3GPP TSG CN Plenary Meeting #17 **NP-020363**
4th - 6th September 2002. Biarritz, France.

Source: **MCC**

Title: **All LSs sent from CN1 since TSG CN#16 meeting,- pack 1**

Agenda item: **6.1.1**

Document for: **INFORMATION**

Introduction:

This document contains **12 agreed** LSs sent from **TSG CN WG1**, and are forwarded to TSG CN Plenary meeting #17 for information only.

Meeting	TDoc #	Status	Source	Tdoc Title	Comments
N1-25	N1-021754	AGREED	Frank S.	LS on "Maximum and Minimum IP Packet Size"	Linked to 1546. To: SA4 Cc: R3, GERAN
N1-25	N1-021755	AGREED	Inma C.	RESPONSE LS on "Support of R99 Mobile Stations in R97 Networks"	Linked to 1524. To: GERAN Cc: GSMA
N1-25	N1-021756	AGREED	Hannu H.	LS on GERAN Iu mode capability	Linked to 1525. To: GERAN2, Cc : GERAN
N1-25	N1-021757	AGREED	Jerome P.	LS on the wildcarding of source IP addresses and port numbers in the PCF for the packet classifier	Linked to 1527. To: CN3 Cc: SA2
N1-25	N1-021758	AGREED	Georg M.	LS response on Sh interface signalling	Linked to 1528. To: CN4 Cc:
N1-25	N1-021832	AGREED	Miguel G.	Reply LS on dimensioning for IMS services	Linked to 1540. To: CN4, SA2, Cc : SA1 Revised from 1759
N1-25	N1-021848	AGREED	Gabor B.	Secure registration of IP addresses	Linked to 1544. To: SA3 Revised from 1765
N1-25	N1-021849	AGREED	Gabor B.	Liaison Statement on Multiple Codecs	Linked to 1549. To: SA5, CN3, Cc : SA2 Revised from 1766
N1-25	N1-021850	AGREED	Georg M.	LS reply on Subscriber or Equipment Trace Impacts	Linked to 1552. To: SA5, Cc: CN4, GERAN, RAN2, RAN3, SA2 Revised from 1767
N1-25	N1-021851	AGREED	Georg M.	LS on persistent dialogs for unregistered users	Related to 1656. To: SA2, Cc: CN4 Revised from 1779
N1-25	N1-021852	AGREED	Georg M.	LS on S-CSCF filtering responses to forked requests	Related to 1557. To: SA2, Cc : Revised from 1813
N1-25	N1-021853	AGREED	Andrew	LS on inclusion of CCF/ECF	Related to 1621, 1625

			A.	addresses on Sh interface	and 1701. To: SA2, Cc : CN4, SA5

3GPP TSG-CN1 Meeting #25 ***Tdoc N1-021754***
Helsinki, Finland, 29 July – 2 August

Title: LS on "Maximum and Minimum IP Packet Size"
Response to: LS (N1-021546) on "Maximum and Minimum IP Packet Size" of SA4
Release: REL-4, REL-5
Work Item:

Source: N1
To: S4,
Cc: R3, GERAN

Contact Person:
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Attachments: None

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1. Overall Description:

General:
N1 provides the answers for the protocols for which N1 is in charge of. Other groups as R3, R2 and GERAN do or did already provide the required answers on their protocols.

What is the maximum size of IP-packets guaranteed to be transported by the RAN/GERAN and CN?

The maximum size of IP-packets follows the specification of the Maximum SDU size in the Quality of service IE that is specified in section 10.5.6.5 of 24.008. Actually, a value of 1520 octets is possible.

Are there any minimum and / or maximum sizes for IP-packets in RAN/GERAN or CN, besides the 1500 octet limit in TS23.107?

No further restrictions (see also the answer above) are caused by the underlying protocols but the max. SDU size impacts the system performance and this impact depends on the used interface.

The transport of (user) IP-packets on *Gb-interface* is realised by SNDCP/LLC where SNDCP does the segmentation / re-assembling and the maximum size of such a fragment shall not exceed 1520 octets. However, the actually used size is either negotiated or default parameters are taken. The default values depend on the LLC mode (unacknowledged or acknowledged mode) and the default value for unacknowledged mode is 500 octets. The unacknowledged mode is normally used due to performance reasons.

