3GPP TSG CN Plenary Meeting #25 **NP-040519**
8th – 10th December 2004 Athens, Greece

Source: TSG CN WG4

Title: Output Liaison statements after CN#25

Agenda item: 6.4.1

Document for: INFORMATION

Tdoc	Tdoc Title	LS to	LS cc	LS Attachment
1564	Output LS S.CSCF client address cmparisin and their effect on de-registration	CN1		N4-041339
1573	Output LS, LS on parameter storage for I-WLAN	SA2		N4-041572
1589	Output LS; LS on reusing authentication on cenario 2 for cenario 3	SA2, SA3	CN1	
1590	Output LS, LS clarification of IMSI for interception at the PDG	SA3, SA3-LI		
1602	Output LS, LS on assign AVPs for Gmb	CN3		
1605	Output LS on ; Introduction of Early IMS security mechanisms	SA3		N4-041643
1617	OutputLS LS on IMS registration state stored at the HSS	SA2		
1620	Output LS Response LS on GUP WI Update	SA1	SA2, CN	N4-041607
1623	Output LS; LS TFO/TrFO compatibility of UMTS_AMR and UMTS_AMR2	SA4		N4-041301
1644	Output LS 3GPP diameter allocations for Gx interface	CN3		
1652	Output LS LS on Clarifications for AMR	SA4		N4-041651
1687	Reservation of two new sub-domains under ".3gppnetwork.org"	GSMA IREG PACKET	3GPP TSG-CN WG 1, 3GPP TSG-CN	N4-041407, N4-041613
1690	Output LS response to LS on MBMS Information Elements over Iu interface	RAN3	SA2, SA4, CN1, CN3, RAN2, GERAN2	
1691	Output LS Response to LS to 3GPP on Evaluation of the alternatives for SMS fraud countermeasures	SA3, GSM-A IREG	T2, GSM-A SG	N4-041641
1698	Output LS; LS on Impact of Shared Public User Identities on the Sh Interface	SA2; SA5		
1699	Output LS Open issue on trace	SA5		

3GPP TSG-CN WG4 Meeting #25 **N4-041564**
Seoul, KOREA. 15th to 19th November 2004.

Title: **LS to CN1: S-CSCF client address comparisons and their affect on de-registrations**
Release: **Rel-6**
Work Item: **IMS-CCS**

Source: **CN4**
To: **CN1**
Cc:

Contact Person:
Name: **Nigel Berry**
Tel. Number: **+441973883245**
E-mail Address: nhberry@lucent.com

Attachments: **N4-041339 CR 29.228 147 Rel-5; Avoiding undesired deregistration**

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1. Overall Description:

When the HSS receives a Multimedia Authentication Request command for a user from a S-CSCF, it shall compare whether the S-CSCF name, i.e. SIP URI, has been changed. The comparison of the S-CSCF name is made according to the SIP URI comparison rules which are defined in the IETF RFC 3261 (see chapter 6 in TS 29.228).
If the HSS detects that the S-CSCF name has changed, it may send an Registration Termination Request message to the old S-CSCF to remove the user data there.
However, according to the SIP URI comparison rules the two URIs are considered to be different if, for example, the port is different or some URI parameter has a different value. This will cause the HSS to send an unwanted RTR message to the current S-CSCF.

2. Actions:

To CN1 group.

ACTION: CN4 kindly ask CN1, if the client address can change for the S-CSCF at any time as this will affect the comparison of S-CSCF name when checking the S-CSCF names, leading to the undesired consequences explained above.

3. Date of Next CN4 Meetings:

CN4#26	14th - 18th February 2004	Sydney, AUSTRALIA
CN4#27	25th - 29th April 2004	Cancun, MEXICO

3GPP TSG-CN WG 4 Meeting #25 N4-041573

Seoul, KOREA. 15th to 19th November 2004.

Title: Reply LS on parameter storage for I-WLAN
Release: Rel-6
Work Item: WLAN Interworking

Source: CN4
To: SA2
Cc:

Contact Person:
Name: **Paul Sitch**
Tel. Number: +1 650 996 3742
E-mail Address: paul.sitch@nokia.com

Attachments: N4-041572

CN4 thank SA2 for their LS on parameter storage for I-WLAN. CN4 would like to inform SA2 that the attached CR was agreed for incorporation into 23.008. This CR details the information elements stored in the logical network elements defined in the WLAN-IW architecture. CN4 would like to take this opportunity to advise SA2 to remove overlapping descriptions in SA2 documentation, and rather reference the 23.008 specification. In CN4's opinion, this avoids the potential problem of conflicting stage 2 and stage 3 specifications

Actions:

CN4 advise SA2 to remove overlapping descriptions in SA2 documentation, and rather reference the 23.008 specification.

Date of Next TSG-CN4 Meetings:

CN4_26	14th – 18th February 2005	Sydney, Australia
CN4_27	25th -30th April 2005	Cancun, Mexico

3GPP TSG-CN WG 4 Meeting #25

Seoul, KOREA. 15th to 19th November 2004.

