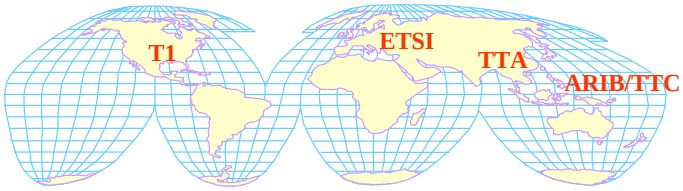
3GPP TSG CN Plenary Meeting #16 **NP-020245**
5th – 7th June 2002 Marco Island, USA.

Source:	TSG CN WG4
Title:	Meeting reports after CN#15
Agenda item:	6.4.1
Document for:	Information

Introduction:

This document contains 2 TSG CN WG4 meeting reports after CN#15: TSG CN WG4 #13 and TSG CN WG4 #14. The documents are forwarded to TSG CN Plenary meeting #16 for information.



Third Generation Partnership Project

Draft Meeting REPORT v3.0.0
3GPP TSG_CN_WG4#13

Fort Lauderdale, USA
8th April – 12thApril 2002

The North American Friends of 3GPP

Chairman:	**Mr. Ian Park, Vodafone**
Vice Chairmen:	**Mr. Peter Schmitt, Siemens**
	Mr. Toshiyuki Tamura, NEC
MCC Support:	**Mrs. Andrijana Jurisic, ETSI MCC.**

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1 Opening of the meeting & Approval of Agenda

Mr. Ian Park, CN4 chairman opened the meeting. Additional support was provided by Mrs. Andrijana Jurisic (CN2 Secretary, MCC).

1.1 Make calls for IPRs

The document is included in Annex C.

The agenda was presented and **approved** (N4-020458).

2 Document Allocation

The document allocation (N4-020459) was **approved.**

3 Meeting Reports

3.1 Approval of the report of CN4 #12, Sophia Antipolis, France

The Sophia meeting report CN4#12 (N4-020315) was **approved**. The document was raised to version 3.0.0. and will be uploaded to the server.

3.2 Approval of the report of CN4 #12bis, Helsinki, Finland

The Helsinki meeting report CN4#12bis (N4-020316) was **approved**. The document was raised to version 3.0.0. and will be uploaded to the server.

3.3 Summary report of CN #15 & SA #15, South-Korea, March 2002

The summary report (N4-020314) presented by chairman **was noted**. Lucent pointed out that, in addition to the information provided in the report, WID for CAMEL support by the IMS which includes Si interface was referred back to CN2 during CN#15 plenary meeting and is presented to CN4#13 for information and endorsement.

4 Liaison Statements

Document: **N4-020424**
Title: Liaison Statement on PSTN/CS domain originated call
Source: CN1
Discussion: **Questions:**
Orange France asked whether there is any linkage in the HSS between IMS subscription and CS subscription? Is it possible for HSS to check CS subscription?
When SA2 decides their response to this LS, this topic will be discussed further. Currently it seems that this is outside the scope of the specification.

Decision: noted

Document: **N4-020426**
Title: Liaison Statement on DTMF
Source: CN1
Discussion:

Decision: **noted**

Document: **N4-020428**
Title: Reply to the LS “Liaison Statement on Handover Indication solution”
Source: RAN3
Discussion:

Decision: **noted**

Document: **N4-020429**
Title: Liaison Statement on Service change and fallback for UDI/RDI multimedia calls
Source: SA1
Discussion:

Decision: **noted**

Document: **N4-020430**
Title: Liaison Statement on Interworking of AMR-WB with G.722.1
Source: SA1
Discussion: In an LS on Handling of AMR-WB in Core Networks SA4 asked SA1 to decide on the requirement for interworking between AMR-WB and G.722.1. SA1 response is that interworking of AMR-WB with G.722.1 is not required. When the related contribution is discussed, possible LS will be sent back to SA1.

Decision: **noted**

Document: **N4-020431**
Title: Response LS on Shared network scenarios considered by TSG-RAN3
Source: SA2
Discussion: SA2 suspect that this Work Item has architectural impacts, at least in as far as it impacts TS 23.002 and possibly interacts with the approved R’5 work item “Iu-flex”. (Intra Domain Connection of RAN Nodes to Multiple CN Nodes).

SA2 believe any change in the architecture should be correctly documented, at least, in order to ensure that future architectural developments interoperate with RAN 3’s TEI.

SA2 are uncertain as to whether or not a consistent set of stage 1, 2 and 3 specifications can be completed in the release 5 timeframe.

Following a brief review, some detailed issues are:

1) Does network sharing need to be considered for other radio access networks? (e.g. GERAN-Iu mode; GERAN A/Gb mode; or W-LAN)
2) Experience of national roaming has shown that it is beneficial to provide different national roaming rights to different subsets of one operator’s subscribers. It is difficult to see how RAN 3 can provide this functionality without the use of new MAP signalling (or by CN 4 approving the abuse of existing MAP signalling).
3) With regard to Figure 1 from R3-020286, there are likely to be multiple underlying GSM networks. Different subscribers within the GSM networks may have different “handover rights” to the different UMTS network segments. Has RAN 3 analysed this, and if so, does it have any impact on the GERAN, SA 2 or CN specifications?

CN4 will wait for RAN3 response on the second point above.

Decision: **noted**

Document: **N4-020432**
Title: Liaison Statement Reply to "Status of the Generic User Profile Work"
Source: SA2
Discussion: The 3GPP GUP Joint ad-hoc is asked to consider a more appropriate GUP specification for those parts of the Data Description Framework text that SA2 have decided to remove from TS 23.240. The latest GUP Draft Stage 2 (SA2), TS 23.240 v0.4.0 in S2-020705 is attached to this LS for information of all working groups involved in the GUP work.

Decision: **noted**

Document: **N4-020433**
Title: Liaison Statement Reply to "Comments on UP-010141 and relationship of GUP to Subscription Management"
Source: SA2
Discussion:

Decision: **noted**

Document: **N4-020434**
Title: Liaison Statement on The Provision of an Inter-GMLC Interface
Source: SA2
Discussion: Proposed WID on inter GMLC Interface for 3GPP R6 was approved in SA#15. The protocol to be used for the interface has not been decided. As it is a protocol between 2 core network entities, it's CN4's task to decide which protocol will be appropriate. NEC Corporation pointed out that the GMLC-GMLC interface protocol may be different from MAP.

Decision: **noted**

Document: **N4-020442**
Title: Reply LS on support for subscriber certificates
Source: SA3
Discussion: The need to allow a cost efficient implementation of the security support of the UE is acknowledged by S3 and the work item description "Support of subcriber certificates" is updated based on the studies and advice from S1.
Decision: **noted**

Document: **N4-020445**
Title: Reply to "Liaison Statement on The addition of the H.324 M codec to TS 26.103"
Source: SA4
Discussion: The strict interpretatation of H.324 M in LS is misleading as this is not a real codec. This is a reply to an LS from CN3.

Decision: **noted**

Document: **N4-020447**
Title: LS reply on: Priority Service Feasibility Study - draft TR 22.950 v1.0.0
Source: SA5
Discussion: Ericsson pointed to the lack of a copy of the report referred to in this LS (LS received from SA1 containing the TR that affects CN4). LS containing the TR 22.950 v1.0.0 was provided later during the meeting in document N4-020465.

Decision: noted

Document: **N4-020465**
Title: LS on Priority Service Feasibility Study TR - draft
Source: SA1
Discussion: Delegates are encouraged to review the Draft TR on Priority Service Feasibility Study and send comments to the CN4 reflector. CN4 should send the response LS to SA1 containing the result of reviewing during the CN4#14 meeting in May.

Decision: **noted**

Document: **N4-020496**
Title: Response to LS (N1-020666) on DTMF
Source: **RAN2**
Discussion: RAN2 has discussed the liaison statement from CN1 on DTMF for IMS. The RAN2 understanding of the mechanism is that encoded DTMF tones would replace the speech information in the RTP payload for one or more speech frames. The RNC would not differentiate between an RTP payload containing a DTMF tone and an RTP payload containing speech information. Therefore the DTMF tone and

the speech information would experience the same QoS, meaning that transfer of the DTMF tone could not be guaranteed. RAN2 does not foresee any problems with this approach for release 5.

Decision: **noted**

Document: **N4-020497**
Title: Response to LS (N4-020302) on Trace and Availability of IMSI and IMEI
Source: RAN2
Discussion: This LS is a response to CN4 question in N4-020302.

RAN2 answers that the IMSI or IMEI may be used as the Initial UE identity in case of RRC connection setup request on the UTRAN radio interface.
Otherwise the IMSI/IMEI is never sent over the radio interface to the RNC. Especially, the RNC has no possibility to request the UE to send the IMSI/IMEI over the air interface.

Decision: **noted**

Document: **N4-020531**
Title: Liaison Statement on TS 23.008 Organization of subscriber data
Source: SA5 SWG-A
Discussion: The response to this LS is in N4-020532

Decision: **noted**

Document: **N4-020532**
Title: Liaison Statement on TS 23.008: Organisation of subscriber data
Source: Vodafone

Discussion: CN4 confirms that there will be updates to TS 23.008 for Release 5. Some changes (for CAMEL phase 4) have already been approved in CN #15 and further enhancements have been approved in CN4 for other Release 5 features, including the IP Multimedia Subsystem. These will be presented for approval at CN #16.

Decision: **approved**

5 Work Item Management

6 Release 5

6.1 Subscriber data handling for the IMS

Document: **N4-020438**
Title: LS on adapting to IETF improvements contained in “unified draft”
Source: SA2
Discussion: It is believed that there is no impact on CN4 specifications.

Decision: **noted**

Document: **N4-020443**
Title: Liaison Statement on coordination of data definitions, identified in GUP development
Source: T2
Discussion: CN4 should give the response to the first request in “Actions” in this LS.
Ericsson indicated that CN4 has already agreed to use the GUP DDF for the definition of the format of the user profile downloaded over the Cx interface.

CN4 should send LS to indicate that CN4 agreed the principle proposed by T2, but at the moment CN4 does not go for details in TS 23.241 and TS 24.241.

It is proposed in this LS to have a single group responsible for the coordination of the data definitions, whilst noting that the actual data definition work is the responsibility of the respective working groups, where the relevant expertise resides. Nokia raises concern that the co-ordination process could add unacceptable overhead to CN4 work on the Cx interface protocol.

Considering the fact that the work being carried out by the T2 GUP ad-hoc is targeted for Release 6, CN4 cannot currently afford the overload that the co-ordination between T2 GUP and CN4 would impose.

This message will be relayed to T2 in outgoing LS in document N4-020463 (drafted by Ericsson).

Decision: **noted**

Document: **N4-020463**
Title: Response to Liaison Statement on coordination of data definitions, identified in GUP development
Source: Ericsson, To: T2, CC:SA2
Discussion: CN4 have attached to this LS the last XML document and schema corresponding to the user profile defined by CN4 for the Cx interface, so that T2 knows the use of the DDF that CN4 is making of, and can extract the commonalties with other applications of the DDF.

Decision: **approved, to be sent to T2 and copy to SA2**

Document: **N4-020322**
Title: Clarification on CSCF selection data in HSS (29.228)
Source: Alcatel
Discussion:

Decision: **withdrawn**

Document: **N4-020335**
CR: 23.008-041
Title: Filter Criteria Modifications
Source: H3G
Discussion: - Is it appropriate to specify the format of the storage of filter criteria in the stage 2?
- Ericsson and Nokia support the view that it's not appropriate to specify the format of data storage in stage 2 specification. This is a matter for implementation. It is agreed that format of data storage is out of scope of TS 23.008.

- Do we still use the term Initial Filter Criteria and Subsequent filter Criteria?
Siemens responds that Subsequent Filter Criteria are not used in CN1 any more, but still defined.
It was proposed by Ericsson to change the title of 3.5.2 from "Initial Filter Criteria" to "Filter Criteria", but it was decided to stick with the current title.

- Nokia asked to remove the term "filter scripts", but of scripts are mentioned in 23.218. It was agreed that the storage of service scripts will be defined in clause 3.5.3.
- Vodafone asks for reference to 23.218 for list of filter criteria; agreed.

Decision: **revised toN4-020464**

Document: **N4-020464**
CR: 23.008-041r1
Title: Filter Criteria Modifications
Source: H3G
Discussion: Subscribed Media will be added in clause 3.5.2.

Decision: **revised to N4-020525**
N4-020525 is approved without presentation.

Document: **N4-020336**
CR: 23.008-042
Title: Subscribed Media Format
Source: H3G

Discussion: This CR modifies section 3.5.1 to define XML as the storage format and to list the parameters that can be used. Section 5.3 is modified to show that the storage of Subscribed Media is optional.
Ericsson's view is that the subscribed media should be seen as part of the filter criteria. This will be covered in N4-020464 by a reference to 23.218.
The modified paragraph 3.5.2 should be moved to document N4-020464 with the principle agreed. A set of Initial Filter Criteria are stored for each user, for each application or service that the user request may invoke. The relevant service points of interest are defined in 3GPP TS 23.218 section 5.2

Decision: rejected

Document: N4-020338
Title: Version Control for IMS protocols
Source: Nortel Networks
Discussion: It is the opinion of Nortel Networks that there is a need for multiple levels of version control in the IMS protocols. These should cover each layer of the protocol where changes might affect compatibility. The intention of the contribution is to agree the principle whether we will have version control.

- "Level 1" version control seems to be covered in the IETF protocol version control mechanism for Diameter.
- Orange France asked what we will do about the hierarchy of version numbers (e.g. if level 2 is incremented what is the status of level 3?) It seems that level 3 should be reset to zero.
- Should we define a version control mechanism for IMS protocols as proposed in this contribution? Nokia believes that the version control is an important issue but Diameter already has adequate version control mechanisms. It is agreed that we should have version control built in for IMS protocols.

Decision: The principle of having version control is **agreed**, but details need further discussion. CRs against Cx protocol specifications will be needed as a framework for further discussion.

Document: N4-020339
Title: Inclusion of Version information in User Profile
Source: Nortel Networks
Discussion: Proposal is that the version element in the User profile should be mandatory in all occurrences where the Cx User Profile or a fragment of the Cx User Profile is transported and should be of the format x.y where x and y are numeric values. x is the major version number of the User Profile. This is incremented when significant alteration is made to the syntax or semantic of the User Profile. y is the minor version number of the User Profile. This is incremented upon minor updates to the User Profile format.

Nokia believes that XML already has a mechanism in the form of the version of the XML schema, but we have to define a mechanism to reach a mutually acceptable version of the protocol.
In order to allow evolution of the protocol used between two entities we have to allow the one entity to indicate the version it supports and to allow the mechanism to negotiate the version that is acceptable to the other entity as well.
This document was discussed together with document N4-020338.

Decision: noted

Document: N4-020340
Title: S-CSCF selection options for the operator
Source: Nortel Networks
Discussion: This document is to identify the options that operators will have when configuring their IP Multimedia Subsystem for S-CSCF selection by I-CSCFs. The proposal is to have at least an informative annex to TS 29.228 to define the way in which S-CSCF capabilities can be encoded and the way in which the I-CSCF selects the S-CSCF according to the available capabilities.

- The combination of possibilities in this contribution is large. Operators would like to ensure that all these possibilities are understood from all the vendors in the same manner. From an operator's point of view, it is hard to understand how to design the network and what would be the impacts of different combinations in this proposal.
- Restriction of the number of services is not acceptable from operator's point of view.
- The lack of definition of the way to define S-CSCF capabilities and selection methods is a concern.
- There should be a clear indication which CSCF is the one preferred.

- Ericsson:
- Ericsson cannot accept to see this contribution as an annex to the TS.
- Distinction between “services” and “service capabilities” is important. This contribution should use the term “capabilities” instead of “services”.
- The meanings of values are operator-defined.
- S-CSCF doesn’t need to know anything about the user.
- Ericsson points to an LS from SA2 which defines the procedure to handle a change of user profile.

The selection algorithm is a manufacturer issue. The operator can ask the vendor for a more complicated algorithm (29.228). Ericsson clarifies that at least one S-CSCF should have the necessary capabilities to support the mandatory requirements for each subscriber. H3G points to the need to cope with S-CSCF failure.

- S-CSCF and HSS are in the network under the control of the same operator. It is the responsibility of the operators to ensure that any subscriber can have any set of mandatory services. Therefore, all S-CSCFs in the network should support all combinations of mandatory services (service capabilities).
  dynamicsoft challenges the analysis that subscribers could require a semi-infinite set of capabilities.

Problems identified :

- The way in which we denote the capabilities in S-CSCF. The semantic of the given code point is left to the operator.
- When it comes to the selection algorithm, should we mandate it or not?
- Chairman’s point of view is that it would be useful to state that S-CSCF should be selected so that it supports all the capabilities that are mandatory for that subscriber. According to Ericsson this is already defined in the specification TS 29.229.

Should we go further in specifying what the I-CSCF does to select an S-CSCF that supports all the necessary capabilities? Nortel is of opinion that we should go further in specifying this.

Decision: rejected

Document: N4-020425
Title: Liaison statement on the definition and usage of Filter Criteria
Source: CN1
Discussion: CN1 has discussed the definition, content and usage of Filter Criteria within the IMS. The attached document N1-020637 shows the text that will become part of the next edition of TS 23.218.

Unknown SIP method is unknown to CSCF (needs to have ID which will mean "unknown"). Known methods are those currently handled in CN1 specs.

Point 2) in this LS lists elements of which Filter criteria should consist and mentions optionally the Service Information which includes information that should be transported transparently from the S-CSCF to the Application Server in the SIP message body.
There are ASs that are outside the home network, and the Service Information cannot be transferred over Sh interface that is used only when AS and CSCF are in the same network. Information in the Service Information is set by the service provider. A SIP application server located in another service provider's network might need information that cannot be transferred over the Sh interface.

Nokia pointed that trigger points are logically linked. In the LS, the ability to use logical links (AND, OR, NOT) with trigger conditions is omitted.

Decision: noted, CN4 will take into account all the information listed in this LS, but TS 23.218 should be used as a basis for CN4 work.

Document: N4-020362
Title: User Profile description
Source: Nokia
Discussion: This paper corrects and updates the user profile description according to the latest stage 2 requirements in the TS 23.218 [1]. The figures are proposed to replace existing figures in the TS 29.228. Parts agreed for inclusion in updated 29.228.

This document was discussed together with the document N4-020451 which contains Ericsson's proposal. Assumptions are noted under N4-020451 discussion.
Decision: noted

Document **N4-020389** is **revised to N4-020451**.

Document: **N4-020451**
Title: Updates to the user profile
Source: L.M. Ericsson
Discussion: The document was discussed together with Nokia's proposal.
Ericsson: There are different sets of triggers for registered user and not registered user. For not registered user, filters that are marked "unregistered" will be downloaded from the HSS.
When an MT call arrives, the HSS is aware whether the user is registered or not and will download the proper set of filters for a registered or unregistered user. Ericsson proposes that the HSS downloads criteria for either the registered case or the unregistered case.
Ericsson is of opinion that the HSS does not download the data whenever it is asked, but it downloads data and the S-CSCF stores it (not only for this session). The S-CSCF needs to know what is the registration case for the user that received the MT call.
Recommendation by Ericsson to use regular expression Matching principle. Siemens, Lucent and dynamicsoft support the use of regular expression matching for header contents. Nokia challenges the need for regular expression matching, but if all other companies support it then Nokia could accept the principle as well.
Nokia voices a preference for maintaining distinct sets of criteria for the MT registered & MT unregistered cases. Nokia has view that there is no requirement for Ericsson's solution, but Nokia's solution can always be extended if the requirement appears.
Ericsson clarifies that the S-CSCF asks for user profile info when a call arrives if it doesn't have data for the user, but will retain the user data for a timeout defined by the operator.

According to Ericsson, the position of the service point of interest in the internal structure of the tree leads to less processing in the S-CSCF. Lucent supports Ericsson's view.

Assumption:

- Use of regular expressions for matching header contents is agreed.
- SIP method shown in figure E of 362 is a string type; text should reflect this by putting SIP method names in quotes.
- It will be explicit that SIP methods yet to come can be indicated in the SIP method criteria.
- Nokia has followed the IETF policy in structuring filters for CNF/DNF.
- There seem to be some cases when the data which are transferred from the HSS have to be used immediately in the CSCF.
- The other major difference between Ericsson and Nokia proposals is whether to download the whole profile or part of the profile.
- It was agreed to go with Nokia's proposal.
- Parts that are agreed will be included in the update of TS 29.228.

Decision: **noted**

Document: **N4-020363**
Title: XML Schema of User Profile
Source: Nokia
Discussion:

Decision: **revised to N4-020460**

Document: **N4-020460**
Title: XML Schema of User Profile
Source: Nokia
Discussion: The document has been just presented before the document N4-020463 to have a better understanding.

Decision: **postponed to the next meeting**

Document: **N4-020364**
Title: User profile downloading
Source: Nokia
Discussion:

Decision: **noted**

Document: **N4-020388**
Title: Download relevant end user profile
Source: L.M. Ericsson
Discussion: Is the Cx traffic reduced by downloading part of the profile rather than downloading the whole profile less frequently?
Ericsson's proposal: S-CSCF can request data for registered state or unregistered state and S-CSCF indicates this to HSS. HSS will then download the part of the data for the specific situation requested by S-CSCF.

Comments:
What is the size of the data to be downloaded? How often do these events happen? The answer on these questions could help to make the decision.
Nokia: If the S-CSCF keeps the data and if the user deregisters at the point of the time, data do not have to be downloaded again. This is a proposal for retention of subscriber information. Ericsson's proposal could co-exist with Nokia's proposal.

Ericsson: The push of updates to the user profile from HSS to S-CSCF has to be done depending on the registration state of the end user. – this means it is possible to push just one element to update the user profile.
Nokia: The whole profile is downloaded. Downloading one profile is simpler; it is not necessary to download data again if the subscriber state changes.

Ericsson: The goal is to download the data as soon as possible. If we download the whole profile, there is a lot of storage used in the CSCF. There is no need to download everything and process it in the CSCF. Why does the CSCF have to go through all the rules of MO, MT, … if the mobile is not registered?
Nokia: It is possible to organize data that it contains part of data for registered state and part of data for not registered state so that CSCF does not go through the whole user profile in different cases.

Lucent: Is there a way to find a solution that will include both proposals? The CSCF has to have the possibility to retain user profile data even if the user is deregistered and this is common to both proposals. The difference is that Nokia finds it better to use user profile information as atomic. According to Ericsson user data is not atomic and it's better to transfer and process part of the user information.

Working assumption:

S-CSCF can request total or partial download of subscriber data. If exact figures that prove that one of the possibilities is more efficient could be provided, then the discussion will be reopened.

This compromise does not specify whether the S-CSCF retains subscriber profile information, since there was no difference between Ericsson's and Nokia's contributions regarding this issue.
It should be possible to create a combined proposal based on documents N4-020364 and N4-020388, taking into account the working assumption on both proposals. dynamicsoft supports this compromise. This is closely related to work that is currently going on in SA2. That work will be stabilised soon, which gives time for Ericsson and Nokia to create a combined proposal.
According to H3G, quantitative analysis should also cover other interfaces.

Nokia's view is that CN4 should send an LS to SA2 to inform SA2 about the compromise that has been reached. LS to SA2 is in document **N4-020466**.
Decision: **noted**
N4-020466 was approved

Document: **N4-020370**
Title: Correction to TS 23.008
Source: Nokia
Discussion: Ericsson: Is this contribution based on TR 23.815 produced by SA2? Yes.
Some subscriber data is referred as permanent subscriber data and can be changed only by O&M.

Decision: **approved, the version with CR 23.008-043 will be downloaded to the meeting server**

6.1.1 HSS – CSCF (Cx) interface

Document: **N4-020345**
Title: IMS XML Filter Criteria over Cx interface
Source: Lucent
Discussion:

Decision: **withdrawn**

Document: **N4-020437**
Title: LS on S-CSCF change
Source: SA2
Discussion: SA2 discussed the case where the subscription of the user is changed, e.g. the user subscribes to new services; it may possible that new capabilities which are required from the S-CSCF are not supported by the S-CSCF currently assigned to the user. The conclusion was that the stage 2 specifications will not contain a separate message flow to describe this case; on the contrary the requirement for changing the S-CSCF actively will be added to TS 23.228.
The following requirements for stage 3 were identified:

The S-CSCF shall be able to inform the HSS that the received subscription data contained information which was not recognised or not supported.

Network Initiated De-registration by HSS shall include a reason code which indicates the need for the user to re-register to all existing registrations due to need for a S-CSCF change.

When the S-CSCF receives the reason code which was mentioned on step 2 it shall be included a deregister message to the UE.

Lucent: we should not automatically assume that the HSS is the entity which is responsible for initiating this procedure. It should be very clearly specified which entity is responsible for initiating the deregistration.

Nokia and Ericsson have the same view that when the subscriber has capabilities that are not supported by S-CSCF, the HSS starts the process to initiate deregistration.

A follow-on contribution is in document N4-020365.
Decision: **noted**

Document: **N4-020365**
Title: S-CSCF change
Source: Nokia
Discussion: This document implements requirements that are requested in LS from SA2.

- Is there any way to indicate unrecognised data? There is no requirement for the S-CSCF.
- NOT SUPPORTED_USER_DATA should not contain a space.
- Reason-Code AVP defines the reason for the network initiated de-registration. For the value SERVER_CHANGE, “the S-CSCF should start the network initiated de-registration towards the user”. The word “should” has to be replaced by “shall”, because we should decide whether we want to mandate S-CSCF to do this procedure. Nokia is of opinion that it is clear that we mandate S-CSCF to do this procedure.
- It is agreed to change formulation of S-CSCF behaviour when it receives the Server_Change reason.
- Nokia proposed to change the name of "NOT SUPPORTED_USER_DATA" to "DIAMETER_SUCCESS_UNSUPPORTED_USER_DATA".
- Lucent: Which message contains the “reason”? Nokia: Registration Termination Request.
- Vodafone: Should we consider Unsupported user data indicating which data are not supported, so that the HSS has a better base to decide on how to deal with unsupported capabilities? Orange France supports this idea. Nokia is ready to consider this proposal, but further study is needed to see what are the potential benefits.

Decision: **approved**

Document: **N4-020366**
Title: S-CSCF name handling in HSS
Source: Nokia
Discussion: This paper discusses the case where the user has already been registered and assigned a S-CSCF and the HSS receives a Multimedia-Auth-Request or a Server-Assignment-Request command

including an S-CSCF name, which is not the same as the already assigned S-CSCF for the user. It describes under which conditions the HSS overwrites the old S-CSCF name with the new S-CSCF name. In addition, this paper introduces a new AVP to the User-Authorisation-Request command, which is used to request capability information from the HSS.

- Lucent raised a concern over fraud potential if the HSS overwrites the S-CSCF address before the successful authentication of the user.
- Nokia: Terminals have already been authenticated by the network in the initial registration. The user has been authenticated previously from where this Register message comes (from the terminal - there is a security association between terminal and proxy CSCF).
- The P-CSCF will use integrity protection to prevent any other mobile from spoofing the messages from the authenticated terminal.
- We could have more identities of the user. One of the identities can be registered in new S-CSCF. There is a concern that this needs further work.

Editorial comments:

- Lucent: in 9.1.2, in first sentence: “send” should be replaced by “received” and “but send a response” should be “but shall send a response”.
- In 6.2.4 the title should not be changed.
- “in case” will be changed to “if”

Decision: approved

Document: N4-020444
Title: Response to Liaison Statement on Cx User Profile (N4-020197)
Source: T2
Discussion: The response is provided in document N4-020463.

Decision: noted

Document: N4-020454
Title: LS on “Transport of IMS-AKA Material”
Source: SA3
Discussion: This changes the CN4 working assumption on the authentication mechanism for IMS. CN4 is asked to adopt new recommendations from IETF and the latest agreements at SA3 for the handling of IMS-AKA material.

Decision: noted

Document: N4-020383
Title: Clarification on Authentication procedure
Source: L.M. Ericsson, Nokia
Discussion: Main changes:

- S-CSCF is set to “M” in Table 6.3.1: Authentication request
- Specific changes that are asked from SA3
- Detailed description of behaviour of HSS (6.3.1)

Comments:

- Nokia’s view is that “S-CSCF name” in table 6.3.1 should not be mandatory. It would be better to leave it as conditional as it should be required when the S-CSCF is first assigned, but omitted on subsequent requests for authentication vectors.
- Ericsson: For the HSS it is easier not to check whether the IE is present. Lucent finds that it is probably better to include it each time, but possible error cases should be studied.
- Nokia finds that we are creating more error cases with including this IE each time, because the HSS has to check in all S-CSCF names and then to decide if it is the same and if it’s not the same to overwrite it.
- Nortel support IE as mandatory.
- Nokia asks what is the benefit for having it mandatory. If Nokia would get an answer why this introduces more processing for HSS, then Nokia would be ready to accept the IE as mandatory. There is no error if there is no S-CSCF name present.
- At the protocol level we have to decide what is the semantic when this IE is omitted.
- It is concluded that the S-CSCF address is mandatory with Nokia’s reservations recorded.
- In table 6.3.1 a reference to table 6.3.3 should be added for the content of authentication info.

Decision: approved

Document: **N4-020367**
Title: Optimisation of Registration Authorisation
Source: Nokia
Discussion: Is it in our remit to put requirements on the I-CSCF? Nokia's view is that there is no new requirement introduced.

Decision: **approved,** User Authorisation Type will be introduced in User Authorisation Request.

