3GPP TSG CN Plenary Meeting #15 **NP-020030**
6th – 8th March 2002. Cheju, Korea.

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1 Executive summary

The number of working group meetings to prepare CN1 material for TSGN plenary meeting is now steadily growing smaller. This time we have had only three meetings since the previous plenary. CN1 SIP ad hoc meeting was in Phoenix, USA in January and then full CN1 meeting #22 in Sophia Antipolis in February and #22bis in Oulu, Finland, also in February. The meeting reports are in chronological order in documents NP-020031-033. As before, phone conferences have been organised to work on the hot topics between the meetings.

Rel-5 IMS work has progressed at very high speed as usual. CN1 can not claim that we have not been able to complete the work due to not having stable requirements from the other groups for the reason that we have got sufficient number of controversial issues within our group to keep the meetings interesting. Having said that, we have seen, and presumably will still see more than enough of late requirements from the other 3GPP groups and immaturity of the base version of the SIP protocol in IETF.

The documents for approval are presented by work item under each release. Category A mirror CRs have been grouped together with the corresponding category F CR.

For Rel-5 work item IMS area there are no CRs for approval to this meeting because the CN1 IMS draft TSs are not under CR control yet. CN1 is now proposing all three draft IMS specifications under its responsibility for approval and if approved, to be put under version control.

There are no new or revised work item descriptions this time.

The principle of consensus agreement in technical issues has been followed strictly. It might have speeded up the progress in some cases if the chairman had forced a majority decision on a working assumption based on large majority. There has been cases when progress on certain item has been blocked by objection of single delegation. None of the companies can be blamed for this, as the same situation has been repeated with different company taking some time before being convinced by the overwhelming majority.

2 Information to be noted

2.1 Meeting schedule for year 2001 and 2002

There are no changes to the meeting schedule for 2002 since the previous TSGN plenary meeting.

Date	Meeting
12.-14.Dec.2001	CN #14 (Japan)
14.-18. Jan. 2002	CN1 #21 SIP ad hoc Rel-5 IMS only (Phoenix, USA)
28 Jan.-1 Feb 2002	CN1 #22 (Sophia Antipolis, France)
19 – 22 Feb 2002	CN1 #22bis any outstanding Rel-5 Work Items (Oulu, Finland)
6.-8. Mar. 2002	CN #15 (Korea)
8.-12. Apr. 2002	CN1 #23
13.-17. May 2002	CN1 #24
5.-7. Jun. 2002	CN #16
29. Jul. – 2. Aug. 2002	CN1 #25 (Finland)
4.-6- Sep. 2002	CN #17 (France)
23.-27. Sep. 2002	CN1 #26
11.-15. Nov. 2002	CN1 #27
4.-6. Dec. 2002	CN #18 (New Orleans)

2.2 Liaison statements for information

All agreed outgoing liaison statements from CN1 have been sent after each meeting. The liaisons from CN1 in NP-010034 and NP-020035 are provided for information for TSGN plenary.

2.3 Comments on the 3GPP work plan

CN1 related tasks on 3GPP work plan version 25 Jan. 2002 were reviewed in detail in CN1 #22bis. The resulting comments have been given to MCC.

- The percentage of WI 2233 is very low because the percentage for all IETF draft dependencies has been indicated as 0 %.
- Keith Drage / Lucent volunteered to provide more accurate figures for the state of readiness of IETF drafts so that these can be added to the next version of the work plan.
- 1278 (24.229) is 85 % complete
- 2255 (23.218) is 100 % complete
- 1998 (24.228) is 85 % complete. There has been progress on this TS in CN1 since the previous TSGN plenary but at the same time the IETF protocol details have changed.
- 11014 is 0 %. CN1 is not aware of any requirements and is not doing anything on this task
- 1296: this is understood to be the PCO & TFT CRs which CN1 provides to TSGN #15 for approval. If this is correct understanding, then the task is 100 % complete.
- 11016, 11017, 11019, 11020 are duplicates of CN1 work items 1278 and 2255. Based on this, they are all 85 % complete.
- 11018 is 100 % complete
- 14002 is 90 % complete
- 2503 will be started in CN1 on the 8th of April 2002

- 2503 completion is estimated on the 6th of September 2002.

3 Issues for action/decision by CN plenary

3.1 Liaison statements to TSGN plenary

Liaison statement in NP-020011 (N1-020444) replies to SA3 liaison and this is also sent to TSGN plenary for information. It deals with mandatory requirement for the UE to clear unciphered connections. CN1 does not object the requirement but points out that just stating that the unciphered connections shall be cleared is not sufficient service requirement to build the feature which is seen as necessary. It was felt in CN1 that this is a critical feature and therefore more detailed requirements on which connections to clear and how the UE must behave after that are needed.