Title: **The relationship between Scenario 2 and Scenario 3 authentication procedures**
Release: Rel-6
Work Item: WLAN Interworking

Source: CN4
To: SA2, SA3
Cc: CN1

Contact Person:
Name: **Paul Sitch**
Tel. Number: +1 650 996 3742
E-mail Address: paul.sitch@nokia.com

Attachments: None.

CN4 seek guidance on the following use case:

A user performs Scenario 2 authentication to a 3GPP AAA Server and is given a temporary identifier (re-authentication-ID or pseudonym). The user then wishes to set up a tunnel to a PDG.

The question is: is it allowed that the WLAN UE uses the temporary identifier received in the Scenario 2 authentication in the subsequent Scenario 3 authentication procedure, or should these authentication procedures be completely separated (i.e. in the first Scenario 3 authentication the IMSI should be used)?

Actions:

CN4 ask SA2 and SA3 to consider the above use case and reply to the above question

3 Date of Next TSG-CN4 Meetings:

CN4_26	14th – 18th February 2005	Sydney, Australia
CN4_27	25th -30th April 2005	Cancun, Mexico

3GPP TSG-CN WG 4 Meeting #25 N4-041590

Seoul, KOREA. 15th to 19th November 2004.

Title: Need for the IMSI at the PDG
Release: Rel-6
Work Item: WLAN Interworking

Source: CN4
To: SA3, SA3-LI
Cc:

Contact Person:
Name: **Paul Sitch**
Tel. Number: +1 650 996 3742
E-mail Address: paul.sitch@nokia.com

Attachments: None.

CN4 is in the process of specifying which information elements shall be stored at the PDG. As such, it seeks guidance on the following issue:

Does lawful intercept place any requirements on the storage of the IMSI at the PDG in Release 6? i.e Is intercept at PDG implied in Release 6? If yes, is intercept based on IMSI mandatory, or it is enough to store the MSISDN, or is there no requirement for intercept at all in Release 6?

Actions:

CN4 kindly ask SA3 and SA3-LI to consider the above questions and answer at their earliest convenience.

Date of Next TSG-CN4 Meetings:

CN4_26	14th – 18th February 2005	Sydney, Australia
CN4_27	25th -30th April 2005	Cancun, Mexico

3GPP TSG-CN WG4 Meeting #25 **N4-041602**
Seoul, KOREA. 15th to 19th November 2004.

Title:	**LS on the Request of Gmb Diameter code values**
Response to:	**LS (N3-040561) on the Request of Gmb Diameter code values from CN3**
Release:	**Rel-6**
Source:	**CN4**
To:	**CN3**

Contact Person:
Name: David Hutton
Tel. Number: +44 1628 438033
E-mail Address: dhutton@nortelnetworks.com

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1. Overall Description:

CN4 would like to thank CN3 for the LS requesting the allocation for Diameter Codes and Identifiers for the Rel-6 Gmb (TS 29.061) interface.

CN4 would like to advise CN3 that the following data ranges have been allocated for the Gmb Interface and corresponding codes and identifiers have been reserved in TS 29.230 as follows:

- 100 3GPP AVP command codes in the range:- 900 to 999
- 20 3GPP specific Experimental-Result-Codes of type Permanent failure range:- 5120 to 5139

CN4 would like also to inform CN3, that CN4 will request the Diameter application identifier for Rel-6 Gmb interface from IANA. CN4 will inform the CN3 when the IANA has assigned the application identifier.

2. Actions:

To CN3 group.

ACTION:

When CN3 has specified the AVPs and result codes, and the specification has been approved and is under CR control, it should inform CN4 of the specific AVPs and codes, via an LS, to enable further updates to TS 29.230.

3. Date of Next CN4 Meetings:

CN4#26	14th - 18th February 2004	Sydney, AUSTRALIA
CN4#27	25th - 29th April 2004	Cancun, MEXICO

3GPP TSG-CN WG4 Meeting #25 **N4-041605**
Seoul, KOREA. 15th to 19th November 2004.

Title: **Reply LS on Security aspects of early IMS systems**
Response to: **LS (S3-040880) on Security aspects of early IMS systems from SA3**

Source: **CN4**
To: **SA3**

Contact Person:
Name: Dan Warren, Vodafone
Tel. Number: +44 7795 300783
E-mail Address: dan.warren@vodafone.com

Attachments: N4-041643 - CN4 impacts of Early IMS security mechanisms.

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1. Overall Description:

CN4 thanks SA3 for their LS in S3-040880 (N4-0401265) on Security aspects of early IMS systems. CN4 considered the attached TR33.878 and have identified a number of impacts on the current specification of Cx interface within 3GPP TS 29.228 and 3GPP TS 29.229. These have been documented in the attached document, N4-041643.

