3GPP TSG CN Plenary Meeting #16 **NP-020163**
5th - 7th June 2002. Marco Island, USA.

Source: **TSG CN WG3**

Title: **ALL LSs sent from CN3 since NP#15**

Agenda item: **6.3.1**

Document for: **Information**

Introduction:

Contains all LSs Approved and sent by CN3 since NP#15 meeting.

TDoc #	Tdoc Title	LS to	LS cc	LS Attachment
N3-020316	Reply LS on Service change and fallback for UDI/RDI multimedia calls	SA1	-	N3-020315
N3-020356	LS on Multiple Codecs	CN1, SA2, SA5	-	none
N3-020357	LS on “Working assumptions in CN3”	SA2	-	none
N3-020360	Re. LS on Access dependent services and features for GERAN Iu mode	SA1	-	none
N3-020361	LS on "IPv6 update of stage 3 specifications"	SA2	CN, CN1, CN2, SA3, SA5, T, T1,T2	N3-020328
N3-020362	LS on “Mapping rules for authorization	SA1	CN1	N3-020363
N3-020486	LS on the wildcarding of source IP addresses and port numbers in the PCF for the packet classifier	SA2, CN1	none	none
N3-020507	LS on distribution of IMS charging ID (ICID) from PCF/P-CSCF to GGSN	SA5	SA5	none
N3-020510	Liaison statement on the Go Interface	SA2	none	none

3GPP TSG-CN3 Meeting #22 ***Tdoc N3-020316***
Fort Lauderdale, Florida, USA 08. - 12. April 2002

Title: **Reply LS on Service change and fallback for UDI/RDI multimedia calls**
Source: **CN3**
To: **SA1**
Cc:
Response to: **S1-020610**

Contact Person:
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Attachments: N3-020315 [revised WID]

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1. Overall Description:

CN3 would like to thank SA1 for their LS including a proposed revised Work Item description on SCUDIF.

CN3 has revised and agreed on a new version of the Work Item including interworking to ISUP networks, or networks not supporting the feature. The agreed Work Item is enclosed for information [N3-020315].

2. Actions:

None.

3. Date of Next CN3 Meetings:

CN3_23	13th – 17th May 2002	Budapest, Hungary
CN3_24	29th July – 02nd August 2002	Helsinki, Finland.

3GPP TSG CN WG3 Meeting #22 **N3-020356**
Ft. Lauderdale, USA. 8th - 12th April 2002.

Title: **LS on Multiple Codecs**
Source: **CN3**
To: **CN1, SA2, SA5**
Cc:

Contact Person:
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1. Overall Description:

During the discussions on the Go interface CN3 has been studying the impacts of having more than one codec per media component available after the first offer/answer exchange of the SDP session description.

If there is more than one codec available for a media component both endpoints have to be able to receive any of these codecs. Either sending side can select any codec out of the available ones and request resources according to this codec. However, for the downlink direction of each side resources have to be requested for the codec with the highest bitrate because neither side knows which codec the other side selects.

For multiple codecs with similar QoS requirements, i.e. identical bitrates, CN3 identified no problems. In case of multiple codecs requiring different QoS, i.e. different bitrates, CN3 made the working assumption to perform the authorisation for the maximum QoS, i.e. for the codec with the highest bitrate. Consequently, the bandwidth parameter of such a media component shall always reflect the maximum bitrate required for any of the available codecs.

Since another offer/answer interaction which could reduce the codecs per media component to one is optional at the moment the following implications were identified:

- The IMS has no knowledge on which codec and bitrate will be chosen by the UE. It is also possible that different codecs are chosen for the both directions, i.e. the UE sends with codec A but receives with codec B. Consequently, if the IMS charging is based on the bandwidth, the bandwidth of the highest bitrate codec has to be applied for charging because the actual selected bandwidth is not known in the P-CSCF.

- The bearer authorisation has also to allow for the codec with the highest bandwidth. Although, in case of IMS charging the user will be charged for the codec with the maximum bitrate it could select a codec with a lower bandwidth. It is noted that the packet filters of the gate for this media component prevent the usage of the remaining bandwidth for other purposes.

- The resource reservation of both endpoints has to allow for all codecs of the media component. That means, the UE reserves resources for the codec it selects for the uplink. However, in the downlink direction resources for the codec with the maximum bandwidth have to be reserved because the UE does not know the codec it will receive.

2. Actions:

CN3 therefore asks CN1, SA2 and SA5 if they see any problems with CN3's working assumption of allowing authorisation of multiple codecs based on the bandwidth of the highest bitrate codec.