The frame relay that is used between SGSN and BSS to transport SNDCP/LLC/BSSGP/NS-Layer is restricted to 1600 octets so that the payload IP-packet together with the additional SNDCP/LLC/BSSGPNS-header can not exceed this number.

The issues of the transport over the air interface, especially RLC, is handled by the LS of GERAN group (GP-021882).

The transport of (user) IP-packets on *Iu-interface* is realised via GTP/UDP/IP/AAL5 where the (transport) IP-packets do contain as payload the (user) IP-packets to which the headers of GTP, UDP are added. See answer of R3 (R3-021813) for more details.

Can you advise us on the fragmentation schemes used and the appropriate limits of each layer of fragmentation?

The maximum size for IP-packets that is relevant for the fragmentation is indicated above. However, the more severe issue is the minimum size of the IP-packets since small (user) IP-packets have a big impact on the system performance. This is owed to two facts. First, the payload to header(s) ratio is high and thus bandwidth is wasted. Second, the packet rate that can be processed by a system does not significantly increase (compared to processing of longer packets) when shorter packets are processed.

The conclusion that can be drawn from facts given above is that the most efficient transmission of packets can be assumed when the (user) IP-packet size is as close as possible to the maximum packet size but smaller then the size that would cause segmentation (see answer of R3 for Iu-interface in R3-021813). When, in case of the Gb-interface, unacknowledged LLC mode is used (most cases) the MS should negotiate the N201-U value since otherwise the default value, currently 500 octets, is used.

2. Actions: None

3. Date of Next TSG-CN1 Meetings:

CN1_26	23rd – 27th September 2002	Miami, USA
CN1_27	11th – 15th November 2002	Bangkok, Thailand

3GPP TSG-CN1 Meeting #25 ***Tdoc N1-021755***
Helsinki, Finland, 29 July – 2 August

Title:	RESPONSE LS on “Support of R99 Mobile Stations in R97 Networks”
Response to:	LS (GP-022027) on Support of R99 Mobile Stations in R97 Networks from GERAN
Release:	R99
Work Item:	-
Source:	TSG CN WG1
To:	TSG GERAN
Cc:	GSMA

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Attachments: None.

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1. Overall Description:

TSG CN WG1 thank TSG GERAN for their LS and confirm that the statement "reserved for future use" used in GSM TS 04.08 and 3GPP TS 24.008 should not be understood as “reserved” and should not trigger error handling.

TSG CN WG1 agrees that a network shall not reject Location Update Request from a UE because the revision level defined for the UE is of later version of the protocol than the version of the network. Instead the network shall consider the value of the revision level of the version of the protocol that the network supports.

In addition to that, TSG CN WG1 would like to inform TSG GERAN that the meeting could not agree on a R97 CR to TS 04.08.

2. Actions:

To GSMA: TSG CN WG1 kindly request that all the R97 networks which still reject Location Update due to this problem are updated according to the above understanding.

3. Date of Next TSG-CN1 Meetings:

CN1_26	23rd – 27th September 2002	?, USA
CN1_27	11th – 15th November 2002	Bangkok, Thailand

3GPP TSG-CN1 Meeting #25 ***Tdoc N1-021756***
Helsinki, Finland, 29 July – 2 August

Title: LS on GERAN Iu mode capability
Response to: LS (GP-022088 / N1-021525)
Release: Rel-5
Work Item: 3GSplit

Source: CN1
To: GERAN2
Cc: GERAN

Contact Person:
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E-mail Address: hannu.hietalahti@nokia.com

Attachments:

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1. Overall Description:

CN1 would like to thank GERAN for their LS containing 24.008 CR 643r2 for CN1 endorsement.

The CR introduces the indication of GERAN Iu mode in both MS CM3 and MS RAC information elements. CN1 reviewed the attached CR and endorsed it with no further revisions. It was not considered necessary to attach the CR to this LS since the GERAN proposal was agreed with no changes.

CN1 will forward the CR for TSGN plenary for approval.

2. Actions:

To GERAN, GERAN2 group.

ACTION: None, this LS is for information to acknowledge the endorsement of the CR.