CN4 was not able to decide where best to document the information included in N4-041643. Whilst the information is relevant to Cx interface and so could be incorporated in TS 29.228, it seemed inappropriate to do this when the intention of Early IMS Security is to be something that is used early in IMS deployment, whilst 29.228 is the normative description of Cx interface support of full IMS security. If it were included in 29.228, it would form an informative Annex and would only be included in the R6 specifications. Alternatively, the information could be included in TR 33.878 in a new section. This may seem appropriate and would result in the full detail of the Early IMS Security implementation being held in a single document, if a similar approach were adopted by other groups handling stage 3 details.

CN4 has a preference for the inclusion of this information in TR33.878, but asks SA3 to decide where the documentation of Cx impacts as a result of Early IMS Security is best addressed.

2. Actions:

To SA3 group.

ACTION: CN4 asks SA3 to consider the information within N4-041643 and either to include it within TR33.878 or inform CN4 that the content of N4-041643 should be added to 29.228.

3. Date of Next CN4 Meetings:

CN4#26	14th - 18th February 2004	Sydney, AUSTRALIA
CN4#27	25th - 29th April 2004	Cancun, MEXICO

3GPP TSG-CN WG4 Meeting #25 **N4-041617**
Seoul, KOREA. 15th to 19th November 2004.

Title:	**LS on IMS registration state stored at the HSS**
Response to:	**LS (S2-043409) on IMS registration state stored at the HSS from SA2**
Release:	**Release 6**
Source:	**CN4**
To:	**SA2**

Contact Person:
Name: Dan Warren, Vodafone
Tel. Number: +44 7795 300783
E-mail Address: dan.warren@vodafone.com

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1. Overall Description:

CN4 would like to thank SA2 for their LS detailing the two options that SA2 have considered for the storage of registration state for shared Public User Identities in the HSS. In the LS, CN4 were asked to consider the impacts of the two proposals on Cx and Sh interface specifications, and also to propose any alternatives that might be applicable. The required analysis and suggestions are included in this reply LS.

First, the two proposals included in the LS to CN4 are analysed.

A) The HSS stores only the registration state of each Public User Identity

This alternative would imply little impact on the majority of the Cx specification and would have no additional impact on the Sh interface over any other solution (although note that Sh interface is discussed further below). However, the Cx interface Registration-Termination-Request (RTR) command would require significant modification. The RTR can be performed to terminate the registration of a specific Private User Identity, and as a result of the Termination, all Public User Identities associated with the identified Private User Identity are deregistered as well. If two or more Private User Identities associated with a shared Public User Identity are registered, and one of these Private User Identities is the subject of an RTR, the result would be that the shared Public User Identity would also be deregistered, leaving the other Private User Identities associated with the shared Public User Identity without access to service for that Public User Identity. The problem is magnified if one of the Private User Identities remaining had the shared Public Identity as the only public identity registered against, since the Private User Identity then becomes completely deregistered and with no server assigned. This would take place under current specification because the HSS has no record of the number of registered Private User Identities associated with the shared Public User Identity.

If the Public User Identity is subsequently registered by a further Private User Identity, then upon receiving the User-Authentication-Request for the Public User Identity from the I-CSCF, when the HSS checks the Registration Status of the Public User Identity, the HSS will find it to be Not Registered and return the S-CSCF capability set for that Identity. This problem is seen as significant by CN4

B) The HSS stores the registration state of each valid Public/Private User Identity pair

This alternative would imply a considerable impact on the Cx specifications in terms of the description of the call processing associated with all Cx interface commands. Initial attempts to draft CR's to the Cx interface specifications to implement this change (which was initially CN4's preference when discussed on e-mail) have proved to be both extensive and contentious. The significant issue has been that, with the exception of the RTR command (discussed above), all other Cx commands operate without any dependence on the Private User Identity registration state and so the extensive modification would not be required if only Public User Identity status were recorded. It is also likely that this solution would have some impact at least on the descriptions of the Sh interface and may also have impacts with regard to how results for requests for Location and Registration Status on the Sh interface from an AS to an HSS would be processed (as mentioned above, Sh interface is further discussed below. This proposal does not result in a technical problem in Cx, unlike proposal A.

Whilst CN4 appreciates the direction and options that SA2 is suggesting, CN4 believes that the structure of data and storage of that data related to Registration state (regardless of the related User Identity type it is associated with) is in fact internal to an HSS, and as such is not within the scope of 3GPP specification. Therefore, the question asked by SA2 and the decision that SA2 is intending to take is out of scope of 3GPP and is in fact an implementation detail for HSS manufacturers to determine within their own product. CN4 notes that there are modifications required for the Cx interface to take into account checks that should be performed in an HSS under deregistration (as highlighted in the consideration of option A), and will work towards completing this, but CN4 does not believe that the mandate or recommendation of storage structure of registration states can be made – only a requirement to make sure that the HSS checks that the status of a shared Public User Identity is not incorrectly stored (under whatever structure an HSS implements) can be included in Cx interface specification.

