

Source: TSG CN WG1
Title: Updated CN1 Terms of reference
Agenda item: 11.2
Document for: APPROVAL

1. INTRODUCTION

This document describes the agreed guidelines for 3GPP TSG-CN WG1 (CN1) work. It is intended to list the agreed meeting practices in CN1 regular meetings and ad-hoc meetings that may be organised by CN1. The original document was agreed in TSGN #2 in Fort Lauderdale and the original version has been revised several times since then. This should be a living document which can be updated as necessary when new procedures need to be introduced or the existing ones need to be revised.

2. MAIN OBJECTIVES OF CN1

To produce and maintain specifications for a 3rd Generation Core Network (3G CN) which is an evolution from the GSM Core Network;

To produce and maintain specifications for a 2nd generation Core Network (2G CN).
CN1 To implement the work items allocated to CN1 in the specifications under its responsibility.

To produce and maintain specifications for IMS, based on the IETF protocols.

To produce a full, consistent set of specifications under CN1 responsibility by the agreed cut-off date for each release, unless the plenary meetings decide that some other approach will be taken.

From the first UMTS release (R99) onwards the basis for any new release should by default be the previous UMTS and GSM TS release.

3. TERMS OF REFERENCE AND SCOPE OF CN1

3.1 Terms of reference

Working Group CN1 is responsible for the 3GPP specifications that define the User Equipment - Core network L3 radio protocols and Core network side of the Iu reference point. Specifically it has a responsibility for:

- User Equipment - Core network layer 3 radio protocols (Call Control, Session Management, Mobility Management, SMS);
- Management of work items placed under its responsibility.

CN1 will address the following areas of work:

- Connection Management and Mobility Management related matters, both Circuit Switched and Packet protocols;
- Mobility Management, Call Control, Session Management, Short Message Service, and Location services L3 signalling between the user equipment and the core network;
- SIP Call Control protocol for the IM subsystem.
- SDP protocol for the IM subsystem.
- Integration of wireless access protocols to the 3GPP CN;
- Signalling for interworking with GSM networks (e.g. handover and roaming) together with CN4;
- Core network signalling between the Core network nodes placed under its responsibility together with CN4;
- Core network aspects of the Iu interface;

3.2 Scope

The scope of CN1 is the following:

- Maintenance of the following protocols:
 - Mobility Management (both circuit switched and packet)
 - Call Control
 - Session Management
 - SMS Radio protocol
- Applicability and enhancements of SIP to mobile environment.
- Applicability and enhancements of SDP to mobile environment.
- Interaction of SIP related procedure with GPRS procedures.
- Applicability and integration of WLAN in 3GPP mobile environment at the radio interface.
- Development and maintenance of MM part of the MS idle mode functionality
- Development and maintenance of the CN side of the Iu reference point.
- Maintenance of the SGSN-VLR (Gs) interface
- Maintenance of Mobile Radio L3 requirements (evolution of GSM 04.07/24.007)
- Maintenance of Mobile Radio L3 stage 3 (evolution of GSM 04.08/24.008)
- Maintenance of Point-to-point Short Message Service (SMS) on the Radio interface (evolution of GSM 04.11/24.011)

In this task CN1 has also the maintenance responsibility of the older versions of the specifications placed under its responsibility.

4. INTERNAL STRUCTURE

Creation of sub-working groups inside CN1 is not proposed at this stage. Establishment of sub-working groups can be considered if matters which can be treated in parallel meetings can be identified. This does not prohibit organising ad-hoc meetings on any identified topic.

An ad-hoc meeting (drafting meeting) which is not mandated to approve any documents is free to define the working methods as appropriate for each meeting. More informal approach than defined in this document is allowed. In case the procedures defined in this Terms of Reference for CN1 are not followed in such an ad-hoc meeting, this must be indicated when the invitation to the meeting is issued.

Such ad-hoc meetings have been used successfully in the past when developing major new work items such as GPRS and it can be foreseen that large new work items may justify similar approach to allow sufficient meeting time matching the magnitude of the work.

