia	Agreed
N4-000339	CR 29.002-148r2 on Changes to MAP for secure MAP transport (Revision of 332)	Vodafone AirTouch	Revised to 361
N4-000340	LS to S1, S2 on Proposed LS on Race conditions avoidance (Rev. of 0328)	Lucent	Approved
N4-000341	CR 29.060-111r1 on Editorial modifications concerning GTP-U and GTP-C (Rev. of 269)	Ericsson	Agreed
N4-000342	CR 03.03-A042r1 on Editorial Modification of section 6.2.2 (Ph2) (Rev. of 233)	Nokia	Agreed
N4-000343	CR 03.03-A043r1 on Editorial Modification of section 6.2.2 (R96) (Rev. of 234)	Nokia	Agreed
N4-000344	CR 03.03-A044r1 on Editorial Modification of section 6.2.2 (R97) (Rev. of 235)	Nokia	Agreed
N4-000345	CR 03.03-A045r1 on Editorial Modification of section 6.2.2 (R98) (Rev. of 236)	Nokia	Agreed
N4-000346	CR 23.003-021r1 on Editorial Modification of section 6.2.2 (R99) (Rev. of 237)	Nokia	Agreed
N4-000347	CR 29.060-117r2 on Clarification of the conditional information elements	NTT Software	Agreed
N4-000348	CR 23.082-007r1 on Inclusion of service requirements from TSG-S1 (Revision of 291)	Vodafone AirTouch	Agreed
N4-000349	CR 29.002-142r1 on addition of a parameter in the subsequent Handover from UMTS to GSM with Multicall (Revision of 277)	NTT Comware	Agreed
N4-000350	CR to 23.009 on Handover scenario for Multicall	NTT Comware/ Ericsson	Noted. Inform Ban
N4-000351	CR 23.003-020r1 on Hexa IMEI (Revision of 232)	Nokia	Revised
N4-000352	CR 23.081-xxx on Cause of no CLI indication (Revision of 299)	NTC/Nokia	E-mail discussion
N4-000353	CR 24.081-xxx on Cause of no CLI indication v.3.0.0 (Revision of 300)	NTC/Nokia	E-mail discussion
N4-000354	Liaison statement on Global solution of "Cause of no CLI"	N1	LS drafted
N4-000355	LS to S1 on hexa IMEI for R99	Nokia	Revised to 384
N4-000356	LS to R3 on UTRAN Identifiers in TS 25.401	Ericsson	Approved (still to be sent out)
N4-000357	CR 29.002-133r1 on Various corrections and/or cleanup to 29.002 (Rev. of 0216)	Ericsson	Agreed
N4-000358	LS about hexadecimal coding of IMEI	S3	Noted
N4-000359	Liaison Statement on Protocol Choice for Layer I of MAP Security	S3	Noted
N4-000360	Proposed CLI mapping	T-Mobil	
N4-000361	CR 29.002-148r3 on Changes to MAP for secure MAP transport (Rev. of 339)	Vodafone AirTouch	E-mail discussion
N4-000362	Evaluation of the impact on positive authentication reporting on network performance	S3	LS drafted
N4-000363	LS to S3 on protection method to be used for GTP signalling	Vodafone AirTouch	Approved
N4-000364	Response LS to S3 on positive authentication reporting on network performance	Ericsson	Approved (go to CN)
N4-000365	Consequences of not accepting CR 29.060-120 on PT bit removal	Lucent	
N4-000366	Response LS to S3, S5 on Key Exchange and Key Distribution	T-Mobil	Approved
N4-000367	Proposed e-mail approval procedure	Chairman	Rejected
N4-000368	Output documents	Chairman	Revised to 0388
N4-000369	Response LS to N1	NTC	Revised to 0385
N4-000370	CR 09.02-A300 on Correction to the description of MAP-Forward-Short-Message service (Phase 2)	Ericsson	Agreed
N4-000371	CR 09.02-A301 on Correction to the description of MAP-MO-Forward-Short-Message service (R96)	Ericsson	Agreed
N4-000372	CR 09.02-A302 on Correction to the description of MAP-MO-Forward-Short-Message service (R97)	Ericsson	Agreed
N4-000373	CR 09.02-A303 on Correction to the description of MAP-MO-Forward-Short-Message service (R98)	Ericsson	Agreed
N4-000374	CR 29.002-149 on Correction to the description of MAP-MO-Forward-Short-	Ericsson	Agreed