3. Date of Next TSG-CN1 Meetings:

CN1_26	23rd – 27th September 2002	?, USA
CN1_27	11th – 15th November 2002	Bangkok, Thailand

3GPP TSG-CN1 Meeting #25 ***Tdoc N1-021757***
Helsinki, Finland, 29 July – 2 August

Title: LS on the wildcarding of source IP addresses and port numbers in the PCF for the packet classifier

Response to: Tdoc N3-020486/N1-021527 from CN3

Source: CN1

To: CN3

Cc: SA2

Contact Person:
Name: Jerome Privat
E-mail Address: jerome.privat@northstream.se

Attachments: None

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1. Overall Description:

CN1 thanks CN3 for their liaison statement concerning the identification of source IP address information available in the PCF in order to apply as a packet classifier over the Go interface.

SA2 has already answered the LS from CN3 and has proposed a solution in SA2-022045/N1-021539. Namely SA2 is considering that terminals shall use the same 64 bits IPv6 address prefix of the source address for outgoing packets as the prefix of the destination address supplied for incoming packets.

CN1 agrees that the solution proposed by SA2 limits the potential for fraud. However, CN1 has also identified some limitations in the proposed solution:

First, the limitation proposed by SA2 cannot be enforced on non-3GPP hosts (or on 3GPP hosts using non-GPRS access, e.g. WLAN). This means that a non-3GPP host using different 64 bits IPV6 prefixes for the source (i.e. outgoing packets) and destination (i.e. incoming packets) IP addresses would not be able to exchange media with a 3GPP UE.

Additionally there maybe scenarios where different 3GPP UEs share the same 64 bits IPv6 address prefix. This would be for example the case of several UEs behind a mobile router (they all use the 64 bits IPv6 address prefix allocated to the mobile router by the 3GPP network). In this case the 64 bits IPv6 address prefix does not identify a specific UE. So the fraud potential is not completely eliminated (although it is reduced).

2. Actions:

To CN3 group.

ACTION:

CN1 asks CN3 to take into account the above considerations when making a decision on how to specify the source IP address and port numbers in the PCF for the packet classifier.

3. Date of Next TSG-CN1 Meetings:

CN1_26	23rd – 27th September 2002	Miami, USA
CN1_27	11th – 15th November 2002	Bangkok, Thailand

3GPP TSG-CN1 Meeting #25 ***Tdoc N1-021758***
Helsinki, Finland, 29 July – 2 August

Title: LS response on Sh interface signalling
Response to: LS (N1-021528 / N4-020767) on Sh interface sinalling from CN4

Source: CN1
To: CN4

Contact Person:
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Attachments:

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1. Overall Description:

CN1 thanks for their liaison statement on Sh interface signalling. The flows shown therein express also the opinion of CN1 and should be taken as the way forward.

Within the Liaison statement from CN4, the following is stated: "Data, which can be only downloaded, is the GMS/UMTS network specific data." CN1 asks for further clarification on this specific statement from CN4, as it is not clear which data is addressed here.

CN1 wants to indicate that not all data that is available at the HSS could be downloaded by an AS via the Sh interface. This is especially true for security related or private user parameters. It may also be that a specific AS can download a different set of information than other AS's.

CN1 also sees further clarification need on the granularity of data that is sent via Sh. Therefore CN1 kindly asks CN4 to keep CN1 informed about the ongoing work on data transported via the Sh interface.

2. Actions:

To CN4 group.

ACTION: CN1 kindly asks group to
- clarify the above cited statement;
- take into consideration, that not all data stored at HSS can be downloaded from any AS;
- keep CN1 informed about the discussion on which data is signalled via Sh interface;
- keep CN1 informed about the discussion on the granularity of the data signalled via Sh interface.

3. Date of Next TSG-CN1 Meetings:

CN1_26	23rd – 27th September 2002	Miami, USA
CN1_27	11th – 15th November 2002	Bangkok, Thailand

3GPP TSG-CN1 Meeting #25 ***Tdoc N1-021832***
Helsinki, Finland, 29 July – 2 August

Title: Reply LS on dimensioning for IMS services
Response to: LS (N1-021540 / S2-022046) on dimensioning for IMS services from SA2
Release: REL-5
Work Item: IMS-CCR

Source: CN1
To: CN4, SA2
Cc: SA1

Contact Person:
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Attachments: None

1. Overall Description:

CN1 thanks SA2 for the liaison on dimensioning for IMS services (N1-021540 / S2-022046).