Therefore, CN4 recommends that neither Option A or B is adopted, and further recommends that the structure of data stored in the HSS remains outside of 3GPP scope. All that 3GPP can require is that the data is stored in a way that allows required functionality to be supported.

Impact of shared Public User Identities on the Sh interface

Discussion of the Sh interfaces is separated from the other considerations because the impact is roughly equivalent regardless of the Proposal chosen. Sh interface is used to communicate various information from the HSS to the AS including registration state. When the information requested is for a shared Public User Identity, it is difficult to determine what the Sh interface should return to the AS. Under proposal A, a single registration status would be returned (which would seem correct) but under proposal B, a list of registration statuses would be returned – one for each Public/Private pair.

It seems to CN4 that the Sh interface may need to support the reporting of multiple results for certain information regardless of the proposal chosen, but these impacts extend beyond just the registration state.

One example considered by CN4 was where a shared Public User Identity may be the key used to obtain Location Information held by the HSS. Multiple locations would be provided to the AS for a Public ID that was shared amongst several Private User Ids e.g. A family Public User ID. How these would be identified and used by a Rel-6 application is not known but in a Rel-5 application where the Private to Public User Identity mapping is one to one, only one location is ever returned and so the application would be able to use that returned single location easily.

Conclusions

CN4 concludes that neither option A or B can be recommended and further that no requirement on the structure of the storage of data in the HSS can be enforced. CN4 notes that the Cx and Sh interface procedures described in 29.228 and 29.328 need to be thoroughly reviewed to include consideration of shared Public User Identities, but this review will also not place requirements on how registration information is stored and structured in the HSS.

2. Actions:

To SA2.

ACTION: CN4 asks SA2 to take note of the recommendation given by CN4 that the storage and structure of data within an HSS is outside of the scope of 3GPP specification when deciding if a method for storing registration states associated with Public User Identities that are shared by multiple Private User Identities should be enforced.

3. Date of Next CN4 Meetings:

CN4#26	14th - 18th February 2004	Sydney, AUSTRALIA
CN4#27	25th - 29th April 2004	Cancun, MEXICO

3GPP TSG-CN WG4 Meeting #25 **N4-041620**
Seoul, KOREA. 15th to 19th November 2004.

Title: **LS on GUP WID Update**
Response to: **LS (S1-040977rev) on GUP WI Update from SA1**
Release: **Rel-6**
Work Item: **GUP**

Source: **CN4**
To: **SA1**
Cc: **SA2, CN**

Contact Person:
Name: **Nigel Berry**
Tel. Number: +441973883245
E-mail Address: nhberry@lucent.com

Attachments: **N4-041607 [GUP WID amended by CN4 and endorsed].**

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1. Overall Description:

CN4 thanks SA1 for their LS (S1-040977 revised after e-mail approval) and the attached updated GUP Work Item Description.
CN4 have updated aspects of the GUP WID that are pertinent to CN4 at CN4#25 and have endorsed the changes made by SA1.
CN4 have decided that TS 24.241, the Framework template may now be more relevant to a later release and so it becomes not applicable for the current WID but will be considered for a possible later GUP phase 2 WID. CN4 also notes that some of the items that SA1 deleted from the current GUP WID may also be applicable to a later GUP Phase 2 WID.
The current TS 23.241, the Data Description Framework will be transformed to a published TR 23.941 after TSG CN#26, a Possible Data Description Framework, as CN4 have taken the decision to adopt the LA framework specifications for GUP and thus GUP will become an instantiation of Liberty Alliance within 3GPP. This decision renders TS 23.241 obsolete and so it must be removed from the current planned delivery of GUP.

2. Actions:

To SA1 group.

ACTION: CN4 asks the SA1 group to take note of the update to the 3GPP wide GUP WID made by CN4 and to please represent the total changes to the SA plenary.

3. Date of Next CN4 Meetings:

CN4#26	14th - 18th February 2004	Sydney, AUSTRALIA
CN4#27	25th - 29th April 2004	Cancun, MEXICO

3GPP TSG-CN WG4 Meeting #25 **N4-041623**
Seoul, KOREA. 15th to 19th November 2004.

Title: **LS on TFO/TrFO compatibility of UMTS_AMR and UMTS_AMR2**
Release: **Release 4, 5, 6**
Work Item: **Out-of-band Transcoder Control**

Source: **CN4**
To: **SA4**
Cc:

Contact Person:
Name: Robert Zaus
E-mail Address: robert.zaus@siemens.com

Attachments: N4-041301 [CR 075 to TS 23.153].

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1. Overall Description:

During CN4 #25, CN4 discussed a problem caused by the incompatibility between the UMTS_AMR and the FR_AMR codec in certain TFO-TrFO-TFO interworking scenarios. (For details please refer to the 'reason for change' in the attachment.)

CN4 agreed on the solution proposed in the attached CR to TS 23.153 that **UMTS_AMR and UMTS_AMR_2 shall only be considered as TFO- and TrFO- compatible, when used in a single mode configuration with the same mode,** and approved the CR from Release 4 onwards.