3. Date of Next CN WG 3 Meetings:

Title	Date	Location
CN3#23	13th - 17th May 2002	Budapest, Hungary

3GPP TSG-CN WG3 Meeting #22 ***N3-020357***
Fort Lauderdale, April 8th – 12th, 2002

Title: **Liaison Statement on "Working assumptions in CN3"**
Source: **CN3**
To: **SA2**
Cc: **-**
Response to: **-**

Contact Person:

Name: Brian Williams

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Attachments: None.

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1. Overall Description:

CN WG3 is continuing to progress the work on a number of specifications, including TS 29.207 and TS 29.208. In order to simplify some design issues and hence not to endanger the time plan, CN WG3 is adopting a number of working assumptions on aspects where CN WG3 has not received any specific direction.

CN WG3 would like to advise SA WG2 of these working assumptions, and request that SA WG2 respond to CN WG3 if any of these working assumptions are unsatisfactory:

1. **Aggregation of QoS for multiple media components**
   Where a PDP context shall be used by multiple media components, the aggregate QoS of the media components shall be determined by the PCF.

2. **PDP context modifications**
   An operator that requires SBLP control for IMS shall always include an authorisation token in the SDP. In this case, the UE must include binding information in the PDP context activation to be authorised.

   Alternatively, an operator need not always supply an authorisation token in the SDP, in which case the UE may activate a PDP context without binding information.

   CN WG3 is intending (work not yet finalized) that a PDP context activated without binding information, cannot at a later time be modified to add binding information (that is to say, a UE currently using a PDP context for non-SBLP controlled traffic, cannot modify this PDP context to now use it for SBLP controlled traffic).

   Similarly, a PDP context that has binding information, cannot be modified to remove the binding information (that is to say, a UE currently using a PDP context for SBLP controlled traffic, cannot modify this PDP context to now use it for non-SBLP controlled traffic).

2. Actions:

SA WG2 is requested to consider the working assumptions of CN WG3, and to provide specific direction for any of these working assumptions that are not acceptable to SA WG2.

3. Date of Next CN WG 3 Meetings:

Title	Date	Location
CN3#23	13th - 17th May 2002	Budapest, Hungary

3GPP TSG CN WG3 Meeting #22 **N3-020360**
Fort Lauderdale, USA. 8th - 12th April 2002.

Title:	**Response LS on Access dependent services and features for GERAN Iu mode**
Source:	**CN3**
To:	**SA1**
Cc:	
Response to:	**LS (S1-020472) on Access dependent services and features for GERAN Iu mode from SA1**

Contact Person:
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Attachments: None

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1. Overall Description:

CN3 would like to thank SA1 for their LS (S1-020472 [N3-020209]) on "Access dependent services and features for GERAN Iu mode". CN3 has come up with following comments on the CR (S1-020364) to TS 22.002 that was attached to the LS.

- It will be easier to understand if the rest of the tables in the clause 3.1 "General bearer service user data characteristics" are also redrawn in the same manner as that used in the tables for the "BS20T (transparent asynchronous services)" in the clause 3.1.1.1, showing the service applicability to GERAN and UTRAN.
- CN3 understands that the PIAFS is only applicable to UTRAN and the relevant work had been done based on this assumption. This restriction has to be mentioned in the table.

CN3 would appreciate if SA1 could update TS 22.002 based on the above comments.

2. Actions:

To SA1 group.

ACTION: CN3 asks SA1 to reflect the above comments in TS 22.002.

3. Date of Next CN3 Meetings:

CN3_23	13th - 17th May 2002	Budapest, Hungary
CN3_24	29th July – 2nd Aug 2002	Helsinki, Finland

3GPP TSG-CN WG3#22 **Tdoc N3-020361**
Fort Lauderdale, USA. 8th – 12th April 2002

Title: **Liaison Statement on "IPv6 update of stage 3 specifications"**
Source: **CN WG3**
To: **SA WG2**
Cc: **TSG CN, CN WG1, CN WG2, SA WG3, SA WG5, TSG T, T WG1 and T WG2,**

Response to: **LS (S2-020910) on "Prefix allocation for IPv6 stateless address autoconfiguration".**

Contact Person:
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Attachments: (N3-020328) CN3 agreed Rel-5 CR 044r2 to 29.061.

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1. Description:

CN3 wants to thank SA2 for the Liaison Statement S2-020910 on "Prefix allocation for IPv6 stateless address autoconfiguration".