Document: **N4-020368**
Title: Result-Code value DIAMETER_UNABLE_TO_COMPLY for UAA and LIA commands
Source: Nokia
Discussion:
Orange France asks whether we should describe the handling in the entity that receives the error code? The CN1 specification that specifies the behaviour of the CSCF that receives the error cause should cover this issue.

Decision: **approved**

Document: **N4-020371**
Title: 3GPP Diameter Cx Application vs. IETF
Source: Nokia
Discussion: The Diameter Multimedia Application shall be specified as a 3GPP vendor specific Diameter application. The vendor and application identifier, command code and AVP values for 3GPP vendor specific application are specified later.
Chairman: The semantic of "later" is "at later point in time".

"Vendor specific" means in this contribution "3GPP specific" (not IETF). The term "vendor specific" is misleading here and should be clarified. The following wording is agreed: "For UMTS Release 5 Diameter Multimedia Application shall be specified by 3GPP as an IETF vendor specific Diameter application."

At some point of time IETF DMA will be either the same as or a superset of the Cx interface protocol. Chairman's proposal was to change "Diameter Multimedia Application" to "Cx Interface protocol", but mmO2 voiced the concern that we should not give up on our involvement in IETF to define the Diameter Multimedia application as an RFC. We will pursue the alignment of the IETF 3GPP DMA specification with 29.229.
The text for 29.229 will be changed to read: "The Cx/Dx Interface protocol shall be defined as an IETF vendor specific Diameter application, where the vendor is 3GPP"

Decision: **agreed** to be incorporated in 29.229 with variations that are noted

Document: **N4-020381**
Title: Clarification on User registration status query procedure
Source: L.M. Ericsson
Discussion: Nokia points to material from 29.229 which isn't carried into 29.228: the case of an S-CSCF which provides services for an unregistered user. In section 6.1.1.1 there is only registration case. Miguel-Angel will cover this with a new "+" bullet in clause 6.1.1.2, and an extension to the text in table 6.1.1.2. New Result-Code DIAMETER_SUBSEQUENT_REGISTRATION will be added to 29.229 and it should be added to the list of result codes.

On further discussion, it is agreed to remove any duplication of information between table "description" column & text description of behaviour; the text description has the detail.

Decision: approved after amendment

Document: **N4-020382**
Title: Clarification on User location query procedures
Source: L.M. Ericsson
Discussion: In table 6.1.4.2, in S-CSCF capabilities description, "user registration status query procedure" shall be replaced by "user registration status response" so that it reads: "HSS shall send the same server capability set that is sent in the user registration status response".

- If we specify detailed description for one procedure, but not for another, the reader could be confused.

- Nokia finds that tables should be more generic and detailed behaviour should be defined consistently.
- To avoid duplication of information between text description in the tables and text description in detailed behaviour, it has been decided to omit from the tables the mention of services provided for an unregistered user, and other information which is covered in the textual description of behaviour. This principle will be followed across the sections.

Decision: principle agreed

Document: N4-020384
Title: Clarification on S-CSCF registration/de-registration notification
Source: L.M. Ericsson
Discussion: Changes to be done in the document:
- In table 6.1.2.1 in description of user identity, public identity should be a list.
- In table 6.1.2.2, delete "part of the" before "User Profile".
- In table 6.1.2.2, add the qualification for server-assignment-type "in the request".

Decision: approved after amendment

Document: N4-020385
Title: Clarifications on implicit registration
Source: L.M. Ericsson
Discussion: What does it mean if implicit registration is active or inactive? Active – there are identities associated with HSS.
- Nokia would like to remove the term “active”, as it is quite confusing.
- Nokia: Is the term “affected public identities” clear? Ericsson is ready to replace “affected” by “implicitly registered public identities”.
- Lucent proposes that the S-CSCF should send all the identities to be deregistered.

Agreed:
- At the beginning of 6.x, definition of group identities should be included.
- After wordsmithing, we agreed to incorporate the updated text in 29.228.
- For deregistration, the S-CSCF should send all the identities to be deregistered.
- Instead of "active" for Public Identities, it was proposed for section 6.x.1.1 "This allows the S-CSCF to know the implicitly registered public identities."

Decision: approved after amendment

Document: N4-020386
Title: Clarifications on Network Initiated Deregistration
Source: L.M. Ericsson
Discussion: Agreed changes to be done in the document:
- In 6.1.3 editorial correction in first sentence: “network initiated deregistration”.
- […] in the BNF in 29.229 should be replaced by {…}. Not by (…). (2 places).
- In 6.1.3.1, "Reregistration reason" should be "Deregistration reason".

Decision: approved after amendment

Document: N4-020387
Title: Clarifications on Update of User Profile
Source: L.M. Ericsson
Discussion: In table 6.1.2.1, "Concatenation of the updated service profiles" is replaced by "Updated user profile".

Decision: Agreed after amendment

Document: N4-020369
Title: Addresses of Charging Functions
Source: Nokia
Discussion: Ericsson requested to discuss this document after the contributions that have been received in time are handled. Lucent supports this as working principle.

That document is related to CR to 23.008 in N4-020370. This is a proposal for a draft specification. The structure of the charging addresses will have to be resolved in a contribution to CN4 #14.

Decision: **approved**

N4-020514 (draft TS 29.228 v1.2.0) and **N4-020515** (draft TS 29.228 v1.2.0) will be distributed on e-mail list. Those drafts are **approved** as a base for further development. Technical comments should be forwarded directly to the rapporteur.

6.1.2 SLF - CSCF (Dx) interface

6.1.3 Sh & Si interfaces

Document: **N4-020323**
Title: 29.328 IMS Sh Interface, Signalling Flows and Message contents
Source: Lucent
Discussion: This is the first draft of the IMS Sh interface specification TS 29.328. This document addresses the signalling flows and message contents for the protocol at the Sh interface corresponding to the related reference point.

References have to be updated to reflect the current references.

Orange France pointed out that table A.2.1 should show Sh messages Sh-Update_Service_Data and Sh-Update_Service_DataResp either way between AS and HSS.

Ericsson: In TS 23.218, the term Application Server is already defined. The distinction between OSA gateway/SIP application server and IM-SSF should be clarified. According to Lucent, the IM-SSF can also be considered as an application server. It should be made clear whether we are dealing with messaging across the Sh or Si interface.

What is the purpose to have “S-CSCF name” in Sh pull message? Lucent: it should be considered whether it is required, but the name gives the possibility for the HSS to check whether it is correct or not. If it’s not, further behaviour should be defined in error handling as it was done for Cx interface.
Conclusions:

- First sentence in chapter 5.1.1 should read: “The Application Server may communicate with the HSS over the Sh interface.” References: 3GPP TS23.218, 3GPP TS23.228.
- First sentence in chapter 5.1.2 should read: “The HSS may communicate with the Application Server over the Sh interface.” References: 3GPP TS23.218, 3GPP TS23.228.

It is proposed to segment HSS data in such a way that:

1) the AS can use the HSS as a repository in which the ASs can freely write data & retrieve it
2) the AS can subscribe to receive changes of the data stored in HSS
3) the AS can, at any point of time, read HSS stored data.

Decision: **approved as basis for further work**

Document: **N4-020324**
Title: 29.329 Sh Interface based on the Diameter Protocol
Source: Lucent
Discussion: Changes that are agreed for 29.229 should be reflected in this document, but the document was accepted as a base for the further work.

Decision: **noted**

Document: **N4-020325**
Title: Work Item Description for the Support of CAMEL by the IMS
Source: Lucent
Discussion:

Decision: **revised to N4-020477**

Document: **N4-020477**
Title: WID Support of CAMEL by the IMS
Source: CN2

Discussion: There is no objection in CN2 to have MAP protocol for Si interface. CN2 is waiting the protocol decision from CN4.

CN4 has decided to use MAP protocol for Si interface.

Decision: endorsed

Document: N4-020326
CR 29.002-415
Title: R5 CR29.002 for support of MAP Si interface
Source: Lucent
Discussion: This CR introduces the use of existing MAP operations for downloading CSI data from the HSS the IM-SSF via the MAP Si interface.

- Rationale for this approach is that the DIAMETER based approach received no support after the joint CN2/CN4 in Sophia Antipolis. This approach doesn't need ASN.1 changes.
- Siemens, Lucent, Nortel and mmO2 support the MAP-based solution. Alcatel prefer Diameter, but could accept MAP. Orange France have no strong preference – they want the protocol defined in time for June.
- Ericsson preferred Diameter, but accepted MAP as the majority is in favour of MAP.
- Siemens has the concern that the HLR/HSS needs to know what sort of entity is asking; however according to the CN2 proposed changes the IM-SSF will ask explicitly for the IM-CSIs.
- Nokia asks for the ATSI result or NSDM invoke to include the IM-CSIs as distinct elements with distinct data types. On further discussion we decided not to use distinct data types.
- Reference in chapter 2 should be to 23.278, not 23.228
- In ATSI-Arg, gsmSCF-Address will be replaced with requestingEntityAddress and comment to show how it's populated will be added (similarly for the service description for ATSI). This means that we need a (generalised) definition in 7.6 for Requesting Entity address
- changes to parameter definitions for O-CSI, D-CSI & VT-CSI should be rejected and definitions for the IM counterparts added.
- comment under Requested Camel Subscription Info will be deleted and allIM-CSI added to AdditionalRequestedCamel-SubscriptionInfo.
- Ericsson raised concern over need for segmentation. We will handle this by mandating white book SCCP for the Si interface in chapter 6.1.
- o-IM-CSI, d-IM-CSI and vt-IM-CSI components are added to the sequence of CAMEL-SubscriptionInfo.
- Reference to HSS taking on role of HLR will be deleted in 24.A.1

Decision: revised to N4-020523

Document: N4-020523
CR 29.002-415r1
Title: R5 CR29.002 for support of MAP Si interface
Source: Lucent
Discussion: This version of the CR was approved as the basis for further development. CN4 expects to see further refinement before the CR is submitted to CN for approval. Lucent will submit this document to CN2 with an indication that CN4 see it as about 85% complete.

Decision: approved as basis for further work

Document: N4-020471
Title: 29.328 IMS Sh Interface, Signalling Flows and Message contents
Source: Ericsson
Discussion: This is the first draft of the IMS Sh interface specification TS 29.328.
This contribution presents Ericsson view on Lucent's contribution in N4-020323.
Ericsson stated that the work on Sh interface, by no means should suppose a delay in the work for Cx interface. As there is close linkage between Cx and Sh, the work on Sh interface (Lucent) and Cx work (Ericsson) should be coordinated. Ericsson is prepared to cooperate with Lucent on that work.

In the separate document within zip file there is an updated version of document N4-020323 that contains Ericsson's comments to Lucent's proposal.

MmO2 would like to see the possibility for the AS to modify user data rather than only to read.
Ericsson: User data that are provisioned by O&M should not be updatable by the AS.

The CAMEL server (gsmSCF) is able to modify data in the HLR, which includes trigger data, so should not an equivalent functional capability exist between AS and HSS?

TS 23.228 says “HSS is allowed to support the capability”, it does not say that it is mandated to use Sh. CR 23.228-237 is approved in SA2 and this contribution is in line with this CR.

It was proposed by the chairman to consider a partitioning of data into information which the AS can only read and information which the AS can both read and write. In that case it should be decided which data belong in which category.

Nokia asked whether there is a requirement to read/write data? Should CN4 ask the other group for the requirement to do this? In stage 2 of Cx interface, requirements are defined. For Sh interface there are no similar requirements defined in stage 2. Nokia is of opinion that SA2 should define the requirement on the usage of the Sh.

Dynamicsoft: HSS shall be able to communicate with AS over Sh interface, and proposed text should be changed. Nokia: supports Ericsson’s contribution, which considers the Sh interface as an optional interface. Definitions given in WID are used.

Agreed :

- 2 categories of data in HSS will be defined (if we maintain the separation between User data and Service data, 4 categories appear: User data – read only and read/write, and Service data – read only and read/write)
- AS may communicate with HSS via Sh interface
- requirement on HSS capability is defined in 23.228 (whether there is a requirement for HSS to support Sh interface)

Decision: **revised to N4-020493**

Document: **N4-020493**
Title: 29.328 IMS Sh Interface, Signalling Flows and Message contents
Source: Ericsson
Discussion: Definitions of the data types are changed in 3.1 to reflect whether or not the data have been written in the HSS by the AS.

It was proposed to make a distinction between data which the HSS understands and the data which the HSS stores without understanding it. Ericsson proposes to extend the definition to include this (distinction between data for which the HSS understands the internal structure and data for which the HSS does not understand the internal structure).

Further it was proposed by mmO2 to introduce the possibility for AS to ask to be informed of data change for both types of data.

After further discussion, it was concluded that we should take N4-020323 as the basis for further development. Ericsson will submit a contribution with their proposals for the further development from 29.238 v0.0.0. Miguel-Angel offers to co-operate with Lucent to develop the draft between now and the next meeting.
An ad hoc email list will be established to try to progress on this issue.

Decision: **postponed**

Document: **N4-020478**
Title: Subscriber information management in the IMS
Source: Siemens
Discussion: This document is the result of discussions in CN2; it is sent to CN4 for information.

Decision: **postponed**

Document: **N4-020479**
Title: CR to 23.278 on Si interface information flows
Source: Lucent Technologies
Discussion: This document is the result of discussions in CN2; it is sent to CN4 for information.

Decision: **postponed**

Document: **N4-020480**
Title: CR to 23.278 on IM-SSF notification of HSS updates of CSI
Source: Lucent Technologies
Discussion: This document is the result of discussions in CN2; it is sent to CN4 for information.

Decision: **postponed**

Document: **N4-020481**
Title: CR to 23.278 on correction of SDLs for CAMEL_IMCN_Register/ Deregister
Source: Lucent Technologies
Discussion: This document is the result of discussions in CN2; it is sent to CN4 for information.

Decision: **postponed**

6.2 AMR Wideband

Document: **N4-020352**
Title: AMR-WB in UTRAN-GSM interworking
Source: Nokia
Discussion:

Decision: **Withdrawn**

Document: **N4-020377**
CR: 23.153-032
Title: AMR-WB enhancements
Source: Nokia
Discussion:

Decision: **Withdrawn**

Document: **N4-020392**
Title: Work Required To Complete AMR-WB
Source: Ericsson
Discussion: To progress this WI a CR has been submitted in document N4-020393. It introduces a new Annex into TS 23.153 to describe the main issues of concern for AMR-WB.

Decision: **noted**

Document: **N4-020393**
CR: 23.153-033
Title: Introduction of AMR-WB
Source: Ericsson
Discussion: Why is the description of the WB speech service in an annex? These parts are meant to be informative.

- Nokia propose to define the annex as informative.
- Vodafone and Lucent propose the annex to be normative
- Ericsson see the possibility to split the annex into two parts where one of the parts would be normative and the other informative notes.
- Editorial comment: Technical specifications should be correctly written.
- All requirements except lawful interception are covered in this contribution– CN4 is not aware what the LI requirements are.
- The annex could be defined as normative with informative notes, or split in two annexes.

Nokia's comments for revised version of the document are: Last chapter in "Call establishment" should go to informative annex. Directions to ITU-T should be also part of the informative annex. Multi-party calls should be part of informative annex as well. If the meeting decides to maintain just one annex as normative, then mentioned issues should be as informative notes.

Decision: **revised to N4-020487**

Document: **N4-020487**
CR: 23.153-033r1
Title: Introduction of AMR-WB
Source: Ericsson
Discussion:

Decision: **withdrawn**

Document: **N4-020533**
CR: 23.153
Title: Introduction of AMR-WB
Source: Nokia
Discussion: The document was presented by Nokia and the content is based on Nokia's understanding of the changes which were agreed on document N4-020393 during this meeting. Ericsson objected to reaching a conclusion on the document due to late submission.

Decision: **postponed**

Document: **N4-020439**
Title: Response to email "NP-010710: AMR-WB TSs from SA4"
Source: SA3
Discussion: This LS is a response to plenary discussion on document NP-010710. How does this statement affect existing assumptions; do we have to reference the LI specification? CN4 is not aware of any impact on CN4 specifications.

Decision: **noted**

6.3 Camel 4

Document: **N4-020330**
CR: 29.002-408
Title: Transferring the MS classmark & IMEI to the gsmSCF
Source: Vodafone
Discussion:

Decision: **revised to N4-020467**

Document: **N4-020467**
CR: 29.002-408r1
Title: Transferring the MS classmark & IMEI to the gsmSCF
Source: Vodafone
Discussion: Changes to previous document are marked with different colour in revision marks.
MS Classmark2 is related to CS and GPRS MS Class is related to GPRS.

The definition is moved from CAP specification to MAP specification.
For all the parameters in Subscriber information it is marked "shall be present only in a response…", but for 3 new parameters this note is not added. In current draft of 23.078 conditions are already defined, as well as for which domain the parameter is requested.

Error handling for inconsistent information (e.g. PS-subscriber state from VLR) is not covered, so the error handling will be defined in TS 29.002.

MS-RadioAccessCapability is available only for Gb access, so we have to make that element of GPRSMSClass optional.

In LS in document N4-020486, CN4 will warn CN2 of the error spotted in R99 and Rel-4 TS 29.078.

Decision: **revised to N4-0920485**

Document: **N4-020485**
CR: 29.002-408r2
Title: Transferring the MS classmark & IMEI to the gsmSCF
Source: Vodafone
Discussion: This revision replaces the distinct parameters for ms-Classmark2 and gprs-MS-Class in the request with a generic ms-Classmark. The requested domain will define which classmark is provided (MS classmark 2 for CS domain, GPRS MS Class for PS domain)

Decision: **approved**

Document: **N4-020486**
Title: Proposed LS to CN2 on definition of GPRSMSClass
Source: CN4
Discussion: CN4 understanding is that MS Radio Access Capability is not available to the SGSN if the MS accesses the network via Iu-mode, and as such cannot be present in GPRSMSClass.
CN4 has addressed this inconsistency by qualifying Ms Radio Access Capability as OPTIONAL in GPRSMSClass for CAMEL4 in a revised version of CR 29.002-408. CN4 is kindly asking CN2 to tackle the spotted inconsistency in the Rel99 and Rel-4 version of 29.078.

Decision: **approved**

Document: **N4-020346**
CR: 29.002-414
Title: Corrections to the handling of Any Time Interrogation and Provide Subscriber Info
Source: Vodafone
Discussion:

Decision: **revised to N4-020468**

Document: **N4-020468**
CR: 29.002-414r1
Title: Corrections to the handling of Any Time Interrogation and Provide Subscriber Info
Source: Vodafone
Discussion: Requested domain is “optional”. Do we have to have clarification of the handling if it is not present? The handling for the case when the requested domain is missing will be described in stage 2. The application level will assume CS in stage 2, TS 23.078.

Decision: **approved**

Document: **N4-020407**
CR: 29.002-422
Title: Triggering of gsmSCF for MT-SMS-CSI
Source: Ericsson
Discussion: Will be revised to show proper handling of the result of the SDL procedure for CAMEL handling in 23.3_5.2 (check box after CAMEL_MT_SMS_VLR).

Decision: **revised to N4-020483**

Document: **N4-020483**
CR: 29.002-422
Title: Triggering of gsmSCF for MT-SMS-CSI
Source: Ericsson
Discussion:

Decision: **approved without presentation**

Document: **N4-020408**
CR: 29.002-423r1
Title: Clarification of handling of MT-SMS-TPDU-Type and SMS-TDP
Source: Ericsson
Discussion: Error handling should be clearly specified, but not duplicated. ASN1 comments should be properly aligned. Check should be done whether 23.078 contains clarification of error handling.

Decision: **approved**

Document: **N4-020455**
CR: 29.002-435
Title: Change PS-connected to PS-PDPactive
Source: Alcatel
Discussion:

Decision: **revised to N4-020476**

Document: **N4-020476**
CR: 29.002-435r1
Title: Change PS-connected to PS-PDPactive
Source: CN2
Discussion: This is a proposal to change “CAMEL connected” into CAMEL “PDP active”. The revision 1 of the CR should be marked.

Decision: **approved**

Document: **N4-020456**
CR: 29.002-436
Title: Splitting of CAMEL phase 4
Source: Alcatel
Discussion: The document was not available from CN2. Will be provided as an input for the next meeting.

Decision: **withdrawn**

Document: **N4-020475**
CR: 23.008-044
Title: Correction of the DP criteria table for T-CSI and VT-CSI on the Rel05
Source: Alcatel
Discussion: Service Key should be one word name in the table.

Decision: **approved**

6.4 Network domain security

This agenda item was discussed in Joint meeting with SA3 experts. SA3 Vice Chairman presented the agenda for Joint meeting that was distributed on CN4 reflector.

Document: **N4-020469**
Title: Access security for IP-based services presentation and the latest draft TS 33.203
Source: SA3
Presented: Krister Boman, Ericsson, the editor of the draft TS 33.203
Discussion: The document was presented during the Joint session with SA3 experts.

Ericsson: slide 24- Second register does not contain public identity? There is no requirement to include public identity in SM7.

Decision: **noted**

Document: **N4-020440**
Title: Ze interface security
Source: SA3
Discussion: The document was presented during the joint session with SA3. The choice of the protocol for Ze interface is the key message forwarded in this contribution. CN4 should decide the principle whether the protocol for the Ze interface will be IP based protocol.
Siemens view is that there are lot of benefits to take IP based protocol because it allows the use of well established security mechanisms.
Working assumption is that the Ze interface protocol will be IP-based.

Decision: **noted**
Document: **N4-020418**
Title: Use of COPS protocol in Ze interface
Source: Nokia
Discussion: The document was presented during CN4/SA3 joint meeting. This document proposes COPS (Common Open Policy Service) to Ze interface for local MAPsec Security Association (SA) and Policy distribution.
COPS uses TCP as its transport protocol for reliable exchange of messages between policy clients and a server. Therefore, no additional mechanisms are necessary for reliable communication between a server and its clients. COPS as an IP based protocol shall utilize TS 33.210 NDS/IP mechanisms like advised by SA3 to make confidentiality possible for delivered MAPSec encryption and integrity keys.

The actual specification is suggested to be done in CN4 and contributed to the IETF as an Informational RFC for approval. This document is meant to serve as an input for CN4 work.

Nokia, Vodafone and Nortel support the use of COPS protocol for Ze interface. The target is to complete the work on Ze interface protocol as part of Release 5. If we are going to use COPS it will be COPS on TCP, as currently specified in IETF.

Decision: principle approved

Document: **N4-020379**
CR: 29.060-316
Title: Reference to 3GPP TS 33.210 for protection of GTP
Source: L.M.Ericsson
Discussion: The document was presented during CN4/SA3 joint meeting. In the current version of 29.060 IPsec is referred to for security. This should be replaced by a reference to the TS 33.210, which contains a framework and architecture for GTP security. Section 12 is changed to include both the Gn and the Gp interface.
In 33.210 there is distinction between intra and inter network security. Inter-network security is mandatory. Security for Intra-network communication is optional.

- NEC raises concern over interworking between GSNs where there is a mixture of nodes of different generations (pre-release 5 node and release 5 node). This could be dealt with by using O&M to configure the capability of the nodes with which each node has to communicate.
- CN4 can not accept the text in this contribution until cross-phase interworking.

To ensure proper configuration between release 5 nodes that support IPsec and pre-release 5 nodes that does not support Ipsec, Ericsson will add the following clarification in TS 29.060: “When the Gp interface interconnects to pre Rel-5 nodes, operators must configure the nodes in order to achieve secure communication.”

Decision: revised to N4-020473

Document: **N4-020473**
CR: 29.060-316r1
Title: Reference to 3GPP TS 33.210 for protection of GTP
Source: L.M.Ericsson
Discussion: This is the revised version of N4-020379.
Ipsec is not mandatory in pre-release 5 node. Further revision is needed to make it clear that it shall be possible to configure the Rel-5 node to provide reliable unsecured communication.
Ericsson will bring the revised version of the document in the next meeting.

Decision: **postponed to next meeting**

6.5 GPRS

Document: **N4-020435**
Title: Liaison Statement on "Introduction of IPv6 prefix allocation in TS 23.003"
Source: SA2
Discussion: Release 5 CR is presented in the annex of the LS. If the CR is approved, R99 and Rel-4 CRs will be submitted.

Discussion: **noted**

Document: **N4-020453**
CR: 23.003-038, Rel-5
Title: Allocation of unique prefixes to IPv6 terminals
Source: L.M. Ericsson
Discussion: Should we standardise the length of the prefix, or leave it opened for operators decision?

Ericsson: This is SA2 issue and has no impact on approving this CR. In the approved SA2 CR it is stated: "The size of the prefix is according to the maximum prefix length for a global IPv6 address."

Category of the change should A.

CR 23.003-039 in document **N4-020488** is R99 CR. CR 23.003-040 in document **N4-020489** is Rel-4 CR.

Decision: **approved**

Document: **N4-020488**
CR: 23.003-039, R99
Title: Allocation of unique prefixes to IPv6 terminals
Source: L.M. Ericsson
Discussion:

Decision: **approved**

Document: **N4-020489**
CR: 23.003-040, Rel-4
Title: Allocation of unique prefixes to IPv6 terminals
Source: L.M. Ericsson
Discussion:

Decision: **approved**

Document: **N4-020327**
CR: 29.060-310
Title: Support of IPv4 and IPv6 node addresses in Core Network
Source: Lucent
Discussion:

Decision: **postponed to next meeting**

Document: **N4-020329**
CR: 29.060-311
Title: Clarification on create PDP context for existing PDP context
Source: Lucent
Discussion: CR clarifies that if a new Create PDP Context Request is incoming on TEID 0 for an already active PDP context, this Create PDP Context Request must be considered related to a new session. The existing PDP context shall be torn down locally, and the associated PDP contexts deleted locally, before the new session is created. If a new Create PDP Context Request is incoming on a TEID which is different from 0 and this TEID is already allocated to one or more activated PDP contexts, and the NSAPI IE value in this message matches the NSAPI value of an active PDP context, the GGSN shall send back a Create PDP Context Response with a rejection cause code.

It was proposed to delete the last sentence : "It is implementation dependent deciding whether to teardown or keep the existing PDP context."

Vodafone pointed out that even the sentence is deleted, the interpretation of the CR is the same.

Decision: **approved**

Document: **N4-020348**
CR: 29.060-314
Title: Support of IPv4 and IPv6 node addresses in Core Network
Source: Nokia
Discussion:

Decision: **postponed to next meeting**

Document: **N4-020349**
CR: 29.060-315
Title: Partial reset procedure
Source: Nokia

Discussion: A new optional error handling procedure, which rationalizes the release of network resources upon reset condition, is proposed. In order to release the network resources in a controlled manner a new optional procedure, Partial Reset procedure may be used.

Reset Indication message may be sent by a GSN to another GSN to indicate the failed IP interface, which was used by message initiating GSN for receiving/sending the user data or for signalling purpose.

Comments: Pre-release 5 SGSN has to discard the new message.
Reset procedure shall be described in TS 23.007
"In case" shall be replaced by "if"

Decision: **withdrawn**

Document: **N4-020378**
Title: The use of IPv4 and IPv6 in the transport plane
Source: L.M. Ericsson
Discussion: Vodafone D2 proposed to define that pre-release 5 node is capable Ipv4 only.
Alcatel proposal is to leave the possibility to use IPv6 in pre-release 5 node, but note that in that case interworking problems are possible.

Ericsson proposes to send a LS to SA2 with both proposals (Ericsson/Nokia and Lucent proposal) and ask what are the real requirements and whether SA2 could accept to remove Ipv6 capability from an pre-release 5 node. The response will help to CN4 to see how strong is the optionality of having both Ipv6 and Ipv4 in pre-release 5 node.
Ericsson, Vodafone UK, Sonera, Alcatel and Nokia support the proposal to send a LS to SA2.
Ericsson will draft the LS in document N4-020522.

It was agreed that LS should forward the message that CN4 identified some problems with backward compatibility .CN4 discussed 2 proposal and one proposal has as a basis to remove Ipv6 from pre-release 5 node. CN4 will ask SA2 if this is acceptable.

Decision: **noted**

Document: **N4-020522**
Title: Proposed LS to SA2 on the use of IPv6 in a pre-Rel-5 node
Source: CN4
Discussion: CN4 would kindly ask SA2 to clarify the use of IPv6 in pre Rel-5 GSNs. If there is a option that is preferable and if there is a consensus in CN4, it should be mentioned in this LS.
Vodafone D2 proposes that the question to SA2 should be reformulated as CN4 reached agreement that it would be acceptable to eliminate the option of use of Ipv6 in pre-release 5 node.

Decision: **revised to N4-020524.**
N4-020524 is approved

Document: **N4-020380**
CR: 29.060-317
Title: Cause Codes in SGSN Context Acknowledge
Source: L.M. Ericsson
Discussion: 'Forced disconnect of MS' is used when the new SGSN has to disconnect the MS. The old SGSN shall remove all the information about the MS.

- For the cause value 'Forced disconnect of MS' the old SGSN should delete the MM context and PDP contexts for the MS. With the expression "should" optionality is kept. There are views that "should" has to be replaced by "shall"
- New cause code "Forced disconnect of the MS" is introduced only in Context Acknowledge Message.

- Nokia is in favour of different kind of solution. Nokia prefers using “Roaming restriction” cause and will bring the proposal in the next meeting.
- Sonera and Vodafone see this as an important issue that has to be resolved in the next meeting.

CN4 can’t reach the agreement on the CR. The meeting welcomes the discussion paper that would identify the problem.