5. CO-OPERATION WITH OTHER GROUPS

Possible co-operation is foreseen with the following groups:

CN4: Basic Call handling stage 2, SS

R2: RRC protocol

R3: Iu IF and UTRAN Architecture

T1: ME testing issues

T2: Services and Capabilities

T3: UIM IF

SA1: Service requirements

SA2: Architecture

SA3: Security related issues

SA5: Network Management

TSG-GERAN: GSM radio and testing related issues.

IETF: SIP specifications

6. FREQUENCY OF MEETINGS

The dates for the meetings should be agreed well before the meetings to allow the host sufficient time for preparations and for the delegates to plan their travelling and to obtain visas for the proposed location.

The meeting schedule will not be updated to this document but the latest agreed meeting dates are available in the 3GPP meeting calendar.

Providing the latest agreed CN1 meeting dates for the maintenance of the global 3GPP meeting calendar is the task of the CN1 secretary.

The scope of the meeting and the scheduling of the items will always be indicated on the agenda before the meeting.

The hosts of the future meetings will be drawn from members of all participating organisations with no discrimination based on location.

Additional ad-hoc meetings on issues requiring a meeting of their own may be agreed as necessary.

It is possible to have joint meetings with other working groups as necessary. It is also possible to have a CN1 WG meeting in conjunction with TSGN plenary meeting.

However, CN1 meetings are not allowed on the TSGN plenary meeting week in any other location except for the venue of the plenary meeting. CN1 meetings the week before and the week after the plenary meeting are not allowed.

The time needed for preparation of the WG documents to the plenary and for providing the new reference versions of the specifications under WG control should be considered when agreeing meeting dates.

The minimum suitable number of meetings is one CN1 WG meeting between two consecutive TSGN plenary meetings. Normally the meetings should not be more frequent than approximately once per month counting both regular CN1 WG meetings and TSGN plenary meetings. If ad-hoc meetings are required more frequently then particular attention should be paid to the practical arrangements and travelling to allow sufficient time to prepare new contributions to the meetings.

7. DOCUMENT HANDLING PROCEDURES

7.1 Submission of documents

All contributions should be provided for the secretary of the meeting in order to be uploaded to the server under appropriate meeting directory which will be created for each meeting. The meeting secretary, typically the working group MCC expert, will allocate the tdoc and CR numbers before each meeting, based on email request. The request should be made by filling in a tdoc request template document which is provided by the MCC prior to each meeting.

If a meeting starts on Monday, then the input documents that the CN1 MCC expert has received by the previous Monday 12:00 noon CET are considered as having been received in time. Exceptions to this rule may be made on a meeting by meeting basis but

this must be indicated well before the default deadline for submission of the input documents.

Preferred media is email, any other media must be first agreed with the secretary. All input document files must be numbered according to the 3GPP tdoc numbering scheme and must contain the appropriate cover sheet details.

The documents which have been provided by the deadline should take higher priority than documents that have been submitted after the deadline, but in urgent cases the chairman may apply similar priority to some of the late documents.

It is not forbidden for the delegations to bring their input documents directly to the meeting but a Tdoc number and CR number if required must be allocated before a document can be discussed. The discussion on such late contributions may be delayed until the next meeting if they can not be scheduled for the meeting due to lack of time. The host can not be expected to provide copies of the documents which are submitted after the deadline. The originator must provide the document(s) in an electronic media that is suitable for distribution during the meeting.

Submission of all input documents in electronic form before the meeting for the other delegations to review is encouraged.

CN1 have agreed upon completely electronic meeting document distribution. If for some reason this can't be done, then it is up to the originator to provide sufficient number of paper copies to the meeting. In any case the originator must also provide an electronic version of each document for the MCC / rapporteur. Typically a document requiring distribution on paper copies would be one which contains large diagrams which are difficult to review on PC screen.