CN4 kindly asks SA4 to study the problem addressed by the CR and to agree on the necessary corresponding CRs to the specifications under their control, if the proposed solution is considered acceptable by SA4.

2. Actions:

To SA4 group.

ACTION: CN4 asks SA4 to study the problem addressed in the 'reason for change' of the attached CR and to agree on the necessary corresponding CRs to the specifications under their control, from Release 4 onwards.

3. Date of Next CN4 Meetings:

CN4#26	14th - 18th February 2004	Sydney, AUSTRALIA
CN4#27	25th - 29th April 2004	Cancun, MEXICO

3GPP TSG-CN WG4 Meeting #25 **N4-0411644**
Seoul, KOREA. 15th to 19th November 2004.

Title:	**LS on 3GPP Diameter Allocations for Gx**
Response to:	**LS (N3-040818) on Assignment of the Diameter codes and identifiers for the Rel-6 Gx interface from CN3**
Release:	**Rel-6**
Work Item:	**TEI6**
Source:	**CN4**
To:	**CN3**
Cc:	**-**

Contact Person:
Name: Mikko Aittola
Tel. Number: +350 50 486 1209
E-mail Address: mikko.aittola@nokia.com

Attachments: -

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1. Overall Description:

CN4 informs that it has made the following 3GPP Diameter allocations for Gx:

- Range of 3GPP AVP-codes: 1000 - 1099
- Range of 3GPP result-codes: 5140 - 5159

Application-Ids will be requested from IANA by CN4. CN4 will inform CN3 after IANA has allocated the ids.

2. Actions:

To CN3:

ACTION:

When CN3 has specified the AVPs and result-codes, and the specification has been approved and is under CR control, CN3 should inform the AVPs and result-codes to the 3GPP TSG-CN WG 4 via an LS. The LS should list the used codes in the form of the tables used in 3GPP TS 29.230.

3. Date of Next CN4 Meetings:

CN4#26	14th - 18th February 2004	Sydney, AUSTRALIA
CN4#27	25th - 29th April 2004	Cancun, MEXICO

3GPP TSG-CN WG4 Meeting #25 **N4-041651**
Seoul, KOREA. 15th to 19th November 2004.

Title: **LS on Clarifications on AMR**
Release: **Release 4, 5, 6**
Work Item: **TrFO**

Source: **CN4**
To: **SA4**
Cc: **---**

Contact Person:
Name: Arturo Martin de Nicolas
E-mail Address: Arturo.Martin-de-Nicolas@ericsson.com

Attachments: N4-041652 [draft CR 034 to TS 26.103].

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1. Overall Description:

During CN4 #25, CN4 discussed how the optional octets of the Single Codec IE for AMR shall be treated if omitted.

CN4 agreed on the solution proposed in the attached CR to TS 26.103 that **the values of ACS, SCS, MACS and OM if omitted, shall be interpreted as shown in the CR,** and endorsed the CR from Release 4 onwards.CN4 recognizes that this solution is not backward compatible.

CN4 also discussed the other alternative, which requires more octets and is therefore less efficient for the dominant applications. Although this solution would be backward compatible CN4 agreed to prefer the other solution.

CN4 kindly asks SA4 to study the proposal addressed by the CR and to agree on the necessary corresponding CRs to the specifications under their control, if the proposed solution is considered acceptable by SA4.

2. Actions:

To SA4 group.

ACTION: CN4 asks SA4 to study the problem addressed in the 'reason for change' of the attached CR and to agree on the necessary corresponding CRs to the specifications under their control, from Release 4 onwards.

3. Date of Next CN4 Meetings:

CN4#26	14th - 18th February 2004	Sydney, AUSTRALIA
CN4#27	25th - 29th April 2004	Cancun, MEXICO

3GPP TSG-CN WG4 Meeting #25 **N4-041687**
Seoul, KOREA. 15th to 19th November 2004.

Title:	**Reservation of two new sub-domains under ".3gppnetwork.org"**
Release:	Rel-6
Work Item:	WLAN Interworking, Generic Authentication Architecture
Source:	3GPP TSG-CN WG4
To:	GSMA IREG PACKET
Cc:	3GPP TSG-CN WG 1, 3GPP TSG-CN

Contact Person:
Name: **Nick Russell**
Company: **Vodafone**
Tel. Number: +44 7748 938929
E-mail Address: Nick.Russell (at) Vodafone dot com

Attachments: N4-041407, N4-041613

1. Introduction

3GPP TSG-CN WG4 (CN4) is currently working on Work Items which make use of an inter-operator IP backbone network. Two of these are "WLAN Interworking" and "Generic Authentication Architecture". It is expected that the GPRS Roaming eXchange network (known as the GRX) will be re-used to support these services between PLMNs. In order to have minimal impact on the GRX, it was identified during CN4 #25 that the ".3gppnetwork.org" domain should be re-used. Therefore, two additional sub-domains of this domain are required.