CN1 has evaluated the liaisons from SA2/CN4 and the proposal to set a minimum for the maximum number of initial filter criteria and other parameters that are sent over the Cx interface, and CN1 believes that there is no need to include either a maximum or minimum number of parameters in the specifications.

As a comparison, SIP does not have a limit in the maximum number of occurrence of certain headers (e.g., Via, Route, Record-Route). Therefore, the node has to be ready to receive a message containing any number of such a headers and therefore needs to use dynamic memory allocation mechanisms.

CN1 also agrees that limiting some of the number of parameters in the Cx interface will limit the creation of services and CN1 does not understand what problem this limitation solves, and therefore, believes that such limitations are unnecessary.

2. Actions:

To CN4 group.

ACTION: CN1 asks CN4 to consider the above information when designing the Cx interface protocol.

3. Date of Next TSG-CN1 Meetings:

CN1_26	23rd – 27th September 2002	Miami, USA
CN1_27	11th – 15th November 2002	Bangkok, Thailand

3GPP TSG-CN1 Meeting #25 ***Tdoc N1-021848***
Helsinki, Finland, 29 July – 2 August

Title: Secure registration of IP addresses
Response to: N1-021544 (S3-020316)
Release: REL-5
Work Item: IMS-CCR
Source: CN1
To: SA3
Cc:
Contact Person:

Name: Gábor Bajkó
Tel. Number: tel:+36 20 9849259
E-mail Address: gabor.bajko@nokia.com

Attachments: None

1. Overall Description:

CN1 thanks SA3 for the liaison statement regarding the secure registration of IP addresses.

CN1 had difficulties understanding the problems which SA3 wants to solve. Once the first REGISTER request is sent unprotected, it is always exposed for DoS attacks. An intruder may modify the source IP address of the packet, but it may also modify other parts, even the payload of it. The result of these attacks will never be a successful registration of the intruder to the network.

CN1 can acknowledge that the IP addresses in the Via and Contact header (for Rel5) of the REGISTER request contain the identifier of the subscriber (IP address or domain name). In an integrity protected REGISTER request this information is reliable and can be used for whatever verification SA3 would like to make. CN1 would like to draw SA3 attention to two aspects:

- If the not-integrity protected REGISTER is modified by an intruder and the P-CSCF sets up an SA with wrong selectors, the protected REGISTER will be dropped by the IPSec layer in the P-CSCF. The P-CSCF will not have the opportunity to verify anything.
- For Rel5 the identifiers in the Via and in the Contact header must point to the same IP address. However, it is expected that in further releases the Contact header may contain an address which is different from the address the UE sent the REGISTER request from, and as a consequence more SAs will need to be established.

CN1 would like to advise SA3 that when setting up the SA in the P-CSCF, the P-CSCF will read the address from the Via header of the REGISTER request instead of the source IP address of the packet carrying the REGISTER request. This may solve the problem when the intruder only modifies the source IP address of the packet, but leaves the payload intact.

The problem described in the SA3 LS could only be eliminated if prior to any communication with the P-CSCF the UE would be able to set up a secure tunnel towards the P-CSCF and use the tunnel when sending the REGISTER requests. Such a mechanism is not part of Rel5, and the set up of the security tunnel would also be exposed to DoS attacks and the same problem may occur.

2. Actions:

To SA3 group.

ACTION: SA3 is kindly asked to take into consideration the above suggestions.

3. Date of Next TSG-CN1 Meetings:

CN1_26	23rd – 27th September 2002	Miami, USA
CN1_27	11th – 15th November 2002	Bangkok, Thailand

3GPP TSG-CN1 Meeting #25 ***Tdoc N1-021849***
Helsinki, Finland, 29 July – 2 August

Title: Liaison Statement on Multiple Codecs
Response to: N1-021549 (S5-024171)
Release: REL-5
Work Item: IMS-CCR

Source: CN1
To: SA5, CN3
Cc: SA2

Contact Person:
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E-mail Address: gabor.Bajko@nokia.com

Attachments: None

1. Overall Description:

CN1 thanks SA5 for the liaison statement regarding the impacts of having more than one codec per media component available after the offer/answer exchange(s) of the SDP session description.