	Message service (R99)		
N4-000375	LS to CN on OoBTC	NEC	Revised to 0387
N4-000376	CR 29.002-144r1 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN (Rev. of 0289)	Nortel Networks	Agreed
N4-000377	CR 09.02-A299r1 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN (R98) (Rev. of 0290)	Nortel Networks	Agreed
N4-000378	CR 29.002-144r1 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN (Rev. of 0288)	Nortel Networks	Agreed
N4-000379	Duplication of 0391	Nokia	Withdrawn
N4-000380	Duplication of 0392	Nokia	Withdrawn
N4-000381	CR 29.002-136r2	Ericsson	Withdrawn
N4-000382	CR 23.066-018r2	Ericsson	Withdrawn
N4-000383	CR 23.012-006 on Introduction of Mobility Management event notification into 23.012 procedures	N2	Postponed
N4-000384	LS to S1 on hexa IMEI for R99 (Revision of 0355)	Nokia	Revised to 0386
N4-000385	Response LS to N1 on Global solution of "Cause of no CLI" (Rev. of 0369)	NTC	Approved (to be sent out)
N4-000386	LS to S1 on hexa IMEI for R99 (Revision of 0384)	Nokia	Approved (to be sent out)
N4-000387	LS to CN on OoBTC (Revision of 0375)	NEC	Approved (to be sent out)
N4-000388	Output documents (Revision of 0368)	Chairman	Approved
N4-000389	CR 03.03 on Use of 3 Digits MNC in GTP for Release 97	Nortel Networks	E-mail approval
N4-000390	CR 23.081 on Cause of no CLI Indication	Nokia/T-Mobil	E-mail approval
N4-000391	CR 09.02-A295r1 on Indication of unsupported position method (Revision of 266)	Nokia	E-mail approval
N4-000392	CR 29.002-139r1 on Indication of unsupported position method (Rev. of 267)	Nokia	E-mail approval
N4-000393	CR 29.002 on Send Authentication Info SDs	Siemens	E-mail approval
N4-000394	CR 23.018-xxx on Active Location Retrieval	Vodafone, FT	E-mail approval
N4-000395	Revision of 221	Ericsson	E-mail approval
N4-000396	Revision of 222	Ericsson	E-mail approval

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ANNEX C

List of approved CRs

Tdoc n° 3GPP	Title	Source
N4-000209	CR 29.002-130 on Version 3 Tags for handover messages for R99	Siemens
N4-000211	CR 29.002-132 on Correction of version handling at dialogue establishment	Ericsson
N4-000212	CR 09.02-A288 on Correction of version handling at dialogue establishment (phase 2)	Ericsson
N4-000213	CR 09.02-A289 on Correction of version handling at dialogue establishment (R96)	Ericsson
N4-000214	CR 09.02-A290 on Correction of version handling at dialogue establishment (R97)	Ericsson
N4-000215	CR 09.02-A291 on Correction of version handling at dialogue establishment (R98)	Ericsson
N4-000217	CR 29.002-134 on Correction of errors in SDL for Macro Receive_Open_Ind	Ericsson
N4-000218	CR 09.02-A292 on Correction of errors in SDL for Macro Receive_Open_Ind (R97)	Ericsson
N4-000219	CR 09.02-A293 on Correction of errors in SDL for Macro Receive_Open_Ind (R98)	Ericsson
N4-000220	CR 23.003-019 on Missing UTRAN identifiers	Ericsson
N4-000224	CR 23.008-029 on Addition of charging characteristics per PDP context	France Telecom
N4-000225	CR 23.016-015 on Addition of charging characteristics per PDP context	France Telecom
N4-000246	CR 29.060-102 on Alignment of text with tables	Siemens
N4-000248	CR 04.30-A002 on Correction of MO-LR procedure for LCS	Siemens
N4-000249	CR 24.030-002 on Correction of MO-LR procedure for LCS	Siemens
N4-000258	CR 29.060-105 on Race conditions avoidance	Lucent
N4-000259	CR 29.060-106 on Removal of Connection oriented paths	Lucent
N4-000261	CR 29.060-108 on the use of the Sequence number in GTP-C	Lucent
N4-000262	CR 29.060-109 on the N-PDU number in GTP-C	Lucent
N4-000263	CR 09.60-A085 on Use of 3 Digit MNCs in GTP for R'97	Nortel Networks
N4-000264	CR 29.002-138 on Clarification of SAI-ack segmentation procedure	Nortel Networks
N4-000270	CR 29.060-112 on Introducing Supported Extension Headers Notification to GTP-U	Ericsson
N4-000271	CR 29.060-113 on Missing IEs in GTP-C Error Indication	Ericsson
N4-000272	CR 29.060-087r1 on Reliable delivery of signalling messages	Ericsson
N4-000274	CR 09.02-A296 on Clarification for ReportSM-DeliveryStatus operation	Nokia
N4-000275	CR 09.02-A297 on Clarification for ReportSM-DeliveryStatus operation	Nokia
N4-000276	CR 29.002-141 on Clarification for ReportSM-DeliveryStatus operation	Nokia
N4-000278	CR 29.002-143 on editorial correction to MSC-A handover SDLs	NTT Comware
N4-000279	CR 29.060-114 on Clarification of the Cause of Create PDP Context Response	NTT Software
N4-000280	CR 29.060-115 on Clarification of the TEID for Signalling	NTT Software
N4-000281	CR 29.060-116 on Clarification on the TEID for Signalling of the PDU Notification Reject Request	NTT Software
N4-000293	CR 29.002-145 on Addition of state attributes in Forward group call signalling	Siemens
N4-000294	CR 29.002-146 on New user error 'target cell outside group call area' in MAP Prepare Handover message	Siemens
N4-000296	CR 29.060-119 on Clarification on the use of SGSN address at PDU notification procedure	Fujitsu
N4-000305	CR 04.80-017 on Correction of definition of Deflected-to number	T-Mobil