Document NP-020012 (N1-020455) deals with CS multimedia service. Call setup with dual bearers is needed for fallback to speech in order to make this service work. CN1 has technically reviewed the related CRs in NP-020041 (N1-020439-440) which were agreed conditionally. The condition is that the service requirement is confirmed by SA1 and that the referenced "clear mode" codec Q.765.5 can be standardised in time for Rel-5.

Additionally to this some delegations were concerned because the procedure only works with BICC. ISUP support was desired. The proposed usage of new call control repeat indicator IE also triggers a conditional error handling in any pre-R99 mobile because of reserved code point. This error handling means failure of call setup because of SETUP message is rejected. Pre-R99 network has two options, either the same approach to reject the call or some other implementation specific action. It was seen by some companies that these problems should be first corrected before accepting the proposal.

There should be a reply LS from SA1 on the service requirements to this plenary meeting.

3.2 R98 and older work items

There are no CRs for GSM releases this time.

3.3 Release 99 work items

3.3.1 GPRS (GSM-UMTS interworking and MM for UMTS)

R99 CR with mirror CRs in NP-020037 (N1-020199-201) add PMM states which correspond to already existing GMM states in mobile station state definition.

3.3.2 QoS enhancements

NP-020038 contains two corrections. N1-020445 is a R99 CR to clarify the QoS IE encoding in session management protocol and it is also mirrored to later releases.

The other correction in the same document is N1-020379. This handling of unknown code points in QoS negotiation was originally proposed as R99 CR but it was not agreed to be acceptable CR on frozen release since the only thing that it adds is a note. This note was seen informative and therefore it was agreed in CN1 for Rel-5 only.

3.3.3 TEI

The R99 CRs and mirror CRs in NP-020039 (N1-020214-216) is GPRS related. For some reason part of the three digit MNC definition in 24.008 was lost from R99 onwards and these CRs put back the complete definition as it was in R98.

3.4 Release 4 work items

3.4.1 TEI-4

Renumbering of GSM specifications to 4x series for Rel-4 triggered a review of references to those specifications which will receive new number and some CRs have already been approved in the previous meetings. NP-020040 (N1-020266, 276, 277, 278) is the last package of such systematic changes which CN1 intends to propose. These CRs do not change the requirements for implementations.

Additionally to these CRs it has been brought to the attention of CN1 chairman that 51.010 which contains probably the largest number of references to 04.08 has been also updated now. This test specification is under the control of TSGT but in this case it is interesting for TSGN also because now we do not need 04.08 from Rel-4 onwards any more, see 3.4.2

3.4.2 Withdrawal of Rel-4 specifications.

CN1 has identified some TRs and TSs which are not maintained any more and should be discontinued. The basis of these discussions was the list of specifications which was distributed in an earlier plenary meeting and John Meredith on behalf of MCC has already commented that the list has been updated since then.

There has been no interest in PDS and consequently the related specifications have not been maintained. It seems that SMG did remove the stage 1 02.63 already from R99 as the 3GPP specification list from TSGN #14 indicates that the related stage 1 for R99 does not exist. Since there is no 42.063 these specifications should be withdrawn from Rel-4:

- 43.063
- 44.063

And additionally, since 02.63 does not exist for R99, withdrawal of also the related R99 stage 2 and stage 3 should be considered:

- 03.63
- 04.63

When GSM 04.08 was split to CN TS 24.008 and GSM 04.18 the old 04.08 was not deleted and it exists in R99 to provide pointers to appropriate clauses of 24.008 and 04.18. This was done to avoid having to change all external references to 04.08 at great haste when putting together R99.

From Rel-4 onwards the GERAN TSs will get new numbers. Instead of just systematically changing the references to 04.08 to point to 44.008, the references have been changed consistently so that 44.008 is not needed. So let's withdraw from Rel-4:

- 44.008

When CN1 was working with the introduction of UMTS in R99 a study on the MS classmark structure was made to help evolving the classmark information in consistent way. The principles outlined in this study are still reflected in R99 and later specifications but the TR has not been maintained since R99 so Rel-4 should be withdrawn:

- 23.814

When 04.08 was split to CN and GSM radio parts there was one smaller part which did not become part of either 24.008 or 04.18. That was the former 04.08 clause 7 which contains the call flow examples. This clause was separated to TS 23.108 but it has not been maintained for a long time and therefore it is completely out of date. it is proposed to withdraw from Rel-4:

- 23.108

3.5 Release 5 work items

3.5.1 IMS CRs on existing CN1 specifications

So far three new IMS related GPRS capabilities have been identified in CN1. In chronological order of the events, it must be possible for the UE to indicate during PDP context activation that the PDP context will be used for IMS signalling. During the same PDP context activation procedure it is then possible for the network to give P-CSCF address to the UE, if requested. The UE may also choose to use DHCP protocol for P-CSCF discovery. When the UE, based on SIP signalling on the signalling PDP context, needs to activate another PDP context for the user media stream, it must include authorisation token received in SIP messages to its PDP context activation request.