2. WLAN

CN4 notes that GSMA has previously allocated the "wlan" sub-domain of ".mnc<MNC.mcc<MCC>.3gppnetwork.org" for use in WLAN NAIs (Network Access Identifiers) and thanks GSMA for allocating this. However, the need for another sub-domain allocation has occurred.

Currently within 3GPP, mechanisms are being defined to allow the UE to perform a manual PLMN selection on WLAN access. That is, select which WLAN Access Network (AN) to attach to based on the PLMN(s) that the WLAN AN is connected to. For more information, please see the attached discussion document N4-041407 (paying particular attention to section 2.1).

The proposed mechanism requires a known non-routable domain to be reserved on the GRX under the ".3gppnetwork.org" domain in order to force a WLAN AN to fail in its attempt to automatically authenticate and authorise the UE when it attaches (the resulting error procedure of the WLAN AN right now being to send a list of PLMNs to which it is connected to the UE). As you may know, it is outside the scope of 3GPP to define logical processing for WLAN AN, therefore, 3GPP has to use this out of the ordinary technique. It is therefore proposed that this domain, although reserved, is never actually used or assigned to an entity. Just reserved.

During discussions in the CN4, the following domain name was agreed to be proposed to GSMA IREG PACKET for such use:

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nonrouteable.3gppnetwork.org
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3. Generic Authentication Architecture

The Generic Authentication Architecture (GAA) is a standardised method of subscriber certificate distribution by means of Generic Bootstrapping Architecture (GBA). Subscriber certificates support services whose provision the mobile operator assists, as well as services that are offered by the mobile operator. 3GPP is currently defining the signalling procedures for the support of issuing certificates to subscribers and the standard format of certificates and digital signatures. Note that it is not the intention of 3GPP to duplicate existing standards being developed by other groups on these topics (references are given where appropriate). For more information on GAA/GBA, please see 3GPP TS 33.221 and 3GPP TS 33.220, respectively.

To enable the UE to discover the address of the Boot Strapping Function (BSF) in the PLMN, an identity can be pre-configured in the ISIM (IMS Subscriber Identity Module) on the UICC. However, in order to support GAA/GBA on a UICC which does *not* have an ISIM application (and therefore, does not have a pre-configured BSF address) the UE, using a defined procedure, has to "create" a BSF address from the IMSI and a default domain name. This is done in the same manner as for UEs that are capable of IMS but also do not have access to an ISIM. See the attached CR in N4-041613 (attached) for more information.

It was decided by CN4 to synergise the BSF discovery mechanism with the said IMS procedure as much as possible so it was proposed to use the same domain name and domain name structure. Thus, the following domain name was agreed to be proposed to GSMA IREG PACKET for such use:

`bsf.mnc<MNC>.mcc<MCC>.3gppnetwork.org`

4. Actions:

CN4 kindly asks GSMA IREG PACKET to:

1) reserve the proposed sub-domains of ".3gppnetwork.org" as defined above;

2) never service DNS requests to the former proposed domain name on the GRX so that all DNS look-ups to it will fail;

3) address their response LS to this LS directly to 3GPP TSG CN plenary (CN) – but copying CN4 and CN1 – because there are no more CN4 meetings (or any other CN WG meetings) before the next CN where it is expected that the 3GPP Rel-6 specification set will be frozen.

5. Date of Next 3GPP TSG-CN WG4 Meetings:

CN4 #25	14th – 18th February 2005	Sydney, Australia
CN4 #26	25th -30th April 2005	Cancun, Mexico

3GPP TSG-CN WG4 Meeting #25 **N4-041690**
Seoul, KOREA. 15th to 19th November 2004.

Title: Reply LS on MBMS Information Elements over Iu interface
Release: Rel-6
Work Item: MBMS

Source: CN4
To: RAN3
Cc: SA2, SA4, CN1, CN3, RAN2, GERAN2

Contact Person:
Name: Nick Russell
Company: Vodafone
Tel. Number: +44 7748 938929
E-mail Address: Nick.Russell (at) Vodafone dot com

Attachments: None

CN4 thanks RAN3 for their LS on MBMS Information Elements over the Iu interface. In the LS, CN4 identified only the following question directed to them:

> IP Multicast Address and APN
> These IEs should remain transparent in RAN. Thus they should be coded in RANAP as transparent container i.e. OCTET STRING.
> ► RAN3 would [like] to ask CN1 and CN4 whether these IEs have fixed length and where their coding is described.

There is currently no *explicit* definition of the IP Multicast Address within CN4 specifications. However, it is believed by CN4 that this address takes on the structure of a standard IP address but uses reserved values. Therefore, an IPv4 address, which uses 32-bit addressing, is 4 octets in length and an IPv6 address, which uses 128-bit addressing, is 16 octets in length. For more information on IP addresses, see 3GPP TS 23.003 – clause 3.7 and 3.8, for IPv4 and IPv6 (respectively).

