**3GPP TSG CT WG1 Meeting #127eC1-127006**

**Electronic Meeting, 13-20 November 2020**

**Source: CT1 Chair**

**Title: Update of CT1 Terms of Reference (ToR)**

**Agenda item: 3.2**

**Document for: agreement**

**3GPP TSG CT Meeting #58CP-120902**

**Barcelona, SPAIN; 5th – 7th December 2012**

**Source: CT1 Chairman**

**Title: CT1 Terms of Reference (ToR) – for Upate**

**Agenda item: 14.2**

**Document for: agreement**

**3GPP TSG CT Meeting #28 CP-050056**

**1st – 3rd June 2005. Quebec, CANADA.**

**Source: TSG CT WG1**

**Title: Update of CT1 Terms of Reference (ToR)**

**Agenda item: 6.1.1**

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**3GPP TSG-CT1 Meeting #38Tdoc C1-050449**

**Cancun, Mexico, 25 - 29 April 2005**

**Source: CT1 Convenor**

**Title: Update of CT1 Terms of Reference (ToR)**

**Agenda item: 4**

**Document for: APPROVAL**

# Name

Name: 3GPP TSG CT WG1

Acronym: CT1

Label: User Equipment - Core Network protocols

# Overview

Within the 3GPP Technical Specification Group Core Network and Terminals (TSG CT), the main objectives of the 3GPP TSG CT WG1 (CT1) are the production, the enhancement and the maintenance of specifications for UE to Core Network interfaces and interfaces within the Core Network for:

* a 5G Core Network (5GCN)
* an Evolved Packet Core (EPC)
* a 2nd and 3rd generation Core Network (2G CN / 3G CN) for Circuit Switched (CS) and Packet Switched (PS/GPRS)
* an IP Multimedia (IM) Core Network (CN) Subsystem (IMS)
* a Mission Critical System (MCS)
* a Cell Broadcast System (CBS) and a Public Warning System (PWS)

# Scope of Responsibilities

The TSG CT WG1 is responsible for:

* Mobility Management, Call Control, Session Management and Location services Layer 3 signalling between the user equipment and the Core Network;
* Mobile Radio interface Layer 3;
* Mobile Radio Layer 3 requirements;
* Layer 3 signalling enhancements for the support of Cellular IoT and Non-Public Networks (NPNs);
* Integration of non-3GPP access protocols to the 3GPP CN;
* Interworking with fixed-broadband access;
* Access Transfer technologies (DRVCC/SRVCC);
* Circuit Switched Fallback (CSFB);
* Voice Broadcast (Group) Service;
* EPC and 3G related Machine-to-Machine communication aspects;
* Cell Broadcast System and Public Warning Systems;
* Mobile station remote configuration;
* Integration of WLAN in 3GPP mobile environment at the radio interface;
* Non-Access Stratum (NAS) functions related to the MS in idle mode stage 2;
* Steering of Roaming;
* CN side of the Iu reference point;
* SGSN-VLR (Gs) interface;
* MME-VLR (SGs) interface;
* Protocols between a Time-Sensitive Networking (TSN) Translator (TT) and a TSN Application Function (TSN AF) and between TTs;
* AT command set for the UE;
* Point-to-point Short Message Service (SMS) stage 2 and stage 3;
* Protocols to support proximity services between ProSe enabled UEs and between ProSe enabled UE and ProSe Function;
* Protocols to support vehicle-to-everything (V2X) services among UEs (PC5) and between UE and network (LTE-Uu, Uu);
* Protocols for application layer support for V2X services among UEs and between UE and V2X application server;
* Protocols to support Service Enablement Architecture Layer (SEAL) between UE and SEAL servers, and among SEAL enabled servers;
* Protocol to support UE policy delivery between UE and Policy Control Function (PCF);
* Protocol to support performance measurement function between UE and Performance Measurement Function (PMF);
* Ua, Ub, Upa interface for Generic Authentication Architecture (GAA);
* H(e)NB control and interworking;
* Application and extension of SIP, SDP, XCAP as call control and service enabling protocols for the IMS for all applicable access technologies;
* Interaction of SIP related procedures with IPCAN procedures;
* Multimedia telephony, supplementary services and advanced services for IMS – stage 2 and stage 3;
* Application Server architecture for the IMS – stage 2;
* Interworking with other networks (e.g. handover and roaming) together with CT3 and CT4;
* Signalling between the Core Network nodes placed under its responsibility together with CT4;
* Management Objects associated with the protocols and features under CT1’s responsibility;
* Protocols for Call Control, Media Plane Control, Group Management, Configuration Management and Identity Management for Mission Critical Systems, including MCPTT, MCData and MCVideo;
* Interworking of Mission Critical Systems with Land Mobile Radio (LMR) systems;
* Protocols for a Mobile Communication System for Railways based on a Mission Critical System.