Decision: **rejected**

Document: **N4-020472**
Title: Liaison Statement on Distribution of IMS charging ID (ICID) from GGSN to SGSN
Source: Orange France
Discussion: SA5 kindly ask CN4 to investigate the possibility for Release 5 to enhance GTP such that the ICID (IMS charging ID) could be passed from the GGSN to the SGSN. SA2 defined only one solution for charging; SA5 recommends now two solutions. One solution is using GPRS charging ID and second is using ICID. SA5 finds that it could be desirable to transfer the ICID to the SGSN so that it can be included in the S-CDR.

This LS was sent to CN4 and SA2. CN4 should not take any action before receiving the response from SA2. Orange France will draft the LS to SA2 and SA5 to inform SA5 that CN4 has noted this LS, but needs further guidance from SA2 on this issue. The mentioned LS will be in document N4-020494

Decision: **noted**

N4-020494 is Liaison statement to SA2 and SA5. CN4 kindly asks SA2 to give the needed instructions to introduce the transport of the ICID in the relevant GTP message on the GGSN-SGSN interface.
Siemens requested to change the question to ask whether there is a requirement for this.

Decision: **revised to N4-020526**
N4-020526 is approved.

Document: **N4-020474**
Title: LS Reply to “IP version interworking on the transport plane”
Source: SA5
Discussion:

Decision: **replaced by N4-020495**
N4-020495 is noted.

6.6 LCS in the PS domain

Document: **N4-020404**
CR: 29.002-421
Title: Codeword and Service Type
Source: Ericsson
Discussion: Stage1 and Stage 2 CRs for the introduction of additional privacy checks based on Codeword and Service Type for a Positioning Request are already approved and this CR, together with the companion CR’s, provides the corresponding Stage 3 modifications. This document adds a Codeword related parameters in SRI-for-LCS and Provide-Subscriber-Location and adds a Service Type related parameters in Provide-Subscriber-Location and Insert-Subscriber-Data.

Currently stage 2 does not satisfy the requirement specified in stage 1. There are too many unanswered question to stabilise stage 3.
Nokia pointed to two changes which would provoke an AC version increase: the new error for the operation SendRoutingInfoFor LCS and the increase in the number of LCS privacy classes.
Ericsson explained that in both cases the entity which receives the enhanced information will be able to work to Release 5. Siemens supports the concern because of the impact on e.g. signal monitoring equipment. Siemens would like to avoid AC version increase by alternative data structure. Siemens asked to postpone the CR until investigation check is done (in this meeting).

Service type class is present if release 5 node indicates that it support it. Otherwise, it should not be sent. New parameters should never be received by pre-release 5 node (We talk about the release of LCS feature that the node support.)

NEC proposal is to include the LCS capability of the serving node in SendRoutingInfoForLCS -Res. GMLC can use it to decide on its internal behaviour.That amendment to the CR was agreed by CN4.

Stage 2 CR is attached. On looking at the stage 2, it seems that we don't need to send the serving node's capabilities in the SendRoutingInfoForLCS -Res.

Decision: **revised to N4-020490**

Document: **N4-020490**
CR: 29.002-421r1
Title: Codeword and Service Type
Source: Ericsson
Discussion: **N**ote on page 10 should be revised in order to cover Release 4 and earlier versions of this TS.
Decision: **revised to N4-020527**
N4-020527 (29.002-421r2) **is approved.**

Document: **N4-020405**
CR: 24.030-013
Title: Codeword and Service Type
Source: Ericsson
Discussion:

Decision: **approved**

Document: **N4-020406**
CR: 24.080-016
Title: Codeword and Service Type
Source: Ericsson
Discussion:

Decision: **approved**

Document: **N4-020452**
CR: 29.002-434
Title: Introduction of the LCS Codeword & ServiceType
Source: Lucent
Discussion:

Decision: **withdrawn**

6.7 Service change and UDI fallback

Document: **N4-020450**
Title: 3GPP TS 23.xyz "Technical Realisation of CS Multimedia Service; UDI/RDI Fallback and Service Modification;Stage 2 (Release 5)
Source: L.M. Ericsson
Discussion: The document is presented just for information in CN4. Related CRs have already been approved in CN3 and CN1.

Decision: **revised to N4-020482**
N4-020482 was noted.

6.8 Global Text Telephony

Document: **N4-020350**
CR: 23.205-024

Title: MSC server GTT enhancement
Source: Nokia, Ericsson
Discussion: For speech calls, the MSC server shall provide the MGW with the speech coding information and conditionally GTT related information in accordance with 3GPP TS 23.226 [26] for the bearer. "Conditionally" means in case the user is requesting GTT.

Decision: **approved**

Document: **N4-020351**
CR: 29.232-030
Title: GTT enhancement on Mc
Source: Nokia,Ericsson
Discussion: Following corrections should be done:
- The text under other comments should be removed.
- Annex F.8 should be F.7
- Annex F.9 should be F.8.

Decision: **revised to N4-020491**

Document: **N4-020491**
CR: 29.232-030r1
Title: GTT enhancement on Mc
Source: Nokia,Ericsson
Discussion:
Decision: **approved without presentation**

Document: **N4-020415**
CR: 29.232-033
Title: CTM Text Transport package
Source: L.M.Ericsson, Nokia
Discussion:

Decision: **revised to N4-020461**

Document: **N4-020461**
CR: 29.232-033r1
Title: CTM Text Transport package
Source: L.M.Ericsson, Nokia
Discussion: Following corrections should be done:
- "threegctm" should be used consistently for package ID
- "Other comments" should be deleted from the cover page

Decision: **revised to N4-020492**

Document: **N4-020492**
CR: 29.232-033r2
Title: CTM Text Transport package
Source: L.M.Ericsson, Nokia
Discussion:

Decision: **approved without presentation**

6.9 Any other business

6.9.1 Iu-Flex

Document: **N4-020347**
CR: 23.003-037
Title: IuFlex support for determining old SGSN during handover/relocation

Source: Nokia
Discussion: Ericsson wants to adjust the text about support of Iu-Flex; it doesn't have to be the whole PLMN which supports it. Ericsson would like to specify as well that the new SGSN has to be able to extract/derive the RAI from the P-TMSI. Nokia accepted to revise the document to include this.

Decision: **revised to N4-020513**
N4-020513 (23.003-037r1) **is approved.**

6.9.2 GERAN Iu mode

Document: **N4-020353**
CR: 23.205-025
Title: Alignment of terminology regarding GERAN access
Source: Siemens
Discussion: Definitions are copied directly from GERAN specification.
Vodafone would like to check the principle of alignment of terminology with the originator of the LS from GERAN that was submitted to Dresden meeting.

Decision: **postponed to next meeting**

Document: **N4-020354**
CR: 23.205-026
Title: Introduction of GERAN Iu-mode
Source: Siemens
Discussion:
Decision: **revised to N4-020500**

Document: **N4-020500**
CR: 23.205-026r1
Title: Introduction of GERAN Iu-mode
Source: Siemens
Discussion: Description in 8.1.2.1 needs to be checked. If there is common understanding in the meeting that there is a PCM connection between two media gateways, Siemens is ready to remove the sentence added in 8.1.2.2.

Detailed GERAN Iu mode is in remit of GERAN (TS 23.051). Siemens is ready to introduce references to TS 48.008 and 25.413 in sections 6.1.1.1, 6.1.1.2 and 6.2.1.2.
Ericsson believes that we can not define the high level description here and wait for stage 3. There are a number of issues that should be stage 2 procedures – when actions should be performed that must be clear in this CR and currently are not.

Decision: **postponed to next meeting**

Document: **N4-020355**
CR: 23.153-031
Title: Introduction of GERAN Iu-mode
Source: Siemens
Discussion:

Decision: **revised to N4-020501**

Document: **N4-020501**
CR: 23.153-031r1
Title: Introduction of GERAN Iu-mode
Source: Siemens
Discussion: Ericssson questioned the proposed procedure for update of codec between GERAN Iu-mode accesses during handover : is this sequence correct – appears to interfere with handover execution.

Decision: **postponed to next meeting**

6.9.3 MMS

Document: **N4-020357**
Title: Complement to the Answer Liaison Statement on MSISDN Address resolution for MMS using MAP operations
Source: Orange France
Discussion: This Liaison Statement is a complement to the LS already sent at the CN4#12 meeting to T2 (N4-020187 – attach to this LS).
If the SendRoutingInfoForSM solution is chosen, the T2 group may specify the handling of the interrogating MMS relay/server if the IMSI address of the recipient subscriber isn't returned (e.g. several interrogations of the HLR if no successful answer given).
Corrections:
At the bottom of the LS it should be stated that no action is required.
Attachment to the LS is missing.
In revised version changes will be marked with revision marks that will be removed before sending to the relevant group.
Decision: **revised to N4-020512.**
N4-020512 is approved without presentation.

6.9.4 Interworking with external networks

Document: **N4-020394**
Title: Framing Protocol Interworking
Source: Ericsson
Discussion:

Decision: **noted**

Document: **N4-020395**
Title: WID: " Interworking Of Circuit Switched User Plane between 3GPP and external PLMN/PSTN/ISDN networks"
Source: L.M.Ericsson
Discussion:

Decision: **revised to N4-020520**
N4-020520 is noted

Document: **N4-020396**
Title: Introduction of Preferred Framing Protocol request in Q.1902.4
Source: L.M.Ericsson
Discussion:

Decision: **noted**

Document: **N4-020397**
Title: Introduction of Preferred Framing Protocol request in Q.765.5
Source: L.M.Ericsson
Discussion:

Decision: **noted**

6.9.5 Tracing

Document: **N4-020423**
Title: "Response Liaison Statement on Trace and Availability of IMSI and IMEI"
Source: GERAN2
Discussion:

Decision: **postponed to next meeting**

Document: **N4-020441**
Title: Response Liaison Statement on Trace and Availability of IMSI and IMEI
Source: SA3
Discussion:

Decision: **postponed to next meeting**

Document: **N4-020448**
Title: Reply to Liaison Statement on Availability of IMSI and IMEI in the BSC
Source: SA5
Discussion:

Decision: **postponed to next meeting**

6.9.6 Numbering & addressing

Document: **N4-020436**
Title: LS on Stage 2 for use of USIMs and ISIMs for IMS
Source: SA2
Discussion: CR to 23.228 was not approved in SA#15. Currently there are no requirements.

Decision: **noted**

6.9.7 Bearer independent architecture

Document: **N4-020391**
Title: CR 29.232-032 (Rel-5) on Update to TFO package to explicitly reference TS 26.103 for 3GPP codecs
Source: Ericsson
Discussion:

Decision: **approved**

6.9.8 Network sharing

Document: N4-020534
Title: WID , Network sharing
Source: Ericsson
Discussion: This document was presented in CN4 meeting just for information. It has been presented in CN1 for approval.
A study of service requirements is needed. If there is a need to discriminate between subscribers of the same HPLMN operator, this will require subscription based restrictions, hence data management issues HLR – serving node. Chairman's view is that if there is a need to discriminate between subscribers of the same HPLMN operator it will not be feasible
Lucent raises concern that the timescale is very ambitious. Ericsson believe that it is possible to complete the work on this WI until June.

Decision: **noted**

7 UMTS Release 4 & Release 99 maintenance

7.1 Location Services

Document: **N4-020319**
CR: 23.018-106(R99)
Title: Consideration of 3G MS State for Procedure Retrieve_Location_Info_VLR
Source: Alcatel
Discussion: Category is marked as "F" and this CR should be agreed by consensus.
Vodafone believes that the functionality that is required will be available with the current definition in R99 and Rel-4. Vodafone oppose this CR, although they will not push strongly to reject it.

Rel-5 CR in document N4-020321 was withdrawn as Vodafone's CR which changes the same SDL has already been approved in the last meeting.

Decision: **rejected**
N4-020320 Rel-4 mirror: 23.018-107 is **rejected.**
N4-020321 Rel-5 mirror: 23.018-108 is **withdrawn**.

Document: **N4-020373**
CR: 29.002-419 (Rel-4)
Title: Clarification of introducing Session related and unrelated class
Source: NTT DoCoMo, NTT Comware
Discussion: This CR renames "call related class" as "call/session related class" and renames both "call unrelated class" and "non-call related class" as "call/session unrelated class".

The category should be F "agreed by consensus". The convention used in MAP (ASN1) is that words are written together and at the beginning of each word capital letters are used (name of components of the data types). In this contribution this rule should be followed, therefore "session" should be written with capital letter.
Changes for capitalisation will not have impact on other ASN1.

- N4-020374 Rel-5 mirror: 29.002-420

Decision: **revised to N4-020498**
N4-020498 (29.002-419r1) **is approved without presentation.**

Document: **N4-020374**
CR: 29.002-420 (Rel-5)
Title: Clarification of introducing Session related and unrelated class
Source: NTT DoCoMo, NTT Comware
Discussion:

Decision: **revised to N4-020499**
N4-020499 (29.002-420r1) **was approved**

Document: **N4-020375**
CR: 23.016-024 (Rel-4)
Title: Clarification of introducing Session related and unrelated class
Source: NTT DoCoMo, NTT Comware
Discussion:

- N4-020376 Rel-5 mirror: 23.016-025

Decision: **approved**
Rel-5 mirror CR 23.016-025 in document **N4-020376 is approved**

Document: **N4-020400**
CR: 29.010-048 (Rel-4)
Title: Mapping BSSMAP-RANAP for request of assistance data
Source: Ericsson
Discussion: Editorial change: "in case of" will be changed to "if".
In section 4.9.4.3 and 4.9.6.2 text refers to wrong figure number.
Decision: **revised to N4-020502**
N4-020502 (29.010-048r1) **is approved.**

Document: **N4-020401**
CR: 29.010-049 (Rel-4)
Title: Abortion of Location Acquisition with RANAP, clarify Event parameter
Source: Ericsson
Discussion:

Decision: **withdrawn**

Document: **N4-020402**
CR: 29.010-050 (R99)
Title: Clarification of mapping for Location Acquisition

Source: Ericsson
Discussion: This CR corrects a number of inconsistencies in sections 4.9.1.x, 4.9.2.x, 4.9.3.x and describe the handling after intra-MSC inter-system handover in non-anchor MSC.

- 4.9.1.4 in third paragraph “received from non-anchor MSC” shall be changed to “received from anchor MSC”
- Editorial change: “in case” will be changed to “if”

Decision: **revised to N4-020503**
N4-020503 (29.010-050r1) **is approved**

Document: **N4-020403**
CR: 29.010-051(Rel-4)
Title: LCS: clarification of mapping for Location Acquisition
Discussion: “In case” will be replaced by “if”. “non-anchor” MSC shall be changed to “anchor MSC” like in document N4-020402.
Decision: **revised to N4-020504**
N4-020504 (29-019-051r1) **is approved**

Document: **N4-020409**
CR: 29.002-424 (Rel-4)
Title: Clarify conditions to trigger restart of MTLR-Deferred procedure
Source: Ericsson
Discussion: Cover sheet needs updating to refer to MSC/SGSN and list clauses affected.

- N4-020410 Rel-5 mirror: 29.002-425

Decision: **approved**

Document: **N4-020410**
CR: 29.002-425 (Rel-5)
Title: Clarify conditions to trigger restart of MTLR-Deferred procedure
Source: Ericsson
Discussion: Cover sheet needs updating to refer to MSC/SGSN and list clauses affected.

Decision: **approved**

Document: **N4-020411**
CR: 29.002-426 (R99)
Title: On error handling if shape not supported by GMLC
Source: Ericsson
Discussion: New reject code could be needed. Postponed for later during the meeting to check what are the current codes available. Error “SystemFailure” will be replaced with “Facility not supported”.

- N4-020412 Rel-4 mirror: 29.002-427
- N4-020413 Rel-5 mirror: 29.002-428

Decision: **revised to N4-020505**
N4-020505 (29.002-426r1) **is approved**

Document: **N4-020412**
CR: 29.002-427 (Rel-4)
Title: CR on error handling if shape not supported by GMLC
Source: Ericsson
Discussion: This is not quite a mirror CR.- Diagnostic in “Facility not supported” will be added (to indicate UnsupportedShape).

On the same basis as for N4-020411, we use the "Facility not supported" error rather than "System Failure". Ericsson is prepared to add a diagnostic for Rel-4 and to add a new TerminationCause for the SubscriberLocationReportArg.
Siemens suggests that we could show the handling to return the “Facility not supported” error in the SDLs which we have in Rel-4. However these SDLs show only the interworking between the MAP provider and the application. Lucent and Vodafone support Ericsson’s view that we shouldn't modify these SDLs.

Decision: **revised to N4-020506**

N4-020506 (29.002- CR 427r1) is **revised** to **N4-020529** in order to remove the "by GMLC" qualification.
N4-020529 (29.002- CR 427r2) is **approved.**

Document: **N4-020413**
CR: 29.002-428 (Rel-5)
Title: CR on error handling if shape not supported by GMLC
Source: Ericsson
Discussion: This is a Rel-5 mirror CR of N4-020506.

Decision: **revised to N4-020507**

N4-020507 (29.002-CR 428r1)**is revised to N4-020530.**
N4-020530 (29.002 - 428r2) **is approved.**

Document: **N4-020414**
CR: 24.080-017 (Rel-4)
Title: Error handling if wrong method requested in LCS-MOLR
Source: Ericsson
Discussion: **"camping in" will be changed to "camped on"**
- N4-020449 Rel-5 mirror: 24.080-018

Decision: **revised to N4-020508**
N4-020508 (24.080-017r1) **is approved without presentation**

Document: **N4-020449**
CR: 24.080-018 (Rel-5)
Title: Error handling if wrong method requested in LCS-MOLR
Source: Ericsson
Discussion: **"camping in" will be changed to "camped on"**

Decision: **revised to N4-020509**
N4-020509 (24.080-018r1) **is approved without presentation**

Document: **N4-020416**
CR: 29.002-429 (Rel-4)
Title: Corrections on the introduction of LCS for PS domain
Source: Siemens
Discussion: To clarify that the LCS procedures between MSC and GMLC are also applicable between SGSN and GMLC, this CR adds: the locationSvcEnquiryContext to the priority table of ACs in the SGSN; the SGSN-GMLC interface to table 6.1/1 and to the ASN.1 section.

NEC requests to change "GMLCnumber" to "MLCnumber".

- N4-020417 Rel-5 mirror: 29.002-430 is **revised to N4-020511**

Decision: **revised to N4-020510**
N4-020510 (29.002-429r1) is **approved.**
N4-020511 (29.002-430r1) is **approved.**

Document: **N4-020419**
CR: 29.002-431 (R99)
Title: Clarification of use of LCS Information and SS Data
Source: Nokia
Discussion: Vodafone proposes that this CR should be agreed by consensus. Nortel and Siemens support Vodafone.
Nokia and Ericsson have opinion that this is an essential correction.
Siemens can not accept the CR: LCS is transported after the ellipsis (data type). If the CR is approved there is no way for the VLR to indicate that it doesn't support LCS.
Ericsson finds that if the CR is not approved we will potentially have overlapping data. What shall be done if overlapping data are received? Siemens: we should indicate error "Unaccepted data value".

Siemens, Vodafone and Nortel can not support approval of this CR.

- N4-020420 Rel-4 mirror: 29.002-432 is **withdrawn**
- N4-020421 Rel-5 mirror: 29.002-433 is **withdrawn**

Decision: **rejected**

7.2 Bearer independent architecture

Document: **N4-020390**
CR: 29.232-031 (Rel-4)
Title: Update to TFO package to explicitly reference TS 26.103 for 3GPP codecs
Source: L.M. Ericsson
Discussion:

Decision: **withdrawn**

Document: **N4-020427**
Title: Mandatory use of Transport Addresses sent by the MSC in a RAB Modification Request
Source: RAN3
Discussion: RAN3 informs CN4 that it came to the following conclusions:

1. the use of these addresses is currently optional since the RNC can decide to keep using the existing bearer even when addresses are provided.
2. the RAB modification works with this current behaviour described today in RANAP, however RAN3 recognized the concern of CN4 that it might not be optimised on the CN side in a few cases when the MSLC functionality is not supported and the CN reserves some resources for a short while that might eventually not be used,
3. the optimisation requested by CN4 introduces however a new behaviour on the RNC side which is not backwards compatible and could only be agreed from release 5 onwards.

Decision: **noted**

Document: **N4-020484**
Title: Reply to LS “Mandatory use of Transport Addresses sent by the MSC in a RAB Modification Request”
Source: RAN3
Discussion: CN4 thanks RAN3 for their LS and also for agreeing to implement the requested changes to RANAP to always modify the Iu bearer in accordance to the Transport Addresses sent by the MSC, for Rel5. The solution however is still a problem for earlier releases and CN4 considers that the handling of the transport addresses by RAN3 in this way is actually a fault and therefore merits essential correction.

CN4 asks RAN3 group to reconsider the agreed CR for application to R99 and Rel4. Also to consider the case where no transport addresses are sent (i.e. MSLC supported) – the RNC should still modify the link characteristics to match those defined by the RAB parameters included in the RANAP message from the MSC.
Nortel and Ericsson find that SA plenary meeting should discuss this issue. Nortel delegate agreed that the problem appeared to be rightly solved in RAN3.
Another approach is to have discussion with RAN3 colleagues in CN4/RAN3 joint meeting.

TSG SA and TSG RAN will be added as destination bodies. Action 1 should remain unchanged.
Action 2: for TSG SA and TSG RAN would be to consider how to proceed if RAN3 can not accept CN4’s request to agree the CR for application to R99 and Rel-4.
There is consensus in CN4 that the problem should be solved with changes to RAN specifications.

Decision: **revised to N4-020517**
N4-020517 is approved.

7.3 Core network security

Document: **N4-020342**
CR: 29.002-411 (R99)
Title: Send Authentication Info
Source: Lucent

Discussion:

- N4-020343 Rel-4 mirror: 29.002-412 is **withdrawn**.
- N4-020344 Rel-5 mirror: 29.002-413 is **withdrawn**.

Decision: **withdrawn**

Document: **N4-020422**
Title: The MAP Dialogue PDU requirements for MAP Security
Source: Nokia
Discussion: This contribution lists some options that Nokia would like to have explicitly defined in the specification.
For Rel-5 there is no initiative to include any protected MAP dialogue portions.
Possibility of inquiring protected MAP dialogue portions will not be defined before the Release 6.

Decision: **noted**

7.4 TrFO

Document: **N4-020446**
Title: Liaison Statement on mandatory support of UMTS AMR2 in dual mode terminals
Source: SA4
Discussion: SA4 informs CN4 about the approved CRs that define the normative requirement for all 3GPP dual-mode terminals for R99 and onwards and for all UTRAN-only terminals for REL-4 and onwards to support the UMTS AMR2 as default speech version in UTRAN.TSG-SA WG4 kindly asks TSG-T and TSG-CN WG4 to consider these CRs for their relevant specifications.

Currently CN4 assumption is that CN4 specifications are already in line with TS 26.103, but delegates are encouraged to check this and initiate the discussion if further work is needed.

Decision: **noted**

7.5 GPRS & GTP enhancements

Document: **N4-020317**
CR: 29.002-397r1 (Rel-4)
Title: Check of NAM and Requesting Node Type on receipt of SendAuthenticationInfo
Source: Alcatel
Discussion: Category “C” is not appropriate for Rel-4 CR.
Ericsson supports the CR, Nokia opposes. For category “C” consensus is needed.
This is mandatory requirement for implementers of HLR to implement this additional functionality. Ericsson proposes that it could be stated that that this is optionally in HLR.

In text supporting the SDL should be added that the HLR may return the error “Unknown Subscriber” if theNetwork Access Mode is set to “non-GPRS only” and if the Requesting Node Type is present and indicates “SGSN”. The error “Unknown Subscriber” is returned in the response.
The same should be clarified if Network Access Mode is set to “GPRS only” and if the Requesting Node Type is present and indicates “VLR”.

- The SDL should show as well that this is an implementation option.
- A companion contribution to TS 29.010 will be provided during the meeting.

Decision: **revised to N4-020516** The cover sheet will show the linked CR on TS 29.010.

Document: **N4-020516**
CR: 29.002-397r2 (Rel-4)
Title: Check of NAM and Requesting Node Type on receipt of SendAuthenticationInfo
Source: Alcatel
Discussion: This CR will be revised to update the SDL properly.

Decision: **Revised to N4-020528. N4-020528 is approved.**

Document: **N4-020318**
CR: 29.002-398r1 (Rel-5)

Title: Check of NAM and Requesting Node Type on receipt of SendAuthenticationInfo
Source: Alcatel
Discussion: Ericsson would like to see this mandatory for Rel-5, Nokia would like to see it optional because of the work to implement it in the HLR. If the general consensus is to have it mandatory, Nokia is ready to accept this.

Decision: **approved**

Document: **N4-020521**
CR: 29.010-052 (Rel-4)
Title: Check of NAM and Requesting Node Type on receipt of SendAuthenticationInfo
Source: Alcatel
Discussion:

Decision: **approved**

Document: **N4-020328**
CR: 29.060-313 (R99)
Title: Correction on handling of S field
Source: Fujitsu
Discussion: According to Fujitsu this CR corrects incorrectly implemented CR. Meeting is asking to indicate the CR number of the approved CR in the cover sheet.

Nokia found the identical CR which was rejected in Brighton meeting. The CR was postponed to find the reference to approved CR that was incorrectly implemented.
Description in “Reason for change” is not accurate. Category of the CR is “F”, to be agreed by consensus. On research, there was not previously agreed CR on this topic. Company that originally opposed this CR in Brighton, can accept it and CR can be approved by consensus.

Decision: **approved**

Document: **N4-020341**
CR: 29.060-312 (R99)
Title: Addition of parameter to Inter-SGSN RAU
Source: Nortel, NEC
Discussion: Vodafone and Lucent support this CR. R97 and R98 will be submitted for the next meeting. Charging requirements should be checked before drafting R97 and R98 CRs. In this case CR#312 will have to have category “A” for presentation to CN#16 plenary meeting.

R98 CR to TS 29.060 is textually different from R99. If we approve R97 and R98, category F should remain. The title will be changed to include the name of the parameter.

Decision: **approved**

7.6 Camel phase 3

7.7 SMS

Document: **N4-020332**
CR: 29.002-409 (Rel-4)
Title: Handling the MNRR flag in the HLR & SMS-GMSC
Source: Vodafone
Discussion: The HLR can store two Mobile Not Reachable Reasons: one for delivery failure via the SGSN, and one for delivery failure via the MSC. These can both be reported to the HLR in the ReportSM-DeliveryStatus message; for proper handling in the SMS-GMSC, they should be carried in the InformServiceCentre as well

SC will adjust retry schedule for SM based on the result of the delivery attempt.
What happens if SM delivery failure happens for both MSC and SGSN?

- If the SMS delivery attempt has tried towards both nodes, does the SMSC has to wait for both nodes in order to send SMS delivery report to the HLR?

- In case the SMS was attempted to be delivered towards the MSC and the SGSN, and both delivery failed with causes described above, the two unsuccessful SMS delivery outcomes for GPRS and non GPRS are sent to the HLR.
- In case the SMS was attempted to be delivered towards the MSC and the SGSN, and the first delivery failed with causes described above and the second delivery succeeded, the unsuccessful and successful SMS delivery outcomes for GPRS and non GPRS are sent to HLR.

SDLs doesn't describe the behaviour for delivery attempt to second choice serving node if delivery attempt to second first serving node fails. This has to be studied and covered in a separate document.

Is it possible in ReportSMdeliveryStatus to indicate both positive and negative result? Investigation is needed.

- N4-020333 Rel-5 mirror: 29.002-410

Decision: approved, Vodafone asked other companies on views on how far back sequence of delivery of SMS via SGSN and MSC should be described.

N4-020518 was withdrawn. This document was meant to be revision of N4-020322, but text in documents 332 and 333 should be acceptable. Vodafone will bring corrective CRs to 29.002 to ensure that SDLs reflect the SMS delivery attempts to two serving nodes correctly.
It should be described how SMSGMSC should behave in order to perform the sequence of delivery attempts.

Document: **N4-020333**
CR: 29.002-410 (Rel-5)
Title: Handling the MNRR flag in the HLR & SMS-GMSC
Source: Vodafone
Discussion:

Decision: approved

N4-020519 is withdrawn. This document was meant to be revision of N4-020333. The reason for withdrawal is the same as for document N4-020518.

7.8 Any other business

7.8.1 Immediate Service Termination

Document: **N4-020372**
Title: Proposed liaison statement to SA & SA3 on Immediate Service Termination
Source: Vodafone
Discussion: The work that is done on non CAMEL IST does not take into account access technology.

Decision: **approved**, will be sent to SA and SA3

7.8.2 Supplementary services: Call Forwarding

Document: **N4-020398**
CR: 23.082-013 (R99)
Title: "Long FTN Supported" to be transferred from VLR to HLR with Restore Data
Source: Ericsson
Discussion:

- **N4-020399** Rel-4 mirror: 23.082-014 is **approved.** There is no Rel-5 version of TS 23.082.

Decision: approved

8 GSM maintenance

8.1 Location services

8.1.1 Supplementary services: Call Forwarding

Document: **N4-020358**
CR: 09.02-A328 (R98)
Title: Correct SCCP addressing from MSC to GMLC
Source: NEC
Discussion:

Decision: **rejected**

Document: **N4-020359**
CR: 29.002-416 (R99)
Title: Correct SCCP addressing from MSC to GMLC
Source: NEC
Discussion:

Decision: **rejected**

Document: **N4-020360**
CR: 29.002-417 (Rel-4)
Title: Correct SCCP addressing from MSC/SGSN to GMLC, from GMLC to SGSN
Source: NEC
Discussion:

- **N4-020361** Rel-5 mirror: 29.002-418 is **withdrawn**

Decision: **withdrawn**

9 AOB

Document: **N4-020462**
Title: 4GPP
Source: Ericsson
Discussion:

Decision: **noted**

9.1 MBMS

Document: **N4-020334**
Title: Proposed WI: MBMS
Source: H3G
Discussion: Nokia has concerns about the ambitious timescale, given the comparative immaturity of the work in SA2. Originator of the WID will consider revising the target date to CN#18.