CN1 would like to clarify the codec agreement procedure during a session setup:

- during the first offer/answer, if both terminals support multiple codecs, there might be no possibility to communicate the preferred codec for the session with the other terminal.
- during the second offer/answer, both terminals have the possibility to reduce the number of codecs used for that session. The result could be only one codec or multiple codecs to be used for the session. If multiple codecs have been agreed to be used for the session, then both terminals are free to switch between the agreed codecs during the session, without any further signalling needed.
- CN1 can confirm that for an IMS session to be set up, at least two offer/answer exchanges are necessary, so that terminals have the possibility to indicate the wish to use one or multiple codecs for the session

In case multiple codecs for the session are agreed, and the codecs have different bandwidth requirement, the PCF will authorise the highest bandwidth. If, during the media session, the codec with the highest bandwidth requirement is used, then the bandwidth authorised for the session is fully used. If one of the terminals switches – for whatever reason – to another codec, then the authorised bandwidth will not be fully used, but the terminal will be always eligible to switch back to the codec with the highest bandwidth requirement and make use again of the full authorised bandwidth.

2. Actions:

To SA5 group.

ACTION: SA5 is asked to study the above clarifications.

To CN3 group.

ACTION: CN3 is asked to clearly state in their document that the authorised bandwidth for a session of a user can always be used at its maximum (during the whole session), and in case it was not used, that was the user's choice.

3. Date of Next TSG-CN1 Meetings:

CN1_26	23rd – 27th September 2002	Miami, USA
CN1_27	11th – 15th November 2002	Bangkok, Thailand

3GPP TSG-CN1 Meeting #25 ***Tdoc N1-021850***
Helsinki, Finland, 29 July – 2 August

Title:	LS reply on Subscriber or Equipment Trace Impacts
Response to:	LS (N1-021552 / S5-028140) on Subscriber and Equipment Trace Impacts from SA5
Release:	Release 6
Work Item:	Work Item
Source:	3GPP CN1
To:	SA5
Cc:	CN4, GERAN, RAN2, RAN3, SA2

Contact Person:
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Attachments:

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1. Overall Description:

CN1 would like to thank SA5 for their LS and discussed the CN1 actions listed therein.

CN1 sees no need to introduce an activation/deactivation procedure for tracing on a SIP level, due to the following reasons:

- all SIP signalling related to a user is already signalled between P- and S-CSCF, therefore both entities hold all information relevant for tracing;
- non-integrity protected messages (besides REGISTER) are rejected by the P-CSCF and not sent further on to S-CSCF. CN1 regards that this case should be subject to tracing, but sees no requirement that the S-CSCF needs to activate tracing for such a failure procedure which is local to the visited netowrk.
- other failure cases at the P-CSCF (e.g. message is incorrectly integrity protected) are handled on the IPSec layer, i.e. the SIP layer does not get aware of e.g. message discarding. CN1 sees no requirement to introduce a tracing mechanism at the IPSec layer;
- as S- and P-CSCF are aware of all SIP signalling going on, CN1 thinks that an entity should not be able to put the SIP related tracing task to a remote entity.

If SA5 is of the opinion that such a mechanism is still needed, then CN1 asks SA5 to give a more detailed list of requirements, especially

- to indicate which data needs to be traced at the different entities;
- to give more guidance e.g. by message flow diagrams;
- to indicate more clearly when such a request for activation/deactivation can take place, e.g
    - only when other SIP messages are sent or also stand-alone (Transporting a activate/de-activate in existing SIP flows is much easier than sending them stand-alone);
    - only when a user is registered (As neither S- and P-CSCF are allocated for an unregistered user, CN1 does not assume that this is needed).

Furthermore CN1 wants to indicate that if such a mechanism needs to be introduced in SIP, this will involve also IETF work:

- if the activate/deactivate indication can be transported in already existing call flows (without adding further message flows), then a new SIP header is needed;
- if this indication must be transported independently of existing call flows than it needs to be evaluated if this indication can be sent by an existing SIP message - currently there seems to be no appropriate message in SIP. Defining a new SIP message involves a lot of effort and has not a good chance to be accepted by IETF.

2. Actions:

To SA 5 group.

ACTION: CN1 kindly asks SA5 to discuss the above made statements and reply to CN1 if a SIP based tracing activation/deactivation mechanism is required. If such a mechanism is required, SA5 is asked to specify the requirements in more detail, as shown above.