The attached CR 044r2 (Rel-5) in N3-020328 has been agreed at CN3#22 for update of Rel-5 of stage 3 specification TS 29.061 for IPv6 Stateless Address Autoconfiguration and other IPv6 related changes. However, CN3 has not agreed with the changes for R99/Rel-4, as the changes are significant and not considered necessary to be introduced in R99/Rel-4.

Question 1:
Our first question to SA2 is what are the specific requirements to introduce IPv6 stateless address autoconfiguration changes in R99/Rel-4, as IMS is available only starting in Rel-5?

Question 2:
It is also unclear to CN3 why SA2 has used the work item code “IMS-CCR” for the R99/Rel-4 CRs on 23.060?

Question 3:
Have supporting elements such as RADIUS interface enhancements been considered for use with stateless address autoconfiguration?

Included in the CN3 agreed CR 044r2 was also an update of the stage 3 specification to be aligned with stage 2 on other IPv6 issues like Stateful Address Autoconfiguration and RADIUS interface, and with the latest IETF RFC standards e.g. IPv6 multicast.

Question 4:
CN3 would like SA2 to confirm whether stage 3 update on IPv6 issues like Stateful address autoconfiguration, RADIUS interface and other IPv6 aspects was also intended in the SA2 LS and from what release?

2. Actions:

SA2:
To provide answer on the issues above.

3. Date of Next CN3 Meeting:

CN3 #23	13th – 17th May 2002	Budapest, Hungary

3GPP TSG-CN WG3 Meeting #22 ***N3-020362***
Fort Lauderdale, April 8th – 12 th, 2002

Title: **Liaison Statement on "Mapping rules for authorisation"**
Source: **CN3**
To: **SA2**
Cc: **CN1**
Response to: **-**

Contact Person:

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Attachments: N3-020363 [CR to 29.208 on QoS Parameter mapping].

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1. Overall Description:

CN WG3 is developing mapping rules for authorisation of the PDP context. CN WG3 has identified that these rules must be consistent across operators, such that they can be relied upon by the UE in order to provide a consistent service experience. Once these rules are defined, any modification of the rules may lead to inconsistencies in the service experience.

2. Actions:

CN WG3 requests SA WG2 to identify any requirements on the ability to extend/modify these mapping rules for future releases. CN WG3 also requests guidance on what mechanism can be used in the future for the UE/network to select the extended/modified authorisation table.

3. Date of Next CN WG 3 Meetings:

Title	Date	Location
CN3#23	13th - 17th May 2002	Budapest, Hungary

3GPP TSG-CNWG3 meeting #23 **Tdoc N3-020486**
Budapest, Hungary, 13th – 17th May 2002

Title:	**Liaison statement on the wildcarding of source IP addresses and port numbers in the PCF for the packet classifier**
Source:	**CN3**
To:	**SA2, CN1**
Cc:	**-**
Response to:	**-**

Contact Person:

Name: Stephen Dutnall
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Attachments: **None.**

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1. Discussion:

During the CN3#23 meeting CN3 identified a potential issue with the identification of the source IP addresses and port numbers available in the PCF to apply as a packet classifier over the Go interface.

The PCF uses information available in SDP to generate the filtering and authorisation parameters for a particular media session. The current understanding is that SDP only identifies the destination IP address and port number (i.e. that the user "receives" the media on). It is possible that the user's "receive" IP addresses and port numbers may be very different to the IP addresses and port numbers that they are transmitting their data on.

Therefore, the CN3 understanding is that it is currently not possible to identify the source IP address and port numbers of the media stream to be used by the end parties (i.e. the IP address and port numbers that the user transmits their media on). Furthermore current stage 2 specifications covering this issue (TS23.207) state that the IMS media bearer PDP context may be either a primary or secondary context and thus allowing for the IP addresses to be very different from the IP address used in the IMS (SIP) Signalling communication.

One solution to resolve this lack of source information has been the proposal that the source IP addresses and port numbers are wildcarded. CN3 however considers that the wildcarding of the source IP addresses and port numbers may permit potential fraud scenarios as the GGSN will be unable to ensure that the packets are received only from the authorised source UE, since it cannot filter on the source address of the incoming (downlink) packets.

Another solution may be possible to impose certain restriction on the Release 5 IMS solution to enable the implicit derivation of the source IP addresses in the PCF.

CN3 would like to ask SA2's and CN1's opinion on this and whether a particular solution exists for the Release 5 timeframe in order to ensure that the packet filtering can identify packets which are authorised for the traffic case.

2. Actions:

SA2 is kindly asked to provide guidelines on how CN3 may resolve this matter.

CN1 is asked whether other mechanisms exist (either within SDP or SIP) that allow for the discovery of the source IP addresses for the release 5 timeframe, and/or if there are any limitations under which this can be done.