Decision: **endorsed**

9.2 Presence

Document: **N4-020337**
Title: Presence Service Clarifications needed for work split and scope
Source: H3G
Discussion: Delegates are encouraged to give comments directly to H3G or contribute to forthcoming CN1/SA2 Joint meeting.
Decision: **noted**

9.3 Bearer Independent Architecture and the IMS

Document: **N4-020356**
Title: Adaptation of the Mc Interface specification for the interface between IMS-MGW and MGCF
Source: Siemens
Discussion: Ericsson asked whether Siemens will provide the WI for H.248 based Mc and Mp interface for Rel-6. Siemens will bring the WID for Mc and Mp interface and there will be a new specification for these two new interfaces**.**

The activity that Siemens is presenting is not covered in the Work plan. When the WI is mature, there will be stage 2 work handled in CN3 and stage 3 work in CN4.

Siemens is not aware currently on impacts on Rel-6 architecture.

Will it be acceptable to have new specification for new Mc interface and not to extend the existing specification.
Elena Garcia-Mendive from Ericsson reported that there is ongoing work in ITU-T to extend the H.248 protocol to support the needs of the IM-MGW –MGCF interface. CN4 should base their work on the ongoing work in ITU-T.

Decision: **noted**

10 Update of the Work Plan

- Will be made in CN4#14

11 Future meetings

The following meeting schedule contains modifications regarding the hosts and dates **N4-040457**.

There is a plan to have a CN2/CN4 Joint meeting during CN#14 in Budapest in order to discuss IMS-CAMEL open issues.
ASN1 presentation from France Telecom will be handled in joint meeting as well. It was requested to make this contribution available as early as possible.

Date	Meeting	Venue	Host
13 – 17 May 2002	CN4 #14	Budapest, HUNGARY	Ericsson
5 – 7 June 2002	TSG-CN #16	Marco Island, Florida, USA	Motorola
29 July – 2 August 2002	CN4 #15	Helsinki, FINLAND	Sonera, Nokia, Elisa Communication, Ficora
4 – 6 September 2002	TSG-CN #17	Biarritz, FRANCE	Alcatel
23 – 27 September 2002	CN4 #16	USA west coast, San Diego, USA?	North American Friends of 3GPP
11 – 15 November 2002	CN4 #17	Bangkok, Thailand	Japanese Friends of 3GPP
4 – 6 December 2002	TSG-CN #18	New Orleans, Louisiana, USA	North American Friends of 3GPP

Please note that due to the workload additional Ad Hoc Meetings can be planned on a short notice.

12 Output of CN4#11

12.1 Change Requests

Tdoc#	Title	Source
N4-020318	CR 29.002-398r1 (Rel-5) on Check of NAM and Requesting Node Type on receipt of SendAuthenticationInfo	Alcatel
N4-020328	CR 29.060-313 (R99) on Correction on handling of S field	Fujitsu
N4-020329	CR 29.060-311 (Rel-5) on Clarification on create PDP context for existing PDP context	Lucent technologies
N4-020332	CR 29.002-409 (Rel-4) on Handling the MNRR flag in the HLR & SMS-GMSC	Vodafone
N4-020333	CR 29.002-410 (Rel-5) on Handling the MNRR flag in the HLR & SMS-GMSC	Vodafone
N4-020341	CR 29.060-312 (R99) on Addition of parameter to Inter-SGSN RAU	Nortel Networks, NEC
N4-020350	CR 23.205-024 (Rel-5) on MSC server GTT enhancement	Nokia, L.M. Ericsson
N4-020370	CR 23.008-043 on Correction to TS 23.008	Nokia
N4-020375	CR 23.016-024 (Rel-4) on Clarification of introducing Session related and unrelated class	NTT DoCoMo, NTT Comware
N4-020376	CR 23.016-025 (Rel-5) on Clarification of introducing Session related and unrelated class	NTT DoCoMo, NTT Comware
N4-020391	CR 29.232-032 (Rel-5) on Update to TFO package to explicitly reference TS 26.103 for 3GPP codecs	L.M. Ericsson
N4-020398	CR 23.082-013 (R99) on “Long FTN Supported” to be transferred from VLR to HLR with Restore Data	Ericsson
N4-020399	CR 23.082-014 (Rel-4) on “Long FTN Supported” to be transferred from VLR to HLR with Restore Data	Ericsson
N4-020405	CR 24.030-013 (Rel-5) on LCS: Codeword and Service Type	Ericsson
N4-020406	CR 24.080-016 (Rel-5) on LCS: Codeword and Service Type	Ericsson
N4-020408	CR 29.002-423 (Rel-5) on CAMEL4: Clarification of handling of MT-SMS-TPDU-Type and SMS-TDP	Ericsson
N4-020409	CR 29.002-424 (Rel-4) on LCS: Clarify conditions to trigger restart of MTLR-Deferred procedure	Ericsson
N4-020410	CR 29.002-425 (Rel-5) on LCS: Clarify conditions to trigger restart of MTLR-Deferred procedure	Ericsson
N4-020453	CR 23.003-038 (Rel-5) on Allocation of unique prefixes to IPv6 terminals	Ericsson
N4-020468	CR 29.002-414r1 (Rel-5) on Corrections to the handling of Any Time Interrogation and Provide Subscriber Info	Vodafone
N4-020475	CR 23.008-044 on Correction to the collective CR for T-CSI & VT-CSI	CN2
N4-020476	CR 29.002-435r1 (Rel-5) on Change PS-connected to PS-PDPactive	CN2
N4-020483	CR 29.002-422r1 (Rel-5) on CAMEL4: Triggering of gsmSCF for MT-SMS-CSI	Ericsson
N4-020485	CR 29.002-408r2 (Rel-5) on Transferring the MS classmark & IMEI to the gsmSCF	Vodafone
N4-020488	CR 23.003-039 (R99) on Allocation of unique prefixes to IPv6 terminals	Ericsson
N4-020489	CR 23.003-040 (Rel-4) on Allocation of unique prefixes to IPv6 terminals	Ericsson
N4-020491	CR 29.232-030r1 (Rel-5) on GTT enhancement on Mc	Nokia, L.M. Ericsson
N4-020492	CR 29.232-033r1 (Rel-5) on CTM Text Transport package	L.M. Ericsson and Nokia
N4-020498	CR 29.002-419r1 (Rel-4) on Clarification of introducing Session related and	NTT DoCoMo, NTT

	unrelated class	Comware
N4-020499	CR 29.002-420r1 (Rel-5) on Clarification of introducing Session related and unrelated class	NTT DoCoMo, NTT Comware
N4-020502	CR 29.010-048r1 (Rel-4) on LCS: Mapping BSSMAP-RANAP for request of assistance data	Ericsson
N4-020503	CR 29.010-050r1 (R99) on LCS: clarification of mapping for Location Acquisition	Ericsson
N4-020504	CR 29.010-051r1 (Rel-4) on LCS: clarification of mapping for Location Acquisition	Ericsson
N4-020505	CR 29.002-426r1 (R99) on LCS: on error handling if shape not supported by GMLC	Ericsson
N4-020508	CR 24.080-017r1 (Rel-4) on LCS: Error handling if wrong method requested in LCS-MOLR	Ericsson
N4-020509	CR 24.080-018r1 (Rel-5) on LCS: Error handling if wrong method requested in LCS-MOLR	Ericsson
N4-020510	CR 29.002-429r1 (Rel-4) on Corrections on the introduction of LCS for PS domain	Siemens
N4-020511	CR 29.002-430r1 (Rel-5) on Corrections on the introduction of LCS for PS domain	Siemens
N4-020513	CR 23.003-037r1 (Rel-5) on IuFlex support for determining old SGSN during handover/relocation	Nokia
N4-020521	CR 29.010-052 (Rel-4) on check of NAM and Requesting Node Type on receipt of SendAuthenticationInfo	Alcatel
N4-020525	CR 23.008-041r2 (Rel-5) on Filter Criteria Modifications	H3G
N4-020527	CR 29.002-421r2 (Rel-5) on LCS: Codeword and Service Type	Ericsson
N4-020528	CR 29.002-397r3 (Rel-4) on Check of NAM and Requesting Node Type on receipt of SendAuthenticationInfo	Alcatel
N4-020529	CR 29.002-427r2 (Rel-4) on LCS: on error handling if shape not supported by GMLC	Ericsson
N4-020530	CR 29.002-428r2 (Rel-5) on LCS: on error handling if shape not supported by GMLC	Ericsson

12.2 Liaison Statements

The following Liaison Statements were agreed to be sent by CN4 #13 meeting:

Tdoc	Subject	To	CC	Sent	Original source
N4-020372	Proposed liaison statement to SA & SA3 on Immediate Service Termination	SA, SA3	CN2	15th April	Vodafone
N4-020463	Proposed Liaison statement to T2 (cc SA2) on GUP	T2	SA2	15th April	Ericsson
N4-020466	Proposed Liaison Statement to SA2 on handling of user profile data	SA2		15th April	Nokia
N4-020486	Proposed LS to CN2 on definition of GPRSMSClass	CN2		15th April	Ericsson
N4-020512	Complement to the Liaison Statement response on MSISDN Address resolution for MMS using MAP operations			15th April	Orange France
N4-020517	Draft reply to LS on mandatory use of transport address for RAB modification			15th April	Ericsson
N4-020526	Proposed LS to SA2 & SA5 on Distribution of IMS charging ID (ICID) from GGSN to SGSN			15th April	Orange France
N4-020524	Proposed LS to SA2 on the use of IPv6 in a pre-Rel-5 node			15th April	Ericsson
N4-020532	Proposed LS to SA5 on TS 23.008: organisation of subscriber data			15th April	Vodafone

12.3 WI endorsed by CN4

Tdoc #	Tdoc Title
N4-020477	Support of the CAMEL by the IMS

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Annex B: List of Documents

Tdoc n° 3GPP	List of Documents	Source	Status
N4-020311	Preliminary agenda for CN4 #13	CN4 chairman	revised to N4-020331
N4-020312	Proposed allocation of documents to agenda items	CN4 chairman	revised to N4-020459
N4-020313	List of agreed output documents	CN4 chairman	noted
N4-020314	Summary report from CN #15 & SA #15, South-Korea	CN4 chairman	noted
N4-020315	CN#12 Meeting Report, Sophia	MCC	approved
N4-020316	CN#12bis Meeting Report, Helsinki	MCC	approved
N4-020317	Check of NAM and Requesting Node Type on receipt of SendAuthenticationInfo	Alcatel	revised to N4-020516
N4-020318	Check of NAM and Requesting Node Type on receipt of SendAuthenticationInfo	Alcatel	approved
N4-020319	Consideration of 3G MS State for Procedure Retrieve_Location_Info_VLR	Alcatel	rejected
N4-020320	Consideration of 3G MS State for Procedure Retrieve_Location_Info_VLR	Alcatel	rejected
N4-020321	Consideration of 3G MS State for Procedure Retrieve_Location_Info_VLR	Alcatel	withdrawn
N4-020322	Clarification on CSCF selection data in HSS (29.228)	Alcatel	withdrawn
N4-020323	29.328 IMS Sh Interface, Signalling Flows and Message contents	Lucent Technologies	approved as basis for further work
N4-020324	29.329 Sh Interface based on the Diameter Protocol	Lucent Technologies	noted
N4-020325	Work Item Description for the Support of CAMEL by the IMS	Lucent Technologies	revised to N4-020477
N4-020326	R5 CR29.002 for support of MAP Si interface	Lucent Technologies	revised to N4-020523
N4-020327	Support of IPv4 and IPv6 node addresses in Core Network	Lucent technologies	postponed to next meeting
N4-020328	Correction on handling of S field	Fujitsu	approved
N4-020329	Clarification on create PDP context for existing PDP context	Lucent technologies	approved
N4-020330	Transferring the MS classmark & IMEI to the gsmSCF	Vodafone	revised to N4-020467
N4-020331	Detailed agenda and time plan for CN4 #13	CN4 chairman	revised to N4-020458
N4-020332	Handling the MNRR flag in the HLR & SMS-GMSC	Vodafone	approved
N4-020333	Handling the MNRR flag in the HLR & SMS-GMSC	Vodafone	approved
N4-020334	Proposed WI: MBMS	H3G	endorsed by CN4
N4-020335	Filter Criteria Modifications	H3G	revised to N4-020464
N4-020336	Subscribed Media Format	H3G	rejected
N4-020337	Presence Service Clarifications needed for work split and scope	H3G	noted
N4-020338	Version Control for IMS protocols	Nortel Networks	principle agreed
N4-020339	Inclusion of Version information in User Profile	Nortel Networks	noted
N4-020340	S-CSCF selection options for the operator	Nortel Networks	rejected
N4-020341	Addition of parameter to Inter-SGSN RAU	Nortel Networks, NEC	approved
N4-020342	R99 CR29.002 on Send Authentication Info	Lucent Technologies	withdrawn
N4-020343	R4 CR29.002 on SAI (mirror)	Lucent Technologies	withdrawn
N4-020344	R5 CR29.002 on SAI (mirror)	Lucent Technologies	withdrawn
N4-020345	IMS XML Filter Criteria over Cx interface	Lucent Technologies	withdrawn
N4-020346	Corrections to the handling of Any Time Interrogation and Provide Subscriber Info	Vodafone	revised to N4-020468
N4-020347	IuFlex support for determining old SGSN during handover/relocation	Nokia	revised to N4-020513
N4-020348	Support of IPv4 and IPv6 node addresses in Core Network	Nokia	postponed to next meeting
N4-020349	Partial reset procedure	Nokia	withdrawn
N4-020350	MSC server GTT enhancement	Nokia	approved
N4-020351	GTT enhancement on Mc	Nokia	revised to N4-020491
N4-020352	AMR-WB in UTRAN-GSM interworking	Nokia	withdrawn
N4-020353	Alignment of terminology regarding GERAN access	Siemens	postponed to next meeting
N4-020354	Introduction of GERAN Iu-mode	Siemens	revised to N4-020500
N4-020355	Introduction of GERAN Iu-mode	Siemens	revised to N4-020501
N4-020356	Adaptation of the Mc Interface specification for the interface between IMS-MGW and MGCF	Siemens	noted

N4-020357	Complement to the Liaison Statement response on MSISDN Address resolution for MMS using MAP operations	Orange France	revised to N4-020512
N4-020358	Correct SCCP addressing from MSC to GMLC	NEC	rejected
N4-020359	Correct SCCP addressing from MSC to GMLC	NEC	rejected
N4-020360	Correct SCCP addressing from MSC/SGSN to GMLC, from GMLC to SGSN	NEC	withdrawn
N4-020361	Correct SCCP addressing from MSC/SGSN to GMLC, from GMLC to SGSN	NEC	withdrawn
N4-020362	User Profile description	Nokia	noted
N4-020363	XML Schema of User Profile	Nokia	revised to N4-020460
N4-020364	User profile downloading	Nokia	noted
N4-020365	S-CSCF change	Nokia	approved
N4-020366	S-CSCF name handling in HSS	Nokia	approved
N4-020367	Optimisation of Registration Authorisation	Nokia	approved
N4-020368	Result-Code value DIAMETER_UNABLE_TO_COMPLY for UAA and LIA commands	Nokia	approved
N4-020369	Addresses of Charging Functions	Nokia	approved
N4-020370	Correction to TS 23.008	Nokia	approved
N4-020371	3GPP Diameter Cx Application vs. IETF	Nokia	approved
N4-020372	Proposed liaison statement to SA & SA3 on Immediate Service Termination	Vodafone	approved
N4-020373	Clarfication of introducing Session related and unrelated class	NTT DoCoMo, NTT Comware	revised to N4-020498
N4-020374	Clarfication of introducing Session related and unrelated class	NTT DoCoMo,NTT Comware	revised to N4-020499
N4-020375	Clarfication of introducing Session related and unrelated class	NTT DoCoMo, NTT Comware	approved
N4-020376	Clarfication of introducing Session related and unrelated class	NTT DoCoMo, NTT Comware	approved
N4-020377	AMR-WB enhancements	Nokia	withdrawn
N4-020378	The use of IPv4 and IPv6 in the transport plane	L.M. Ericsson	noted
N4-020379	Reference to 3GPP TS 33.210 for protection of GTP	L.M. Ericsson	revised to N4-020473
N4-020380	Cause Codes in SGSN Context Acknowledge	L.M. Ericsson	rejected
N4-020381	Clarification on User registration status query procedure	L.M. Ericsson	approved after amendment
N4-020382	Clarification on User location query procedures	L.M. Ericsson	approved after amendment
N4-020383	Clarification on Authentication procedure	L.M. Ericsson and Nokia	approved
N4-020384	Clarification on S-CSCF registration/de-registration notification	L.M. Ericsson	approved after amendment
N4-020385	Clarifications on implicit registration	L.M. Ericsson	approved after amendment
N4-020386	Clarifications on Network Initiated Deregistration	L.M. Ericsson	approved after amendment
N4-020387	Clarifications on Update of User Profile	L.M. Ericsson	approved after amendment
N4-020388	Download relevant end user profile	L.M. Ericsson	noted
N4-020389	Updates to the user profile	L.M. Ericsson	Revised to N4-020451
N4-020390	Update to TFO package to explicitly reference TS 26.103 for 3GPP codecs	L.M. Ericsson	Withdrawn
N4-020391	Update to TFO package to explicitly reference TS 26.103 for 3GPP codecs	L.M. Ericsson	approved
N4-020392	Work Required To Complete AMR-WB	L.M. Ericsson	noted
N4-020393	Introduction of AMR-WB	L.M. Ericsson	revised to N4-020487
N4-020394	Framing Protocol Interworking	L.M. Ericsson	noted
N4-020395	WID: " Interworking Of Circuit Switched User Plane between 3GPP and external PLMN/PSTN/ISDN networks"	L.M. Ericsson	revised to N4-020520
N4-020396	Introduction of Preferred Framing Protocol request in Q.1902.4	L.M. Ericsson	noted
N4-020397	Introduction of Preferred Framing Protocol request in Q.765.5	L.M. Ericsson	noted
N4-020398	Long FTN Supported to be transferred from VLR to HLR with Restore Data	Ericsson	approved
N4-020399	Long FTN Supported to be transferred from VLR to HLR with Restore Data	Ericsson	approved
N4-020400	LCS: Mapping BSSMAP-RANAP for request of assistance data	Ericsson	revised to N4-020502
N4-020401	LCS: Abortion of Location Acquisition with RANAP, clarify Event parameter	Ericsson	Withdrawn
N4-020402	LCS: clarification of mapping for Location Acquisition	Ericsson	revised to N4-020503
N4-020403	LCS: clarification of mapping for Location Acquisition	Ericsson	revised to N4-020504

N4-020404	LCS : Codeword and Service Type	Ericsson	revised to N4-020490
N4-020405	LCS : Codeword and Service Type	Ericsson	approved
N4-020406	LCS : Codeword and Service Type	Ericsson	approved
N4-020407	CAMEL4 : Triggering of gsmSCF for MT-SMS-CSI	Ericsson	revised to N4-020483
N4-020408	CAMEL4 : Clarification of handling of MT-SMS-TPDU-Type and SMS-TDP	Ericsson	approved
N4-020409	LCS : Clarify conditions to trigger restart of MTLR-Deferred procedure	Ericsson	approved
N4-020410	LCS : Clarify conditions to trigger restart of MTLR-Deferred procedure	Ericsson	approved
N4-020411	LCS : on error handling if shape not supported by GMLC	Ericsson	revised to N4-020505
N4-020412	LCS : on error handling if shape not supported by GMLC	Ericsson	revised to N4-020506
N4-020413	LCS : on error handling if shape not supported by GMLC	Ericsson	revised to N4-020507
N4-020414	LCS : Error handling if wrong method requested in LCS-MOLR	Ericsson	revised to N4-020508
N4-020415	CTM Text Transport package	L.M. Ericsson and Nokia	revised to N4-020461
N4-020416	Corrections on the introduction of LCS for PS domain	Siemens	revised to N4-020510
N4-020417	Corrections on the introduction of LCS for PS domain	Siemens	revised to N4-020511
N4-020418	Use of COPS protocol in Ze interface	Nokia	principle agreed
N4-020419	Clarification of use of LCS Information and SS Data	Nokia	rejected
N4-020420	Clarification of use of LCS Information and SS Data	Nokia	withdrawn
N4-020421	Clarification of use of LCS Information and SS Data	Nokia	withdrawn
N4-020422	The MAP Dialogue PDU requirements for MAP Security	Nokia	noted
N4-020423	Response Liaison Statement on Trace and Availability of IMSI and IMEI	GERAN 2	postponed to next meeting
N4-020424	Liaison Statement on PSTN/CS domain originated call	CN1	noted
N4-020425	Liaison statement on the definition and usage of Filter Criteria	CN1	noted
N4-020426	Liaison Statement on DTMF	CN1	noted
N4-020427	Mandatory use of Transport Addresses sent by the MSC in a RAB Modification Request	RAN3	noted
N4-020428	Reply to the LS "Liaison Statement on Handover Indication solution"	RAN3	noted
N4-020429	Liaison Statement on Service change and fallback for UDI/RDI multimedia calls	SA1	noted
N4-020430	Liaison Statement on Interworking of AMR-WB with G.722.1	SA1	noted
N4-020431	Response LS on Shared network scenarios considered by TSG-RAN3	SA2	noted
N4-020432	Liaison Statement Reply to "Status of the Generic User Profile Work"	SA2	noted
N4-020433	Liaison Statement Reply to "Comments on UP-010141 and relationship of GUP to Subscription Management"	SA2	noted
N4-020434	Liaison Statement on The Provision of an Inter-GMLC Interface	SA2	noted
N4-020435	Liaison Statement on "Introduction of IPv6 prefix allocation in TS 23.003"	SA2	noted
N4-020436	LS on Stage 2 for use of USIMs and ISIMs for IMS	SA2	noted
N4-020437	LS on S-CSCF change	SA2	noted
N4-020438	LS on adapting to IETF improvements contained in "unified draft"	SA2	noted
N4-020439	Response to email "NP-010710: AMR-WB TSs from SA4"	SA3	noted
N4-020440	Ze interface security	SA3	noted
N4-020441	Reply to N4-020302: Response Liaison Statement on Trace and Availability of IMSI and IMEI	SA3	postponed to next meeting
N4-020442	Reply LS on support for subscriber certificates	SA3	noted
N4-020443	Liaison Statement on coordination of data definitions, identified in GUP development	T2	noted
N4-020444	Response to Liaison Statement on Cx User Profile (N4-020197)	T2	noted
N4-020445	Reply to "Liaison Statement on The addition of the H.324 M codec to TS 26.103"	SA4	noted
N4-020446	Liaison Statement on mandatory support of UMTS AMR2 in dual mode terminals	SA4	noted
N4-020447	LS reply on: Priority Service Feasibility Study - draft TR 22.950 v1.0.0	SA5	noted
N4-020448	Reply to Liaison Statement on Availability of IMSI and IMEI in the BSC	SA5	postponed to next meeting
N4-020449	LCS: Error handling if wrong method requested in LCS-MOLR	Ericsson	revised to N4-020509
N4-020450	3GPP TS 23.xyz "Technical Realisation of CS Multimedia Service; UDI/RDI Fallback and Service Modification; Stage 2 (Release 5)	L.M. Ericsson	revised to N4-020482
N4-020451	Updates to the user profile	L.M. Ericsson	noted
N4-020452	R5 29.002CR Introduction of the LCS Codeword & ServiceType	Lucent Technologies	withdrawn
N4-020453	Allocation of unique prefixes to IPv6 terminals	L.M. Ericsson	approved
N4-020454	Transport of IMS-AKA Material	SA3	noted
N4-020455	Change PS-connected to PS-PDPactive	Alcatel	revised to N4-020476
N4-020456	Splitting of CAMEL phase 4	Alcatel	withdrawn
N4-020457	Future meetings	MCC	noted
N4-020458	Detailed agenda and time plan for CN4 #13 (rev of 331)	CN4 chairman	approved
N4-020459	Proposed allocation of documents to agenda items (rev of 312)	CN4 chairman	approved

N4-020460	XML Schema of User Profile	Nokia	postponed to next meeting
N4-020461	CTM Text Transport package	L.M. Ericsson and Nokia	revised to N4-020492
N4-020462	4GPP	Ericsson	noted
N4-020463	Reply to "Liaison Statement on coordination of data definitions, identified in GUP development"	Ericsson	approved
N4-020464	Filter Criteria Modifications	H3G	revised to N4-020525
N4-020465	LS on Priority Service Feasibility Study TR - draft	SA1	noted
N4-020466	Proposed Liaison Statement to SA2 on handling of user profile data	Nokia	approved
N4-020467	Transferring the MS classmark & IMEI to the gsmSCF	Vodafone	revised to N4-020485
N4-020468	Corrections to the handling of Any Time Interrogation and Provide Subscriber Info	Vodafone	approved
N4-020469	Access security for IP-based services	SA3	noted
N4-020470	CN4#14 Meeting Invitation	Ericsson	noted
N4-020471	29.328 IMS Sh Interface, Signalling Flows and Message contents	Ericsson	revised to N4-020493
N4-020472	Liaison Statement on Distribution of IMS charging ID (ICID) from GGSN to SGSN	SA5	noted
N4-020473	Reference to 3GPP TS 33.210 for protection of GTP	L.M. Ericsson	postponed to next meeting
N4-020474	Reply to ”IP version inter-working on the transport plane” from SA2	SA5	replaced by N4-020495
N4-020475	Correction of the DP criteria table for T-CSI and VT-CSI on the Rel-5	CN2	approved
N4-020476	Change PS-connected to PS-PDPactive	Alcatel	approved
N4-020477	Support of CAMEL by the IMS	CN2	endorsed
N4-020478	Subscriber Information Management in IMS	Siemens	postponed
N4-020479	Si Interface Information Flows	Lucent	postponed
N4-020480	IM-SSF Notification of HSS Update of CSI	Lucent	postponed
N4-020481	Correction of SDLs for CAMEL_IMCN_Register/DeRegister	Lucent	postponed
N4-020482	3GPP TS 23.xyz "Technical Realisation of CS Multimedia Service; UDI/RDI Fallback and Service Modification; Stage 2 (Release 5)	L.M. Ericsson	noted
N4-020483	CAMEL4 : Triggering of gsmSCF for MT-SMS-CSI	Ericsson	approved
N4-020484	Draft reply to LS on "Mandatory use of Transport Addresses sent by the MSC in a RAB Modification Request"	Ericsson	revised to N4-020517
N4-020485	Transferring the MS classmark & IMEI to the gsmSCF	Vodafone	approved
N4-020486	Proposed LS to CN2 on definition of GPRSMSClass	Ericsson	approved
N4-020487	Introduction of AMR-WB	L.M. Ericsson	withdrawn
N4-020488	Allocation of unique prefixes to IPv6 terminals	L.M. Ericsson	approved
N4-020489	Allocation of unique prefixes to IPv6 terminals	L.M. Ericsson	approved
N4-020490	LCS : Codeword and Service Type	Ericsson	revised to N4-020527
N4-020491	GTT enhancement on Mc	Nokia	approved
N4-020492	CTM Text Transport package	L.M. Ericsson and Nokia	approved
N4-020493	29.328 IMS Sh Interface, Signalling Flows and Message contents	Ericsson	postponed
N4-020494	Response to Liaison Statement on Distribution of IMS charging ID (ICID) from GGSN to SGSN	Orange France	revised to N4-020526
N4-020495	Reply to LS on ”IP version inter-working on the transport plane” from SA2 (S2?020291)	SA5	noted
N4-020496	Response to LS (N1-020666) on DTMF	RAN2 (Motorola)	noted
N4-020497	Response to LS (N4-020302) on Trace and Availability of IMSI and IMEI	RAN2 (Siemens)	noted
N4-020498	Clarfication of introducing Session related and unrelated class	NTT DoCoMo, NTT Comware	approved
N4-020499	Clarfication of introducing Session related and unrelated class	NTT DoCoMo,NTT Comware	approved
N4-020500	Introduction of GERAN Iu-mode	Siemens	postponed to next meeting
N4-020501	Introduction of GERAN Iu-mode	Siemens	postponed to next meeting
N4-020502	LCS: Mapping BSSMAP-RANAP for request of assistance data	Ericsson	approved
N4-020503	LCS: clarification of mapping for Location Acquisition	Ericsson	approved
N4-020504	LCS: clarification of mapping for Location Acquisition	Ericsson	approved
N4-020505	LCS : on error handling if shape not supported by GMLC	Ericsson	approved
N4-020506	LCS : on error handling if shape not supported by GMLC	Ericsson	revised to N4-020529
N4-020507	LCS : on error handling if shape not supported by GMLC	Ericsson	revised to N4-020530
N4-020508	LCS : Error handling if wrong method requested in LCS-MOLR	Ericsson	approved
N4-020509	LCS: Error handling if wrong method requested in LCS-MOLR	Ericsson	approved
N4-020510	Corrections on the introduction of LCS for PS domain	Siemens	approved
N4-020511	Corrections on the introduction of LCS for PS domain	Siemens	approved
N4-020512	Complement to the Liaison Statement response on MSISDN Address resolution for MMS using MAP operations	Orange France	approved
N4-020513	IuFlex support for determining old SGSN during handover/relocation	Nokia	approved

N4-020514	TS 29.228 v1.2.0	Rapporteur	approved as a basis for further work
N4-020515	TS 29.229 v 1.2.0	Rapporteur	approved as a basis for further work
N4-020516	Check of NAM and Requesting Node Type on receipt of SendAuthenticationInfo	Alcatel	revised to N4-020528
N4-020517	Draft reply to LS on "Mandatory use of Transport Addresses sent by the MSC in a RAB" Modification Request	Ericsson	approved
N4-020518	Handling the MNRR flag in the HLR & SMS-GMSC	Vodafone	withdrawn
N4-020519	Handling the MNRR flag in the HLR & SMS-GMSC	Vodafone	withdrawn
N4-020520	WID: " Interworking Of Circuit Switched User Plane between 3GPP and external PLMN/PSTN/ISDN networks"	L.M. Ericsson	Noted
N4-020521	Check of NAM and Requesting Node Type on receipt of SendAuthentication	Alcatel	approved
N4-020522	Response to "Reply to LS on ”IP version inter-working on the transport plane” to SA2	Ericsson	revised to N4-020524
N4-020523	R5 CR29.002 for support of MAP Si interface	Lucent Technologies	approved as basis for further work
N4-020524	Response to "Reply to LS on ”IP version inter-working on the transport plane” to SA2	Ericsson	approved
N4-020525	Filter Criteria Modifications	H3G	approved
N4-020526	Response to Liaison Statement on Distribution of IMS charging ID (ICID) from GGSN to SGSN	Orange France	approved
N4-020527	LCS : Codeword and Service Type	Ericsson	approved
N4-020528	Check of NAM and Requesting Node Type on receipt of SendAuthenticationInfo	Alcatel	approved
N4-020529	LCS : on error handling if shape not supported by GMLC	Ericsson	approved
N4-020530	LCS : on error handling if shape not supported by GMLC	Ericsson	approved
N4-020531	Liaison Statement on TS 23.008 Organization of subscriber data	SA5	noted
N4-020532	Reply on "Liaison Statement on TS 23.008 Organization of subscriber data"	CN4	approved
N4-020533	Introduction of AMR-WB	Nokia	postponed
4-020534	Shared networks	Ericsson	noted

Annex C: Make calls for IPRs

The attention of the members of this Technical Specification Group is drawn to the fact **that 3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners to **inform their respective** Organizational Partners **of Essential IPRs they become aware of**.