N4-000306	CR 24.080-004 on Correction of definition of Deflected-to number	T-Mobil
N4-000320	CR 29.002-127r1 on Optionality of parameters in d-csi and in sms-csi (Revision of 206)	Nokia
N4-000321	CR 29.002-124r3 on CAMEL Subscription Info	Siemens
N4-000324	CR 29.060-100r1 on Introduction of a different port number for GTP-C and GTP-U	Lucent
N4-000326	CR 29.002-135r1 on Addition of charging characteristics per PDP context (Revision of 226)	France Telecom
N4-000327	CR 29.060-101r1 on Addition of charging characteristics per PDP context (Revision of 227)	France Telecom
N4-000329	CR 29.060-110r1 on Editorial modifications (Revision of 0268)	Ericsson
N4-000334	CR 23.018-052r2 on North American Service Provider Number Portability impacts for Mobile Number Portability (revision of 0317)	NorthStream/Nokia
N4-000338	CR 23.066-019r2 on North American Service Provider Number Portability impacts for Mobile Number Portability (Revision of 0318)	VoiceStream/Nokia
N4-000341	CR 29.060-111r1 on Editorial modifications concerning GTP-U and GTP-C (Rev. of 269)	Ericsson
N4-000342	CR 03.03-A042r1 on Editorial Modification of section 6.2.2 (Ph2) (Rev. of 233)	Nokia
N4-000343	CR 03.03-A043r1 on Editorial Modification of section 6.2.2 (R96) (Rev. of 234)	Nokia
N4-000344	CR 03.03-A044r1 on Editorial Modification of section 6.2.2 (R97) (Rev. of 235)	Nokia
N4-000345	CR 03.03-A045r1 on Editorial Modification of section 6.2.2 (R98) (Rev. of 236)	Nokia
N4-000346	CR 23.003-021r1 on Editorial Modification of section 6.2.2 (R99) (Rev. of 237)	Nokia
N4-000347	CR 29.060-117r2 on Clarification of the conditional information elements	NTT Software
N4-000348	CR 23.082-007r1 on Inclusion of service requirements from TSG-S1 (Revision of 291)	Vodafone AirTouch
N4-000349	CR 29.002-142r1 on addition of a parameter in the subsequent Handover from UMTS to GSM with Multicall (Revision of 277)	NTT Comware
N4-000357	CR 29.002-133r1 on Various corrections and/or cleanup to 29.002 (Rev. of 0216)	Ericsson
N4-000370	CR 09.02-A300 on Correction to the description of MAP-Forward-Short-Message service (Phase 2)	Ericsson
N4-000371	CR 09.02-A301 on Correction to the description of MAP-MO-Forward-Short-Message service (R96)	Ericsson
N4-000372	CR 09.02-A302 on Correction to the description of MAP-MO-Forward-Short-Message service (R97)	Ericsson
N4-000373	CR 09.02-A303 on Correction to the description of MAP-MO-Forward-Short-Message service (R98)	Ericsson
N4-000374	CR 29.002-149 on Correction to the description of MAP-MO-Forward-Short-Message service (R99)	Ericsson
N4-000376	CR 29.002-144r1 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN (Rev. of 0289)	Nortel Networks
N4-000377	CR 09.02-A299r1 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN (R98) (Rev. of 0290)	Nortel Networks
N4-000378	CR 29.002-144r1 on Use of NAM parameter with MAP-INSERT-SUBSCRIBER-DATA service between HLR and SGSN (Rev. of 0288)	Nortel Networks

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A N N E X D

List of Approved Liaison Statements

Tdoc	Title	To:
N4-000331	LS response on Service Modification without Pre-notification	N3
N4-000340	LS on Race conditions avoidance	N1, S2
N4-000363	LS on GTP signalling security	S3
N4-000366	LS to on Key Exchange and Key Distribution	S3, S5
N4-000364	LS on positive authentication reporting on network performance	S3, TIA TR-45 AHAG (via CN)
N4-000325	LS on GPRS Charging Characteristics	S5
N4-000356	LS on UTRAN Identifiers in TS 25.401	R3
N4-000385	LS response on Global solution of "Cause of no CLI"	N1
N4-000386	LS on hexadecimal IMEI	S1, CN
N4-000387	LS on request for co-ordination about OID handling	CN