3. Date of Next CN WG 3 Meetings:

Title	Date	Location
CN3#24	29th July – 2nd August 2002	Helsinki, Finland

3GPP TSG-CN WG3#23 **Tdoc N3-020507**
Budapest, Hungary. 13th - 17th May 2002

Title: **LS on distribution of IMS charging ID (ICID) from PCF/P-CSCF to GGSN**
Release: **Rel-5**
Work Item: **End-to-end QoS for IMS**

Source: **CN3**
To: **SA5**
Cc: **SA2**

Contact Person:
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Attachments: none

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1. Overall Description:

CN3 has received the requirement to transport the IMS Charging ID (ICID) from P-CSCF/PCF to GGSN over the Go interface, but it has not been really clear what the GGSN is supposed to do with the ICID. In an LS (S2-020876) from SA2 to SA5 and CN3 it was stated that the ICID is not to be used to provide an alternative charging correlation solution and it is not to be passed to the SGSN.

It is clear that when the ICID is transferred to the GGSN, a unique identifier for the IMS session in the GPRS object is presented. However, CN3 would like to have more information regarding the functionality of the ICID in the GGSN. One identified use of the ICID is that the ICID could be added to the GGSN CDR's in order to allow some "pre-sorting" of GPRS CDRs. But if that is the only motivation, there are other possibly simpler solutions e.g. marking the GPRS CDRs with a simple flag when the Go interface has been used. This solution would save resources in the GGSN and still support "pre-sorting" of GPRS CDRs related to IMS sessions.

Note that if the ICID shall be used in the GGSN CDRs, then it would have to be stored for each GGSN PDP context. There is some concern regarding the amount of memory required in both the GGSN and in other network entities just for the ICID storage.

In addition, in future releases, some of the IP flows from several sessions may be multiplexed onto the same PDP context. Thus, there may be several ICID's related to each PDP context. This would further increase the overhead of ICID handling in GGSN.

Also, CN3 would like to receive information on the size and format of the ICID in order to complete the detailed specification of the Go interface.

2. Actions:

To: SA5

CN3 kindly asks the following from SA5:

1. Please indicate the format and size of the ICID.

2. Please clarify the requirements on the GGSN handling of ICIDs.

3. Date of Next CN3 Meetings:

CN3#24	July 29 – Aug. 2,	Helsinki, Finland
CN3#25	Sept. 23 – 27,	North America

3GPP TSG-cn WG3 meeting #23 **Tdoc N3-020510**
Budapest, Hungary, 13th – 17th May 2002

Title:	**Liaison statement on the Go Interface**
Source:	**CN3**
To:	**SA2**
Cc:	**-**
Response to:	**-**

Contact Person:

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Attachments: None.

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1. Overall Description:

1. Introduction:

CN3 has been discussing the information that should be made available to the GGSN when several media components/IP flows are combined over a single PDP context. CN3 would like to ask SA2's opinion on the scope of the Go interface discussed below.

2. Discussion

In the case where several media components/ IP flows are sent over the same PDP context CN3 decided to take the working assumption to provide the authorisation for the combined QoS of all the IP flows included in the PDP Context over the Go interface, (i.e. that combination occurs in the PCF). This working assumption was presented to SA2, which according to the response received from CN3 was not able to agree on any comments on this working assumption (tdoc S2-021294).

The issue that has been raised within CN3 is that by combining the authorisation of the individual IP flows in the PCF certain information is no longer available to the GGSN (which could be used for providing specific handling of the IP flows within the PDP context by the GGSN). Although the working assumption that the calculation of the combined authorisation occurs in the PCF is not being challenged in CN3, no agreement could be reached in CN3 on including not only the combined authorised QoS but also the individual IP Flow authorised QoS. Please note that the original intend of TS23.207 was to provided individual IP Flow authorized QoS and then updated in the LS sent to CN3 by SA2 (tdoc S2-020909) specifying that functions requiring individual IP Flow authorised QoS were of lower priority in Rel-5 although still required.

3. Actions:

Action for SA2:
Therefore, CN3 kindly asked SA2 to advise us on which of the following options should be followed:
A) SA2 requires individual IP flow QoS information to be passed over the Go interface in Rel-5,
or
B) The Go interface will only pass the combined authorised QoS.

SA2 should note that detailed proposals are available for both options, and that no consensus exists in CN3 to proceed without an SA2 decision between these options.

4. Date of Next CN WG 3 Meetings:

Title	Date	Location
CN3#24	29th July – 2nd August 2002	Helsinki, Finland