The Access Point Name (APN) is defined in the CN4 specification of 3GPP TS 23.003 – clause 9. It's length varies but is defined to be between 1 and 255 characters/octets.

Actions:

CN4 kindly asks RAN3 to note the above answer from CN4.

Date of Next 3GPP TSG-CN WG4 Meetings:

CN4 #25	14th – 18th February 2005	Sydney, Australia
CN4 #26	25th -30th April 2005	Cancun, Mexico

3GPP TSG-CN WG4 Meeting #25 **N4-041691**
Seoul, KOREA. 15th to 19th November 2004.

Title:	**Reply to LS on Reply to Evaluation of the alternatives for SMS fraud countermeasures**
Response to:	**LS (N4-041252 and N4-041267) on LS to 3GPP on Evaluation of the alternatives for SMS fraud countermeasures, from GSM-A IREG and SA3 respectively**
	LS (N4-041264 and N4-041270) on LS to on SMS Fraud countermeasures, from SA3 and T2 respectively
Release:	**Release 6**
Source:	**CN4**
To:	**SA3, GSM-A IREG**
Cc:	**T2, GSM-A SG**

Contact Person:
Name: Dan Warren, Vodafone
Tel. Number: +44 7795 300783
E-mail Address: dan.warren@vodafone.com

Attachments: N4-041641

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1. Overall Description:

CN4 would like to thank GSM-A IREG, SA3 and T2 for the LS's received on topics regarding SMS fraud counter measures. In the LS received from GSM-A IREG four questions were asked of CN4 and SA3. In answering the questions, CN4 hopes that all other points raised in other LS's are addressed.

The four questions, and the answers from CN4 are given below.

1. That CN4 understand the IREG response.

CN4 confirms that the IREG response has been received and understood.

2. That CN4 are able to proceed with the design and specification of TCAP handshake mechanism.

At CN4 meeting #25, the work on TCAP Handshake implementation was completed. The changes to the MAP specification can be found in 29.002 CR 740r2 (N4-041641).

3. That CN4 are able to complete the "gateway" design and specification of the MAPsec mechanism.

In accordance with the SA3 response, CN4 will work with SA3 to complete the MAPsec work to allow for the implementation of the gateway design. However, it is noted by CN4 that if the KAC and the gateway are incorporated in a single entity, that entity will no longer require the implementation of the Ze interface. CN4 awaits information from SA3 on the finalized architecture and any requirements that are placed upon CN4 for further protocol work, be that specification of the Ze interface or any other work required.

4. The dates when items 2 and 3 will be complete and approved by 3GPP.

As mentioned above, the CN4 aspects of item 2 have been completed at this CN4 meeting, and the CR will be forwarded to CN Plenary #26. Any work on item 3 that CN4 undertakes will be dependent on decisions in SA3, but CN4 sees no reason for any such work to not be completed in the Release 7 timescales proposed by SA3 at this time.

2. Actions:

None

3. Date of Next CN4 Meetings:

CN4#26	14th - 18th February 2004	Sydney, AUSTRALIA
CN4#27	25th - 29th April 2004	Cancun, MEXICO

3GPP TSG-CN WG4 Meeting #25 **N4-041698**
Seoul, KOREA. 15th to 19th November 2004.

Title: **LS on Impact of Shared Public User Identities on the Sh Interface**

Source: **CN4**
To: **SA2; SA5**

Contact Person:
Name: David Hutton
Tel. Number: +44 1628 438033
E-mail Address: dhutton@nortelnetworks.com

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1. Overall Description:

In Release 6, the introduction of the possibility for multiple IMS Private User Identities to register a single IMS Public User Identity has been introduced. As a result, this has impacted the Sh interface by inferring that multiple instances of data, that are associated to a number of Private User Identities, may be returned to the AS from the HSS when requesting data for a shared Public User Identity. This scenario will only occur for specific data types that are associated with a Private User Identity e.g. Geographic location information, CS/PS user state.

The Sh interface currently supports only single instances of user data being accessed by the AS, and it has been brought to the attention of CN4 that a modification to incorporate multiple instances of user data across the Sh interface has implications in the AS. The AS currently has no knowledge of Private User Identities and therefore would not be able to differentiate multiple data instances to specific users. In this scenario the behaviour of the AS is not defined.

CN4 has also identified possible backward compatibility issues regarding the Sh interface. For example, the behaviour is undefined for a Release 6 HSS that stores multiple instances of user data for a shared Public User Identity and how it interacts with a Release 5 AS which only supports a single instance of user data.

CN4 would like to receive guidance from SA2 as to the requirements for multiple instances of IMS user data associated with the shared Public User identity to be present in the AS. CN4 would also like to receive guidance of required behaviour for the requirements received from SA2 and the issue of backwards compatibility.

Furthermore, it is unclear in the specifications of whether the Charging Information stored in the HSS is associated with the Private User Identity or the IMS Subscription. As this data type may also be affected by multiple Private User Identities associated with a Shared Public User Identity, CN4 would like to receive guidance from SA2 and SA5 as to which IMS Identity the Charging Information is associated with.