3. Date of Next TSG-CN1 Meetings:

CN1_26	23rd – 27th September 2002	Miami Beach, USA
CN1_27	11th – 15th November 2002	Bangkok, Thailand

3GPP TSG-CN1 Meeting #25 ***Tdoc N1-021851***
Helsinki, Finland, 29 July – 2 August

Title: LS on persistent dialogs for unregistered users
Release: Release 6
Work Item: IMS-CCR

Source: 3GPP CN1
To: SA2
Cc: CN4

Contact Person:
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Attachments:

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1. Overall Description:

CN1 discussed the scenario where a user (A) subscribes to another users (B) presence information, whilst B is not registered. The SUBSCRIBE request will be handled as a request to an unregistered user by the I-CSCF of B's home network and a so-called default S-CSCF (def-S-CSCF-B) will be assigned for B. The default S-CSCF will record-route to the SUBSCRIBE request and then send it on to the Presence Server of user B, which terminates the dialog and serves as a notifier for the presence service.

After establishing the dialog, the def-S-CSCF-B and also the P-CSCF of user A will store the route for the dialog. Note that there is no possibility in SIP, which allows changing the route of an established dialog.

It is very likely that for nearly each (unregistered) IMS user a subscription to this users presence information will be active. This means that default-S-CSCFs will be assigned for every unregistered IMS user.

CN1 now sees a possible problem when user B finally registers to the network. Based on the current CN4 specifications, the initial REGISTER request from user B will be sent to the I-CSCF of user B's home network, which then queries the HSS. Within the HSS, the address of the default-S-CSCF will be stored and will be sent to the I-CSCF, which then will route the initial REGISTER request to the default-S-CSCF.

23.228 specifies that the I-CSCF shall assign a S-CSCF for user B upon initial registration. This is done e.g. for load balancing reasons. If a default S-CSCF has already been assigned, the I-CSCF will not be able to assign a new S-CSCF.

As it is very likely that for most unregistered users a default-S-CSCF will be assigned, SA2 is asked if the above described procedures still fulfil the load balancing / S-CSCF assignment requirements stated by SA2.

2. Actions:

To SA2

ACTION: CN1 kindly asks SA2 to discuss the above outlined problems and give further guidance to CN1 on how S-CSCF selection works in the above described scenarios.

3. Date of Next TSG-CN1 Meetings:

CN1_26	23rd – 27th September 2002	Miami, USA
CN1_27	11th – 15th November 2002	Bangkok, Thailand

3GPP TSG-CN1 Meeting #25 ***Tdoc N1-021852***
Helsinki, Finland, 29 July – 2 August

Title: S-CSCF filtering responses to forked requests
Release: Release 5
Work Item: IMS-CCR

Source: 3GPP CN1
To: SA2
Cc:

Contact Person:
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Attachments: None

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1. Overall Description:

CN1 discussed the requirements for handling responses to forked requests. The scenario discussed is that a Release-5 IMS UE originates a call by sending an INVITE which then is routed outside the IMS domain. If the request gets forked outside the IMS domain, an undefined number of responses from different users will be sent towards the caller. Neither the calling user nor the calling users home network are currently able to influence the number of responses sent to the UE.

Concerns were raised during the meeting that this may result, in certain cases, in a significant additional amount of signalling messages sent via the air interface to the UE. Several companies proposed to add some filtering functionality at the S-CSCF or other entity, so that forked responses could be filtered when the number of them exceeds a certain configurable limit.

Such an additional functionality, currently outside the scope of 23.228 in R5, could be left as a design option, but it was regarded as interesting to introduce at least a statement in 24.229 in order to give further guidance to implementers and operators.

2. Actions:

To SA 2 group:

ACTION 1: CN1 kindly asks SA2 whether SA2 considers such a filtering functionality as a subject of standardisation for R5, or can be left as a design feature.

ACTION 2: CN1 kindly asks SA2 for guidance whether such a possible filtering functionality should be part of the S-CSCF, P-CSCF or AS.

ACTION 3: CN1 kindly asks SA2 to consider the possibility to add an additional requirement to Rel-5 IMS that allows the S-CSCF of the calling user to filter the responses that are received due to a forked request, when that number exceeds a certain configurable number.