CN1 may agree on a prioritisation of work items during meetings based on e.g. the annual release the work items relate to. This prioritisation may also be given to the WG by TSGN plenary.

When submitting Technical Specifications and Technical Reports to WG meetings the originators are requested to use the TS and TR cover page templates that have been defined for use in plenary meetings and to indicate the main changes since the previous version.

Otherwise the document handling procedures agreed for TSGN will apply.

The submitted documents will be provided at the start of the meeting by the secretary.

7.2 Approval of documents

CN1 may mandate an ad hoc meeting to make decisions on issues under CN1 control, such as maintenance of documents under CN1 responsibility and liaising with the other groups. In such case the mandate must be defined in clear terms so that the delegates will know in advance which meetings to participate.

Where possible the decision on any meeting input document's final status for the meeting should be agreed during the meeting.

The meeting may agree upon email approval. An email approval must fulfill the following criteria:

- It is mandated by the meeting allocating the documents for email approval
- The email approval has a reasonable, fixed deadline for comments
- A mediator has been nominated. The mediator shall

- distribute the documents
- announce the contact details and deadline for comments for email approval
- announce the outcome of the approval procedure after the deadline

8. APPOINTMENT OF EDITORS

The editor(s) of documents which are affected by a given work item will be appointed as part of the process of identifying the documents.

Source: CN1 Chairman
Title: Update of CN1 Terms of Reference (ToR)
Agenda item: 4
Document for: APPROVAL

1. INTRODUCTION

This document describes the agreed guidelines for 3GPP TSG-CN WG1 (CN1) work. It is intended to list the agreed meeting practices in CN1 regular meetings and ad-hoc meetings that may be organised by CN1. The original document was agreed in TSGN #2 in Fort Lauderdale and the original version has been ~~since~~ revised several times [since then](#). This should be a living document which can be updated as necessary when new procedures need to be introduced or the existing ones need to be revised.

~~GSM specifications for Release '98 were used as baseline documents for R99 as was defined in Tdoc SMG3A-99179 and other documents on the same topic. GSM Release 98 was adopted as the first reference specification for CN1. The initial specifications were listed in Tdoc NP-99028. Additionally to this the RAN specific parts of layer 3 specifications were removed to separate specifications. GSM Release 98 together with the outcome of the L3 stage 3 split defined the basis for CN1 specification work as interim 4/99 release.~~

2. MAIN OBJECTIVES OF CN1

To produce and maintain specifications for a 3rd Generation Core Network (3G CN) which is an evolution from the GSM Core Network;

To produce and maintain specifications for a 2nd generation Core Network (2G CN).
CN1 To implement the work items allocated to CN1 in the specifications under its responsibility.

[To produce and maintain specifications for IMS, based on the IETF protocols.](#)

To produce a full, consistent set of specifications under CN1 responsibility by the agreed cut-off date for each release, unless the plenary meetings decide that some other ~~approach~~ [approach](#) will be taken.

From the first UMTS release (R99) onwards the basis for any new release should by default be the previous UMTS and GSM TS release.

3. TERMS OF REFERENCE AND SCOPE OF CN1

3.1 Terms of reference

Working Group CN1 is responsible for the 3GPP specifications that define the User Equipment - Core network L3 radio protocols and Core network side of the Iu reference point. Specifically it has a responsibility for:

- User Equipment - Core network layer 3 radio protocols (Call Control, Session Management, Mobility Management, SMS);
- Management of work items placed under its responsibility.