Additionally to these there was a requirement from SA2 that the signalling mechanism to achieve all this should be as much backwards compatible as possible to allow running IMS on a pre-Rel-5 SGSN.

These points were discussed extensively in CN1 over several meetings. An obvious choice for transferring new piece of information would be a new IE or an existing container IE, such as protocol configuration options. The backwards compatibility requirements limited CN1 to using those IEs which are already defined for R99 GPRS.

Therefore, the signalling PDP context indication and P-CSCF address were added to protocol configuration options (PCO) IE and the authorisation token to traffic flow template (TFT) IE. The proposal is available for approval in NP-020043 (N1-020456, PCO) and NP-020044 (N1-020442, TFT).

3.5.2 Service change and fallback for UDI/RDI multimedia calls

NP-020041 (N1-020439-440) contains one CR on 24.008 and one on TR 23.972. These CRs were agreed conditionally in CN1. There are related liaison statements, see chapter 3.1.

3.5.3 TEI-5

There are three independent CRs in NP-020042.

N1-020380 is needed because modulation capability information is general EDGE parameter and not only CS call related.

N1-020381 is clarification to SGSN criteria for allocating new P-TMSI.

When single numbering scheme is used then interworking with other networks may cause that the MSC is not able to send a complete bearer capability to the B-subscriber. N1-020438 adds a whole new concept of backup bearer capability to allow the indication of at least some main parameters like information tranfer capability (speech, data, fax).

3.5.4 IMS Technical Specifications for approval

All three IMS draft specifications under CN1 control are proposed for approval. If approved, this means promoting the current versions 2.y.z to 5.0.0 and putting them under version control and requiring formal CR approval procedure to change any of the contents. Additionally to this the WG sees that in order to stabilise the stage 3 specifications, the stage 2 specification 23.218 should be also functionally frozen to stop new features from being

introduced to this major version of the specification. Furthermore it is seen in CN1 that to allow stabilisation of stage 3 specifications in general, any other stage 1 and stage 2 specification related to our work should have been frozen already.

Draft TS 23.218, IP Multimedia (IM) Session Handling; IP Multimedia (IM) call model, is submitted for approval in NP-020047. This stage 2 specification is seen by the WG as 100 % complete and therefore the proposal is to also freeze the functionality within this version and to allow only corrections from now on. This latest version of 23.218 should be of interest to CN4 also because it contains among other changes the redefinition of the filtering at S-CSCF and the Cx and Sh interface work they are doing.

Draft TS 24.228, Signalling flows for the IP multimedia call control based on SIP and SDP, is submitted for approval in NP-020048. This specification was reported to be 80 % complete in the previous plenary meeting. Now it is seen to be only 85 % complete due to changes in the recent versions of referenced IETF drafts. CN1 IMS open items list already includes the changes that CN1 intends to do before the next plenary.

Draft TS 24.229, IP Multimedia Call Control Protocol based on SIP and SDP, is submitted for approval in NP-020049. This TS is estimated to be 85 % complete.

3.5.5 Dependency to IETF drafts

The CN1 IMS specifications have got strong dependency of IETF draft specifications. As these drafts are very volatile and may even cease to exist completely, all such references must be removed before publishing the 3GPP specification as standard. Four alternative paths can be foreseen.

In the positive case an IETF draft matures to RFC standard which is stable and can be referenced from 3GPP specification. In this case both the technical contents and the references in 3GPP specification need to be updated to reflect the differences, if any, between the latest referenced draft and the draft version which becomes RFC.

If an integral part of the protocol which can not be easily discarded fails to become RFC in time, the latest draft version of it can be annexed to the 3GPP specification. This would freeze the reference to the immature draft.

A more minor dependency can be removed from the 3GPP specification if it is acceptable to remove the functionality related with this IETF SIP protocol extension.

If none of these can be done, then more time needs to be allowed to wait for one of the other options becoming possible.

4 Acknowledgements

It's good to see that even after rather long period of working under extreme pressure and tight schedule at least part of the group is still in speaking terms with each other, at least part of the time!