The list of 3GPP specifications under CT1 responsibility can be found under:

<https://www.3gpp.org/dynareport/TSG-WG--C1.htm?Itemid=284>

# Annex (informative):

TSG CT WG1 coordinates with other 3GPP WGs and with the following Standards Developing Organizations (SDOs) and Market Representation Partners (MRPs):

- IETF

- GSMA

- IEEE

- BBF

# Annex Old version of ToR (informative)

*This annex is for information only. The annex shows the currently approved version of the CT1 ToR and shows proposed changes against the section “Terms of Reference of CT1”. In the new ToR the similar section is called “Scope of Responsibilities”. The Annex will be deleted before the document gets agreed.*

# Introduction

This document describes the agreed guidelines for 3GPP TSG-CT WG1 (CT1) work. It is intended to list the agreed meeting practices in CT1 regular meetings and ad-hoc meetings that may be organised by CT1. 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.

# Main objectives of CT1

To produce and maintain specifications for an Evolved Packet Core (EPC);

To produce and maintain specifications for a 2nd and 3rd generation Core Network (2G CN / 3G CN) for Circuit Switched (CS) and Packet Switched (PS/GPRS);

To produce and maintain specifications for the IP Multimedia (IM) Core Network (CN) Subsystem (IMS);

To implement the work items allocated to CT1 in the specifications under its responsibility;

To produce a full, consistent set of specifications under CT1 responsibility by the agreed cut-off date for each release, unless the plenary meetings decide that some other approach will be taken;

To maintain required communication with other 3GPP and non-3GPP standards groups for the purpose of fulfilling the related specification work.

# Terms of Reference of CT1

The scope of CT1 is the following:

* Mobility Management, Call Control, Session Management, and Location services Layer 3 signalling between the user equipment and the Core Network;
* Mobile Radio interface Layer 3 ;
* Mobile Radio Layer 3 requirements;
* Layer 3 signalling enhancements for the support of Cellular IoT and Non-Public Networks (NPNs);
* Integration of non-3GPP access protocols to the 3GPP CN;
* Interworking with fixed-broadband access;
* Access Transfer technologies (DRVCC/SRVCC);
* Circuit Switched Fallback (CSFB);
* Voice Broadcast (Group) Service;
* EPC and 3G related Machine-to-Machine communication aspects;
* Cell Broadcast System and Public Warning Systems;
* Mobile station remote configuration;
* Integration of WLAN in 3GPP mobile environment at the radio interface;
* Non-access Stratum (NAS) functions related to the MS in idle mode mod stage-2;
* Steering of Roaming;
* CN side of the Iu reference point;
* SGSN-VLR (Gs) interface;
* MME-VLR (SGs) interface;
* Protocols between a Time-Sensitive Networking (TSN) Translator (TT) and a TSN Application Function (TSN AF) and between TTs;
* AT command set for the UE;
* Point-to-point Short Message Service (SMS) stage 2 and stage 3;
* Protocols to support proximity services between ProSe enabled UEs and between ProSe enabled UE and ProSe Function;
* Protocols to support vehicle-to-everything (V2X) services network among UEs (PC5) and between UE and network (LTE-Uu, Uu);
* Protocols for application layer support for V2X services between UE and V2X application server, and among UEs;
* Protocols to support Service Enablement Architecture Layer (SEAL) between UE and SEAL servers, and among SEAL enabled servers,
* Protocol to support UE policy delivery between UE and Policy Control Function (PCF);
* Protocol to support performance measurement function between UE and Performance Measurement Function (PMF);
* Ua, Ub, Upa interface for Generic Authentication Architecture (GAA);
* H(e)NB control and interworking;
* Application and extension of SIP, SDP, XCAP as call control and service enabling protocols for the IMS for all applicable access technologies;
* Interaction of SIP related procedures with IPCAN procedures;
* Multimedia telephony, supplementary services and advanced services for IMS – stage 2 and stage 3;
* Application Server architecture for the IMS – stage 2;
* Interworking with other networks (e.g. handover and roaming) together with CT3 and CT4;
* Signalling between the Core Network nodes placed under its responsibility together with CT4;
* Management Objects associated with the protocols and features under CT1’s responsibility;
* Protocols for Call Control, Media Plane Control, Group Management, Configuration Management and Identity Management for Mission Critical Systems, including MCPTT, MCData and MCVideo;
* Interworking of Mission Critical Systems with Land Mobile Radio (LMR) systems;
* Protocols for a Mobile Communication System for Railways based on a Mission Critical System.

In this task CT1 has also the maintenance responsibility of the older versions of the specifications placed under its responsibility.