3. Date of Next TSG-CN1 Meetings:

CN1_26	23rd – 27th September 2002	Miami, USA
CN1_27	11th – 15th November 2002	Bangkok, Thailand

3GPP TSG-CN1 Meeting #*25* ***TdocN1-021853***
Helsinki , Finland 29 July - 2 August

Title: **LS on inclusion of CCF/ECF addresses on Sh interface**
Release: **Rel-5**
Work Item: **OAM-CH (IMS Charging)**

Source: **CN1**
To: **SA2**
Cc: **CN4, SA5**

Contact Person:
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E-mail Address: aallen@dynamicsoft.com

Attachments: None.

CN1 would appreciate getting your opinion on the architectural impact of the change described below in S5-024245, as its implementation has ripple effects on CN1, CN4 and SA5.

The change proposed to CN1's specifications, based on SA5's liaison and related CRs presented to CN1 is that ECF & CCF addresses may be carried via Sh, and not anymore via ISC. A concern was raised from some companies that this effectively makes Sh interface support mandatory for charging purposes.

However TS 23.228 clause 4.2.4a states *"The "application server" (SIP Application Server and/or the OSA service capability server and/or IM-SSF)* ***may*** *communicate to the HSS. The Sh and Si interfaces are used for this purpose."*

2. Actions:

To SA2 group.

ACTION: To clarify if the support of CCF/ECF addresses is required on Sh interface and if the ability to carry Charging Addresses should also be removed from ISC interface.

3. Date of Next CN1 Meeting:

Meeting	Date	Location	Host
CN1#26	**23-27 Sep 2002**	**Miami, USA**	**NA Friends**

3GPP TSG-SA5 (Telecom Management) **S5-024245**
Meeting #29, Beijing, CHINA, 24 - 28 June 2002

Title: **LS on inclusion of CCF/ECF addresses on Sh interface**
Response to: n.a.
Release: **Rel-5**
Work Item: **OAM-CH (IMS Charging)**

Source: **SA5**
To: **CN1, CN4**
Cc:

Contact Person:

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Attachments: None.

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1. Overall Description:

SA5 thanks CN1 and CN4 for the ongoing co-operation on charging-related specifications. For Rel-5 SA5 is currently developping TS 32.200 (Charging Management and Charging Principles) and TS 32.225 (Charging Management and Charging Data Description for IMS), targeted for SA#17 approval in September 2002.

During the SA5#29 meeting in June, SA5 recognized the requirement to include CCF (Charging Collection Function) / ECF (Event Charging Function) addresses on Sh interface for charging purposes. Reasons for this requirement are as follows:

- In case of AS initiated IMS session, three scenarios are recognized in SA5.
  - First scenario: AS shall insert locally preconfigured CCF/ECF address into initial SIP request, regardless of existence of Sh interface.
  - Second scenario: AS shall retrieve CCF/ECF address on Sh interface before initiating the IMS session.
  - Third scenario: AS shall analyse CCF/ECF address retrieved on Sh interface. If there is no address for CCF/ECF received, AS shall insert locally preconfigured CCF/ECF address into initial SIP request, otherwise it shall apply the addresses received via Sh.
- In case of on-line charging configuration scenario, there is the possibility that AS performs as specific charging server such as SCF (Session Charging Function) or ECF, and AS shall control the ECF address by Sh interface for the purpose of management of charging related data.

Therefore, SA5 sees the need for updating the Rel-5 Sh specification according to the above requirement.

2. Actions:

To CN1 group.

ACTION: SA5 kindly asks CN1 group to implement the above requirement in the stage 3 specifications, such as TS 24.229, as applicable. It is assumed that both CCF and ECF addresses may be empty, depending on the operator's configuration scenario in the AS/HSS.

To CN4 group.

ACTION: SA5 kindly asks CN4 group to implement the inclusion of CCF/ECF address on Sh interface for stage 3 specifications, such as TS 29.328 or TS 29.329, as applicable.

3. Date of Next SA5 Meetings:

Meeting	Date	Location	Host
SA5#30	**19-23 Aug 2002**	**Tampere, FINLAND**	**NOKIA**
SA5#31	**7-11 Oct 2002**	**Atlanta, GA, USA**	**NA Friends**
SA5#32	**18-22 Nov 2002**	**Vienna, AUSTRIA**	**EF3**