2. Actions:

To SA2, SA5 group.

ACTION: To provide guidance as to whether the Charging Information stored in the HSS is associated with the Private User Identity or the IMS Subscription..

To SA2 group.

ACTION:

1. To provide guidance as to the requirements for enabling multiple instances of user data that is associated with Private User Identities when requesting data for a Shared Public User Identity over the Sh interface.
2. To provide guidance as to the behaviour of the AS for the requirements defined by SA2 in response to Action 1.

3. To provide guidance as to the behaviour of the HSS regarding the backwards compatibility issue.

3. Date of Next CN4 Meetings:

CN4#26	14th - 18th February 2004	Sydney, AUSTRALIA
CN4#27	25th - 29th April 2004	Cancun, MEXICO

3GPP TSG-CN WG4 Meeting #25 **N4-041699**
Seoul, KOREA. 15th to 19th November 2004.

Title: **Open Issues For Subscriber Trace**
Release: **Release 6**
Work Item: **OAM-Trace**

Source: **CN4**
To: **SA5**
Cc:

Contact Person:
Name: Phil Hodges
E-mail Address: philip.hodges@ericsson.com

Attachments:

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1. Overall Description:

CN4 has been trying to complete its work on subscriber trace as described in the CN WID. CN4 has been unable to agree any CRs to date due to the unclarity of the SA5 Trace Specifications. CN4 is aware that the 32.421 and 32.422 specifications are now available as full release 6 versions, but sees that 32.423 is still not a released version but draft v.1.0.0.

The impacts to CN4 are for both the signalling based activation requirements and management based activation, but this LS deals primarily with the signalling based activation. CRs have been submitted to CN4 meeting #25 to the following specifications: 23.205 (stage 2 for Bearer Independent CS Networks), 29.232 (Stage 3 MGW control protocol), 29.002 (Stage 3 MAP protocol), 29.060 (stage 3, GTP protocol), 23.008 (stage 2, subscriber data management).

These CRs have not been approved at this meeting due to a number of outstanding issues within the SA5 specifications that need to be referenced by CN4 specifications:

1. A number of cases in 32.422 protocol values are included for Vendor Specific Extensions/settings (e.g. Triggering Events, Trace Depth). CN4 does not understand how such values can be implemented across an open inter-vendor interface. CN4 believes that these values should be removed from the referenced protocol. Any vendor may implement proprietary extensions but these are by definition outside the 3GPP specification realm.
2. The MGW Trace interfaces are listed as ATM, IP and TDM. These are not interfaces, but transport technologies. In the CR to 29.002 Nokia proposed that the interfaces should be Nb and Mc, which is accoridng to one part of 3GPP TS 32.422. This is more viable but this then raises the question if Iu should also be included in this list. CN4 requests that SA5 specifications are updated and aligned accordingly.
3. The MSC interfaces do not include Nc, is this correct?
4. Should the Mn interface also be traced?
5. A further question regarding the MGW trace interfaces: Is it logical that the Mc interface should be traced from the MGW, when the signalling to trigger this comes from the MSC via the Mc interface. Thus for the MSC to support the trace package it could also perform the Mc interface tracing.
6. The MGW Trace Record is not defined yet in 32.423 and thus it is not clear what is to be traced in the MGW at all. Should this be tracing User Plane Control messages? Inband Signalling? User Data?
7. In the MAP Trace Activation message CR it was proposed that the Trace Depth is signalled but this is not clear what it means to each node and references 32.423 which is still in draft.
8. In the MAP Trace Activation message CR it was proposed that Trace Depth value is signalled as a single value – (single value means that the same value is valid for every network element) is this correct or should it be per Network Element? The latter seems more appropriate if some Network Elements cannot perfom all trace levels – for example in 32.422 “medium” is defined as including Radio Measurement IEs.

9. In the Management Based Activation it is seen that each node needs the IMSI or IMEI(SV) aswell. It is thus questioned if the Mc interface should also be designed to be used for indicating only the IMEI(SV) or IMSI for this case. So, CN4 would like to ask SA5 to provide in their associated specifications a detailed list of the information that needs to be signalled in the different interfaces for Management and Signalling trace activation and deactivation.
10. CN4 also believe that it should be possible that a tracing can be activated based on IMEI(SV) and IMSI combination in HLR. Notice that it is already possible that IMEI(SV) is available in the HLR. Does SA5 believe that the associated specifications cover this case also?
11. CN4 would also like to ask SA5 if it is possible to add MSISDN as a possible subscriber ID for trace.

2. Actions:

To SA5 group.

ACTION: CN4 asks SA5 to answers the questions raised and indicate to CN4 the latest status of the associated specifications and CRs that are intended to complete this work so that CN4 can complete its WI for this feature.

3. Date of Next CN4 Meetings:

CN4#26	14th - 18th February 2004	Sydney, AUSTRALIA
CN4#27	25th - 29th April 2004	Cancun, MEXICO