The members take note that they are hereby invited:

- to investigate in their company whether their company does own IPRs which are, or are likely to become Essential in respect of the work of the Technical Specification Group.
- to notify the Chairman, or the Director-General of their **respective** Organizational Partners, of all potential IPRs that their company may own, by means of the IPR Statement and the Licensing declaration forms.

Annex D: Access to 3GPP documents

This document briefly outlines some of the more important locations of information that all TSG_CN WG4 members should be aware of.

2.2 3GPP email lists:

To receive information about CN4 issues, all delegates and other interested parties MUST register for email list **3GPP_TSG_CN_WG4**. This can be done by sending an email to LISTSERV@LIST.3GPP.ORG with the following single line of text in the body of the message:

`subscribe 3GPP_TSG_CN_WG4 YourFirstName YourLastName`

There are many other 3GPP email lists that may also be of interest. Go to http://www.3gpp.org/e-mail.htm for further information.
If at any time you would like to confirm which lists you are currently a member of, just sent a message to LISTSERV@LIST.3GPP.ORG with the following single line of text in the body of the message:

`QUERY *`

2.3 Email archives:

All 3GPP lists have an associated archive of every email sent via that list. Information on how to access the archive is sent to you when you subscribe to the list. This means that if you have temporary email problems, or have just joined the group, you can check to see if you have missed any messages. The easiest was to search the archive is first to request a list of all messages sent to the particular group you are interested in. For example, to get a list of messages sent via the ***3GPP_TSG_CN_WG4*** list between 1st Jan 1999 and the current date, send the following command to LISTSERV@LIST.3GPP.ORG:

`search * in 3GPP_TSG_CN_WG4 since Jan 1999`

As well as a list of emails sent, you receive instructions about how to retrieve the emails.
Some 3GPP archives are also available via a new user-friendly WWW interface. For CN4, go to:
http://list.3gpp.org/archives/3gpp_tsg_cn_wg4.html

2.4 Meeting calendar:

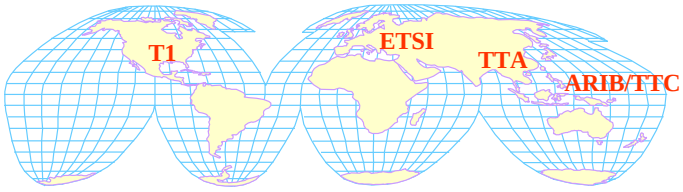
The central location for all information relating to the 3GPP meeting calendar and the corresponding meeting invitations can be found at: http://www.3gpp.org/Meetings.htm

2.5 Documents on the server:

All documents submitted to CN4 meetings will be made available on the 3GPP document server in a directory (related to the number of the meeting) under: ftp://ftp.3gpp.org/TSG_CN/WG4_protocollars/
e.g. the documents for CN4 meeting #4 can be found at:
ftp://ftp.3gpp.org/TSG_CN/WG4_protocollars/tsgN4_04/Docs/

ANNEX E: Document history

Document History	
19th Feb 2002	DRAFT v.1.0.0 dispatched to the TSG_CN4 mail exploder for comments. Comments to be addressed to: **Mrs. Andrijana Jurisic, 3GPP TSG-CN2 MCC Support** MCC - ETSI Secrétariat Tel :+33 (0)4 92 94 43 09 E-mail: andrijana.jurisic@etsi.fr **E-mail comments back by**



Third Generation Partnership Project

Draft Meeting REPORT v2.0.0
3GPP TSG_CN_WG4#14

Budapest, HUNGARY
13th May – 17thMay 2002

L.M. Ericsson

Chairman:	**Mr. Ian Park, Vodafone**
Vice Chairmen:	**Mr. Peter Schmitt, Siemens**
	Mr. Toshiyuki Tamura, NEC
MCC Support:	**Mr. Kimmo Kymalainen, ETSI MCC.**

Table of contents

1 Opening of the meeting & Approval of Agenda

Mr. Ian Park, CN4 chairman, opened the meeting. Additional support was provided by Mr. Kimmo Kymalainen (CN4 Secretary, MCC).

1.1 Make calls for IPRs

The document is included in Annex C.

The agenda was presented and **approved** (N4-020572).

2 Document Allocation

The document allocation (N4-020536) was **approved**

3 Meeting Reports

3.1 Approval of the report of CN4 #13, Fort Lauderdale, USA

The Sophia meeting report CN4#13 (N4-020686) was **approved**. The document was raised to version 3.0.0. and will be uploaded to the server.

4 Liaison Statements

Document: **N4-020560**
Title: Response to "Response Liaison Statement on Trace and Availability of IMSI and IMEI"
Source: GERAN
Presented: Mr. Seppo Kauntola, Nokia
Discussion:

Decision: **Noted**

Document: **N4-020561**
Title: Reply to N4-020302: Response Liaison Statement on Trace and Availability of IMSI and IMEI
Source: SA3
Presented: Mr. Kimmo Kymalainen, MCC
Discussion:

Decision: **Noted**

Document: **N4-020562**
Title: Reply to Liaison Statement on Availability of IMSI and IMEI in the BSC
Source: SA5 SWG-B
Presented: Mr. Seppo Kauntola, Nokia

Discussion:

Decision: **Noted**

Document: **N4-020565**
Title: Reply to Liaison Statement on Availability of IMSI and IMEI in the BSC
Source: GERAN
Presented: Ms. Elena Garcia-Mendive, Nokia
Discussion:

Decision: **Noted**

Document: **N4-020568**
Title: Liaison Statement on exchange of addresses on Iu-CS using IP Transport Option in Rel-5
Source: RAN3
Presented: Dr. Daniel Warren, Nortel Networks
Discussion:

Decision: **Noted**

Document: **N4-020673**
Title: Liaison Statement on exchange of addresses on Iu-CS using IP Transport Option in Rel-5
Source: Siemens
Presented: Mr.Peter Schmitt
Discussion:

- Lucent proposed a change in the summary part: The solution should be something like the solution 2.
    - Siemens has got the information from RAN3 that clarification is needed.
- Nokia has a different view:
    - Solution1 does not break the architectural principles of 29.232 and 23.205. The Mc interface signalling already has awareness of the bearer technology on the interface between MGW and other peer entities.
    - Solution 2 would require a new protocol(IP – ALCAP) for the MGW
        - Ericsson doesn't agree with Nokia's opinion about solution 2
        - Ericsson asks for the reasoning for the statement that our architecture is bearer dependent
            - Nokia: The bearer addresses for the Nb interface can be tunnelled through the MSC server "Mc – Nc – Mc".
            - Ericsson: we don't tunnel user plane addresses, we transport bearer control addresses.
            - Siemens: The protocol which we use to transport the bearer control addresses is transparently transported through the MSC servers.
- **Summary of LS will be**: Solution 2 was identified as the solution with the minimum undesirable impacts on the CN4 specifications. We did not make any other assessment of the relative technical merits of the three solutions.

Decision: **Revised to N4-020690**

Document: **N4-020690**
Title: Liaison Statement on exchange of addresses on Iu-CS using IP Transport Option in Rel-5
Source: Siemens
Presented:
Discussion:

Decision: **Approved**

Document: **N4-020662**
Title: LS on Presence Service
Source: SA2
Presented: Mr. Seppo Kauntola, Nokia
Discussion: Companies are encouraged to review offline the report attached to this LS.

Decision: **Noted**

Document: **N4-020664**
Title: Liaison Statement on GUP work progress
Source: SA2
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion: Companies are encouraged to review offline the documents attached to this LS.

Decision: **Noted**

Document: **N4-020665**
Title: Liaison statement response on “Distribution of IMS charging ID (ICID) from GGSN to SGSN”
Source: SA2
Presented: Mr. Peter Schmitt, Siemens
Discussion:

Decision: **Noted**

Document: **N4-020680**
Title: **Reply on** Liaison Statement on PSTN/CS domain originated call
Source: SA2
Presented: Mr. Francois Dronne, Orange France
Discussion:

Decision:

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5 Work Item Management

6 Release 5

6.1 Subscriber data handling for the IMS

Document: **N4-020668**
Title: Response LS to handling of user profile data
Source: Nokia
Presented: Mr. Jaakko Rajaniemi, Nokia
Discussion:

Decision: **Noted**

Document: **N4-020676**
Title: User Profile downloading
Source: Nokia, Ericsson
Presented: Mr. Jaakko Rajaniemi, Nokia
Discussion:

- Vodafone: In table 6.1.2.2 undo replacement "or" to "and".
- Ericsson: In 6.6.1 we need to make clear that the condition is that the HSS has **accepted** the request with Server-Assignment-Type AVP values in the previous Server-Assignment-Request related to the public identity: USER_DEREGISTRATION_STORE_SERVER_NAME or TIMEOUT_DEREGISTRATION_STORE_SERVER_NAME
    - Nokia: We should also apply the condition of acceptance of the request for UNREGISTERED_USER.
        - Ericsson disagree with Nokia
        - Nokia believes these 3 values are correct ones.
        - Chairman: Off-line discussion is needed between Nokia and Ericsson. After offline discussion, Nokia agree to omit the reference to the unregistered user.
- Vodafone: Editorial corrections are needed.
- Siemens: At the end of 6.6.1 first paragraph. Could this happen that the user data has been changed after the last profile download or is this an exceptional case?
    - Nokia: Probability of that is a small but it can happen.
    - Siemens: It means that we need to store in the HSS an indication of whether the information in the S-CSCF is up to date.
- CN4 accepted that HSS does need to have a means of knowing whether the S-CSCF has up-to-date data, but we shouldn't specify the means.
- Siemens propose that we could use the same approach for this as we do for the Supercharger in MAP: the S-CSCF indicates in the request whether it wants the

complete profile, the unregistered part of the profile, the registered part of the profile or nothing at all; they offer to provide a contribution to describe the approach.
    - Ericsson want to study the impact on other chapters in 29.228 & 29.229.

Decision: **Revised to N4-020695**

Document: **N4-020695**
Title: User Profile downloading
Source: Nokia, Ericsson
Presented: Mr. Jaakko Rajaniemi, Nokia
Discussion:

- In section 6.6.3, we use the "shall" form for pushing the data to the S-CSCF.
- Proposed changes will be added in 3GPP TS 29.228

Decision: **Approved**

Document: **N4-020691**
Title: An alternative approach for user profile downloading
Source: Siemens
Discussion:

- Proposes to indicate which of 4 possibilities for user profile data download applies.
    - Nokia: Therefore the download type has to be mandatory.

Decision: **Noted**

Document: **N4-020595**
Title: Re-use of Diameter Base Protocol Application Negotiation Procedures for Version Control of IMS protocols
Source: Nortel Networks
Presented: Dr. Daniel Warren, Nortel
Discussion:

Decision: **Noted**

Document: **N4-020596**
Title: Options for Version Control on Commands in IMS
Source: Nortel Networks
Presented: Dr. Daniel Warren, Nortel
Discussion:

- Nokia: Why do we need to have a version negotiation mechanism for each command if we have already carried out the version control by the exchange of capabilities? The number of applications we would need would grow drastically – either we would need one application per command or we would need one application for each combination of versions of the whole command set, which is even worse.

Decision: **Withdrawn**

Document: **N4-020610**
Title: Extensibility and Compatibility in 29.229
Source: Siemens
Presented: Mr. Ulrich Wiehe, Siemens
Discussion:

- Siemens clarifies that they deliberately omitted the requirement to use the highest mutually acceptable version of the protocol. This is because successive versions of (e.g.) the Cx interface protocol are not necessarily supersets of earlier versions.
    - Nortel: We could still retain version 1 and then use the "minor" version to indicate additional capabilities.
    - Orange France: If the relationship is established by using version 2 it is not possible to drop back to a lower version.
- Nortel is prepared to accept that we don't use the highest mutually acceptable version, but it is essential that when an entity declares support for version 2 it supports everything defined in that version of the protocol.

- Siemens indicates that they withdraw the proposal in here for message-level version control in favour of the approach described in N4-040675.
    - Material from this document will be incorporated into N4-020692.

Decision: **Noted**

Document: **N4-020627**
Title: Service Profile ID
Source: Nokia
Presented: Mr. Jaakko Rajaniemi, Nokia
Discussion:

- Proposes a service profile ID to be attached to each service profile.
    - Ericsson: Why do we need this added now?
    - Nokia believes it is something which will be useful in the future.
    - Ericsson believe that it could be added in future without grief.
    - Nokia add a possible use for the identifier now:
        - Easier subscription management, by downloading a specific profile when it's been updated (though this functionality is not defined for Release 5). On how we incorporate the parameter in future: the UML and the XML schema would be updated, and we upgrade the version of the command.
        - Nokia believe that the S-CSCF won't be aware of the updated XML schema.
- mmO2: How does the S-CSCF distinguish between the several instances of the service profile in the IMS subscription?
    - Ericsson: It doesn't need to.

Decision: **Rejected**

Document: **N4-020628**
Title: Format of charging function addresses
Source: Nokia
Presented: Mr. Jaakko Rajaniemi, Nokia
Discussion:

Decision: **Approved**

Document: **N4-020629**
CR: CR 23.008-048
Title: The charging function address format
Source: Nokia
Presented: Mr. Jaakko Rajaniemi, Nokia
Discussion:

- Vodafone: Should 23.008 be specifying the **format** of data stored in location registers or similar entities?
    - Nokia proposed to replace the direct definitions with pointers to 29.229.
        - Accepted by meeting

Decision: **Revised to N4-020693**

Document: **N4-020693**
CR: CR 23.008-048r1
Title: The charging function address format
Source: Nokia
Presented: Mr. Jaakko Rajaniemi, Nokia
Discussion:

Decision: **Agreed without presentation**

Document: **N4-020653**
Title: Mapping rules from UML to GUP DDF
Source: Nokia
Presented: Mr. Jaakko Rajaniemi, Nokia

Discussion:

- Siemens: There is no rule for translating the CHOICE construct via the GUP DDF into an XML schema.
    - Ericsson: In the longer term, when the GUP group defines the CHOICE construct in their DDF, we will update our procedure definitions to reflect the removal of the manual processing.
- Nokia: The material should put in a normative annex, with the reference to the file where the XML schema is defined.

Decision: **Revised to N4-020694**

Document: **N4-020694**
Title: Mapping rules from UML to GUP DDF
Source: Nokia
Presented: Mr. Jaakko Rajaniemi, Nokia
Discussion:

Decision: **Withdrawn**

Document: **N4-020675**
Title: Version control
Source: Nokia
Presented: Mr. Jaakko Rajaniemi, Nokia
Discussion:

- Nokia will produce a revision to show how the structure of application version plus AVPs for individual command enhancements can be used.

Decision: **Revised to N4-020692**

Document: **N4-020692**
Title: Version control
Source: Nokia
Presented: Mr. Jaakko Rajaniemi, Nokia
Discussion:

- Nortel: How do we deal with the situation where there are 2 or more supplements to the basic version of the protocol.
    - After discussion the conclusion was: The most effective method is for the CER to include all the versions which the requester supports; the CEA should then include all the versions which the responder supports.
- Nortel can accept the text in N4-020692. They proposed a CR to enhance it for the next meeting.
- Siemens propose an enhancement to indicate that the version negotiation mechanism is FFS.
    - Vodafone proposed to deal with this on the specification submission cover sheet.
        - Accepted by Siemens

Decision: **Approved**

Document: **N4-020589**
Title: Version negotiation
Source: Ericsson
Presented:
Discussion:

Decision: **Withdrawn**

Document: **N4-020597**
Title: Proposed LS on Version Control in GUP
Source: Nortel Networks
Presented: Dr. Daniel Warren
Discussion:

- Concerns over the use of the tern "version number".

- Vodafone: We should wait until later in the week to draft an LS to the GUP group to say "Here's what we've done for version control – please consider it".
  - Agreed by meeting

Decision: **Withdrawn**

6.1.1 HSS – CSCF (Cx) interface

Document: **N4-020566**
Title: Liaison Statement on IMS Access with a R99/REL-4 USIM
Source: CN1
Presented: Mr. Ian Park, Vodafone
Discussion:

- Proposed treatment: to be noted as background information for N4-020545 & N4-020546

Decision: **Noted**

Document: **N4-020667**
Title: IMS Identities for Rel 99/R4 UICC
Source: SA2
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- Proposed treatment: to be noted as background information for N4-020545 & N4-020546

Decision: **Noted**

Document: **N4-020545**
CR: Support of pre-Release 5 USIM for IMS – coding based on IMSI
Title: CR 23.003-041 (Rel-5)
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- CR is for information.

Decision: **Noted**

Document: **N4-020546**
Title: Support of pre-Release 5 USIM for IMS – Barring indication of public identities
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- Editorial tweaks to text under the figure.
  - Add the type (enumerated) of "Barring indication" in the UML figure. As a consequence of this, we need to define the semantic in annex C of the two possible values of the enumerated type for Barring indication.
- Orange France: We should define the possibility of separate barring of MO & MT.
  - Ericsson: We have no requirement for independent barring of MO & MT.
    - Nokia support Ericsson's view
- Lucent: We should define the barring indication to have a default "false" value, to save signalling bandwidth.
  - Agreed on the condition that Lucent (or someone) can provide the exact notation to be used in the XML schema. This will mean a change to the .xsd file in the zip.

Decision: **Approved**

Document: **N4-020547**
Title: HSS initiated update of user profile
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- Lucent raise concern over the phrase "not understood or supported" – this may interpreted as a failure to decode the syntax.
    - Siemens refer back to discussion earlier, where we decided that the capability exchange requires an entity to declare support for the whole version. However the declaration of support for a given version of the protocol is different from support for all the functions denoted by the elements of the protocol.
- Lucent: "not understood or supported" to be expanded to "not semantically understood or not functionally supported".
    - Accepted by meeting
- Orange France: What will the HSS do if it receives an indication of lack of support.
    - Vodafone: It's up to the HSS operator.
- Siemens: We should make more use of the Diameter protocol error handling to echo the part which is syntactically correct but out of the permitted value range.
    - Orange France are not sure about whether the receiving entity should decode the XML as part of the syntax checks.
- Siemens: The capability exchange should include the indication of functional support as well as protocol support. We have to define carefully which parts of the user data can be echoed to indicate lack of support.
- Siemens: If the S-CSCF uses pull to retrieve user data, there's no possibility to indicate lack of support of user data; this points to using the capability exchange mechanism.
    - Orange France: We could put in the mechanism to report unsupported data until we decide that the capability exchange makes it unnecessary.
    - Nokia: The echo unsupported data mechanism will always be useful as the protocol (& functional support) evolve.
        - Siemens: It is straightforward to indicate support for additional capabilities in the capability exchange mechanism; the echo of unsupported data deals only with user data push. Further, will we have the situation in Rel-5 where an S-CSCF doesn't support all the features which are currently defined?
        - Nokia: When the S-CSCF uses pull for user data, it has already been selected by the HSS as having the necessary capabilities; for the push case, the HSS may have changed the required capability set, so the probability of needing to indicate unsupported data will be higher.
        - Ericsson: The capability exchange mechanism should provide what we need;
            - Nokia: The capability exchange mechanism doesn't cope properly with subscription update.
- Siemens: If the HSS decides to deregister the user from the S-CSCF because of lack of support, it will try another S-CSCF and find that doesn't support, then try another.
    - Nokia: The capability exchange mechanism can be used when the HSS selects the new S-CSCF.
    - Orange France: We already have a procedure to handle a fresh registration. They also want to know whether the mechanism which the I-CSCF to select the S-CSCF will have enough granularity to deal with (lack of) support for individual services.
- Vodafone: We limit the echo procedure to dealing with lack of functional support.
    - Lucent: With the right protocol design we can have a one-to-one binding between protocol level support (i.e. understanding the information element required for a feature) and functional support for the feature.
        - Nokia would prefer not to have this binding.
- After working through the way in which the S-CSCF handles user data from the HSS, we concluded that the principle of using echo to denote lack of support at the application level is acceptable.
    - Siemens: How do we populate the parameter which we echo, and what granularity do we use for the lack of support? This will need further design work; it may be impractical to do it before CN #16.

Decision: **Principle agreed**

Document: **N4-020548**
Title: 3GPP TS 29.228 v1.2.1
Source: Editor
Presented: Mr. Miguel-Angel Pallares, Ericsson

Discussion:

Decision: **Accepted as the basis for further development**

Document: **N4-020763**
Title: 3GPP TS 29.228 v1.3.0
Source: Editor
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- The document will be raised to version 2.0.0 and sent to CN plenary for approval.

Decision: **Approved**

Document: **N4-020681**
Title: 3GPP TS 29.229 v1.2.1
Source: Editor
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- Editor's notes should be removed
- Mandatory status of parameters needs to be checked
- "V" should be explained as "vendor-specific"

Decision: **Accepted as the basis for further development**

Document: **N4-020764**
Title: 3GPP TS 29.229 v1.2.1
Source: Editor
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- The document will be raised to version 2.0.0 and sent to CN plenary for approval.

Decision: **Approved**

Document: **N4-020550**
Title: Draft LS on 3GPP specific Diameter applications
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- Chairman: More formal approach is needed. The MCC should manage the name space within the 3GPP vendor specific application.
- Nokia: We should wait until we have discussed Sh interface before we conclude on this LS.

Decision: **Revised to N4-020700**

Document: **N4-020700**
Title: Draft LS on 3GPP specific Diameter applications
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- Lucent: SA5 are doing work which is based on Diameter protocols, so we should strike out the last sentence of the third paragraph and replace it with an indication that we know SA5 is doing such work.
- CN4 should send this LS for action to SA5 and SA.
- Action to SA5 is to take note of the need to manage the 3GPP vendor-specific namespace in Diameter; SA to tell us whether there are any other groups which are using the 3GPP vendor-specific namespace in Diameter.
- We will clarify that we are developing **authentication** applications, which are not likely to clash with SA5's work on accounting.

Decision: **Revised to N4-020732**

Document: **N4-020732**
Title: LS on 3GPP specific Diameter applications
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

Decision: **Agreed**

Document: **N4-020682**
Title: XML schema: documentation
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- Lucent: 25 filter criteria per service profile is too low.
- Nokia: It's better to ask SA1 & SA2 if the working assumption CN4 have taken on these upper bounds is acceptable and if there is any limit on the length of a public identity. We should also consider the length of a public identity. They propose a bound of 256 octets (=256 characters).
- mmO2: How do we reconcile the limit of 10 public IDs with 25 service profiles? The number of public identities should be >= the number of service profiles.
- Ericsson: We should set all four of the upper bounds to 10.
    - CN4 meeting decided: We move to suggesting 20 public IDs, 20 service profiles, 10 initial filter criteria per service profile and 25 SPIs and groups per initial filter criterion (note change of name from "trigger" to "initial filter criterion").
- The specification guarantees that every S-CSCF will support at least <upper bound> service profiles per user &c.
    - Siemens: A higher upper bound could be used by indicating the S-CSCF capability in the server capability IE. The I-CSCF can then use this to select an S-CSCF with the higher capacity.

Decision: **Approved**

Document: **N4-020733**
Title: Proposed LS to SA1 & SA2 on dimensioning for IMS services
Source: AT&T Wireless
Presented: Mr. Jerome Privat, AT&T
Discussion:

- Revised to clarify the nature of guaranteed upper bounds.

Decision: **revised to N4-020765**

Document: **N4-020765**
Title: Proposed LS to SA1 & SA2 on dimensioning for IMS services
Source: AT&T Wireless
Presented:
Discussion:

Decision: **Agreed without presentation**

Document: **N4-020552**
Title: XML schema: Filter-Id
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- Nokia: What is the purpose to remove the filter ID?
    - Ericsson: It lacks uniqueness and serves no useful purpose.
    - Nokia challenges the lack of uniqueness.
        - Ericsson: We have a different view.
            - Siemens supports Ericsson
            - Alcatel and Lucent support Nokia
- Nokia: It's possible to use the filter identifier for selective filter criteria.
    - Chairman: Do we have a service requirement from stage 2?
        - Nokia: No, we don't have.

- Chairman: We remove the filter ID

Decision: **Approved**

Document: **N4-020593**
Title: Clarification of Server Capability AVPs
Source: Nortel Networks
Presented: Dr. Daniel Warren
Discussion:

- In chapter 6.3.5 and 6.3.6 "should" is replaced by "shall"
- Range of values to be removed.

Decision: **Approved**

Document: **N4-020594**
Title: S-CSCF Selection Mechanisms
Source: Nortel Networks
Presented: Dr. Daniel Warren, Nortel
Discussion:

- The added text in section 6.1.1.2 is withdrawn
- Ericsson: Additional text in section 6.1.1.3 is in a wrong chapter.
- Ericsson: The additional text is too restrictive.
- The meeting agreed to put the section procedure (deleted from section 7.5) in a new procedure selection subclause 6.6.
- Orange France: How do we handle the case where the HSS specifies both a list of capabilities and a list of S-CSCFs.

Decision: **Revised to N4-020725**

Document: **N4-020725**
Title: S-CSCF Selection Mechanisms
Source: Nortel Networks
Presented: Dr. Daniel Warren, Nortel
Discussion:

- MmO2: If we allow an I-CSCF to select an S-CSCF which doesn't support all the mandatory capabilities we could (for instance) allow free service to a prepayment customer.
    - Ericsson: The text in 24.229 already anticipates that if the I-CSCF can't find an S-CSCF which supports all the mandatory capabilities then the session set up will fail.
    - We therefore agreed to strike out the possibility of selecting an S-CSCF which doesn't support all the mandatory capabilities.

Decision: **Approved as amended**

Document: **N4-020674**
Title: Extension of the XML Schema of Subscriber Profile in Cx
Source: Nokia
Presented: Mr. Jaakko Rajaniemi, Nokia
Discussion:

- CN4 meeting accepted that the XML schema definition which is part of the package for 29.228 will be updated according to the principle in section 3 of this document.

Decision: **Approved**

6.1.2 SLF - CSCF (Dx) interface

Document: **N4-020683**
Title: User identity to HSS resolution - Coding of private identity
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

Decision: **Withdrawn**

6.1.3 Sh-interface

Document: **N4-020575**
Title: 29.328 IMS Sh Interface, Signalling Flows and Message contents
Source: Lucent Technologies
Presented: Mr. Nigel Berry, Lucent
Discussion:

Decision: **Approved as the basis for further development**

Document: **N4-020768**
Title: 29.328 IMS Sh Interface, Signalling Flows and Message contents
Source: Lucent Technologies
Presented: Mr. Nigel Berry, Lucent
Discussion:

- Version 2.0.0 approved 24th May 12:00 CET by e-mail.
    - Will be sent to CN#16 for approval

Decision: **Approved**

Document: **N4-020555**
Title: Data addressing on Sh interface
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- Ericsson: an alternative key could be the application server identity.
- Nokia: The application server ID is buried deep in the filter criteria. We could have an independent filter criterion identifier.
- Ericsson: The HSS already has the Diameter address of the AS for routeing purposes; we could use this as the filter criterion identifier, in addition to the other components of the address.
    - Accepted by meeting
- Nokia wants to see split of the last row in the table to separate the data repository function from the filter criteria.
    - Agreed by meeting

Decision: **Approved**

Document: **N4-020556**
Title: TS 29.328: Definitions and general architecture
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- Ericsson: The definitions for "transparent data" and "non-transparent data" are not used in this contribution, but will be introduced in other contributions.
- Orange France: In the "Scope" clause, "AS" should be "SIP AS"
- Meeting decided: The scope should apply to the interfaces between HSS and SIP AS and between HSS and OSA SCS. We need to define a term to denote either SIP AS or OSA SCS
    - Lucent made a proposal to use "Sh AS"
    - MMO2 opinion was to use just "AS"
        - Meeting agreed with MMO2
- The sentence to be added to section 3.1: Application Server; a term used to denote either of a SIP Application Server or on OSA Service Capability Server
- N4-020556bis corrected version was transferred to the meeting server.