CN1 will address the following areas of work:

- Connection Management and Mobility Management related matters, both Circuit Switched and Packet protocols;
- Mobility Management, Call Control, Session Management, Short Message Service, and Location services L3 signalling between the user equipment and the core network;
- SIP Call Control protocol for the IM subsystem.
- SDP protocol for the IM subsystem.
- [Integration of wireless access protocols to the 3GPP CN;](#)
- Signalling for interworking with GSM networks (e.g. handover and roaming) together with CN4;
- Core network signalling between the Core network nodes placed under its responsibility together with CN4;
- Core network aspects of the Iu interface;

3.2 Scope

The scope of CN1 is the following:

- Maintenance of the following protocols:
 - Mobility Management (both circuit switched and packet)
 - Call Control
 - Session Management
 - SMS Radio protocol
- Applicability and enhancements of SIP to mobile environment.
- Applicability and enhancements of SDP to mobile environment.
- Interaction of SIP related procedure with GPRS procedures.
- [Applicability and integration of WLAN in 3GPP mobile environment at the radio interface.](#)
- Development and maintenance of MM part of the MS idle mode functionality
- Development and maintenance of the CN side of the Iu reference point.
- Maintenance of the SGSN-VLR (Gs) interface
- Maintenance of Mobile Radio L3 requirements (evolution of GSM 04.07/24.007)
- Maintenance of Mobile Radio L3 stage 3 (evolution of GSM 04.08/24.008)
- Maintenance of Point-to-point Short Message Service (SMS) on the Radio interface (evolution of GSM 04.11/24.011)

In this task CN1 has also the maintenance responsibility of the older versions of the specifications placed under its responsibility.

4. INTERNAL STRUCTURE

Creation of sub-working groups inside CN1 is not proposed at this stage. Establishment of sub-working groups can be considered if matters which can be treated in parallel meetings can be identified. This does not prohibit organising ad-hoc meetings on any identified topic.

An ad-hoc meeting (drafting meeting) which is not mandated to approve any documents is free to define the working methods as appropriate for each meeting. More informal approach than defined in this document is allowed. In case the procedures defined in this Terms of Reference for CN1 are not followed in such an ad-hoc meeting, this must be indicated when the invitation to the meeting is issued.

Such ad-hoc meetings have been used successfully in the past when developing major new work items such as GPRS and it can be foreseen that large new work items may justify similar approach to allow sufficient meeting time matching the magnitude of the work.

5. CO-OPERATION WITH OTHER GROUPS

Possible co-operation is foreseen with the following groups:

CN4: Basic Call handling stage 2, SS

~~CN2: CAMEL~~

R2: RRC protocol

R3: Iu IF and UTRAN Architecture

T1: ME testing issues

T2: Services and Capabilities

T3: UIM IF

SA1: Service requirements

SA2: Architecture

SA3: Security related issues

SA5: Network Management

TSG-GERAN: GSM radio and testing related issues.

IETF: SIP specifications

6. FREQUENCY OF MEETINGS

The dates for the meetings should be agreed well before the meetings to allow the host sufficient time for preparations [and for the delegates to plan their travelling and to obtain visas for the proposed location.](#)

The meeting schedule will not be updated to this document but the latest agreed meeting dates are available in the 3GPP meeting calendar.

Providing the latest agreed CN1 meeting dates for the maintenance of the global 3GPP meeting calendar is the task of the CN1 secretary.

The scope of the meeting and the scheduling of the items will always be indicated on the agenda before the meeting.

The hosts of the future meetings will be drawn from members of all participating organisations with no discrimination based on location.

Additional ad-hoc meetings on issues requiring a meeting of their own may be agreed as necessary.

It is possible to have joint meetings with other working groups as necessary. It is also possible to have a CN1 WG meeting in conjunction with TSGN plenary meeting.

However, CN1 meetings are not allowed on the TSGN plenary meeting week in any other location except for the venue of the plenary meeting. CN1 meetings the week before and the week after the plenary meeting are not allowed.

[The time needed for preparation of the WG documents to the plenary and for providing the new reference versions of the specifications under WG control should be considered when agreeing meeting dates.](#)

The minimum suitable number of meetings is one CN1 WG meeting between two consecutive TSGN plenary meetings. Normally the meetings should not be more frequent than approximately once per month counting both regular CN1 WG meetings and TSGN plenary meetings. If ad-hoc meetings are required more frequently then particular attention should be paid to the practical arrangements and travelling to allow sufficient time to prepare new contributions to the meetings.