Decision: **Approved as amended**

Document: **N4-020684**
Title: Commands supported on Sh interface

Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- Ericsson: The references to "Service indication" in several tables will be replaced by a different term.
    - Ericsson will revise the document.
- Nokia: we should have a separate applications for data repository data and non-transparent data.
    - Ericsson: To use of a single application gives more flexibility to the AS.
    - Nokia has a different opinion. For instance versions of the two applications can evolve independently. The two types of data could be stored in different nodes.
    - Ericsson: The use of separate nodes violates the architectural principle that the HSS is a master database.
        - Lucent and Vodafone support Ericsson view.
    - Ericsson: Transparent data and non-transparent data are clearly separated in the protocol.
        - There was no support for Nokia's approach. Meeting decided to use a common application.
- Chapter 6.1.2; Lucent: There are some misalignments with document N4-020558
    - Ericsson: The expansion of the UML leads to the same set of data as shown in the tables in N4-020684.
    - The last row in table 6.1.2.2 is deleted.
- Chapter 7.2;
    - Ericsson: We support Diameter based protocol to avoid the need for a MAP stack on the application server.
    - Nokia: We support to use MAP to maintain independence of the access technology as GSM/UMTS PS or 3GPP2 PS.
        - MMO2: As on operator we already use MAP and we favour the use of MAP.
        - AT&T Wireless support Ericsson proposal for the use of Diameter based protocol to avoid the need for a MAP stack on an application server.
- Motorola: The details of the data transferred in the Sh-Pull are very specific for GSM/GPRS mobility management. Motorola wants to know what data is needed in the location information.
    - Ericsson: The requirements are in 23.228
- Nokia: The message flow diagram in annex B belongs to SA2 document
    - Lucent: Message flow diagram is in informative annex and it belongs this document.
        - Agreed to keep it in 29.328
    - Nokia offered to draft an LS to SA2 about message flow diagram: N4-020728

Decision: **Revised to N4-02034**

Document: **N4-0207**
Title: Commands supported on Sh interface
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

- Orange France is surprised at the removal of the subscriber state. It is useful.
    - Ericsson: The mobility management models of 3GPP and 3GPP2 are so different that we would have difficulty in abstracting the subscriber state from the specific mobility management information.
- Nokia favours the transfer of subscriber state information, using the MAP interface.
- Nokia: the Presence services make use of subscriber state information.
- MmO2: If we accept the possibility of a MAP interface between the AS and the HSS then we don't need to transfer the location information and subscriber state over the Diameter-based protocol. Whether there is a MAP interface mandated for the AS-HSS is for debate in SA2.
    - MmO2 supports the inclusion of location information in the Diameter based protocol.
- Dynamicsoft: It is SA2 who should decide whether to mandate the support of the MAP interface between the AS and the HSS.

- Nokia: If we use a MAP interface between the AS and the HSS then we can use it to transfer information which can be carried in the ATI messages.
- On the issue of whether we mandate the support of MAP on the interface between HS and AS:
    - Dynamicsoft believes that we shouldn't.
- Meeting conclusion: The Diameter protocol should be specified to carry:
    - Location information in the form of geodetic or geographic information
    - Age of location information
    - Subscriber state (the exact nature of the state information is FFS).
- For information specific to a particular MM model we would have to revert to a MAP or similar protocol between AS and HSS.
- Nokia doesn't agree with this approach.
    - Nokia will also consider whether they want to raise concerns at CN plenary.

Decision: **Revised to N4-020735**

Document: **N4-020735**
Title: Commands supported on Sh interface
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares, Ericsson
Discussion:

Decision: **Approved**

Document: **N4-020677**
Title: Sh interface addressing and protocols
Source: Nokia
Presented: Mr. Jaakko Rajaniemi, Nokia
Discussion:

- This proposes to rely on a MAP interface between AS and HSS to transfer information using the existing ATI command. See the discussion on N4-020684 & N4-020734
- Also proposes to use different addressing for transparent data & non-transparent data:
    - public identity for non-transparent data
    - a special address for the transparent data.
- Ericsson: This could mean storage of data for a single user in two different nodes.
    - Ericsson opposes the principle.
    - Lucent supports the principle that the HSS should be logically a single node for each user.
- AT&T Wireless asks for clarification of how the use of a single address prevents storage of data in different nodes?
    - Nokia: The Diameter routeing principles point messages for a single user address in a single application to a single node. We should be looking for modularity of design.

Decision: **Rejected**

Document: **N4-020728**
Title: Proposed LS to SA2 & CN1 on Sh interface signalling
Source: Nokia
Presented: Mr. Seppo Kauntola, Nokia
Discussion:

- mmO2, Ericsson, AT&T, Lucent: There are no reasons to send an LS to SA2.
- Siemens: CN1 have not considered the Sh interface at all.
    - Lucent: There is still an interaction with 23.218, which is in CN1's responsibility.
- From several delegations, the view was we should keep SA2 out of it, because they have delegated the stage 2 (23.218) to CN1.
    - Nokia want their reservations about not sending the LS to SA2 recorded in the meeting report.

Decision: **Revised N4-020767**

Document: **N4-020767**
Title: LS to CN1 on Sh interface signalling

Source: Nokia
Presented: Mr. Seppo Kauntola, Nokia
Discussion:

Decision: **Approved**

Document: **N4-020753**
Title: TS 29.328: Sh interface data model
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares
Discussion:

- Orange France: What we should do about the subscriber state?
  - Ericsson: Because this is FFS it is premature to include it in the UML.
- Nokia: How do we know how the location information is encoded?
  - Ericsson: In chapter 7.6 we have a pointer to the specifications (23.032 and ITU-T Q.763), and for the age of location information we refer to 23.018. We need to define an OCTET STRING data type for the transport of the encoded geodetic/geographical information in XML.
- Nokia: Rather than use the string data type for the transparent data, we use the "any" type, which allows more flexibility.
  - Agreed in principle
    - Co-operation between Ericsson and Nokia is needed to implement the principle.

Decision: **revised to N4-020736**

Document: **N4-020736**
Title: TS 29.328: Sh interface data model
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares
Discussion:

Decision: **Approved**

Document: **N4-020685**
Title: TS 29.329: Protocol details
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares
Discussion:

Decision: **Revised to N4-020754**

Document: **N4-020754**
Title: TS 29.329: Protocol details
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares
Discussion:

- Siemens: The Diameter header should include the application ID: in order to know the context (vendor-specific, application code 2) the receiver needs to open the command.
- Ericsson: We could allocate command codes in distinct ranges.
- After some discussion, CN4 decided to maintain the status quo.
- Nokia asks whether a given user can have only one block of transparent data.
  - Ericsson: We can have one block per request. The HSS can store multiple blocks, which are distinguished by the service indication.
- Ericsson proposes a specific change to express this: adding a multiplicity to the service indication.
  - CN4 meeting: No changes because of the impact on 29.328.
- Nokia: Why aren't enumerated types directly defined in 29.329 rather than by reference to 29.328? For Cx we use direct definition.
  - Editor (Nigel Berry, Lucent) will revise the draft to align with the way it's done for Cx.

Decision: **Revised to N4-020737**

Document: **N4-020737**
Title: TS 29.329: Protocol details
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares
Discussion:

- Approved without presentation as v2.0.0 to go for approval to CN #16.

Decision: **Approved**

Document: **N4-020590**
CR: CR 23.008-043
Title: Service-Indication
Source: Ericsson
Presented: Mr. Miguel-Angel Pallares
Discussion:

- Nokia doesn't agree with the statement that the service indication identifies exactly one service in the HSS.
    - Ericsson refers to the text in 29.328.
- Reference to service is replaced by reference to service-related transparent data (see 29.328). "Service Information" on cover sheet => "Service Indication"
- Nokia: There is the need for an update to the summary table at the end.

Decision: **Revised to N4-020738**

Document: **N4-020738**
CR: CR 23.008-043r1
Title: Service-Indication
Source: Ericsson
Presented:
Discussion:

Decision: **Agreed without presentation**

6.1.4 Si-interface

Document: **N4-020576**
CR: CR29.002-415r1 Support of MAP Si interface (N4-020523)
Title: Support of MAP Si interface (N4-020523)
Source: Lucent
Presented:
Discussion:

- Previously published as N4-020523.

Decision: **Revised to N4-020577**

Document: **N4-020577**
CR: CR29.002-415r2
Title: Support of MAP Si interface
Source: Lucent, mmO2
Presented: Ms. Penny Bright, Lucent
Discussion:

- Ericsson: Error handling for SpecificCSI-Withdraw will need updating to take account of difference between IM-SSF and other entities.
- Ericsson: How do we deal with the MSISDN parameter when it's not functionally necessary?
    - We will populate the parameter with a dummy MSISDN if a real one isn't available, just in case.
- The additional bits for SpecificCSI-Withdraw are used for NotifySubscriberDataChange, not for ATSI result.
- Ericsson: How do we handle change of subscriber data (esp. CSI) during a continuing IMS session?
    - This is an issue for debate in CN1.

- Nokia wants to delete the ASN.1 comment which says how we populate the requesting entity address.
    - Agreed by meeting
- Siemens: We should consider whether the IM-SSF emulates the gsmSCF to the level of using the same SCCP subsystem number.
    - Lucent agrees.
    - This will imply the need for a change to 23.003.
- Siemens: The information element name in 23.078 (gsmSCF address) doesn't map obviously to the parameter name used in 29.002. We would therefore need to change 23.078 and 23.278 to match 29.002.
    - Lucent disagree.
    - Nokia: We should have alignment
        - T-Mobil, Vodafone, Siemens agree with Nokia.
            - Decided to go for alignment.
- We need to decide whether to transport the IM-CSI individually or always transport them as a block.
    - Siemens: There might be problems with handling in the HLR & IM-SSF if we ask for all IM-CSI and one or more is unavailable. This would require changes to 23.078 SDLs. The alternative is to define a new operation (not ATSI) to retrieve the IM-CSIs in a block.
    - Lucent: the IM-SSF doesn't always know which CSIs to ask for. That would require the HSS to tell the S-CSCF (over the Cx interface) which CSIs to ask for.
- Debate over whether CN2 want to use a separate ATSI for each CSI.
    - Lucent & Orange France favour a single request for all IM-CSI, and believe that the impact on the SDL would be manageably small.
- After further discussion the meeting agreed to use the working assumption of one request for each IM-CSI.

Decision: **Revised to N4-020696**

Document: **N4-020696**
CR: CR29.002-415r3
Title: Support of MAP Si interface
Source: Lucent, mmO2
Presented: Ms. Penny Bright, Lucent
Discussion:

Decision: **Revised to N4-020727**

Document: **N4-020727**
CR: CR29.002-415r4
Title: Support of MAP Si interface
Source: Lucent, mmO2
Presented: Ms. Penny Bright, Lucent
Discussion:

- The redundant definition of Requesting Entity Address has to be removed.

Decision: **Revised to N4-020739**

Document: **N4-020739**
CR: CR29.002-415r5
Title: Support of MAP Si interface
Source: Lucent, mmO2
Presented:
Discussion:

Decision: **Agreed without presentation**

Document: **N4-020578**
CR: CR29.002-443
Title: IMS-CAMEL ATM
Source: Lucent
Presented: Ms. Penny Bright, Lucent

Discussion:

- Siemens (Ulrich): Is there a requirement in stage 2?
  - Siemens(Sumio): Yes, it's in document N4-020720.
- Code points for enumerated data type need correction.
- Cover sheet needs to reflect the correct purpose of ATM
- A new title is needed: "Extensions to ATM for CAMEL control of IMS"
- Format for references should be "3GPP TS …"

Decision: **Revised to N4-020697**

Document: **N4-020697**
CR: CR29.002-443r1
Title: Extensions to ATM for CAMEL control of IMS
Source: Lucent
Presented:
Discussion:

Decision: **Agreed without presentation**

Document: **N4-020654**
CR:
Title: Si Interface Information Flows for MAP ATSI
Source: Lucent. MMO2
Presented: Mrs. Angelica Remoquillo, Lucent
Discussion:

- Document is presented for information
- It will be revised in CN2

Decision: **Noted**

Document: **N4-020655**
CR:
Title: IM-SSF Notification of HSS Update of CSI
Source: Lucent, MMO2
Presented: Mrs. Angelica Remoquillo, Lucent
Discussion:

- In table 5.2.4.1.4, MSISDN should be mandatory. A similar text is needed as in N4-020577
- Document will be revised in CN2.

Decision: **Noted**

Document: **N4-020656**
CR:
Title: Correction of SDLs for CAMEL_IMCN_Register/Deregister
Source: Lucent, MMO2
Presented: Mrs. Angelica Remoquillo, Lucent
Discussion:

- CN2 has approved the document. If CN4 experts have some concerns against the document, they will raise a concern before CN2#24 meeting is closed.

Decision: **Noted**

Document: **N4-020657**
CR:
Title: Terminating session for Unregistered UE
Source: Lucent, MMO2
Presented: Mrs. Angelica Remoquillo, Lucent
Discussion:

- Editorial cleanup is needed.

Decision: **Noted**

Document: **N4-020720**
Title: Subscriber data management for CAMEL control of IMS
Source: Siemens
Presented: Mr. Sumio Miyagawa, Siemens
Discussion:

- Presented for information for CN4

Decision: **Noted**

Document: **N4-020698**
CR: CR 23.003-046
Title: SCCP subsystem number for the IM-SSF
Source: Lucent
Presented: Mrs. Angelica Remoquillo, Lucent
Discussion:

Decision: **Agreed**

6.2 AMR Wideband

Document: **N4-020642**
CR: 23.153-033r1 (Rel-5)
Title: Introduction Of AMR-WB
Source: Ericsson
Presented: Ms. Elena Garcia-Mendive
Discussion:

- NEC: What does a sentence "This depends on the estimated likelihood how long the call will stay on that NB radio access" mean in section "*Handover between WB and NB speech*"?
  - Ericsson: The sentence is informative. Can we make this as a note or add the brackets.
- CN4 decided to move the sentence.
- Nokia: Does Ericsson see there are still some unsolved issues in this subject?
  - Ericsson: Nothing. All the issues are clarified in Rel-5.

Decision: **Revised to N4-020702**

Document: **N4-020702**
CR: 23.153-033r2 (Rel-5)
Title: Introduction Of AMR-WB
Source: Ericsson
Presented:
Discussion:

Decision: **Approved without presentation**

Document: **N4-020619**
CR: CR 23.153-036 (Rel-5)
Title: Introduction of AMR-WB
Source: Nokia
Presented: Mr. Seppo Kauntola, Nokia
Discussion:

Decision: **Withdrawn after approval of N4-020702**

6.3 Camel 4

Document: **N4-020623**
CR: CR 29.002-454 (Rel-5)
Title: Addition of Location Information GPRS to Note MM Event operation
Source: Nokia
Presented: Mr. Jari Jansson, Nokia

Discussion:

Decision: **Agreed**

Document: **N4-020723**
CR: CR 29.078
Title: Protocol definition for control of MO-SMS in CAMEL phase 4
Source: Vodafone
Presented: Mr. Chris Hardy, Vodafone
Discussion:

- Principles accepted
- Changes will be needed to resolve editor's notes.
- CR will be revised in CN2.
    - No reasons to see this again in CN4.

Decision: **Noted**

Document: **N4-020724**
CR: CR 29.078
Title: Handling and specification of MO-SMS in CAMEL Phase 4
Source: Alcatel
Presented: Mr. Christian Homann, Alcatel
Discussion:

- Alcatel: The difference between the Alcatel and Vodafone (N4-020723) CRs is that Alcatel rely on importing the single definition the CAP 3 SMS AC from the release 99 spec. Vodafone concentrate all the definitions in Release 5 specification.
- Nokia: If we import something from R99 should we add normative reference in R99.
    - Chairman: Yes! It would be necessary.

Decision: **Withrawn**

Document: **N4-020701**
CR: CR 23.008-051
Title: Correction of errors introduced with the taken into account CAMEL phase 4
Source: Alcatel
Presented: Mrs. Veronique Belford, Alcatel
Discussion:

Decision: **Agreed**

Document: **N4-020722**
CR: CR 23.078
Title: Splitting of CAMEL phase 4
Source: Alcatel
Presented: Mr. Christian Homann, Alcatel
Discussion:

- Presented as background information for better understanding CRs against 23.008 & 29.002.

Decision: **Noted**

Document: **N4-020570**
CR: 23.008-045
Title: Splitting of CAMEL phase 4
Source: Alcatel
Presented: Mr. Christian Homann, Alcatel
Discussion:

- Remove the last sentence of first paragraph in new 2.14.2.3
- New subclause should be numbered 2.14.2.2A

Decision: **Revised to N4-020730**

Document: **N4-020730**

CR: 23.008-045r1
Title: Splitting of CAMEL phase 4
Source: Alcatel
Presented:
Discussion:

Decision: **Agreed without presentation**

Document: **N4-020569**
CR: 29.002-436
Title: Splitting of CAMEL phase 4
Source: Alcatel
Presented: Mr. Markus Berg, Alcatel
Discussion:

- Nokia: SupportedCamel4 "bit string" size should be (5…16) instead of (1…16)
  - Agreed by meeting
- Ericsson: Descriptions of subsets are misleading but they are in line with description of Camel phases. Ericsson would like to see correction in the next meeting by different CR
  - Ericsson's proposal agreed by meeting

Decision: **revised to N4-020747**

Document: **N4-020747**
CR: 29.002-436r1
Title: Splitting of CAMEL phase 4
Source: Alcatel
Presented: Mr. Markus Berg, Alcatel
Discussion:

Decision: **Revised to N4-020756**

Document: **N4-020756**
CR: 29.002-436r2
Title: Splitting of CAMEL phase 4
Source: Alcatel
Presented: Mr. Markus Berg, Alcatel
Discussion:

Decision: **Agreed**

6.4 Network domain security

Document: **N4-020647**
CR: CR 29.060-319r1 (Rel-5)
Title: Reference to 3GPP TS 33.210 for protection of GTP
Source: Ericsson
Presented: Mr. Einar Oltedal, Ericsson
Discussion:

- Lucent: The original CR was better without this clarification. We should remove the second sentence.
  - Motorola: There are no reasons to move the sentence
- In Release 5 secure communication is mandatory between networks (Gp) and optional internal network.
- The second sentence will be deleted.

Decision: **Revised to N4-020705**

Document: **N4-020705**
CR: CR 29.060-319r1 (Rel-5)
Title: Reference to 3GPP TS 33.210 for protection of GTP
Source: Ericsson
Presented:
Discussion:

Decision: **Agreed without presentation**

Document: **N4-020624**
Title: MAPsec PIB
Source: Nokia
Presented: Mr. Jari Jansson, Nokia
Discussion:

- NEC: What is the purpose of this document?
  - Nokia: We want that CN4 accept this before Nokia send it to IETF.
- The contribution was a late arrival. Companies need more time to check the document before decision.
- Nokia: basically this is an informational RFC for IETF. Hopefully RFC is approved at IETF. There might be some impacts on 3GPP TS 33.200.
- Nokia: 3GPP specifications should describe how this PIB is used in Ze-interface signalling.
- Some more investigations are needed before the next meeting.
- Ericsson: WI description is needed.
  - Nokia will make a WI before CN4#15.
- LS to SA3 N4-020706

Decision: **Noted**

Document: **N4-020706**
Title: Status of protocol work on Ze interface
Source: Nokia
Presented: Mr. Jari Jansson, Nokia
Discussion:

Decision: **Revised toN4-020755**

Document: **N4-020755**
Title: Status of protocol work on Ze interface
Source: Nokia
Presented: Mr. Jari Jansson, Nokia
Discussion:

- Vodafone wants to change the sentence which says that we are stalling because of lack of a WID.
- Siemens: We need more time to analyse the requirements from SA3 for the protocol on the Ze-interface

Decision: **Revised to N4-020769**

Document: **N4-020769**
CR:
Title: Status of protocol work on Ze interface
Source: Nokia
Presented: Mr. Jari Jansson, Nokia
Discussion:

Decision: **Approved**

6.5 GPRS

Document: **N4-020617**
CR:
Title: Cause Codes in SGSN Context Acknowledge
Source: Nokia
Presented: Mr. Seppo Kauntola, Nokia
Discussion:

- Lucent would like to see 'System failure' handled differently from "delete immediately"
- Ericsson: We think 'Authentication failure' should be "keep the context" instead of "delete immediately".

- Siemens & Ericsson: 'Roaming restriction' should be "keep the context" at the old SGSN.
- Motorola: What is the purpose of this contribution?
    - Chairman: Discussion paper was made to help understand the effect of different cause codes.
- Sonera: What happens if Nokia's proposal is rejected as well as Ericsson CRs at the last meeting? We would like to see resolution for this problem.
- Motorola agrees the principles of this document.
- Meeting couldn't find agreement on the behaviour of the different cause codes.
- Ericsson: We should keep a table open for new proposals. Implementation of the cause codes is difficult to resolve for vendors.

Decision: **Rejected**

Document: **N4-020567**
CR:
Title: Liaison Statement on Support of IPv6 on Iu
Source: RAN3
Presented: Mr. Einar Oltedal, Ericsson
Discussion:

- Lucent don't understand the purpose of the note in the RAN 3 specification (3GPP TS 25.412): "Note: This does not preclude the single implementation and use of IPv4." They think the note is misleading.
    - Ericsson: Note is informative. The other text is mandatory.
- RAN3: In 29.060 the transport bearer for the GTP protocol should mention the exception of IPv6 mandatory / IPv4 optional when applied on the Iu interface.
- RAN3: The Forward Relocation Response message from the new SGSN to the old SGSN needs to be able to carry two IP addresses and two TEID parameters.
- Nokia: Do we always have to carry two TEID parameters?
    - Ericsson: The other solution (CR) is not based on carrying TEID. We can handle this separately.
- Ericsson: A CR (29.060 Rel-5) is needed which allows the transport of 2 IP addresses and 2 TEID parameters.
- Requirements are clearly understood by CN4. CRs will be introduced in CN4#15 at Helsinki.
- LS to RAN3 (N4-020708) that we couldn't solve the issue before June 2002.
    - CRs will be discussed in CN4#15

Decision: **Noted**

Document: **N4-020708**
Title: Reply Liaison Statement to RAN3 on Support of IPv6 on Iu
Source: Motorola
Presented: Mr. Michael Young, Motorola
Discussion:

Decision: **Agreed**

Document: **N4-020666**
CR:
Title: Response to the LS on "The use of IPv4 and IPv6 in the transport plane"
Source: SA2
Presented: Mr. Einar Oltedal, Ericsson
Discussion:

- SA2: From a standards point of view this means that interworking with pre-R5 GSNs or RNCs supporting IPv6 transport plane does not need to be considered in the specifications.
- Proposed treatment: discuss and seek a volunteer to draft the necessary CRs to 29.060 R99 & Rel-4

Decision: **Noted**

Document: **N4-020612**

CR: CR 29.060-310 (Rel-5)
Title: Support of IPv4 and IPv6 node addresses in Core Network
Source: Lucent Technologies
Presented: Mr. Alessio Casati, Lucent
Discussion:

- Supported only by Lucent
- Ericsson: It's not possible to solve backward compatibility problem as Lucent proposed.
- Lucent: Response from SA2 is not relevant for deciding on the CRs.

Decision: **Rejected; minority of one!!!**

Document: **N4-020618**
CR: CR 29.060-318 (Rel-5)
Title: Support of IPv4 and IPv6 node addresses in Core Network
Source: Nokia
Presented: Mr. Seppo Kauntola, Nokia
Discussion:

- Motorola: Backward compatibility problems are not valid any more in pre Release 5.
- Supporting companies are: Nokia, Motorola, Ericsson, Sonera, Siemens.

Decision: **After discussion with Ian Park and Stephen Hayes, the most supported CR will be sent to plenary for approval, Lucent have to decide on their position at plenary.**

6.6 LCS in the PS domain

Document: **N4-020679**
CR: CR 29.002-421r4 (Rel-5)
Title: Codeword and Service Type
Source: NTT Docomo, Ericsson
Presented: Mr. Koji Sato, NTT DoCoMo
Discussion:

- Ericsson: Codeword hasn't changed which means we don't need to correct already approved CRs.

Decision: **Revised to N4-020702**

Document: **N4-020702**
CR: CR 29.002-421r5 (Rel-5)
Title: Codeword and Service Type
Source: NTT Docomo, Ericsson
Presented: Mr. Koji Sato, NTT DoCoMo
Discussion:

- Agreed with the changes at cover page.
- N4-020527 CR29.002-421r2 approved in CN4#13 is withdrawn

Decision: **Agreed**

Document: **N4-020687**
CR: CR 23.016-026 (Rel-5)
Title: Codeword and Service Type
Source: Ericsson
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

- 23.008 specification has to be checked to see if CR is needed.
    - Ericsson: CR is needed. It's N4-020704.

Decision: **Agreed**

Document: **N4-020704**
CR: CR 23.008-026 (Rel-5)
Title: Service Type
Source: Ericsson
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

- Fujitsu: "Codeword handling information" should be added in 23.008
  - Agreed by meeting

Decision: **Revised to N4-020740**

Document: **N4-020740**
CR: CR 23.008-026 (Rel-5)
Title: Service Type
Source: Ericsson
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

Decision: **Agreed**

6.7 Service change and UDI fallback

6.8 Bearer independent architecture

Document: **N4-020586**
CR: CR 29.232-034 (Rel-5)
Title: Allow the usage of logical port
Source: Siemens
Presented: Mr. Thomas Belling, Siemens
Discussion:

Decision: **Agreed**

6.9 SMS

6.10 ASN.1 updates to 29.002 & 24.080

Document: **N4-020538**
CR: CR 29.002-437 (Rel-5)
Title: Ugrade of the ASN.1 version used in 29.002
Source: France Telecom
Presented: Mr. Olivier Dubuisson, France Telecom
Discussion:

- Will be revised to replace dated references with undated references and to undo the update of ASN.1 module versions. Other comments to be relayed to Olivier Dubuisson and on the CN4 list no later than 12:00 CEST on Friday 17 May

Decision: **Revised to N4-020731**

Document: **N4-020731**
CR: CR 29.002-437r1 (Rel-5)
Title: Ugrade of the ASN.1 version used in 29.002
Source: France Telecom
Presented: Mr. Olivier Dubuisson, France Telecom
Discussion:

Decision: **No agreement before 24th May 12:00 CET. Revised version will be presented at CN4#15.**

Document: **N4-020539**
CR: CR 24.080-019 (Rel-5)
Title: Ugrade of the ASN.1 version used in 24.080
Source: France Telecom
Presented: Mr. Olivier Dubuisson, France Telecom
Discussion:

- Do we use dated or undated references?
    - If dated, should we use 12/97 versions now or prejudge the arrival of the 2002 version?
    - Alcatel: We should avoid undated references especially with ITU documents. Undated references can cause difficulty (example of the update of TC specification). Implementations may be impacted by use of a normative reference which has a functional upgrade
    - Siemens and Nokia are favour of undated references.
        - France Telecom: If CN4 wants, it's always possible to refer to dated version by CR.
- ASN.1 modules will be updated in separate CR by Siemens (N4-020544)
- Vodafone: How do we express the difference between an operation which returns an EMPTY result (class 1 or 3) and one which returns no result at all (class 2 or 4)? We use the notation `[RETURN RESULT &returnResult]`
- Reference Q.773 should be replaced with X.880 for definitions of OPERATION and ERROR.
- The modification: " Exception ::= ENUMERATED {clearCall, permissionDenied, unexpectedDataValue, ...}" will be not accepted in this CR
- " WITH COMPONENTS" construct is not used. A change is rejected.

Decision: **Revised to N4-020729; If no objection before 24th May 12:00 CET a CR will be sent to CN#16 for approval**

Document: **N4-020729**
CR: CR 24.080-019r1 (Rel-5)
Title: Ugrade of the ASN.1 version used in 24.080
Source: France Telecom
Presented: Mr. Olivier Dubuisson, France Telecom
Discussion:

- Comments to be relayed to Olivier Dubuisson and on the CN4 list no later than 12:00 CEST on Friday 17 May

Decision: **No agreement before 24th May 12:00 CET. Revised version will be presented at CN4#15.**

Document: **N4-020543**
CR: CR 29.002-441 (Rel-5)
Title: Correction of Object Identifiers for ASN.1 modules
Source: Siemens
Presented: Mr. Ulrich Wiehe, Siemens
Discussion:

Decision: **Agreed**

Document: **N4-020544**
CR: CR 24.080-020 (Rel-5)
Title: Correction of Object Identifiers for ASN.1 modules
Source: Siemens
Presented: Mr. Ulrich Wiehe, Siemens
Discussion:

Decision: **Agreed**

6.11 Any other business

Document: **N4-020772**
CR: CR 23.009-074r1 (rel-5)
Title: Clarification that Multicall is not supported in GERAN Iu-mode
Source: CN1
Presented:
Discussion:

Decision: **Endorsed by CN4**

6.11.1 GERAN Iu mode

Document: **N4-020564**
CR:
Title: LS on GERAN specific impacts on the Iu-cs interface
Source: GERAN
Presented: Mr. Peter Schmitt, Siemens
Discussion:

Decision: **Noted**

Document: **N4-020579**
CR: CR 23.205-025r1 (Rel-5)
Title: Alignment of terminology regarding GERAN access
Source: Siemens
Presented: Mr. Peter Schmitt, Siemens
Discussion:

- No discussion. CR approved

Decision: **Agreed**

Document: **N4-020580**
CR: CR 23.205-026r2 (Rel-5)
Title: Introduction of GERAN Iu-mode
Source: Siemens
Presented: Mr. Peter Schmitt, Siemens
Discussion:

- Nokia: Why do we need very detailed information about the RANAP message?
    - Siemens: RANAP messages are enhanced by GERAN capabilities (GERAN classmark) the reason for the CR is the handling of the GERAN capabilities in the different situations.
- Ericsson: Reference is needed in section 8.3.3.1 (3GPP TS 43.051).
- Ericsson: Also reference is needed in 8.1.2.2 (3GPP TS 23.153)
- Ericsson: in section 8.1.1 the description for BSC container is missing. Reference is needed (3GPP TS 43.051).
- Ericsson: In section 8.1.1 it's Intra MSC server. "MSC server A" has to be "MSC server".
- Ericsson: In section 8.1.2.1 clarification is needed about codec comparison. Reference is needed (3GPP TS 43.051)
- Ericsson will provide more comment offline
    - Chairman: Document will be revised and handled later on during this week

Decision: **Revised to N4-020716**

Document: **N4-020716**
CR: CR 23.205-026r3 (Rel-5)
Title: Introduction of GERAN Iu-mode
Source: Siemens
Presented: Mr. Peter Schmitt, Siemens
Discussion:

Decision: **Postponed to CN4#15**

Document: **N4-020581**
CR: CR 23.153-031r2 (Rel-5)
Title: Introduction of GERAN Iu-mode
Source: Siemens
Presented: Mr. Peter Schmitt, Siemens
Discussion:

- Ericsson: Are these three points below Relocation Initiation conditional or mandatory in GERAN?
    - Siemens: Only one of these contents is mandatory?
- Ericsson: What are the consequences if this is not approved?
    - Siemens: If GERAN Iu-mode is not supported -> TrFO is not possible.

- Ericsson: In section 6.9 "codec negotiation" Reference number 15 does not contain the codec list information. Reference is wrong.
    - Siemens will find out in which specification codec list is defined.
- Ericsson: In section 6.9 "In codec negotiation" the detailed description is needed where the selected codec type information is specified.
- NEC: In picture 6.10.1 is the TICC same as BICC?
    - Ericsson: That is Transport Independent Call Control and it's a generic description.
- Ericsson: In section 6.10 "Relocation initiation" in third bullet detailed description is needed of the sequence for the Codec Negotiation procedure and the Relocation procedure.

Decision: **Revised to N4-020718**

Document: **N4-020718**
CR: CR 23.153-031r3 (Rel-5)
Title: Introduction of GERAN Iu-mode
Source: Siemens
Presented: Mr. Peter Schmitt, Siemens
Discussion:

Decision: **Postponed to CN4#15**

6.11.2 Network sharing

Document: **N4-020663**
CR:
Title: Liaison Statement on Shared Network support
Source: SA2
Presented: Mr. Peter Wild, Vodafone-D2
Discussion:

- Reply to SA2
    - N4-020721

Decision: **Noted**

Document: **N4-020714**
CR:
Title: Network Sharing: Impact on the Architecture
Source: Ericsson
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

- Alcatel: There is an another solution (4th solution). Connect independent solution has also been discussed in RAN3. Discussion is still going on at RAN3
- Section 10 and 11 are Ericsson unique.
- Fujitsu: The figure 3 in section 9.1 should be applied for both CS domain and PS domain
- Ericsson: The SAG solution is the most efficient and requires minimal additional load on the E interface.
- Ericsson: We should inform RAN3 by LS
- Conclusion by Ericsson:
    - After considering the analysis done in this discussion paper, we conclude that the impact on the E interface is inclusion of the Access Rights information. The SAG solution is the most efficient and requires minimal additional load on the E interface. We also foresee a limitation for future enhancements (G2G and G2U) if the SNA or LA solutions are used since the maximum length of the BSSMAP message is 256+2 octet and this might seriously limit the size of the Access Rights information. Additionally we conclude that for Rel-5 requirements there are no impacts on the HLR, but for future enhancements in further releases it may be impacted. Once the HLR is in the picture, providing the AR related information per subscription, there will be a need to store that information in the CN node and provide it to RAN on per subscriber basis. This is important to consider when selecting a solution for Rel-5.
        - Alcatel does not believe SAG solution is the most efficient solution.

        - Nokia: Support
    - Ericsson
- Reply to SA2:
    - There is no impact on the HLR
    - Impacts in E interface which involves MAP.
    - We didn't take account of the 4th solution, but there are no impacts on MAP in Rel-5.

Decision: **Noted**

Document: **N4-020721**
CR:
Title: LS on Shared Network
Source: Ericsson, Alcatel
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

- A sentence is added at the end of the first chapter: " The same assessment of the impact on the HLR applies for this solution as for the first three solutions."

Decision: **revised to N4-020699**

Document: **N4-020699**
CR:
Title: LS on Shared Network
Source: Ericsson, Alcatel
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

Decision: **Approved without presentation**

Document: **N4-020715**
CR: CR 23.009-068r1 (Rel-5)
Title: Support for Access Rights in the non-anchor MSC
Source: Ericsson
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

Decision: **Postponed to CN4#15**

Document: **N4-020650**
CR: CR 23.221-029 (Rel-5)
Title: Modifications for the support of connected mode behaviour in Network Sharing
Source: Ericsson
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

- Only for information

Decision: **Noted**

Document: **N4-020717**
Title: Proposed WID: Network Sharing
Source: Ericsson
Presented:
Discussion:

Decision: **Withdrawn**

Document: **N4-020689**
CR: CR 29.002-461
Title: Network Sharing
Source: Ericsson
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

- RAN3 could not agree on a solution in their meeting.

Decision: **Withdrawn**

6.11.3 Numbering & addressing

Document: **N4-020563**
CR:
Title: Liaison Statement on “Introduction of G-RNTI into TLLI codespace for GERAN Iu mode”
Source: GERAN
Presented: Mr. Toshiyuki Tamura, NEC
Discussion:

- Attached CR will be handled by CN4.
  - N4-020719; 23.003-045

Decision: **Noted**

Document: **N4-020719**
CR: 23.003-045
Title: Use of the TLLI codespace in GERAN Iu mode
Source: GERAN
Presented: Mr. Toshiyuki Tamura, NEC
Discussion:

Decision: **Approved without presentation**

Document: **N4-020758**
CR:
Title: Liaison Statement on Deriving IMS parameters from a Pre-Release 5 UICC
Source: Vodafone
Presented: Mr. Nick Russell, Vodafone
Discussion:

Decision: **Noted**

Document: **N4-020757**
CR: CR 23.003-041r1 (Rel-5)
Title: Use of a temporary public user identity
Source: Vodafone
Presented: Mr. Nick Russell, Vodafone
Discussion:

- Editorial errors to be corrected

Decision: **Revised to N4-020774**

Document: **N4-020774**
CR: CR 23.003-041r2 (Rel-5)
Title: Liaison Statement on Deriving IMS parameters from a Pre-Release 5 UICC
Source: Vodafone
Presented: Mr. Nick Russell, Vodafone
Discussion:

Decision: **Agreed without presentation**

7 UMTS Release 4 & Release 99 maintenance

7.1 Location Services

Document: **N4-020608**
CR: 29.002-450 (Rel-5)
Title: Correction to LCS in the PS domain
Source: Siemens

Presented: Mr. Ulrich Wiehe, Siemens
Discussion:

- Title will be changed.
- Category is C.

Decision: **Agreed**

Document: **N4-020633**
CR: CR 24.080-021 (R99)
Title: LCS: error handling if shape not supported by MS
Source: Ericsson
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

Decision: **Agreed**

Document: **N4-020634**
CR: CR 24.080-022 (Rel-4)
Title: LCS: error handling if shape not supported by MS
Source: Ericsson
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

- Also mirror CR for Rel-5 is agreed
    - N4-020635 24.080-023

Decision: **Agreed**

7.2 Bearer independent architecture

Document: **N4-020613**
CR: CR 23.205-027 (Rel-4)
Title: Correction of an incorrect reference in Section 8.3.3.2
Source: Lucent
Presented: Mr. Alessio Casati, Lucent
Discussion:

- Also mirror CR for Rel-5 is agreed
    - N4-020614 23.205-028

Decision: **Agreed**

Document: **N4-020643**
CR: 29.232-035 (Rel-4)
Title: Correction Section 14.1.6
Source: Ericsson
Presented: Mr. Alf Heidermark, Ericsson
Discussion:

- Also mirror CR for Rel-5 is agreed
    - N4-020644 29.232-036

Decision: **Agreed**

Document: **N4-020678**
CR: 23.153-034r1 (Rel-4)
Title: Corrections on Bearer modification
Source: Siemens
Presented: Dr. Thomas Belling
Discussion:

- Documents are presented for information.
- Ericsson: Not in line with BICC procedures: bearer modified char & modify char procedure are not mentioned
- Ericsson: RFCIs should be the same for uplink and downlink
    - It's mentioned in 3GPP TS 25.415
- Alcatel: References to figures is needed as it has been before.

- CN4 agreed that clarifications is needed in this section. Text has to be cleaned up
- Revised version will be handled in CN4#15.

Decision: **Noted**

7.3 Core network security

7.4 TrFO

7.5 GPRS & GTP enhancements

Document: **N4-020669**
CR: CR 23.008-049 (R99)
Title: Alignment of 23.008
Source: Siemens
Presented: Mr. Peter Schmitt, Siemens
Discussion:

- "X" is removed from cover page ME/UE
- Also mirror CRs for Rel-4 & Rel-5 approved
    - N4-020671 & N4-020741

Decision: **Agreed**

Document: **N4-020670**
CR: 23.007-006
Title: Removal of an optional IMSI Paging after SGSN restart
Source: Siemens
Presented: Mr. Peter Schmitt, Siemens
Discussion:

- Also mirror CR for Rel-4 approved
    - N4-020672 CR23.007-007

Decision: **Agreed**

7.6 Camel phase 3

7.7 SMS

7.7.1 MAP protocol

Document: **N4-020605**
CR: CR 29.002-447 (Rel-4)
Title: Editorial corrections in SS-code chapter
Source: Siemens
Presented: Mr. Peter Schmitt, Siemens
Discussion:

- 7.6.4.1 "release 99" is deleted
- Category F; agreed by consensus

Decision: **Revised to N4-020742**

Document: **N4-020742**
CR: CR 29.002-447r1 (Rel-4)
Title: Corrections in SS-code chapter
Source: Siemens
Presented: Mr. Peter Schmitt, Siemens
Discussion:

- Also mirror CR for Rel-4 approved
    - N4-020743 CR29.002-448r1

Decision: **Agreed without presentation**

Document: **N4-020630**
CR: CR 29.002-438r1 (R99)
Title: Clarification on SendAuthenticationInfo
Source: L.M. Ericsson, Siemens, NTT Comware
Presented: Mr. Nobuyuki Uda,NTT Comware
Discussion:

- Alcatel agrees the principle of CR, but they want changes in text on chapter 8.5.2.3.
  - Mention about segmentation is needed.
- Alcatel: Clarification is not needed under " Segmentation prohibited indicator"
- We may need similar changes for InsertSubscriberData – this would be a separate CR.

Decision: **revised to N4-020744**

Document: **N4-020744**
CR: CR 29.002-438r2 (R99)
Title: Clarification on SendAuthenticationInfo
Source: L.M. Ericsson, Siemens, NTT Comware
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

- Also mirror CRs for Rel-4 and Rel-5 approved
  - N4-020745 CR29.002-439r2 and N4-020746 CR29.002-440r2

Decision: **Agreed**

7.7.2 Handover

Document: **N4-020598**
CR: 29.002-444 (R99)
Title: Addition of Service Handover parameters to MAP Handover messages
Source: Siemens
Presented: Mr. Ulrich Wiehe, Siemens
Discussion:

- In sections 8.4.1.3 & 8.4.4.3, parameter use: "and the access network protocol is RANAP" will be deleted.
- Ericsson: In ASN.1 table RANAP-ServiceHandover, a note will be added.
- Cover sheet should be revised to reflect change of principle.

Decision: **Revised to N4-020748**

Document: **N4-020748**
CR: 29.002-444r1 (R99)
Title: Addition of Service Handover parameters to MAP Handover messages
Source: Siemens, Ericsson
Presented: Mr. Ulrich Wiehe, Siemens
Discussion:

- References to 48.008 should be replaced by references to 08.08 **for R99 only**.

Decision: **Revised to N4-020775**

Document: **N4-020775**
CR: 29.002-444r2 (R99)
Title: Addition of Service Handover parameters to MAP Handover messages
Source: Siemens, Ericsson
Presented: Mr. Ulrich Wiehe, Siemens
Discussion:

- Also mirror CRs for Rel-4 and Rel-5 approved.
  - N4-020749 CR29.002-445r1 and N4-020750 CR29.002-446r1

Decision: **Agreed**

Document: **N4-020636**
CR: CR 29.002-455 (R99)
Title: Addition of ServiceHandover parameter to Prepare_Handover
Source: Ericsson
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

- A difference between Ericsson and Siemens (N4-020598) proposal:
  - The service handover parameters are carried at the MAP level even if they are carried in the encapsulated access protocol.
- Ericsson will withdraw their contribution and the modifications are made in N4-020598

Decision: **Withdrawn**

Document: **N4-020601**
CR: 29.010-053 (R99)
Title: Service Handover
Source: Siemens
Presented: Mr. Ulrich Wiehe, Siemens
Discussion:

- Ericsson: Text in 4.5.5.10 should be reflect with CR 29.002-444 (N4-020748)
  - Agreed by Siemens
- Ericsson: The second line in 4.5.5.10 "intra-MSC" should be removed.

Decision: **Revised to N4-020751**

Document: **N4-020751**
CR: 29.010-053r1 (R99)
Title: Service Handover
Source: Siemens
Presented: Mr. Ulrich Wiehe, Siemens
Discussion:

- Also mirror CR for Rel-5 is approved
  - N4-020752 CR29.010-54r1

Decision: **Agreed without presentation**

Document: **N4-020603**
CR: 29.010-055 (R99)
Title: Cancellation of Subsequent Handover
Source: Siemens
Presented: Mr. Ulrich Wiehe, Siemens
Discussion:

- Category F; non critical correction agreed by consensus
  - Vodafone and Ericsson object to the change because it's not a critical correction.
- Siemens asked support for Rel-5
  - Ericsson & Nortel don't see any value in a correction in Rel-5

Decision: **Rejected**

Document: **N4-020604**
CR: 29.010-056 (Rel-4)
Title: Cancellation of Subsequent Handover
Source: Siemens
Presented: Mr. Ulrich Wiehe, Siemens
Discussion:

Decision: **Rejected**

Document: **N4-020759**
CR: CR 23.009-069 (R99)
Title: Clarification of the end of supervision after inter-MSC handover
Source: CN1

Presented:
Discussion:

Decision: **Endorsed by CN4**

Document: **N4-020760**
CR: CR 23.009-070 (Rel-4)
Title: Clarification of the end of supervision after inter-MSC handover
Source: CN1
Presented:
Discussion:

Decision: **Endorsed by CN4**
Document: **N4-020761**
CR: CR 23.009-071 (Rel-5)
Title: Clarification of the end of supervision after inter-MSC handover
Source: CN1
Presented:
Discussion:

Decision: **Endorsed by CN4**

Document: **N4-020770**
CR: CR 23.009-075r1 (R99)
Title: Handling of Service Handover parameter in non-anchor
Source: CN1
Presented:
Discussion:

Decision: **Endorsed by CN4**

Document: **N4-020771**
CR: CR 23.009-076r1 (Rel-4)
Title: Handling of Service Handover parameter in non-anchor
Source: CN1
Presented:
Discussion:

Decision: **Endorsed by CN4**

Document: **N4-020772**
CR: CR 23.009-075r1 (Rel-5)
Title: Handling of Service Handover parameter in non-anchor
Source: CN1
Presented:
Discussion:

Decision: **Endorsed by CN4**

7.7.3 Multicall

Document: **N4-020620**
CR: CR 29.002-451 (R99)
Title: Addition of Radio Resource List to the Forward Access Signalling operation
Source: Nokia
Presented: Mr. Jari Jansson, Nokia
Discussion:

- Mirror CRs for Rel-4 & Rel-5 also approved
  - N4-020621 CR 29.002-452 and N4-020622 CR 29.002-453

Decision: **Agreed**

7.7.4 Optimal routeing

Document: **N4-020639**
CR: CR 29.002-458 (R99)
Title: Clarifications to Resume Call Handling
Source: Ericsson
Presented: Mr. Pompeo Santoro, Ericsson
Discussion

- Also mirror CRs for Rel-4 and Rel-5 agreed
    - N4-020640 CR29.002-459 and N4-020641 CR29.002-460

Decision: **Agreed**

Document: **N4-020658**
CR: CR 23.079-018 (Rel-4)
Title: Clarifications to Resume Call Handling
Source: Ericsson
Presented: Mr. Pompeo Santoro, Ericsson
Discussion:

- Also mirror CRs for Rel-4 and Rel-5 agreed
    - N4-020659 CR23.079-019 and N4-020660 CR23.079-020

Decision: **Agreed**

7.7.5 IP signalling transport

Document: **N4-020645**
CR:
Title: Definition of M3UA for use in 3GPP networks
Source: Ericsson
Presented: Mr. Alf Heidermark, Ericsson
Discussion:

- Ericsson proposal:
    - To ensure the interoperability for the cases described above we see a need for a document (e.g. an annex to 29.202), which consists of clarification to some of the concepts in the M3UA specification.
    - When defining these clarifications the following principles shall be applied.
        - The SCTP+M3UA shall provide the same functional level as present MTP provides.
        - The clarification shall be in the scope of the upcoming RFC on M3UA, where comments are made to relevant section of the RFC.
        - It shall be focused on the operator-operator interface but could also be seen as minimum set of M3UA used in 3GPP networks.
- Ericsson: A similar principle has also been used for the ETSI derivaties of ITU-T recommendations
- CN4 agreed the principle

Decision: **Noted**

8 GSM maintenance

8.1 GTP enhancements

Document: **N4-020591**
CR: CR 09.60-A111 (R97)
Title: Addition of APN-OI to Inter-SGSN RAU
Source: Nortel Networks
Presented: Mr. Daniel Warren, Nortel
Discussion:

△	**R99 CR (Approved in CN4#13) have to be marked as category A and will be added in same CR set for CN#16**

- Also mirror CR for R98 is agreed
  - N4-020592 CR09.60-A112 (R98)
- Approved CR 29060-312 (N4-020341)

Decision: **Agreed**

8.2 Numbering and addressing

Document: **N4-020709**
CR: CR03.03-A055 (R97)
Title: Restructuring the IMEI to combine the TAC and FAC
Source: Vodafone
Presented: Mr. Nick Russell, Vodafone
Discussion:

- Motorola would like to see 3GPP2 changes start in R98
- Email approval 24th of May 12:00 CET

Decision: **Approved 24th May 12:00 CET as well as R98, R99, Rel-4 and Rel-5 mirrors N4-020710, N4-020711, N4-020712, N4-020713**

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9 AOB

9.1 MBMS

Document: **N4-020574**
Title: Proposed WI: MBMS
Source: H3G
Presented: Mr. Nigel Berry, Lucent
Discussion:

- CN4 agreed with proposed WI.

Decision: **Noted**

9.2 Interworking between IMS and CS networks

Document: **N4-020583**
Title: Worksplit for IMS-Mc interface (CN3 / CN4)
Source: Siemens
Presented: Mr. Thomas Belling, Siemens
Discussion:

- Proposes that CN3 should be the lead WG for this work;
- Siemens (CN3) sees a separate work item description for CN4.
  - CN4 opinion was that we need only one WI.
- IMS-Mc should be specified in a new Specification.
- CN4 endorsed the proposed worksplit.

Decision: **Endorsed by CN4**

Document: **N4-020582**
Title: Proposed WI: Media Gateway Control Function (MGCF) – IMS Media Gateway (IMS-MGW) Mc Interface between IMS-MGW and MGCF
Source: Siemens
Presented: Dr. Thomas Belling, Siemens
Discussion:

- A sentence in chapter justification will be deleted: " Moreover, the Cs-Mc interface is designed for the support of IuFP, TFO and TrFO in the user plane, which are all not applicable for the IMS-Mc interface."
- WID is agreed in CN4.

    - WID will be added and combined with CN3 WID for the IMS BIA.
- A new specification will be in 29.xxx series

Decision: **Endorsed by CN4**

Document: **N4-020726**
Title: Interworking of CS user plane between 3GPP and external PLMN/PSTN/ISDN
Source: Ericsson
Presented: Ms. Elena Garcia-Mendive, Ericsson
Discussion:

- A document gives background information about the need of WID (N4-020707)

Decision: **Noted**

Document: **N4-020707**
Title: Work item description: Interworking of CS user plane between 3GPP and external PLMN/PSTN/ISDN
Source: Ericsson
Presented: Ms. Elena Garcia-Mendive, Ericsson
Discussion:

- CN4 see this WI as a feature. Nothing else depends on it.
- Revised wording is needed in chapter "justification"

Decision: **Revised to N4-020766**

Document: **N4-020766**
Title: Work item description: Interworking of CS user plane between 3GPP and external PLMN/PSTN/ISDN
Source: Ericsson
Presented: Ms. Elena Garcia-Mendive, Ericsson
Discussion:

- WID will be sent to CN#16 for approval

Decision: **Agreed**

9.3 Bearer Independent Architecture and the IMS

Document: **N4-020615**
Title: Mp Interface requirements
Source: Vodafone
Presented: Mr. Nick Russell, Vodafone
Discussion:

- Siemens: CN3 believe we need definition of interactions between SIP and H.248 signalling.
- mmO2: This seems to assume that the Sr interface exists, but it was removed from the Rel-5 architecture. It will have to be re-introduced in Rel-6.

Decision: **Noted**

Document: **N4-020616**
Title: WID - MRFC to MRFP Interface
Source: Vodafone
Presented: Mr. Nick Russell, Vodafone
Discussion:

- WID is presented for information
- Lucent: Do we need to describe ITU-T dependencies
    - Siemens: We don't know them yet
- mmO2: References to AS should be removed because of the lack of the Sr-interface
    - Vodafone can accept proposal.
    - Siemens wants to postpone the issue because WID is not for approval yet.
    - mmO2 would like to see decision in this case
        - References to AS are removed
    - Supporting companies: mmO2, Vodafone, Ericsson, Siemens

- Siemens wants to resolve the worksplit before WID is sent to CN plenary for approval.
- Lucent: CN1 should also review the WID, because they are involved in the detailed architecture for the IMS.
    - Ericsson: SA2 should also review the WID.
- Lucent: Should this be a feature, a Building Block or a Work Task?
    - More study is needed

Decision: **Noted**

10 Update of the Work Plan

- Work plan was updated at the end of the meeting

11 Future meetings

The following meeting schedule contains modifications regarding the hosts and dates **N4-040609**

- CN4 opinion about 2003 WG meetings
    - Later week (17th to 21st) on February is a favour of CN4, except Finnish delegation
    - Japanese would prefer CN4#22 3rd to 7th November 2003 because of holidays.

Date	Meeting	Venue	Host
5 – 7 June 2002	TSG-CN #16	Marco Island, Florida, USA	Motorola
29 July – 2 August 2002	CN4 #15	Helsinki, FINLAND	Sonera, Nokia, Elisa Communication, Ficora
4 – 6 September 2002	TSG-CN #17	Biarritz, FRANCE	Alcatel
23 – 27 September 2002	CN4 #16	USA west coast, San Diego, USA?	North American Friends of 3GPP
11 – 15 November 2002	CN4 #17	Bangkok, Thailand	Japanese Friends of 3GPP
4 – 6 December 2002	TSG-CN #18	New Orleans, Louisiana, USA	North American Friends of 3GPP
10 – 14 February 2003 **or** 17 – 21 February 2003	CN4 #18		
12 – 14 March 2003	CN #19	Jersey Island, UK	UK Friends of 3GPP
7 – 11 April 2003	CN4 #19		
12 – 16 May 2003 **or** 19 – 23 May 2003	CN4 #20		
4 – 6 June 2003	CN #20	FINLAND	Nokia
11 – 15 August 2003 **or** 18 – 22 August 2003	CN4 #21		
17 – 19 September 2003	CN #21	GERMANY	To be confirmed
27 – 31 October 2003 **or** 3 – 7	CN4 #22		

November 2003			
10 – 12 December 2003	CN #22	To be confirmed	North American & Japanese Friends of 3GPP

Please note that due to the workload additional Ad Hoc Meetings can be planned on a short notice.

12 Output of CN4#14

12.1 Change Requests

Tdoc #	Title	Source
N4-020543	CR 29.002-441 (Rel-5) on Correction of Object Identifiers for ASN.1 modules	Siemens
N4-020544	CR 24.080-020 (Rel-5) on Correction of Object Identifiers for ASN.1 modules	Siemens
N4-020579	CR 23.205-025r1 (Rel-5) on Alignment of terminology regarding GERAN access	Siemens
N4-020586	CR 29.232-034 (Rel-5) on Allow the usage of logical port	Siemens
N4-020591	CR 09.60-A111 (R97) on Addition of APN-OI to Inter-SGSN RAU	Nortel Networks
N4-020592	CR 09.60-A112 (R98) on Addition of APN-OI to Inter-SGSN RAU	Nortel Networks
N4-020608	CR 29.002-450 (Rel-5) on Correction to LCS in the PS domain	Siemens
N4-020613	CR 23.205-027 (Rel-4) on Correction of an incorrect reference in Section 8.3.3.2	Lucent Technologies
N4-020614	CR 23.205-028 (Rel-5) on Correction of an incorrect reference in Section 8.3.3.2	Lucent Technologies
N4-020618	CR 29.060-318 (Rel-5) on Support of IPv4 and IPv6 node addresses in Core Network	Nokia
N4-020620	CR 29.002-451 (R99) on Addition of Radio Resource List to the Forward Access Signalling operation	Nokia
N4-020621	CR 29.002-452 (Rel-4) on Addition of Radio Resource List to the Forward Access Signalling operation	Nokia
N4-020622	CR 29.002-453 (Rel-5) on Addition of Radio Resource List to the Forward Access Signalling operation	Nokia
N4-020623	CR 29.002-454 (Rel-5 on Addition of Location Information GPRS to Note MM Event operation (N2-020518)	Nokia
N4-020633	CR 24.080-021 (R99) on LCS: error handling if shape not supported by MS	L.M. Ericsson
N4-020634	CR 24.080-022 (Rel-4) on LCS: error handling if shape not supported by MS	L.M. Ericsson
N4-020635	CR 24.080-023 (Rel-5) on LCS: error handling if shape not supported by MS	L.M. Ericsson
N4-020639	CR 29.002-458 (R99) on Clarifications to Resume Call Handling	L.M. Ericsson
N4-020640	CR 29.002-459 (Rel-4) on Clarifications to Resume Call Handling	L.M. Ericsson
N4-020641	CR 29.002-460 (Rel-5) on Clarifications to Resume Call Handling	L.M. Ericsson
N4-020643	CR 29.232-035 (Rel-5) on Correction Section 14.1.6	L.M. Ericsson
N4-020644	CR 29.232-036 (Rel-5) on Correction Section 14.1.6	L.M. Ericsson
N4-020658	CR 23.079-017 (R99) on Clarifications to Resume Call Handling	L.M. Ericsson
N4-020659	CR 23.079-018 (Rel-4) on Clarifications to Resume Call Handling	L.M. Ericsson
N4-020660	CR 23.079-019 (Rel-5) on Clarifications to Resume Call Handling	L.M. Ericsson
N4-020669	CR 23.008-049 (R99) on Alignment of 23.008	Siemens
N4-020670	CR 23.007-006 (R99) on Removal of an optional IMSI Paging after SGSN restart	Siemens
N4-020671	CR 23.008-050 (Rel-4) on Alignment of 23.008	Siemens
N4-020672	CR 23.007-007 (Rel-4) on Removal of an optional IMSI Paging after SGSN restart	Siemens