7. DOCUMENT HANDLING PROCEDURES

7.1 Submission of documents

~~The contributions shall always indicate the Tdoc number and also CR number if relevant. These are allocated by the secretary of the meeting.~~

All contributions should be provided for the secretary of the meeting in order to be uploaded to the server under ~~DocBox~~ [appropriate meeting](#) directory which will be created for each meeting. [The meeting secretary, typically the working group MCC expert, will allocate the tdoc and CR numbers before each meeting, based on email request. The request should be made by filling in a tdoc request template document which is provided by the MCC prior to each meeting.](#)

~~The deadline for input documents has been agreed to be 3 weekdays before the meeting. Weekdays shall here be understood as the days from Monday to Friday. Exceptions to this rule may be made on a meeting by meeting basis but this must be indicated well before the default deadline for submission of the input documents.~~

If a meeting starts on Monday, then the input documents that the CN1 MCC expert has received by the previous Monday 12:00 noon ~~should be submitted to the secretary by the previous Tuesday 16:00 hours French time~~ CET are considered as having been received in time. Exceptions to this rule may be made on a meeting by meeting basis but this must be indicated well before the default deadline for submission of the input documents.

Preferred media is email, any other media must be first agreed with the secretary. All input document files must be numbered according to the 3GPP tdoc numbering scheme and must contain the appropriate cover sheet details.

The documents which have been provided by the deadline should take higher priority ~~to other documents on the same agenda item~~ than documents that have been submitted after the deadline, but in urgent cases the chairman may apply similar priority to some of the late documents.

It is not forbidden for the delegations to bring their input documents directly to the meeting but a Tdoc number and CR number if required must be allocated before a document can be discussed. The discussion on such late contributions may be delayed until the next meeting if they can not be scheduled for the meeting due to lack of time. The host can not be expected to provide copies of the documents which are submitted after the deadline. The originator must provide the document(s) in an electronic media that is suitable for distribution during the meeting. ~~sufficient number of copies.~~

Submission of ~~critical~~ all input documents (in electronic form) before the meeting for the other delegations to review is encouraged.

CN1 have agreed upon completely electronic meeting document distribution. ~~Any exception to this rule must be indicated by the originator of the document well before the meeting in order to arrange sufficient copying facilities.~~ If for some reason this can't be this is not done, then it is up to the originator to provide sufficient number of paper copies to the meeting. In any case the originator must also provide an electronic version of each document for the MCC / rapporteur. Typically a document requiring distribution on paper copies would be one which contains large diagrams which are difficult to review on PC screen.

CN1 may agree on a prioritisation of work items during meetings based on e.g. the annual release the work items relate to. This prioritisation may also be given to the WG by TSGN plenary.

When submitting Technical Specifications and Technical Reports to WG meetings the originators are requested to use the TS and TR cover page templates that have been defined for use in plenary meetings and to indicate the main changes since the previous version.

Otherwise the document handling procedures agreed for TSGN will apply.

The submitted documents will be provided at the start of the meeting by the secretary.

7.2 Approval of documents

CN1 may mandate an ad hoc meeting to make decisions on issues under CN1 control, such as maintenance of documents under CN1 responsibility and liaising with the other groups. In such case the mandate must be defined in clear terms so that the delegates will know in advance which meetings to participate.

Where possible the decision on any meeting input document's final status for the meeting should be agreed during the meeting.

The meeting may agree upon email approval. An email approval must fulfill the following criteria:

- It is mandated by the meeting allocating the documents for email approval
- The email approval has a reasonable, fixed deadline for comments
- A mediator has been nominated. The mediator shall
 - distribute the documents
 - announce the contact details and deadline for comments for email approval
 - announce the outcome of the approval procedure after the deadline

8. APPOINTMENT OF EDITORS

The editor(s) of documents which are affected by a given work item will be appointed as part of the process of identifying the documents.