N4-020687	CR 23.016-026 (Rel-5) on Codeword and Service Type	L M Ericsson
N4-020693	CR 23.008-048r1 (Rel-5) on the charging function address format	Nokia
N4-020697	CR29.002-443r1 (Rel-5) on extensions to ATM for CAMEL control of IMS	Lucent Technologies, MMO2
N4-020698	CR 23.003-046 on SCCP subsystem number for the IM-SSF	Lucent Technologies
N4-020701	CR 23.008-051 on Correction of errors introduced with the taken account of CAMEL 4 (N2-020566)	Alcatel
N4-020702	CR 23.153-033r2 (Rel-5) on Introduction Of AMR-WB	L.M. Ericsson
N4-020703	CR 29.002-421 (Rel-5) on Codeword and Service Type	Ericsson, NTT DoCoMo, NTT Comware
N4-020705	CR 29.060-319r1 (Rel-5) on Reference to 3GPP TS 33.210 for protection of GTP	L.M. Ericsson
N4-020709	CR 03.03-A055 (R97) on Restructuring the IMEI to combine the TAC and FAC	Vodafone
N4-020710	CR03.03-A056 (R98) on Restructuring the IMEI to combine the TAC and FAC	Vodafone
N4-020711	CR 23.003-042 (R99) on Restructuring the IMEI to combine the TAC and FAC	Vodafone
N4-020712	CR 23.003-043 (Rel-4) on Restructuring the IMEI to combine the TAC and FAC	Vodafone
N4-020713	CR 23.003-044 (Rel-5) on Restructuring the IMEI to combine the TAC and FAC	Vodafone
N4-020719	CR23.003-045 (Rel-5) on use of the TLLI code space in GERAN Iu mode	TSG GERAN
N4-020730	CR 23.008-045r1 (Rel-5) on Splitting of CAMEL phase 4 (N2-020478)	Alcatel
N4-020738	CR 23.008-043r1 (Rel-5) on Service-Indication	Ericsson
N4-020739	CR29.002-415r5 on Support of MAP Si interface (N2-020516)	Lucent Technologies, MMO2
N4-020740	CR 23.008-052r1 (Rel-5) on Codeword and Service Type	L M Ericsson
N4-020741	CR 23.008-053 (Rel-5) on Alignment of 23.008	Siemens
N4-020742	CR 29.002-447r1 (Rel-4) on Editorial corrections in SS-code chapter	Siemens
N4-020743	CR 29.002-448r1 (Rel-5) on Editorial corrections in SS-code chapter	Siemens
N4-020744	CR 29.002-438r2 (R99) on Clarification on SendAuthenticationInfo	L.M. Ericsson, Siemens, NTT Comware
N4-020745	CR 29.002-439r2 (Rel-4) on Clarification on SendAuthenticationInfo	L.M. Ericsson, Siemens, NTT Comware
N4-020746	CR 29.002-440r2 (Rel-5) on Clarification on SendAuthenticationInfo	L.M. Ericsson, Siemens, NTT Comware
N4-020749	CR 29.002-445r1 (Rel-4) on Addition of Service Handover parameters to MAP Handover messages	Siemens, Ericsson
N4-020750	CR 29.002-446r1 (Rel-5) on Addition of Service Handover parameters to MAP Handover messages	Siemens, Ericsson
N4-020751	CR 29.010-053r1 (R99) on Service Handover	Siemens
N4-020752	CR 29.010-054r1 (Rel-4) on Service Handover	Siemens
N4-020756	CR 29.002-436r1 (Rel-5) on Splitting of CAMEL phase 4 (N2-020575)	Alcatel
N4-020774	CR 23.003-041r2 (Rel-5) on Use of a temporary public user identity	Vodafone, Ericsson
N4-020775	CR 29.002-444r2 (R99) on Addition of Service Handover parameters to MAP Handover messages	Siemens, Ericsson

12.2 Liaison Statements

The following Liaison Statements were agreed to be sent by CN4 #13 meeting:

TDOC N4-02xxxx	Subject	To	Cc	Attachment	Sent
0690	Response on Liaison Statement on exchange of addresses on Iu-CS using IP Transport Option in Release 5	RAN3	CN3		22nd May
0699	Shared Networks	RAN3	SA1, SA2		22nd May
0708	Response to Liaison Statement on Support of IPv6 on Iu	RAN3	SA2		22nd May
0732	3GPP specific Diameter applications	CN, CA, SA5			22nd May
0765	Dimensioning for IMS services	SA1, SA2			22nd May
0767	Sh interface signalling	CN1			22nd May
0769	Status of protocol work on Ze interface	CN, SA, SA3			22nd May

12.3 TS/TRs

Tdoc #	Tdoc Title
N4-020763	3GPP TS 29.228 v2.0.0
N4-020764	3GPP TS 29.229 v2.0.0
N4-020768	3GPP TS 29.328 v2.0.0
N4-020737	3GPP TS 29.329 v2.0.1

12.4 WIs

Tdoc #	Tdoc Title
N4-020766	Work item description: Interworking of CS user plane between 3GPP and external PLMN/PSTN/ISDN

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Annex B: List of Temporary Documents

Tdoc n° 3GPP	List of Temporary Documents	Source	Status
N4-020535	Preliminary agenda for CN4 #14	CN4 chairman	Revised to N4-020571
N4-020536	Proposed allocation of documents to agenda items	CN4 chairman	Approved
N4-020537	List of agreed output documents	CN4 chairman	Approved
N4-020538	Ugrade of the ASN.1 version used in 29.002 (Rel-5)	France Telecom	Revised to N4-020731
N4-020539	Ugrade of the ASN.1 version used in 24.080 (Rel-5)	France Telecom	Revised to N4-020729
N4-020540	Clarification on SendAuthenticationInfo	Siemens	Revised to N4-020630
N4-020541	Clarification on SendAuthenticationInfo	Siemens	Revised to N4-020631
N4-020542	Clarification on SendAuthenticationInfo	Siemens	Revised to N4-020632
N4-020543	Correction of Object Identifiers for ASN.1 modules	Siemens	Agreed
N4-020544	Correction of Object Identifiers for ASN.1 modules	Siemens	Agreed
N4-020545	Support of pre-Release 5 USIM for IMS – codings based on IMSI	Ericsson	Noted
N4-020546	Support of pre-Release 5 USIM for IMS – Barring indication of public identities	Ericsson	Approved
N4-020547	HSS initiated update of user profile	Ericsson	Agreed
N4-020548	3GPP TS 29.228 v1.2.1	Ericsson	Approved
N4-020549	3GPP TS 29.229 v1.2.1	Ericsson	Revised to N4-020681
N4-020550	Proposal of LS on 3GPP specific Diameter applications	Ericsson	Revised to N4-020700
N4-020551	XML schema : documentation	Ericsson	Revised to N4-020682
N4-020552	XML schema: Filter-Id	Ericsson	Approved
N4-020553	XML schema: binary encoding	Ericsson	Withdrawn
N4-020554	User identity to HSS resolution - Coding of private identity	Ericsson	Revised to N4-020683
N4-020555	Data addressing on Sh interface	Ericsson	Noted
N4-020556	TS 29.328: Definitions and general architecture	Ericsson	Approved
N4-020557	TS 29.328: Commands supported on Sh interface	Ericsson	Revised to N4-020684
N4-020558	TS 29.328: Sh interface data model	Ericsson	Revised to N4-020753
N4-020559	TS 29.329: Protocol details	Ericsson	Revised to N4-020685

N4-020560	Response to "Response Liaison Statement on Trace and Availability of IMSI and IMEI"	GERAN2	Noted
N4-020561	Reply to N4-020302: Response Liaison Statement on Trace and Availability of IMSI and IMEI	SA3	Noted
N4-020562	Reply to Liaison Statement on Availability of IMSI and IMEI in the BSC	SA5 SWG-B	Noted
N4-020563	Liaison Statement on "Introduction of G-RNTI into TLLI codespace for GERAN Iu mode"	TSG GERAN	Noted
N4-020564	LS on GERAN specific impacts on the Iu-cs interface	TSG GERAN	Noted
N4-020565	Reply to Liaison Statement on Availability of IMSI and IMEI in the BSC	TSG GERAN	Noted
N4-020566	Liaison Statement on IMS Access with a R99/REL-4 USIM	CN1	Noted
N4-020567	Liaison Statement on Support of IPv6 on Iu	RAN3	Noted
N4-020568	Liaison Statement on exchange of addresses on Iu-CS using IP Transport Option in Release 5	RAN3	Noted
N4-020569	Splitting of CAMEL phase 4	Alcatel	revised to N4-020747
N4-020570	Splitting of CAMEL phase 4	Alcatel	Revised to N4-020730
N4-020571	CN4 #14: detailed agenda & time plan at document deadline	CN4 chairman	Revised to N4-020572
N4-020572	CN4 #14: detailed agenda & time plan on eve of meeting	CN4 chairman	Approved
N4-020573	Description of MT SM delivery via two serving nodes	Vodafone	Withdrawn
N4-020574	Proposed WI: MBMS	H3G	Noted
N4-020575	29.328 IMS Sh Interface, Signalling Flows and Message contents	Lucent Technologies	Approved
N4-020576	R5 CR29.002 for Support of MAP Si interface (N4-020523)	Lucent Technologies	Noted
N4-020577	R5 CR29.002 for support of MAP Si interface	Lucent Technologies, MMO2	Revised to N4-020696
N4-020578	R5 CR29.002 for IMS-CAMEL ATM	Lucent Technologies, MMO2	Revised to N4-020697
N4-020579	Alignment of terminology regarding GERAN access	Siemens	Agreed
N4-020580	Introduction of GERAN Iu-mode	Siemens	Revised to N4-020716
N4-020581	Introduction of GERAN Iu-mode	Siemens	Revised to N4-020718
N4-020582	Media Gateway Control Function (MGCF) – IMS Media Gateway (IMS-MGW) Mc Interface between IMS-MGW and MGCF	Siemens	Endorsed by CN4

N4-020583	Worksplit for IMS-Mc interface (CN3 / CN4)	Siemens	Endorsed by CN4
N4-020584	Corrections on Bearer modification	Siemens	Revised to N4-020678
N4-020585	Corrections on Bearer modification	Siemens	Revised to N4-020688
N4-020586	Allow the usage of logical port	Siemens	Agreed
N4-020587	CR 23.008 on Subscribed Media	Ericsson	Withdrawn
N4-020588	Addition of Subscribed Media to Core Network Services Authorization	Ericsson	Withdrawn
N4-020589	Version negotiation	Ericsson	Withdrawn
N4-020590	CR 23.008 on Service-Indication	Ericsson	revised to N4-020738
N4-020591	Addition of APN-OI to Inter-SGSN RAU	Nortel Networks	Agreed
N4-020592	Addition of APN-OI to Inter-SGSN RAU	Nortel Networks	Agreed
N4-020593	Clarification of Server Capability AVPs	Nortel Networks	Approved
N4-020594	S-CSCF Selection Mechanisms	Nortel Networks	Revised to N4-020725
N4-020595	Re-use of Diameter Base Protocol Application Negotiation Procedures for Version Control of IMS protocols	Nortel Networks	Noted
N4-020596	Options for Version Control on Commands in IMS	Nortel Networks	Withdrawn
N4-020597	Proposed LS on Version Control in GUP	Nortel Networks	Withdrawn
N4-020598	Addition of Service Handover parameters to MAP Handover messages	Siemens	Revised to N4-020748
N4-020599	Addition of Service Handover parameters to MAP Handover messages	Siemens	Revised to N4-020749
N4-020600	Addition of Service Handover parameters to MAP Handover messages	Siemens	Revised to N4-020750
N4-020601	Service Handover	Siemens	Revised to N4-020751
N4-020602	Service Handover	Siemens	Revised to N4-020752
N4-020603	Cancellation of Subsequent Handover	Siemens	Rejected
N4-020604	Cancellation of Subsequent Handover	Siemens	Rejected
N4-020605	Editorial corrections in SS-code chapter	Siemens	Revised to N4-020742
N4-020606	Editorial corrections in SS-code chapter	Siemens	Revised to N4-020743
N4-020607	Correction to LCS in the PS domain	Siemens	Withdrawn
N4-020608	Correction to LCS in the PS domain	Siemens	Agreed
N4-020609	Meeting schedule for next year	Chairman	Noted
N4-020610	Extensibility and Compatibility in 29.229	Siemens	Noted

N4-020611	Codeword and Service Type	NTT Docomo	Revised to N4-020679
N4-020612	Support of IPv4 and IPv6 node addresses in Core Network	Lucent Technologies	Rejected
N4-020613	Correction of an incorrect reference in Section 8.3.3.2	Lucent Technologies	Agreed
N4-020614	Correction of an incorrect reference in Section 8.3.3.2	Lucent Technologies	Agreed
N4-020615	Mp Interface requirements	Vodafone	Noted
N4-020616	WID - MRFC to MRFP Interface	Vodafone	Noted
N4-020617	Cause Codes in SGSN Context Acknowledge	Nokia	Rejected
N4-020618	Support of IPv4 and IPv6 node addresses in Core Network	Nokia	Agreed
N4-020619	Introduction of AMR-WB	Nokia	Withdrawn
N4-020620	Addition of Radio Resource List to the Forward Access Signalling operation	Nokia	Agreed
N4-020621	Addition of Radio Resource List to the Forward Access Signalling operation	Nokia	Agreed
N4-020622	Addition of Radio Resource List to the Forward Access Signalling operation	Nokia	Agreed
N4-020623	Addition of Location Information GPRS to Note MM Event operation	Nokia	Agreed
N4-020624	MAPsec PIB	Nokia	Noted
N4-020625	Work Plan	MCC	Noted
N4-020626	User Profile downloading	Nokia	Revised to N4-020676
N4-020627	Service Profile ID	Nokia	Rejected
N4-020628	Format of charging function addresses	Nokia	Agreed
N4-020629	CR on the charging function address format	Nokia	Revised to N4-020693
N4-020630	Clarification on SendAuthenticationInfo	L.M. Ericsson, Siemens, NTT Comware	Revised to N4-020744
N4-020631	Clarification on SendAuthenticationInfo	L.M. Ericsson, Siemens, NTT Comware	Revised to N4-020745
N4-020632	Clarification on SendAuthenticationInfo	L.M. Ericsson, Siemens, NTT Comware	Revised to N4-020746
N4-020633	LCS: error handling if shape not supported by MS	L.M. Ericsson	Agreed
N4-020634	LCS: error handling if shape not supported by MS	L.M. Ericsson	Agreed
N4-020635	LCS: error handling if shape not supported by MS	L.M. Ericsson	Agreed

N4-020636	Addition of ServiceHandover parameter to Prepare_Handover	L.M. Ericsson	Withdrawn
N4-020637	Addition of ServiceHandover parameter to Prepare_Handover	L.M. Ericsson	Withdrawn
N4-020638	Addition of ServiceHandover parameter to Prepare_Handover	L.M. Ericsson	Withdrawn
N4-020639	Clarifications to Resume Call Handling	L.M. Ericsson	Agreed
N4-020640	Clarifications to Resume Call Handling	L.M. Ericsson	Agreed
N4-020641	Clarifications to Resume Call Handling	L.M. Ericsson	Agreed
N4-020642	Introduction Of AMR-WB	L.M. Ericsson	Revised to N4-020702
N4-020643	Correction Section 14.1.6 of 3GPP TS 29.332	L.M. Ericsson	Agreed
N4-020644	Correction Section 14.1.6 of 3GPP TS 29.332	L.M. Ericsson	Agreed
N4-020645	Definition of M3UA for use in 3GPP networks	L.M. Ericsson	Agreed
N4-020646	The use of IPv4 and IPv6 in the transport plane	L.M. Ericsson	Withdrawn
N4-020647	Reference to 3GPP TS 33.210 for protection of GTP	L.M. Ericsson	Revised to N4-020705
N4-020648	Cause Codes in SGSN Context Acknowledge	L.M. Ericsson	Withdrawn
N4-020649	Network Sharing: Impact on the Architecture	L.M. Ericsson	Revised to N4-020714
N4-020650	23.221 CR 029 on Modifications for the support of connected more behaviour in Network Sharing	L.M. Ericsson	Noted
N4-020651	23.009 CR xxx on Support for Access Rights in the non-anchor MSC	L.M. Ericsson	Revised to N4-020715
N4-020652	Proposed WID: Network Sharing	L.M. Ericsson	Revised to N4-020717
N4-020653	Mapping rules from UML to GUP DDF	Nokia	Revised to N4-020694
N4-020654	Si Interface Information Flows for MAP ATSI (N2-020485)	Lucent & MMO2	Noted
N4-020655	IM-SSF Notification of HSS Update of CSI (N2-020486)	Lucent & MMO2	Noted
N4-020656	Correction of SDLs for CAMEL_IMCN_Register/Deregister (N2-020487)	Lucent & MMO2	Noted
N4-020657	Terminating session for Unregistered UE (N2-020491)	Lucent & MMO2	Noted
N4-020658	Clarifications to Resume Call Handling	L.M. Ericsson	Agreed
N4-020659	Clarifications to Resume Call Handling	L.M. Ericsson	Agreed
N4-020660	Clarifications to Resume Call Handling	L.M. Ericsson	Agreed
N4-020661	New cause value for media authorization failure in PCF	Nokia	Withdrawn
N4-020662	LS on Presence Service	SA2	Noted
N4-020663	Liaison Statement on Shared Network support	SA2	Noted
N4-020664	Liaison Statement on GUP work progress	SA2	Noted

N4-020665	Liaison statement response on "Distribution of IMS charging ID (ICID) from GGSN to SGSN"	SA2	Noted
N4-020666	Response to the LS on "The use of IPv4 and IPv6 in the transport plane"	SA2	Noted
N4-020667	IMS Identities for Rel 99/R4 UICC	SA2	Noted
N4-020668	Response LS to handling of user profile data	SA2	Noted
N4-020669	Alignment of 23.008	Siemens	Agreed
N4-020670	Removal of an optional IMSI Paging after SGSN restart	Siemens	Agreed
N4-020671	Alignment of 23.008	Siemens	Agreed
N4-020672	Removal of an optional IMSI Paging after SGSN restart	Siemens	Agreed
N4-020673	Proposed Response on LS on exchange of addresses on Iu-CS using IP Transport Option in Release 5	Siemens	Revised to N4-020690
N4-020674	Extension of the XML Schema of Subscriber Profile in Cx	Nokia	Approved
N4-020675	Version control	Nokia	Revised to N4-020692
N4-020676	User Profile downloading, Revised	Nokia, Ericsson	Revised to N4-020695
N4-020677	Sh interface addressing and protocols	Nokia	Rejected
N4-020678	Corrections on Bearer modification	Siemens	Noted
N4-020679	Codeword and Service Type	NTT Docomo	Noted
N4-020680	Liaison Statement on PSTN/CS domain originated call	SA2	Noted
N4-020681	3GPP TS 29.229 v1.2.1	Ericsson	Approved
N4-020682	XML schema : documentation	Ericsson	Approved
N4-020683	User identity to HSS resolution - Coding of private identity	Ericsson	Withdrawn
N4-020684	TS 29.328: Commands supported on Sh interface	Ericsson	Revised to N4-020734
N4-020685	TS 29.329: Protocol details	Ericsson	Revised to N4-020754
N4-020686	CN4#13 Meetining report	MCC	Approved
N4-020687	CR 23.016-026 (Rel5) on Codeword and Service Type	Ericsson	Agreed
N4-020688	Corrections on Bearer modification	Siemens	Withdrawn
N4-020689	Pompeo (ericsson)	Ericsson	Withdrawn
N4-020690	Proposed Response on LS on exchange of addresses on Iu-CS using IP Transport Option in Release 5	Siemens	Approved
N4-020691	An alternative approach for user profile downloading	Siemens	Noted
N4-020692	Version control	Nokia	Approved
N4-020693	CR on the charging function address format	Nokia	Agreed
N4-020694	Mapping rules from UML to GUP DDF	Nokia	Withdrawn

N4-020695	User Profile downloading, Revised	Nokia, Ericsson	Approved
N4-020695			
N4-020696	R5 CR29.002 for support of MAP Si interface	Lucent Technologies, MMO2	Revised to N4-020727
N4-020697	R5 CR29.002 for IMS-CAMEL ATM	Lucent Technologies, MMO2	Agreed
N4-020698	SSN for IM-SSF for support of MAP Si interface	Lucent Technologies, MMO2	Agreed
N4-020699	Reply LS on Liaison Statement on Shared Network support	Ericsson, Alcatel	Approved
N4-020700	Proposal of LS on 3GPP specific Diameter applications	Ericsson	Revised to N4-020732
N4-020701	Correction of errors introduced with the taken account of CAMEL 4	Alcatel	Agreed
N4-020702	Introduction Of AMR-WB	L.M. Ericsson	Agreed
N4-020703	Codeword and Service Type	NTT Docomo	Agreed
N4-020704	Service Type	Ericsson	revised to N4-020740
N4-020705	Reference to 3GPP TS 33.210 for protection of GTP	L.M. Ericsson	Agreed
N4-020706	Status of protocol work on Ze interface	Nokia	Revised toN4-020755
N4-020707	Preferred Framing Protocol	Ericsson	Revised to N4-020766
N4-020708	Reply LS on on Support of IPv6 on Iu	CN4	Approved
N4-020709	Restructing the IMEI to combine the TAC and FAC	Vodafone	Postponed until 24th of May
N4-020710	Restructing the IMEI to combine the TAC and FAC	Vodafone	Postponed until 24th of May
N4-020711	Restructing the IMEI to combine the TAC and FAC	Vodafone	Postponed until 24th of May
N4-020712	Restructing the IMEI to combine the TAC and FAC	Vodafone	Postponed until 24th of May
N4-020713	Restructing the IMEI to combine the TAC and FAC	Vodafone	Postponed until 24th of May
N4-020714	Network Sharing: Impact on the Architecture	L.M. Ericsson	Noted
N4-020715	23.009 CR xxx on Support for Access Rights in the non-anchor MSC	L.M. Ericsson	Postponed
N4-020716	Introduction of GERAN Iu-mode	Siemens	Postponed to CN4#15
N4-020717	Proposed WID: Network Sharing	L.M. Ericsson	Withdrawn
N4-020718	Introduction of GERAN Iu-mode	Siemens	Postponed to CN4#15

N4-020719	Use of the TLLI codespace in GERAN Iu mode		Approved
N4-020720	Subcriber data management in IMS	Siemens	Noted
N4-020721	Reply LS on Liaison Statement on Shared Network support	Ericsson, Alcatel	Revised to N4-020699
N4-020722	Splitting of CAMEL phase 4	Alcatel	Noted
N4-020723	Protocol definition for Control	Vodafone	Noted
N4-020724	Handling and specification of MO-SMS in CAMEL Phase 4	Alcatel	Withdrawn
N4-020725	S-CSCF Selection Mechanisms	Nortel Networks	Approved
N4-020726	Work split for the Rel-6 WI related to Inter working of CS UP betweem 3GPP and external networks"	Ericsson	Noted
N4-020727	R5 CR29.002 for support of MAP Si interface	Lucent Technologies, MMO2	Revised to N4-020739
N4-020728	LS on message flow diagram to SA2	Nokia	Revised to N4-020767
N4-020729	Ugrade of the ASN.1 version used in 24.080 (Rel-5)	France Telecom	Email approval
N4-020730	Splitting of CAMEL phase 4	Alcatel	Agreed
N4-020731	Ugrade of the ASN.1 version used in 29.002 (Rel-5)	France Telecom	Email approval
N4-020732	Proposal of LS on 3GPP specific Diameter applications	Ericsson	Approved
N4-020733	LS on dimensioning for IMS services to:SA1 &SA2	AT&T	Revised to N4-020765
N4-020734	TS 29.328: Commands supported on Sh interface	Ericsson	Revised to N4-020735
N4-020735	TS 29.328: Commands supported on Sh interface	Ericsson	Approved
N4-020736	TS 29.328: Sh interface data model	Ericsson	Approved
N4-020737	TS 29.329: Protocol details	Ericsson	Approved
N4-020738	CR 23.008 on Service-Indication	Ericsson	Agreed
N4-020739	R5 CR29.002 for support of MAP Si interface	Lucent Technologies, MMO2	Approved
N4-020740	Service Type	Ericsson	Agreed
N4-020741	Alignment of 23.008	Siemens	Agreed
N4-020742	Editorial corrections in SS-code chapter	Siemens	Agreed
N4-020743	Editorial corrections in SS-code chapter	Siemens	Agreed
N4-020744	Clarification on SendAuthenticationInfo	L.M. Ericsson, Siemens, NTT Comware	Agreed
N4-020745	Clarification on SendAuthenticationInfo	L.M. Ericsson, Siemens, NTT Comware	Agreed

N4-020746	Clarification on SendAuthenticationInfo	L.M. Ericsson, Siemens, NTT Comware	Agreed
N4-020747	Splitting of CAMEL phase 4	Alcatel	Revised to N4-020756
N4-020748	Addition of Service Handover parameters to MAP Handover messages	Siemens	Revised to N4-020775
N4-020749	Addition of Service Handover parameters to MAP Handover messages	Siemens	Agreed
N4-020750	Addition of Service Handover parameters to MAP Handover messages	Siemens	Agreed
N4-020751	Service Handover	Siemens	Agreed
N4-020752	Service Handover	Siemens	Agreed
N4-020753	TS 29.328: Sh interface data model	Ericsson	Revised to N4-020736
N4-020754	TS 29.329: Protocol details	Ericsson	Revised to N4-020737
N4-020755	Status of protocol work on Ze interface	Nokia	Revised to N4-020769
N4-020756	Splitting of CAMEL phase 4	Alcatel	Agreed
N4-020757	Use of a temporary public user identity	Ericsson, Vodafone	Revised to N4-020774
N4-020758	Liaison Statement on Deriving IMS parameters from a Pre-Release 5 UICC	CN1	Noted
N4-020759	Clarification of the end of supervision after inter-MSC handover	Siemens	Endorsed by Cn4
N4-020760	Clarification of the end of supervision after inter-MSC handover	Siemens	Endorsed by Cn4
N4-020761	Clarification of the end of supervision after inter-MSC handover	Siemens	Endorsed by Cn4
N4-020762	Clarification that Multicall is not supported in GERAN Iu-mode	Nokia	Endorsed by Cn4
N4-020763	3GPP TS 29.228 v1.3.0	Ericsson	Agreed
N4-020764	3GPP TS 29.229 v1.3.0	Ericsson	Agreed
N4-020765	LS on dimensioning for IMS services to:SA1 &SA2	AT&T	Approved
N4-020766	Preferred Framing Protocol	Ericsson	Approved
N4-020767	LS on message flow diagram to SA2	Nokia	Approved
N4-020768	29.328 IMS Sh Interface, Signalling Flows and Message contents	Lucent Technologies	Email approval
N4-020769	Status of protocol work on Ze interface	Nokia	Agreed
N4-020770	Handling of Service Handover parameter in non-anchor	Ericsson	Endorsed by Cn4
N4-020771	Handling of Service Handover parameter in non-anchor	Ericsson	Endorsed by Cn4
N4-020772	Handling of Service Handover parameter in non-anchor	Ericsson	Endorsed by Cn4

N4-020773	WID - Interworking between IM CN subsystem and CS networks	Vodafone	Endorsed by Cn4
N4-020774	Use of a temporary public user identity	Ericsson, Vodafone	Agreed
N4-020775	Addition of Service Handover parameters to MAP Handover messages	Siemens	Agreed

Annex C: Make calls for IPRs

The attention of the members of this Technical Specification Group is drawn to the fact **that 3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners to **inform their respective** Organizational Partners **of Essential IPRs they become aware of**.

The members take note that they are hereby invited:

- to investigate in their company whether their company does own IPRs which are, or are likely to become Essential in respect of the work of the Technical Specification Group.
- to notify the Chairman, or the Director-General of their **respective** Organizational Partners, of all potential IPRs that their company may own, by means of the IPR Statement and the Licensing declaration forms.

Annex D: Access to 3GPP documents

This document briefly outlines some of the more important locations of information that all TSG_CN WG4 members should be aware of.

2.2 3GPP email lists:

To receive information about CN4 issues, all delegates and other interested parties MUST register for email list **3GPP_TSG_CN_WG4**. This can be done by sending an email to LISTSERV@LIST.3GPP.ORG with the following single line of text in the body of the message:

`subscribe 3GPP_TSG_CN_WG4 YourFirstName YourLastName`

There are many other 3GPP email lists that may also be of interest. Go to http://www.3gpp.org/e-mail.htm for further information.
If at any time you would like to confirm which lists you are currently a member of, just sent a message to LISTSERV@LIST.3GPP.ORG with the following single line of text in the body of the message:

`QUERY *`

2.3 Email archives:

All 3GPP lists have an associated archive of every email sent via that list. Information on how to access the archive is sent to you when you subscribe to the list. This means that if you have temporary email problems, or have just joined the group, you can check to see if you have missed any messages. The easiest was to search the archive is first to request a list of all messages sent to the particular group you are interested in. For example, to get a list of messages sent via the ***3GPP_TSG_CN_WG4*** list between 1st Jan 1999 and the current date, send the following command to LISTSERV@LIST.3GPP.ORG:

`search * in 3GPP_TSG_CN_WG4 since Jan 1999`

As well as a list of emails sent, you receive instructions about how to retrieve the emails.
Some 3GPP archives are also available via a new user-friendly WWW interface. For CN4, go to:
http://list.3gpp.org/archives/3gpp_tsg_cn_wg4.html

2.4 Meeting calendar:

The central location for all information relating to the 3GPP meeting calendar and the corresponding meeting invitations can be found at: http://www.3gpp.org/Meetings.htm

2.5 Documents on the server:

All documents submitted to CN4 meetings will be made available on the 3GPP document server in a directory (related to the number of the meeting) under: ftp://ftp.3gpp.org/TSG_CN/WG4_protocollars/
e.g. the documents for CN4 meeting #4 can be found at:
ftp://ftp.3gpp.org/TSG_CN/WG4_protocollars/tsgN4_04/Docs/

ANNEX E: Document history

Document History	
29th May 2002	DRAFT v.1.0.0 dispatched to the TSG_CN4 mail exploder for comments. Comments to be addressed to: **Mr. Kimmo Kymäläinen, 3GPP TSG-CN4 MCC Support** MCC - ETSI Secrétariat Tel :+33 (0)4 92 94 42 38 E-mail: kimmo.kymalainen@etsi.fr A deadline of a week was given to the CN4 delegates for e-mail comments on the draft report. **E-mail comments back by 4th June 2002**
05th June 2002	Draft report v2.0.0 placed on the FTP serve
29th July 2002	Version 2.0.0 approved at CN4#15 Meeting in Helsinki, FINLAND – Made version 3.0.0. Placed to server as the official meeting report.